PRESS RELEASE

Villebon sur Yvette – 3 December 2025

UMS Unveils New GH10-10, 0.1-µm GaN Technology: A breakthrough in RF and Millimeter-Wave applications

United Monolithic Semiconductors (UMS) is proud to announce that its new GH10-10 GaN

technology is now fully qualified and already opened in production mode, empowering our customers with high performance, fast time-to-market and greater competitive advantages.

Recognized as a European supplier leader for innovative GaAs and GaN processes, UMS serves leading industries including defense, aerospace, telecommunications, automotive, and industrial markets.



Driving innovation forward, UMS sets new standards in performance with GH10-10 for low-noise, RF switches and High-Power Amplifiers (HPA) MMIC solutions with unmatched efficiency.

Key Highlights of GH10-10:

Bias conditions	ZLoad	@18GHz	@3oGHz	@45GHz	@6oGHz
15 V ; 150 mA/mm					
Saturated power density		3.2	3	2.9	2.8
(W/mm)	Opt Pout				
Linear Gain (dB)		18	14	11	8
PAE_max (%)	Opt PAE	57	56	46	32
Associated power gain (dB)		14	11	8	5.5
Nfmin (dB)		1.3	1.8	2.4	-

Valeria Di Giacomo-Brunel, Head of UMS Product Solutions & Foundry Services, emphasized the importance of this new technology launch, stating:

"GH10-10 represents a major leap forward in our technology roadmap, enabling high frequency operation beyond V band with a good device robustness. By integrating GH10-10 technology into market, our GaN platform reaches new levels of performance and capability, empowering more advanced and competitive solutions to push the boundaries of RF and mm-wave performance."



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About United Monolithic Semiconductors (UMS)

UMS designs and manufactures innovative radio-frequency microwave semiconductor solutions based on its in-house III-V technology, which integrate into its customers' high-performance systems and equipment.

Whether it is bespoke customer solutions, catalogue products or foundry services, UMS mobilizes the technical skills of its talents to guarantee quality, reliability and innovation, and meets the performance challenges of its customers with state-of-the-art, reliable and long-lasting solutions.

UMS' solutions are tailored to meet each customer's needs with flexibility and suitability. Thanks to their scalable and responsive industrial capabilities (frontend and backend) and global supply chain, UMS is capable to accommodate both small and large production requirements.

With major locations in Villebon, France and Ulm, Germany, sales office in the US and APAC, and a tight-knit representation and distribution network, UMS brings quality made in Europe to their customers around the world.

Specialized in GaAs and GaN technology, UMS has achieved the following certifications: ISO9001 (Quality Management Systems) ISO14001 (Environmental Management Systems), IATF16949 (Automotive supplemental requirements), ISO50001 (Energy Management System for our Ulm production site). UMS technologies are also part of the European Preferred Parts List ESCC (Space).

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