



## **Samsung Electronics Starts Producing Industry's First 16-Gigabit GDDR6 for Advanced Graphics Systems**

*New 16Gb GDDR6 offers twice the speed and density levels of currently available GDDR5 to address growing needs of advanced graphics market*

**SEOUL, Korea – January 18, 2018** – Samsung Electronics Co., Ltd., the world leader in advanced memory technology, today announced that it has started mass production of the industry's first 16-gigabit (Gb) Graphics Double Data Rate 6 (GDDR6) memory for use in advanced graphics processing for gaming devices and graphics cards as well as automotive, network and artificial intelligence systems.

“Beginning with this early production of the industry's first 16Gb GDDR6, we will offer a comprehensive graphics DRAM line-up, with the highest performance and densities, in a very timely manner,” said Jinman Han, senior vice president, Memory Product Planning & Application Engineering at Samsung Electronics. “By introducing next-generation GDDR6 products, we will strengthen our presence in the gaming and graphics card markets and accommodate the growing need for advanced graphics memory in automotive and network systems.

Built on Samsung's advanced 10-nanometer (nm) class\* process technology, the new GDDR6 memory comes in a 16Gb density, which doubles that of the company's 20-nanometer 8Gb GDDR5 memory. The new solution performs at an 18-gigabits-per-second (Gbps) pin speed with data transfers of 72 gigabytes per second (GBps), which represents a more than two-fold increase over 8Gb GDDR5 with its 8Gbps pin speed.

Using an innovative, low-power circuit design, the new GDDR6 operates at 1.35V to lower energy consumption approximately 35 percent over the widely used GDDR5 at 1.55V. The 10nm-class 16Gb GDDR6 also brings about a 30 percent manufacturing productivity gain compared to the 20nm 8Gb GDDR5.

Samsung's immediate production of GDDR6 will play a critical role in early launches of next-generation graphics cards and systems. With all of its improvements in density, performance and energy efficiency, the 16Gb GDDR6 will be widely used in rapidly growing fields such as 8K Ultra HD video processing, virtual reality (VR), augmented reality (AR) and artificial intelligence.

With extensive graphics memory lineups including the new 18Gbps 16Gb GDDR6 and recently introduced 2.4Gbps 8GB HBM2, Samsung expects to dramatically accelerate growth of premium memory market over the next several years.

### **About Samsung Electronics Co., Ltd.**

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions. For the latest news, please visit the Samsung Newsroom at <http://news.samsung.com>.

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\* *Editor's Note:* 10nm-class denotes a process technology node somewhere between 10 and 19 nanometers.