

High IP3

Low Noise Amplifier

ZRL-3500+
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)
SMA	ZRL-3500	\$139.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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	Flatness						Saturated at 3dB Compr. Note 3			IP3 Typ.	In	Out	Typ.		Typ.	Max.
			Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.							
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

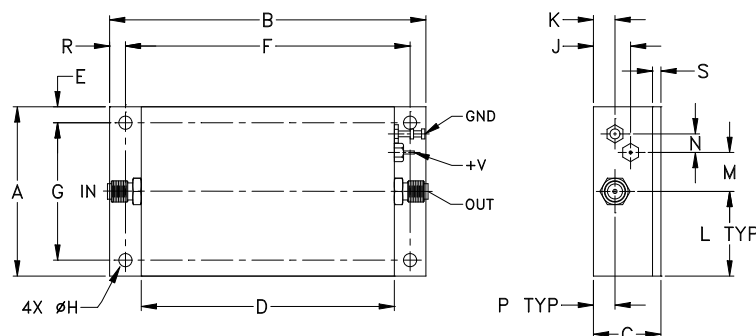
-40°C to 60°C ambient

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.
2.00	3.75	.80	3.00	.19	3.374	1.624	.156	.44	.26	1.00	.51	.22	.26	.19	.10	grams
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	135

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RF/IF MICROWAVE COMPONENTS

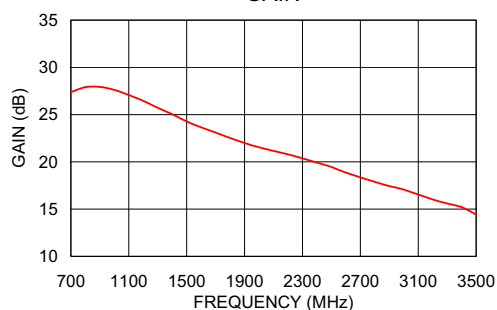
REV. C
M112750
RDF-1168A
ZRL-3500
BLUEC
070731
page 1 of 2

Typical Performance Data & Curves at 25°C

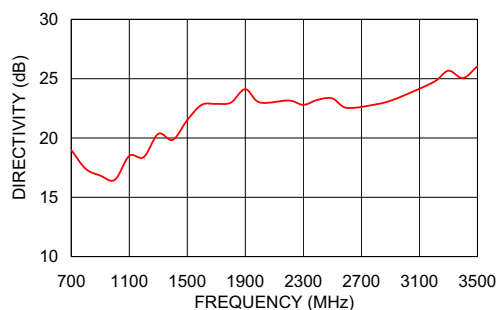
ZRL-3500+ ZRL-3500

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

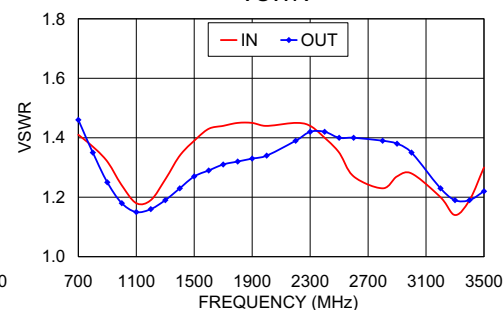
ZRL-3500
GAIN



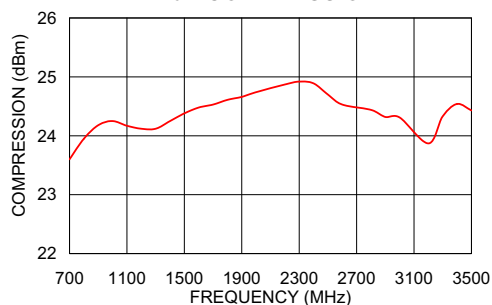
ZRL-3500
DIRECTIVITY



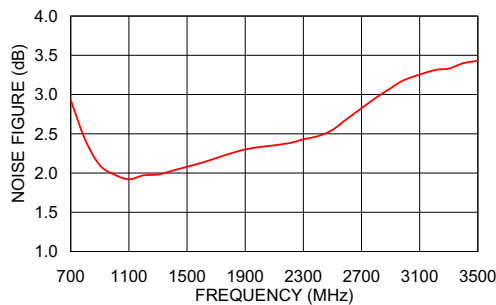
ZRL-3500
VSWR



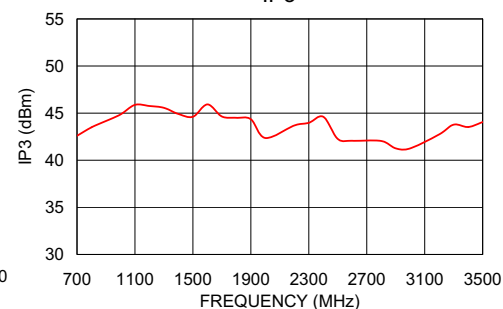
ZRL-3500
1dB COMPRESSION



ZRL-3500
NOISE FIGURE



ZRL-3500
IP3



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