

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)

+RoHS Compliant

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.			Typ.		Typ.	Max.
			Typ.	Min.	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.		In	Out				
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

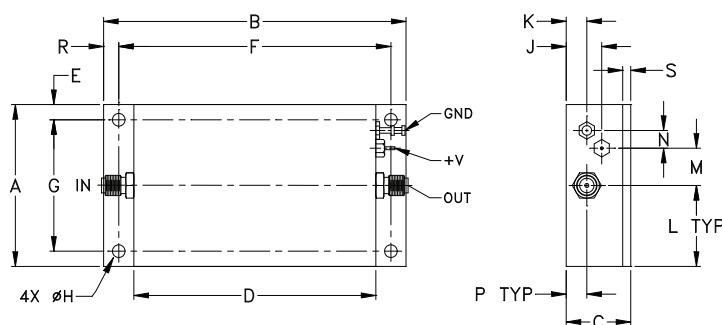
Storage Temperature -55°C to 100°C

DC Voltage 17Vmax.

Input Power(no Damage) +10dBm

Permanent damage may occur if any of these limits are exceeded.

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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ISO 9001 ISO 14001 AS 9100 CERTIFIED

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IF/RF MICROWAVE COMPONENTS

Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp.

For detailed performance specs & shopping online see web site

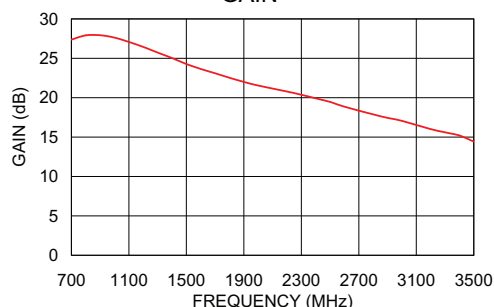
REV. B
M108294
RDF-1168A
ZRL-3500+
BLUEC
121022
Page 1 of 2

Typical Performance Data & Curves at 25°C

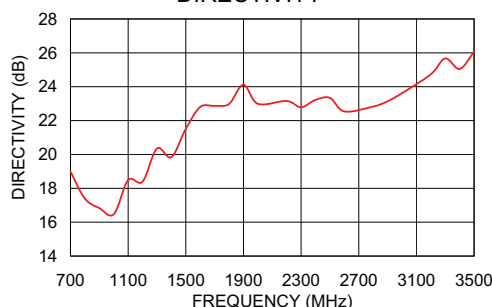
ZRL-3500+

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

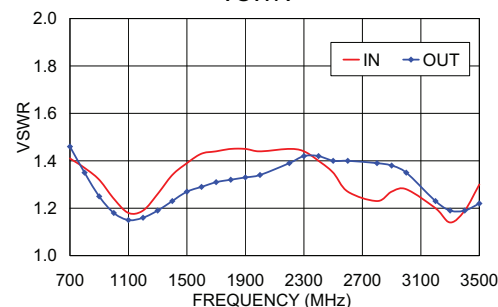
ZRL-3500+
GAIN



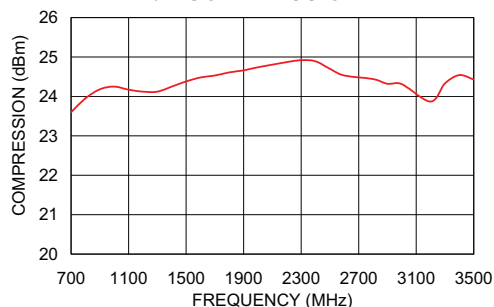
ZRL-3500+
DIRECTIVITY



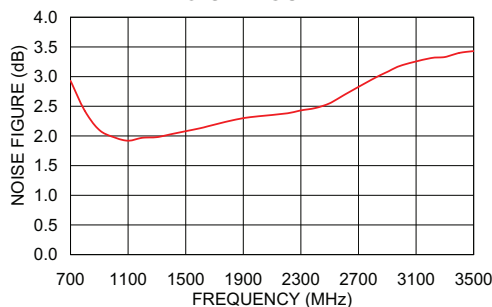
ZRL-3500+
VSWR



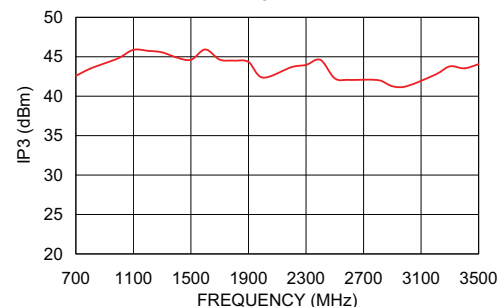
ZRL-3500+
1dB COMPRESSION



ZRL-3500+
NOISE FIGURE



ZRL-3500+
IP3



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