

MRA Series

100 – 2600MHz RF Amplifier

Features

- Frequency Range: 100 - 2600MHz
- Gain: 10dB
- P_{1dB}: +25dBm
- IP3: +33dBm
- Noise Figure: 5dB
- DC Power: 15V/190mA
- SMA Connector

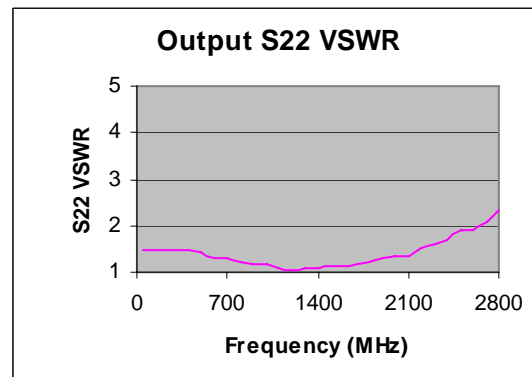
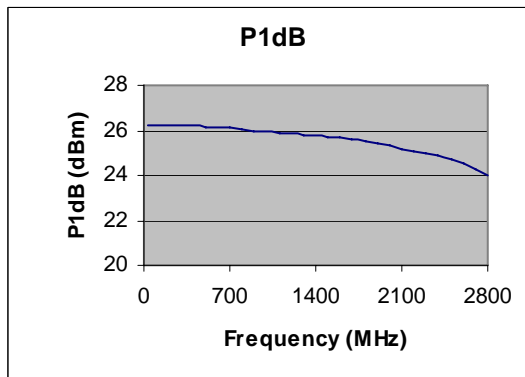
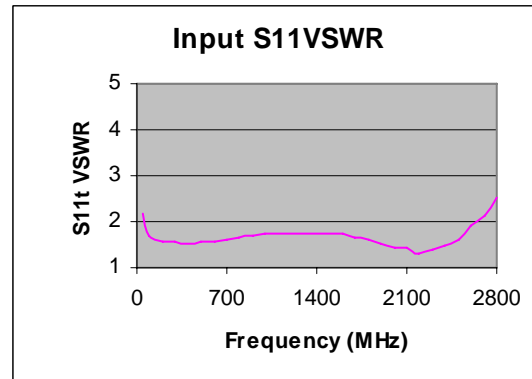
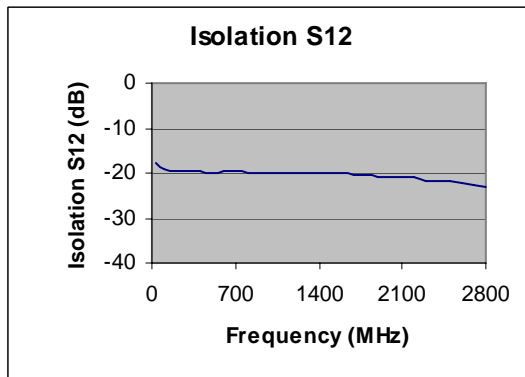
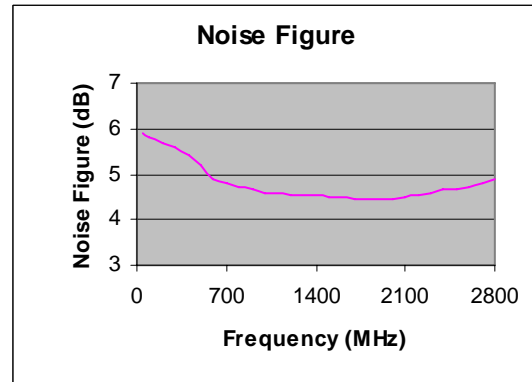
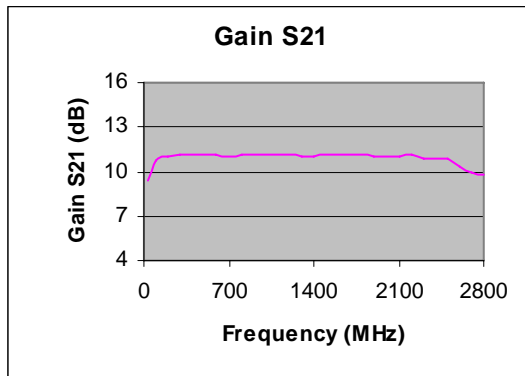
Description

MRA-2010 is a wideband high performance high reliability RF Amplifier operates with frequency range from 100MHz to 2600MHz and operating temperature from -54°C to +85°C.

Electrical Specifications $Z_S = Z_L = 50 \text{ Ohms}$

Parameter	Unit	+25°C	0°C to +50°C	-54°C to +85°C
Frequency Range	MHz	100 - 2600	200 - 2000	20 - 2000
Small Signal Gain (min.)	dB	10.0	9.0	9.0
Gain Flatness (max.)	dB	± 0.3	± 0.7	± 1.0
P _{1dB} (min.)	dBm	+25.0	+23.5	+23.0
IP3 (min.)	dBm	+33		
IP2 (min.)	dBm	+50		
Second Order Harmonic IP	dBm	+55		
Reverse Isolation	dB	20		
Noise Figure (max.)	dB	5.0	6.5	7.0
Input VSWR (max.)		2.0:1	1.9:1	2.0:1
Output VSWR (max.)		2.0:1	1.8:1	1.9:1
DC Power Supply	V	15	15	15
Supply Current	mA	180	187	190

Typical Performance @ +25 °C



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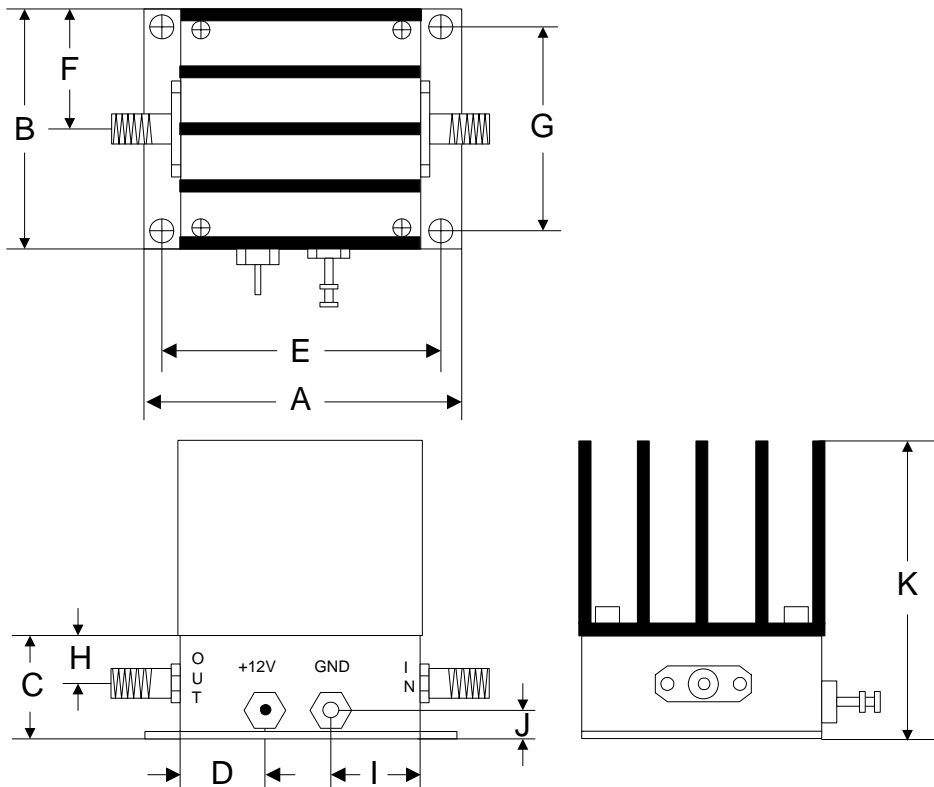
Test Data @ +25 °C

Frequency(MHz)	S21 (dB)	S12 (dB)	S11(VSWR)	S22(VSWR)
40	9.42	-17.8	2.18	1.47
100	10.73	-19.0	1.71	1.48
200	11.02	-19.6	1.57	1.48
300	11.15	-19.5	1.56	1.46
400	11.13	-19.7	1.54	1.46
500	11.13	-20.2	1.56	1.41
600	11.08	-19.6	1.58	1.31
700	11.01	-19.7	1.61	1.30
800	11.08	-19.8	1.66	1.23
900	11.11	-19.9	1.68	1.16
1000	11.09	-19.9	1.74	1.16
1100	11.09	-19.9	1.75	1.10
1200	11.09	-19.9	1.75	1.05
1300	11.07	-20.1	1.76	1.07
1400	11.05	-20.2	1.76	1.09
1500	11.08	-20.2	1.75	1.11
1600	11.13	-20.2	1.75	1.13
1700	11.11	-20.3	1.65	1.18
1800	11.10	-20.5	1.59	1.23
1900	11.03	-20.8	1.52	1.28
2000	10.97	-21.0	1.44	1.35
2100	11.05	-20.9	1.45	1.35
2200	11.19	-21.1	1.32	1.53
2300	10.88	-21.7	1.40	1.60
2400	10.93	-21.6	1.50	1.67
2500	10.92	-21.6	1.63	1.90
2600	10.32	-22.1	1.92	1.92
2700	10.00	-22.8	2.15	2.08
2800	9.85	-23.1	2.52	2.34

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power CW	+17dBm
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	K
Inch	1.250	1.250	0.665	0.450	1.000	0.625	1.000	0.350	0.500	0.187	1.665
mm	31.75	31.75	16.89	11.43	25.40	15.88	25.40	8.89	12.70	4.76	42.29