



Press Release

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New 3D Glass Solutions Millimeter-Wave PDK for NI AWR Software Previewing at IMS2019

EL SEGUNDO, Calif. – May 29, 2019 – [NI](#) (formerly AWR Corporation) and [3D Glass Solutions](#) (3DGS) will demonstrate a pre-release of the innovative 3DGS glass-based millimeter-wave (mmWave) RF device process design kit (PDK) for use with NI AWR software in NI Booth #930 and 3DGS Booth #781 during the International Microwave Symposium (IMS2019) in Boston on June 4-6.

The growing demand for specialized mmWave components for 5G and aerospace applications is putting pressure on designers to bring small, high-performance, low-energy consumption products to market quickly. Leveraging 3DGS glass-based mmWave technology, RF engineers are able to design and deliver high-performance components for inclusion with monolithic microwave integrated circuits (MMIC) and discrete power devices that offer a smaller footprint, reduced energy consumption and improved RF performance.

“This PDK enables our customers to co-design a variety of compact, high-performance millimeter-wave passive devices such as bandpass filters, matching networks, splitters and combiners, as well as other necessary RF front-end building blocks,” said Jeb Flemming, 3DGS chief technology officer. “This partnership will enable our customers to rapidly design products that meet their unique product specifications in a design environment that incorporates 3DGS high-yield, low-cost design rules to maximize the performance of MMIC devices.”

The NI AWR software-specific 3DGS mmWave PDK consists of electrical models and parameterized layout cells (PCells) that are pre-configured for the NI AWR Design Environment extraction flow. This flow comprises the Analyst™ 3D finite-element method (FEM) electromagnetic (EM) simulator within the Microwave Office circuit simulator, providing true “EM accuracy” for mmWave designs ready for fabrication at 3DGS.

“The advent of 5G, internet of things (IoT) and next-generation wireless communications is requiring RF and microwave engineers to deliver high-performance communications components to market more quickly than ever before,” said Sherry Hess, vice president of marketing for AWR Group, NI. “NI AWR software experts have collaborated with 3DGS to develop this new PDK for use with [NI AWR Design Environment software](#) in order to streamline design cycles for customers using glass-based technology, while providing the accurate simulation needed to ensure high performance and first-pass success.”

Availability

The new 3DGS mmWave PDK for NI AWR software is planned for release early in Q3 and will be available directly from 3DGS by contacting PKD_support@3dglassolutions.com. The latest release of NI AWR Design Environment software, inclusive of the Analyst 3D EM simulator and active licenses, is required.

A 5G 28-GHz bandpass filter reference design, which will be demonstrated at IMS2019, will accompany the official release of the PDK.

About 3D Glass Solutions

3D Glass Solutions (3DGS) is a world-class expert on the fabrication of electronic packages and devices using photo-definable glass-ceramics. The company manufactures a wide variety of glass-based, system-in-package (SiP) devices and components using its patented low-loss photosensitive APEX® glass technology for applications in RF electronics and photonics used in automotive radar, IC electronics, medical, aerospace, defense, wireless infrastructure, mobile handset and IoT industries. 3DGS offers high-precision products with exceptional high-frequency and low-loss properties. 3DGS glass-based RF products can be combined with any number of designs or devices to create incredibly unique and valuable SiP products. The company has created foundational patent positions related to all photosensitive glass-ceramic materials and devices and owns the fundamental intellectual property for all four positions (materials, design, systems and manufacturing) related to glass-ceramic devices for the electronics packaging industry. 3DGS leverages its unique product solutions to provide device

manufacturing and systems integration services for several standard and custom products. To learn more about 3DGS, visit www.3DGlassSolutions.com.

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