

HD24675

700-1300MHz 500mW RF Amplifier

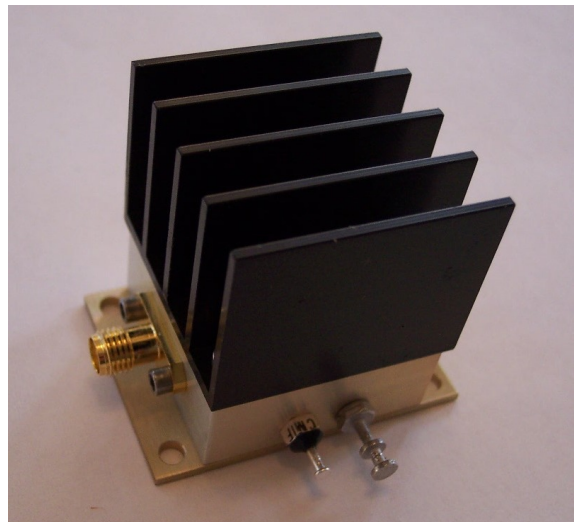
Features

- Frequency Range: 700-1300MHz
- Gain: 16dB
- P_{1dB} : +27dBm
- IP3: +44dBm
- Noise Figure: 3.5dB
- Input VSWR: 1.2:1
- Output VSWR: 1.2:1
- DC Power: 9V/330mA
- SMA Connector

Performance Tested @ 1000MHz

Description

HD24675 is a 500mW output wideband RF Amplifier operates with frequency range from 700MHz to 1300MHz.



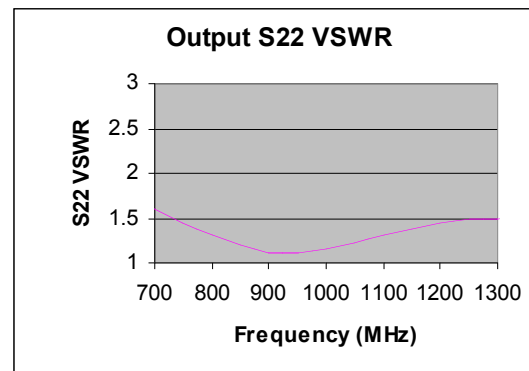
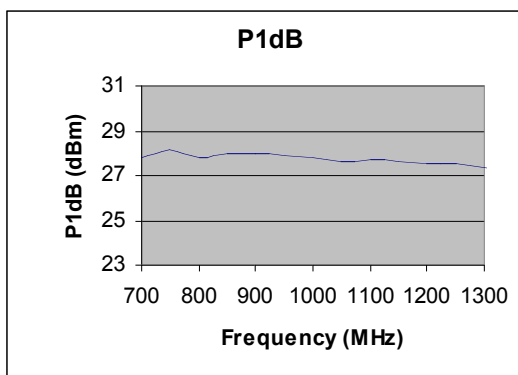
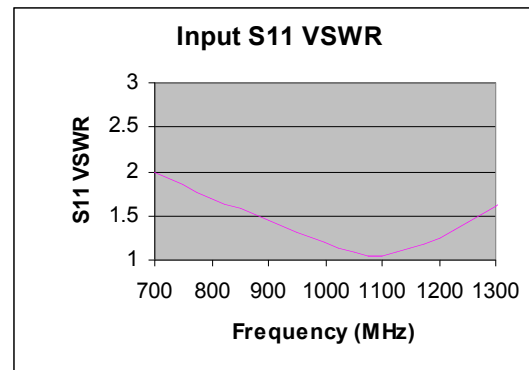
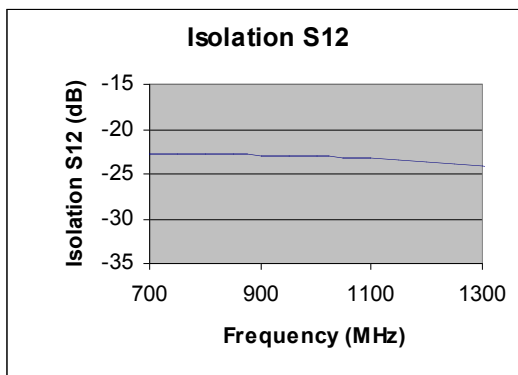
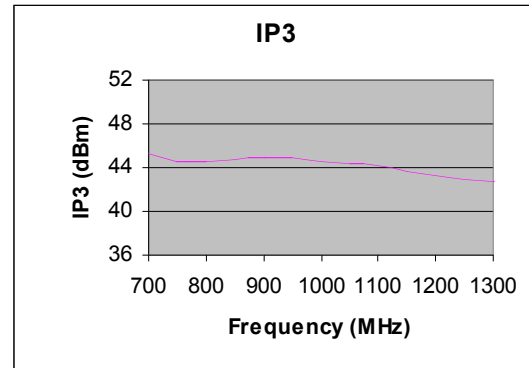
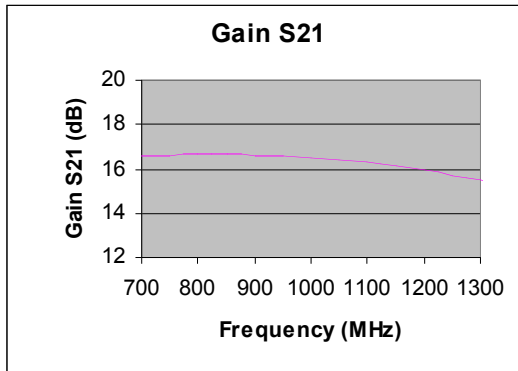
Electrical Specifications @ +25 °C, $Z_S = Z_L = 50 \text{ Ohms}$, $V_{cc}=+9V$

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	700		1300
Gain $f = 700\text{MHz}$	dB		16.5	
$f = 1000\text{MHz}$	dB		16.5	
$f = 1300\text{MHz}$	dB		15.5	
P_{1dB}	dBm		+27	
IP3 at 1000MHz	dBm		+44	
Noise Figure at 1000MHz	dB		3.5	
Reverse Isolation	dB	-21	-23	
VSWR $f = 700\text{-}1300\text{MHz}$				
Input VSWR			2.0:1	
Output VSWR			1.7:1	
DC Power Supply	V		9	
Supply Current	mA		330	

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Typical Performance @ +25 °C



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Test Data @ +25 °C

Frequency(MHz)	S21 (dB)	S12 (dB)	S11	S22	P _{1dB} (dBm)	IP3 (dBm)
600	16.33	-22.80	2.30	2.01	+27.53	+45.5
650	16.46	-22.75	2.13	1.81	+27.92	+45.5
700	16.54	-22.75	1.98	1.61	+27.76	+45.2
750	16.59	-22.78	1.85	1.44	+28.18	+44.6
800	16.65	-22.81	1.70	1.31	+27.80	+44.5
850	16.64	-22.85	1.58	1.20	+27.99	+44.8
900	16.60	-22.97	1.46	1.11	+27.95	+44.9
950	16.62	-22.94	1.32	1.11	+27.85	+44.9
1000	16.50	-23.11	1.20	1.16	+27.77	+44.5
1050	16.43	-23.17	1.10	1.23	+27.60	+44.3
1100	16.31	-23.26	1.05	1.32	+27.67	+44.2
1150	16.15	-23.42	1.13	1.38	+27.60	+43.7
1200	15.97	-23.57	1.25	1.45	+27.49	+43.2
1250	15.73	-23.83	1.42	1.49	+27.54	+42.9
1300	15.51	-24.12	1.61	1.50	+27.35	+42.7
1350	15.15	-24.45	1.81	1.51	+27.16	+42.3
1400	14.90	-24.87	1.99	1.48	+27.05	+42.0

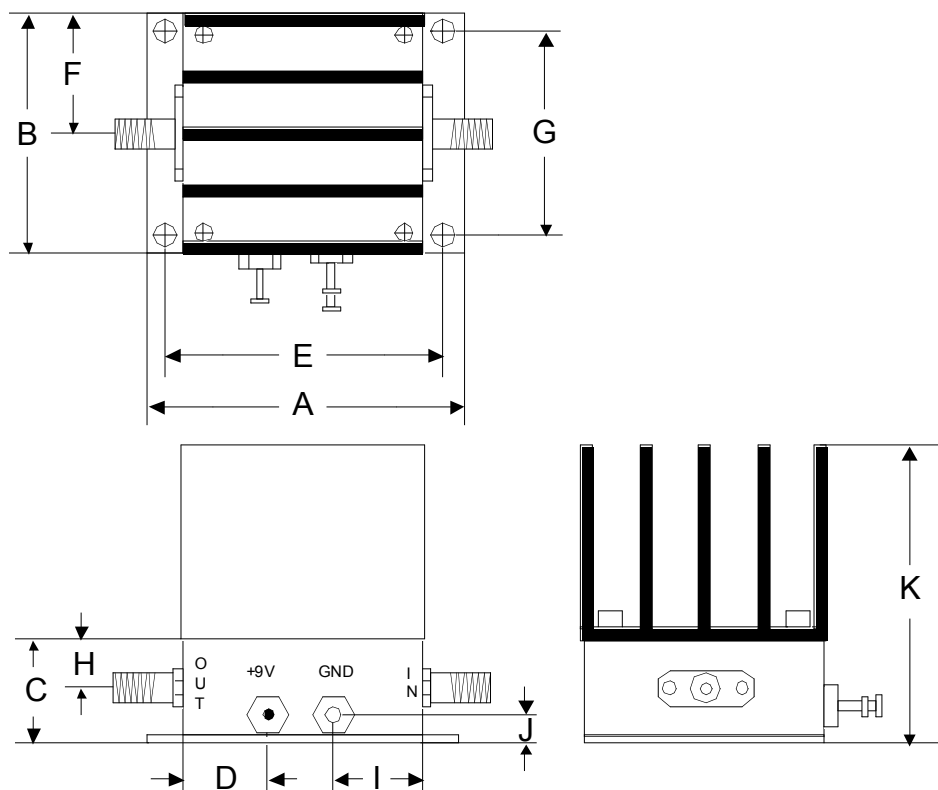
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Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+16dBm
Supply Voltage	+13V
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	K
Inch	1.250	1.250	0.563	0.450	1.000	0.625	1.000	0.250	0.500	0.187	1.563
mm	31.75	31.75	14.29	11.43	25.40	15.88	25.40	6.35	12.70	4.76	39.70