HD33792

18 – 40GHz Broadband RF Amplifier

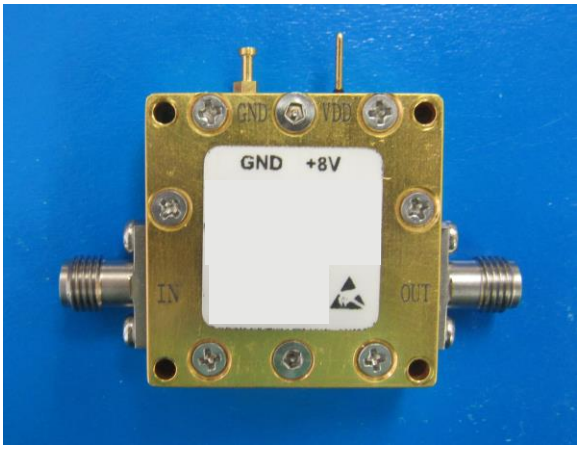
Features

- Frequency Range: 18-40GHz
- Gain: 30dB
- P_{1dB}: +20dBm
- OIP3: +27dBm
- Noise Figure: 4.0dB
- DC Power: +8V @ 310mA
- RF Connector: 2.92mm-female

Description

HD33792 is a wide band high performance broadband RF Amplifier, with standard frequency range of 18 to 40GHz.

Photo

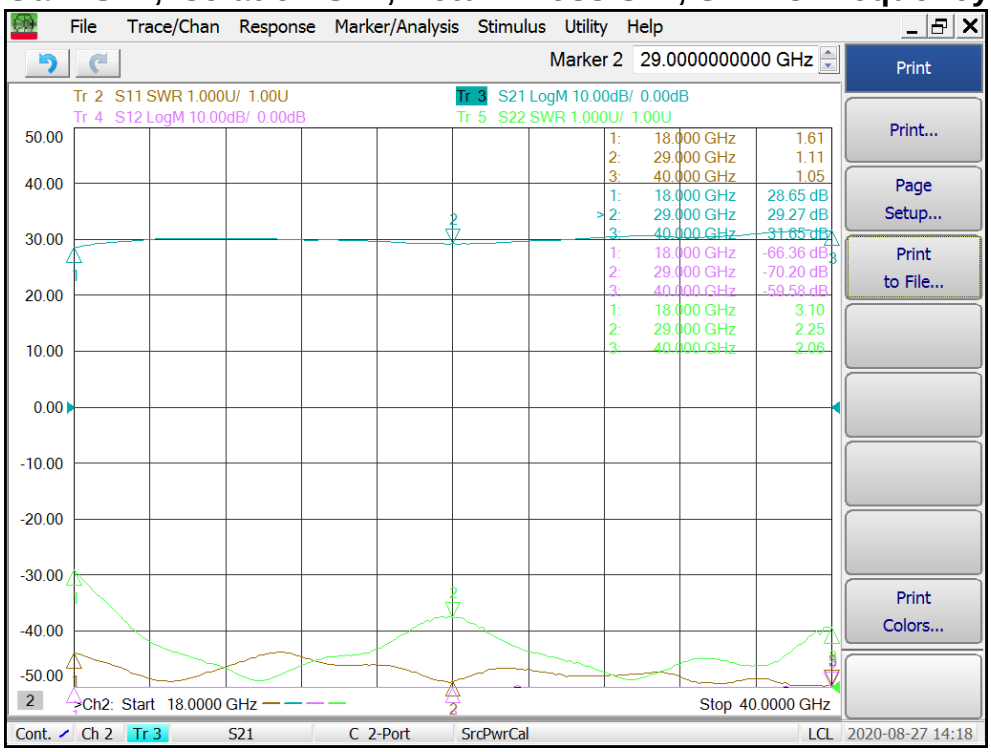


Electrical Specifications @+25 °C, Z_{in}=Z_{out}=50 Ω, DC Supply = +8VDC

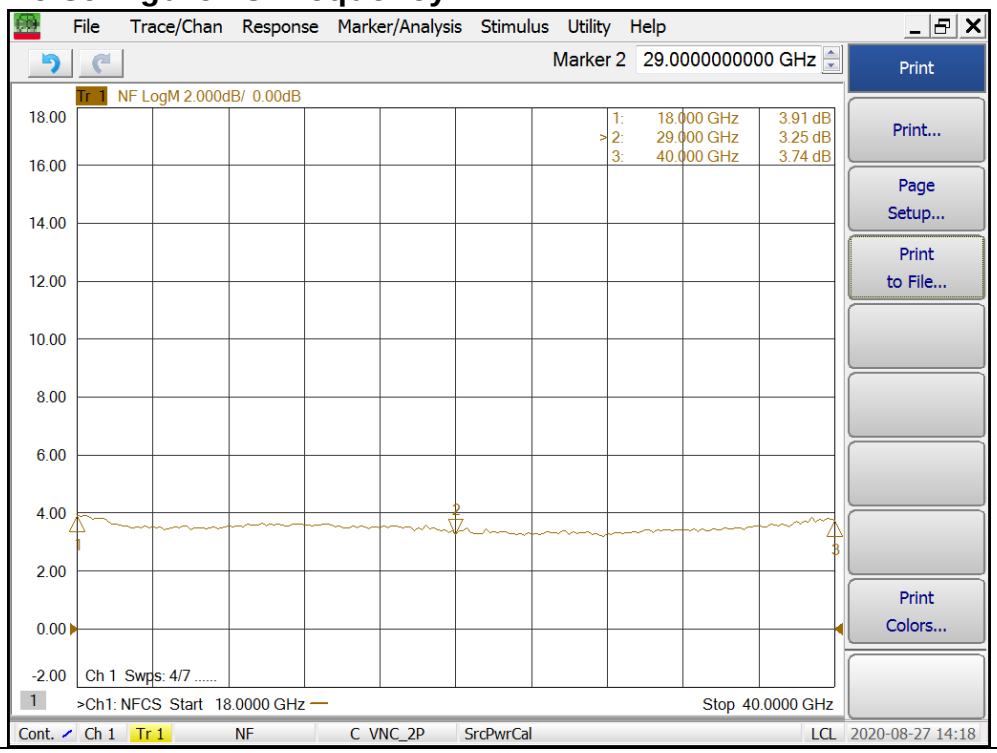
Parameter		Unit	Minimum	Typical	Maximum
Frequency Range		GHz	18		40
Gain S21	f = 18GHz	dB	26	28	
	f = 29GHz	dB	28	30	
	f = 40GHz	dB	28	31	
Gain Flatness		dB		±1.5	±2.0
Output Power P_{1dB}	f = 29GHz	dBm	+18	+20	
Output Power P_{SAT}	f = 29GHz	dBm	+19	+21	
Output Third Order Intercept IP3	f = 29GHz	dBm	+25	+27	
Noise Figure	f = 29GHz	dB		4.0	5.0
Reverse Isolation S12	f = 29GHz	dB	-55	-65	
Input VSWR S11	f = 29GHz			1.5:1	2.2:1
Output VSWR S22	f = 29GHz			2.5:1	2.8:1
DC Power Supply - voltage		V	+5.5	+8	+10
DC Power Supply - current		mA		310	350
Size (RF/DC feedthrough excluded)		Inch (mm)	1.18”x1.18”x0.37” (30x30x9.5mm)		
Weight		Oz	2.0		

WARNING: MUST USE HEAT SINK OR MOUNT ON LARGE METAL PLATE

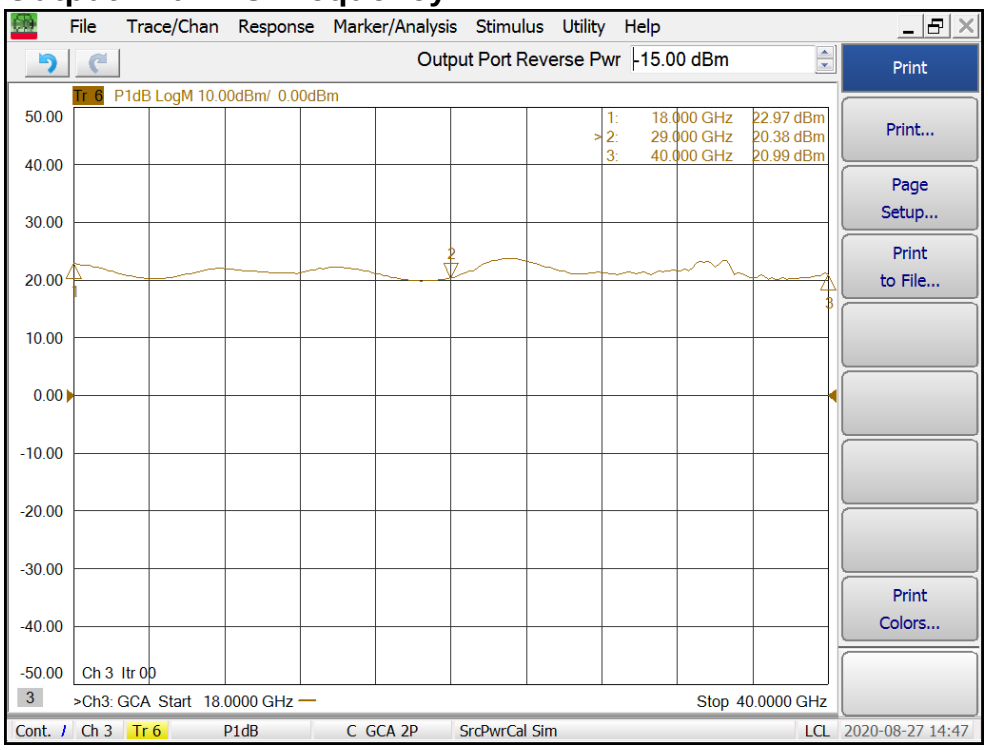
Gain S21, Isolation S12, Return Loss S11, S22 vs Frequency



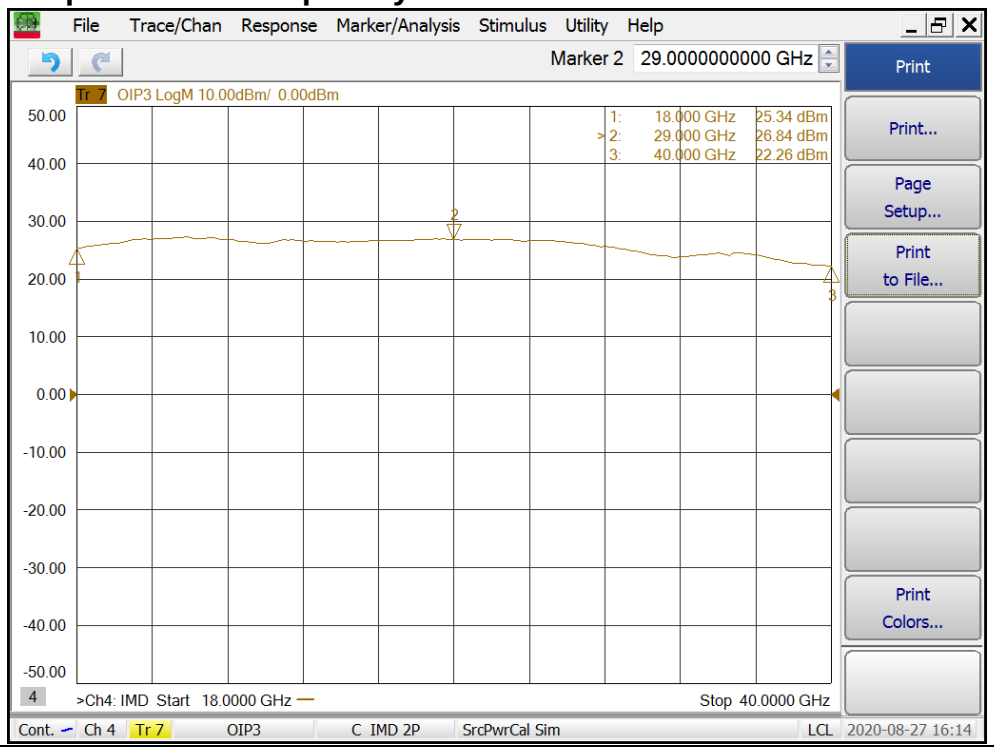
Noise Figure vs Frequency



Output P1dB vs Frequency



Output IP3 vs Frequency



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Absolute Maximum Ratings

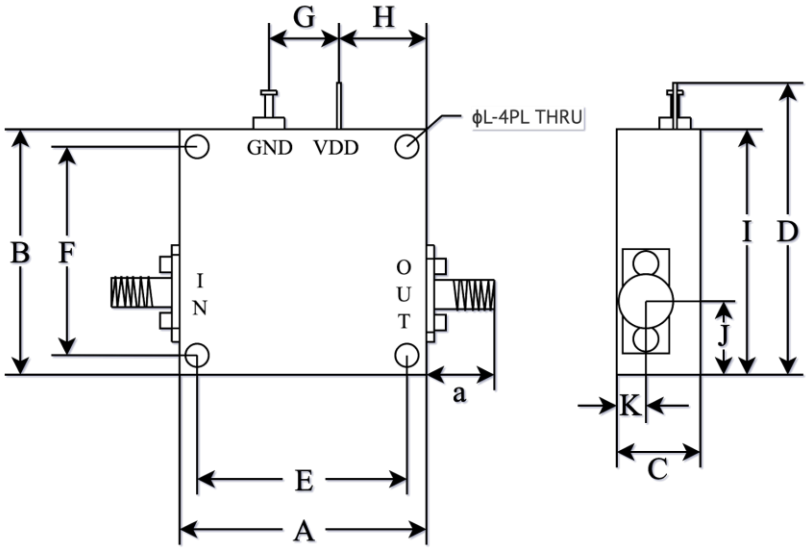
Parameter	Absolute Maximum
Supply Voltage	+13V
RF Input Power	0dBm
Operating Temperature	0 °C to +50 °C
Storage Temperature	-65 °C to +150 °C

ESD Sensitive Material

RoHS (EU)/2015/863 COMPLIANT

CE

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.181	1.181	0.374	1.437	1.024	1.024	0.378	0.402	1.181	0.390
mm	30.00	30.00	9.50	36.50	26.00	26.00	9.60	10.20	30.00	9.90

	K	L	a (SMA)	a (2.92mm)	a (2.4mm)	a (1.85mm)
Inch	0.150	0.087	0.370	0.374	0.425	0.445
mm	3.80	2.20	9.40	9.50	10.80	11.30