

4 – 8GHz Low Noise Amplifier

Features

- Frequency Range: 4-8GHz
- Gain: 41dB
- P_{1dB}: +15dBm
- OIP3: +25dBm
- Noise Figure: 1dB (typ.)
- DC Power: +8V @ 80mA
- SMA-female Connectors

Description

HD33716 is a wide band high performance Low Noise Amplifier operating on a single DC voltage with standard frequency range of 4 to 8GHz.

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

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	GHz	4		8
Gain S ₂₁	dB		41	
Gain Flatness	dB		± 1.0	
Output Power P _{1dB}	dBm		+15	
Output Third Order Intercept IP ₃	dBm		+25	
Noise Figure	dB		1.0	1.5
Reverse Isolation S ₁₂	dB		-40	
Input VSWR S ₁₁			1.5:1	2.0:1
Output VSWR S ₂₂			1.5:1	2.5:1
DC Power Supply - voltage	V		+8	+12
DC Power Supply - current	mA		80	100
Size (excluding Connector and Feedthrough)		1.181"x1.181"x0.374" (30.0x30.0x9.5mm)		
Weight		2 Oz. (56.7 grams)		

WARNING: MUST USE HEAT SINK IF CASE TEMPERATURE EXCEEDS 50 °C

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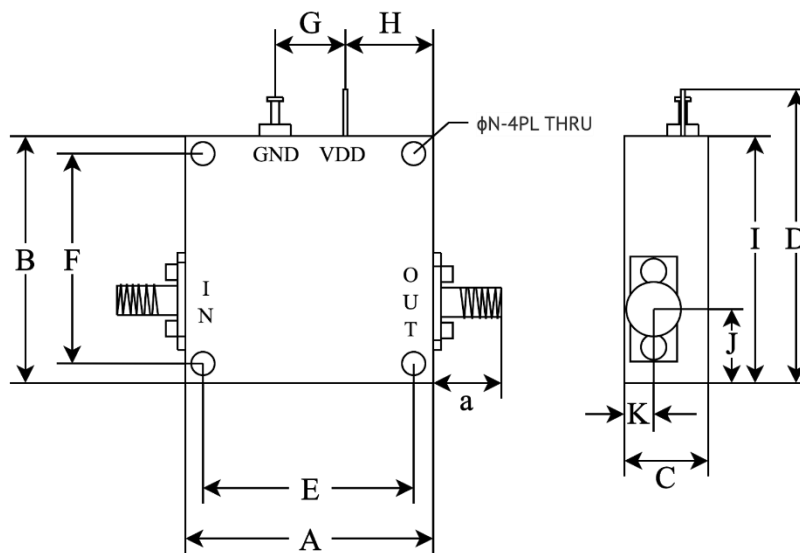
Absolute Maximum Ratings

Parameter	Absolute Maximum
Supply Voltage	+13V
RF Input Power	+10dBm
Operating Temperature	-20 °C to +70 °C
Storage Temperature	-65 °C to +150 °C

ESD Sensitive Material



Outline



	A	B	C	D	E	F	G	H	I	J	K
Inch	1.181	1.181	0.374	1.437	1.024	1.024	0.378	0.402	1.181	0.390	0.150
mm	30.0	30.0	9.50	36.5	26.0	26.0	9.60	10.2	30.0	9.90	3.80

For SMA-female Connector, a=0.370" (9.40mm)