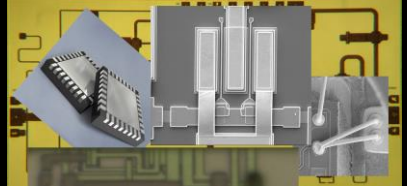
TMC248D
22-30 GHz
Driver Amplifier



mmTRON
Unleashing the mmWave Frontier

Product Features

- RF frequency: 22 to 30 GHz
- Linear Gain: 20 dB
- P_{sat}: 27 dBm
- Die Size: X=3.0 mm, Y=3.0 mm, Z=0.1mm
- DC Power: 23 VDC, 60 mA

Application

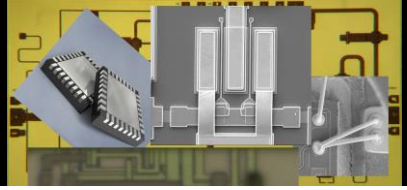
- mmWave 5G
- Point-to-Point Radios and VSATs
- Fiber Optics
- Military, EW and Space

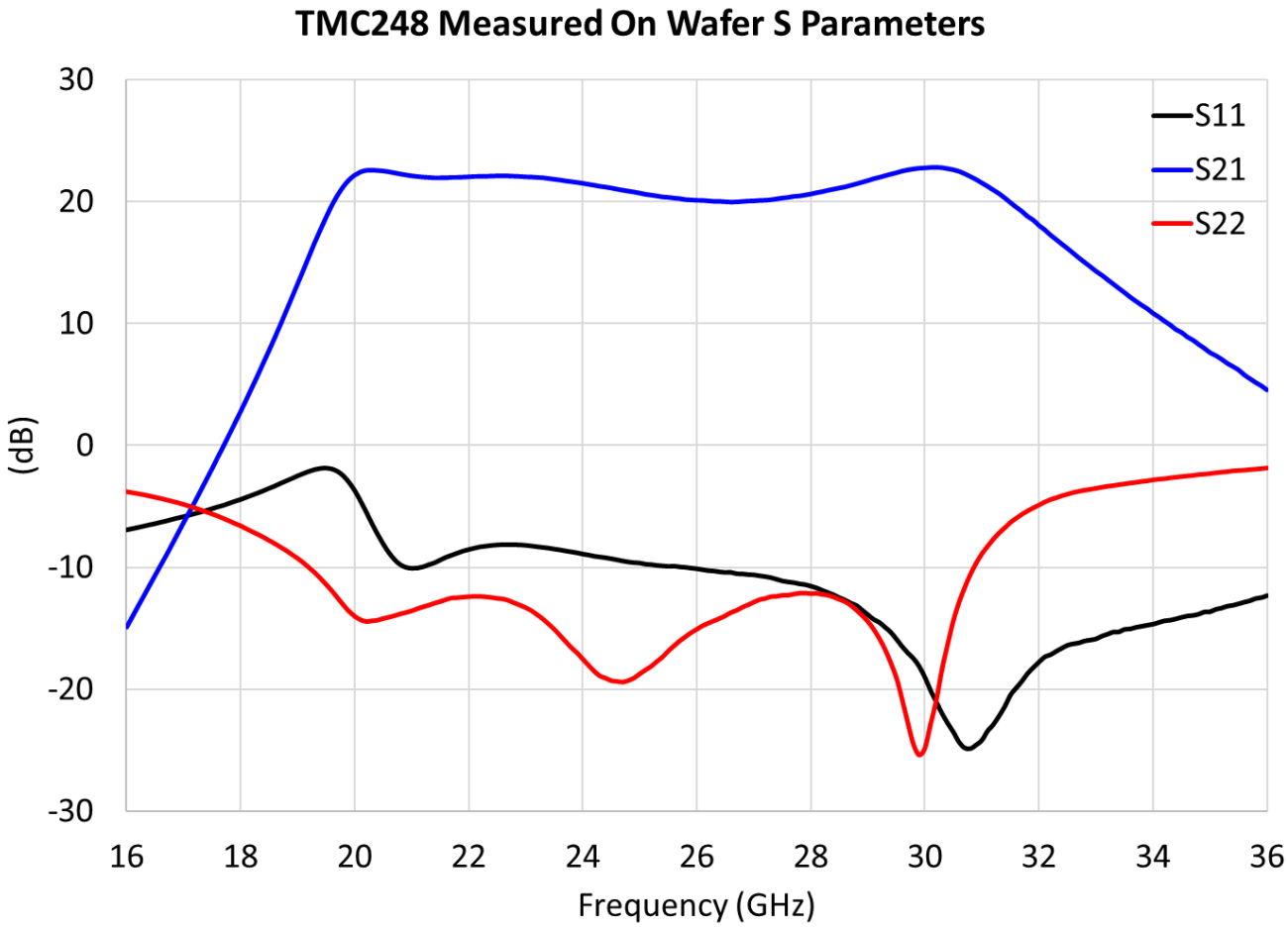
Product Description

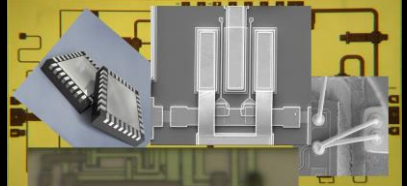
The TMC248D GaN Power Amplifier is a high linearity device, designed for use in mmWave 5G, Radios, Military, EW and Space applications. The TMC248D provides 0.5 W of saturated power from 22 to 30 GHz. The TMC248D is matched to 50Ω, eliminating the need for RF port matching. Both bond pad and backside metallization are Au-based that is compatible with ribbon and wedge bonding and high conductivity epoxy and eutectic die attach methods.

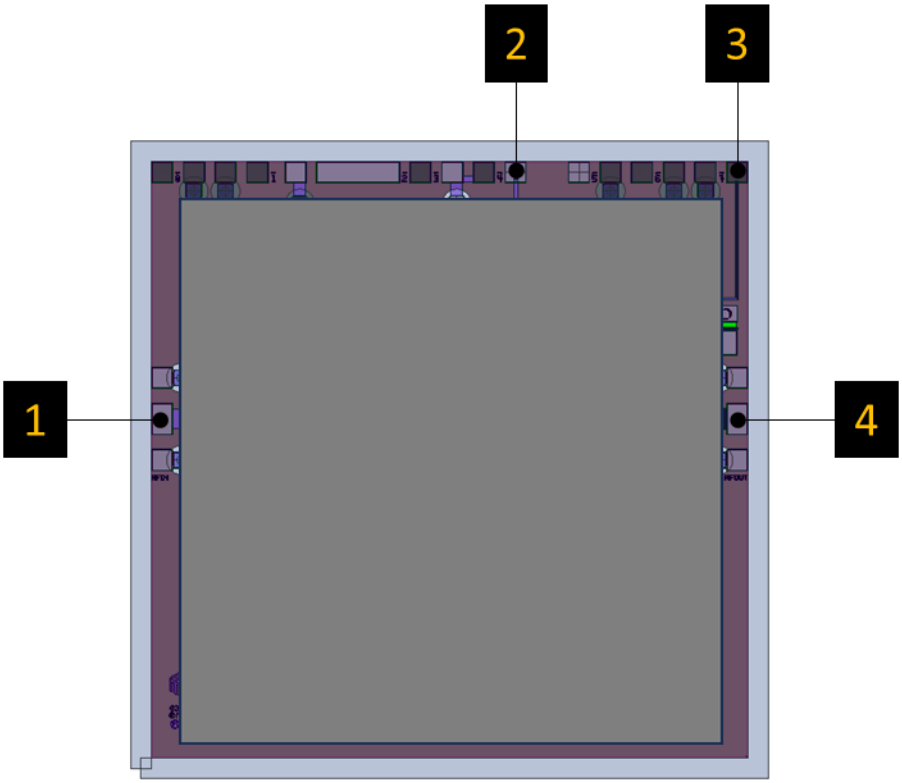
Electrical Performance : **Vdd = 23 V, Vgg = -4.5 V, TA = 25 °C, F = 27 GHz**

	Min	Typ	Max	Units
Frequency	24		30	GHz
Gain		20		dB
P1dB		26		dBm
Psat		27		dBm
NF		5.5		dB
OIP3		30		dBm
Bias Voltage		23		V
Bias Current		60		mA




TMC248 Measured On Wafer S Parameters
30
20
10
0
-10
-20
-30
(dB)
16
18
20
22
24
26
28
30
32
34
36
Frequency (GHz)
S11
S21
S22





Pad #	Function
1	RF INPUT
2	VDD BIAS
3	VGG BIAS
4	RF OUTPUT

1. DXF and detailed assembly drawings are available on request.