

High IP3

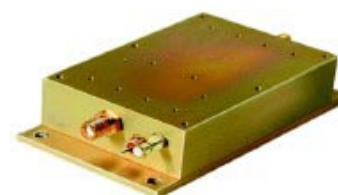
Low Noise Amplifier

ZRL-3500

50Ω, 700 MHz to 3500 MHz

Features

- High IP3, +44 dBm typ.
- Low noise figure, 2.5 dB typ.
- Broadband balanced Amplifier
- Broadband VSWR response
- Internal voltage regulated
- Over voltage and transient protected



Applications

- Low noise
- High dynamic range
- PCS, WLAN, GSM, UMTS, GPS, Cellular and Wireless data
- Defence communications
- Satellite communications
- Lab, Instrumentation
- Test Equipment

CASE STYLE: FJ893

Connectors	Model	Price	Qty.
SMA	ZRL-3500	\$139.95 ea.	(1-9)

Electrical Specifications at T_{AMB} = 25°C

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)				NOISE FIGURE (dB)		MAXIMUM POWER OUTPUT (dBm)			INTERCEPT POINT (dBm) Note 1	VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) (Isolation-Gain)	DC VOLTAGE @ Pin V+ (V) Note 2	DC OPERATING CURRENT @ Pin V+ (mA)	
	f _L	f _U	Typ.	Min.	Typ.	Max.	Typ.	Max.	(1 dB Compr.) Note 3	Typ.	Min.	Typ.	In	Out	Typ.		Typ.	Max.
ZRL-3500	700	1600	26	21	±2.2	±3.2	2.2	3.5	24	21	25	+43	1.40	1.30	20	12	460	575
	1600	2600	21	16	±2.4	±3.5	2.4	4.0	24	21	25	+45	1.40	1.35	22	12	460	575
	2600	3500	16	11	±2.4	±3.3	3.2	4.5	24	21	25	+45	1.30	1.30	23	12	460	575

1. 1MHz tone spacing

2. Unit is internally voltage regulated for 6.5 to 17VDC input voltage range.

3. Do not exceed the max. input Power rating

Maximum Ratings

Operating Temperature -40°C to 80°C case

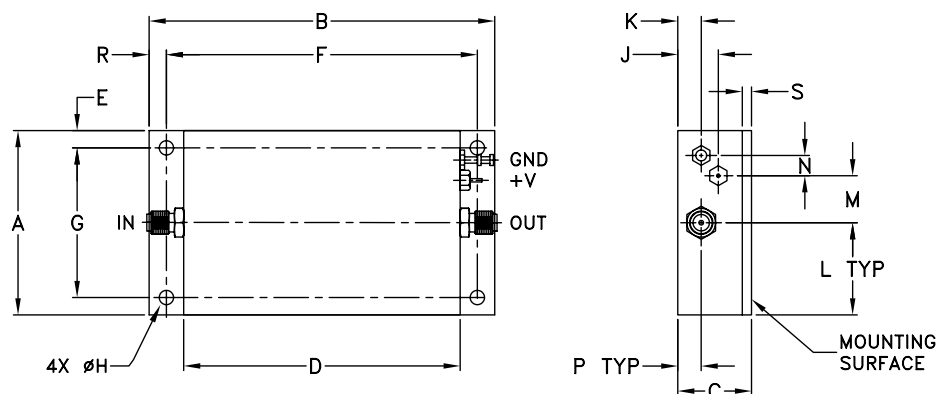
-40°C to 60°C ambient

Storage Temperature -55°C to 100°C

DC Voltage 17Vmax.

Input Power(no Damage) +10dBm

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	wt. grams
2.00	3.75	.80	3.00	.19	3.374	1.624	.156	.44	.26	1.00	.51	.22	.26	.19	.10	135
50.80	95.25	20.32	76.20	4.83	85.70	41.25	3.96	11.18	6.60	25.40	12.95	5.59	6.60	4.83	2.54	



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified

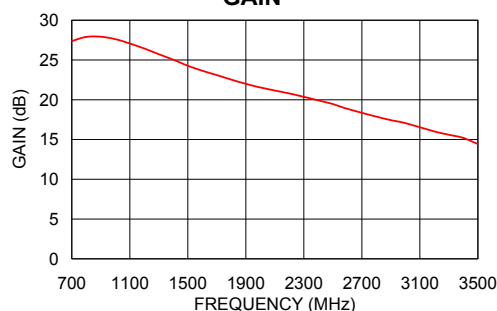
REV. OR
M98636
RDF-1168A
ZRL-3500
BLUEC
060808
page 1 of 2

Typical Performance Data & Curves at 25°C

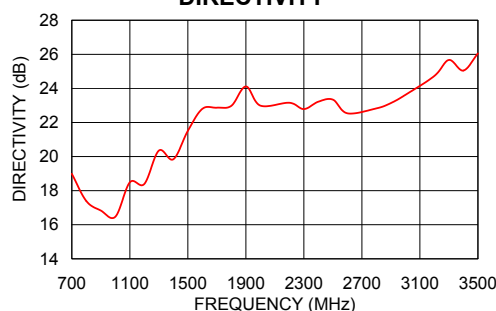
ZRL-3500

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @1dB COMPRESSION (dBm)	IP3 (dBm)	NF (dB)
700	27.38	18.99	1.41	1.46	23.60	42.59	2.93
800	27.91	17.39	1.37	1.35	23.95	43.50	2.42
1000	27.62	16.47	1.24	1.18	24.25	44.86	1.98
1200	26.45	18.39	1.19	1.16	24.12	45.76	1.97
1300	25.73	20.35	1.26	1.19	24.12	45.56	1.98
1400	25.04	19.84	1.34	1.23	24.25	44.91	2.03
1500	24.28	21.51	1.39	1.27	24.38	44.62	2.08
1600	23.65	22.80	1.43	1.29	24.48	45.93	2.13
1700	23.10	22.87	1.44	1.31	24.53	44.64	2.19
1800	22.53	22.98	1.45	1.32	24.61	44.51	2.25
2000	21.54	22.99	1.44	1.34	24.74	42.36	2.33
2200	20.79	23.16	1.45	1.39	24.87	43.69	2.38
2400	19.92	23.22	1.40	1.42	24.89	44.61	2.47
2500	19.46	23.34	1.35	1.40	24.70	42.26	2.55
2600	18.86	22.54	1.27	1.40	24.53	42.07	2.69
2800	17.88	22.83	1.23	1.39	24.44	42.04	2.96
3000	17.06	23.62	1.28	1.35	24.31	41.26	3.19
3200	16.02	24.73	1.20	1.23	23.87	42.75	3.31
3400	15.20	25.05	1.19	1.19	24.54	43.53	3.40
3500	14.43	26.05	1.30	1.22	24.43	44.05	3.43

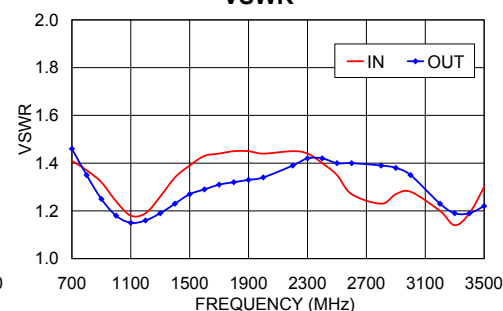
**ZRL-3500
GAIN**



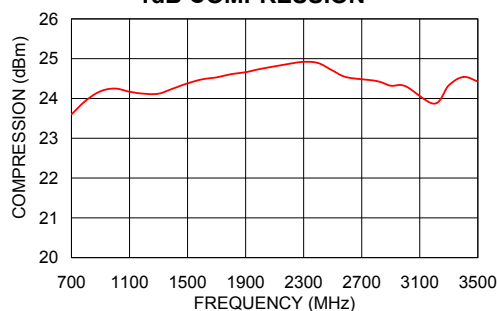
**ZRL-3500
DIRECTIVITY**



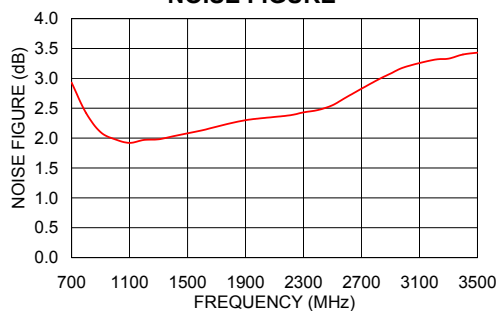
**ZRL-3500
VSWR**



**ZRL-3500
1dB COMPRESSION**



**ZRL-3500
NOISE FIGURE**



**ZRL-3500
IP3**

