

MGA Series

400MHz –1200MHz 630mW RF Amplifier

Features

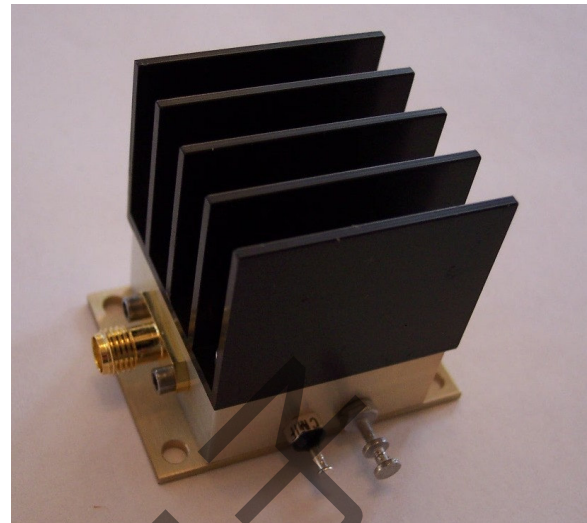
- Frequency Range: 400-1200MHz
- Gain: 16dB
- P_{1dB}: +28dBm
- IP3: +45dBm
- Noise Figure: 3.5dB
- Input VSWR: 1.3:1
- Output VSWR: 1.2:1
- DC Power: 9V/330mA
- SMA Connector

Performance Tested @ 800MHz

Description

MGA-800 is a 630mW output wideband RF Amplifier operates with frequency range from 400MHz to 1200MHz.

Picture



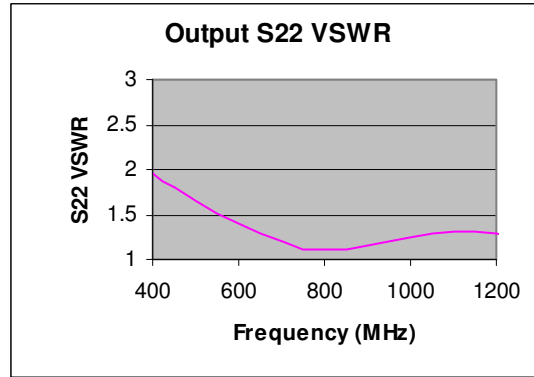
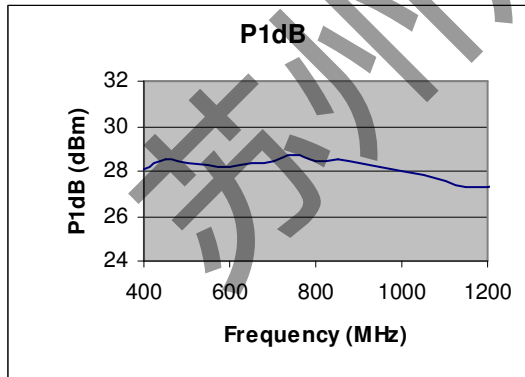
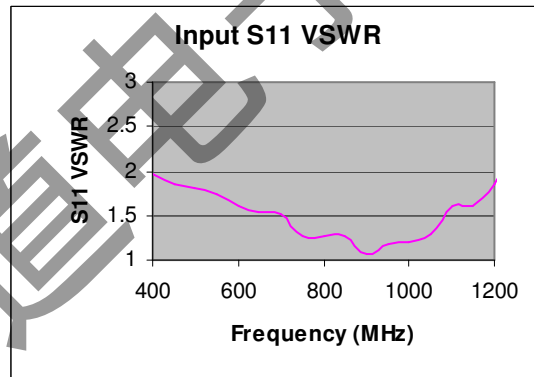
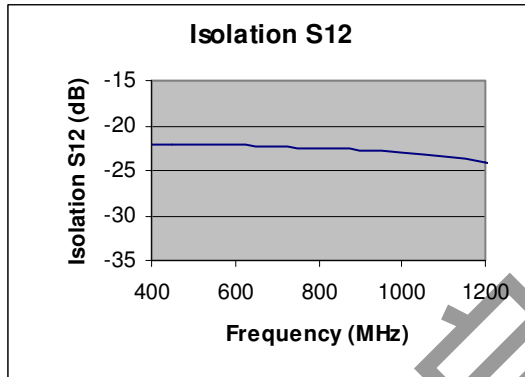
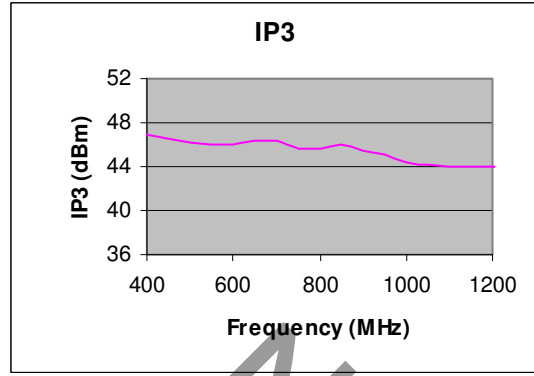
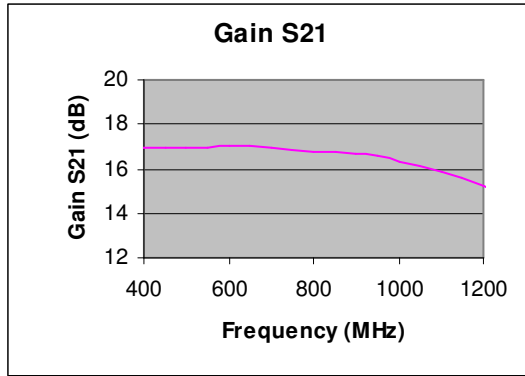
Electrical Specifications @ +25 °C, Z_S = Z_L = 50 Ω, V_{cc}=+9V

Parameter	Unit	Minimum	Typical	Maximum
Frequency Range	MHz	400		1200
Gain				
f = 400MHz	dB		16.9	
f = 800MHz	dB		16.7	
f = 1200MHz	dB		15.2	
P _{1dB}	dBm		+28	
IP3 at 800MHz	dBm		+45	
Noise Figure at 800MHz	dB		3.5	
Reverse Isolation	dB	-20	-22	
VSWR				
f = 400-1200MHz				
Input VSWR			2.0:1	
Output VSWR			2.0:1	
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)
300	16.74	-22.17	2.22	2.44	+28.16	+47.10
350	16.81	-22.15	2.11	2.17	+28.19	+47.18
400	16.91	-22.14	1.97	1.96	+28.06	+47.00
450	16.96	-22.04	1.86	1.80	+28.54	+46.50
500	16.97	-22.04	1.81	1.64	+28.39	+46.25
550	16.97	-22.12	1.75	1.51	+28.29	+46.00
600	17.01	-22.20	1.60	1.39	+28.16	+46.08
650	17.00	-22.26	1.55	1.29	+28.36	+46.30
700	16.97	-22.37	1.52	1.21	+28.48	+46.40
750	16.85	-22.47	1.27	1.11	+28.69	+45.70
800	16.77	-22.64	1.26	1.12	+28.43	+45.65
850	16.77	-22.55	1.26	1.12	+28.55	+46.00
900	16.65	-22.68	1.06	1.16	+28.36	+45.40
950	16.58	-22.84	1.19	1.21	+28.16	+45.17
1000	16.33	-23.05	1.20	1.25	+28.02	+44.30
1050	16.10	-23.15	1.29	1.29	+27.80	+44.10
1100	15.85	-23.52	1.60	1.30	+27.55	+44.00
1150	15.60	-23.70	1.61	1.30	+27.30	+43.97
1200	15.23	-24.15	1.85	1.29	+27.33	+43.93
1250	14.82	-24.55	2.37	1.25	+27.41	+43.78
1300	14.47	-25.00	2.35	1.21	+27.30	+43.43

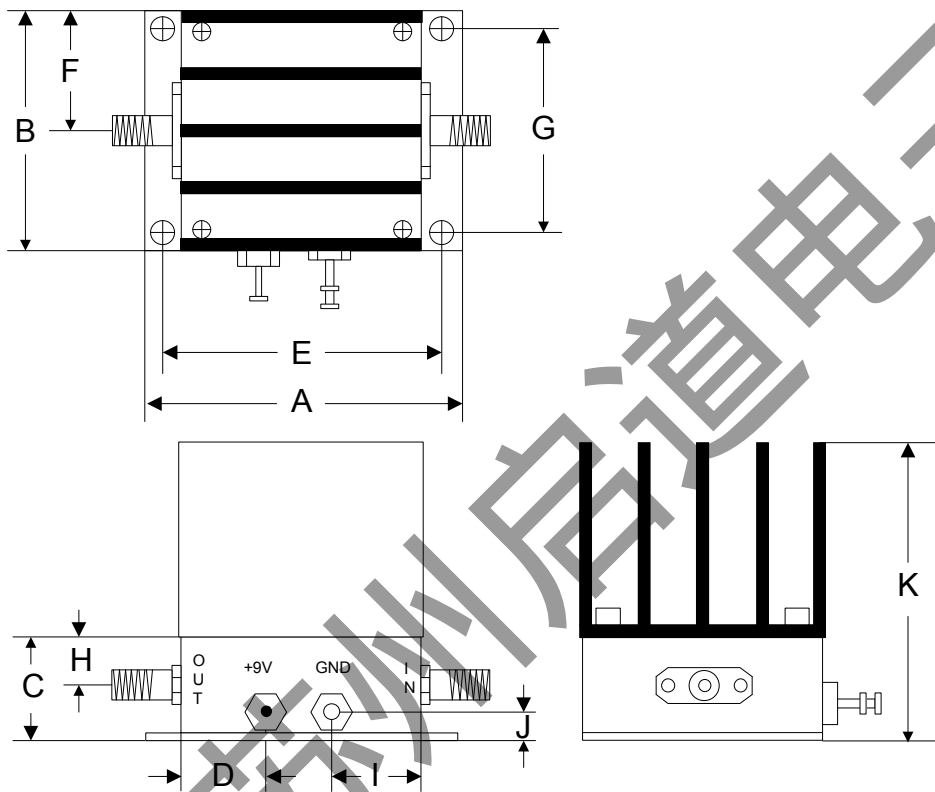
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Absolute Maximum Ratings

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