

HD24247

50 – 1200MHz Low Noise Amplifier

Features

- Frequency Range: 50-1200MHz
- Gain: 45dB
- P_{1dB}: +12dBm
- IP3: +23dBm
- Noise Figure: 2.2dB
- DC Power: 10V-15V/88mA
- SMA Connector



Performance measured @ 600MHz

Description

HD24247 is a 45dB high gain wideband Low Noise Amplifier operates with frequency range from 50 to 1200MHz.

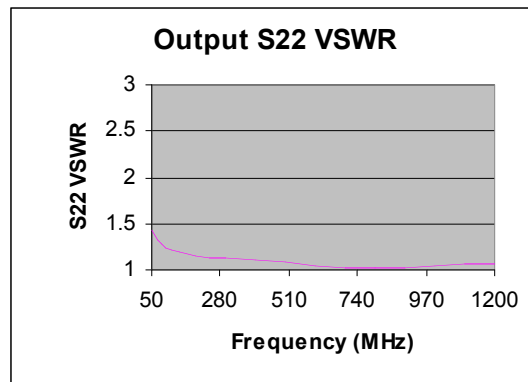
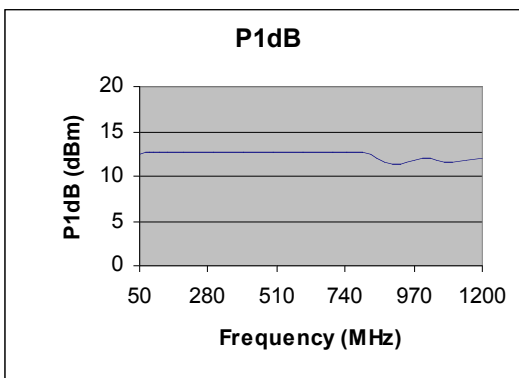
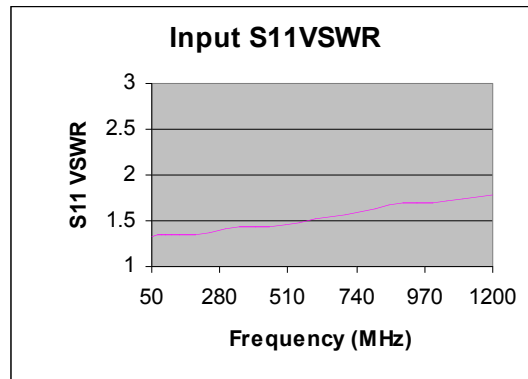
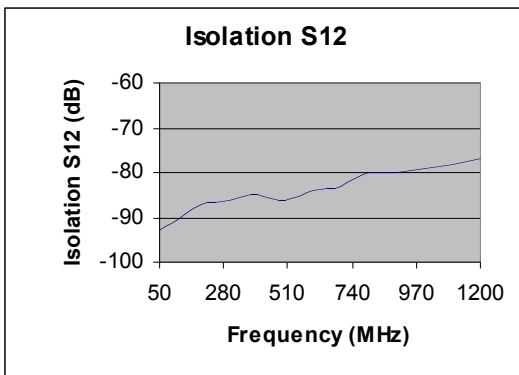
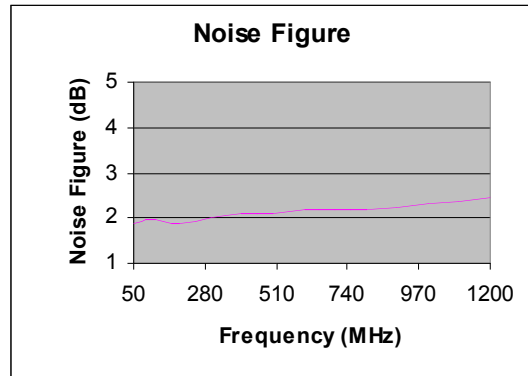
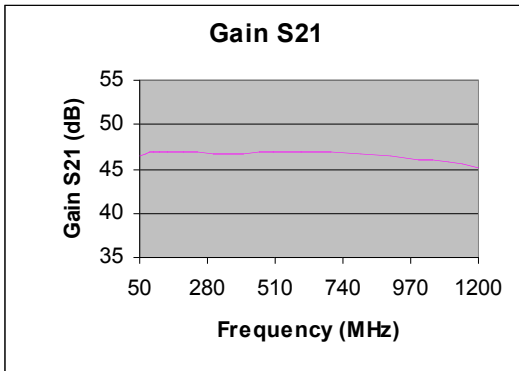
Electrical Specifications @ +25 °C

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	50		1200
Gain				
f = 50MHz	dB		46	
f = 600MHz	dB		46.5	
f = 1200MHz	dB		45	
P _{1dB}	dBm		+12	
IP3	dBm		+23	
Noise Figure	dB		2.2	2.7
Reverse Isolation	dB		-80	
VSWR				
Input VSWR			1.5:1	2.0:1
Output VSWR			1.2:1	1.5:1
DC Power Supply	V	10	12	15
Supply Current	mA		88	

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Typical Performance @ +25 °C





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Frequency(MHz)	NF (dB)	S21 (dB)	S12 (dB)	S11(VSWR)	S22(VSWR)	P _{1dB} (dBm)
50	1.86	46.5	-93	1.32	1.44	+12.4
100	1.96	46.8	-91	1.34	1.24	+12.7
200	1.90	46.8	-87	1.34	1.16	+12.7
300	2.02	46.7	-86	1.42	1.13	+12.7
400	2.09	46.7	-85	1.44	1.11	+12.7
500	2.12	46.8	-86	1.45	1.08	+12.7
600	2.17	46.8	-84	1.53	1.05	+12.7
700	2.19	46.8	-83	1.56	1.03	+12.7
800	2.20	46.7	-80	1.63	1.02	+12.6
900	2.25	46.5	-80	1.69	1.02	+11.4
1000	2.33	46.1	-79	1.69	1.05	+12.0
1100	2.37	45.7	-78	1.74	1.06	+11.6
1200	2.44	45.1	-77	1.78	1.07	+12.0

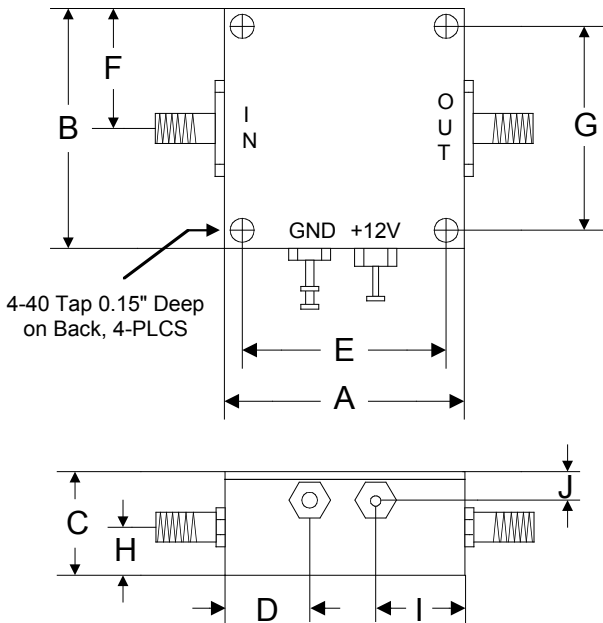
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+13dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +125 °C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76