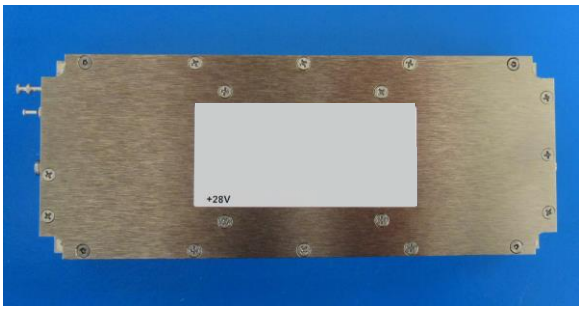
HD33796

2-12GHz 4W RF Power Amplifier

Features

- Frequency Range: 2-12GHz
- Small Signal Gain: 40dB
- P_{SAT}: +36dBm (4W)
- DC Power: +28V @ 1800mA
- RF Connector: SMA Female
- GaN RF Power Amplifier

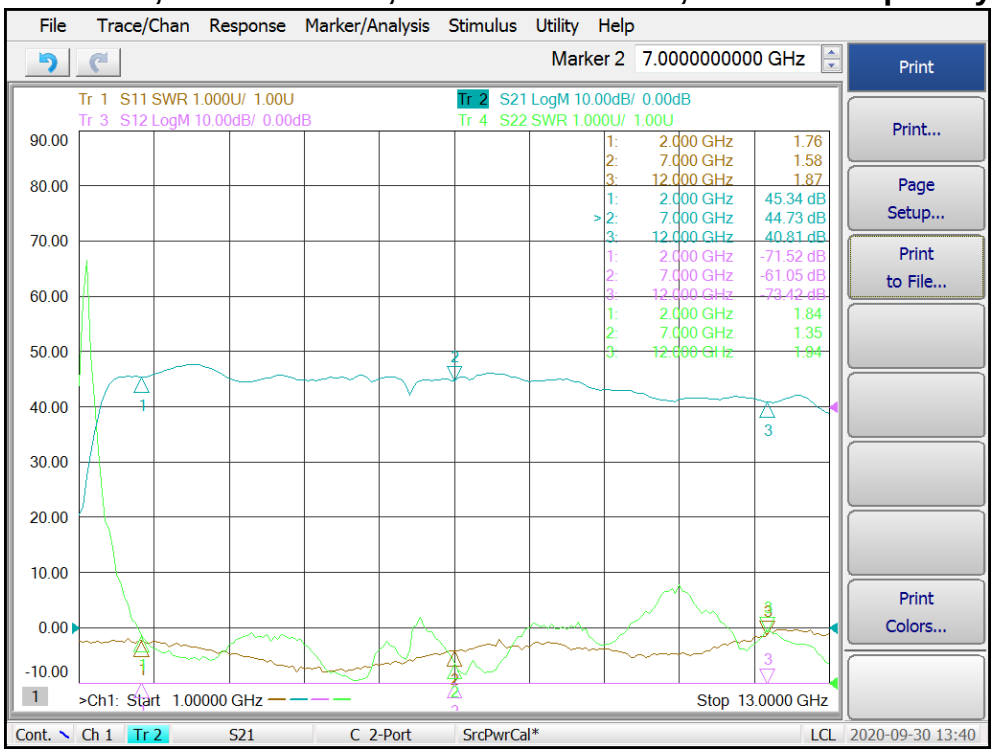
Picture



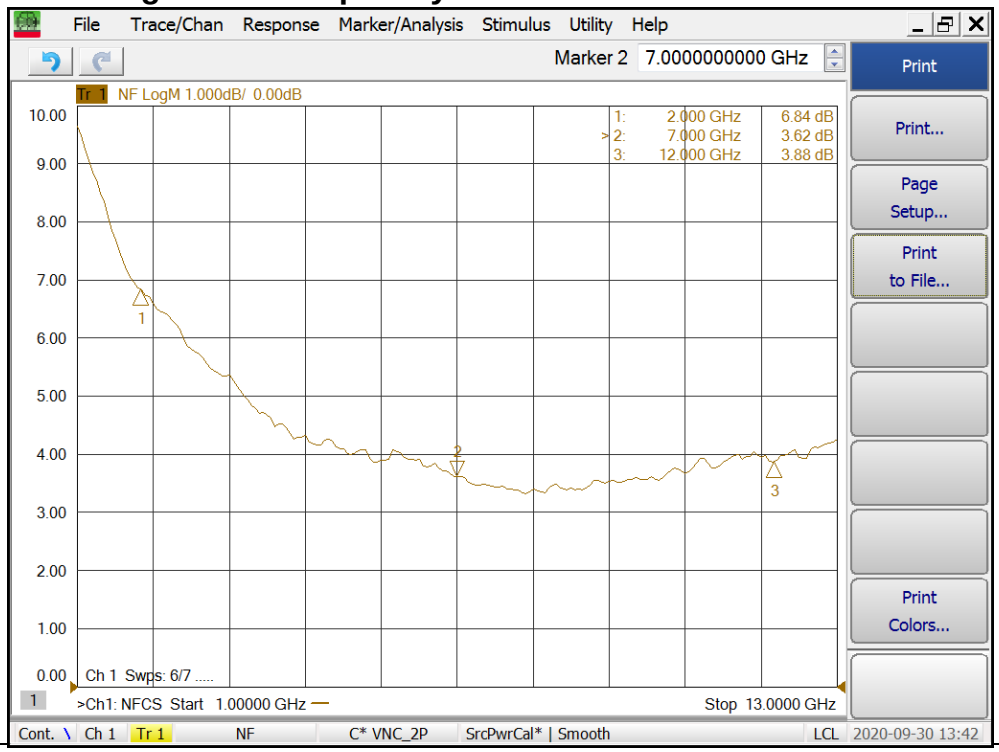
Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, Power Supply = +28VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	2		12
Small Signal Gain (S_{21}) P_{IN} =-40dBm	dB	40	43	
Gain Flatness	dB		±2.5	±4.0
Output Power P_{OUT} @ 7GHz, P_{IN} =0dBm	dBm	+36	+37	
Efficiency	%		10	
Noise Figure @ 7GHz	dB		4.0	5.0
Isolation (S_{12})	dB	-55	-60	
VSWR Input (S_{11}) @ 7GHz Output (S_{22}) @ 7GHz	ratio:1 ratio:1		1.5:1 1.5:1	2.0:1 2.0:1
DC Power Supply - voltage	V	24		28
DC Power Supply - current	mA		1800	2000
Size (LxWxH)	Inch/mm	6.40”x2.50”x1.05”/162.56x63.53x26.67		
Weight	Oz/gram	15/425		

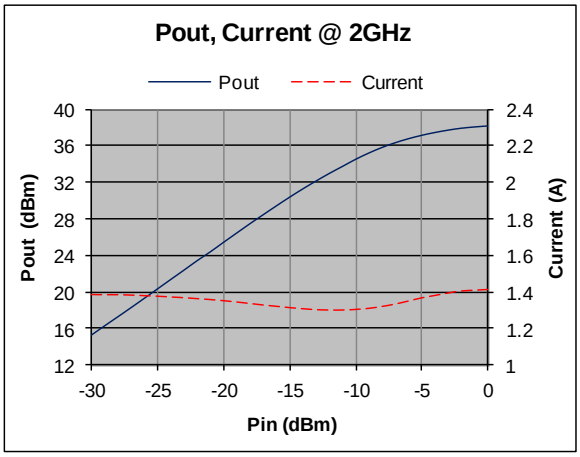
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency

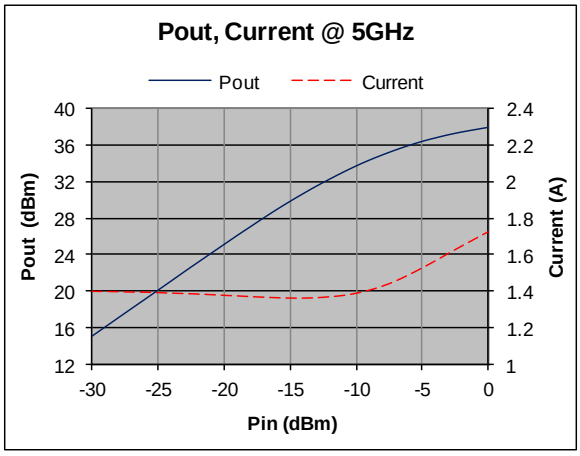


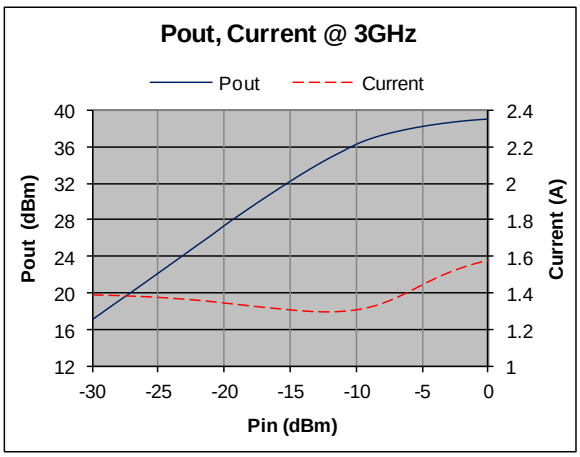
Noise Figure vs Frequency

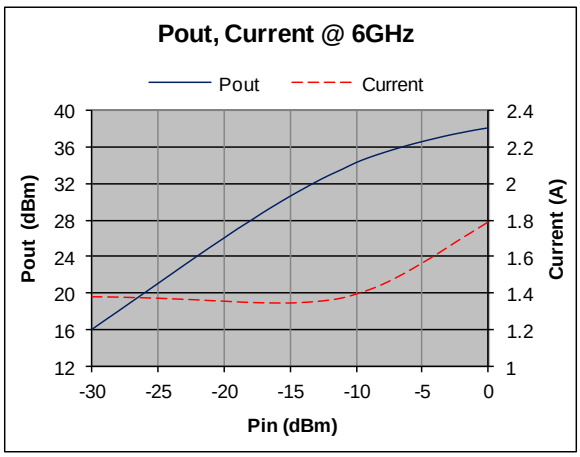


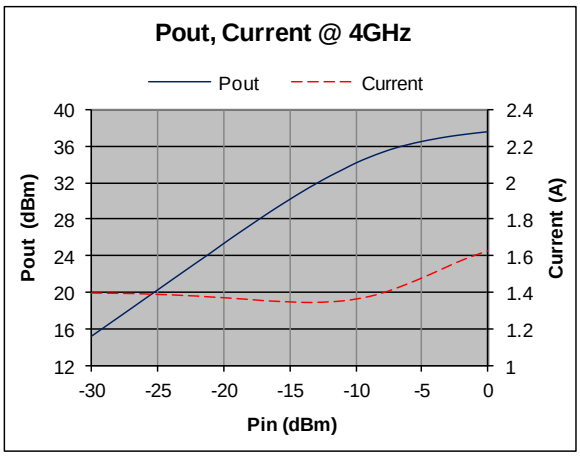
Typical Performance @ +25 °C

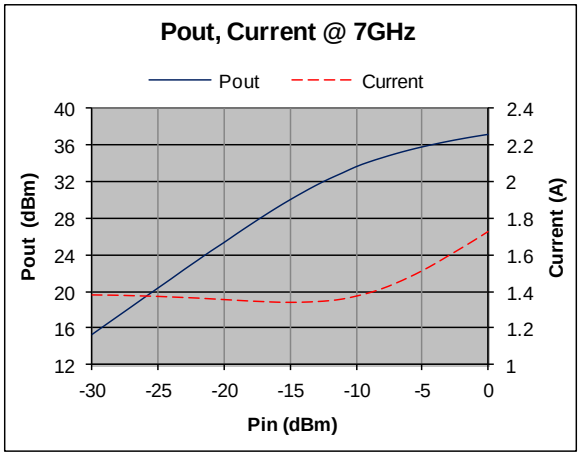












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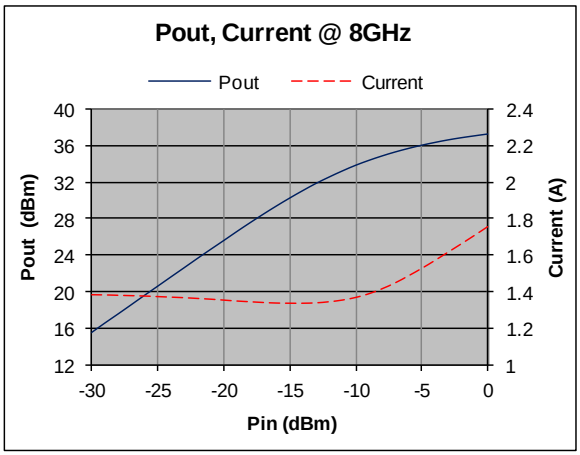

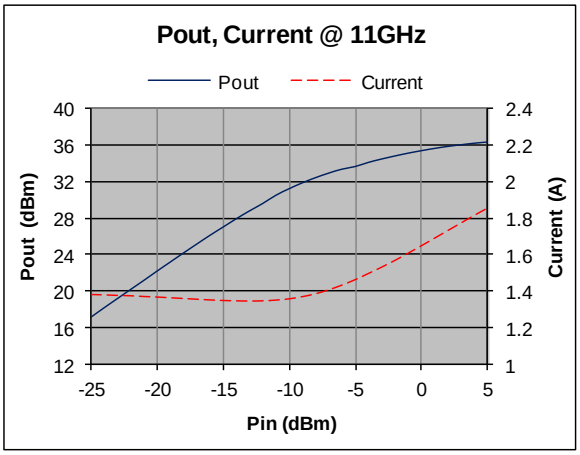

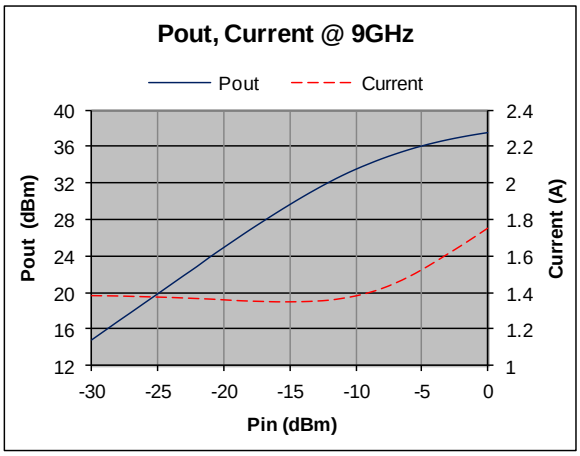

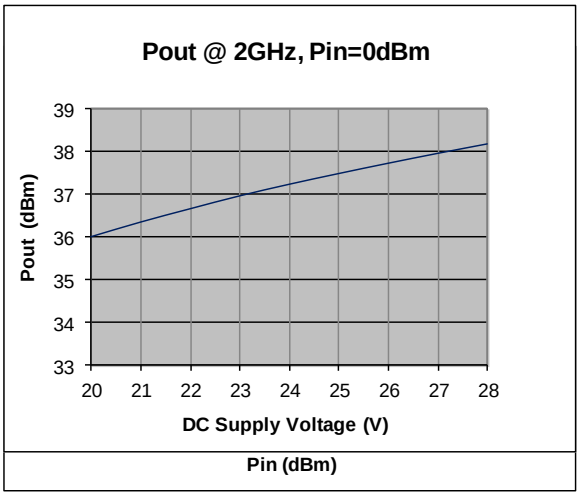

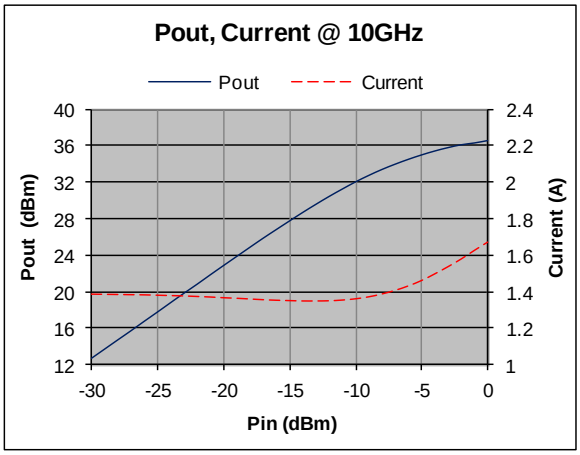

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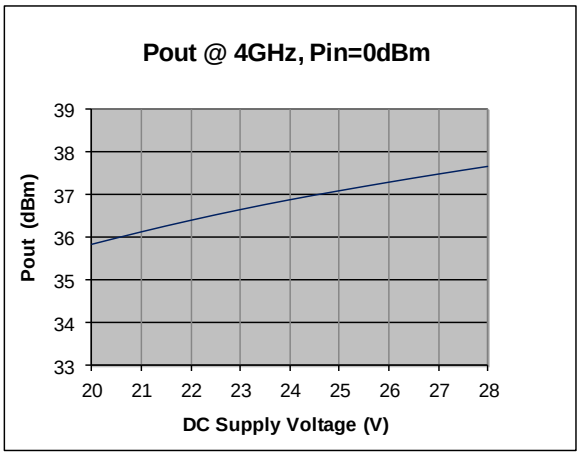

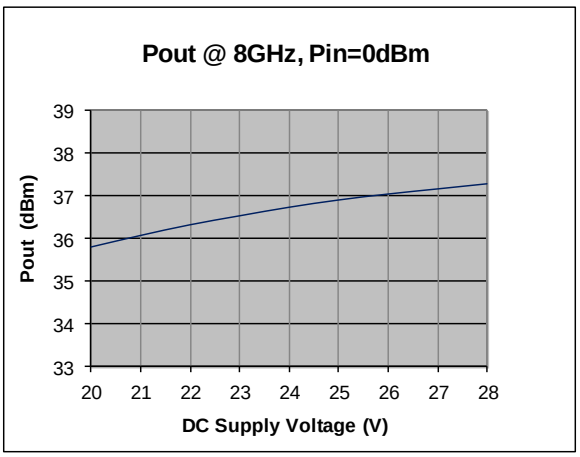

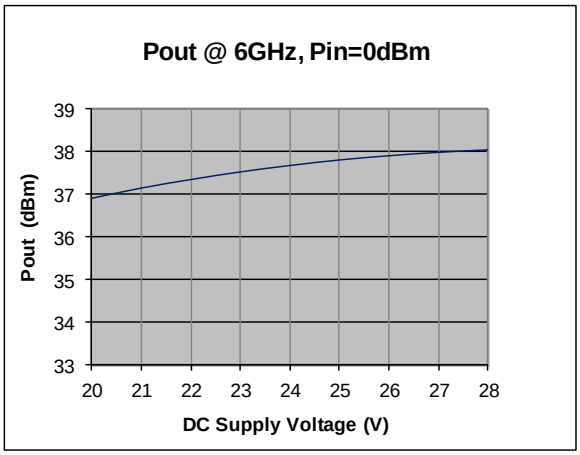

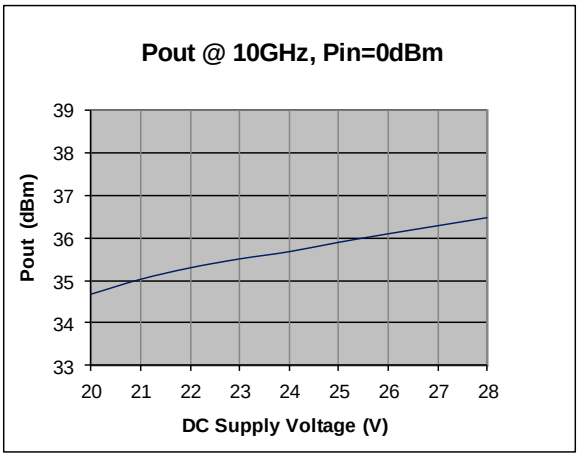

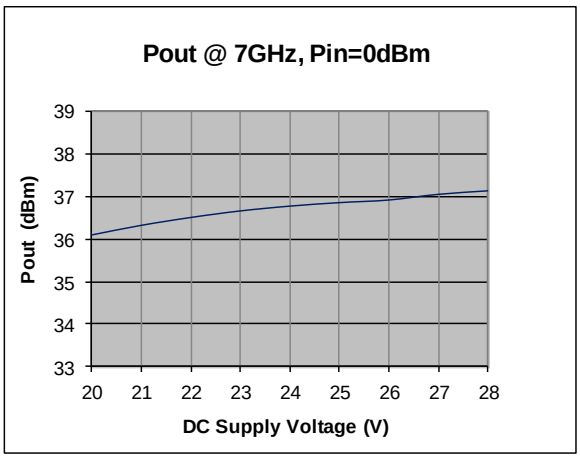

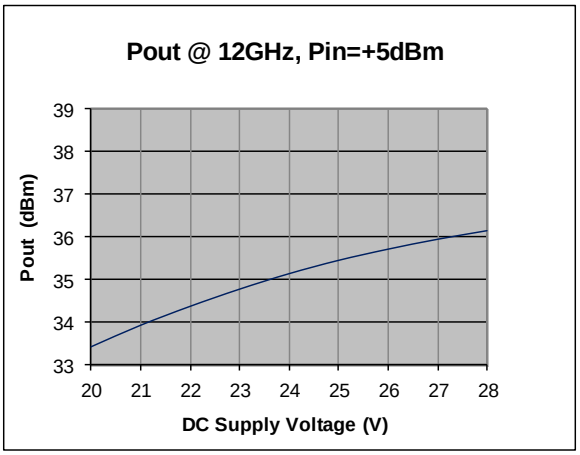

2-12GHz 4W RF Power Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+29V
RF Input Power	+10dBm
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material

RoHS (EU)/2015/863 COMPLIANT

CE

WARNING: 1) MUST USE HEAT SINK. COOLING FAN RECOMMENDED.
2) LOAD MUST BE CONNECTED TO AMPLIFIER OUTPUT AT ALL TIME IF DC POWER IS ON.