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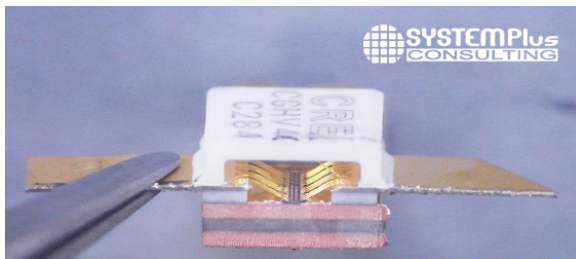
PACKAGING

SYSTEM

POWER

Wolfspeed RF GaN HEMT CGHV40100F

The 50V RF GaN HEMT from Wolfspeed is designed and manufactured with specific technical choices, making it a unique product.



Wolfspeed (Infineon) offers a broad range of GaN RF products that are in high demand throughout the energy, electronics, industrial,

transportation, and military telecommunications sectors. The company's new CGHV40100 is a unique gallium-nitride (GaN) high-electron-mobility transistor operating from a 50-volt rail and up to 3-GHz.

The CGHV40100 includes a single GaN-on-SiC HEMT die with an area of 4.17mm². To make the source connection, the device is manufactured on ultra-thin wafer with gold vias. The HEMT shows the typical GaN epitaxy structure for lateral device and a source-connected field plate.

The device is assembled in a SOT467C package with ceramic substrate materials that possess an excellent combination of electrical, mechanical, and thermal properties. The flange material is CuMoCu heatsink, which has good mechanical properties but is quite expensive. Very specific and optimized choices went into the device's design and manufacturing, resulting in a competitive, stunning product.

This report also includes complete chip and module fabrication process overviews, and an estimated cost.

Title: Wolfspeed
CGHV40100F GaN HEMT
Pages: 66
Date: October 2016
Format: PDF & Excel file
Price: Full report: EUR 3,290

COMPLETE TEARDOWN WITH:

- Detailed photos
- Precise measurements
- Package and die analysis
- Manufacturing process flow
- Supply chain evaluation
- Manufacturing cost analysis
- Estimated sales price

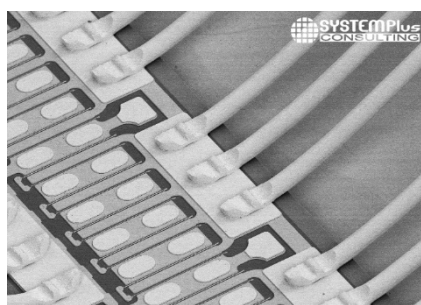
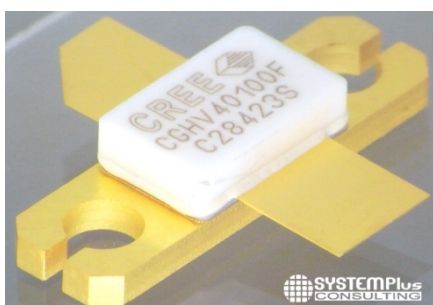


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Nicolas is in charge of physical analysis. He has a deep knowledge in chemical and physical analyses. He previously worked in microelectronics R&D for CEA/LETI in Grenoble and for STMicroelectronics in Crolles.

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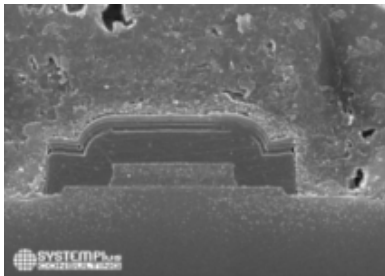
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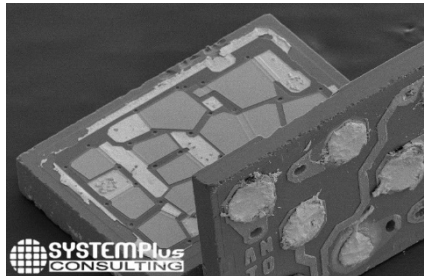
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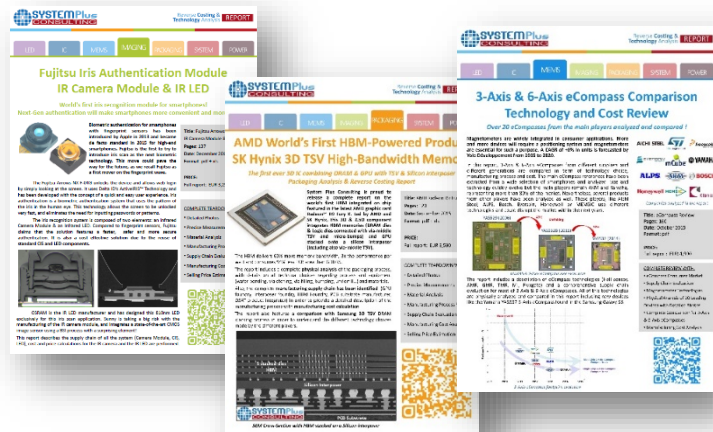
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2.1 Products are sent by email to the Buyer:

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- within a reasonable time for Products ordered prior to their effective release. In this case, the Seller shall use its best endeavours to inform the Buyer of an indicative release date and the evolution of the work in progress.

2.2 Some weeks prior to the release date the Seller can propose a pre-release discount to the Buyer

The Seller shall by no means be responsible for any delay in respect of article 2.2 above, and including incases where a new event or access to new contradictory information would require for the analyst extra time to compute or compare the data in order to enable the Seller to deliver a high quality Products.

2.3 The mailing of the Product will occur only upon payment by the Buyer, in accordance with the conditions contained in article 3.

2.4 The mailing is operated through electronic means either by email via the sales department or automatically online via an email/password. If the Product's electronic delivery format is defective, the Seller undertakes to replace it at no charge to the Buyer provided that it is informed of the defective formatting within 90 days from the date of the original download or receipt of the Product.

2.5 The person receiving the Products on behalf of the Buyer shall immediately verify the quality of the Products and their conformity to the order. Any claim for apparent defects or for non-conformity shall be sent in writing to the Seller within 8 days of receipt of the Products. For this purpose, the Buyer agrees to produce sufficient evidence of such defects.

2.6 No return of Products shall be accepted without prior information to the Seller, even in case of delayed delivery. Any Product returned to the Seller without providing prior information to the Seller as required under article 2.5 shall remain at the Buyer's risk.

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9.2 French law shall govern the relation between the Buyer and the Seller, in accordance with these Terms and Conditions.

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