

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K**

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____
Commission File Number 0-28082

KVH Industries, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware

05-0420589

(State or Other Jurisdiction of Incorporation or Organization)

(I.R.S. Employer Identification Number)

50 Enterprise Center, Middletown, RI 02842

(Address of Principal Executive Offices) (Zip Code)

(401) 847-3327

(Registrant's Telephone Number, Including Area Code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, \$0.01 par value per share	KVHI	(Nasdaq Global Select Market) The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. **Yes** **No**

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. **Yes** **No**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. **Yes** **No**

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). **Yes** **No**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). **Yes** **No**

As of June 30, 2022, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$159,755,916 based on the closing sale price of \$8.70 per share as reported on the Nasdaq Global Select Market. Shares of common stock held by executive officers and

directors of the registrant and their affiliates have been excluded from this calculation because such persons may be deemed affiliates. As of March 1, 2023, the registrant had 19,153,096 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement relating to its 2023 Annual Meeting of Stockholders are incorporated herein by reference in Part III.

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PART I

ITEM 1. Business

Cautionary Statement Regarding Forward-Looking Information

In addition to historical facts, this annual report contains forward-looking statements. Forward-looking statements are merely our current predictions of future events. These statements are inherently uncertain, and actual events could differ materially from our predictions. Important factors that could cause actual events to vary from our predictions include those discussed in this annual report under the headings “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Item 1A. Risk Factors.” We assume no obligation to update our forward-looking statements to reflect new information or developments. We urge readers to review carefully the risk factors described in this annual report and in the other documents that we file with the Securities and Exchange Commission.

Additional Information Available

Our principal Internet address is www.kvh.com. Our website provides a hyperlink to a third-party website through which our annual, quarterly, and current reports, as well as amendments to those reports, are available free of charge. We believe these reports are made available as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. We do not provide any information regarding our SEC filings directly to the third-party website, and we do not check its accuracy or completeness. The SEC maintains an Internet site at <http://www.sec.gov> that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Introduction

We are a leading provider of innovative and technology-driven connectivity solutions to primarily maritime customers globally. We provide global high-speed Internet and Voice over Internet Protocol (VoIP) services via satellite to mobile users at sea and on land. We are also a leading provider of commercially licensed entertainment, including news, sports, music, and movies, to commercial customers in the maritime and hotel markets, along with supplemental value-added services.

We manufacture our products in Middletown, Rhode Island and sell our solutions in a number of major geographic areas, including internationally. We generate revenues from various international locations, primarily consisting of Singapore, Canada, European Union countries and other European countries, countries in South America, Africa, Asia/Pacific and the Middle East and India.

During the second quarter of 2022, KVH Media Group Limited, our wholly owned subsidiary, sold its subsidiary KVH Media Group Entertainment Limited. On August 9, 2022, we sold our inertial navigation business, which offered a portfolio of innovative digital compass and fiber optic gyro based systems, to EMCORE Corporation.

We are headquartered in Middletown, Rhode Island, with active operations in Denmark, the United Kingdom, the Philippines, and Singapore. KVH is a Delaware corporation formed in 1985.

Our Business

We operate as one reportable segment as a result of the sale of our inertial navigation business on August 9, 2022. Please see Notes 1 and 16 to our accompanying audited consolidated financial statements for additional information.

We provide integrated, end-to-end hardware, software, and services that support our customers' need for access to the Internet, VoIP, operations content, and entertainment services. On the hardware side of our business, we primarily manufacture and distribute a comprehensive family of mobile satellite antenna products that provide two-way access to the Internet and VoIP services outside the range of cellular phone service, along with in-motion, stabilized antennas that provide receive-only satellite television services. Product sales accounted for 19% and 22% of our consolidated net sales for 2022 and 2021, respectively. On the services side of our business, sales of our global high-throughput satellite (HTS) airtime service accounted for 74% and 69% of our consolidated net sales for 2022 and 2021, respectively. Sales of content services accounted for 4% and 6% of our consolidated net sales for 2022 and 2021, respectively.

In the global maritime market, we believe that there is significant demand for mobile access to the Internet, operational data, voice services, entertainment content, and satellite television. For both maritime and onshore customers who want to access live television while on the move, we offer a comprehensive family of mobile satellite antenna products marketed under the TracVision brand. For mobile access to the Internet and VoIP services, which we refer to collectively as our airtime services, we offer a family of hybrid mobile satellite antenna products and communication services using global VSAT service, 5G/LTE cellular service, and shore-based Wi-Fi, which are marketed under the TracNet hybrid terminal and KVH ONE hybrid network brands, respectively. In addition, we actively market and sell a 37 cm VSAT-only TracPhone V30 antenna and support our legacy family of other VSAT-only terminals marketed under the TracPhone brand and using our global HTS network. The network infrastructure that we have developed to support our airtime services also supports the delivery of other value-added services, such as our KVH Link content service, with country-specific news, entertainment, music, and other crew welfare content delivered using our IP-MobileCast multicast delivery service.

Our mobile satellite antenna products use sophisticated robotics, stabilization, and control software, sensing technologies, transceiver integration, and advanced antenna designs to automatically search for, identify, and point directly at the optimal television and communications satellite while the vessel or vehicle is in motion. Our antennas use digital inertial measurement units, gyroscopes, and inclinometers to measure the movement of an antenna platform in relation to the earth in three different axes. Microprocessors and our proprietary stabilization and control software use that data to compute the antenna movement necessary for the antenna's motors to point the antenna properly and maintain contact with the satellite. If an obstruction temporarily blocks the satellite signal, our products either automatically switch to an available, alternate satellite beam or, if no other beam is available, continue to track the satellite's location according to the movement of the antenna platform in order to carry out automatic, rapid reacquisition of the signal when a direct line of sight to the satellite is restored.

Our certified support network offers our TracVision, TracNet, and TracPhone customers an international network of skilled technical dealers and support centers in many locations where our customers are likely to travel or conduct business. We have selected technical dealers based on their technical expertise, professionalism, and commitment to quality, and regularly provide them with extensive training in the sale, installation, and support of our products.

Maritime Products

In the marine market, we offer a range of mobile satellite TV and communications products.

Satellite Internet and Phone. Our TracNet hybrid terminals and KVH ONE hybrid network offer an end-to-end, multichannel connectivity solution. Every TracNet terminal includes an integrated Ku-band VSAT antenna, high-efficiency 5G/LTE cellular antenna, and high-powered Wi-Fi bridge for connections to shore-based Wi-Fi channels. TracNet systems offer intelligent hybrid channel switching based on factors such as service availability, costs, and the quality of data transfer. In addition, TracNet systems also offer the option to add two additional third-party services and their companion terminals to serve as alternate primary or backup services. In addition, we continue to service and support our legacy TracPhone VSAT-only terminals. All of these products and services provide an end-to-end solution for offshore mobile connectivity to commercial, leisure, and government customers seeking an integrated hardware and service solution for mobile communications and seamless region-to-region roaming. We design and manufacture the TracNet and TracPhone terminals, acquire bandwidth through third-party providers such as Intelsat, manage our network operations, and provide 24/7/365 after-sale support. Because we manufacture the onboard hardware, we can integrate the full rack of discrete belowdecks equipment typically used on traditional VSAT systems into a single, streamlined unit that is significantly easier to deploy than competing VSAT solutions.

In July 2022, we introduced our TracNet H-series terminals with three options: the 37 cm TracNet H30, the 60 cm TracNet H60, and the 1 meter TracNet H90. These systems all offer multi-channel hybrid connectivity, KVH's global SIM card, and the option to use customer-supplied SIMs for local cellular service. In addition, each antenna contains the modem in the dome for higher efficiency and reduced signal loss, along with single-cable installation. VSAT data speeds offered by the TracNet systems vary by antenna diameter: TracNet H30 offers maximum speeds of 6/2 Mbps (down/up), TracNet H60 offers maximum speeds of 10/3 Mbps (down/up), and the TracNet H90 offers maximum speeds of 20/3 Mbps (down/up). These sizes and speeds ensure that we offer a suite of products and services to support a wide range of vessels from leisure craft as small as 40 feet long and small fishing vessels to superyachts and large commercial vessels.

In addition to the TracNet systems, we also continue to offer our TracPhone V30 marine VSAT antenna, which was introduced in March 2021. The TracPhone V30 combines the small 37 cm antenna size, easy installation, and fast data speed to make Internet connectivity, content streaming, and social media use possible on sailboats, center console boats, and recreational boats. In addition, the TracPhone V30 is well-suited to commercial vessels that don't voyage globally, including fishing boats, tugboats, and offshore service vessels. For leisure and commercial vessels, the TracPhone V30 offers the advantages of advanced satcom technology as a replacement for legacy L-band systems that typically provide data speeds up to 432 Kbps.

LTE Broadband. In June 2018, we introduced the TracPhone LTE-1, which is a high-gain dual antenna array, modem, GPS, and Wi-Fi router inside a 34 cm diameter dome. The TracPhone LTE-1 is equipped with a U.S.-only SIM card that provides Internet access in U.S. waters as far as 20 miles or more (32 kilometers or more) offshore.

In June 2021, we introduced the LTE-1 Global marine communications system, which is equipped with a global SIM card that supports cellular data service in more than 150 countries with Internet access as far as 20 miles or more (32 kilometers or more) offshore. The system utilizes LTE Advanced cellular network technology, which is faster than regular 4G LTE.

Other Marine Solutions. For our legacy TracPhone systems, we offer CommBox, a ship-to-shore network management product that comprises shipboard hardware, a KVH-hosted or privately-owned shore-based hub, and a suite of software applications. Our CommBox offerings are generally integrated into the majority of our VSAT product offerings. We do not generate significant revenue from sales of standalone CommBox hardware.

We also offer Iridium OpenPort hardware and service to be used in conjunction with our VSAT service. Iridium OpenPort service provides data rates up to 128 kilobits per second (Kbps) and covers the entire world, including the polar regions. We offer the Iridium hardware and service along with our own hybrid and VSAT solutions with the integrated CommBox functionality, which will switch over to the Iridium service if KVH's VSAT, 5G/LTE, or shore Wi-Fi services are not available. Some of our customers add the Iridium service to expand the geographic coverage of the system or as a backup service.

In September 2019, we began offering Iridium Certus, a next-generation L-band solution providing pole-to-pole global coverage. We currently offer three terminals compatible with Iridium Certus service – the Thales VesseLINK 200 (data speeds as fast as 176/176 Kbps down/up), the VesseLINK 700 (data speeds as fast as 704/352 Kbps down/up), and the Cobham Sailor 4300 (data speeds as fast as 704/176 Kbps down/up), which is only available to AgilePlans subscribers (described below). Optional routing enables onboard data to switch between our KVH ONE hybrid network services and Iridium Certus.

In addition to our TracNet hybrid and TracPhone VSAT-only products and associated airtime services service, we also offer a family of Inmarsat-compatible TracPhone products that provide in-motion access to global satellite communications. These products rely on services offered by Inmarsat, a satellite service provider that supports links for phone, fax, and data communications as fast as 432 Kbps. The TracPhone FB250, FB500, and FleetOne antennas use the Inmarsat FleetBroadband service to offer VoIP and Internet service. The TracPhone FB250, FB500 and FleetOne products are manufactured by Cobham and distributed on an original equipment manufacturer basis by us in North America under our TracPhone brand and distributed in other markets on a non-exclusive basis.

Unlike our VSAT airtime, where we control and sell the airtime, we purchase Inmarsat and Iridium airtime directly from these companies and resell it to our customers.

In March 2023, we informed our distribution channel that we will be selling Starlink terminals as companion terminals for new TracNet installations as well as for existing TracNet and TracPhone systems. While Starlink offers a simple data pipe, we believe that a KVH/Starlink companion deployment offers a more robust solution thanks to our intelligent hybrid switching, KVH ONE global hybrid network, integrated services, enterprise-grade cybersecurity, and other features. Customers who

purchase a Starlink companion terminal will be required to also have an active KVH VSAT airtime plan to activate the hybrid switching license. Customers will be activating their Starlink airtime through and receiving technical support from Starlink, not from KVH. We anticipate shipping Starlink units at the end of March 2023 or early April 2023. We will be distributing these Starlink terminals on a non-exclusive basis and are not receiving any airtime commission.

Maritime Satellite TV. Our TracVision TV-series satellite TV antennas are designed with the full spectrum of vessel sizes in mind, ranging from recreational vessels as small as 20 to 25 feet to large commercial vessels. The TV-series incorporate an Internet Protocol (IP)-enabled control unit to allow access to system information from any Wi-Fi device. Our family of marine TracVision products includes the 32 cm diameter TracVision TV1, 37 cm diameter TracVision TV3, 45 cm diameter TracVision TV5, 60 cm diameter TracVision TV6, 81 cm TracVision TV8, and 1 meter TracVision TV10. These products are compatible with Ku-band SDTV and HDTV programming as well as high-powered regional satellite TV services around the globe, based on the available signal strength and antenna size requirements. TracVision TV-series products also offer configuration, status, and service capabilities via the optional, free TracVision application for use on iOS and Android mobile devices.

Our TracVision HD-series satellite TV antennas are designed to offer a high-definition TV experience comparable to that available to a home DIRECTV HDTV subscriber. Our TracVision UHD7, launched in October 2019, uses a 60 cm diameter satellite TV antenna to receive signals from two DIRECTV Ka-band satellites and one DIRECTV Ku-band satellite simultaneously. It also supports Ku-band DISH Network in the United States, select portions of the Caribbean, and DISH Mexico in Central America, along with Bell TV in Canada. It includes an IP-enabled antenna control unit and, as with the TracVision TV-series, the TracVision UHD7 offers configuration, status, and service capabilities via the optional, free TracVision application for use on iOS and Android mobile devices. The TracVision UHD7 is the successor to our original award-winning TracVision HD7, which we believe was the first marine antenna to offer this combination tri-satellite reception capabilities. Our TracVision HD11 offers a worldwide satellite TV capability through the use of a 1-meter diameter antenna and a global low noise block (LNB) designed for use with the majority of direct-to-home satellite TV services. As a result, it is able to receive all Ku-band and DIRECTV Ka-band satellite television signals without changing hardware elements. The Ku-band also works with modern satellite television services currently available throughout the world. The Ka-band receives DIRECTV HDTV. Like the TracVision UHD7, the TracVision HD11 features an optional application for iOS mobile devices to provide easy control of the system.

Land Mobile Products

We design, manufacture, and sell a range of TracVision satellite TV antenna systems for use on a broad array of vehicles, including recreational vehicles (RV), buses, conversion vans, and automobiles.

In the RV and bus markets, we offer Ku-band TracVision satellite TV products, intended for both stationary and in-motion use. Our TracVision R1 delivers standard-definition DIRECTV and high-definition DISH network service through a small 32 cm diameter dome. Our TracVision A9 uses hybrid phased-array antenna technology to provide in-motion reception of satellite TV programming in the continental United States using either the standard-definition DIRECTV or high-definition DISH Network services. The TracVision A9 stands approximately five inches high and mounts either to a vehicle's roof rack or directly to the vehicle's roof, making it practical for use aboard minivans, SUVs and other passenger vehicles. The TracVision A9 includes a mobile satellite television antenna and an IP-enabled TV hub for easy system configuration and control via Wi-Fi devices, such as an Apple iPhone or iPad. The TracVision A9 is also suitable for tall motor coaches and buses.

Airtime Services

In conjunction with our mobile satellite antenna hardware and software, we provide airtime plans that enable customers to obtain Internet and VoIP services. We offer a variety of rate plans that are flexible to meet customer needs. The key features of KVH's airtime services are a choice of high-speed and unlimited use airtime plans, a network management portal, and a comprehensive global customer support program. Our high-speed plans offer simple, usage-based monthly data bundles. When the high-speed data bundle is consumed, subscribers have the option to maintain high data speed at all times with low per MB overage rates or to shift to a slower unlimited use data speed for the remainder of the month. Our unlimited use data plans offer plans based on maximum upload and download speeds. All TracNet and TracPhone 60 cm and 1 meter antennas support simultaneous high-speed and unlimited use plans for optimal flexibility while all 37 cm terminals offer a single high-speed data channel. Our customer portal, myKVH, is a secure site that offers KVH customers easy access to technical support, product warranty and user documentation, billing, and our VSAT Manager and next-generation KVH Manager system and network tools. Available tools and reports include, among other features, terminal status, real-time data reporting and the ability to

manage data access by application category, configure the KVH terminal, optimize performance with Tracking Avoidance Zones, set data usage alerts and get real-time vessel tracking reports with up to one year of historical data.

AgilePlans, one of our options for commercial maritime customers, offers an all-inclusive Connectivity as a Service, or CaaS, usage-based pricing model. Under this all-in-one CaaS model, we charge subscribers a single monthly fee in exchange for which we provide either TracNet or TracPhone satellite communication hardware, subsidized shipping and installation, maintenance and support, airtime and VoIP services, a service management portal and certain basic content services with no minimum commitment and no long-term contract required. We offer AgilePlans customers a variety of airtime data plans with varying data allotments and fixed data usage levels with our exclusive dual-channel configuration with dual channel airtime plans delivering both a high-speed channel and an unlimited use data channel. Under our CaaS model, we retain ownership of the hardware and do not sell it to subscribers, who must return it to us if they terminate our service. We expect that, as customers subscribe to our AgilePlans service, our revenues from product sales will continue to decline, and our provision of this equipment to subscribers will continue to increase our capital expenditures, which over time will continue to increase our costs of service sales as we depreciate these assets.

In October 2017, we launched our next-generation, advanced maritime broadband network with Intelsat. The HTS high-speed network incorporates Intelsat Epic satellite services and the IntelsatOne Flex platform, a global managed service designed to optimize bandwidth allocations and provide flexible coverage where it is needed. Our global HTS network also benefits from Asian satellite capacity provided by SKY Perfect JSAT. Overall, our global HTS network currently uses a combination of 159 Ku-band transponders (5 of which we directly contract for) on 22 satellites to provide Ku-band coverage throughout the northern and southern hemispheres. Of the 22 satellites, 3 are considered high-throughput satellites that provide coverage via overlapping high-powered spot beams. Of the 159 Ku-band transponders, 136 are on high-throughput satellites. During the first quarter of 2018, we entered into a five-year capital lease for three satellite hubs for the HTS network. During the first quarter of 2021, the terms of this lease were adjusted and we discontinued use of two satellite hubs in exchange for additional satellite service capacity. In the first quarter of 2022, we expanded our satellite connectivity services that will allow vessels to use KVH connectivity while operating in Indian territorial waters. In addition, KVH now offers satellite connectivity services to Indian-flagged vessels. It is our long-term plan to continue to maintain and enhance our global HTS network. On December 31, 2021, we closed down our legacy mini-VSAT Broadband network, which had used a combination of 20 Ku-band transponders on 15 satellites to provide Ku-band coverage throughout the northern hemisphere and around the continents in the southern hemisphere. The majority of our existing customers on the legacy network were migrated to the new global HTS network.

Content Services

We offer a variety of value-added services to our maritime customers as well as news content to our hotel customers. The vast majority of these value-added services are subscription-based.

Our KVH Media Group, which is based in the United Kingdom, distributes commercially licensed entertainment, including news, sports, and movies to commercial customers in the maritime and hotel markets, along with supplemental value-added services. Sales from KVH Media Group are included as part of content service sales. Our "news from home" digital newspaper service includes more than 100 daily newspapers in more than 20 languages that at the end of 2022 was delivered to more than 6,000 commercial ships, hotels, and cruise ships. The digital content can be printed onboard or viewed on a tablet, smartphone, or laptop. For movie and television content, we are an approved distributor of licensed content for certain Hollywood, Bollywood, and independent studios worldwide.

We offer a content subscription service called KVH Link, delivered by IP-MobileCast wherein content and data files are transmitted using multicast technology across our global satellite networks to every vessel that has an active, compatible TracPhone V-series terminal. This delivery mechanism reduces the amount of bandwidth required to transmit large files to a large population of customers. Before multicasting, large data files were generally transmitted across satellite networks "on demand" or unicast, which consumes significant bandwidth. The content is either stored on the terminal itself or on a KVH-supplied media server, which is required for digital rights managed content such as movies. Copyright law requires permission from the rights holder for exhibitions of copyrighted film and television. Historically, studios have granted KVH Media Group permission to license non-theatrical exhibitions aboard ships. While traditionally we licensed this content to commercial maritime customers primarily through the distribution of DVDs, we have now also automated the transmission of this type of entertainment via KVH Link. In June 2020, we also launched our standalone digital service, linkHUB, as an alternative to DVDs. The linkHUB unit allows for a digital rights managed entertainment service without the need for a TracPhone V series or V-HTS series terminal.

Customers that subscribe to one of our entertainment packages generally receive a variety of movie and television content that is cached locally onboard. We transmit local "news from home" and international news segments in a variety of languages on a daily, weekly or monthly basis, a library of movies plus daily sports, news clips and special programming such

as the highlights of sporting events.

Value-added Services

We also recognize that our customers desire more than just a simple pipe for data and connectivity. Our TracNet and TracPhone systems are designed to support an expanding suite of value-added services that both increase the capabilities of our customers' systems as well as generate additional recurring revenue for KVH. Among these value-added services are a new enterprise-grade Managed Firewall powered by industry leader Fortinet, a cloud email system for commercial fleets and seafarers, real-time vessel tracking, and our KVH Link content service.

Sale of KVH Media Group Entertainment Limited

On April 29, 2022, KVH Media Group Limited, our wholly owned subsidiary, sold its subsidiary KVH Media Group Entertainment Limited for net cash proceeds of \$2.4 million. This transaction did not meet the criteria for reporting as discontinued operations under Financial Accounting Standards Board Accounting Standards Codification (ASC) 205-20. We recorded a gain on the sale of approximately \$0.7 million, which is recorded in other income, net in the accompanying consolidated statements of operations. See Note 9 to our accompanying audited consolidated financial statements for the reduction of goodwill and intangibles associated with the KVH Media Group reporting unit as it relates to the sale of this subsidiary.

Sale of Inertial Navigation Business - Discontinued Operations

On August 9, 2022, we sold our inertial navigation business to EMCORE Corporation for gross proceeds of \$55.0 million, less specified deductions and a holdback of \$1.0 million and subject to a working capital adjustment. The finalized working capital adjustment, which resulted in a \$0.1 million payment to EMCORE, was recorded in the fourth quarter of 2022. The holdback was released to us on August 17, 2022. On August 9, 2022, we also entered into a Transition Services Agreement with EMCORE, pursuant to which we agreed to provide certain transition services to support the continued operation of the inertial navigation business for six months following the sale with two extension options of three months each. The fee is comprised of both fixed monthly fees of approximately \$0.1 million as well as variable amounts for certain additional services with escalation increases on the fixed and variable rates for each extension option. We do not have any continuing involvement in these operations other than short-term transition services, which are being recorded as an offset to general and administrative expenses in continuing operations. We determined that the sale met the requirements for reporting as discontinued operations in accordance with ASC 205-20. Please see Notes 1 and 16 of our accompanying audited consolidated financial statements for further information.

Sales, Marketing and Support

Our sales, marketing, and support efforts target markets that are substantial and complex, and require, in many cases, networks of intermediaries, such as dealers, distributors, airtime service providers, and manufacturers' representatives, to reach our end-user customers. These sales channels vary and evolve from time to time, but currently include targeted efforts to reach the commercial and leisure maritime markets; the RV, high-end automotive, and bus markets; and the commercial, industrial, and government markets. As our business evolves, we may pursue additional sales channels, including direct sales, in various markets. We believe our brands are well-known and well-respected by customers within their respective niches. These brands include:

- TracVision® - satellite television systems for vessels and vehicles
- TracNet™ – integrated hybrid two-way communication terminals with VSAT, 5G/LTE, and shore-based Wi-Fi
- KVH ONE™ - global hybrid communication network supporting Internet, VoIP, content delivery, and more
- TracPhone® - two-way VSAT-only satellite communications systems
- KVH Link – crew wellbeing content subscription service with delivery by IP-Mobilecast
- NEWSlink™ - maritime news delivery service through a variety of means
- SPORTSlink™ - sporting content delivered through a variety of means
- TVlink™ - television programming delivered through a variety of means
- MOVIElink™ - movie distribution through a variety of means
- MUSIClink™ - music and karaoke delivered through a v
- CommBox™ - data management software for maritime communications
- KVH OneCare™ - global services and support for TracNet and TracPhone systems

- AgilePlans® - Connectivity as a Service Program
- KVH Elite™ – unlimited HD-quality streaming service for leisure yachts

We sell our products directly and through an international network of independent retailers, chain stores, distributors, and service providers as well as to manufacturers of vessels, maritime equipment, and vehicles.

We sell news, sports, and entertainment media content directly through our KVH Media Group, headquartered in Leeds, England.

Our European headquarters, which is located in Denmark, coordinates our sales, marketing, and support efforts for our products in Europe, the Middle East, and Africa. Our Asia-Pacific headquarters are managed through our office in Singapore.

Intellectual Property

We currently hold a collection of intellectual property rights relating to various aspects of our hardware products, software and services. We believe that our ability to compete effectively depends to a significant extent on our ability to protect these intellectual property rights and our proprietary information. We rely primarily on patent, copyright and trade secret laws, trademarks, service marks, trade dress, confidentiality procedures, and licensing arrangements to protect our intellectual property rights in the U.S. and a select number of other countries where we determine that such protection is beneficial. When appropriate, we seek to file patent applications to protect innovations arising from our research, development and design activities. As of December 31, 2022, our patent portfolio included approximately 12 U.S. and foreign issued patents, including utility patents, design patents and others and one pending U.S. patent application. We also register our trademarks in the United States and other key international markets where we do business. Our patents will expire at various dates between January 2024 and May 2037. We enter into confidentiality agreements with our consultants, key employees, and sales representatives and maintain controls over access to and distribution of our technology, software, and other proprietary information.

From time to time, we have faced claims by third parties that our products or technologies infringe their patents or other intellectual property rights. We do not generally conduct exhaustive patent searches to determine whether the technology used in our products infringes patents held by third parties. In addition, product development is inherently uncertain in a rapidly evolving technological environment in which there may be numerous patent applications pending, many of which are confidential when filed, with regard to similar technologies.

Manufacturing

Manufacturing operations for our products consist of light manufacture, final assembly and testing. We manufacture, warehouse and distribute our products at our facilities in Middletown, Rhode Island. Our manufacturing processes are controlled by an ISO 9001:2015-certified quality standards program.

Raw Materials, Components and Services

We purchase raw materials and most of the components used in our various manufacturing processes, such as printed circuit boards, injection-molded plastic parts, machined metal components, connectors and housings. In addition, we purchase certain services, predominantly networking and mobile broadband services, to support the delivery of our solutions.

The materials, molds and dies, subassemblies and components purchased from other manufacturers, and other materials and supplies used in our manufacturing processes have generally been available from a variety of sources. We believe there are a number of acceptable vendors for the components we purchase. We regularly evaluate both domestic and foreign suppliers for quality, dependability and cost effectiveness. From time to time the cost and availability of materials and services is affected by the demands of other industries, as well as other factors. Whenever practical, we seek to establish multiple sources for the purchase of raw materials, components and services to achieve competitive pricing, maintain flexibility, reduce tariff exposure, and protect against supply disruption. When possible, we employ a company-wide procurement strategy designed to reduce the purchase price of materials, purchased components and services.

For reasons of quality assurance, scarcity or cost effectiveness, certain components and raw materials used in the manufacturing of our products, as well as certain services utilized in the delivery of our solutions, are available only from a limited number of suppliers or from a sole source supplier. We work with our suppliers to develop contingency plans intended to assure continuity of supply while maintaining high quality and reliability, and in some cases, we have established long-term supply contracts with our suppliers. Due to the nature of certain raw materials, purchased components and services, we may not be able to quickly establish additional or replacement sources for certain components, materials or services. In the event that we are unable to obtain sufficient quantities of raw materials or components or unable to obtain sufficient access to the services needed to deliver our solutions on commercially reasonable terms or in a timely manner, our ability to manufacture and deliver our products and services on a timely and cost-competitive basis may be compromised, which may have a material adverse effect on our business, financial condition and results of operations. In 2022, we continued to experience delays in the availability and delivery of certain raw material components, which impacted our manufacturing and resulted in shipping delays in getting products out to our customers. We also experienced increases in raw material costs, which we expect to continue into 2023. We are continuing to monitor global developments and are prepared to implement any actions that we determine to be necessary to sustain our business, including expanding our sources of supply and modifying product designs to accommodate product availability.

Competition

We encounter significant competition in the markets we serve, and we expect this competition to intensify in the future. Many of our primary competitors are well-established companies and some have substantially greater financial, managerial, technical, marketing, operational, and other resources than we do.

In the marine market for satellite TV equipment, we compete primarily with Intellian, Cobham SATCOM and Raymarine (Intellian made).

In the marine market for voice, fax, data, and Internet communications equipment, we compete primarily with Intellian and Cobham SATCOM.

In the marine market for high-speed Internet, voice, fax, and data services, we compete primarily with Inmarsat, Marlink, Speedcast, Viasat and Network Innovations. Additionally, we are starting to face competition from new low earth orbit (LEO) networks such as SpaceX's Starlink and OneWeb. We also face competition from providers of low-speed data services, which include Inmarsat and Iridium Satellite LLC.

In the market for land mobile satellite TV equipment, we compete primarily with King Controls and Winegard Company.

In the markets for media content, we compete primarily with Swank Motion Pictures, Baze Technology, and

Newspapersdirect Inc.

In the markets for mobile satellite connectivity products, the principal competitive factors are product size, features, design, performance, reliability, and price. In the markets for airtime services, the principal competitive factors are geographic coverage, data speed, value-added services, and price. In the markets for media content, the principal competitive factors are license rights, distribution, and price.

Although we believe that we compete favorably with respect to these factors, there can be no assurance that we will continue to do so. We encounter substantial competition in most of our product lines, although no single competitor competes with us across all product lines.

Research and Development

Focused, efficient investments in research and development are critical to our future growth and competitive position in the marketplace. Our research and development efforts are directly related to timely development of new and enhanced products and services that are central to our core business strategy and our ability to drive profitable, sustainable growth. The industries in which we compete are subject to rapid technological developments, evolving industry standards, changes in customer requirements, and new product and service introductions and enhancements. As a result, our success depends in part upon our ability, on a cost-effective and timely basis, to continue to enhance our existing products and to develop and introduce new products and services that improve performance and meet customers' operational and cost requirements. Our current research and development efforts include projects to achieve additional cost reductions in our products and the development of new products and services for our existing marine and land mobile communications markets. For example:

- In March 2021, we released the TracPhone V30 VSAT Broadband antenna featuring single-cable, DC-powered design, integrated modem in the dome for higher signal strength and efficiency, and compact below decks unit with built-in Wi-Fi.
- In July 2022, we introduced the TracNet H30, H60 and H90 in our H-Series product line.
- In October 2022, we introduced DC-powered versions of the TracNet H30 and H60 in our H-Series product line.

We strive to be the first company to bring new products to market in order to maintain our market leadership position, and we use our own funds when necessary to accelerate new product development efforts.

Government Regulation

Our manufacturing operations are subject to various laws governing the protection of the environment and our employees. These laws and regulations are subject to change, and any such change may require us to improve our technologies, incur expenditures, or both, in order to comply with such laws and regulations.

We are also subject to the laws and regulations of the U.S. and foreign jurisdictions in which we offer and sell our satellite communication products and services, including those of the European Union, Brazil, Norway, Singapore, and Japan. Many of the countries where our customers use our products and services have licensing and regulatory requirements for the importation and use of satellite communications and reception equipment, including the use of such equipment in territorial waters, the transmission of satellite signals on certain radio frequencies, the transmission of VoIP services using such equipment, and, in some cases, the reception of certain video programming services. In the U.S., many of these matters are regulated by the Federal Communications Commission.

As a result of our international operations, we are subject to a number of additional legal requirements, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the customs, export, trade sanctions and anti-boycott laws of the United States, including those administered by the U.S. Customs and Border Protection, the Bureau of Industry and Security, the Department of Commerce, the Department of State, and the Office of Foreign Assets Control of the Treasury Department, as well as those of other nations in which we do business. Our operations are also subject to various domestic and international privacy laws, including the European Union's General Data Protection Regulation.

These laws and regulations, as well as the interpretation and application of these laws and regulations, are subject to change, and any such change may affect our ability to offer and sell existing and planned satellite communications products and services.

For more information, see “Risk Factors – Risks related to government regulation.”

KVH Team Demographics

KVH team members are essential to the success of KVH. We had 397 team members as of December 31, 2022, including full-time employees, part-time employees, and long-term contractors. The figures in this section provide information as of December 31, 2022.

KVH Team Member Headcount	
Category	#
Full-Time Employees	351
Part-Time Employees	34
Long-term Contractors	12
Total	397

Our team members are directly responsible for the creation, development, manufacture, marketing, sale, repair and support of our products and services. Because we sell and support our products globally, we have a globally distributed workforce to manufacture products in the U.S. and support our customers in the U.S. and internationally:

KVH Team Member Headcount	
Country	#
Brazil	2
Cyprus	1
Denmark	15
Germany	1
Greece	2
Hong Kong	2
India	28
Italy	1
Japan	1
Netherlands	1
Norway	5
Philippines	66
Poland	1
Singapore	13
South Africa	1
United Kingdom	65
United States	192
Total	397

Approximately 128 team members, or 32%, are directly involved in supporting our technology in positions such as engineers, technicians, or software developers.

Employee Engagement

We believe we have strong relationships with our workforce. In 2022, our global turnover rate was 18%, including voluntary and involuntary separations. Among our 65 key executive leaders and most critical individual technology contributors, our turnover rate was 12% in 2022. These turnover rates exclude the reductions related to the sales of our inertial navigation business and our media subsidiary, and also exclude the approximately 10% reduction in our workforce in connection with our March 2022 restructuring.

The average length of employee service is 9.5 years. The continuity of our employee base is important to the success of our business, as our employees have deep knowledge of our products and are critical to the services that we provide to our customers.

KVH surveys team member engagement at least annually. The survey standardizes how KVH measures engagement across our organization and affords us an opportunity to address areas for improvement. By listening to employees, we gain a better understanding of what our employees need in order to succeed, enabling us to develop programs that create a stronger and more committed workforce.

Inclusion and Diversity

KVH actively cultivates the diverse talents of our team and strives to recruit a diverse and inclusive workforce everywhere we operate. We believe this enables better business decisions, enhanced product development, and superior customer service. Our diversity and inclusion principles are also reflected in our employee training, in particular with respect to our policies against harassment in the workplace.

Competitive Pay and Benefits

KVH's compensation programs are designed to align the compensation of our employees with KVH's performance and provide incentives to attract, retain and motivate employees to achieve superior results. The structure of our compensation programs balances incentive earnings for both short-term and long-term performance. Specifically:

- We provide employee wages that we believe are competitive and consistent with employee positions, skill levels, experience, knowledge, and geographic location.
- We review compensation and benefits surveys to obtain relevant industry data in order to benchmark our practices against those of industry peers.
- We seek to align the interests of our executives with those of our shareholders by paying a significant portion of our executives' total compensation in the form of equity awards, which increase in value as the price of our common stock increases.
- Annual salary increases and incentive compensation include adjustments based on merit, which is communicated to employees through our annual review process and upon internal transfers and/or promotions.
- All employees are eligible for health insurance, paid and unpaid leaves, a retirement plan and life and disability/accident coverage, subject to applicable regulations.

Health and Safety

We are committed to protecting the health and safety of our employees and others who enter any of our facilities, wherever located. In 2022, KVH's Occupational Safety and Health Administration (OSHA) total recordable incident rate was 0.73% which is favorable compared to the 2022 OSHA national average of 2.9. In 2020, we introduced a range of new safety protocols in our facilities in an effort to protect our employees and support appropriate health and safety protocols in response to COVID-19 and the global pandemic. These safety protocols have since been relaxed to align with federal and state mandates, but will return if the COVID-19 pandemic worsens.

We are committed to continued improvements to our safety, health, and wellness programs to meet our employees' needs, which we believe is critical to attract and retain talent. We believe that creating a safe and supportive workplace is vital to our success.

KVH Team Member Recruitment

We work diligently to attract the best available talent from a diverse range of sources to meet the current and future demands of our business. We have established relationships with major universities, professional associations, and industry groups to proactively attract talent. In 2022, we hired 17 professional level team members.

Working Capital and Seasonality

We hold significant inventory to support our customers and provide prompt delivery of finished goods. As a consequence, we expend substantial working capital in advance of receipt of customer orders.

Our leisure marine business is highly seasonal, and seasonality can also impact our commercial marine business. Historically, we have generated the majority of our marine leisure product revenues during the first and second quarters of each year, and these revenues typically decline in the third and fourth quarters of each year. Temporary suspensions of our airtime services typically increase in the third and fourth quarters of each year as boats are placed out of service during the winter months.

ITEM 1A. Risk Factors

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors in evaluating our business. If any of these risks, or other risks not presently known to us or that we currently believe are not significant, develops into an actual event, then our business, financial condition and results of operations could be adversely affected. If that happens, the market price of our common stock could decline.

Risks related to our financial performance

We have a history of losses, and achieving sustained profitability may take longer than we anticipate or may not be achievable.

We recorded substantial losses from continuing operations in each of the last three fiscal years (notwithstanding the income we recognized in 2022 from the sale of the inertial navigation business and in 2021 from the forgiveness of the PPP Loan). Although our continuing operations were profitable in the fourth quarter of 2022, we may incur losses in the future as we increase satellite capacity to handle our growing subscriber base, as we confront supply chain constraints and as we continue to invest in research and development to improve our existing products and develop new products. In order to achieve sustained profitability, we must grow our airtime subscriber base, reduce our bandwidth costs, and continue to introduce new and improved products in order to maintain and improve our competitive position and generate revenue. Our inability to accomplish any of these goals could have a material adverse effect on our revenues, profitability and cash flow, and we cannot assure you when, or whether, we will regain profitability.

Fluctuations in our quarterly net sales and results of operations could depress the market price of our common stock.

Our future net sales and results of operations could continue to vary significantly from quarter to quarter due to a number of factors, many of which are outside our control. Accordingly, you should not rely on quarter-to-quarter comparisons of our results of operations as an indication of future performance. It is possible that our net sales or results of operations in a quarter will fall below the expectations of securities analysts or investors. If this occurs, the market price of our common stock could fall significantly. Our results of operations in any quarter can fluctuate for many reasons, including changes in demand for our products and services; delays in order fulfillment, including as a result of shortages of components and raw materials; the mix of products and services we sell, including the mix of fixed rate and metered contracts for airtime services; our ability to manufacture, test and deliver products in a timely and cost-effective manner, including the availability of components and subassemblies from our suppliers; our success in winning competitions for orders; the timing of new product introductions by us or our competitors; the scope and success of our investments in research and development; expenses incurred in pursuing acquisitions and investments; expenses incurred in expanding, maintaining, or improving our global HTS network; market and competitive pricing pressures; unanticipated charges or expenses, such as increases in warranty claims; expenses incurred in responding to stockholder activism; general economic climate; seasonality of pleasure boat and recreational vehicle usage; and the impact of supply chain disruptions.

A large portion of our expenses, including expenses for network infrastructure, facilities, equipment, and personnel, are relatively fixed. Accordingly, if our net sales decline or do not grow as much or as quickly as we anticipate, we might be unable

to maintain or improve our operating margins. Any failure to achieve anticipated net sales could therefore significantly harm our operating results for a particular fiscal period.

Additional impairments to goodwill or other intangible assets could result in significant charges against earnings.

As a result of our acquisitions, we have recorded, and may continue to record, a significant amount of goodwill and other intangible assets. Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of goodwill and other intangible assets has been impaired. In 2020, our annual impairment test resulted in an impairment charge of \$10.5 million in our KVH Media reporting unit. Even after recording this impairment, our consolidated balance sheet at December 31, 2022 includes \$5.7 million of goodwill and other intangible assets, of which \$1.2 million relates to KVH Media Group. Our annual impairment analysis as of October 1, 2022 did not identify any further impairments. However, there can be no assurance that our remaining goodwill and other intangible assets will not be further impaired.

Risks related to our operations

Our future success will depend in part on the services of our executive officers.

The Company's future success depends to a significant degree on the skills and efforts of our executive officers. Our executive officers are at-will employees, competition is intense for executive management, and they could terminate their employment with us at any time. We do not maintain key-person life insurance on any of our personnel. Accordingly, the loss of one or more of our executive officers or key employees could have a material adverse effect on our business.

If we cannot effectively manage changes in our business and continue to attract and retain skilled personnel, our business may suffer.

We are highly dependent on the efforts and abilities of qualified personnel at all levels, including our senior management team and other key technical, operational, managerial and sales and marketing personnel, each of whom brings a valuable set of skills that would be difficult to replace. If we fail to retain and attract the necessary personnel, we may be unable to achieve our business objectives and may lose our competitive position, which could lead to a significant decline in net sales. In March 2022, we announced a change in our strategic priorities, whereby we planned to focus on our core businesses, implement greater discipline in our new product initiatives and reduce costs. As part of this change, we completed a reduction in force of approximately 10% to realign our workforce to match our strategic priorities. The workforce reduction required the reallocation and combination of certain roles and responsibilities across the organization. In 2022 we incurred severance and other expenses in connection with the reduction in force, which will reduce our earnings at least in the near term. The current job market for our personnel is very competitive, resulting in increased compensation, and we face challenges in seeking to retain our continuing personnel and attract new personnel to fulfill our unmet needs. Prior to the reduction in force, we experienced increased turnover among our employees. Replacing key personnel may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully execute our business strategy, and we cannot assure you that we will be able to identify or employ qualified personnel for any such position on acceptable terms, if at all. In order to retain and attract qualified personnel, we may need to pay higher compensation than we currently expect, which would make it more difficult to achieve our goal of returning to profitability.

Further, if we are unable to adjust our operating expenses on a timely basis in response to changes in our operations, our results of operations may be harmed. To manage changes in our business effectively, we must, among other things, match our manufacturing facilities and capacity to demand for our products and services; secure appropriate satellite capacity to match changes in demand for airtime services; effectively manage our inventory and working capital; ensure robust cybersecurity protection of Company and customers data and systems; and ensure that our procedures and internal controls are revised and updated to remain appropriate for our realigned workforce and the size and scale of our business operations.

We must generate a certain level of sales of the TracNet H-series and TracPhone V-HTS series products in order to maintain or improve our service gross margins.

As a result of our global HTS network infrastructure, our cost of sales for services includes certain costs that generally do not vary directly in proportion with the volume of service sales, and we have limited ability to reduce these fixed costs in the short term. Although we have realized savings from the shutdown of our legacy Arlight network, the cost of our HTS network has increased significantly each year as we have further expanded our network to accommodate additional subscriber demand and/or coverage areas, as well as customers who migrated from our legacy network. We expect that this trend will continue in 2023. If sales of our TracNet H-series and TracPhone V-HTS series products, including through our AgilePlans subscription model,

do not generate the level of revenue that we expect or if those revenues decline, our service gross margins may decline. The failure to improve our global HTS service gross margins and unit or subscriber sales would have a material adverse effect on our overall profitability.

Our ability to compete in the maritime airtime services market will be impaired if we are unable to provide sufficient service capacity to meet customer demand.

We currently offer our global HTS VSAT service in the Americas, Europe, the Middle East, Africa, Asia-Pacific, Indian, and Australian and New Zealand waters. We may need to expand capacity in existing coverage areas to support our subscriber base. If we are unable to reach economical agreements with third-party satellite providers to support our global HTS service and its technology or if transponder capacity is unavailable to meet growing demand in a given region, our ability to provide airtime services will be at risk and could reduce the attractiveness of our products and services.

Our results of operations are adversely affected by unseasonably cold weather, prolonged winter conditions, disasters or similar events.

Our leisure marine business is highly seasonal, and seasonality can also impact our commercial marine business. Historically, we have generated the majority of our leisure marine product revenues during the first and second quarters of each year, and these revenues typically decline in the third and fourth quarters of each year, compared to the first two quarters. Temporary suspensions of our airtime services typically increase in the third and fourth quarters of each year as boats are placed out of service during winter months. Our leisure marine business is also significantly affected by the weather. Unseasonably cool weather, prolonged winter conditions, hurricanes, unusual amounts of rain, and natural and other disasters may decrease boating, which could reduce our revenues. Specifically, we may encounter a decrease in new airtime activations as well as an increase in the number of cancellations or temporary suspensions of our airtime service.

We have a single dedicated manufacturing facility for all of our product categories, and any significant disruption to this facility will impair our ability to deliver our products.

We currently manufacture all of our products at our manufacturing facility in Middletown, Rhode Island. Some of our production processes are complex, and we may be unable to respond rapidly to the loss of the use of our production facility. For example, our production facility uses some specialized equipment that may take time to replace if it is damaged or becomes unusable for any reason. In that event, shipments would be delayed, which could result in customer or dealer dissatisfaction, loss of sales and damage to our reputation.

Acquisitions and strategic relationships may disrupt our operations or adversely affect our results.

We evaluate opportunities to acquire other businesses and pursue other strategic relationships as they arise. The expenses we incur evaluating and pursuing acquisitions and strategic relationships could have a material adverse effect on our results of operations. If we acquire a business, we may be unable to manage it profitably or successfully integrate its operations with our own. Moreover, we may be unable to realize the strategic, financial, operational and other benefits we anticipate, and any acquisition or strategic relationship may increase our operating expenses. Further, our approach to acquisitions and strategic relationships may involve a number of special financial and business risks, such as entry into new and unfamiliar lines of business or markets, which may present challenges or risks that we did not anticipate; entry into new or unfamiliar geographic regions, including exposure to additional tax and regulatory regimes; increased expenses associated with the amortization of acquired intangible assets; increased exposure to fluctuations in foreign currency exchange rates; charges related to any abandoned acquisition; diversion of our management's time, attention, and resources; loss of key personnel; increased costs to improve or coordinate managerial, operational, financial, and administrative systems, including internal control over financial reporting; dilutive issuances of equity securities; the assumption of legal liabilities; and losses arising from impairment charges associated with goodwill or intangible assets.

Risks related to our dependence on third parties and third party technology

Our mobile satellite products currently depend on satellite services, gateway teleports and terrestrial networks provided by third parties, and a disruption in those services could adversely affect sales.

Our satellite antenna products include the equipment necessary to utilize satellite services. We do not own the satellites that provide two-way satellite communications or the terrestrial networks that interconnect our facilities with the satellite teleports that communicate with the satellites. We currently offer satellite television products compatible with the DIRECTV and DISH Network services in the United States, the Bell TV service in Canada, the Sky Mexico service in Mexico, the Sky UK service in the United Kingdom, Canal+ service in France and Movistar service in Spain, and other regional satellite TV services in other parts of the world.

Intelsat and Sky Perfect-JSAT currently provide the satellite capacity to support our global high-throughput satellite (HTS) broadband service and our TracNet H-series and TracPhone V-HTS series products. Vodafone provides the 5G/LTE services used by our TracNet H-series terminals to provide cellular service in 150+ countries. We rely on Inmarsat for satellite communications services for our FleetBroadband-compatible and FleetOne-compatible TracPhone products. We also have an arrangement with Iridium for additional satellite communications services that we make available to our customers as a backup option to provide communications redundancy with our primary service offerings.

In addition, we have agreements with various teleports and Internet service providers around the globe to support our global HTS broadband service. The terrestrial fiber links that we use to connect with the Internet and to move our VoIP and data services between our facilities and the various satellite earth stations that support our services are provided to us through numerous service providers, some of which have contractual relationships with our satellite service providers and not directly with us.

We exercise little or no control over these third-party providers of satellite, teleport, and terrestrial network services, which increases our vulnerability to problems with the services they provide. Due to our reliance on these service providers, when problems occur, it may be difficult to identify the source of the problem. Service disruption or outages, regardless of whether they are caused by our service, the equipment or services of our third-party service providers, or our customers' or their equipment and systems, may result in loss of market acceptance of our service, and any necessary repairs or other remedial actions may cause us to incur significant costs and expenses. Any failure on the part of third-party service providers to achieve or maintain expected performance levels, stability, and security could harm our relationships with our customers, result in claims for credits or damages, damage our reputation, significantly reduce customer demand for our solution and seriously harm our financial condition and operating results.

If customers become dissatisfied with the programming, pricing, service, availability, or other aspects of any of these satellite services, or if any one or more of these services becomes unavailable for any reason, we could suffer a substantial decline in sales of our satellite products. There may be no alternative satellite service provider available to us in a particular geographic area, and our modem or other technology may not be compatible with the technology of any alternative service provider that may be available. Even if available, delays caused by switching our technology to another service provider, if available, and qualifying this new service provider could materially harm our customer relationships, business, financial condition, and operating results. In addition, the unexpected failure of a satellite could disrupt the availability of programming and services, which could reduce the demand for, or customer satisfaction with, our products.

We depend on cloud-based data services operated by third parties, and any disruption in the operation of these services could harm our business.

Some of our content services and business records are hosted by various cloud-based data services operated by third parties. Any failure or downtime in one of these services could affect a significant percentage of our customers. Although we control and have access to our servers and the components of our network that are located in our internal facilities and certain of our external data facilities, we do not control the operation of external facilities. The providers of our data management services have no obligation to renew their agreements with us on commercially reasonable terms, or at all. If we are unable to renew these agreements on commercially reasonable terms, or if one or more of our data management service providers is acquired, closes, suffers financial difficulty or is unable to meet our growing capacity needs, we may be required to transfer our data to other services, and we may incur significant costs and service interruptions in connection with doing so, which could harm our reputation with our customers and adversely affect our revenues and results of operations.

Our media and entertainment business relies on licensing arrangements with content providers, and the loss of, or changes in, those arrangements could adversely affect our business.

We distribute premium news, sports, and movies to commercial customers in the maritime and hotel markets. We license this content from third parties on a non-exclusive basis without long-term license agreements. Any content provider could terminate our arrangements without notice or could adversely modify the terms of the arrangement, including price increases. Further, the licenses we obtain are limited in scope, and any violation of the terms of a license could expose us to liability for copyright infringement. We pay license fees based in part on the revenue we generate from sublicenses, and our licensors generally have the right to audit our records. Failure to pay required license fees could result in termination of our license rights, penalties and damages. The loss of content could adversely affect the attractiveness of our media and entertainment offerings, which could in turn adversely affect our revenues. Any increase in the cost of content could reduce the profitability of these offerings.

Cybersecurity breaches could disrupt our operations, expose us to liability, damage our reputation, and require us to incur significant costs or otherwise adversely affect our financial results.

We are highly dependent on information technology networks and systems, including the Internet and third-party systems, to securely process, transmit and store electronic information, including personal information of our customers. We also retain sensitive data, including intellectual property, proprietary business information, personally identifiable information, credit card information, and usage data of our employees and customers on our computer networks and those of third parties. Although we take certain protective measures and endeavor to modify them as we believe circumstances warrant, invasive technologies and techniques continue to evolve rapidly, and increasingly sophisticated hacking organizations are targeting business systems. As a result, the computer systems, software and networks that we use are vulnerable to disruption, shutdown, unauthorized access, misuse, erasure, alteration, employee error, phishing, computer viruses, ransomware or other malicious code, and other events that could have a material security impact. The protective measures on which we rely may be inadequate to prevent or detect all material cybersecurity breaches or determine the extent of any material breach, and there can be no assurance that material undetected breaches have not already occurred. If any material cybersecurity event were to occur, it could disrupt our operations, distract our management, cause us to lose existing customers and fail to attract new customers, as well as subject us to regulatory actions, litigation, fines, damage to our reputation or competitive position, or orders or decrees requiring us to modify our business practices, any of which could have a material adverse effect on our financial position, results of operations or cash flows.

Risks related to economic conditions and trade relations

Our revenues, results of operations and financial condition may be adversely impacted by economic turmoil, political instability, declines in consumer and enterprise spending, and a resurgence of the COVID-19 pandemic.

Economic and political conditions in the geographic markets we serve have experienced significant turmoil over the last several years, including a potential global recession, downturns related to the COVID-19 pandemic, slow economic activity, tight credit markets, inflation and deflation concerns, low consumer confidence, limited capital spending, adverse business conditions, war and refugee crises in the Middle East and Europe, terrorist attacks, the departure of the United Kingdom from the European Union, changes in government priorities, trade wars, restrictions on commercial fishing, a government shutdown, gridlock from a divided Congress, and liquidity concerns. These factors vary in intensity by region.

We cannot predict the timing, duration, or ultimate impact of turmoil on our markets or our suppliers. We expect our business would be adversely impacted by any significant turmoil, particularly a resurgence of the COVID-19 pandemic, to varying degrees and for varying amounts of time, in all our geographic markets.

Changes in U.S. trade policy, including changes to existing trade agreements and any resulting changes in international trade relations, may have a material adverse effect on us.

The U.S. may continue to alter its approach to international trade, which may impact existing bilateral or multi-lateral trade agreements and treaties with foreign countries. The U.S. has imposed tariffs on certain foreign goods and may increase tariffs or impose new ones, and certain foreign governments have retaliated and may continue to do so. We derive a majority of our revenues from international sales, which makes us especially vulnerable to increased tariffs. Changes in U.S. trade policy have created ongoing turmoil in international trade relations, and it is unclear what future actions governments will or will not take with respect to tariffs or other international trade agreements and policies. Current trade negotiations may fail, which may exacerbate these risks. Ongoing or new trade wars or other governmental action related to tariffs or international trade agreements or policies could reduce demand for our products and services, increase our costs, reduce our profitability, adversely impact our supply chain or otherwise have a material adverse effect on our business and results of operations.

Changes in foreign currency exchange rates may negatively affect our financial condition and results of operations.

Because of the scope of our foreign sales and foreign operations, we face significant exposure to movements in exchange rates for foreign currencies, particularly the pound sterling and the euro. For example, during 2022, the U.S. dollar strengthened against certain foreign currencies, which adversely affected revenues reported in U.S. dollars and decreased the reported value of our assets in foreign countries.

We also have intragroup receivables and liabilities, such as loans, that can generate significant foreign currency effects. Changes in exchange rates, particularly the U.S. dollar against the pound sterling, could lead to the recognition of unrealized foreign exchange losses.

Moreover, certain of our products and services are sold internationally in U.S. dollars; if the U.S. dollar continues to strengthen, the relative cost of these products and services to customers located in foreign countries would increase, which could adversely affect export sales. In addition, most of our financial obligations must be satisfied in U.S. dollars. Our exposures to changes in foreign currency exchange rates may change over time as our business practices evolve and could result in increased costs or reduced revenue and could adversely affect our cash flow. Changes in the relative values of currencies occur regularly and may have a significant impact on our operating results. We cannot predict with any certainty changes in foreign currency exchange rates or the degree to which we can cost-effectively mitigate this exposure.

Risks related to the sale of our inertial navigation business

We face potential liabilities and disruptions arising from the sale of our inertial navigation business.

On August 9, 2022, we sold our inertial navigation business to EMCORE Corporation. The sale of the inertial navigation business required us to separate and allocate specific assets to the business, including some shared assets. We could face disputes with EMCORE regarding whether or not certain assets were included in the sale. Moreover, we agreed, for a period of time after the sale, to continue to perform certain services that we historically performed for the inertial navigation business, and we also undertook other customary obligations associated with a disposition of a business by means of asset sale.

We incurred significant legal, accounting and financial advisory fees negotiating and consummating the sale of the inertial navigation business, and we may incur additional fees to resolve any dispute that may arise over the terms of the transaction or the parties' compliance with their obligations under the transaction agreements. Although EMCORE agreed to assume most liabilities associated with the inertial navigation business, it did not assume all such liabilities, which could lead to a dispute. Any such disputes could divert the attention of our management or otherwise have a material adverse effect on our business, financial condition and results of operations.

The sale of the inertial navigation business has had the effect of reducing our operating and profit margins, and we are solely reliant on our mobile connectivity business.

As a result of the sale of the inertial navigation business, we no longer generate revenues associated with that business. Accordingly, the costs we incur to operate our continuing business, including the significant overhead costs associated with being a public company, are spread over a smaller revenue base, which magnifies the impact of those costs on our operating and profit margins. In order to improve those margins, we will have to increase our revenue or reduce our costs. While the disposition of the inertial navigation business should simplify our financial reporting, we do not expect that any cost savings would be substantial.

The sale of our inertial navigation business may make it more difficult to attract and retain employees.

As a result of the sale of our inertial navigation business, our base of continuing employees will be smaller. We will have fewer personnel to perform certain functions provided by departed employees, which will magnify the impact of any additional departures of continuing personnel. Our smaller size may also make it more difficult to attract and retain new personnel. Our efforts to attract and retain employees may not be successful, which could have a material adverse effect on our ability to operate our business and achieve our business goals.

Our board of directors has not decided how to use the proceeds from the sale of our inertial navigation business, and stockholders may disagree with the board's decisions.

Our board will have broad discretion regarding the use of the remaining net proceeds, which may include, without limitation, general corporate purposes, stock repurchases, cash dividends, capital expenditures, working capital, and strategic acquisition opportunities that may arise. In most cases, our board of directors will be able to deploy the net proceeds without obtaining stockholder approval and, as a result, may use the net proceeds in ways with which our stockholders may disagree. Divergent stockholder expectations for our remaining business, including expectations regarding the use of proceeds, profitability and cash flow, may lead to significant fluctuations in our stock price.

Risks related to our industry

Competition may limit our ability to sell our products and services.

The mobile connectivity market is very competitive, and we expect this competition to intensify. We may not be able to compete successfully against current and future competitors, which would impair our ability to sell our products and services. Competition has intensified significantly in recent years, both from companies that seek to compete primarily on price as well as new, emerging non-geostationary satellite orbit (NGSO) services, such as Starlink, OneWeb, Kuiper, Telesat, and others. These companies may continue to implement price reductions and discounts for both products and services, which have required us to reduce our prices or offer discounts in order to maintain or increase our market share.

Some of our VSAT competitors have already leveraged partnerships amongst themselves in order to capture larger combined market share. Further, some of the companies that we depend on to supply us with capacity on satellite communications networks may vertically integrate by introducing their own products and services to compete with ours, which might motivate them to stop providing satellite network capacity to us, or to make it available only on less favorable terms.

The Starlink LEO service has had a modest negative impact on our leisure VSAT business as some owners of smaller leisure boats have been able to install and use the lower cost Starlink system intended for recreational vehicles. This reduction in hardware and service sales could continue if Starlink does not geofence boats from recreational vehicles. Starlink is also reportedly in the process of adding inter-satellite link capability to its constellation. This would enable Starlink to serve ships in mid-ocean, where available satellites cannot communicate directly with ground stations. Our commercial maritime airtime business and average revenue per unit could also be impacted upon completion of this service.

In the marine market for satellite TV equipment, we compete primarily with Intellian, Cobham SATCOM and Raymarine (Intellian-made). In the marine market for two-way communications equipment, we compete primarily with Intellian and Cobham SATCOM. In the marine market for high-speed Internet, voice, fax, and data services, we compete primarily with Inmarsat, Marlink, Speedcast, Viasat, and Network Innovations, along with smaller, single-hub regional services. Additionally, we are starting to face competition from new NGSO networks such as SpaceX's Starlink and OneWeb. We also face competition from providers of low-speed data services, which include Inmarsat and Iridium Satellite LLC. In the market for land mobile satellite TV equipment, we compete primarily with King Controls and Winegard Company. In the markets for media content, the KVH Media Group competes primarily with Swank Motion Pictures, Baze Technology, and NewspaperDirect, Inc. Many of our competitors are well-established companies that have substantially greater financial, managerial, technical, marketing, personnel and other resources than we do, which may help them to compete more effectively against us.

The emergence of a competing small maritime VSAT antenna and complementary service or other similar service could reduce the competitive advantage we believe we currently enjoy with our smaller TracNet H series and TracPhone V-HTS series antennas and the Ku-band KVH ONE Hybrid Network, which offers seamless communications and intelligent switching among satellite, cellular, and Wi-Fi services, or with our TracPhone V11-HTS antenna and our C/Ku-band KVH ONE Hybrid Network service.

Our TracNet H-series and TracPhone V-HTS series systems offer customers a range of benefits due to their integrated design, competitively priced hardware, and broadband technology. We currently compete against companies that offer established maritime Ku-band VSAT service using, in most cases, antennas 1-meter in diameter or larger. While we are unaware of any company offering a 37 cm VSAT solution comparable to our TracNet H30, TracPhone V3-HTS or V30, we are encountering regional competition from companies offering 60 cm VSAT systems and services, which are comparable in size to our TracNet-H60 and TracPhone V7-HTS. Likewise, our TracPhone V11-HTS, at 1.1-meters in diameter, is approximately 85% smaller and lighter than competing C-band maritime VSAT systems, which use antennas in excess of 2.4-meters in diameter to provide similar global services. We are unaware of any competitor currently offering a similar size solution for global C-band coverage, but any introduction of such a product could adversely impact our success. In addition, other companies could replicate some of the distinguishing features of our TracNet H-series products, which could potentially reduce the appeal of our solution, increase price competition, and adversely affect sales. We compete against Inmarsat's Fleet Xpress service, a global Ka-band mobile

VSAT service that Inmarsat claims is faster and has a lower price per megabit than existing Ku-band services. This service may continue to adversely impact sales of our KVH One broadband service and related equipment. Our arrangement to use the IntelsatOne Flex service for our HTS network is not exclusive, and competitors' use of this service could also adversely impact sales. Moreover, consumers may choose other services such as FleetBroadband or Iridium OpenPort for their service coverage at potentially lower hardware costs despite higher service costs and slower data rates.

Any failure to maintain and expand our third-party distribution relationships may limit our ability to penetrate markets for mobile connectivity products and services.

We market and sell our products and services through an international network of independent retailers, chain stores and distributors, as well as to manufacturers of marine vessels, recreational vehicles and buses. Most of these relationships are non-exclusive, allowing these third parties to market competing products. If we fail to maintain relationships with our current distributors, fail to develop relationships with new distributors in new and existing markets, or manage, train, or provide appropriate incentives to our existing distributors, or if our distributors are not successful in their sales efforts, sales of our products and services may decline and our operating results could be harmed.

We depend on sole or limited source suppliers, and any disruption in supply could impair our ability to deliver our products on time or at expected cost.

We obtain many key components for our products from third-party suppliers, and in some cases we use a single or a limited number of suppliers. Any interruption in supply could impair our ability to deliver our products until we identify and qualify a new source of supply, which could take several weeks, months or longer and could increase our costs significantly. For example, the global chip shortage and supply chain constraints resulting from the COVID-19 pandemic have impacted our ability to deliver products in a timely manner and have increased our cost of sales due to rising prices for materials. In the fourth quarter of 2022, we estimate that raw material costs exceeded our expectations by approximately \$0.8 million, and in the third quarter of 2022 that orders for approximately \$2.3 million could not be filled due to component shortages. We may not be able to pass along any or all of these cost increases to our customers, and customers may not wait for our products to become available. These disruptions in our supply chain could continue or worsen, which could delay delivery of our products and services and adversely affect our revenue and results of operations in future periods. Suppliers might change or discontinue key components, which could require us to modify our product designs. Regulations requiring government contractors to implement processes to avoid counterfeit parts may require us to find new sources of materials or components if a supplier cannot meet those requirements. In general, we do not have written long-term supply agreements with our suppliers but instead buy components through purchase orders, which expose us to potential price increases and termination of supply without notice or recourse. We generally do not carry significant inventories of product components, which could magnify the impact of the loss of a supplier. If we must use a new source of supply, we could face unexpected manufacturing difficulties and loss of product performance or reliability. In addition, from time to time, lead times for certain components can increase significantly due to imbalances in overall market supply and demand. This, in turn, could limit our ability to satisfy demand for our products on a timely basis and could result in the cancellation of customer orders. Further, adverse economic conditions, including conditions caused by the COVID-19 pandemic, could result in financial difficulties or bankruptcy for any of our suppliers, which could adversely affect our business and results of operations.

We may source more materials and components from international suppliers, which could disrupt our business.

Although we have historically manufactured and sourced raw materials for the majority of our products domestically, in order for us to compete with lower priced competing products while also improving our profitability, in some instances we have found it desirable to source raw materials and manufactured components and subassemblies from Europe, Asia, and South and North America. Reliance on foreign manufacturing and/or raw material supply has lengthened our supply chain and increased the risk that a disruption in that supply chain could have a material adverse effect on our operations and financial performance.

Changes in the competitive environment, customer demand, supply chain issues, and the transition to new products may require inventory write-downs.

From time to time, we have recorded significant inventory charges and/or inventory write-offs as a result of substantial declines in customer demand. For example, in 2019, we recorded a \$2.3 million inventory reserve relating to our TracPhone V-IP products as we decided to no longer promote sales of these products but instead to focus our efforts on migrating customers to our HTS network and products. Market or competitive changes could lead to future charges for excess or obsolete inventory, especially if we are unable to appropriately adjust the supply of material from our vendors.

Risks related to intellectual property and technological innovation

We are devoting significant resources to research and development efforts that may be unsuccessful. If we are unable to improve our existing products and services and develop new, innovative products and services, our sales and market share may decline.

The market for mobile connectivity products and services is characterized by rapid technological change, frequent new product innovations, changes in customer requirements and expectations, and evolving industry standards. For example, we are starting to face competition from new low earth orbit (LEO) networks such as SpaceX's Starlink and OneWeb. If we fail to make innovations in our existing products and services and reduce the costs of our products and services in a timely way, our market share may decline. For example, the introductions of our TracVision TV-series antennas in 2014 occurred later than we had anticipated, which we believe led certain customers to purchase competing products. Products or services using new technologies, or emerging industry standards, could render our products and services obsolete. If our competitors successfully introduce new or enhanced products or services that outperform our products or services, or are perceived as doing so, we may be unable to compete successfully in the markets affected by these changes.

Research and development in our industry is inherently complex and uncertain, and our current and anticipated research and development projects may not achieve the results we seek. The financial resources that we can devote to our research and development efforts may be insufficient to achieve our goals. Our efforts may not result in any viable products or may result in products whose performance, features, price or availability may not be attractive to customers or that we cannot manufacture and sell profitably.

Our business may suffer if we cannot protect our proprietary technology.

Our ability to compete depends significantly upon our patents, copyrights, source code, and other proprietary technology. The steps we have taken to protect our technology may be inadequate to prevent others from using what we regard as our technology to compete with us. Our patents will eventually expire and could be challenged, invalidated or circumvented. Customers or others with access to our proprietary or licensed media content could copy that content without permission or otherwise violate the terms of our customer agreements, which would adversely affect our revenues and could impair our relationships with content providers. In addition, the laws of some foreign countries do not protect our proprietary technology to the same extent as the laws of the United States, which could increase the likelihood of misappropriation. Any misappropriation of our technology or the development of competing technology could seriously harm our competitive position, which could lead to a substantial reduction in net sales. If we resort to legal proceedings to enforce our intellectual property rights, the proceedings could be burdensome, disruptive and expensive, distract the attention of management, and there can be no assurance that we would prevail.

Claims by others that we infringe their intellectual property rights could harm our business and financial condition.

Our industries are characterized by the existence of a large number of patents and frequent claims and related litigation regarding patent and other intellectual property rights. We cannot be certain that our products do not and will not infringe issued patents, patents that may be issued in the future, or other intellectual property rights of others.

Risks related to government regulation

Our international operations complicate our business and require us to comply with multiple regulatory environments.

Historically, sales to customers outside the United States have accounted for a significant portion of our net sales. We derived 62%, 58% and 58% of our revenues from continuing operations in the years ended December 31, 2022, 2021, and 2020, respectively, from sales to these foreign customers. We have foreign offices in Denmark, the United Kingdom, Singapore, Japan, Norway and the Philippines, as well as a subsidiary in Brazil that manages local sales. Nonetheless, substantially all of our operations and approximately one-half of our personnel are located in the United States. Our limited international operations may impair our ability to compete successfully in international markets and to meet the service and support needs of our customers in countries where we have little to no infrastructure. We face a number of risks associated with our international business activities, which may increase our costs and require significant management attention. These risks include restrictions on international travel, which may restrict our ability to grow and service our business; tariffs; sanctions or other trade restrictions that preclude or restrict doing business with particular foreign governments, companies or individuals; technical challenges we may face in adapting our products to function with different satellite services and technology in use in various regions around the world; satisfaction of international regulatory requirements and delays and costs associated with procurement of any necessary licenses or permits; the potential unavailability of content licenses covering international waters and foreign locations; increased costs of providing customer support in multiple languages; increased costs of managing

operations that are international in scope; potentially adverse tax consequences, including restrictions on the repatriation of earnings; protectionist laws and business practices that favor local competitors, which could slow our growth in international markets; potentially longer sales cycles; potentially longer accounts receivable payment cycles and difficulties in collecting accounts receivable; and economic and political instability in some international markets.

We could incur additional legal compliance costs associated with our international operations and could become subject to legal penalties if we do not comply with certain regulations.

As a result of our international operations, we are subject to a number of legal requirements, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the customs, export, trade sanctions and anti-boycott laws of the United States, including those administered by the U.S. Customs and Border Protection, the Bureau of Industry and Security, the Department of Commerce, the Department of State, and the Office of Foreign Assets Control of the Treasury Department, as well as those of other nations in which we do business. In addition, many of the countries where our customers use our products and services have licensing and regulatory requirements for the importation and use of satellite communications and reception equipment, including the use of such equipment in territorial waters, the transmission of satellite signals on certain radio frequencies, the transmission of VoIP services using such equipment, and, in some cases, the reception of certain video programming services. These laws and regulations are continually changing, making compliance complex. We incur significant costs identifying and maintaining compliance with applicable licensing and regulatory requirements. In addition, our training and compliance programs and our other internal control policies may be insufficient to protect us from acts committed by our employees, agents or third-party contractors. Any violation of these requirements by us or our employees, agents or third-party contractors may subject us to significant criminal and civil liability.

We are subject to FCC rules and regulations, and any non-compliance could subject us to FCC enforcement actions, fines, loss of licenses and possibly restrictions on our ability to operate or offer certain of our services

The satellite communications industry is regulated by the Federal Communications Commission in the United States (FCC) and, as a result, we are subject to existing and potential FCC regulations relating to privacy, contributions to the Universal Service Fund, or USF, and other requirements. If we do not comply with FCC rules and regulations, we could be subject to FCC enforcement actions, substantial fines, penalties, loss of licenses and possibly restrictions on our ability to operate or offer certain of our services. Any enforcement action by the FCC, which may be a public process, could hurt our reputation in the industry, possibly impair our ability to sell our services to customers and could harm our business and results of operations.

Privacy concerns and domestic or foreign laws and regulations may reduce demand for our services, increase our costs and harm our business.

Our company and our customers can use our services to collect, use and store personal, confidential and sensitive information regarding the content and manner of usage of our services by them, their employees and maritime crews. Federal, state and foreign governments have adopted and are proposing new and more stringent laws and regulations regarding the collection, use, storage and transfer of information, such as the European Union's General Data Protection Regulation ("GDPR"). The costs of compliance with, and other burdens imposed by, such laws and regulations may limit the use and adoption of our services and reduce overall demand. Non-compliance with these laws and regulations could lead to significant remediation expenses, fines, penalties or other liabilities, such as orders or consent decrees that require modifications to our privacy practices, as well as reputational damage or third-party lawsuits seeking damages or other relief. For example, the GDPR imposes a strict data protection compliance regime with penalties of up to the greater of 2%-4% of worldwide revenue or €11-22 million.

Domestic and international legislative and regulatory initiatives may harm our ability, and the ability of our customers, to process, handle, store, use and transmit information, which could reduce demand for some of our services, increase our costs and force us to change our business practices. These laws and regulations are still evolving, are likely to be in flux and may be subject to uncertain interpretation for the foreseeable future. Our business also could be harmed if legislation or regulations are adopted, interpreted or implemented in a manner that is inconsistent from country to country or inconsistent with our current policies and practices or those of our customers.

We may have exposure to additional tax liabilities, which could negatively impact our income tax expense, net income and cash flow.

We are subject to income and other taxes in the U.S. and the foreign jurisdictions in which we operate. The determination of our worldwide provision for income taxes and current and deferred tax assets and liabilities requires significant judgment and estimation. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Although we believe our tax estimates are reasonable, the ultimate tax outcome may differ materially from our estimates and may materially affect our income tax benefit or expense, net loss or income, and cash flows in the period in which such determination is made. As of December 31, 2022, we had gross uncertain tax positions, inclusive of penalties and interest, of \$1.8 million, consisting of a \$1.2 million reduction to deferred tax assets and a \$0.6 million liability for uncertain tax positions.

Deferred tax assets are recognized for the expected future tax consequences of temporary differences between the carrying amount for financial reporting purposes and the tax bases of assets and liabilities, and for net operating losses and tax credit carry forwards. We have historically recorded valuation allowances to reduce our deferred tax assets to estimated realizable value. We review our deferred tax assets and valuation allowance requirements quarterly. If we are unable to demonstrate that it is more likely than not that we will not be able to generate sufficient future taxable income to realize the net carrying value of deferred tax assets, we will record a valuation allowance to reduce the deferred tax assets to estimated realizable value, which could result in a material income tax charge. As part of our review, we consider positive and negative evidence, including cumulative results of recent years.

Risks related to owning our common stock

The market price of our common stock may be volatile.

Our stock price has historically been volatile. During the period from January 1, 2018 to December 31, 2022, the trading price of our common stock ranged from \$6.36 to \$15.29. Many factors may cause the market price of our common stock to fluctuate, including variations in our quarterly results of operations; the introduction of new products and services by us or our competitors; changes in estimates of our performance or recommendations by securities analysts; the hiring or departure of key personnel; acquisitions or strategic alliances involving us or our competitors; market conditions in our industries; and the global macroeconomic and geopolitical environment. Broad market fluctuations may adversely affect the market price of our common stock. When the market price of a company's stock drops significantly, stockholders often institute securities litigation against that company. Any such litigation could cause us to incur significant expenses defending against the claim, divert the time and attention of our management and result in significant damages.

ITEM 1B. Unresolved Staff Comments

None.

ITEM 2. Properties

The following table provides information about our principal facilities as of December 31, 2022.

Location	Type	Principal Uses	Approximate Square Footage	Ownership	Lease Expiration
Middletown, Rhode Island	Office	Corporate headquarters, research and development, sales and service, marketing and administration	75,000	Owned	—
Middletown, Rhode Island	Plant and warehouse	Manufacturing and warehousing	75,300	Owned	—
Kokkedal, Denmark	Office and warehouse	European headquarters, sales, marketing and support	11,000	Leased	1/31/2023

ITEM 3. Legal Proceedings

From time to time, we are involved in litigation incidental to the conduct of our business. In the ordinary course of business, we are a party to inquiries, legal proceedings and claims including, from time to time, disagreements with vendors and customers.

ITEM 4. Mine Safety Disclosures

Not applicable.

PART II

ITEM 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information. Our common stock trades on the Nasdaq Global Select Market under the symbol “KVHI.”

Stockholders. As of March 1, 2023, we had 59 holders of record of our common stock. This number does not include stockholders for whom shares were held by a nominee or in “street” name.

Dividends. We have never declared or paid cash dividends on our capital stock, and we have no plan to pay any cash dividends in the foreseeable future. We currently intend to retain any future earnings to finance our operations and future growth.

ITEM 6. Reserved

ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with the other financial information and consolidated financial statements and related notes appearing elsewhere in this annual report. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a variety of factors, including those discussed under the heading “Item 1A. Risk Factors” and elsewhere in this annual report.

Overview

We design, develop, manufacture and market mobile connectivity products and services for the marine and land mobile markets. We manufacture and sell our solutions in a number of major geographic areas, including internationally. We generate a majority of our revenues from various international locations, primarily consisting of Singapore, Canada, European Union countries and other European countries, countries in Africa, Asia/Pacific and the Middle East, and India.

We offer satellite communications products and services. Our satellite-only and hybrid products enable marine customers to receive data, Voice over Internet Protocol (VoIP), and value-added services via satellite, cellular, and shore-based Wi-Fi networks onboard commercial, leisure, and military/government vessels. In addition, the Company’s in-motion television terminals permit customers to receive live digital television via regional satellite services in marine vessels, recreational vehicles, buses and automobiles. We sell our products through an extensive international network of dealers and distributors. We also sell and lease products to service providers and end users.

Our service sales primarily represent revenue earned from satellite Internet airtime services. We provide, for monthly fixed fees and per-usage fees, satellite connectivity encompassing broadband Internet, data and VoIP services, to our TracNet H-series and TracPhone V-series customers via our global HTS network. Revenue from our cellular airtime service has increasingly supplemented, and we expect will continue to supplement, our satellite-only airtime revenue following the mid-2022 launch of the KVH ONE hybrid network and TracNet H-series terminals. This product and service combination integrates global satellite service with KVH-provided cellular service in more than 150 countries, along with shore-based Wi-Fi access. These sales also include the distribution of entertainment, including news, sports, music, and movies, to commercial customers in the maritime, hotel, and retail markets through KVH Media Group, along with supplemental value-added services. In addition, we earn monthly usage fees for third-party satellite connectivity for VoIP, data and Internet services to our Inmarsat and Iridium customers who choose to activate their subscriptions with us. Service sales also include sales from product repairs and extended warranty sales.

Our marine leisure business is highly seasonal, and seasonality can also impact our commercial marine business. Historically, we have generated the majority of our marine leisure product revenues during the first and second quarters of each year, and these revenues typically decline in the third and fourth quarters of each year, compared to the first two quarters. Temporary suspensions of our airtime services typically increase in the third and fourth quarters of each year as boats are placed out of service during the winter months.

Dispositions; Termination of Credit Facility

On August 9, 2022, we sold our inertial navigation business to EMCORE Corporation for gross proceeds of \$55.0 million, less specified deductions and a holdback of \$1.0 million and subject to a working capital adjustment. The finalized working capital adjustment, which resulted in a \$0.1 million payment to EMCORE, was recorded in the fourth quarter of 2022. The holdback was released to us on August 17, 2022. On August 9, 2022, we also entered into a Transition Services Agreement with EMCORE, pursuant to which we agreed to provide certain transition services to support the continued operation of the inertial navigation business for a specified period of time following the sale. We do not have any continuing involvement in these operations other than short-term transition services, which are being recorded as an offset to general and administrative expenses in continuing operations. We determined that the sale met the requirements for reporting as discontinued operations in accordance with ASC 205-20.

On August 9, 2022, we also terminated our senior secured credit facility agreement (the 2018 Credit Agreement) and the related security and pledge agreements with Bank of America, N.A., as Administrative Agent. At the time of termination, no borrowings were outstanding under the 2018 Credit Agreement. With the termination of this agreement, all associated liens were released.

On April 29, 2022, KVH Media Group Limited, our wholly owned subsidiary, sold its subsidiary KVH Media Group Entertainment Limited for net cash proceeds of approximately \$2.4 million. This transaction did not meet the criteria for reporting as discontinued operations under ASC 205-20. We recorded a gain on the sale of approximately \$0.7 million, which is recorded in other income, net in the accompanying consolidated statements of operations. See Note 9 to our accompanying audited consolidated financial statements for the reduction of goodwill and intangibles associated with the KVH Media Group reporting unit as it relates to the sale of this subsidiary.

Management Transition and Restructuring

On March 7, 2022, we announced that our President and Chief Executive Officer, Martin Kits van Heyningen, was retiring from his executive and Board roles after more than 40 years of service and assuming a consulting position with us. Brent C. Bruun, our then Chief Operating Officer, was appointed as our interim President and Chief Executive Officer. Subsequently, on June 15, 2022, he was appointed as our President and Chief Executive Officer and as a Class II member of the Board of Directors. We have incurred approximately \$0.7 million of costs associated with the management transition through December 31, 2022, including a separation payment, consulting fees and health insurance coverage for Mr. Kits van Heyningen, as well as professional and advisory fees, and expect to continue to incur ongoing compensation expenses until March 2023. Approximately \$0.1 million is accrued as of December 31, 2022.

In March 2022, we also restructured our operations to reduce costs and pursue a more focused strategy. We reduced our workforce by approximately 10% and began incurring reduced expenses from these actions beginning in the second quarter of 2022. Approximately \$2.2 million of severance payments, other employee benefits, and legal and advisory fees were incurred in connection with this restructuring for the year ended December 31, 2022. We also modified impacted employee's stock option and restricted stock awards. Please see Note 7 to our accompanying audited consolidated financial statements for further discussion.

During the third quarter of 2022, we restructured our foreign operations by closing our India and Cyprus offices and our Denmark warehouse to reduce costs. Approximately \$0.4 million of severance payments, other employee benefits, and legal and advisory fees were incurred in connection with this restructuring for the year ended December 31, 2022.

Executive Employment Agreements

In May 2022, we entered into executive employment agreements with each of Brent C. Bruun, Roger A. Kuebel, Felise Feingold and Robert Balog in order to retain their services and provide them with certain benefits in the event that we terminated the executive's employment without cause (as defined in the agreement) or the executive terminated his or her employment for good reason (as defined in the agreement), including following a change of control. The terms of the agreements are substantially identical except as to title, salary, target bonus and reporting responsibilities. The agreements provide that, if the executive continued to serve as an employee through December 31, 2022 (the "Retention Date"), we would pay the executive a retention bonus equal to 75% of the executive's base salary at the agreement date, and we would accelerate the vesting of the executive's equity awards that would otherwise have vested in the twelve months after the Retention Date. Brent C. Bruun, Roger A. Kuebel, Felise Feingold and Robert Balog continued to serve as an employee as of December 31, 2022. Please see Note 7 to our accompanying audited consolidated financial statements for further discussion regarding the equity compensation modifications.

On October 11, 2022, we entered into an amendment to the employment agreement with Mr. Bruun that, among other things, increased his annual base salary to \$448,360 per year, retroactive to July 1, 2022, increased his target annual incentive compensation for the second half of 2022 to 80% of his base salary (without changing his target annual incentive compensation for the first half of 2022), extended his Retention Date from December 31, 2022 to December 31, 2023, which effectively extended the period during which Mr. Bruun must remain employed by us in order to earn his retention bonus, and modified the amount of the retention bonus from 75% of his base salary in effect on May 2, 2022 to 75% of the highest base salary in effect for Mr. Bruun on or before the date he becomes entitled to receive the retention bonus or the "Partial Retention Bonus" (as defined in the employment agreement). The amendment did not modify the terms of the employment agreement relating to acceleration of vesting of certain equity awards if Mr. Bruun remains employed by us through December 31, 2022.

As of December 31, 2022, we accrued approximately \$0.9 million for the executive employment agreements.

In addition to the amendment to Mr. Bruun's employment agreement, the Compensation Committee also granted Mr. Bruun a restricted stock award and non-statutory stock options, which together had an aggregate grant date fair value of approximately \$100,000. The restricted stock award and the non-statutory stock options have terms that are materially consistent with the previously disclosed terms of similar grants to our executive officers.

Supply Chain

During the year ended December 31, 2022, we continued to experience delays in the availability and delivery of certain raw material components, which has impacted our manufacturing and resulted in shipping delays in getting products out to our customers. We also experienced increased raw material costs, which we expect to continue into 2023. We are continuing to monitor global developments and are prepared to implement any actions that we determine to be necessary to sustain our business.

PPP Loan Forgiveness

In September 2021, the U.S. Small Business Administration approved our application for the forgiveness of the \$6.9 million loan (the PPP Loan), including related interest, that we received in May 2020 pursuant to the Paycheck Protection Program (PPP) under the Coronavirus Aid, Relief, and Economic Security Act (as modified by the Paycheck Protection Flexibility Act of 2020, the CARES Act). As a result, we recognized \$7.0 million of other income during the three months ended September 30, 2021.

International Sales

We operate in a number of major geographic areas across the globe. We generate our international net sales, based upon customer location, primarily from customers located in Singapore, Canada, European Union countries and other European countries, as well as countries in Africa, Asia/Pacific and the Middle East, and India. Revenues are based upon customer location and internationally represented 62% and 58% of our consolidated net sales for 2022 and 2021, respectively. Sales to Singapore customers represented 16% of our consolidated net sales for 2022. No other individual foreign country represented 10% or more of our consolidated net sales for 2022. Sales to Singapore customers represented 13% of our consolidated net sales for 2021. No other individual foreign country represented 10% or more of our consolidated net sales for 2021. See Note 12 to our accompanying audited consolidated financial statements for more information on our segments.

Results of Operations

The following table provides, for the periods indicated, certain financial data relating to our continuing operations expressed as a percentage of net sales:

	Year Ended December 31,	
	2022	2021
Sales:		
Product	19.4 %	22.4 %
Service	80.6	77.6
Net sales	100.0	100.0
Costs and expenses:		
Costs of product sales	18.1	17.9
Costs of service sales	44.0	47.9
Research and development	7.5	8.3
Sales, marketing and support	16.7	19.1
General and administrative	17.8	21.5
Total costs and expenses	104.1	114.7
Loss from operations	(4.1)	(14.7)
Interest income	1.1	0.7
Interest expense	—	—
Other income, net	0.6	5.3
Loss from continuing operations before income taxes (benefit) expense	(2.4)	(8.7)
Income tax expense (benefit) from continuing operations	0.4	(0.1)
Net loss from continuing operations	<u>(2.8)%</u>	<u>(8.6)%</u>

Years ended December 31, 2022 and 2021

Our net sales for 2022 and 2021 were as follows:

	Year Ended December 31,		Change	
	2022		2022 vs. 2021	
	2022	2021	\$	%
(in thousands)				
Product sales	\$ 26,970	\$ 30,012	\$ (3,042)	(10)%
Service sales	111,908	103,899	8,009	8 %
Net sales	<u>138,878</u>	<u>133,911</u>	<u>4,967</u>	<u>4 %</u>

Net sales increased by \$5.0 million, or 4%, in 2022 as compared to 2021. Product sales decreased by \$3.0 million, or 10%, to \$27.0 million in 2022 from \$30.0 million in 2021. The decrease in product sales was primarily the result of a \$3.1 million decrease in VSAT product sales. The decrease in VSAT product sales was primarily due to a decrease in unit sales volume.

Service sales increased by \$8.0 million, or 8%, to \$111.9 million in 2022 from \$103.9 million in 2021. The increase was primarily due to a \$10.4 million increase in VSAT service sales, partially offset by a decrease in our content services sales of \$2.6 million, primarily driven by the sale of KVH Media Group Entertainment Limited in April 2022.

The shutdown of our legacy Arflight network on December 31, 2021 impacted sales of VSAT products in 2021 and VSAT services in 2022. During 2021, VSAT product sales benefited from the demand for units needed to migrate to our HTS network before the shutdown of our legacy network. During 2022, VSAT service sales have been impacted by the loss of revenue from customers who did not migrate on or before December 31, 2021. As of December 31, 2021, the monthly recurring revenue associated with those customers was approximately \$0.3 million. A number of these customers have since returned, and when combined with new customers, VSAT service revenue in 2022 was up 11% from 2021.

Costs of Sales

Costs of sales consists of costs of product sales and costs of service sales. Costs of sales decreased by \$1.8 million, or 2%, in 2022 to \$86.3 million from \$88.1 million in 2021. The decrease in costs of sales was driven by a \$3.0 million decrease in costs of service sales, which was partially offset by a \$1.2 million increase in costs of product sales. As a percentage of net sales, costs of sales were 62% and 66% for 2022 and 2021, respectively.

Our costs of product sales consist primarily of materials, manufacturing overhead, and direct labor used to produce our products. For 2022, costs of product sales increased by \$1.2 million, or 5%, to \$25.2 million from \$24.0 million in 2021, primarily due to a \$1.6 million increase in our marine cost of product sales and a \$0.4 million decrease in our land costs of product sales. As a percentage of product sales, costs of product sales were 93% and 80% for 2022 and 2021, respectively. The increase was primarily driven by product mix within our marine costs of product sales, as well as increased component costs and manufacturing inefficiencies due to supply chain shortages, as well as increased general inflation.

Our costs of service sales consist primarily of satellite service capacity, depreciation, service network overhead expense associated with our global HTS network infrastructure, direct network service labor, Inmarsat service costs, product installation costs, engineering and related direct costs associated with customer-funded research and development, media materials and distribution costs, and service repair materials. For 2022, costs of service sales decreased by \$3.0 million, or 5%, to \$61.1 million from \$64.1 million in 2021. Costs of service sales decreased primarily due to a \$1.5 million decrease in VSAT airtime costs of service sales. This decrease was primarily driven by the shutdown of our legacy Arclight network, partially offset by an increase in costs associated with our HTS network due to increased capacity required for additional customers. In addition, there was a \$1.4 million decrease in content and training cost of service sales, primarily driven by the sale of a subsidiary in April 2022. As a percentage of service sales, costs of service sales were 55% and 62% for 2022 and 2021, respectively.

Operating Expenses

Research and development expense consists of direct labor, materials, external consultants, and related overhead costs that support our internally funded product development and product sustaining engineering activities. Research and development expense for 2022 decreased by \$0.7 million, or 6%, to \$10.4 million from \$11.1 million in 2021. The primary reason for the decrease in research and development expense was a \$0.4 million decrease in salaries and associated compensation due to the March restructuring and a \$0.4 million decrease in professional fees. As a percentage of net sales, research and development expense was 8% for each of 2022 and 2021.

Sales, marketing, and support expense consists primarily of salaries and related expenses for sales and marketing personnel, commissions for both in-house and third-party representatives, costs related to the co-development of certain content, other sales and marketing support costs such as advertising, literature and promotional materials, product service personnel and support costs, warranty-related costs and bad debt expense. Sales, marketing and support expense also includes the operating expenses of our sales office subsidiaries in Denmark, Singapore, Brazil, and Japan. Sales, marketing, and support expense decreased by \$2.3 million, or 9%, to \$23.2 million in 2022 from \$25.6 million in 2021. The decrease in sales, marketing and support expense resulted primarily from a \$1.5 million decrease in salaries and associated compensation due to the March restructuring, a \$0.5 million decrease in marketing expenses, a \$0.3 million decrease in bad debt expenses, a \$0.3 million decrease in external commissions expense and a \$0.2 million decrease in professional fees, partially offset by a \$0.6 million increase in warranty expenses and a \$0.3 million increase in travel expenses. As a percentage of net sales, sales, marketing and support expense was 17% and 19% in 2022 and 2021, respectively.

General and administrative expense consists of costs attributable to management, finance and accounting, information technology, human resources, certain outside professional services, and other administrative and public company costs. General and administrative expense for 2022 decreased by \$4.1 million, or 14%, to \$24.7 million from \$28.8 million for 2021. The decrease in general and administrative expense resulted primarily from a \$3.4 million decrease in professional fees, primarily arising from a stockholder's nomination of a competing slate of directors at our annual meeting of stockholders in 2021 and \$0.9 million of contra-expense associated with the Transition Services Agreement with EMCORE as a result of the sale of the inertial navigation business in 2022. As a percentage of net sales, general and administrative expense was 18% and 22% for 2022 and 2021, respectively.

Interest and Other Income, Net

Interest income represents interest earned on our cash and cash equivalents, as well as from investments and our sale-type lease receivables. Interest income increased by \$0.6 million to \$1.5 million from \$0.9 million for 2021, primarily due to an increase in our marketable securities. Interest expense remained flat period-over-period at less than \$0.1 million for 2022 and 2021. Other income, net for 2022 decreased to \$0.8 million from other income, net of \$7.1 million for 2021 primarily due to the forgiveness of the PPP Loan in 2021.

Income Tax (Benefit) Expense

Income tax expense for 2022 was \$0.5 million and related to current U.S. taxes as a result of net operating use limitations and the release of a portion of the valuation allowance, taxes on income earned in foreign jurisdictions and discrete adjustments. Income tax benefit for 2021 was \$0.1 million and related to losses generated in foreign jurisdictions. There was no associated tax benefit related to losses incurred in the U.S. due to a full valuation allowance on our related deferred tax assets.

The effective tax rate for 2022 was (16.2)% on continued operations. The primary driver of the difference between our effective tax rate as compared to the United States federal statutory rate was the change in the valuation reserve against the U.S. deferred tax assets, international rate differences, research tax credits, state taxes and discrete tax adjustments. The effective income tax rate of 0.9% for 2021 differs from the U.S. federal statutory rate due to the change in the valuation reserve against the U.S. deferred tax assets, research tax credits, state taxes and the non-taxability of the forgiveness of the PPP Loan.

Discontinued Operations

On August 9, 2022, we sold our inertial navigation business for gross proceeds of \$55.0 million, less specified deductions and a holdback of \$1.0 million and subject to a working capital adjustment. The finalized working capital adjustment, which resulted in a \$0.1 million payment to EMCORE, was recorded in the fourth quarter of 2022. The holdback was released to us on August 17, 2022. We determined that the sale met the requirements for reporting as discontinued operations in accordance with ASC 205-20. Accordingly, we have classified the results of the inertial navigation business as discontinued operations for all periods presented. Please see Notes 1 and 16 to our accompanying audited consolidated financial statements for further information. Results for discontinued operations are as follows:

	Year Ended December 31,	
	2022	2021
	<i>(dollar in thousands)</i>	
Sales from discontinued operations	\$ 16,721	\$ 37,856
Gain on sale of discontinued operations before tax expense	\$ 30,763	\$ —
Income from discontinued operations, net of tax	\$ 28,025	\$ 1,783

Critical Accounting Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosure at the date of our financial statements. Our significant accounting policies are summarized in Note 1 to our accompanying audited consolidated financial statements. Critical accounting estimates are those estimates made that involve a significant level of estimation uncertainty and have had or are reasonably likely to have an impact on our statement of operations. We believe that our accounting policies for goodwill, intangible assets, and other long-lived assets contain the only estimates critical to an understanding and evaluation of our financial results for 2022, as discussed below.

Goodwill, Intangible Assets, and other Long-Lived Assets

We follow Accounting Standards Codification (ASC) Update No. 2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test of Goodwill Impairment*. ASC 350 requires the completion of a goodwill impairment test at least annually based on either an optional qualitative assessment or a quantitative analysis comparing the estimated fair value of a reporting unit to its carrying value as of the test date. Any impairment charges would be based on the quantitative analysis. For the October 1, 2022 test, we performed a qualitative assessment of goodwill impairment (Step 0) and concluded that for our mobile broadband reporting unit, it was more likely than not that, for this reporting unit, the fair value exceeded the carrying value. For the KVH Media Group reporting unit, we determined that it was necessary to perform the Step 1 quantitative analysis due to the operating trends identified within the reporting unit. We utilized an income approach to estimate the fair value of the reporting unit. We believe that the assumptions used to estimate the fair value of our KVH Media Group reporting unit were reasonable. We estimated that, as of October 1, 2022, the fair value of KVH Media Group exceeded its carrying value by more than 140%. A negative trend of operating results or material changes to forecasted operating results could result in the requirement for additional interim goodwill impairment tests and the potential of future goodwill impairment charges, which could be material.

Intangible assets with estimated lives and other long-lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of intangible assets with estimated lives and other long-lived assets is measured by a comparison of the carrying amount of an asset or asset group to future net undiscounted cash flows expected to be generated by the asset or asset group. If these comparisons indicate that an asset is not recoverable, we will recognize an impairment loss for the amount by which the carrying value of the asset or asset group exceeds the related estimated fair value. Estimated fair value is based on either discounted future operating cash flows or appraised values, depending on the nature of the asset. During 2022, there were no events or changes in circumstances that indicated any of the carrying amounts of our intangible assets or other long-lived assets may not be recoverable. See Note 9 to our accompanying audited consolidated financial statements for further discussion of goodwill and intangible assets.

Liquidity and Capital Resources

Our primary liquidity needs have been to fund general business requirements, including working capital requirements and capital expenditures. In recent years, we have funded our operations primarily from the sale of two businesses in 2022, the sale of a business in 2019, a PPP loan, cash flows from operations, bank financings and proceeds received from exercises of stock options and the issuance of stock.

In May 2020, we received a \$6.9 million loan from Bank of America, N.A. (the Lender), under the PPP, which was established under the CARES Act. Pursuant to the terms of the CARES Act, in August 2021 we applied for forgiveness of the full amount of the PPP Loan and related interest. On September 24, 2021, we received notification from the bank that, on September 19, 2021, the U.S. Small Business Administration (the SBA) had determined that the PPP Loan forgiveness application was approved, and the PPP Loan, including all accrued interest thereon, was paid in full by the SBA. The forgiveness of the PPP Loan is recognized in other income, net in the accompanying consolidated statements of operations for the year ended December 31, 2021.

On August 9, 2022, we sold our inertial navigation business to EMCORE Corporation for gross proceeds of \$55.0 million, less specified deductions and a holdback of \$1.0 million and subject to a working capital adjustment. The finalized working capital adjustment, which resulted in a \$0.1 million payment to EMCORE, was recorded in the fourth quarter of 2022. The holdback was released to us on August 17, 2022.

Based upon our current working capital position, current operating plans and expected business conditions, we expect to have sufficient funds, through at least twelve months from the date that this report is filed with the SEC, to fund our short-term and long-term working capital requirements, including capital expenditures and contractual obligations.

We believe that our primary long-term capital requirements relate to AgilePlans revenue-generating assets, as well as servicing and repaying our satellite service capacity and equipment lease obligations. At December 31, 2022, we had outstanding non-cancellable satellite service capacity and other lease obligations with future minimum payments of \$48.4 million.

As of December 31, 2022, we had \$76.7 million in cash, cash equivalents, and marketable securities, of which \$1.9 million in cash equivalents was held in local currencies by our foreign subsidiaries. Our foreign subsidiaries held no marketable securities as of December 31, 2022. As of December 31, 2022, we had \$92.3 million in working capital.

Operating Activities

Operating activities provided \$8.9 million of net cash in 2022 and provided \$2.9 million of net cash in 2021, an increase in net cash provided by operating activities of \$6.0 million. The \$6.0 million increase is primarily due to a \$33.9 million increase in net income, an increase in cash inflows of \$6.1 million related to accounts payable and accrued expenses, an increase in cash inflows of \$1.2 million related to other non-current assets and non-current contract assets, an increase in cash inflows of \$1.0 million related to accounts receivable, and a decrease in cash outflows of \$0.1 million related to contract liabilities and long-term contract liabilities. Partially offsetting these items was a \$26.5 million change in other non-cash items, driven by the \$30.8 million gain on sale of the inertial navigation business, the \$7.0 million PPP loan forgiveness in 2021, and the \$0.7 million gain on sale of KVH Media Group Entertainment Limited. In addition, there was an increase in cash outflows of \$8.5 million related to inventories and an increase in cash outflows of \$1.2 million related to prepaid expenses, other current assets and current contract assets.

Investing Activities

Net cash provided by investing activities for 2022 was \$0.4 million as compared to net cash used in investing activities of \$6.7 million for 2021. The \$7.1 million change in net cash provided by investing activities was primarily the result of a \$55.0 million increase in cash inflows from the proceeds of the sale of the inertial navigation business, a \$2.4 million increase in cash inflows from the proceeds of the sale of the KVH Media Group Entertainment Limited subsidiary, and a \$4.4 million decrease in cash outflows relating to capital expenditures. Partially offsetting these items was a \$54.6 million increase in net cash outflows relating to the purchase and sale of marketable securities.

Financing Activities

Net cash provided by financing activities for 2022 was \$0.7 million as compared to net cash provided by financing activities in 2021 of \$2.6 million. The \$1.9 million decrease in net cash provided by financing activities is primarily attributable to the \$2.0 million decrease in cash inflows relating to proceeds from stock options exercises and the employee stock purchase plan.

Borrowing Arrangements

Paycheck Protection Program Loan

In May 2020, we received a \$6.9 million loan from the Lender under the PPP, which was established under the CARES Act and is administered by the SBA. The term of the PPP Loan was two years from the funding date, and the interest rate was 1.00%. Interest on the loan accrued from the funding date, but was deferred. In August 2021, we applied for forgiveness of the full amount of the PPP Loan and related interest. On September 24, 2021, we received notification from the Lender that, on September 19, 2021, the SBA had determined that the PPP Loan forgiveness application was approved, and the PPP Loan, including all accrued interest thereon, was paid in full by the SBA. The forgiveness of the PPP Loan is recognized in other income, net in the accompanying consolidated statements of operations for the year ended December 31, 2021.

Line of Credit

On August 9, 2022, we terminated the 2018 Credit Agreement and the related security and pledge agreements with Bank of America, N.A., as Administrative Agent. At the time of termination, no borrowings were outstanding under the 2018 Credit Agreement. With the termination of this agreement, all associated liens were released.

Other Matters

We intend to continue to invest in our global HTS network on a worldwide basis. As part of the future potential capacity expansion, we plan to acquire additional satellite capacity from satellite operators, expend funds to seek regulatory approvals and permits, develop product enhancements in anticipation of the expansion, and hire additional personnel. From time to time we have entered into multi-year agreements to lease satellite capacity, and we have also purchased numerous satellite hubs to support the added capacity. These transactions can involve millions of dollars.

Off-Balance Sheet Arrangements

As of December 31, 2022, except for certain satellite service capacity obligations that are not considered operating or financing leases under ASC 842, we did not have any off-balance sheet arrangements that have or are reasonably likely to have

a current or future material effect on our financial condition, changes in financial condition, revenues, expenses, results of operations, liquidity, capital expenditures or capital resources. Please see Note 6 to our accompanying audited consolidated financial statements for additional information on our satellite service capacity obligations.

Recently Issued Accounting Pronouncements

See Note 1 of our accompanying audited consolidated financial statements for a description of recently issued accounting pronouncements including the dates of adoption and effects on our results of operations, financial position and disclosures.

ITEM 7A. Quantitative and Qualitative Disclosure About Market Risk

Not applicable.

ITEM 8. Financial Statements and Supplementary Data

Our consolidated financial statements, together with the report of Grant Thornton LLP thereon, our independent registered public accounting firm, are presented after the signature page to this annual report. The report of Grant Thornton LLP on our internal control over financial reporting is included in Item 9A of this annual report.

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

ITEM 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management has evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2022, the end of the period covered by this annual report. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2022.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is the process designed by and under the supervision of our Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external reporting in accordance with accounting principles generally accepted in the United States of America. Management has evaluated the effectiveness of our internal control over financial reporting using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework (2013).

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2022 and concluded that it was effective.

Our independent registered public accounting firm, Grant Thornton LLP, has issued a report regarding the effectiveness of our internal control over financial reporting as of December 31, 2022, and that report is included in Item 9A in this annual report.

Evaluation of Changes in Internal Control over Financial Reporting

Under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, our management has evaluated changes in our internal control over financial reporting that occurred during the fourth quarter of 2022. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer did not identify any change in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Important Considerations

The effectiveness of our disclosure controls and procedures and our internal control over financial reporting is subject to various inherent limitations, including cost limitations, judgments used in decision making, assumptions about the likelihood of future events, the soundness of our systems, the possibility of human error, and the risk of fraud. Moreover, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions and the risk that the degree of compliance with policies or procedures may deteriorate over time. Because of these limitations, there can be no assurance that any system of disclosure controls and procedures or internal control over financial reporting will be successful in preventing all errors or fraud or in making all material information known in a timely manner to the appropriate levels of management.

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
KVH Industries, Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of KVH Industries, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2022, and our report dated March 16, 2023 expressed an unqualified opinion on those financial statements.

Basis for opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ GRANT THORNTON LLP

Boston, Massachusetts

March 16, 2023

ITEM 9B. Other Information

None.

ITEM 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

We have omitted the information required in Part III of this annual report because we intend to include that information in our definitive proxy statement for our 2023 annual meeting of stockholders, which we expect to file before 120 days after the end of fiscal 2022. We incorporate the information required in Part III of this annual report by reference to our 2023 proxy statement.

ITEM 10. Directors, Executive Officers and Corporate Governance

Except as set forth below, the information required by this item is incorporated by reference to our 2023 proxy statement.

Our Board of Directors has adopted a Code of Business Conduct and Ethics that applies to our directors, executive officers and employees. Our Code of Business Conduct and Ethics can be found on our website, which is located at www.kvh.com. We intend to make all required disclosures concerning any amendments to or waivers from, our Code of Business Conduct and Ethics on our website. Any person may request a copy of the Code of Business Conduct and Ethics, at no cost, by writing to us at the following address: KVH Industries, Inc., 50 Enterprise Center, Middletown, Rhode Island, 02842, Attention: Investor Relations.

ITEM 11. Executive Compensation

The information required by this item is incorporated by reference to our 2023 proxy statement.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is incorporated by reference to our 2023 proxy statement.

ITEM 13. Certain Relationships and Related Transactions and Director Independence

The information required by this item is incorporated by reference to our 2023 proxy statement.

ITEM 14. Principal Accountant Fees and Services

The information required by this item is incorporated by reference to our 2023 proxy statement.

PART IV

ITEM 15. Exhibits and Financial Statement Schedules

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None.	
3. Exhibits	

Exhibit No.	Description	Filed with this Form 10-K	Incorporated by Reference		
			Form	Filing Date	Exhibit No.
<u>2.1</u>	Asset Purchase Agreement dated as of August 9, 2022 by and between KVH Industries, Inc., EMCORE Corporation and Delta Acquisition Sub, Inc.		8-K	August 10, 2022	2.1
<u>3.1</u>	Amended and Restated Certificate of Incorporation, as amended		10-Q	August 6, 2010	3.1
<u>3.2</u>	Certificate of Designations of Series A Junior Participating Cumulative Preferred Stock of KVH Industries, Inc. classifying and designating the Series A Junior Participating Cumulative Preferred Stock		8-A	August 19, 2022	3.1
<u>3.3</u>	Amended and Restated Bylaws		10-Q	November 1, 2017	3.2
<u>4.1</u>	Specimen certificate for the common stock		10-K	March 2, 2018	4.1
<u>4.2</u>	Stockholder Rights Agreement, dated as of August 18, 2022, between KVH Industries, Inc. and Computershare Trusts Company, N.A., as Rights Agent		8-K	August 19, 2022	4.1
<u>4.3</u>	Amendment No. 1 to Stockholder Rights Agreement, dated as of February 3, 2023, by and between KVH Industries, Inc. and Computershare Trust Company, N.A.		8-K	February 3, 2023	4.1
<u>4.4</u>	Description of Capital Stock	X			
<u>*10.1</u>	Amended and Restated 1996 Employee Stock Purchase Plan		DEF 14A	April 25, 2016	App. B
<u>*10.2</u>	KVH Industries, Inc. Amended and Restated 2016 Equity and Incentive Plan, as amended		DEF 14A	May 2, 2022	App. A
<u>*10.3</u>	Form of Incentive Stock Option Agreement granted under the 2016 Equity and Incentive Plan		10-K	March 9, 2017	10.5
<u>*10.4</u>	Form of Non-Statutory Stock Option Agreement granted under the 2016 Equity and Incentive Plan		10-K	March 9, 2017	10.6
<u>*10.5</u>	Form of Restricted Stock Agreement granted under the 2016 Equity and Incentive Plan		10-K	March 9, 2017	10.7
<u>*10.6</u>	Policy Regarding Automatic Grants to Non-Employee Directors		10-Q	May 6, 2009	10.23

Exhibit No.	Description	Filed with this Form 10-K	Incorporated by Reference		
			Form	Filing Date	Exhibit No.
<u>10.7</u>	Amended and Restated Credit Agreement dated as of October 30, 2018 among KVH Industries, Inc., Bank of America, N.A., as Administrative Agent, Swingline Lender and L/C Issuer, and the Lenders party hereto		10-Q	October 31, 2018	10.1
<u>10.8</u>	Amended and Restated Security Agreement dated as of October 30, 2018 between KVH Industries, Inc. and Bank of America, N.A., as Administrative Agent		10-Q	October 31, 2018	10.2
<u>10.9</u>	Amended and Restated Pledge Agreement dated as of October 30, 2018 between KVH Industries, Inc. and Bank of America, N.A., as Administrative Agent with respect to KVH Industries A/S		10-Q	October 31, 2018	10.3
<u>10.10</u>	Amended and Restated Pledge Agreement dated as of October 30, 2018 between KVH Industries, Inc. and Bank of America, N.A., as Administrative Agent with respect to KVH Industries U.K. Limited		10-Q	October 31, 2018	10.4
<u>10.11</u>	Consent dated as of May 13, 2019 among KVH Industries, Inc., as Borrower, Bank of America, N.A., as Lender and Administrative Agent, and The Washington Trust Company, as Lender, under the Amended and Restated Credit Agreement dated as of October 30, 2018 among such parties		8-K	May 16, 2019	10.4
<u>10.12</u>	First Amendment to Amended and Restated Credit Agreement as of July 30, 2020 by and among KVH Industries, Inc., Bank of America, N.A., and The Washington Trust Company		10-Q	July 31, 2020	10.3
<u>10.13</u>	Second Amendment to Amended and Restated Credit Agreement dated as of October 29, 2021 by and among KVH Industries, Inc., and Bank of America, N.A.		10-Q	November 4, 2021	10.1
<u>10.14</u>	Cooperation Agreement, dated as of April 8, 2020, by and among KVH Industries, Inc., Vintage Capital Management, LLC, and Kahn Capital Management, LLC		8-K	April 9, 2020	10.1
<u>10.15</u>	Promissory Note dated as of May 1, 2020 and executed on May 3, 2020 by KVH Industries, Inc., in favor of Bank of America, N.A.		8-K	May 6, 2020	10.1
* <u>10.16</u>	Separation and Consulting Agreement dated as of March 6, 2022 between KVH Industries, Inc. and Martin Kits van Heyningen		10-Q	May 10, 2022	10.1
* <u>10.17</u>	Executive Employment Agreement dated as of May 2, 2022 between KVH Industries, Inc. and Brent C. Bruun		10-Q	August 9, 2022	10.1
* <u>10.18</u>	Amendment No. 1 dated as of October 11, 2022 to Executive Employment Agreement between KVH Industries, Inc. and Brent C. Bruun		10-Q	December 6, 2022	10.8
* <u>10.19</u>	Executive Employment Agreement dated as of May 2, 2022 between KVH Industries, Inc. and Roger A. Kuebel		10-Q	August 9, 2022	10.2
* <u>10.20</u>	Executive Employment Agreement dated as of May 2, 2022 between KVH Industries, Inc. and Felise B. Feingold		10-Q	August 9, 2022	10.3
* <u>10.21</u>	Executive Employment Agreement dated as of May 9, 2022 between KVH Industries, Inc. and Robert J. Balog		10-Q	August 9, 2022	10.4

<u>10.22</u>	Cooperation Agreement, dated as of February 3, 2023, by and among KVH Industries, Inc., Black Diamond Capital Management, L.L.C., Stephen H. Deckoff and the Investor Group Designees (as defined therein)		8-K	February 3, 2023	10.1
<u>21.1</u>	List of Subsidiaries	X			
<u>23.1</u>	Consent of Grant Thornton LLP	X			
<u>31.1</u>	Rule 13a-14(a)/15d-14(a) certification of principal executive officer	X			
<u>31.2</u>	Rule 13a-14(a)/15d-14(a) certification of principal financial officer	X			
<u>32.1</u>	Rule 1350 certification	X			
101.1	Interactive Data File regarding (a) our Consolidated Balance Sheets as of December 31, 2022 and 2021, (b) our Consolidated Statements of Operations for the years ended December 31, 2022 and 2021, (c) our Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2022 and 2021, (d) our Consolidated Statements of Stockholders' Equity for the years ended December 31, 2022 and 2021, (e) our Consolidated Statements of Cash Flows for the years ended December 31, 2022 and 2021, and (e) the Notes to such Consolidated Financial Statements	X			
104.1	Cover Page Interactive Data File (embedded within the Inline XBRL document)	X			

* Management contract or compensatory plan.

ITEM 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

KVH Industries, Inc.

Date: March 16, 2023

By: /s/ BRENT C. BRUUN

Brent C. Bruun
President, Chief Executive Officer and Director

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons in the capacities and on the dates indicated.

Name	Title	Date
<u>/S/ BRENT C. BRUUN</u> Brent C. Bruun	President, Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2023
<u>/S/ ROGER A. KUEBEL</u> Roger A. Kuebel	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 16, 2023
<u>/S/ CATHY-ANN MARTINE-DOLECKI</u> Cathy-Ann Martine-Dolecki	Chair of the Board of Directors	March 16, 2023
<u>/S/ JAMES S. DODEZ</u> James S. Dodez	Director	March 16, 2023
<u>/S/ CIELO M. HERNANDEZ</u> Cielo M. Hernandez	Director	March 16, 2023
<u>/S/ DAVID B. KAGAN</u> David B. Kagan	Director	March 16, 2023
<u>/S/ DAVID M. TOLLEY</u> David M. Tolley	Director	March 16, 2023
<u>/S/ CHARLES R. TRIMBLE</u> Charles R. Trimble	Director	March 16, 2023

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
KVH Industries, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of KVH Industries, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), stockholders’ equity, and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2022, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”), and our report dated March 16, 2023 expressed an unqualified opinion.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Recognition of satellite connectivity services revenue

As described further in Note 1(e) to the Company’s financial statements, the Company’s satellite connectivity services revenue is recognized monthly based primarily on contracted fixed-fee schedules as well as any overages for minutes or megabytes of traffic processed. We identified satellite connectivity services revenue as a critical audit matter.

The principal considerations for our determination that satellite connectivity service revenue is a critical audit matter is the complexity of the processes used by management for recognizing revenue, given the diversity of data sources and the number of IT systems involved, including third party systems. Auditing this revenue stream requires a high degree of auditor subjectivity and effort in designing and performing procedures to evaluate the appropriateness of the recorded revenue amounts.

Our audit procedures related to the recognition of satellite connectivity services revenue included the following, among others.

- We tested the design and operating effectiveness of controls related to management’s review and validation of data from third parties used as an input in recorded revenue amounts, as well as the controls over review of appropriate revenue recognition for this revenue stream.

- We obtained the attestation report on the design and operating effectiveness of controls at the third-party billing service provider, and tested controls over management’s review of the attestation report, including identification of controls at the Company which are responsive to the complementary user entity controls identified in the report. We also tested the design and operating effectiveness of these complementary user entity controls.
- We tested the design and operating effectiveness of IT general controls over the IT system used to process and record the invoices for this stream.
- We selected a sample of invoices and evaluated those invoices for proper revenue recognition based on agreement to billing rates per the signed customer contract and usage data from third party service provider reports.

/s/ GRANT THORNTON LLP

We have served as the Company’s auditor since 2014.

Boston, Massachusetts

March 16, 2023

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	December 31,	
	2022	2021
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 21,056	\$ 11,376
Marketable securities	55,680	13,147
Accounts receivable, net of allowance for doubtful accounts of \$1,268 and \$1,597 as of December 31, 2022 & December 31, 2021, respectively	27,427	27,766
Inventories, net	22,730	15,833
Prepaid expenses and other current assets	3,067	2,637
Current contract assets	1,243	1,230
Current assets held for sale	—	15,841
Total current assets	131,203	87,830
Property and equipment, net	53,118	52,945
Intangible assets, net	404	1,287
Goodwill	5,308	6,570
Right of use assets	2,168	3,055
Other non-current assets	5,037	6,778
Non-current contract assets	3,033	3,104
Deferred income tax asset	259	56
Non-current assets held for sale	—	7,169
Total assets	\$ 200,530	\$ 168,794
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 20,449	\$ 9,501
Accrued compensation and employee-related expenses	7,621	6,139
Accrued other	4,234	6,937
Accrued product warranty costs	1,287	1,084
Contract liabilities	3,108	3,778
Current operating lease liability	1,532	1,912
Liability for uncertain tax positions	637	592
Current liabilities held for sale	—	3,939
Total current liabilities	38,868	33,882
Other long-term liabilities	—	22
Long-term operating lease liability	636	1,224
Long-term contract liabilities	4,315	4,466
Deferred income tax liability	55	215
Non-current liabilities held for sale	—	8
Total liabilities	\$ 43,874	\$ 39,817
Commitments and contingencies (Notes 1, 5, 6, 14 and 15)		
Stockholders' equity:		
Preferred stock, \$0.01 par value. Authorized 1,000,000 shares; none issued	—	—
Common stock, \$0.01 par value. Authorized 30,000,000 shares, 20,631,152 and 20,342,695 shares issued at December 31, 2022 and December 31, 2021, respectively; and 19,198,458 and 18,910,001 shares outstanding at December 31, 2022 and December 31, 2021, respectively	206	203
Additional paid-in capital	160,475	156,199
Retained earnings (accumulated deficit)	11,936	(12,165)
Accumulated other comprehensive loss	(4,110)	(3,409)
	168,507	140,828
Less: treasury stock at cost, 1,432,694 shares as of December 31, 2022 and December 31, 2021	(11,851)	(11,851)
Total stockholders' equity	156,656	128,977
Total liabilities and stockholders' equity	\$ 200,530	\$ 168,794

See accompanying Notes to Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	Year Ended December 31,	
	2022	2021
Sales:		
Product	\$ 26,970	\$ 30,012
Service	111,908	103,899
Net sales	138,878	133,911
Costs and expenses:		
Costs of product sales	25,184	23,951
Costs of service sales	61,094	64,137
Research and development	10,369	11,070
Sales, marketing and support	23,229	25,554
General and administrative	24,656	28,794
Total costs and expenses	144,532	153,506
Loss from operations	(5,654)	(19,595)
Interest income	1,507	886
Interest expense	3	56
Other income, net	772	7,111
Loss from continuing operations before income tax expense	(3,378)	(11,654)
Income tax expense (benefit) from continuing operations	546	(108)
Net loss from continuing operations	(3,924)	(11,546)
Income from discontinued operations, net of tax	28,025	1,783
Net Income (loss)	\$ 24,101	\$ (9,763)
Net loss from continuing operations per common share		
Basic	\$ (0.21)	\$ (0.63)
Diluted	\$ (0.21)	\$ (0.63)
Net income from discontinued operations per common share		
Basic	\$ 1.50	\$ 0.10
Diluted	\$ 1.50	\$ 0.10
Net income (loss) per common share		
Basic	\$ 1.29	\$ (0.54)
Diluted	\$ 1.29	\$ (0.54)
Weighted average number of shares outstanding:		
Basic	18,632	18,217
Diluted	18,632	18,217

See accompanying Notes to Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Year Ended December 31,	
	2022	2021
Net Income (loss)	\$ 24,101	\$ (9,763)
Other comprehensive loss, net of tax:		
Unrealized loss on available-for-sale securities	(12)	—
Foreign currency translation adjustment	(689)	(177)
Other comprehensive loss, net of tax ⁽¹⁾	(701)	(177)
Total comprehensive income (loss)	<u>\$ 23,400</u>	<u>\$ (9,940)</u>

(1) Tax impact was nominal for all periods.

See accompanying Notes to Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock		Additional Paid-in Capital	(Accumulated Deficit) Retained Earnings	Accumulated Other Comprehensive Loss	Treasury Stock		Total Stockholders' Equity
	Shares	Amount				Shares	Amount	
Balance at December 31, 2020	19,863	\$ 199	\$ 149,170	\$ (2,402)	\$ (3,232)	(1,433)	\$ (11,851)	\$ 131,884
Net loss	—	—	—	(9,763)	—	—	—	(9,763)
Other comprehensive loss	—	—	—	—	(177)	—	—	(177)
Stock-based compensation	—	—	4,109	—	—	—	—	4,109
Issuance of common stock under employee stock purchase plan	26	—	215	—	—	—	—	215
Exercise of stock options and issuance of restricted stock awards, net of forfeitures	454	4	2,705	—	—	—	—	2,709
Balance at December 31, 2021	20,343	\$ 203	\$ 156,199	\$ (12,165)	\$ (3,409)	(1,433)	\$ (11,851)	\$ 128,977
Net income	—	—	—	24,101	—	—	—	24,101
Other comprehensive loss	—	—	—	—	(701)	—	—	(701)
Stock-based compensation	—	—	3,424	—	—	—	—	3,424
Issuance of common stock under employee stock purchase plan	41	—	308	—	—	—	—	308
Exercise of stock options and issuance of restricted stock awards, net of forfeitures	247	3	675	—	—	—	—	678
Taxes for net share settlement of options	—	—	(131)	—	—	—	—	(131)
Balance at December 31, 2022	20,631	\$ 206	\$ 160,475	\$ 11,936	\$ (4,110)	(1,433)	\$ (11,851)	\$ 156,656

See accompanying Notes to Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2022	2021
Cash flows from operating activities:		
Net income (loss)	\$ 24,101	\$ (9,763)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Provision for doubtful accounts	221	530
Depreciation and amortization	14,030	14,601
Deferred income taxes	(363)	(186)
Loss on disposals of fixed assets	471	494
Compensation expense related to stock-based awards and employee stock purchase plan	3,424	4,109
Unrealized currency translation gain	(399)	(112)
Gain on sale of KVH Media Group Entertainment Limited	(682)	—
Gain on sale of inertial navigation business	(30,763)	—
PPP loan forgiveness	—	(6,979)
Changes in operating assets and liabilities:		
Accounts receivable	506	(506)
Inventories	(8,493)	33
Prepaid expenses, other current assets, and current contract assets	(1,096)	147
Other non-current assets and non-current contract assets	1,731	509
Accounts payable	11,364	(251)
Contract liabilities and long-term contract liabilities	(580)	(665)
Accrued compensation, product warranty and other	(4,578)	945
Other long-term liabilities	—	3
Net cash provided by operating activities	\$ 8,894	\$ 2,909
Cash flows from investing activities:		
Capital expenditures	(14,390)	(18,740)
Cash paid for acquisition of intangible assets	(54)	(62)
Proceeds from sale of fixed assets	—	100
Proceeds from the sale of KVH Media Group Entertainment Limited, net of cash sold	2,378	—
Proceeds from the sale of inertial navigation business	55,000	—
Purchases of marketable securities	(55,723)	(6)
Maturities and sales of marketable securities	13,164	12,000
Net cash provided by (used in) investing activities	\$ 375	\$ (6,708)
Cash flows from financing activities:		
Proceeds from stock options exercised and employee stock purchase plan	972	2,939
Payment of finance lease	(264)	(294)
Net cash provided by financing activities	\$ 708	\$ 2,645
Effect of exchange rate changes on cash and cash equivalents	(297)	(48)
Net increase (decrease) in cash and cash equivalents	9,680	(1,202)
Cash and cash equivalents at beginning of period	11,376	12,578
Cash and cash equivalents at end of period	\$ 21,056	\$ 11,376
Supplemental disclosure of cash flow information:		
Cash paid for income taxes, net of refunds	\$ 312	\$ 419
Changes in accrued other and accounts payable related to property and equipment additions	\$ 49	\$ 384
Right of use assets (ROU) assets arising from entering into new operating lease obligations	\$ 1,089	\$ 407

See accompanying Notes to Consolidated Financial Statements.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2022 and 2021
(in thousands, except per share amounts)

(1) Summary of Significant Accounting Policies

(a) Description of Business

KVH Industries, Inc. (together with its subsidiaries, the Company or KVH) designs, develops, manufactures and markets mobile connectivity products and services for the marine and land markets.

KVH's satellite-only and hybrid products enable marine customers to receive data, Voice over Internet Protocol (VoIP), and value-added services via satellite, cellular, and shore-based Wi-Fi networks onboard commercial, leisure, and military/government vessels. In addition, the Company's in-motion television terminals permit customers to receive live digital television via regional satellite services in marine vessels, recreational vehicles, buses and automobiles. KVH sells its products through an extensive international network of dealers and distributors. KVH also sells and leases products to service providers and end users.

KVH's service sales represent primarily revenue earned from satellite Internet airtime services. KVH provides, for monthly fixed and per-usage fees, satellite connectivity encompassing broadband Internet and VoIP services, to its TracNet H-series and TracPhone V-series customers via KVH's global high-throughput satellite (HTS) network. Cellular airtime service increasingly supplements KVH's satellite-only airtime revenue following the July 2022 launch of the KVH ONE hybrid network and TracNet H-series terminals. This product and service combination integrates global satellite service with KVH-provided cellular service in more than 150 countries, along with shore-based Wi-Fi access.

AgilePlans, KVH's connectivity as a service offering, is a monthly subscription model that provides global connectivity to commercial maritime customers. The subscription includes the choice of satellite-only and hybrid terminals, airtime data service, VoIP, daily news, subsidized shipping and installation, and global support for a monthly fee with no minimum contract commitment. KVH offers AgilePlans subscribers a variety of airtime data plans with varying data speeds and fixed data usage levels with per megabyte overage charges. These airtime plans are similar to those the Company offers to customers who elect to purchase or lease a TracNet H-series or TracPhone V-series terminal.

The Company recognizes the monthly AgilePlans subscription fee as service revenue over the service delivery period. The Company retains ownership of the hardware it provides to AgilePlans customers, who must return the hardware to KVH if they decide to terminate the service. Because KVH does not sell the hardware under AgilePlans, the Company does not recognize any product revenue when the hardware is deployed to an AgilePlans customer. KVH records the cost of the hardware used by AgilePlans customers as revenue-generating assets and depreciates the cost over an estimated useful life of five years. Since the Company is retaining ownership of the hardware, it does not accrue any warranty costs for AgilePlans hardware; however, any maintenance costs on the hardware is expensed in the period these costs are incurred.

Service sales also include the distribution of commercially licensed entertainment, including news, sports, and movies to commercial customers in the maritime and hotel markets through the KVH Media Group, along with supplemental value-added services. In addition, KVH earns monthly usage fees from third-party satellite connectivity services, including VoIP, data and Internet services, provided to its Inmarsat and Iridium customers who choose to activate their subscriptions with KVH. Service sales also include sales from product repairs and extended warranty sales.

KVH INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
December 31, 2022 and 2021
(in thousands, except per share amounts)

On August 9, 2022, the Company sold its inertial navigation business to EMCORE Corporation for gross proceeds of \$55,000, less specified deductions and a holdback of \$1,000 and subject to a working capital adjustment. The working finalized capital adjustment, which resulted in a payment of \$96 to EMCORE, was recorded in the fourth quarter of 2022. The holdback was released to the Company on August 17, 2022. On August 9, 2022, the Company also entered into a Transition Services Agreement with EMCORE, pursuant to which the Company agreed to provide certain transition services to support the continued operation of the inertial navigation business for six months following the sale with two extension options of three months each. The fee is comprised of both fixed monthly fees of approximately \$100 as well as variable amounts for certain additional services with escalation increases on the fixed and variable rates for each extension option. The Company does not have any continuing involvement in these operations other than short-term transition services, which are being recorded as an offset to general and administrative expenses in continuing operations. As of December 31, 2022, the company recognized \$923 of contra-expense associated with the Transition Services Agreement. The Company determined that the sale met the requirements for reporting as discontinued operations in accordance with Accounting Standards Codification (ASC) 205-20. Please see Note 16 for the discontinued operations disclosures.

(b) Principles of Consolidation

The accompanying consolidated financial statements of KVH Industries, Inc. and its wholly owned subsidiaries have been prepared in accordance with accounting principles generally accepted in the United States of America. All of the operating expenses of the subsidiaries that serve as the Company's European, Singaporean, Japanese, and Brazilian international distributors are reflected within sales, marketing, and support within the accompanying consolidated statements of operations. All significant intercompany accounts and transactions have been eliminated in consolidation.

The 2022 consolidated financial statements reflect the sale of the inertial navigation business as discontinued operations. See Note 16 for further information on the sale of the inertial navigation business.

(c) Significant Estimates and Assumptions and Other Significant Non-Recurring Transactions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of sales and expenses during the reporting periods. The 2021 consolidated financial statements reflect a \$6,979 gain in other income related to the U.S. Small Business Administration's forgiveness of the PPP loan during the third quarter of 2021. See Note 5. On an on-going basis, the Company evaluates its significant estimates, including those related to terminal values and other assumptions and estimates used to evaluate the recoverability of long-lived assets and goodwill and estimated fair values of long-lived assets, including goodwill, amortization methods and periods.

Although the Company regularly assesses these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances.

Management Transition and Restructuring

On March 7, 2022, the Company announced that its President and Chief Executive Officer, Martin Kits van Heyningen, was retiring from his executive and Board roles after more than 40 years of service and assuming a consulting position with the Company. Brent C. Bruun, its then Chief Operating Officer, was appointed as its interim President and Chief Executive Officer. Subsequently, on June 15, 2022, he was appointed as its President and Chief Executive Officer and as a Class II member of the Board of Directors. As of March 31, 2022, the Company accrued approximately \$539 in consulting fees associated with a maximum of 50 hours of transition services through March 2023, which is being paid to Mr. Kits van Heyningen over the 12 months following his retirement. Approximately \$90 is accrued as of December 31, 2022. In addition, the Company agreed to a separation payment of \$201, which was inclusive of any amount which he may have otherwise earned under the executive bonus plan for 2021, which was paid in April 2022. The associated expenses were included in general and administrative expenses in the accompanying consolidated statements of operations. There were also modifications to Mr. Kits van Heyningen's stock option and restricted stock awards. Please see Note 7 for further discussion.

In March 2022, the Company also restructured its operations to reduce costs and pursue a more focused strategy. The Company reduced its workforce by approximately 10% and began incurring reduced expenses from these actions beginning in

KVH INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
December 31, 2022 and 2021
(in thousands, except per share amounts)

the second quarter of 2022. For the year ended December 31, 2022, the Company incurred \$1,844 in severance and health insurance costs and \$327 in legal and advisory fees in connection with this restructuring. The combined expense of \$2,171 was included in the financial statement line items of the accompanying consolidated statements of operations as follows: costs of product sales of \$12, costs of service sales of \$58, research and development of \$365, sales, marketing and support of \$935, and general and administrative expenses of \$801. The Company also modified impacted employee's stock option and restricted stock awards. Please see Note 7 for further discussion.

During the third quarter of 2022, the Company restructured its foreign operations by closing its India and Cyprus offices and its Denmark warehouse to reduce costs. Approximately \$388 of severance payments, other employee benefits, and legal and advisory fees were incurred in connection with this restructuring for the year ended December 31, 2022.

Dispositions; Termination of Credit Facility

On April 29, 2022, KVH Media Group Limited, the Company's wholly owned subsidiary, sold its subsidiary KVH Media Group Entertainment Limited for net cash proceeds of \$2,378. This transaction did not meet the criteria for reporting as discontinued operations under ASC 205-20. The Company recorded a gain on the sale of \$682, which is recorded in other income, net in the accompanying consolidated statements of operations. See Note 9 for the reduction of goodwill and intangibles associated with the KVH Media Group reporting unit as it relates to the sale of this subsidiary.

On August 9, 2022, the Company sold its inertial navigation business to EMCORE Corporation. Please see Notes 16 for further discussion.

On August 9, 2022, the Company also terminated its senior secured credit facility agreement (the 2018 Credit Agreement) and the related security and pledge agreements with Bank of America, N.A., as Administrative Agent. At the time of termination, no borrowings were outstanding under the 2018 Credit Agreement. With the termination of this agreement, all associated liens were released.

Executive Employment Agreements

In May 2022, the Company entered into executive employment agreements with each of Brent C. Bruun, Roger A. Kuebel, Felise Feingold and Robert Balog in order to retain their services and provide them with certain benefits in the event that the Company terminated the executive's employment without cause (as defined in the agreement) or the executive terminated his or her employment for good reason (as defined in the agreement), including following a change of control. The terms of the agreements are substantially identical except as to title, salary, target bonus and reporting responsibilities. The agreements provide that, if the executive continued to serve as an employee through December 31, 2022 (the "Retention Date"), the Company would pay the executive a retention bonus equal to 75% of the executive's base salary on the agreement date, and the Company would accelerate the vesting of the executive's equity awards that would otherwise have vested in the twelve months after the Retention Date. Brent C. Bruun, Roger A. Kuebel, Felise Feingold and Robert Balog continued to serve as an employee as of December 31, 2022. Please see Note 7 for further discussion regarding the equity compensation modifications.

On October 11, 2022, the Company entered into an amendment to the employment agreement with Mr. Bruun that, among other things, increased his annual base salary to \$448 per year, retroactive to July 1, 2022, increased his target annual incentive compensation for the second half of 2022 to 80% of his base salary (without changing his target annual incentive compensation for the first half of 2022), extended his Retention Date from December 31, 2022 to December 31, 2023, which effectively extended the period during which Mr. Bruun must remain employed by the Company in order to earn his retention bonus, and modified the amount of the retention bonus from 75% of his base salary in effect on May 2, 2022 to 75% of the highest base salary in effect for Mr. Bruun on or before the date he becomes entitled to receive the retention bonus or the "Partial Retention Bonus" (as defined in the employment agreement). The amendment did not modify the terms of the employment agreement relating to acceleration of vesting of certain equity awards if Mr. Bruun remains employed by the Company through December 31, 2022.

As of December 31, 2022, the Company accrued approximately \$867 for the executive employment agreements.

In addition to the amendment to Mr. Bruun's employment agreement, the Compensation Committee also granted Mr. Bruun a restricted stock award and non-statutory stock options, which together had an aggregate grant date fair value of

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approximately \$100. The restricted stock award and the non-statutory stock options have terms that are materially consistent with the previously disclosed terms of similar grants to the Company's executive officers.

(d) Concentration of Credit Risk and Single Source Suppliers

Cash, cash equivalents and marketable securities. The Company is potentially subject to financial instrument concentration of credit risk through its cash, cash equivalent and marketable securities investments. To mitigate these risks the Company maintains cash, cash equivalents and marketable securities with reputable and nationally recognized financial institutions. As of December 31, 2022, \$55,680 classified as marketable securities was held by Wells Fargo and substantially all of the cash and cash equivalents were held by Bank of America, N.A. See Note 2 for a description of marketable securities.

Trade accounts receivable. Concentrations of risk (see Note 11) with respect to trade accounts receivable are generally limited due to the large number of customers and their dispersion across several geographic areas. Although the Company does not foresee that credit risk associated with these receivables will deviate from historical experience, repayment is dependent upon the financial stability of those individual customers. The Company establishes allowances for potential bad debts and evaluates, on a monthly basis, the adequacy of those reserves based upon historical experience and its expectations for future collectability concerns. The Company performs ongoing credit evaluations of the financial condition of its customers and generally does not require collateral. Activity within the Company's allowance for doubtful accounts for the periods presented is as follows:

	2022	2021
Beginning balance	\$ 1,597	\$ 1,555
Additions (subtractions)	174	502
Deductions (write-offs/recoveries) from reserve	(503)	(460)
Ending balance	<u>\$ 1,268</u>	<u>\$ 1,597</u>

Revenue and operations. Certain components from third parties used in the Company's products are procured from single sources of supply. The failure of a supplier, including a subcontractor, to deliver on schedule could delay or interrupt the Company's delivery of products and thereby materially adversely affect the Company's revenues and operating results.

(e) Revenue Recognition

In accordance with Accounting Standards Codification (ASC) 606, revenue is recognized when a customer obtains control of promised products and services. The amount of revenue recognized reflects the consideration which the Company expects to be entitled to receive in exchange for these products and services. To achieve this core principle, the Company applies the following five steps:

1) Identify the contract with a customer

A contract with a customer exists when (i) the Company enters into an enforceable contract with a customer that defines each party's rights regarding the products and services to be transferred and identifies the payment terms related to these products and services, (ii) the contract has commercial substance, and (iii) the Company determines that collection of substantially all consideration for products and services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. The Company applies judgment in determining the customer's ability and intention to pay, which is based on a variety of factors, including the customer's historical payment pattern or, in the case of a new customer, published credit and financial information pertaining to the customer.

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2) Identify the performance obligations in the contract

Performance obligations promised in a contract are identified based on the products and services that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the product or service either on its own or together with other resources that are readily available from third parties or from the Company, and are distinct in the context of the contract, whereby the transfer of the product or service is separately identifiable from other promises in the contract. To the extent a contract includes multiple promised products and services, the Company must apply judgment to determine whether promised products and services are capable of being distinct and distinct in the context of the contract. If these criteria are not met, the promised products and services are accounted for as a combined performance obligation.

3) Determine the transaction price

The transaction price is determined based on the consideration to which the Company will be entitled in exchange for transferring products and services to the customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price utilizing either the expected value method or the most likely amount method, depending on the nature of the variable consideration. Variable consideration is included in the transaction price if, in the Company's judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur.

4) Allocate the transaction price to performance obligations in the contract

If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. However, if a series of distinct products or services that are substantially the same qualify as a single performance obligation in a contract with variable consideration, the Company must determine if the variable consideration is attributable to the entire contract or to a specific part of the contract. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price basis unless the transaction price is variable and meets the criteria to be allocated entirely to a performance obligation or to a distinct product or service that forms part of a single performance obligation. The Company determines standalone selling price based on the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations.

5) Recognize revenue when or as the Company satisfies a performance obligation

The Company satisfies performance obligations either over time or at a point in time. Revenue is recognized at the time the related performance obligation is satisfied by transferring a promised product or service to a customer.

Product sales

Revenue from product sales is recognized when control of the goods is transferred to the customer, which generally occurs at the Company's plant or warehouse upon delivery to the carrier for shipment. Revenue related to shipping and handling is recognized when the products are shipped and the associated costs are accrued for based on the Company's election to account for shipping and handling activities as a fulfillment of the promise to transfer the products and not as a combined promise.

The Company's standard payment terms for product sales are generally Net 30. Under certain limited conditions, the Company, at its sole discretion, provides for the return of goods. No product is accepted for return and no credit is allowed on any returned product unless the Company has granted and confirmed prior written permission by means of appropriate authorization. The Company establishes reserves for potential sales returns, credits, and allowances, and evaluates, on a monthly basis, the adequacy of those reserves based upon historical experience and expectations for the future.

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Contract assets held by the Company include deferred costs related to performance under long-term contracts, including product and supporting costs associated to revenue previously billed to the client. Contract liabilities consist of advance payments and billings in excess of revenue recognized and are reported as deferred revenue in the consolidated balance sheets. The Company classifies any billings in excess of revenue recognized as deferred revenue as current or non-current based on the timing of when revenue is expected to be recognized.

Contracts with multiple performance obligations

The Company sells products and services through arrangements that in certain instances bundle equipment, satellite connectivity and other services. For these arrangements, the Company has determined that the performance obligations are not distinct in the context of the contracts with certain customers. The Company recognizes product revenue under these arrangements over the estimated satellite connectivity customer life, which is estimated to be five years based on historical evidence.

Satellite connectivity and media content service sales

Directly sold and re-sold satellite connectivity service for VoIP, data and Internet is recognized monthly based primarily on contracted fixed-fee schedules as well as any overages for minutes or megabytes of traffic processed. The Company has evaluated whether it obtains control of the services that are being transferred to the customer in assessing gross revenue reporting as principal versus net revenue reporting as agent for its satellite connectivity service sales and its payments to the applicable service providers. Based on the Company's assessment of the indicators, the Company has determined that gross revenue reporting as a principal is appropriate. The applicable indicators of gross revenue reporting include, but are not limited to, the following:

- The Company is the primary obligor in its arrangements with its subscribers. The Company manages all interactions with the subscribers, while satellite connectivity service providers do not interact with the subscribers. In addition, the Company assumes the entire performance risk under its arrangements with the subscribers and in the event of a performance issue, the Company may incur reductions in fees without regard for any recourse that the Company may have with the applicable satellite connective service providers.
- The Company has discretion in establishing pricing, as the pricing under its arrangements with the subscribers is negotiated through a contracting process. The Company then separately negotiates the fees with the applicable satellite service providers.
- The Company has complete discretion in determining which satellite service providers it will contract with.

As a result, the Company has determined that it earns revenue (as a principal) from the delivery of satellite connectivity services to its subscribers and records all satellite connectivity service sales to subscribers as gross sales. All associated regulatory service fees and costs are recorded net in the consolidated financial statements.

The Company sells prepaid airtime services in the form of prepaid cards. A liability is established upon purchase equal to the cash paid for the prepaid card. The Company recognizes revenue from the prepaid services upon the use of the prepaid card by the customer. The Company does not offer refunds for unused prepaid services. Prepaid airtime services have not been a significant portion of the Company's total sales.

Media content sales include the Company's distribution of commercially licensed news, sports, movies and music content for commercial and leisure customers in the maritime, hotel, and retail markets. The Company typically recognizes revenue from media content sales ratably over the period of the service contract.

The accounting estimates related to the recognition of satellite connectivity and media content service sales require the Company to make assumptions about future billing adjustments for disputes with subscribers as well as unauthorized usage. Under AgilePlans, the Company retains ownership of the hardware that it provides to these customers, who must return the hardware to KVH if they decide to terminate the service. Because KVH does not sell the hardware under AgilePlans, the Company does not recognize any product revenue when the hardware is deployed to an AgilePlans customer. In accounting for the related service revenue, the Company has applied the practical expedient allowed under ASC 606-10-55-18 to recognize

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rental revenues in proportion to the amount of the right to invoice. The Company recognizes the subscription fee monthly as service revenue over the service delivery period.

Product service sales

Product service sales other than under development contracts are recognized when completed services are delivered to the customer. The Company also sells extended warranty contracts on mobile connectivity and inertial navigation products. Sales under these contracts are recognized ratably over the contract term. Product service sales including extended warranties are not a significant portion of the Company's total sales.

Sales-type leases

Revenue is recognized on sales-type leases primarily from the TracPhone VSAT products. In accordance with ASC 842, the Company records the leases at a price typically equivalent to normal selling price and in excess of the cost or carrying amount. Upon delivery, the Company records the net present value of all payments under these leases as product revenue, and the related costs of the product are charged to cost of sales. See Note 15.

(f) Leases

In accordance with ASC 842, the Company recognizes all leases greater than one year in duration on the balance sheet as right-of-use assets and lease liabilities. In ASC 842, a lease is defined as follows: “[a] contract is or contains a lease if the contract conveys the right to control the use of identified property, plant, or equipment (an identified asset) for a period of time in exchange for consideration.”

Many of our lease agreements contain renewal options which are recognized if it is determined that the Company is reasonably certain to renew the lease at inception or when a triggering event occurs. Some of our lease agreements contain rent escalation clauses, rent holidays, capital improvement funding or other lease concessions. The Company recognizes the minimum rental expense on a straight-line basis based on the fixed components of a lease arrangement and amortize such expense over the term of the lease beginning with the commencement date. Variable lease components that are not fixed at the beginning of the lease are recognized as incurred.

Under certain third-party service agreements, the Company controls a specific space or underlying asset used in providing the service by the third-party service provider. These arrangements meet the definition under ASC 842 and therefore are accounted for under ASC 842. Right-of-use assets and lease liabilities are recognized at commencement date based on the present value of lease payments over the lease term and include options to extend or terminate the lease when reasonably certain to be exercised. The present value of lease payments is determined using the incremental borrowing rate based on the information available at the lease commencement date.

(g) Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include cash equivalents, marketable securities, accounts receivable, accounts payable and accrued expenses, approximate their fair values due to the short maturity of these instruments. See Note 2 for more information on the fair value of the Company's marketable securities. The carrying amount of capital leases approximate fair value based on currently available quoted rates of similarly structured debt facilities. See Note 15 for the Company's finance lease.

(h) Cash, Cash Equivalents, and Marketable Securities

In accordance with the Company's investment policy, cash in excess of operational needs is invested in money market mutual funds, government agency bonds, United States treasuries, municipal bonds, corporate notes, or certificates of deposit. All highly liquid investments with a maturity date of three months or less at the date of purchase are classified as cash equivalents. The Company determines the appropriate classification of marketable securities at each balance sheet date. As of December 31, 2022 and 2021, all of the Company's marketable securities have been designated as available-for-sale and are carried at their fair value with unrealized gains and losses included in accumulated other comprehensive loss in the accompanying consolidated balance sheets.

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The Company reviews investments in debt securities for other than temporary impairment whenever the fair value of an investment is less than amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, the Company considers whether it intends to sell the security, whether it expects to recover the credit loss, and if it is more likely than not that the Company will be required to sell the security prior to recovery. Evidence considered in this assessment includes the reasons for the impairment, compliance with the Company's investment policy, the severity and duration of the impairment, changes in value subsequent to year-end and forecasted performance of the investee. The Company has reviewed its securities with unrealized losses as of December 31, 2022 and 2021 and has concluded that no other-than-temporary impairments exist.

(i) Inventories

Inventories are stated at the lower of cost and net realizable value using the first-in first-out costing method. The Company adjusts the carrying value of its inventory based on the consideration of excess and obsolete components based on future estimate demand. The Company records inventory charges to costs of product sales.

(j) Property and Equipment

Property and equipment are stated at cost. Depreciation and amortization are computed on the straight-line method over the estimated useful lives of the respective assets. The principal lives used in determining the depreciation rates of various assets are: buildings and improvements, 5-40 years; leasehold improvements, shorter of original lease term or useful life; machinery, satellite hubs and equipment, 4-10 years; office and computer equipment, 3-7 years; and motor vehicles, 5 years.

(k) Goodwill, Intangible Assets and other Long-Lived Assets

The Company's goodwill and intangible assets are associated with the purchase of Virtek Communication (now known as KVH Industries Norway AS) in September 2010 and Headland Media Limited (now known as the KVH Media Group) in May 2013.

In accordance with ASC Update No. 2017-04, Intangibles-Goodwill and Other (Topic 350): Simplifying the Test of Goodwill Impairment. (ASC 350), the Company performs a goodwill impairment test at least annually based on either an optional qualitative assessment or a quantitative analysis comparing the estimated fair value of a reporting unit to its carrying value as of the test date. Any impairment charges would be based on the quantitative analysis. For the October 1, 2022 test, the Company performed a qualitative assessment of goodwill impairment (Step 0) and concluded that for the mobile broadband reporting unit, it was more likely than not that, for this reporting unit, the fair value exceeded the carrying value. For the KVH Media Group reporting unit, the Company determined that it was necessary to perform the Step 1 quantitative analysis due to the ongoing global pandemic and its impacts. The Company utilized an income approach to estimate the fair value of the reporting unit. The Company believes that the assumptions used to estimate the fair value of its KVH Media Group reporting unit were reasonable. The Company estimated that, as of October 1, 2022, the fair value of its KVH Media Group exceeded its carrying value by more than 140%. A negative trend of operating results or material changes to forecasted operating results could result in the requirement for additional interim goodwill impairment tests and the potential of future goodwill impairment charges, which could be material. The Company did not identify any impairment indicators that required an interim goodwill impairment test as of December 31, 2022.

Intangible assets with estimated lives and other long-lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of intangible assets with estimated lives and other long-lived assets is measured by a comparison of the carrying amount of an asset or asset group to future net undiscounted cash flows expected to be generated by the asset or asset group. If these comparisons indicate that an asset is not recoverable, the Company will recognize an impairment loss for the amount by which the carrying value of the asset or asset group exceeds the related estimated fair value. Estimated fair value is based on either discounted future operating cash flows or appraised values, depending on the nature of the asset. During 2022, there were no events or changes in circumstances that indicated any of the carrying amounts of the Company's intangible assets or other long-lived assets may not be recoverable. See Note 9 for further discussion of goodwill and intangible assets.

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(l) Other Non-Current Assets

Other non-current assets are primarily comprised of long-term lease receivables, prepaid expenses, and deposits.

(m) Product Warranty

The Company's products carry standard limited warranties that range from one to two years and vary by product. The warranty period begins on the date of retail purchase or lease by the original purchaser. The Company accrues estimated product warranty costs at the time of sale and any additional amounts are recorded when such costs are probable and can be reasonably estimated. Factors that affect the Company's warranty liability include the number of units sold or leased, historical and anticipated rates of warranty repairs and the cost per repair. Warranty and related costs are reflected within sales, marketing and support in the accompanying consolidated statements of operations. As of December 31, 2022 and 2021, the Company had accrued product warranty costs of \$1,287 and \$1,084, respectively. The following table summarizes product warranty activity during 2022 and 2021:

	2022	2021
Beginning balance	\$ 1,084	\$ 1,725
Charges to expense	1,127	400
Costs incurred	(924)	(1,041)
Ending balance	<u>\$ 1,287</u>	<u>\$ 1,084</u>

(n) Shipping and Handling Costs

Shipping and handling costs are expensed as incurred and included in cost of sales. Billings for shipping and handling are reflected within net sales in the accompanying consolidated statements of operations.

(o) Research and Development

Expenditures for research and development are expensed as incurred.

(p) Advertising Costs

Costs related to advertising are expensed as incurred. Advertising expense was \$482 and \$919 for the years ended December 31, 2022 and 2021, respectively, and is included in sales, marketing, and support expense in the accompanying consolidated statements of operations.

(q) Foreign Currency Translation

The financial statements of the Company's foreign subsidiaries located in Denmark and Singapore are maintained using the United States dollar as the functional currency. Exchange rates in effect on the date of the transaction are used to record monetary assets and liabilities. Revenue and other expense elements are recorded at rates that approximate the rates in effect on the transaction dates. Foreign currency exchange gains and losses are recognized within "other income, net" in the accompanying consolidated statements of operations. For the years ended December 31, 2022 and 2021, the Company recorded a total of net foreign currency exchange gains (losses) in its accompanying consolidated statements of operations of \$517 and \$(3), respectively, which is comprised of both realized and unrealized foreign currency exchange gains and losses.

The financial statements of the Company's foreign subsidiaries located in the United Kingdom, Brazil, Norway, Cyprus, India and Japan use the foreign subsidiaries' respective local currencies as the functional currency. The Company translates the assets and liabilities of these foreign subsidiaries at the exchange rates in effect at year-end. Net sales, costs and expenses are translated using average exchange rates in effect during the year. Gains and losses from foreign currency translation are credited or charged to accumulated other comprehensive loss included in stockholders' equity in the accompanying consolidated balance sheets.

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(r) Income Taxes

The Company is subject to income taxes in the U.S. and in numerous foreign jurisdictions. The Company accounts for income taxes following ASC Topic 740, *Accounting for Income Taxes*.

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some or all of a deferred tax asset will not be realized. The Company determines whether it is more likely than not that a tax position will be sustained upon examination. If it is not more likely than not that a position will be sustained, no amount of the benefit attributable to the position is recognized. The tax benefit to be recognized of any tax position that meets the more likely than not recognition threshold is calculated as the largest amount that is more than 50% likely of being realized upon resolution of the contingency.

The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. The Company recognizes interest and penalties within the income tax expense line in the accompanying consolidated statements of operations. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheets. See Note 8 for further discussion of income taxes.

(s) Net Loss per Common Share

Basic net loss per share is calculated based on the weighted average number of common shares outstanding during the period. Diluted net income per share incorporates the dilutive effect of common stock equivalent options, warrants and other convertible securities, if any, as determined in accordance with the treasury stock accounting method. For the years ended December 31, 2022 and 2021 since there was a net loss from continuing operations, the Company excluded all 1,359 and 747 shares, respectively, in outstanding stock options and non-vested restricted shares from its diluted loss per share calculation, as inclusion of these securities would have reduced the net loss per share.

A reconciliation of the basic and diluted weighted average common shares outstanding is as follows:

	December 31,	
	2022	2021
Weighted average common shares outstanding—basic	18,632	18,217
Dilutive common shares issuable in connection with stock plans	—	—
Weighted average common shares outstanding—diluted	18,632	18,217

(t) Contingent Liabilities

The Company estimates the amount of potential exposure it may have with respect to claims, assessments and litigation in accordance with ASC 450, *Contingencies*. As of December 31, 2022 and 2021, the Company was not party to any lawsuit or proceeding that, in management's opinion, was likely to materially harm the Company's business, results of operations, financial condition or cash flows. It is not always possible to predict the outcome of litigation, as it is subject to many uncertainties. Additionally, it is not always possible for management to make meaningful estimates of the potential loss or range of loss associated with such litigation.

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(u) Operating Segments

The Company operates in one reportable segment as a result of the sale of its inertial navigation business on August 9, 2022. Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker in making decisions regarding resource allocation and assessing performance. The Company's chief operating decision maker is its President, Chief Executive Officer and Director.

The Company operates in a number of major geographic areas, including internationally. Revenues are generated from international locations, primarily consisting of Singapore, Canada, European Union countries and other European countries, countries in Africa, Asia/Pacific and the Middle East, and India (see Note 12, "Segment Reporting").

(v) Recently Issued Accounting Standards

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board, or FASB, or other standard setting bodies. Recently issued standards typically do not require adoption until a future effective date. Prior to their effective date, the Company evaluates the pronouncements to determine the potential effects of adoption on our consolidated financial statements.

Standards to be Implemented

ASC Update No. 2016-13, ASC Update No. 2018-19, ASC Update No. 2019-04, ASC Update No. 2019-05, ASC Update No. 2019-10, ASC Update No. 2019-11, ASC Update No. 2020-02, ASC Update No. 2022-02 and ASC Update No. 2017-04.

In June 2016, the FASB issued ASC Update No. 2016-13, *Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The purpose of Update No. 2016-13 is to replace the incurred loss impairment methodology for financial assets measured at amortized cost with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information, including forecasted information, to develop credit loss estimates.

In November 2018, the FASB issued ASC Update No. 2018-19, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses*. This update introduced an expected credit loss methodology for the impairment of financial assets measured at amortized cost. The amendment also clarifies that receivables arising from operating leases are not within the scope of Subtopic 326-20. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with Topic 842, Leases.

In May 2019, the FASB issued ASC Update No. 2019-04, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*. This update introduced clarifications of the Board's intent with respect to accrued interest, the transfer between classifications or categories for loans and debt securities, recoveries, reinsurance recoverables, projects of interest rate environments for variable-rate financial instruments, costs to sell when foreclosure is probable, consideration of expected prepayments when determining the effective interest rate, vintage disclosures, and extension and renewal options.

In May 2019, the FASB issued ASC Update No. 2019-05, *Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief*. The amendments in the update ease the transition for entities adopting ASC Update 2016-13 and increase the comparability of financial statement information. With the exception of held-to-maturity debt securities, the amendments allow entities to irrevocably elect to apply the fair value option to financial instruments that were previously recorded at amortized cost basis within the scope of Subtopic 326-20, *Financial Instruments—Credit Losses—Measured at Amortized Cost*.

In November 2019, the FASB issued ASC Update No. 2019-10, *Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842): Effective Dates*. The amendments in this update change some effective dates for certain new accounting standards including those pertaining to Topic 326 discussed above, for certain types of entities.

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In November 2019, the FASB issued ASC Update No. 2019-11, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses (Topic 326)*. The update is effective for entities that have adopted ASU 2016-13. The purpose of Update No. 2019-11 is to clarify the scope of the recovery guidance to purchased financial assets with credit deterioration.

In February 2020, the FASB issued ASC Update No. 2020-02, *Financial Instruments – Credit Losses (Topic 326) and Leases (Topic 842)*. The purpose of Update No. 2020-02 is to clarify the scope and interpretation of the standard.

In March 2022, the FASB issued ASC update 2022-02, *Financial Instruments – Credit Losses (Topic 326) – Troubled Debt Restructurings and Vintage Disclosures*. The vintage disclosure portion of this guidance is applicable to the Company, which requires that an entity disclose current-period gross write-offs by year of origination for financing receivables and net investment in leases within the scope of Subtopic 326-20. Gross write-off information must included the amortized cost basis of financing receivables by credit-quality indicator and class of financing receivable by year of origination.

As a smaller reporting company, the effective date for Topic 326 will be the fiscal year beginning after December 15, 2022. The adoption of Update Nos. 2016-13, 2018-19, 2019-04, 2019-05, 2019-10, 2019-11, 2020-02, and 2022-02 is not expected to have a material impact on the Company's financial position or results of operations.

In January 2017, the FASB issued ASC Update No. 2017-04, *Intangibles - Goodwill and Other (Topic 350) - Simplifying the Test for Goodwill Impairment*. The purpose of Update No. 2017-04 is to eliminate Step 2 from the goodwill impairment test and instead an entity should perform its annual, or interim, goodwill impairment quantitative test by comparing the fair value of a reporting unit with its carrying amount. An entity will then recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, to the extent of the amount of goodwill allocated to that reporting unit.

As a smaller reporting company, the effective date for Topic 350 will be the fiscal year beginning after December 15, 2022. The adoption of Update No. 2017-04 is not expected to have a material impact on the Company's financial position or results of operations.

There are no other recent accounting pronouncements issued by the FASB that the Company expects would have a material impact on the Company's financial statements.

(2) Marketable Securities

Marketable securities as of December 31, 2022 and 2021 consisted of the following:

<u>December 31, 2022</u>	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
Money market mutual funds	\$ 30,977	\$ —	\$ —	\$ 30,977
United States treasuries	24,715	—	(12)	24,703
Total marketable securities designated as available-for-sale	\$ 55,692	\$ —	\$ (12)	\$ 55,680

<u>December 31, 2021</u>	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
Money market mutual funds	\$ 13,147	\$ —	\$ —	\$ 13,147
Total marketable securities designated as available-for-sale	\$ 13,147	\$ —	\$ —	\$ 13,147

The effective maturity date of the United States treasuries is less than one year.

Interest income from marketable securities was \$723 and \$6 for the years ended December 31, 2022 and 2021, respectively.

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(3) Inventories

Inventories are stated at the lower of cost and net realizable value using the first-in first-out costing method. Inventories as of December 31, 2022 and 2021 include the costs of material, labor, and factory overhead. Components of inventories consist of the following:

	December 31,	
	2022	2021
Raw materials	\$ 14,203	\$ 9,412
Work in process	4,164	2,861
Finished goods	4,363	3,560
	<u>\$ 22,730</u>	<u>\$ 15,833</u>

(4) Property and Equipment

Property and equipment, net, as of December 31, 2022 and 2021 consist of the following:

	December 31,	
	2022	2021
Land	\$ 2,833	\$ 2,833
Building and improvements	18,869	18,822
Leasehold improvements	513	472
Revenue-generating assets	72,527	63,587
Machinery and equipment	5,948	5,233
Office and computer equipment	14,652	14,633
Motor vehicles	31	31
	<u>115,373</u>	<u>105,611</u>
Less accumulated depreciation	<u>(62,255)</u>	<u>(52,666)</u>
	<u>\$ 53,118</u>	<u>\$ 52,945</u>

Depreciation expense for the years ended December 31, 2022 and 2021 amounted to \$12,909 and \$12,005, respectively.

Certain revenue-generating hardware assets are utilized by the Company in the delivery of the Company's airtime services, media, and other content.

(5) Debt and Line of Credit

Paycheck Protection Program Loan

In May 2020, the Company received a \$6,927 loan (the PPP Loan) from Bank of America, N.A., (the Lender) under the Paycheck Protection Program (PPP), which was established under the Coronavirus Aid, Relief, and Economic Security Act (as modified by the Paycheck Protection Flexibility Act of 2020, the CARES Act) and is administered by the U.S. Small Business Administration (the SBA).

The term of the PPP Loan was two years from the funding date, and the interest rate was 1.00%. Interest on the loan accrued from the funding date, but was deferred. In August 2021, the Company applied for forgiveness of the full amount of the PPP Loan and related interest. On September 24, 2021, the Company received notification from the Lender that, on September 19, 2021, the SBA had determined that the PPP Loan forgiveness application was approved, and the PPP Loan, including all accrued interest thereon, was paid in full by the SBA. The forgiveness of the PPP Loan including all interest accrued of \$6,979 is recognized in other income, net in the accompanying consolidated statements of operations for the year ended December 31, 2021.

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Line of Credit

On August 9, 2022, the Company terminated its senior secured credit facility agreement (the 2018 Credit Agreement) and the related security and pledge agreements with Bank of America, N.A., as Administrative Agent. At the time of termination, no borrowings were outstanding under the 2018 Credit Agreement. With the termination of this agreement, all associated liens were released.

(6) Commitments and Contingencies

The Company has certain operating leases and other commitments for satellite capacity, various equipment, and facilities. The following reflects future minimum payments under operating leases and other commitments that have initial or remaining non-cancelable terms at December 31, 2022:

Years ending December 31,	Commitments (a)
2023	\$ 41,082
2024	7,097
2025	61
2026	50
2027	48
Thereafter	33
Total minimum payments	<u>\$ 48,371</u>

(a) Includes the future minimum lease payments for the Company's operating leases as seen in Note 15.

Total rent expense incurred under facility operating leases for the years ended December 31, 2022 and 2021 amounted to \$829 and \$868, respectively. Total expense incurred under satellite capacity and equipment operating leases and other commitments for the years ended December 31, 2022 and 2021 amounted to \$37,166 and \$39,216, respectively, which also includes payments for usage charges in excess of the minimum contractual requirements.

In the normal course of business, the Company enters into unconditional purchase order obligations with its suppliers for inventory and other operational purchases. Outstanding and unconditional purchase order obligations were \$15,841 as of December 31, 2022, of which the Company expects to fulfill \$15,048 in 2023 and \$793 in 2024.

Except for certain satellite service capacity obligations that are not considered operating or financing leases under ASC 842, the Company did not have any off-balance sheet commitments, guarantees, or standby repurchase obligations as of December 31, 2022.

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(7) Stockholders' Equity

The Company recognizes stock-based compensation in accordance with the provisions of ASC Topic 718, *Compensation-Stock Compensation*. Stock-based compensation expense was \$3,320 and \$4,053, excluding \$104 and \$56 of compensation charges related to our Amended and Restated 1996 Employee Stock Purchase Plan, or the ESPP, for the years ended December 31, 2022 and 2021, respectively.

The Company is authorized to grant stock options, restricted stock awards and other stock-based awards under its Amended and Restated 2016 Equity and Incentive Plan (the 2016 Plan) with respect to up to 6,080 shares of common stock (excluding rollover shares), an increase of 1,280 shares reserved for issuance under the previous 2016 Plan as approved by our shareholders on June 8, 2022. Options have generally been granted with an exercise price equal to the fair market value of the common stock on the date of grant and have generally provided for vesting in equal annual amounts over four years beginning on the first anniversary of the date of the grant. No options are exercisable for periods of more than five years after date of grant. Under the 2016 Plan, each share issued under awards other than options and stock appreciation rights will reduce the number of shares reserved for issuance by two shares. Shares issued under options or stock appreciation rights will reduce the shares reserved for issuance on a share-for-share basis. The 2016 Plan and earlier equity compensation plans, pursuant to which an aggregate of 15,495 shares of the Company's common stock were reserved for issuance, were all approved by the Company's shareholders. As of December 31, 2022, 1,513 shares were available for future grants. The Compensation Committee of the Board of Directors administers the equity compensation plans, approves the individuals to whom awards will be granted and determines the number of shares and other terms of each award. Outstanding options under the Company's equity compensation plans at December 31, 2022 expire from June 2023 through October 2027. None of the Company's outstanding options includes performance-based or market-based vesting conditions as of December 31, 2022.

(a) Employee Stock Options

The Company has estimated the fair value of each option grant on the date of grant using the Black-Scholes option-pricing model. The expected volatility assumption is based on the historical daily price data of the Company's common stock over a period equivalent to the weighted average expected life of the Company's options. The expected term of options granted is derived using assumed exercise rates based on historical exercise patterns and represents the period of time the options granted are expected to be outstanding. The risk-free interest rate is based on the actual U.S. Treasury zero-coupon rates for bonds matching the expected term of the option as of the option grant date. The dividend yield of zero is based upon the fact that the Company has not historically declared or paid cash dividends, and does not expect to declare or pay dividends in the foreseeable future.

The per share weighted-average fair values of stock options granted during 2022 and 2021 were \$3.13 and \$4.70, respectively. The weighted-average assumptions used to value options as of their grant date were as follows:

	Year Ended December 31,	
	2022	2021
Risk-free interest rate	3.02 %	0.92 %
Expected volatility	43.19 %	44.98 %
Expected life (in years)	4.24	4.28
Dividend yield	0 %	0 %

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The changes in outstanding stock options for the year ended December 31, 2022 and 2021 are as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2021	2,127	\$ 9.93		
Granted	414	\$ 8.12		
Exercised	(307)	\$ 8.05		
Expired, canceled or forfeited	(483)	\$ 10.14		
Outstanding at December 31, 2022	<u>1,751</u>	<u>\$ 9.77</u>	<u>2.19</u>	<u>\$ 1,948</u>
Exercisable at December 31, 2022	<u>939</u>	<u>\$ 9.98</u>	<u>1.65</u>	<u>\$ 814</u>
Options vested or expected to vest at December 31, 2022	<u>1,751</u>	<u>\$ 9.77</u>	<u>2.19</u>	<u>\$ 1,948</u>

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)	Aggregate Intrinsic Value
Outstanding at December 31, 2020	2,034	\$ 9.25		
Granted	497	\$ 12.68		
Exercised	(274)	\$ 9.86		
Expired, canceled or forfeited	(130)	\$ 9.96		
Outstanding at December 31, 2021	<u>2,127</u>	<u>\$ 9.93</u>	<u>2.68</u>	<u>\$ 931</u>
Exercisable at December 31, 2021	<u>858</u>	<u>\$ 9.41</u>	<u>1.65</u>	<u>\$ 453</u>
Options vested or expected to vest at December 31, 2021	<u>2,127</u>	<u>\$ 9.93</u>	<u>2.68</u>	<u>\$ 931</u>

During 2022, upon the net exercise of 307 stock options, the Company issued 100 shares of common stock, 14 shares were surrendered to the Company to satisfy minimum tax withholding obligations, and 193 shares were cancelled.

The total aggregate intrinsic value of options exercised was \$387 and \$914 in 2022 and 2021, respectively.

As of December 31, 2022, there was \$2,525 of total unrecognized compensation expense related to stock options, which is expected to be recognized over a weighted-average period of 2.43 years. In 2022 and 2021, the Company recorded compensation charges of \$1,023 and \$1,740, respectively, related to stock options. Compensation costs for options subject only to service conditions that vest ratably are recognized on a straight-line basis over the requisite service period for the entire award. During 2022 and 2021, cash received under stock option plans for exercises was \$664 and \$2,709, respectively.

During 2022, there were accelerated vesting and extended exercise term modifications of stock options as it related to the retirement of Mr. Kits van Heyningen, which resulted in a reduction of approximately \$317 in compensation cost. During 2022, there were accelerated vesting term modifications of stock options for employees terminated as part of the Company's restructuring, which resulted in a reduction of approximately \$26 in compensation cost. During 2022, there were accelerated vesting term modifications of stock options for executive employment agreements, which resulted in an acceleration of compensation expense of approximately \$182. During 2022, there were accelerated vesting term modifications of stock options for employees transitioned as part of the sale of the Company's inertial navigation business, which resulted in a reduction of compensation expense of approximately \$46, included in discontinued operations.

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(b) Restricted Stock

The Company granted 249 and 217 restricted stock awards to employees under the terms of the 2016 Plan or the Amended and Restated 2006 Stock Incentive Plan (2006 Plan) for the years ended December 31, 2022 and 2021, respectively. The restricted stock awards have generally provided for vesting annually over four years from the date of grant subject to the recipient remaining an employee through the applicable vesting dates. Compensation expense for restricted stock awards is measured at fair value on the date of grant based on the number of shares granted and the quoted market closing price of the Company's common stock. Such value is recognized as expense over the vesting period of the award, net of forfeitures. The weighted-average grant-date fair value of restricted stock granted during 2022 and 2021 was \$8.51 and \$12.23 per share, respectively.

As of December 31, 2022, there was \$2,656 of total unrecognized compensation expense related to restricted stock awards, which is expected to be recognized over a weighted-average period of 2.28 years. Compensation costs for awards subject only to service conditions that vest ratably are recognized on a straight-line basis over the requisite service period for the entire award. Compensation cost for awards initially subject to certain performance conditions are recognized on a ratable basis over the requisite service period for the entire award. In 2022 and 2021, the Company recorded compensation charges of \$2,297 and \$2,313, respectively, related to restricted stock awards.

During 2022, there were accelerated vesting term modifications of restricted stock as it related to the retirement of Mr. Kits van Heyningen, which resulted in a reduction in compensation expense of approximately \$83. During 2022, there were accelerated vesting term modifications of restricted stock for employees terminated as part of the Company's restructuring, which resulted in an acceleration in compensation expense of approximately \$134. During 2022, there were accelerated vesting term modifications of restricted stock for executive employment agreements, which resulted in an acceleration in compensation expense of approximately \$189. During 2022, there were accelerated vesting term modifications of restricted stock for employees transitioned as part of the sale of the Company's inertial navigation business, which resulted in an acceleration in compensation expense of approximately \$287, included in discontinued operations.

Restricted stock activity under the 2006 Plan and the 2016 Plan for 2022 is as follows:

	Number of Shares	Weighted- average grant date fair value
Outstanding at December 31, 2021, unvested	489	\$ 10.19
Granted	249	8.51
Vested	(311)	9.93
Forfeited	(101)	9.72
Outstanding at December 31, 2022, unvested	<u>326</u>	<u>\$ 9.30</u>

(c) Employee Stock Purchase Plan

Under the Company's ESPP, an aggregate of 1,650 shares of common stock have been reserved for issuance, of which 780 shares remain available as of December 31, 2022.

The ESPP covers all of the Company's employees. Under the terms of the ESPP, eligible employees can elect to have up to six percent of their pre-tax compensation withheld to purchase shares of the Company's common stock on a semi-annual basis at 85% of the market price on the first or last day of each purchase period, whichever is lower. During 2022 and 2021, shares issued under this plan were 41 and 26 shares, respectively. The Company utilizes the Black-Scholes option-pricing model to calculate the fair value of these discounted purchases. The fair value of the 15% discount is recognized as compensation expense over the purchase period. The Company applies a graded vesting approach because the ESPP provides for multiple purchase periods and is, in substance, a series of linked awards. In 2022 and 2021, the Company recorded compensation charges of \$104 and \$56, respectively, related to the ESPP. During 2022 and 2021, cash received under the ESPP was \$308 and \$230, respectively.

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(d) Stock-Based Compensation Expense

The following presents stock-based compensation expense, including expense for the ESPP, in the Company's consolidated statements of operations for the years ended December 31, 2022 and 2021.

	2022	2021
Cost of product sales	\$ 415	\$ 271
Cost of service sales	11	10
Research and development	837	644
Sales, marketing and support	362	898
General and administrative	1,799	2,286
	<u>\$ 3,424</u>	<u>\$ 4,109</u>

(e) Accumulated Other Comprehensive Loss (AOCL)

Comprehensive income (loss) includes net income (loss) and unrealized gains and losses from foreign currency translation. The components of the Company's comprehensive income (loss) and the effect on earnings for the periods presented are detailed in the accompanying consolidated statements of comprehensive income (loss).

	Foreign Currency Translation	Unrealized Loss on Available for Sale Marketable Securities	Total Accumulated Other Comprehensive Loss
Balance, December 31, 2020	\$ (3,232)	\$ —	\$ (3,232)
Other comprehensive loss	(177)	—	(177)
Net other comprehensive loss	(177)	—	(177)
Balance, December 31, 2021	(3,409)	—	(3,409)
Other comprehensive loss	(689)	(12)	(701)
Net other comprehensive loss	(689)	(12)	(701)
Balance, December 31, 2022	\$ (4,098)	\$ (12)	\$ (4,110)

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(8) Income Taxes

Income tax expense (benefit) for the years ended December 31, 2022 and 2021 attributable to loss from continuing operations is presented below.

	<u>Current</u>	<u>Deferred</u>	<u>Total</u>
<u>Year ended December 31, 2022</u>			
Federal	\$ 404	\$ —	\$ 404
State	(13)	—	(13)
Foreign	500	(345)	155
	<u>\$ 891</u>	<u>\$ (345)</u>	<u>\$ 546</u>
<u>Year ended December 31, 2021</u>			
Federal	\$ 27	\$ —	\$ 27
State	—	—	—
Foreign	44	(179)	(135)
	<u>\$ 71</u>	<u>\$ (179)</u>	<u>\$ (108)</u>

Actual income tax expense (benefit) differs from the “expected” income tax expense (benefit) computed by applying the United States Federal statutory income tax rate of 21% for both 2022 and 2021 to loss from continuing operations before tax (benefit) expense, as follows:

	<u>Year Ended December 31,</u>	
	<u>2022</u>	<u>2021</u>
Income tax benefit at Federal statutory income tax rate	\$ (710)	\$ (2,447)
Increase (decrease) in income taxes resulting from:		
State income tax benefit, net of federal benefit	(17)	(386)
State research and development, investment credits	265	(137)
Non-deductible meals & entertainment	8	1
Non-deductible stock compensation expense	133	(194)
Non-deductible compensation under 162(m)	7	35
Prior Period Prepaid Tax	276	—
Foreign Withholding Taxes	139	—
Foreign tax rate differential	(3)	58
Federal research and development credits	(55)	(607)
Uncertain tax positions	(99)	32
Provision to tax return adjustments	110	33
Change in valuation allowance	530	5,066
PPP loan forgiveness	—	(1,455)
Sale of KVH Media Group Entertainment Limited	(206)	—
Prior period adjustments	—	(117)
Other	168	10
Income tax expense (benefit)	<u>\$ 546</u>	<u>\$ (108)</u>

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Loss from continuing operations before income tax expense (benefit) determined by tax jurisdiction, are as follows:

	Year Ended December 31,	
	2022	2021
United States	\$ (4,616)	\$ (11,823)
Foreign	1,238	169
Total	\$ (3,378)	\$ (11,654)

Deferred tax assets and liabilities for the periods presented consisted of the following:

	December 31,	
	2022	2021
Deferred tax assets:		
Accounts receivable, due to allowance for doubtful accounts	\$ 221	\$ 364
Inventories	1,335	858
Operating loss carry-forwards	4,546	5,784
Stock-based compensation expense	881	1,106
Property and equipment, due to difference in depreciation	283	1,944
Research and development tax credit carry-forwards	5,743	6,247
Foreign tax credit carry-forwards	2,345	2,345
State tax credit carry-forwards	3,710	3,975
Capitalized research and development	5,003	2,690
Warranty reserve	302	255
Accrued expenses	1,486	1,089
Lease liability	483	700
Gross deferred tax assets	26,338	27,357
Less valuation allowance	(22,094)	(26,542)
Total deferred tax assets	4,244	815
Deferred tax liabilities:		
Purchased intangible assets	(39)	(199)
Property and equipment, due to differences in depreciation	(3,514)	(86)
Right of use asset	(487)	(689)
Total deferred tax liabilities	(4,040)	(974)
Net deferred tax asset (liability)	\$ 204	\$ (159)
Deferred income tax asset	\$ 259	\$ 56
Deferred income tax liability	\$ (55)	\$ (215)

As of December 31, 2022 the Company has federal and state tax loss carryforwards of approximately \$17,731 and \$8,974, respectively. The federal loss carryforward has no expiration date. The state losses expire through the year 2042. As of December 31, 2022, the Company had federal research and development tax credit carry-forwards in the amount of \$5,734 and other general business credits of \$9 that expire in years 2029 through 2042. As of December 31, 2022, the Company had foreign tax credit carry-forwards in the amount of \$2,345 that expire in years 2026 through 2027. As of December 31, 2022, the Company had state research and development tax credit carry-forwards in the amount of \$4,562 that expire in years 2023 through 2029. The Company also had other state tax credit carry-forwards of \$134 available to reduce future state tax expense that expire in years 2023 through 2029.

The Company's ability to utilize these net operating loss carry-forwards and tax credit carry-forwards may be limited in the future if the Company experiences an ownership change pursuant to Internal Revenue Code Section 382. An ownership change occurs when the ownership percentages of 5% or greater stockholders change by more than 50% over a three-year period.

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In assessing the realizability of its net deferred tax assets, the Company considered whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. As of December 31, 2022, the valuation decreased by \$4,448. The change was primarily the result of the utilization of domestic tax credits and net operating losses to offset the gain on discontinued operations as well as the movement in other temporary items. As part of the Company's analysis, the Company evaluated, among other factors, its recent history of generating tax losses and its near-term forecasts of future taxable income or losses.

As of December 31, 2022, unremitted foreign earnings, which were not significant, have been retained by the Company's foreign subsidiaries for indefinite reinvestment. Upon repatriation of those earnings, in the form of dividends or otherwise, the Company could be subject to state tax and withholding taxes payable to various foreign countries.

The Company establishes reserves for uncertain tax positions based on management's assessment of exposure associated with tax deductions, permanent tax differences, and tax credits. The tax reserves are analyzed periodically and adjustments are made as events occur that warrant adjustment to the reserve. The Company's policy is to recognize interest and penalties related to unrecognized tax benefits as a component of income tax expense.

The aggregate changes in the total gross amount of unrecognized tax benefits, excluding penalties and interest, are as follows:

	<u>Year Ended December 31,</u>	
	<u>2022</u>	<u>2021</u>
Unrecognized tax benefits as of January 1	\$ 1,653	\$ 1,771
Gross decrease in unrecognized tax benefits - prior year tax positions	(160)	(104)
Lapse of statute of limitations	(11)	(14)
Unrecognized tax benefits as of December 31	<u>\$ 1,482</u>	<u>\$ 1,653</u>

All unrecognized tax benefits as of December 31, 2022 and 2021, if recognized, would result in a reduction of the Company's effective tax rate.

The Company recorded interest and penalties of \$56 and \$46 in its consolidated statement of operations for the years ended December 31, 2022 and 2021, respectively. Total accrued interest and penalties related to tax positions taken on our tax returns and included in non-current income taxes payable was approximately \$311 and \$255 as of December 31, 2022 and 2021, respectively.

The timing of any resolution of income tax examinations is highly uncertain, as are the amounts and timing of any settlement payment. These events could cause fluctuations in the balance sheet classification of current and non-current assets and liabilities. The Company estimates that it is reasonably possible that the balance of unrecognized tax benefits as of December 31, 2022 may decrease approximately \$35 in the next twelve months as a result of a lapse of statutes of limitation and settlements with taxing authorities.

The Company's tax jurisdictions include the United States, the United Kingdom, Denmark, Cyprus, Norway, Brazil, Singapore, Japan, and India. In general, the statute of limitations with respect to the Company's United States federal income taxes has expired for years prior to 2019, and the relevant state and foreign statutes vary. However, preceding years remain open to examination by United States federal and state and foreign taxing authorities to the extent of future utilization of net operating losses and research and development tax credits generated in each preceding year.

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(9) Goodwill and Intangible Assets

Intangible assets arose from the acquisition of KVH Media Group (acquired as Headland Media Limited) in May 2013. These intangible assets are being amortized on a straight-line basis over the estimated useful life of 10 years for acquired subscriber relationships. The intangible assets were recorded in pounds sterling and fluctuations in exchange rates cause these amounts to increase or decrease from time to time. As a result of the sale of KVH Media Group Entertainment Limited in April 2022, the Company determined the goodwill and intangible assets associated with this business based on an income approach which estimated the fair value of the reporting unit before and after the sale, and included such amounts in the determination of the gain on sale of the subsidiary.

In January 2017, the Company completed the acquisition of certain subscriber relationships from a third party. This acquisition did not meet the definition of a business under ASC 2017-01, *Business Combinations (Topic 805)-Clarifying the Definition of a Business*, which the Company adopted on October 1, 2016. The Company ascribed \$100 of the initial purchase price to the acquired subscriber relationships definite-lived intangible assets with an initial estimated useful life of 10 years. Under the asset purchase agreement, the purchase price includes a component of contingent consideration under which the Company is required to pay a percentage of recurring revenues received from the acquired subscriber relationships through 2026 up to a maximum annual payment of \$114. As of December 31, 2022, the carrying value of the intangible assets acquired in the asset acquisition was \$462. As the acquisition did not represent a business combination, the contingent consideration arrangement is recognized only when the contingency is resolved and the consideration is paid or becomes payable. The amounts payable under the contingent consideration arrangement, if any, will be included in the measurement of the cost of the acquired subscriber relationships. An additional \$54 and \$62 of consideration was earned under the contingent consideration arrangement during the years ended December 31, 2022 and 2021, respectively.

Acquired intangible assets are subject to amortization. The following table summarizes acquired intangible assets at December 31, 2022 and 2021, respectively:

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value
December 31, 2022			
Subscriber relationships	\$ 7,649	\$ 7,245	\$ 404
Distribution rights	315	315	—
Internally developed software	446	446	—
Proprietary content	153	153	—
Intellectual property	2,284	2,284	—
	<u>\$ 10,847</u>	<u>\$ 10,443</u>	<u>\$ 404</u>
December 31, 2021			
Subscriber relationships	\$ 8,033	\$ 6,746	\$ 1,287
Distribution rights	315	315	—
Internally developed software	446	446	—
Proprietary content	153	153	—
Intellectual property	2,284	2,284	—
	<u>\$ 11,231</u>	<u>\$ 9,944</u>	<u>\$ 1,287</u>

Amortization expense related to intangible assets was \$499 and \$1,027 for years ended December 31, 2022 and 2021, respectively, and was categorized as general and administrative expense.

As of December 31, 2022, the total weighted average remaining useful lives of the definite-lived intangible assets was 1.2 and the weighted average remaining useful lives by the definite-lived intangible asset category are as follows:

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Intangible Asset	Weighted Average Remaining Useful Life in Years
Subscriber relationships	1.2

Estimated future amortization expense for intangible assets recorded by the Company at December 31, 2022 is as follows:

Years ending December 31,	Amortization Expense
2023	\$ 179
2024	71
2025	71
2026	71
2027	5
Thereafter	7
Total amortization expense	\$ 404

The changes in the carrying amount of intangible assets during the year ended December 31, 2022 is as follows:

	2022
Balance at December 31, 2021	\$ 1,287
Amortization expense	(499)
Intangible assets acquired in asset acquisition	54
Sale of KVH Media Group Entertainment Limited	(352)
Foreign currency translation adjustment	(86)
Balance at December 31, 2022	\$ 404

Goodwill is recorded when the consideration for an acquisition exceeds the fair value of net tangible and identifiable intangible assets acquired. None of the Company's goodwill is deductible for tax purposes. The changes in the carrying amount of goodwill during the year ended December 31, 2022 is as follows:

	Goodwill
Balance at December 31, 2021	\$ 6,570
Sale of KVH Media Group Entertainment Limited	(1,038)
Foreign currency translation adjustment	(224)
Balance at December 31, 2022	\$ 5,308

(10) 401(k) Plan

The Company has a 401(k) Plan (the Plan) for all eligible employees. Participants may defer a portion of their pre-tax or post-tax earnings subject to limits determined by the Internal Revenue Service. Participants age 50 or older may be eligible to make additional contributions. The Company matches contributions by the Plan participants up to 6%. The Company's contributions vest over a five-year period from the date of hire. The Company matching contributions were \$486 and \$711 for the years ended December 31, 2022 and 2021, respectively. In addition, the Company may make additional contributions to the Plan at the discretion of the Compensation Committee of the Board of Directors. There were no discretionary contributions in 2022 and 2021.

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(11) Revenue from Contracts with Customers (ASC 606)

In accordance with ASC 606, revenue is recognized when a customer obtains control of promised products and services. The amount of revenue recognized reflects the consideration which the Company expects to be entitled to receive in exchange for these products and services.

Disaggregation of Revenue

The following table summarizes net sales from contracts with customers for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
Product, transferred at point in time	\$ 24,482	\$ 27,490
Product, transferred over time	2,488	2,522
Service	111,908	103,899
Total net sales	\$ 138,878	\$ 133,911

Revenue recognized during the years ended December 31, 2022 and 2021 from amounts included in contract liabilities at the beginning of the fiscal year was approximately \$2,177 and \$2,281, respectively.

For product sales, the delivery of the Company's performance obligations are generally transferred to the customer, and associated revenue is recognized, at a point in time, with the exception of certain VSAT contracts which are transferred to customers over time. For service sales, the delivery of the Company's performance obligations are transferred to the customer, and associated revenue is recognized, over time.

Business and Credit Concentrations

No single customer accounted for 10% or more of consolidated net sales for the years ended December 31, 2022 or 2021. Two customers accounted for approximately 16% and 12% of accounts receivable at December 31, 2022. Two customers accounted for approximately 16% and 14% of accounts receivable at December 31, 2021. One customer accounted for 66% and 54% of long-term accounts receivable included in other non-current assets on the consolidated balance sheets related to sales-type leases at December 31, 2022 and December 31, 2021, respectively.

Customer Contract Balances

The following table provides the balance sheet location and amounts of contract assets, or unbilled accounts receivable, and contract liabilities, or deferred revenue, from contracts with customers as of December 31, 2022 and 2021:

Contract Balance Type	Balance Sheet Location	Year Ended December 31,	
		2022	2021
Current portion of deferred costs	Current contract assets	\$ 1,243	\$ 1,230
Non-current portion of deferred costs	Non-current contract assets	3,033	3,104
Current portion of deferred revenues	Contract liabilities*	1,743	1,720
Non-current portion of deferred revenues	Long-term contract liabilities	4,315	4,466

*Management notes that the remaining "Contract liabilities" balance not included in the above table (as of December 31, 2022 and 2021 is \$1,365 and \$2,058, respectively) relates to deferred income unaffiliated with the Company's primary revenue streams. These values are therefore excluded from the contract assets and contract liabilities from contracts with customers.

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There were no material changes to contract asset balances for the year ended December 31, 2022 as a result of changes in estimates or impairments. The change in the contract liability balance from December 31, 2021 to December 31, 2022 was primarily due to recognition of revenues in the current year related to prior year upfront support billings.

(12) Segment Reporting

The Company operates as one reportable segment as a result of the sale of its inertial navigation business on August 9, 2022.

The Company's performance is impacted by the levels of activity in the marine and land mobile markets, among others. Performance in any particular period could be impacted by the timing of sales to certain large customers.

The Company primarily manufactures and distributes a comprehensive family of mobile satellite antenna products and services that provide access to television, the Internet and VoIP services while on the move. Product sales accounted for 19% and 22% of our consolidated net sales for 2022 and 2021, respectively. Service sales of VSAT airtime service accounted for approximately 74% and 69% of our consolidated net sales for 2022 and 2021, respectively. The balance of service sales are comprised of distribution of commercially licensed entertainment, product repairs, and extended warranty sales.

No other single product class accounts for 10% or more of consolidated net sales.

The Company operates in a number of major geographic areas, including internationally. Revenues from international locations primarily include Singapore, Canada, European Union countries and other European countries, countries in Africa, Asia/Pacific and the Middle East, and India. Revenues are based upon customer location and internationally represented 62% and 58% of consolidated net sales for 2022 and 2021, respectively. Sales to Singapore customers represented 16% of the Company's consolidated net sales for 2022. No other individual foreign country represented 10% or more of the Company's consolidated net sales for 2022. Sales to Singapore customers represented 13% of the Company's consolidated net sales for 2021. No other individual foreign country represented 10% or more of the Company's consolidated net sales for 2021.

As of December 31, 2022 and 2021, the long-lived tangible assets related to the Company's international subsidiaries were less than 10% of the Company's long-lived tangible assets and were deemed not material.

(13) Fair Value Measurements

ASC 820, *Fair Value Measurements and Disclosures* (ASC 820), provides a framework for measuring fair value and requires expanded disclosures regarding fair value measurements. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. ASC 820 describes three levels of inputs that may be used to measure fair value:

- Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities. The Company's Level 1 assets are investments in money market mutual funds and United States treasuries.
- Level 2: Quoted prices for similar assets or liabilities in active markets; or observable prices that are based on observable market data, based on directly or indirectly market-corroborated inputs. The Company has no Level 2 assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market activity, and are developed based on the best information available given the circumstances. The Company has no Level 3 assets.

Assets and liabilities measured at fair value are based the valuation techniques identified in the table below. The valuation techniques are:

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- (a) Market approach—prices and other relevant information generated by market transactions involving identical or comparable assets.

The following tables present financial assets and liabilities at December 31, 2022 and December 31, 2021 for which the Company measures fair value on a recurring basis, by level, within the fair value hierarchy:

December 31, 2022	Total	Level 1	Level 2	Level 3	Valuation Technique
Assets					
Money market mutual funds	\$ 30,977	\$ 30,977	\$ —	\$ —	(a)
United States treasuries	24,703	24,703	—	—	(a)
December 31, 2021					
Assets					
Money market mutual funds	\$ 13,147	\$ 13,147	\$ —	\$ —	(a)

The carrying amount of certain financial instruments approximates fair value due to their short-term, highly liquid nature. These instruments include cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses. The carrying amount of the Company's operating and financing lease liabilities approximates fair value based on currently available quoted rates of similarly structured borrowings.

Assets Measured and Recorded at Fair Value on a Nonrecurring Basis

The Company's non-financial assets, such as goodwill, intangible assets, and other long-lived assets resulting from business combinations, are measured at fair value using income approach valuation methodologies at the date of acquisition and subsequently re-measured if an impairment exists. There was no impairment of the Company's non-financial assets noted during the twelve months prior to December 31, 2022. See Note 1(k) and Note 9 for additional details. The Company does not have any liabilities that are recorded at fair value on a non-recurring basis.

(14) Legal Matters

In the ordinary course of business, the Company is a party to inquiries, legal proceedings and claims including, from time to time, disagreements with vendors and customers. The Company is not a party to any lawsuit or proceeding that, in management's opinion, is likely to materially harm the Company's business, results of operations, financial condition, or cash flows.

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(15) Leases

Lessee

The Company has operating leases for office facilities, equipment, and satellite service capacity and related equipment. Lease expense was \$2,103 and \$3,963 for the year ended December 31, 2022 and 2021, respectively. Short-term operating lease costs was \$182 and \$237 for the years ended December 31, 2022 and 2021, respectively. Maturities of lease liabilities as of December 31, 2022 under operating leases having an initial or remaining non-cancelable term of one year or more are as follows:

Years ending December 31,

2023	\$	1,610
2024		493
2025		53
2026		46
2027 and thereafter		78
Total undiscounted lease payments	\$	2,280
Less amount representing interest	\$	(112)
Present value of operating lease liabilities	\$	2,168
Less current installments of obligation under current-operating lease liabilities	\$	1,532
Obligations under long-term operating lease liabilities, excluding current installments	\$	636
Weighted-average remaining lease term - operating leases (years)		1.08
Weighted-average discount rate - operating leases		5.50 %

During the first quarter of 2018, the Company entered into a five-year financing lease for three satellite hubs for its HTS network. During the first quarter of 2021, the terms of this lease were adjusted and the Company discontinued use of two satellite hubs and was released from the related payment obligation in exchange for additional satellite service capacity. As of December 31, 2022, the gross costs and accumulated depreciation associated with this lease are included in revenue generating assets and amounted to \$1,268 and \$891, respectively. The obligations under financing leases are stated at the present value of minimum lease payments.

The property and equipment held under this financing lease are amortized on a straight-line basis over the seven-year estimated useful life of the asset, since the lease meets the bargain purchase option criteria. Amortization of assets held under financing leases is included within depreciation expense. Depreciation expense for the remaining capital assets was \$181 for both the years ended December 31, 2022 and 2021.

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The future undiscounted lease payments under this financing lease as of December 31, 2022 are:

2023	\$	22
Total undiscounted lease payments	\$	22
Less amount representing interest	\$	—
Present value of financing lease liabilities	\$	22
Less current installments of obligation under accrued other	\$	22
Obligations under other long-term liabilities, excluding current installments	\$	—
Weighted-average remaining lease term - finance leases (years)		0.17
Weighted-average discount rate - finance leases		1.53 %

Lessor

The Company enters into leases with certain customers primarily for the TracPhone VSAT systems. These leases are classified as sales-type leases as title of the equipment transfers to the customer at the end of the lease term. The Company records the leases at a price typically equivalent to normal selling price and in excess of the cost or carrying amount. Upon delivery, the Company records the net present value of all payments under these leases as product revenue, and the related costs of the product are charged to cost of sales. Interest income is recognized throughout the lease term (typically three to five years) using an implicit interest rate. The sales-type leases do not have unguaranteed residual assets.

The current portion of the net investment in these leases was \$3,811 as of December 31, 2022 and the non-current portion of the net investment in these leases was \$5,036 as of December 31, 2022. The current portion of the net investment in the leases is included in accounts receivable, net of allowance for doubtful accounts on the accompanying consolidated balance sheets and the non-current portion of the net investment in these leases is included in other non-current assets on the accompanying consolidated balance sheets. Interest income from sales-type leases was \$764 and \$882 during the year ended December 31, 2022 and 2021, respectively.

The future undiscounted cash flows from these leases as of December 31, 2022 are:

2023	\$	4,365
2024		2,955
2025		1,591
2026		738
2027		257
Total undiscounted cash flows	\$	9,906
Present value of lease payments	\$	8,847
Difference between undiscounted cash flows and discounted cash flows	\$	1,059

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The Company entered into three-year leases for its TracPhone VSAT systems, in which ownership of the hardware does not transfer to the lessee by the end of the lease term. As a result, and in light of other factors indicated in ASC 842, these leases are classified as operating leases.

As of December 31, 2022, the gross costs and accumulated depreciation associated with these operating leases are included in revenue generating assets and amounted to \$1,873 and \$516, respectively. They are depreciated on a straight-line basis over a five-year estimated useful life. Depreciation expense for these assets was \$360 for the year ended December 31, 2022.

For the year ended December 31, 2022, lease revenue of \$537 was recognized in service sales in the statements of operations.

As of December 31, 2022, minimum future lease payments to be received on the operating leases are as follows:

2023	552
2024	342
2025	23
Total	<u>\$ 917</u>

(16) Discontinued Operations

During the third quarter of 2022, the Company sold its inertial navigation business. The Company determined that the sale met the requirements for reporting as discontinued operations in accordance with Accounting Standards Codification (ASC) 205-20. Please see Note 1 for further discussion. The following table presents a reconciliation of the carrying amounts of major classes of assets and liabilities of the discontinued operations to the amounts presented separately in the Company's consolidated balance sheet:

	December 31, 2021
Accounts receivable, net	\$ 5,882
Inventories, net	8,807
Prepaid expenses and other current assets	1,152
Current assets held for sale	<u>\$ 15,841</u>
Property and equipment, net	7,169
Non-current assets held for sale	<u>\$ 7,169</u>
Accounts payable	1,764
Accrued compensation and employee-related expenses	914
Accrued other	955
Accrued product warranty costs	95
Contract liabilities	211
Current liabilities held for sale	<u>\$ 3,939</u>
Other long-term liabilities	8
Non-current liabilities held for sale	<u>\$ 8</u>
Net assets held for sale	19,063

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The following table presents a reconciliation of the major financial line items constituting the results for discontinued operations to the net income from discontinued operations, net of tax, presently separately in the Company's consolidated statements of operations (through August 9, 2022, the date the inertial navigation business was sold):

	Year Ended	
	December 31,	
	2022	2021
Sales:		
Product	\$ 16,042	\$ 36,858
Service	679	998
Net sales	<u>16,721</u>	<u>37,856</u>
Costs, expenses and other income, net:		
Costs of product sales	12,732	22,859
Costs of service sales	457	1,025
Research & development	3,147	6,696
Sales, marketing and support	3,035	5,627
Other income, net	81	134
(Loss) income from discontinued operations before income tax expense	(2,569)	1,783
Gain on sale of discontinued operations before tax expense	30,763	—
Total income from discontinued operations before tax expense	\$ 28,194	\$ 1,783
Income tax expense on discontinued operations	169	—
Net income from discontinued operations, net of taxes	<u>\$ 28,025</u>	<u>\$ 1,783</u>
Net income from discontinued operations per common share		
Basic and diluted	<u>\$ 1.50</u>	<u>\$ 0.10</u>
Weighted average number of common shares outstanding:		
Basic and diluted	<u>\$ 18,632</u>	<u>\$ 18,217</u>

The following table presents supplemental cash flow information of the discontinued operations:

	Year Ended	
	December 31,	
	2022	2021
Cash (used in) provided by operating activities—discontinued operations	\$ (3,853)	\$ 3,416
Cash used in investing activities—discontinued operations	\$ (307)	\$ (824)

The following table presents non-cash expenses from discontinued operations:

	Year Ended	
	December 31,	
	2022	2021
Depreciation	\$ 622	\$ 1,569
Compensation expense related to stock-based awards and employee stock purchase plan	\$ 475	\$ 580
Provision for doubtful accounts	\$ 47	\$ 28

