



## **Samsung Begins Mass Production of 256GB Embedded Universal Flash Storage for Automotive Applications**

*The new 256GB eUFS 2.1 for automotives is the industry's first storage device to incorporate advanced features of the UFS 3.0 standard for automotive applications*

*Enhanced warranty for extended temperature range offers optimum solution for next-generation automotive systems*

**SEOUL, Korea – February 8, 2018** – Samsung Electronics Co., Ltd., the world leader in advanced memory technology, today announced that it has begun mass production of a 256-gigabyte (GB) embedded Universal Flash Storage (eUFS) solution with advanced features based on automotive specifications from the JEDEC UFS 3.0 standard, for the first time in the industry.

Following the memory breakthrough of the automotive industry's first 128GB eUFS in September, 2017, Samsung's 256GB eUFS is now being shipped to automotive manufacturers preparing the market for Advanced Driver Assistance Systems (ADAS), next-generation infotainment systems and new-age dashboards in luxury vehicles.

As thermal management is crucial for automotive memory applications, Samsung's 256GB eUFS extends the temperature range to between -40°C and 105°C for both operational and power-saving modes. Warranties for conventional embedded multimedia card (eMMC) 5.1 solutions generally cover -25°C to 85°C for vehicles in operation and -40°C to 85°C when in idle or power-saving mode,

"With the new temperature threshold for automobile warranties, major automotive manufacturers can now design-in memory that's even well suited for extreme environments and know they will be getting highly reliable performance," said Kyoung Hwan Han, vice president of NAND marketing at Samsung Electronics. "Starting with high-end vehicles, we expect to expand our business portfolio across the entire automotive market, while accelerating growth in the premium memory segment."

Samsung's 256GB eUFS not only can easily endure the new temperature specification, despite the heat-sensitive nature of memory storage, but also through its temperature notification feature, a sensor will notify the host application processor (AP) when the device temperature exceeds 105°C or any pre-set level. The AP would then regulate its clock speed to lower the temperature to an acceptable level.

Sequential reads for the 256GB eUFS can reach 850 megabytes per second (MB/s), which is at the high end of the current JEDEC UFS 2.1 standard, and random read operations come in at 45,000 IOPS. In addition, a data refresh feature speeds up processing and enables greater system reliability by relocating older data to other less-used cells.

The temperature notification, developed by Samsung, and data refresh features are included in UFS specification, version 3.0, which was announced last month by JEDEC, a global semiconductor standards organization.

Samsung plans to bolster its technology partnerships with global automakers and component providers, and continue expanding its eUFS line-up with an aim to lead the premium memory market.

###

**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>.