Cree and ABB Announce Silicon Carbide Partnership to Deliver Automotive and Industrial Solutions

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- Enables Cree to broaden its customer base, delivering silicon carbide to high-power applications in power grids, train, traction and e-mobility sectors
- Accelerates market entry of ABB's Power Grids business into the high-growth electric vehicles (EV) sector

DURHAM, N.C.--(BUSINESS WIRE)--Nov. 18, 2019-- Cree, Inc. (Nasdaq: CREE), the global leader in silicon carbide technology, and ABB's Power Grids business have announced a partnership to jointly expand the rollout of silicon carbide in the rapidly-growing high-power semiconductor market. The agreement incorporates the use of Cree's Wolfspeed® silicon carbide-based semiconductors into ABB's comprehensive product portfolio, enabling Cree to broaden its customer base while accelerating ABB's entry into the fast-expanding EV sector.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20191118005227/en/

(Photo: Business Wire)

Cree's products will be included as part of ABB's power semiconductor product portfolio, across power grids, train and traction, industrial and e-mobility sectors. Specifically, Cree's industry-leading silicon carbide devices will be assembled into ABB power modules.

"Cree is committed to leading the global semiconductor market's transition to more energy efficient, higher performing silicon carbide-based solutions. ABB has a longstanding heritage as the world market leader in industrial power electrification solutions, so expanding our work with them will help increase the adoption of transformative and eco-friendly alternatives in the power and automotive sectors," said Cree CEO Gregg Lowe. "Together, this partnership delivers Wolfspeed silicon carbide into new markets, such as power grids and high-speed trains for the continued advancement of the power, traction, industrial and EV markets."

"The partnership with Cree supports ABB's strategy in developing energy-efficient silicon carbide semiconductors in the automotive and industrial sectors," said Rainer Käsmaier, Managing Director of Semiconductors at ABB's Power Grids business. "It emphasizes ABB's commitment to continuous technological innovation to shape the future of a smarter and greener society."

Compared to a silicon-based semiconductor, a silicon carbide semiconductor delivers a significant reduction in switching losses and permits far higher switching frequencies. This means that energy can be converted with more than 99 percent efficiency, significantly decreasing energy loss and playing a major role in reducing carbon dioxide emissions.

This advanced technology enables future utilization of silicon carbide modules in traction inverters for trains, HVDC for power transmission and distribution, solar and wind inverters, energy storage, and transformers. For the EV market, this means longer driving distances and faster charging times using the same size battery.

About Cree, Inc:

Cree is an innovator of Wolfspeed® power and radio frequency (RF) semiconductors and lighting class LEDs. Cree's Wolfspeed product portfolio includes silicon carbide materials, power-switching devices and RF devices targeted for applications such as electric vehicles, fast charging, inverters, power supplies, telecom and military and aerospace. Cree's LED product portfolio includes blue and green LED chips, high-brightness LEDs and lighting-class power LEDs targeted for indoor and outdoor lighting, video displays, transportation and specialty lighting applications.

For additional product and company information, please refer to www.cree.com.

Forward Looking Statements:

This press release contains forward-looking statements involving risks and uncertainties, both known and unknown, that may cause Cree's actual results to differ materially from those indicated. These actual results may differ materially due to a number of factors, including the ability of the parties to negotiate the definitive agreements for the development and supply of future products; the risk that Cree may be unable to manufacture these products with sufficiently low cost to offer them at competitive prices or with acceptable margins; the risk Cree may encounter delays or other

difficulties in ramping up production of its capacity to supply these products; customer acceptance of these new products; the rapid development of new technology and competing products that may impair demand or render Cree's products obsolete; and other factors discussed in Cree's filings with the Securities and Exchange Commission, including its report on Form 10-K for the year ended June 30, 2019, and subsequent filings.

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