High IP3

Low Noise Amplifier

ZRL-3500+

50Ω 700 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
SMA	ZRL-3500+

+RoHS Compliant

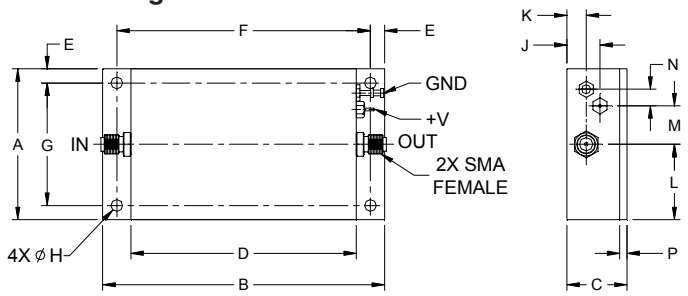
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		700		3500	MHz
Noise Figure	700 - 1600 1600 - 2600 2600 - 3500	— — —	2.0 2.3 3.2	3.5 3.2 4.2	dB
Gain	700 - 1600 1600 - 2600 2600 - 3500	21 18 12	26 22 17	— — —	dB
Gain Flatness	700 - 1600 1600 - 2600 2600 - 3500	— —	±2.2 ±2.2 ±2.4	±3.2 ±3.8 ±4.0	dB
Output Power at 1dB compression	700 - 3500	21	24	—	dBm
Output Power at 3dB compression	700 - 3500	—	25	—	dBm
Output third order intercept point[1]	700 - 3500	—	+42	—	dBm
Input VSWR	700 - 2600 2600 - 3500	— —	1.4 1.5	— —	:1
Output VSWR	700 - 2600 2600 - 3500	— —	1.3 1.5		:1
Active Directivity	700 - 2600 2600 - 3500	— —	18 14	— —	dB
DC Supply Voltage[2]		—	12	—	V
Supply Current		—	540	575	mA

1. 1 MHz tonse spacing.
2. Unit is internally voltage regulated for 6.5 to 17VDC input voltage range.

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
2.00	3.75	0.80	3.00	0.19	3.374	1.624	0.156	0.44	0.26	1.00	0.51	0.22	0.10	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	2.54	135

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 80°C case -40°C to 60° ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+17V
Input RF Power (no damage)	+10 dBm

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

Notes

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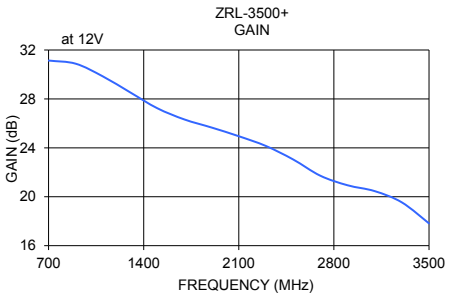
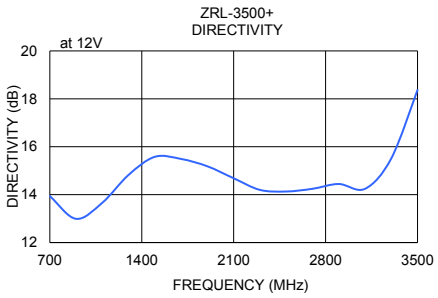
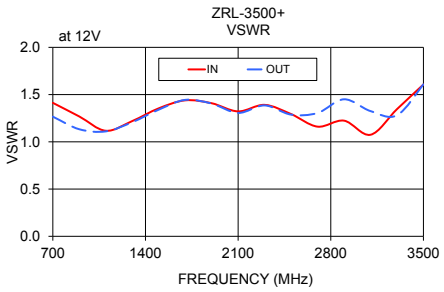
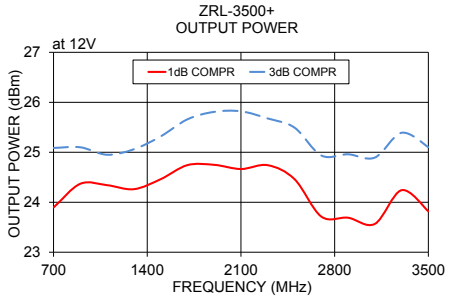
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty 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

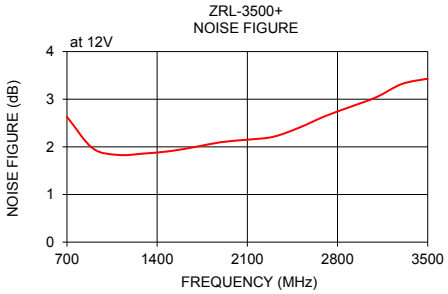
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1dB COMPR. (dBm)	NOISE FIGURE (dB)	OUTPUT IP3 (dBm)
	12V	12V	IN	OUT	12V	12V	12V
700	31.14	13.94	1.41	1.27	23.90	2.63	41.77
900	30.88	12.99	1.27	1.13	24.37	1.97	40.65
1100	29.84	13.66	1.12	1.11	24.34	1.83	40.43
1300	28.54	14.83	1.22	1.21	24.26	1.86	40.70
1500	27.24	15.58	1.35	1.34	24.46	1.91	41.65
1700	26.32	15.49	1.44	1.44	24.74	2.00	43.19
1900	25.66	15.18	1.41	1.40	24.75	2.10	44.09
2100	24.95	14.68	1.32	1.31	24.66	2.15	43.71
2300	24.15	14.20	1.39	1.39	24.74	2.21	45.32
2500	23.05	14.13	1.29	1.29	24.46	2.40	44.10
2700	21.72	14.24	1.16	1.31	23.71	2.64	43.38
2900	20.94	14.44	1.22	1.45	23.69	2.84	42.37
3100	20.46	14.24	1.07	1.33	23.57	3.04	41.84
3300	19.54	15.51	1.35	1.28	24.24	3.32	42.86
3500	17.82	18.37	1.61	1.61	23.82	3.43	42.73

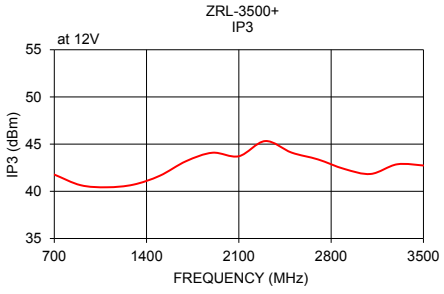












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