

HD24843

10 – 300MHz RF Amplifier

Features

- Frequency Range: 5 - 600MHz
- Gain: 16dB
- P_{1dB}: +18dBm
- IP3: +32dBm
- Noise Figure: 4dB
- DC Power: 15V/60mA
- SMA Connector

operates with frequency range from 5MHz to 600MHz and operating temperature from -54°C to +85°C.



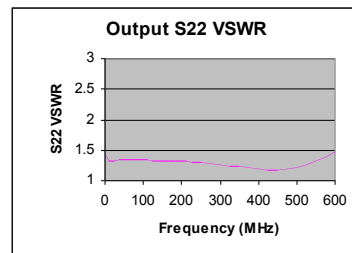
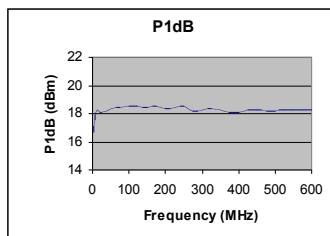
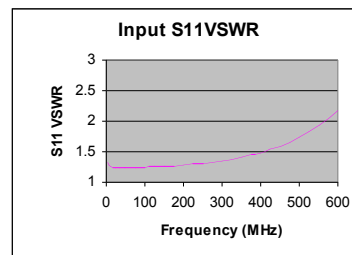
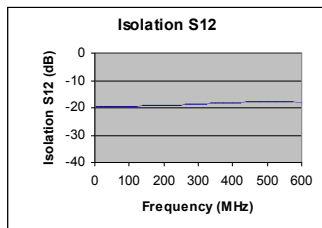
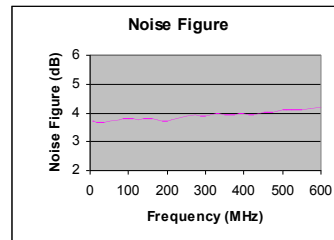
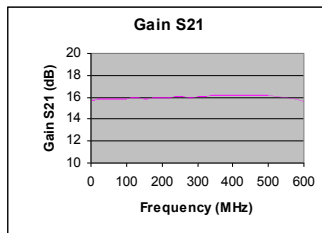
Description

HD24843 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	5		600
Small Signal Gain	dB		16	
Gain Flatness	dB		± 0.3	
P _{1dB}	dBm	+16	+18	
IP3	dBm		+32	
Reverse Isolation	dB		18	
Noise Figure	dB		4	
Input VSWR			1.5:1	
Output VSWR			1.4:1	
DC Power Supply	V		15	
Supply Current	mA		56	60
Operating Temperature	°C	-54		+85

Typical Performance @ +25 °C



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Test Data @ +25 °C

Frequency(MHz)	S21 (dB)	S12 (dB)	S11(VSWR)	S22(VSWR)
5	15.78	-19.71	1.335	1.406
10	15.75	-19.68	1.263	1.331
25	15.80	-19.63	1.243	1.330
50	15.83	-19.57	1.239	1.334
75	15.86	-19.51	1.241	1.337
100	15.87	-19.47	1.244	1.337
125	15.90	-19.41	1.252	1.333
150	15.89	-19.32	1.259	1.328
175	15.92	-19.25	1.271	1.322
200	15.96	-19.12	1.281	1.314
225	16.00	-19.02	1.295	1.301
250	16.03	-18.90	1.312	1.291
275	16.01	-18.76	1.330	1.272
300	16.04	-18.65	1.352	1.262
325	16.10	-18.51	1.380	1.244
350	16.13	-18.39	1.411	1.227
375	16.17	-18.31	1.446	1.208
400	16.16	-18.18	1.486	1.191
425	16.17	-18.06	1.536	1.179
450	16.18	-17.95	1.592	1.178
475	16.19	-17.88	1.660	1.190
500	16.16	-17.84	1.737	1.216
525	16.04	-17.82	1.826	1.261
550	15.92	-17.82	1.929	1.327
575	15.81	-17.91	2.046	1.393
600	15.67	-18.00	2.174	1.477

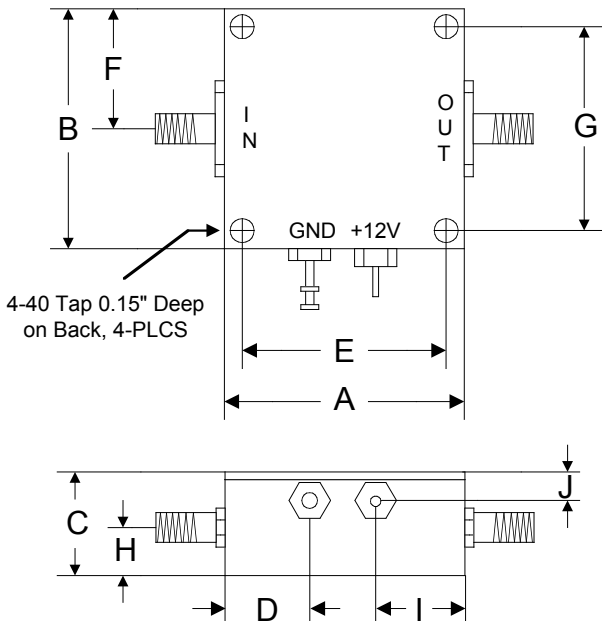
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power CW	+13dBm
RF Input Power Short Term (1 minute max)	+20dBm
Supply Voltage	+17V
Operating Temperature	-54°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