

# Cree Inc.

# **Terminating Wolfspeed sale to Infineon**

#### Bringing the Wolfspeed business back into its continuing operations

Cree reported today that it will terminate its agreement to sell its Wolfspeed Power and RF division to Infineon as both parties were not able to find solutions to address the concerns of CFIUS likely about related sales to the US military. Cree will receive a termination fee of \$12.5M. Cree also said it will focus on growing sales of Wolfspeed which suggests that the company is no longer considering an IPO of Wolfspeed. Wolfspeed's CY16 sales were \$164M and grew 38% yoy with a gross margin of 51%. We remain cautious on the stock as the company's current P/E multiples on FY17 and FY18 EPS are 52x and 36x despite a top-line sales CAGR of only 5% the past few years.

#### Still expect Cree to be able to fund acquisitions with its existing cash

We believe that Cree's current gross cash balance of \$600M will be enough to continue searching for mid-range acquisitions that could help expand its lighting sales growth. We had previously believed that if Cree were able to sell Wolfspeed to Infineon for \$585M in cash net of taxes, that Cree would use some of that cash for a big stock buyback. Given that a big stock buyback is now unlikely this year, we look to see if Cree can continue to grow Wolfspeed's sales and margins.

### Lowering our FY17 EPS on higher depreciation but raising FY18

We are adding back an additional \$10M of depreciation/amortization expense into its COGS as Cree had been suspending the Wolfspeed related depreciation since it was an asset for sale with \$4M for the quarter and \$6M for a 1-time catch-up. For FY18, we have added back the Wolfspeed business which we estimate adds \$0.20-\$0.25 back into its non-GAAP EPS. We lower FY17E post 2Q results and raise our FY18E EPS on Wolfspeed earnings.

### Valuation: Sell rated with a price target of \$19 (down from \$20)

Our new price target is based on applying a 17x P/E multiple to our new CY18 EPS estimate of \$0.90 (up from \$0.60) plus net cash of \$4/sh (excluding potential cash from Wolfspeed sale). Our prior PT was 16x our CY18 EPS of \$0.60 plus net cash of \$9/sh. We increased our target P/E multiple a turn to reflect higher gross margins trends from its Wolfspeed business (~55% vs 40% for lighting).

### **Equities**

## Americas Semiconductors

12-month rating

Price

Sell

US\$26.49

RIC: CREE.O BBG: CREE US

#### **Trading data and key metrics**

52-wk range US\$32.44-21.12 Market cap. US\$2.61bn Shares o/s 98.5m (COM) Free float 87% Avg. daily volume ('000) 1.164 Avg. daily value (m) US\$31.6 Common s/h equity (06/17E) US\$2.39bn P/BV (06/17E) 1.1x Net debt / EBITDA (06/17E)  $\mathsf{NM}$ 

EPS (UBS, diluted) (US\$)

		06/17E		
	From	То	% ch	Cons.
Q1	0.09	0.15	56	0.09
Q2	0.20	0.30	47	0.20
Q3E	0.05	(0.04)	NM	0.07
Q4E	0.26	0.10	-61	0.13
06/17E	0.61	0.50	-18	0.51
06/18E	0.54	0.72	32	0.60
06/19E	0.59	0.83	39	0.93

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Highlights (US\$m)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Revenues	1,648	1,633	1,617	1,494	1,612	1,820	1,921	1,989
EBIT (UBS)	134	(73)	(9)	(26)	(26)	(2)	12	19
Net earnings (UBS)	203	72	83	50	74	88	105	115
EPS (UBS, diluted) (US\$)	1.65	0.63	0.82	0.50	0.72	0.83	0.94	1.00
DPS (US\$)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net (debt) / cash	1,162	513	445	550	696	863	1,071	1,304
Profitability/valuation	06/14	06/15	06/16	06/1 <b>7</b> E	06/18E	06/19E	06/20E	06/21E
EBIT margin %	8.1	-4.4	-0.5	-1.8	-1.6	-0.1	0.6	1.0
ROIC (EBIT) %	7.4	(3.9)	(0.5)	(1.4)	(1.5)	(0.1)	0.7	1.2
EV/EBITDA (core) x	20.0	34.9	16.0	17.8	17.6	14.6	10.3	8.5
P/E (UBS, diluted) x	35.7	58.0	31.9	53.1	37.0	32.0	28.1	26.5
Equity FCF (UBS) yield %	1.7	(2.4)	2.3	5.7	5.6	6.4	8.0	8.9
Net dividend yield %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Reuters, UBS estimates. Metrics marked as (UBS) have had analyst adjustments applied. Valuations: based on an average share price that year, (E): based on a share price of US\$26.49 on 17 Feb 2017 17:44 EST

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# Cree Inc. (CREE.O)

Income statement (US\$m)	06/14	06/15	06/16	06/17E	% ch	06/18E	% ch	06/19E	06/20E	06/21E
Revenues	1,648	1,633	1,617	1,494	-7.6	1,612	7.9	1,820	1,921	1,989
Gross profit	619	475	489	485	-0.9	541	11.5	599	649	691
EBITDA (UBS)	297	100	151	117	-22.5	118	1.1	142	156	163
Depreciation & amortisation	(163)	(172)	(159)	(143)	-10.3	(144)	0.6	(144)	(144)	(144)
EBIT (UBS)	134	(73)	(9)	(26)	-204.6	(26)	1.8	(2)	12	19
Associates & investment income	0	0 (14)	0 (15)	0	98.9	0	_	0	0	0
Other non-operating income Net interest	13	(14)	(13)	(2)	90.9	8	_	9	11	13
Exceptionals (incl goodwill)	0	0	0	0	_	0	_	0	0	0
Profit before tax	148	(83)	(22)	(28)	-30.4	(18)	36.3	7	23	32
Tax	(23)	19	1	( <b>26)</b> 5	233.9	4	-26.8	(1)	(5)	(6)
Profit after tax	124	(64)	(20)	(23)	-15.6	(14)	38.4	6	18	25
Preference dividends	0	04)	0	0	-15.0	0	-	0	0	0
Minorities	Ö	Ö	Ö	Ō	_	Ö	_	Ö	Ö	0
Extraordinary items	0	0	3	25	NM	29	15.4	29	29	29
Net earnings (local GAAP)	124	(64)	(18)	2	_	15	NM	35	48	55
Net earnings (UBS)	203	72	83	50	-40.3	74	48.1	88	105	115
Tax rate (%)	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0
Per share (US\$)	06/14	06/15	06/16	06/17E	% ch	06/18E	% ch	06/19E	06/20E	06/21E
EPS (UBS, diluted)	1.65	0.63	0.82	0.50	-39.0	0.72	43.5	0.83	0.94	1.00
EPS (local GAAP, diluted)	1.01	(0.56)	(0.17)	0.02		0.15	NM	0.33	0.43	0.48
EPS (UBS, basic)	1.68	0.63	0.82	0.50	-39.0	0.72	44.3	0.84	0.96	1.02
Net DPS (US\$)	0.00	0.00	0.00	0.00	10.0	0.00	- 0.3	0.00	0.00	0.00
Cash EPS (UBS, diluted)¹	2.98	2.15 21.77	2.38	1.93	-18.8 3.7	2.11	9.3	2.17	2.24	2.25 25.31
Book value per share Average shares (diluted)	24.17 122.83	113.78	23.21 101.97	24.08 99.74	-2.2	24.32 102.97	1.0 3.2	24.65 106.97	24.94 110.97	25.31 114.97
Average shares (unuteu)	122.03	113.70	101.37	33.74	-2.2	102.37	3.2	100.37	110.57	114.37
Balance sheet (US\$m)	06/14	06/15	06/16	06/17E	% ch	06/18E	% ch	06/19E	06/20E	06/21E
Cash and equivalents	1,162	713	605	737	21.7	883	19.9	1,050	1,258	1,491
Other current assets	611	595	542	909	67.7	961	5.8	1,023	1,048	1,051
Total current assets	1,774	1,308	1,147	1,645	43.4	1,844	12.1	2,073	2,306	2,541
Net tangible fixed assets	606	626	606	320	-47.2	250	-22.1	179	108	37
Net intangible fixed assets	953	933	922	753	-18.3	728	-3.3	703	678	653
Investments / other assets	12	78	88	86	-1.8	86	0.0	86	86	86
Total assets	3,344	2,945	2,763	2,805	1.5	2,908	3.7	3,041	3,179	3,318
Trade payables & other ST liabilities	307	246	220	219	-0.5	234	7.2	254	261	259
Short term debt	0	0	0	0	-	0	-	0	0	0
Total current liabilities	307	246	220	219	-0.5	234	7.2	254	261	259
Long term debt	0	200	160	187	16.9	187	0.0	187	187	187
Other long term liabilities	48	33	15	13	-17.2	13	0.0	13	13	13
Preferred shares	0	0	0	0	-	0	-	0	0	0
Total liabilities (incl pref shares)	354	479	395	418	<i>5.9</i>	434	3.8	454	461	459
Common s/h equity	2,990	2,466	2,368	2,386	0.8	2,474	3.7	2,587	2,718	2,859
Minority interests  Total liabilities & equity	3,344	2 <b>,945</b>	2,763	2, <b>805</b>	1.5	2, <b>908</b>	3.7	3,041	3,179	3,318
Total habilities & equity	3,344	2,343	2,703	2,003	1.5	2,300	3.7	3,041	3,173	3,310
Cash flow (US\$m)	06/14	06/15	06/16	06/17E	% ch	06/18E	% ch	06/19E	06/20E	06/21E
Net income (before pref divs)	124	(64)	(18)	2	-	15	NM	35	48	55
Depreciation & amortisation	163	172	159	143	-10.3	144	0.6	144	144	144
Net change in working capital	(26)	(46)	(17)	(3)	81.1	(37)	NM	(42)	(18)	(5)
Other operating	58	140	77	65	-15.8	73	12.2	78	83	87
Operating cash flow	319	202	201	206	2.5	195	<i>-5.7</i>	215	256	281
Tangible capital expenditure	(179)	(206)	(120)	(55)	53.9	(48)	13.3	(48)	(48)	(48)
Intangible capital expenditure	(20)	(100)	(14)	(2)	84.4	0	-	0	0	0
Net (acquisitions) / disposals	0	0	(13)	(3)	77.8	0	-	0	0	0
Other investing	(44)	290	134	(24)	-	0	-	0	0	0
Investing cash flow	(242)	(16)	(13)	(84)	NM	(48)	43.1	(48)	(48)	(48)
Equity dividends paid	0	0	0	0	-	0	-	0	0	0
Share issues / (buybacks)	0	(513)	(128)	(35)	72.4	0	-	0	0	0
Other financing	19	1	0	0	0.00	0	-	0	0	0
Change in debt & pref shares	0	200	(40)	27	-	0	-	0	0	0
Financing cash flow	20	(311)	(168)	(8)	95.1	0	_	0	0	0
Cash flow inc/(dec) in cash	96	(126)	20	114	NM	147	28.7	167	208	233
FX / non cash items	42	(323)	(128)	18	-	0	-	0	0	0
Balance sheet inc/(dec) in cash	139	(449)	(108)	131	_	147	11.5	167	208	233

Source: Company accounts, UBS estimates. (UBS) metrics use reported figures which have been adjusted by UBS analysts. <sup>1</sup>Cash EPS (UBS, diluted) is calculated using UBS net income adding back depreciation and amortization.

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# Cree Inc. (CREE.O)

Valuation (x)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
P/E (local GAAP, diluted)	58.4	NM	NM	NM	NM	NM	61.6	55.7
P/E (UBS, diluted)	35.7	58.0	31.9	53.1	37.0	32.0	28.1	26.5
P/CEPS Equity FCF (UBS) yield %	19.5 1.7	17.0 (2.4)	10.9 2.3	13.6 5.7	12.4 5.6	12.0 6.4	11.6 8.0	11.6 8.9
Net dividend vield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
P/BV x	2.4	1.7	1.1	1.1	1.1	1.1	1.1	1.0
EV/revenues (core)	3.6	2.1	1.5	1.4	1.3	1.1	0.8	0.7
EV/EBITDA (core)	20.0	34.9	16.0	17.8	17.6	14.6	10.3	8.5
EV/EBIT (core)	NM	NM	NM	NM	NM	NM	NM	NM
EV/OpFCF (core)	20.1	NM	16.2	17.8	17.6	14.7	10.3	8.5
EV/op. invested capital	3.3	1.9	1.3	1.1	1.2	1.2	1.0	0.9
Enterprise value (US\$m)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Market cap.	7,015	4,381	2,934	2,608	2,608	2,608	2,608	2,608
Net debt (cash)	(1,076)	(838)	(479)	(498)	(498)	(498)	(967)	(1,187)
Buy out of minorities	0	0	0	0	0	0	0	0
Pension provisions/other	0	0	0	0	0	0	0	0
Total enterprise value	5,939	3,544	2,455	2,111	2,111	2,111	1,641	1,421
Non core assets	0	(58)	(40)	(39)	(39)	(39)	(39)	(39)
Core enterprise value	5,939	3,486	2,414	2,072	2,072	2,072	1,602	1,382
Growth (%)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Revenue	18.9	-0.9	-1.0	-7.6	7.9	12.9	5.6	3.5
EBITDA (UBS)	19.0	-66.4	50.9	-22.5	1.1	20.2	9.9	4.3
EBIT (UBS)	39.2	-	88.2	NM	1.8	92.8	-	55.1
EPS (UBS, diluted)	25.8	-61.8	29.3	-39.0	43.5	15.5	14.2	5.8
Net DPS	-	-	-	-	-	-	-	-
Margins & Profitability (%)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Gross profit margin	37.6	29.1	30.2	32.4	33.5	32.9	33.8	34.8
EBITDA margin	18.0	6.1	9.3	7.8	7.3	7.8	8.1	8.2
EBIT margin	8.1	-4.4	-0.5	-1.8	-1.6	-0.1	0.6	1.0
Net earnings (UBS) margin	12.3	4.4	5.2	3.3	4.6	4.9	5.5	5.8
ROIC (EBIT)	7.4	(3.9)	(0.5)	(1.4)	(1.5)	(0.1)	0.7	1.2
ROIC post tax	7.4	NM	NM	NM	NM	NM	0.7	1.2
ROE (UBS)	7.0	2.6	3.4	2.1	3.0	3.5	3.9	4.1
Capital structure & Coverage (x)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Net debt / EBITDA	(3.9)	(5.1)	(3.0)	(4.7)	(5.9)	(6.1)	(6.9)	(8.0)
Net debt / total equity %	(38.9)	(20.8)	(18.8)	(23.0)	(28.1)	(33.4)	(39.4)	(45.6)
Net debt / (net debt + total equity) %	(63.6)	(26.3)	(23.2)	(29.9)	(39.2)	(50.0)	(65.0)	(83.8)
Net debt/EV %	(19.6)	(14.7)	(18.4)	(26.5)	(33.6)	(41.7)	(66.8)	(94.3)
Capex / depreciation % Capex / revenue %	136.3 10.8	141.1 12.6	103.6 7.4	46.6 3.7	40.4 3.0	40.4 2.6	40.4 2.5	40.4 2.4
EBIT / net interest	NM	19.3	4.4	NM	3.3	0.2	NM	NM
Dividend cover (UBS)	INIVI	19.5	4.4	INIVI	ر. -	0.2	INIVI	INIVI
Div. payout ratio (UBS) %	-	-	-	-	-	-	-	-
Revenues by division (US\$m)	06/14	06/15	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Others	1,648	1,633	1,617	1,494	1,612	1,820	1,921	1,989
Total	1,648	1,633	1,617	1,494	1,612	1,820	1,921	1,989
EDIT (LIDC) by division (LICE-)	06/44	06/45	06/16	06/475	06/495	06/405	06/205	06/245
EBIT (UBS) by division (US\$m)	<b>06/14</b>	<b>06/15</b>	06/16	06/17E	06/18E	06/19E	06/20E	06/21E
Others	134	(73)	(9)	(26)	(26)	(2)	12	19
Total Source: Company accounts. UBS estimates. (UBS) metrics	134	(73)	(9)	(26)	(26)	(2)	12	19

Source: Company accounts, UBS estimates. (UBS) metrics use reported figures which have been adjusted by UBS analysts.

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#### Forecast returns

Forecast price appreciation	-28.3%
Forecast dividend yield	0.0%
Forecast stock return	-28.3%
Market return assumption	6.2%
Forecast excess return	-34.5%

#### **Valuation Method and Risk Statement**

Our valuation is based on a sum of the parts methodology. The LED industry is likely growing to see cyclical downturns and cyclical upturns as this industry is still in the very early stages of growth for general lighting applications. We estimate the LED industry has been in a downcycle since mid-2011. The LED industry is also dependent to some degree on Government incentives (such as in China) and regulations that could change without notice. In addition, the industry has seen a large influx of new LED chip manufacturers from China which could increase the chances of LED chip industry oversupply.

Cree has a high dependence on small number of customers, Cree also relies on a limited number of sole source and limited sources suppliers for raw materials, components, and equipment. Any interruption to the supply chain would have significant impact to the process flow.

In addition, Cree's entry into the packaged LED market creates direct competition with some of the company's LED chip customers, leading to orders cutback and deterioration in LED chip revenue. If the deterioration rate is faster than LED components and lighting solutions' revenue growth, Cree's profitability could be challenged. Cree may see pricing pressure from sapphire substrate alternatives. Sapphire has been the most widely used substrate for manufacturing LED devices due to its pricing advantages. To date, the average selling price for sapphire substrate wafer is significantly lower than that of silicon carbide. This is a significant risk to Cree's LED chip business as customers may opt for the cheaper alternative, as well as the component business. Due to rarity of natural silicon carbide, most of the silicon carbide used as raw material has to be synthesized which is a costly process and provides limited supply. On the contrary, sapphire is more readily available at a low cost. As a result, Cree may face the risk of competitors producing large quantities of sapphire substrate wafers and saturating the market.

## **Required Disclosures**

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#### **UBS Investment Research: Global Equity Rating Definitions**

12-Month Rating	Definition	Coverage <sup>1</sup>	IB Services <sup>2</sup>
Buy	FSR is > 6% above the MRA.	45%	29%
Neutral	FSR is between -6% and 6% of the MRA.	39%	27%
Sell	FSR is > 6% below the MRA.	15%	16%
Short-Term Rating	Definition	Coverage <sup>3</sup>	IB Services <sup>4</sup>
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 December 2016.

- 1:Percentage of companies under coverage globally within the 12-month rating category.
- 2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
- 3: Percentage of companies under coverage globally within the Short-Term rating category.
- 4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

**KEY DEFINITIONS:** Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected nearterm (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

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**UBS Securities LLC:** Stephen Chin; Neal Burk.

#### **Company Disclosures**

<b>Company Name</b>	Reuters	12-month rating	Short-term rating	Price	Price date
Cree Inc. <sup>16, 18</sup>	CREE.O	Sell	N/A	US\$26.21	16 Feb 2017

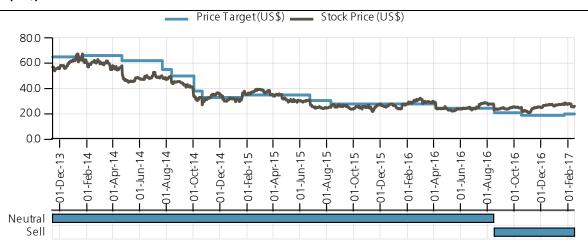
Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

- 16. UBS Securities LLC makes a market in the securities and/or ADRs of this company.
- 18. A U.S.-based global equity strategist, a member of his team, or one of their household members has a long common stock position in Cree Inc.

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#### Cree Inc. (US\$)



Date	Stock Price (US\$)	Price Target (US\$)	Rating
2013-11-15	56.9	65.0	Neutral
2014-01-21	62.83	66.0	Neutral
2014-04-22	58.05	62.0	Neutral
2014-07-23	48.95	55.0	Neutral
2014-08-13	44.82	50.0	Neutral
2014-10-03	33.73	38.0	Neutral
2014-10-22	27.28	33.0	Neutral
2015-01-21	33.88	35.0	Neutral
2015-06-24	30.56	30.5	Neutral
2015-08-11	25.2	28.0	Neutral
2016-04-06	24.81	24.5	Neutral
2016-08-17	23.38	21.0	Sell
2016-10-18	25.2	19.0	Sell
2017-01-24	27.41	20.0	Sell

Source: UBS; as of 16 Feb 2017

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