TSMC Announces the Opening of Advanced Backend Fab 6, Marking a Milestone in the Expansion of 3DFabric™ System Integration Technology

HSINCHU, Taiwan, R.O.C, Jun. 8, 2023—TSMC (TWSE: 2330, NYSE: TSM) today announced the opening of its Advanced Backend Fab 6, the Company's first all-in-one automated advanced packaging and testing fab to realize 3DFabric™ integration of front-end to back-end process and testing services. The fab is prepared for mass production of TSMC-SoIC™ (System on Integrated Chips) process technology. Advanced Backend Fab 6 enables TSMC to flexibly allocate capacity for TSMC 3DFabric™ advanced packaging and silicon stacking technologies, such as SoIC, InFO, CoWoS and advanced testing, improving production yield and efficiency.

Construction of Advanced Backend Fab 6 commenced in 2020 to support the next generation of HPC, AI, mobile applications and other products, and help customers achieve product success and win market opportunities. Located in Zhunan Science Park, the fab has a base area of 14.3 hectares, making it TSMC's largest advanced backend fab to date with a cleanroom area larger than the sum of TSMC's other advanced backend fabs. TSMC estimates that the fab will have the capacity to produce more than 1 million 12-inch wafer equivalent 3DFabric process technology per year, and more than 10 million hours of testing services per year.

"Chiplet stacking is a key technology for improving chip performance and cost-effectiveness. In response to the strong market demand for 3D IC, TSMC has completed early deployment of advanced packaging and silicon stacking technology production capacity, and offers technology leadership through the 3DFabric™ platform," said Dr. Jun He Vice President, Operations / Advanced Packaging Technology & Service, and Quality & Reliability. "With the production capacity that meets our customers' needs, we will unleash innovation together and become an important partner that customers trust in the long term."

TSMC uses intelligent manufacturing to optimize the production efficiency of the fab. The five-in-one intelligent automatic material handling system built into the factory has a total length of more than 32 kilometers. From wafer to die, production information is connected with agile dispatching systems to shorten the production cycle. These systems are combined with artificial intelligence to simultaneously execute precise process control, detect abnormalities in real time, and establish a robust die-level big data quality defense network. The data processing capacity per

second is 500 times that of a front-end fab, and a complete production history for each die is constructed through die traceability.

About TSMC

TSMC pioneered the pure-play foundry business model when it was founded in 1987, and has been the world's leading dedicated semiconductor foundry ever since. The Company supports a thriving ecosystem of global customers and partners with the industry's leading process technologies and portfolio of design enablement solutions to unleash innovation for the global semiconductor industry. With global operations spanning Asia, Europe, and North America, TSMC serves as a committed corporate citizen around the world.

TSMC deployed 288 distinct process technologies, and manufactured 12,698 products for 532 customers in 2022 by providing broadest range of advanced, specialty and advanced packaging technology services. The Company is headquartered in Hsinchu, Taiwan. For more information please visit https://www.tsmc.com.

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