

HD24410

10 MHz-1500 MHz RF Amplifier

Features

- Frequency Range: 10 - 1500MHz
- Gain: 40dB
- P_{1dB} : +20dBm
- IP3: +32dBm
- Noise Figure: 3.6dB
- DC Power: 12V
- SMA Connector



Performance measured @ 1000MHz

Description

HD24410 is a 40dB gain, wideband flat response high gain RF Amplifier operates with frequency range from 10MHz to 1500MHz.

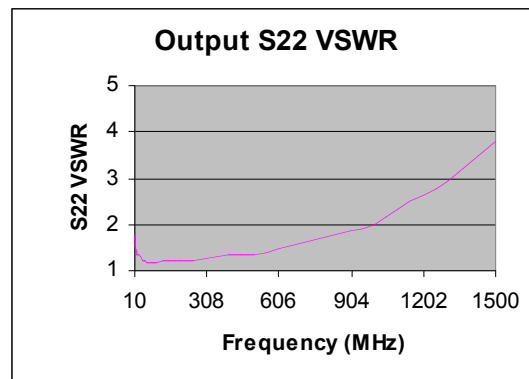
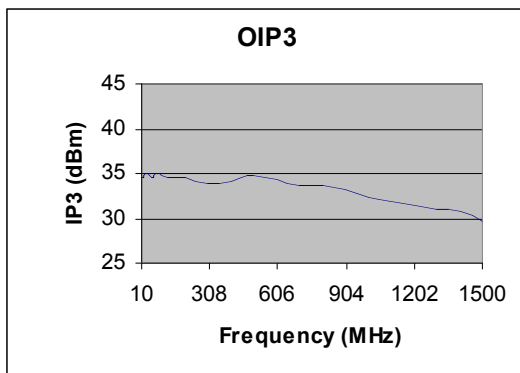
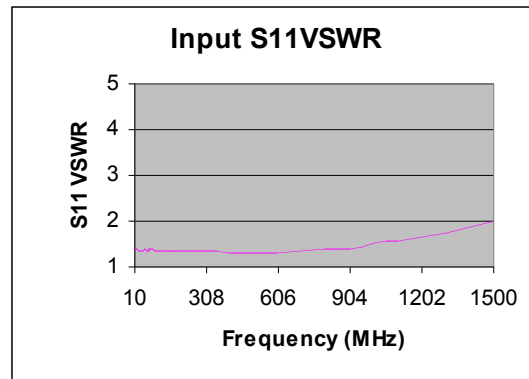
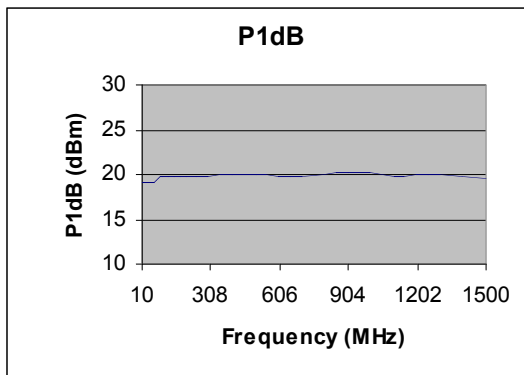
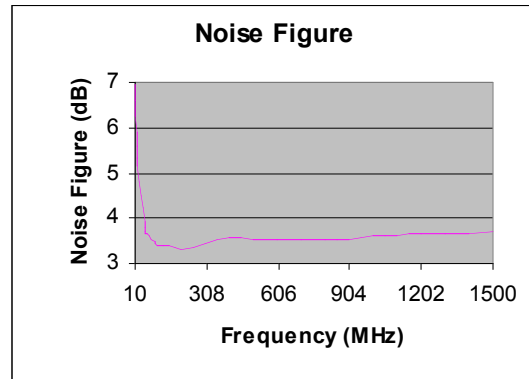
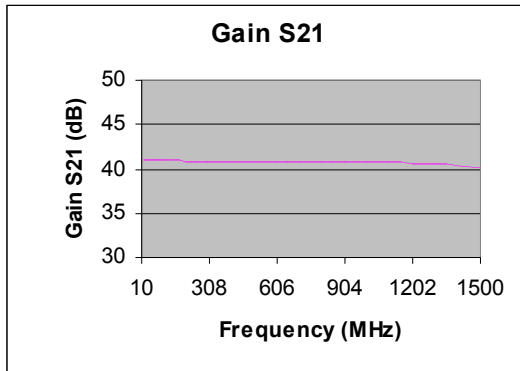
Electrical Specifications @ +25 °C, $Z_S = Z_L = 50 \text{ Ohms}$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	10		1500
Small Signal Gain $f = 10\text{MHz}$	dB		40.5	
$f = 500\text{MHz}$	dB		40.5	
$f = 1000\text{MHz}$	dB		40.5	
$f = 1500\text{MHz}$	dB		40.0	
P_{1dB}	dBm		+20	
IP3	dBm		+32	
Noise Figure	dB		3.6	
Reverse Isolation	dB		-60	
VSWR $f = 10\text{-}1000\text{MHz}$				
Input VSWR			1.3:1	1.6:1
Output VSWR			1.4:1	2.0:1
DC Power Supply	V	10	12	15
Supply Current	mA		135	

HD24410

10 MHz-1500 MHz RF Amplifier

Typical Performance @ +25 °C





HD24410

10 MHz-1500 MHz RF Amplifier

Test Data @ +25 °C

Frequency (MHz)	S21 (dB)	S12 (dB)	S11	S22	NF (dB)	P _{1dB} (dBm)	OIP3(dBm)
10	40.60	-60.9	1.38	1.77	6.95	19.15	34.59
20	41.08	-63.2	1.37	1.34	5.59	19.13	34.62
30	41.06	-63.4	1.35	1.33	4.80	19.08	35.01
40	41.04	-63.3	1.36	1.22	4.21	19.02	34.94
50	41.05	-64.4	1.37	1.22	3.71	19.02	34.64
60	41.01	-65.8	1.33	1.19	3.64	19.13	34.67
70	40.91	-64.6	1.36	1.19	3.61	19.31	35.02
80	40.92	-64.5	1.37	1.19	3.52	19.54	34.91
90	40.93	-65.7	1.36	1.16	3.47	19.70	34.89
100	40.92	-67.9	1.36	1.18	3.41	19.71	34.83
150	40.90	-64.5	1.35	1.20	3.41	19.74	34.61
200	40.85	-67.6	1.35	1.21	3.32	19.77	34.45
300	40.81	-64.4	1.33	1.25	3.46	19.71	33.99
400	40.77	-65.9	1.32	1.33	3.55	20.03	34.01
500	40.76	-66.7	1.31	1.36	3.52	19.92	34.67
600	40.72	-64.9	1.31	1.47	3.51	19.82	34.32
700	40.74	-64.1	1.35	1.59	3.54	19.86	33.65
800	40.71	-62.8	1.38	1.75	3.51	20.01	33.59
900	40.72	-63.1	1.39	1.87	3.54	20.22	33.32
1000	40.71	-62.7	1.53	2.00	3.60	20.29	32.24
1100	40.72	-61.2	1.55	2.32	3.61	19.88	31.83
1200	40.61	-61.4	1.66	2.64	3.64	19.93	31.51
1300	40.57	-61.3	1.75	2.92	3.64	20.02	31.00
1400	40.40	-58.9	1.88	3.37	3.66	19.83	30.69
1500	40.04	-57.9	2.00	3.80	3.72	19.65	29.61

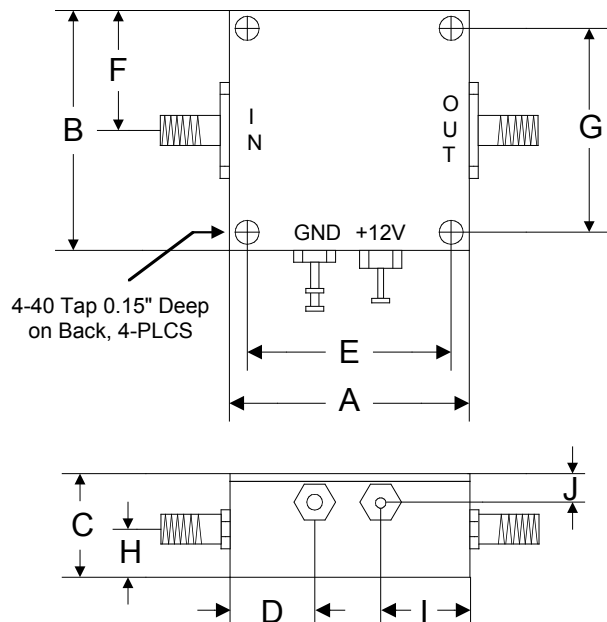
HD24410

10 MHz-1500 MHz RF Amplifier

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+15dBm
Supply Voltage	+16V
Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to +100 °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