

HD24504

10 – 1000MHz Low Noise Amplifier

Features

- Frequency Range: 10-1000MHz
- Gain: 50dB
- P_{1dB}: +13dBm
- IP3: +24dBm
- Noise Figure: 2.2dB
- DC Power: 10V-15V/88mA
- SMA Connector



Performance measured @ 500MHz

Description

HD24504 is a 50dB gain wideband Low Noise Amplifier operates with frequency range from 10 to 1000MHz.

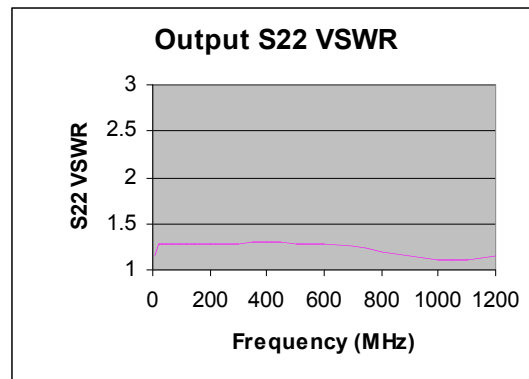
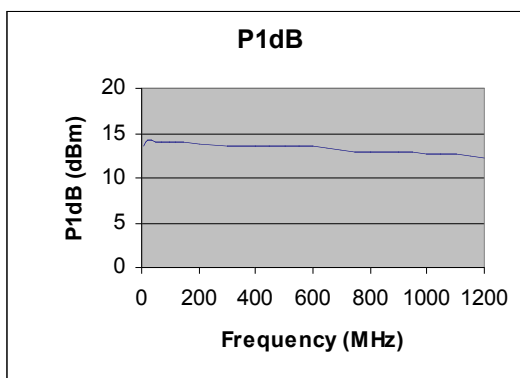
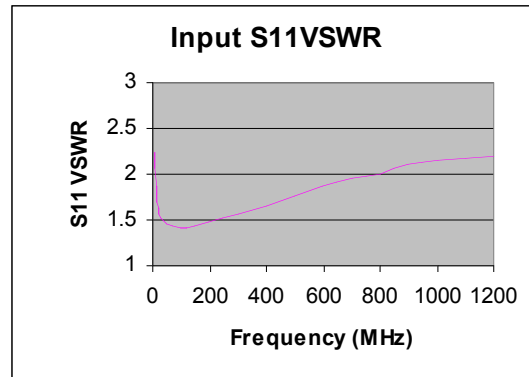
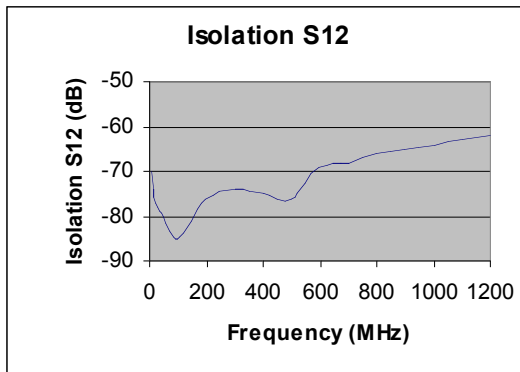
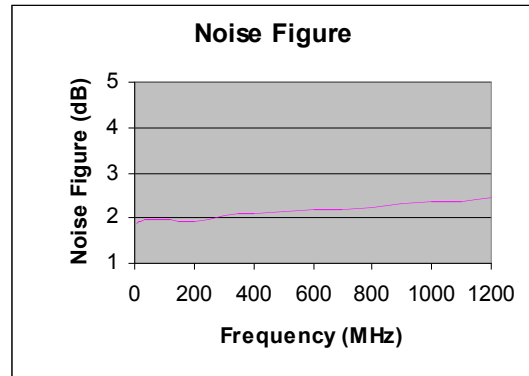
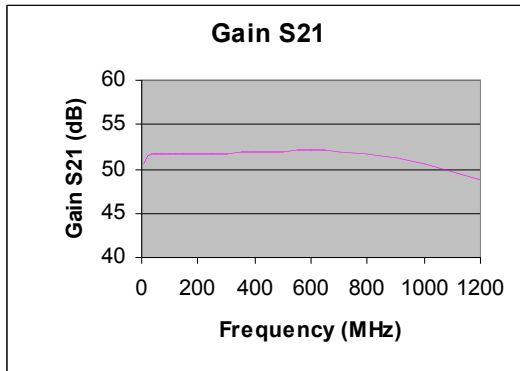
Electrical Specifications @ +25 °C

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		1000
Gain				
f = 10MHz	dB		50	
f = 500MHz	dB		51	
f = 1000MHz	dB		50	
P _{1dB}	dBm		+13	
IP3	dBm		+24	
Noise Figure	dB		2.2	
Reverse Isolation	dB		-75	
VSWR				
Input VSWR			1.9:1	
Output VSWR			1.3:1	
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)
10	1.89	50.5	-70	2.24	1.15	+13.5
20	1.92	51.5	-77	1.56	1.27	+14.2
50	1.95	51.7	-80	1.45	1.28	+14.0
100	1.97	51.7	-85	1.42	1.27	+13.9
200	1.91	51.7	-76	1.47	1.28	+13.7
300	2.06	51.7	-74	1.56	1.29	+13.6
400	2.10	51.9	-75	1.66	1.30	+13.6
500	2.13	52.0	-76	1.77	1.29	+13.6
600	2.18	52.1	-69	1.87	1.28	+13.6
700	2.20	52.0	-68	1.95	1.25	+13.2
800	2.23	51.7	-66	2.00	1.20	+12.9
900	2.34	51.2	-65	2.10	1.14	+12.8
1000	2.36	50.5	-64	2.15	1.10	+12.6
1100	2.37	49.7	-63	2.17	1.11	+12.6
1200	2.45	48.8	-62	2.20	1.14	+12.3

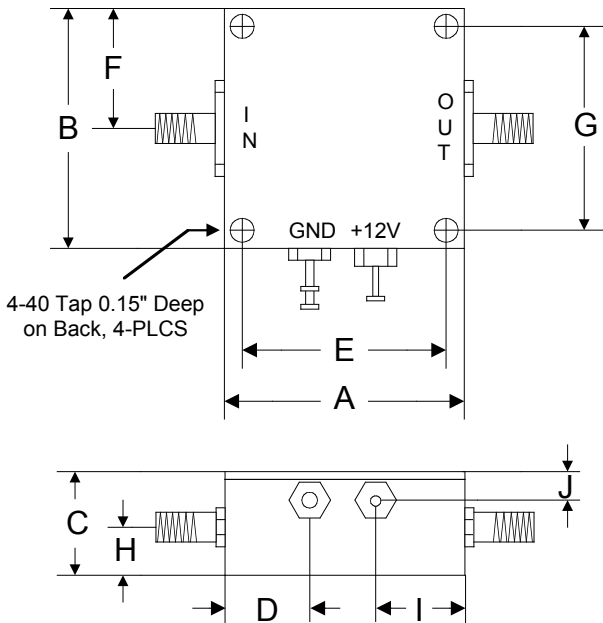
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Absolute Maximum Ratings

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