**ELEMENT SIX TO PRESENT NEW FINDINGS LEVERAGING DIAMOND HEAT SPREADERS FOR THERMAL MANAGEMENT OF HOTSPOTS IN GALLIUM NITRIDE DEVICES AT IMAPS 2015**

**SANTA CLARA, Calif. (Oct. 19, 2015)**—Element Six, the world leader in synthetic diamond supermaterials and member of The De Beers Group of Companies, will be presenting at the IMAPS 48th International Symposium on Microelectronics on Wednesday, Oct. 28 at 2:30 p.m. EST in Orlando, Florida. Thomas Obeloer, business development manager at Element Six Technologies, will present, “Optimizing Diamond Heat Spreaders for Thermal Management of Hotspots for GaN Devices,” and will discuss the application of a hybrid silicon micro-cooler with diamond heat spreaders to effectively cool Gallium Nitride (GaN) devices. Held at the Rosen Centre Oct. 26-29, IMAPS is the largest conference focusing exclusively on challenges, achievements and trends within the microelectronics industry.

**Session:** Packaging the Internet of Things & Other Advanced Applications: High Power / High Temperature  
**Date and Time:** Wednesday, Oct. 28 at 2:30 p.m. EST  
**Title:** “Optimizing Diamond Heat Spreaders for Thermal Management of Hotspots for GaN Devices”

In this session, Obeloer will discuss the need for new thermal management solutions for GaN-based devices in order to preserve high reliability and unlock GaN’s intrinsic performance potential as devices become increasingly smaller with higher power densities. He will present findings from an extensive experiment measuring the effectiveness in heat dissipation leveraging several grades (i.e. thermal conductivities) of chemical vapor deposited (CVD) diamond heat spreaders paired with a silicon-based micro-cooler. Results proved the maximum chip temperature can be reduced by more than 40 percent, and 10kW/cm² hotspot heat flux can be dissipated while maintaining the maximum hotspot temperature under 160 degrees Celsius.

If you’re interested in speaking with Obeloer or Bruce Bolliger, head of sales and marketing at Element Six Technologies, while at the show to learn more about Element Six’s CVD diamond heat spreaders and the breakthrough results achieved in cooling GaN devices, please visit the Element Six booth (#422) or contact Havas Formula at e6@formulapr.com to coordinate an in-person meeting.

**About Element Six**  
**Element Six** is a synthetic diamond supermaterials company. Element Six is a member of The De Beers Group of Companies, its majority shareholder. Element Six designs, develops and produces synthetic diamond supermaterials, and operates worldwide with its head office registered in Luxembourg, and primary manufacturing facilities in China, Germany, Ireland, Sweden, South Africa, U.S. and the U.K.

Element Six supermaterial solutions are used in applications such as cutting, grinding, drilling, shearing and polishing, while the extreme properties of synthetic diamond beyond hardness are already opening up new applications in a wide array of industries such as optics, power transmission, water treatment, semiconductors and sensors.

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