united onolithic semico

OCTOBER 2012

PRODUCT NEWS

CHK025A-SOA

GaN transitor





4GHz, V_{DS}: 50V, I_{D_Q}: 200mA

High efficiency: up to 70% High PAE: 60%@4GHz High power gain: >13dB@4GHz

UMS announces the release of a new high power GaN transistor, the CHK025A-SOA:

Parameter	Тур
High Power:	>25W
Wide-band capability	Up to 5GHz
DC bias	V _{DS} : 50V
	I _{D_Q} : 200mA
MTTF	>10 ⁶ H@TJ 200°C
Operating modes	Pulsed & CW

This new transistor is a multi-purpose product particularly suited for radar and telecommunication applications. It is housed in a low parasitic, thermally enhanced RoHS ceramic flange package.

Demo board available on request.

CHA2110-QDG

LNA

Very low noise: 1.2dB Power supply: 4V@45mA QFN 4x4

Following the bare die version, the CHA2110 is now available in QFN package.

Parameter	Тур
Frequency range	7-12 GHz
Linear Gain	19dB
Noise figure	1.2dB
Output power at 1dB comp (f=10GHz)	10dBm
3 rd order interception point (f=10GHz)	21dBm

The self-biased CHA2110 offers gain and current tuning. This high performance and user friendly LNA meets perfectly the requirements of various defence, space and telecommunication systems applications.







OCTOBER 2012

Eurww 2012







EVENTS

UMS is contributing to numerous events and communication on its researches and achievements:

UMS scheduled presentations:

From 28th to 31st of October: EUMW in Amsterdam (booth 514). The detailed list of conferences we participate to is available in our website: <u>http://www.ums-gaas.com/news-events.php</u>

From the 8th to 9th of October: the 6th Space Agency – MOD workshop on wide Bandgap Semiconductors and Components organized by ESA.

<u>October 9th – 15 h 10 :</u> "UMS Industrial GaN HFET technology - status and outlook" / H. Blanck, UMS

UMS has also participated to:

ESREF 2012 from 1st to 5th of October in Italy with presentation of its own research (3) or papers achieved in collaboration with other companies (1 & 2):

- "Reliability studies on GaN HEMTs with sputtered Iridium gate module" - R. Lossy¹, H. Blanck², J. Würfl¹ - ¹Ferdinand-Braun-Institut -Germany, ²United Monolithic Semiconductors - Germany
- "Evidence of relationship between mechanical stress and leakage current in AlGaN/GaN transistor after storage tes"t B. Lambert¹, N. Labat², D. Carisetti³, S. Karboyen⁴, J.G. Tartarin⁴, J. Thorpe¹, L. Brunel¹, A. Curutchet², N. Malbert², E. Romain-Latu⁵, M. Mermoux⁶ ¹UMS France, ²IMS France, ³Thales R&T France, ⁴LAAS France, ⁵SERMA technologies France, ⁶LEPMI France
- "Reliability data's of 0.5 μm AlGaN/GaN on SiC technology qualification "- B. Lambert¹, J. Thorpe¹, R. Behtash¹, B. Schauwecker¹, F. Bourgeois¹, H. Jung², J. Bataille¹, P. Mezenge¹, C. Gourdon¹, C. Ollivier¹, D. Floriot¹, H. Blanck¹ - ¹UMS - France, ²UMS – Germany

ESSDERC-ESSCIRC in September in Bordeaux. These conferences were aimed at presenting the most recent discussion on advances in solid-state devices and technologies. The paper presented was the outcome of a collaboration between UMS and IMS.

"Kink Effect Characterization in AlGaN/GaN HEMTs by DC and Drain Current Transient Measurements". L. Brunel, N. Malbert, A. Curutchet, N. Labat of the IMS Laboratory, UMS-CNRS 5218, Talence, France and L. Brunel and B. Lambert from UMS, Villebon sur Yvette, France

> Information & contact: <u>www.ums-gaas.com</u> or <u>mktsales@ums-gaas.com</u> +33 1 69 86 32 00

