HD33865

4.6-4.9GHz 1W Power Amplifier

Features

- Frequency Range: 4.6 – 4.9GHz
- Gain: 27dB
- P_{1dB}: +30dBm
- IP3: +40dBm
- Noise Figure: 4.5dB
- DC Voltage: +9V @ 850mA
- RF Connector: SMA-F

Photo

Description

HD33865 is a 1W high performance RF Power Amplifier, with standard frequency range of 4.6 to 4.9GHz.

Electrical Specifications @+25°C, Z_{in}=Z_{out}=50 Ω, Vsupply = +9VDC

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	4.6		4.9
Gain (S21)	dB	27	30	
Gain Flatness	dB		±0.7	±1.0
Output Power P_{1dB}	dBm	+30	+31	
Output Third Order Intercept IP3	dBm	+39	+40	
Noise Figure	dB		4.5	5.5
Isolation S12	dB	-45	-55	
VSWR-Input (S11)			1.5:1	2.0:1
DC Power Supply - voltage	V	+8.5	+9.0	+9.5
DC Power Supply - current	mA		850	950
Operating Temperature	°C	-40		+85
Size (RF/DC feedthru's excluded)	Inch/mm	1.79x1.10x0.45/45.47x27.94x11.43(LxWxH)		
Weight	Oz	2.0 (56.7 grams)		

WARNING: MUST USE HEAT SINK

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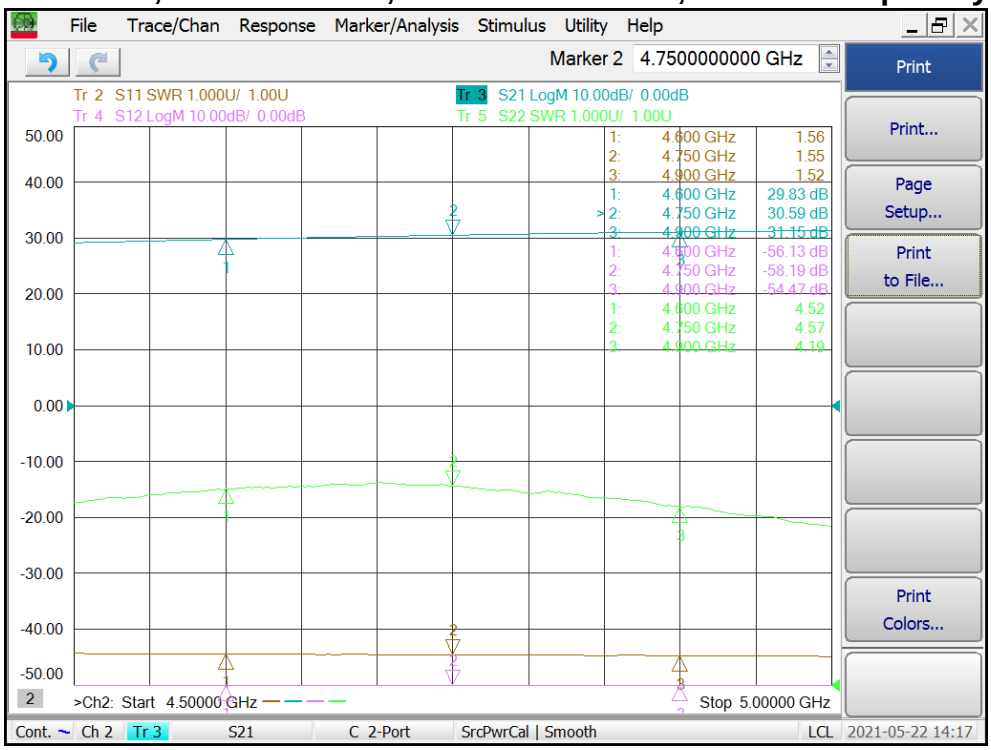
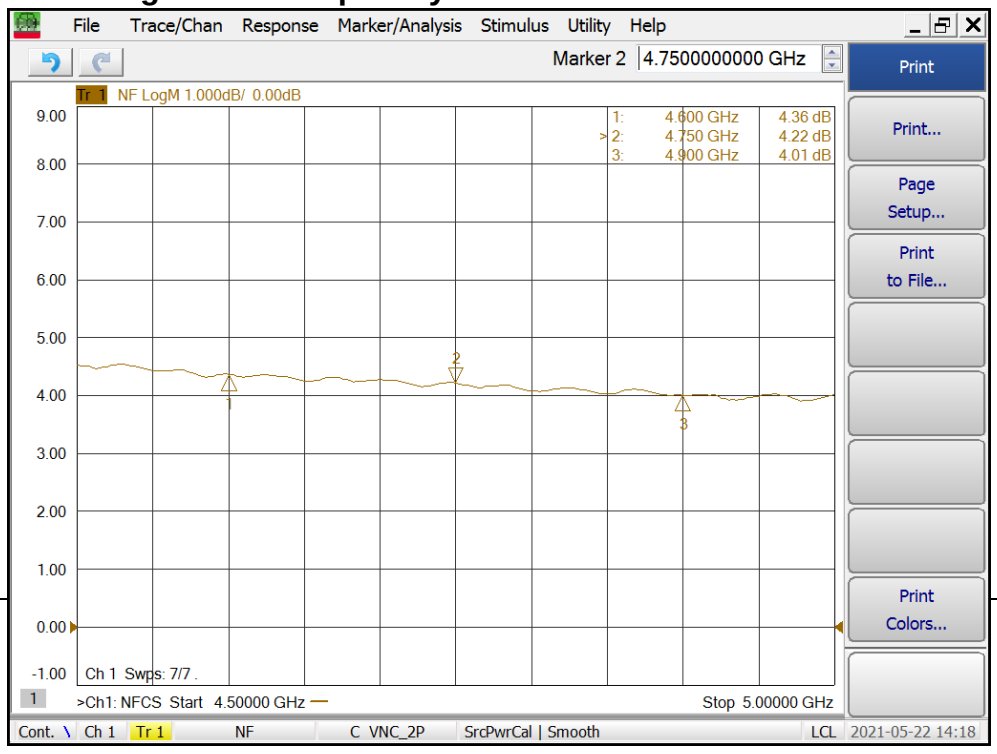
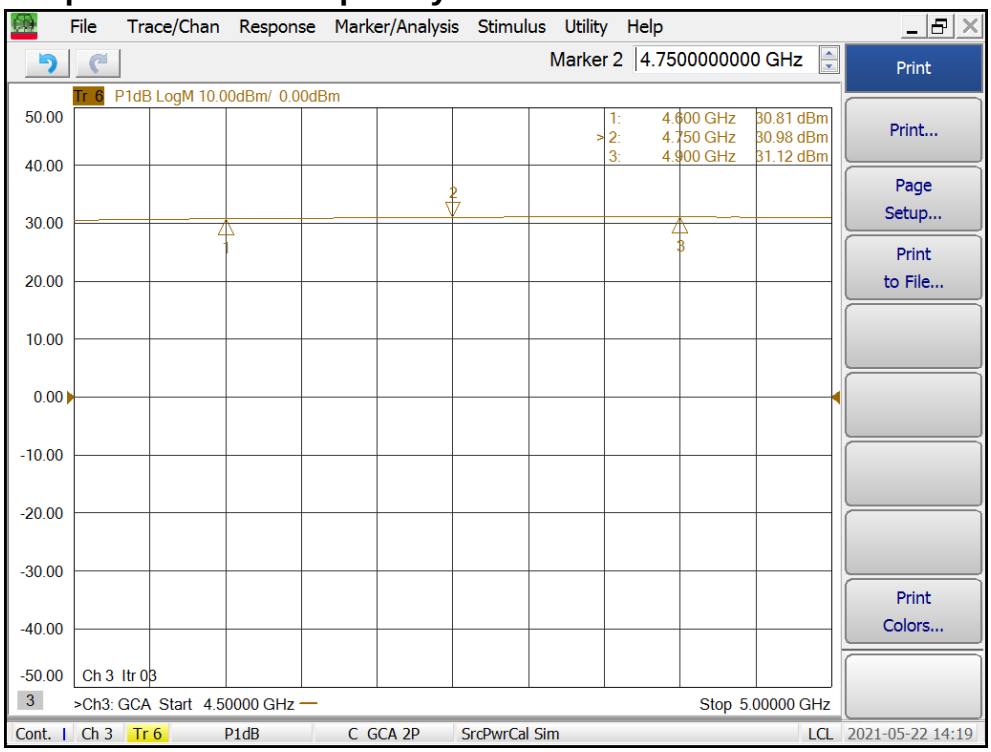
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



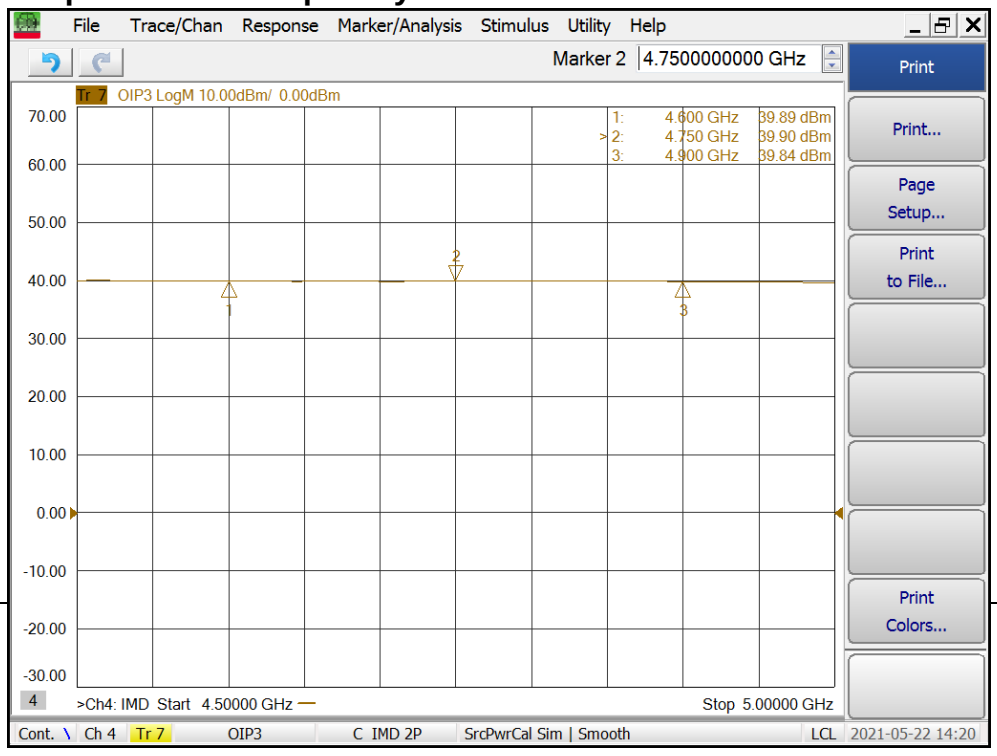
Noise Figure vs Frequency



Output P1dB vs Frequency



Output IP3 vs Frequency



HD Communications Corp.

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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+27dBm
DC Supply Voltage	+12V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

ESD Sensitive Material

CE

Communications Corp.

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Outline