

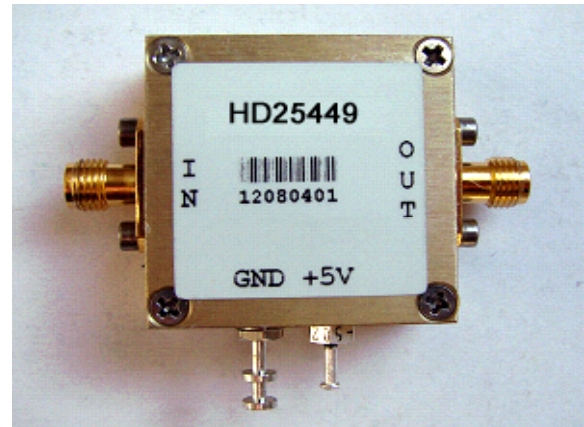
HD25449

10 – 600MHz Low Noise Amplifier

Features

- Frequency Range: 10 - 600MHz
- Gain: 40dB
- P_{1dB}: +17dBm
- IP3: +31dBm
- Noise Figure: 1dB
- DC Power: 5V/135mA
- SMA Connector

range from 10MHz to 600MHz. Useable to 700MHz.



Performance measured @ 300MHz

Description

HD25449 is a 1dB Noise Figure Low Noise Amplifier operates with frequency

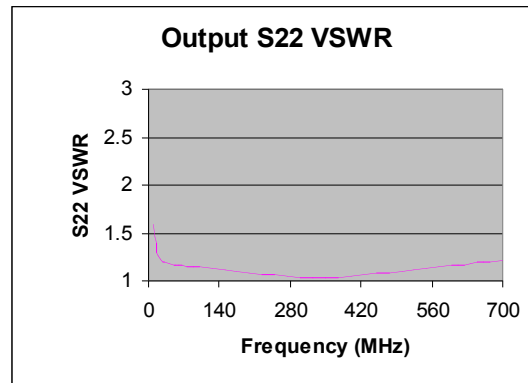
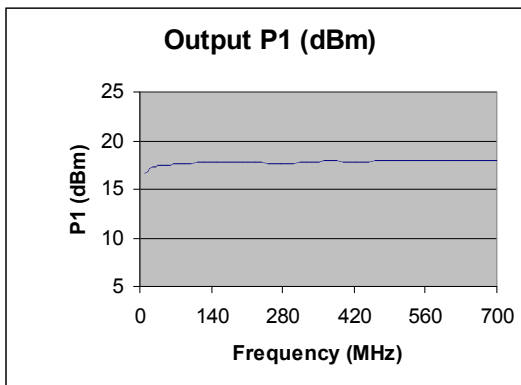
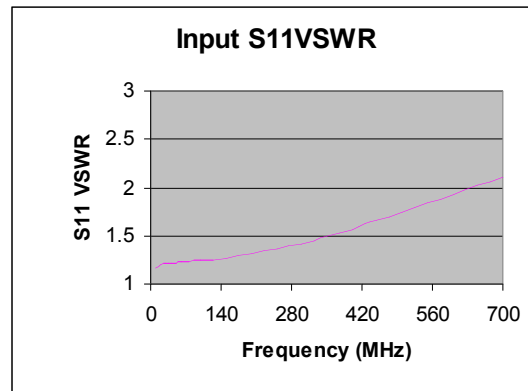
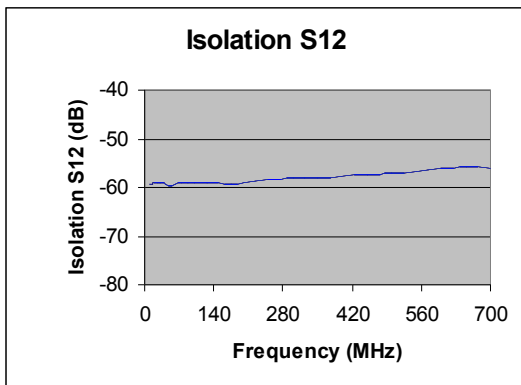
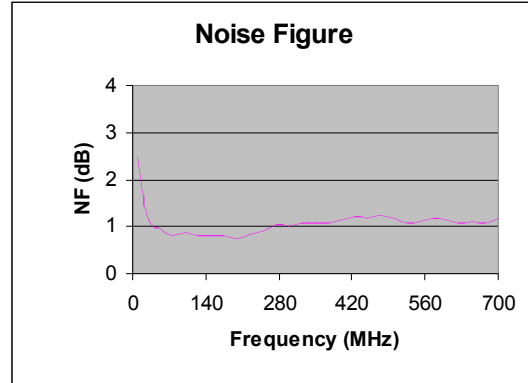
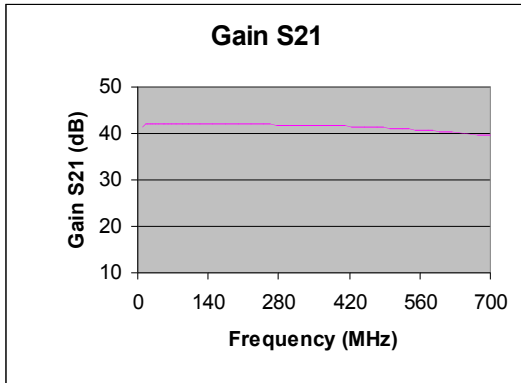
Electrical Specifications @ +25 °C, Z_{in} = Z_{out} = 50 Ω, V_{cc} = 5V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		600
Gain				
f = 10MHz	dB		41	
f = 300MHz	dB		41	
f = 600MHz	dB		40	
Gain Flatness	dB		± 0.8	
P _{1dB}	dBm		+17	
IP3	dBm		+31	
Noise Figure	dB		1.0	
Reverse Isolation	dB		-57	
VSWR				
Input VSWR			1.5:1	
Output VSWR			1.2:1	
DC Power Supply	V		5	
Supply Current	mA		135	

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Typical Performance @ +25 °C



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Typical Performance @ +25 °C

Frequency(MHz)	NF (dB)	S21 (dB)	S12 (dB)	S11(VSWR)	S22(VSWR)	P _{1dB} (dBm)
10	2.50	41.51	-59.3	1.16	1.59	+16.61
15	2.02	41.90	-59.3	1.18	1.34	+16.83
20	1.55	41.90	-59.1	1.20	1.26	+17.12
25	1.39	41.90	-59.0	1.21	1.22	+17.26
30	1.14	41.90	-59.1	1.22	1.20	+17.33
40	1.01	41.91	-59.0	1.22	1.18	+17.43
50	0.99	41.92	-59.1	1.22	1.17	+17.45
60	0.86	41.92	-59.2	1.23	1.16	+17.54
75	0.82	41.90	-59.0	1.23	1.15	+17.60
100	0.87	41.90	-59.1	1.24	1.14	+17.67
125	0.82	41.91	-59.0	1.25	1.13	+17.75
150	0.79	41.93	-59.1	1.27	1.12	+17.77
175	0.82	41.94	-59.2	1.29	1.10	+17.71
200	0.74	41.92	-58.9	1.31	1.08	+17.73
225	0.83	41.91	-58.8	1.34	1.07	+17.72
250	0.92	41.90	-58.5	1.37	1.06	+17.68
275	1.03	41.88	-58.3	1.39	1.05	+17.65
300	1.00	41.84	-58.0	1.42	1.04	+17.63
325	1.08	41.80	-58.0	1.45	1.04	+17.73
350	1.08	41.75	-58.1	1.50	1.04	+17.85
375	1.09	41.68	-57.9	1.53	1.04	+17.89
400	1.15	41.60	-57.7	1.57	1.05	+17.83
425	1.22	41.48	-57.5	1.62	1.07	+17.76
450	1.18	41.36	-57.3	1.66	1.08	+17.83
475	1.23	41.25	-57.4	1.70	1.09	+17.97
500	1.18	41.07	-57.1	1.74	1.10	+18.00
525	1.09	40.96	-57.0	1.79	1.12	+18.01
550	1.11	40.75	-56.7	1.84	1.13	+17.95
575	1.16	40.58	-56.5	1.88	1.15	+17.93
600	1.13	40.37	-56.1	1.92	1.16	+17.92
625	1.06	40.21	-56.0	1.97	1.17	+17.97
650	1.10	39.98	-55.7	2.02	1.19	+18.00
675	1.09	39.75	-55.9	2.06	1.20	+17.97
700	1.17	39.55	-56.0	2.10	1.22	+17.97

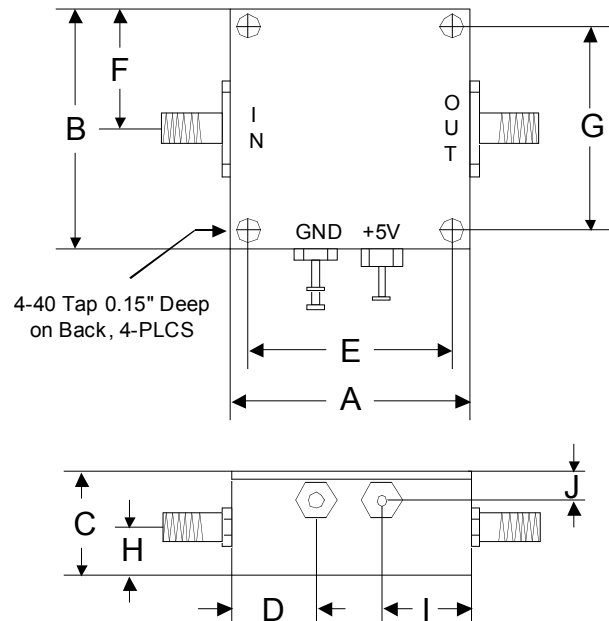
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+7V
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