



Product Features

• RF frequency: 26 to 29.5 GHz

• Linear Gain: 17 dB

Psat: 50 W

Die Size: X=5.0 mm, Y=5.0 mm

GaN HEMT Process
4 mil SiC substrate
DC Power: 28 VDC, 1.7 A

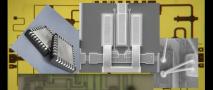
Application

- 5G Wireless
- SATCOM
- Military Radar, EW

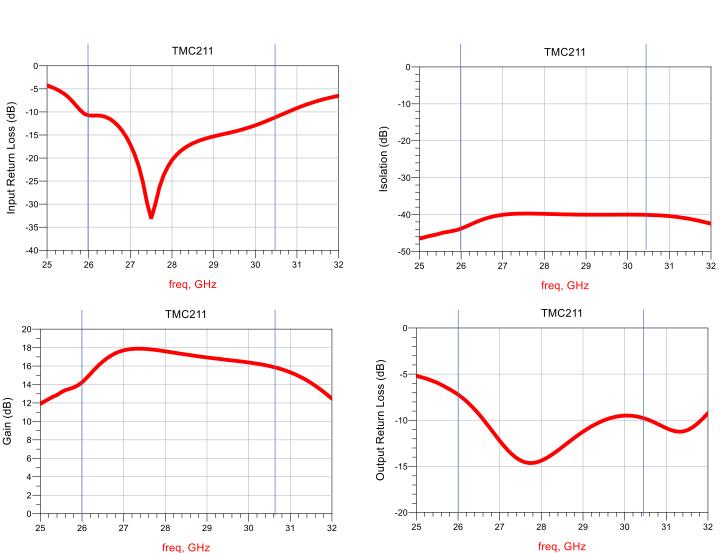
Product Description

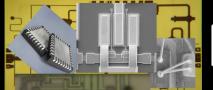
The TMC211 GaN HEMT Power amplifier is a 50W two-stage Single-ended power MMIC, designed for use in Extended-Range high EIRP 5G wireless, SATCOM and Military Radar and EW applications. The TMC211 is a 50 Ω matched design which eliminates the need for RF port matching. TMC211 can be biased from 18V to 28V to adjust maximum power and to optimize power added efficiency and Linearity for a variety of applications. TMC211 can be packaged in a surface mount air-cavity QFN with proper thermal management. To ensure rugged and reliable operation and moisture protection, the TMC211 is designed and layed out to lower the maximum junction temperature. Both bond pad and backside metallization are Au-based that is compatible with ribbon and wedge bonding and high conductivity epoxy and eutectic die attach methods.

Electrical Performance : Vdd = 28 V, Vgg = -3.7 V, TA = 26 °C, F = 28 GHz				
	min	Тур	Max	Units
Frequency	26		29.5	GHz
Gain		17		dB
Return Loss		10		dB
Psat		47		dBm
PAE		28		%
Bias Voltage		28		V
Bias Current		1700		mA

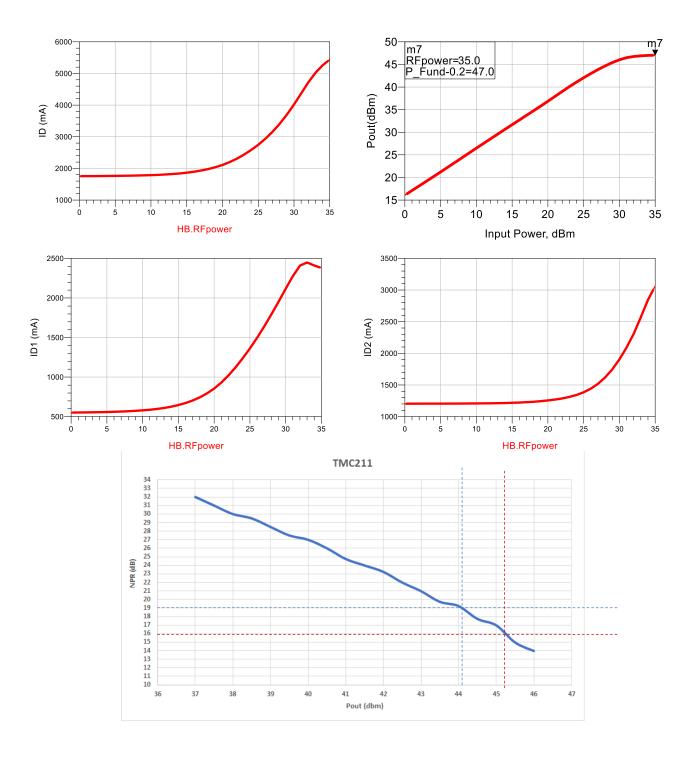




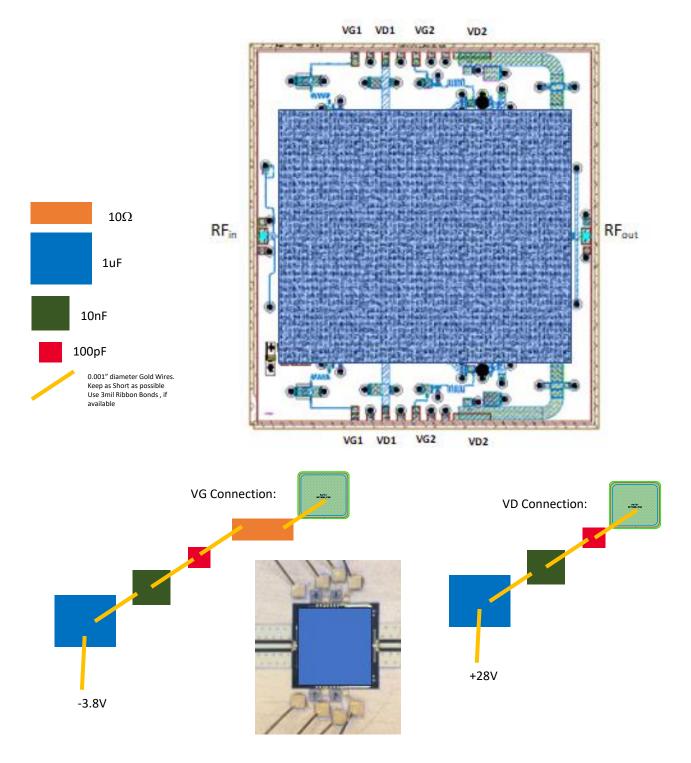


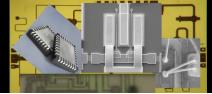




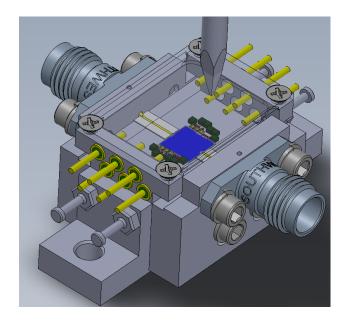








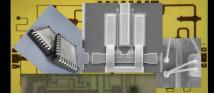






TMC211 Evaluation Module

TMC211 26-29.5 GHz Power Amplifier





mmTron Inc. ("mmTron"). All rights reserved.

The information contained in this this datasheet is for reference only. All specifications are subject to change without prior notice.

Except as provided in its Terms and Conditions of Sale or any separate agreement, mmTron assumes no liability or responsibility whatsoever, including for (i) errors or omissions in these materials; (ii) failure to update these materials; or (iii) conflicts or incompatibilities arising from future changes to specifications and product descriptions, which mmTron may make at any time, without notice. These materials grant no license, express or implied, to any intellectual property rights. THESE MATERIALS ARE PROVIDED "AS IS" WITH NO WARRANTY OR LIABILITY, EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF mmTron PRODUCTS INCLUDING FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHT, ACCURACY OR COMPLETENESS, OR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM USE OF THESE MATERIALS. mmTron products are not intended for use in medical, lifesaving or life sustaining applications. mmTron customers using or selling mmTron products for use in such applications do so at their own risk and agree to fully indemnify mmTron for any damages resulting from such improper use or sale. These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations'.

The product layout, and specification are mmTron Proprietary and confidential information. The recipient agrees not to copy, alter, modify, reverse engineer, or attempt to derive the composition or underlying information, structure or ideas of any Confidential Information and must not remove, overprint, deface or change any notice of confidentiality, copyright, trademark, logo, legend or other notices of ownership from any originals or copies of mmTron's information.