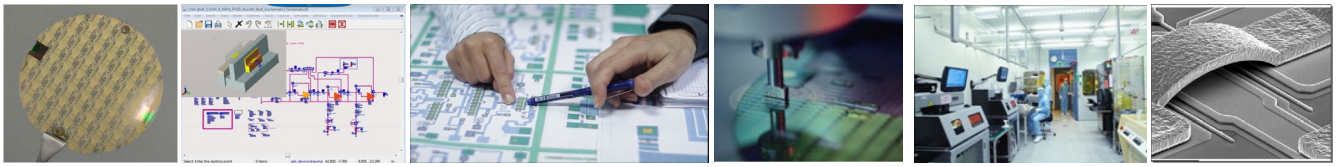
United Monolithic Semiconductors

Industrial technologies qualified for Space

Try GaN GH25 MPW

With UMS EUROPEAN LEADER in RF MMIC products and foundry services



UMS launches **a shared foundry run on its GH25 GaN process.**

GH25 is a space evaluated 0.25µm HEMT GaN-on-SiC substrate technology for very high power applications. With GH25, you will be able to design your own GaN HPAs, LNAs, switches, diodes, MMICs, power bars and multi-function components. You will be supported by excellent PDK and models:

- ☑ highly accurate non-linear scalable models supporting electro-thermal capabilities,
- ☑ Stack for EM simulators,
- ☑ DRC for layout rules verification.

Offer conditions and price:

This offer is dedicated to new design concept evaluation and prototyping. The price is valid for engineering die with no screening and no test inspection.

Entry price: 3 400€/mm² for a minimum of 4mm²

The Multi-Project Wafer launch date is March 22, 2024.

INFORMATION	**For engineering purpose only** Simply provide your GDS file before March 22, 2024

DELIVERY	16 Engineering chips, from a PCM tested wafer
CONDITIONING	Gel-Pak® box

AVAILABLE DIE SIZE (mm)	1	2	3	4
MAX RATIO	1:4			

Die size include 100µm dicing street - No inspection, not test on MMIC

Launching date flexibility is +/- 2 weeks

Dieframes for layout can be provided on request

Minimum order is 4mm² - Price is valid until March 22, 2024

Order to be placed before March 8, 2024

Important Notes:

- UMS may cancel the run in case of insufficient number of participants.
- For some countries a specific dedicated export license may be required before delivery.

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GaN 2024 MPW offer by UMS

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How many dies will I receive and how much does it cost?

You will receive 16 engineering chips (untested and without visual inspection) of your circuit in Gel-Pack® box from a **GH25** PCM good wafer. The price is based on your circuit dimensions on the mask tile multiplied by the mm² unit price.
For example, if your circuit is 2 x 2 mm², the price is (2 x 2) x 3 400€ = 13 600€

GH25 MPW tile dimensions (mm):

	1	2	3	4
1	1	2	3	4
2	2	4	6	8
3	3	6	9	12
4	4	8	12	16

GH25 available die size (mm) including 100µm dicing street

Main characteristics of GH25:

Process	GH25 High Power GaN on SiC
Active Device	HEMT
Power density	4.5W/mm
Gate Length	0.25µm
Ids (gm max)	0.75A/mm
Idss sat /Ic	1A/mm
Vbds/Vbce	>120V
Cut off freq.	30GHz
Vpinch	-3.4V
Gm	300mS/mm
VdsDC	25V
Max freq use	~20GHz for PA
MIM Cap.@ 1 MHz	Density (pF/mm²) 250
TaN Resistor	Sheet Resistance (Ω/□): 30
TiWSi Resistor	Sheet Resistance (Ω/□): 1000
Wafer thickness	100µm

How to participate to this shared foundry run?

More information? Ordering your GaN area? Acquisition of the GaN PDK?
Contact UMS marketing & sales department at mktsales@ums-rf.com.

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