STMicroelectronics and MACOM RF Gallium-Nitride-on-Silicon prototypes achieve technology and performance milestones

- *Devices meet cost and performance targets and move effort to qualification stage*
- *Shows strong progress for resilient volume manufacturing and supply*

Geneva, Switzerland and Lowell, MA, USA, May 13, 2022 – STMicroelectronics ("ST") (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, and **MACOM Technology Solutions Holdings Inc. ("MACOM") (NASDAQ: MTSI)**, a leading supplier of semiconductor products for the Telecommunications, Industrial and Defense and Datacenter industries, have announced the successful production of radio-frequency Gallium-Nitride-on Silicon (RF GaN-on-Si) prototypes. With this achievement, ST and MACOM will continue to work together and enhance our relationship.

RF GaN-on-Silicon offers high potential for 5G and 6G infrastructure. The long-term incumbent RF power technology, laterally-diffused metal-oxide semiconductor (LDMOS), dominated early-generation RF power amplifiers (PAs). GaN can offer superior RF characteristics and significantly higher output power than LDMOS for these RF PAs. Further, it can be manufactured on either silicon or silicon-carbide (SiC) wafers. RF GaN-on-SiC can be more expensive because of the competition for SiC wafers from high-power applications and because of its non-mainstream semiconductor processing. On the other hand, the GaN-on-Si technology under development by ST and MACOM is expected to offer competitive performance paired with large economies of scale, enabled by its integration into standard semiconductor process flows.

Prototype wafers and devices manufactured by ST have achieved cost and performance targets that would allow them to effectively compete with the incumbent LDMOS and GaN-on-SiC technologies on the market. These prototypes are now moving to the next big milestones – qualification and industrialization. ST is on target to hit these milestones in 2022. With this progress, ST and MACOM have begun discussions to further expand their efforts to accelerate delivery of advanced RF GaN-on-Si products to the market.

"We believe that the technology has now reached performance levels and process maturity where it can effectively challenge the established LDMOS and GaN-on-SiC and we can offer attractive cost and supply-chain advantages for high-volume applications, including Wireless Infrastructure," said Edoardo Merli, Power Transistor Sub-Group General Manager and Executive Vice President of STMicroelectronics. "*Commercializing RF GaN-on-Silicon products are the next big milestone in our collaboration with MACOM and with continued progress, we look forward to fully realizing the potential of this exciting technology."*

"Together, we continue to make good progress in moving the GaN-on-Si technology towards commercialization and high-volume production," said Stephen G. Daly, MACOM President and CEO. *"Our collaboration with ST is an important part of our RF Power strategy and I am confident that we can win market share in targeted applications where the GaN-on-Silicon technology meets the technical requirements."*

About MACOM

MACOM designs and manufactures high-performance semiconductor products for the Telecommunications, Industrial and Defense and Datacenter industries. MACOM services over 6,000 customers annually with a broad product portfolio that incorporates RF, Microwave, Analog and Mixed Signal and Optical semiconductor technologies. MACOM has achieved certification to the IATF16949 automotive standard, the ISO9001 international quality standard and the ISO14001 environmental management standard. MACOM operates facilities across the United States, Europe, Asia and is headquartered in Lowell, Massachusetts.

About STMicroelectronics
At ST, we are 48,000 creators and makers of semiconductor technologies mastering the semiconductor supply chain with state-of-the-art manufacturing facilities. An integrated device manufacturer, we work with more than 200,000 customers and thousands of partners to design and build products, solutions, and ecosystems that address their challenges and opportunities, and the need to support a more sustainable world. Our technologies enable smarter mobility, more efficient power and energy management, and the wide-scale deployment of the Internet of Things and connectivity. ST is committed to becoming carbon neutral by 2027. Further information can be found at www.st.com.

Special Note Regarding Forward-Looking Statements
This press release contains forward-looking statements based on ST and/or MACOM management's beliefs and assumptions and on information currently available to each company's respective management. These forward-looking statements include, among others, statements about each company's ability to advance its GaN-on-Silicon products to commercialization and high-volume production and their ability to win market share with such products. These forward-looking statements reflect ST's and/or MACOM's current views about future events and are subject to risks, uncertainties, assumptions and changes in circumstances that may cause those events or our actual activities or results to differ materially from those indicated by any forward-looking statement. Although ST and MACOM believe the expectations reflected in the forward-looking statements are reasonable, each company cannot and does not guarantee future events, results, actions, levels of activity, performance or achievements. Readers are cautioned not to place undue reliance on these forward-looking statements. A number of important factors could cause actual results to differ materially from those indicated by the forward-looking statements, including, but not limited to, those factors described in ST's latest Form 20-F or in "Risk Factors" in MACOM's Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and other filings with the Securities and Exchange Commission. Neither party undertakes any obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise.

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