

HD24844

10 – 300MHz RF Amplifier

Features

- Frequency Range: 3 - 600MHz
- Gain: 13dB
- P_{1dB}: +22dBm
- IP3: +34dBm
- Noise Figure: 4.5dB
- DC Power: 15V/85mA
- SMA Connector

operates with frequency range from 3MHz to 600MHz and operating temperature from -55°C to +85°C.



Description

HD24844 is a wideband high performance high reliability RF Amplifier

Electrical Specifications at 25°C, Z_S = Z_L = 50 Ohms, V_{cc}=+15V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	3		600
Small Signal Gain	dB		13	
Gain Flatness	dB			± 1.0
P _{1dB}	dBm		+22	
IP3	dBm		+34	
Reverse Isolation	dB		17	
Noise Figure	dB		4.5	
Input VSWR			1.5:1	
Output VSWR			1.5:1	
DC Power Supply	V		15	
Supply Current	mA		85	100
Operating Temperature	°C	-55		+85

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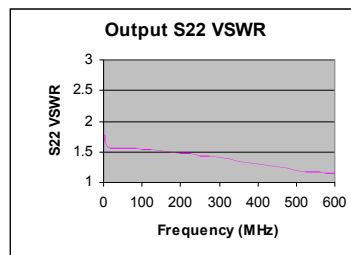
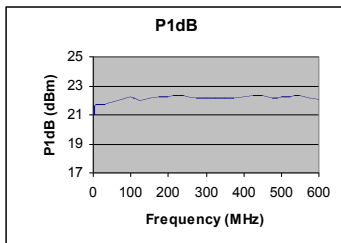
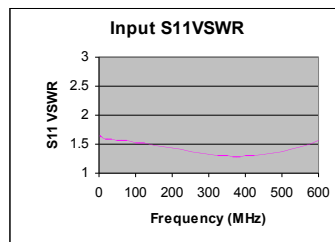
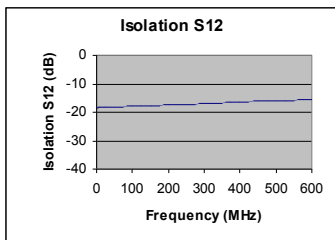
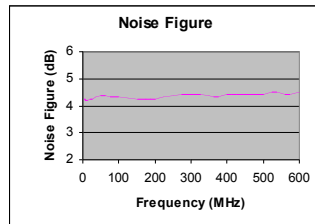
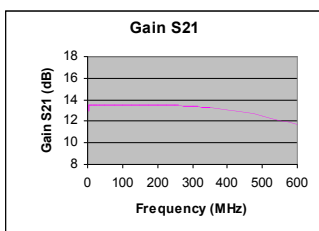
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Typical Performance @ +25 °C





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Test Data @ +25 °C

Frequency(MHz)	S21 (dB)	S12 (dB)	S11(VSWR)	S22(VSWR)
3	12.93	-18.60	1.66	1.78
5	13.51	-18.25	1.63	1.66
10	13.56	-18.08	1.60	1.57
20	13.56	-18.09	1.59	1.56
25	13.53	-18.07	1.58	1.56
50	13.52	-18.05	1.57	1.56
75	13.50	-18.00	1.56	1.55
100	13.53	-17.96	1.53	1.54
125	13.52	-17.88	1.52	1.53
150	13.50	-17.76	1.48	1.52
175	13.52	-17.68	1.46	1.50
200	13.48	-17.54	1.43	1.48
225	13.50	-17.42	1.41	1.47
250	13.48	-17.29	1.37	1.44
275	13.40	-17.16	1.35	1.42
300	13.37	-17.00	1.32	1.40
325	13.30	-16.88	1.31	1.38
350	13.25	-16.72	1.30	1.35
375	13.20	-16.59	1.29	1.33
400	13.07	-16.47	1.30	1.30
425	12.94	-16.33	1.31	1.28
450	12.82	-16.20	1.33	1.25
475	12.69	-16.07	1.34	1.23
500	12.52	-15.94	1.37	1.20
525	12.32	-15.84	1.41	1.18
550	12.1	-15.81	1.45	1.18
575	11.90	-15.60	1.50	1.15
600	11.67	-15.52	1.56	1.14

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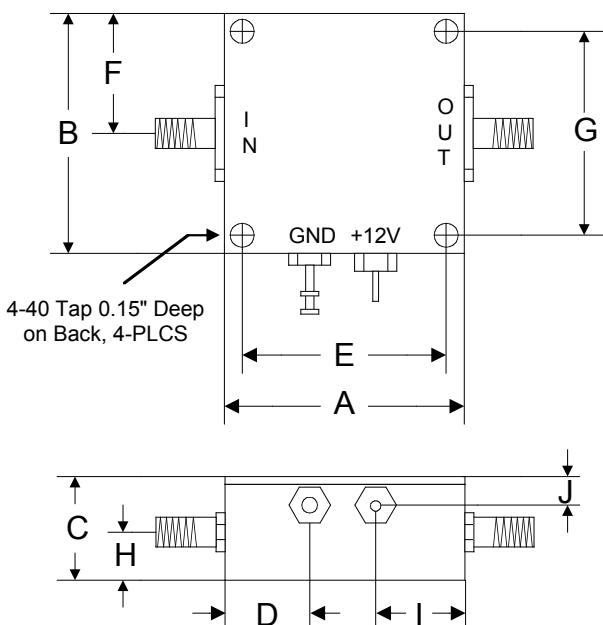
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power CW	+20dBm
Supply Voltage	+16V
Operating Temperature	-55°C to +85°C
Storage Temperature	-62°C to +125°C

Outline



	A	B	C	D	E	F	G	H	I	J
Inch	1.250	1.250	0.665	0.450	1.000	0.625	1.000	0.350	0.500	0.187
mm	31.75	31.75	16.89	11.43	25.40	15.88	25.40	8.89	12.70	4.76

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