28HV Solution Accelerates GLOBALFOUNDRIES Leadership in OLED Display Drivers for Mobile Devices

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Santa Clara, Calif., September 24, 2020 – GLOBALFOUNDRIES® (GF®), the world's leading specialty foundry, today announced it has shipped more than 75 million units of its new 28HV specialized semiconductor solution for organic-light emitting diode (OLED) display drivers to suppliers of leading smartphone makers. The announcement was made at GF's annual Global Technology Conference (GTC).

Built on GF's 28nm platform, the new 28HV specialty solution is optimized to enable faster, brighter, and sharper OLED displays with more power-efficient variable refresh rates. The performance provided by 28HV's area-efficient high-voltage design, optimized standard cells, and high-density memories position GF for further leadership in the display driver space, as mobile phone makers continue to transition from liquid crystal displays (LCDs) to lower power OLED displays.

GF's 28HV solution entered volume production in Q4 2019. GF is the only pure play foundry in production today on 28nm technology for display applications.

"We are proud to be the leader in OLED display driver integrated circuits (OLED DDIC). Driven by our relentless pursuit of cutting-edge technology, we have consistently held the top position in the non-captive market for the last 13 years," said YJ Kim, CEO of MagnaChip Semiconductor Corporation. "OLED technology will continue to expand into the global smartphone market driven by 5G ramp-up and will also further penetrate into new applications such as TV and automotive. We will continue to churn out more innovative products with our long-established design know-how and lowest power 28-nanometer technology, and we are encouraged by successive momentum for this growing product family. GLOBALFOUNDRIES is an important partner for us, as we continue along our trajectory of success in the OLED DDIC market."

GF was the first pure-play semiconductor foundry to produce OLED display drivers, starting with its 55nm platform. The new 28HV solution is the latest milestone on GF's OLED roadmap, which started with 55nm, and includes 40nm, and 28nm. To date, GF has shipped more than 135 million total units of its 55nm and 40nm OLED display driver solutions.

"GLOBALFOUNDRIES is the clear leader in specialty semiconductor solutions for the mobile phone market. GF silicon enables so much of what you love about and have come to expect from your smartphone – reliable connectivity, great sound, sharp display, and more," said Bami Bastani, senior vice president of Mobile and Wireless Infrastructure at GF. "GF and MagnaChip have an unmatched heritage of developing and manufacturing analog and mixed-signal chips. GF's new 28HV solution is a result of the close collaboration between our engineering teams to meet the demands of a new generation of mobile devices with smaller, more energy-efficient, ultra high definition displays."

Several GF Ecosystem partners are approaching qualification of IP enhancements to the 28HV process design kit, which will provide designers an even more efficient design experience and faster time to market on 28HV.

GF's 28HV solution is manufactured on GF's state-of-the-art 300mm production line at Fab 1 in Dresden, Germany.

About GF

GLOBALFOUNDRIES (GF) is the world's leading specialty foundry. GF delivers differentiated feature-rich solutions that enable its customers to develop innovative products for high-growth market segments. GF provides a broad range of platforms and features with a unique mix of design, development and fabrication services. With an at-scale manufacturing footprint spanning the U.S., Europe and Asia, GF has the flexibility and agility to meet the dynamic needs of customers across the globe. GF is owned by Mubadala Investment Company. For more information, visit www.globalfoundries.com.

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