High IP3

Low Noise Amplifier

ZRL-2150+

50Ω 950 to 2150 MHz

Generic photo used for illustration purposes only

Case Style: FJ893

Connectors	Model
SMA	ZRL-2150+

+RoHS Compliant

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

Features

- High IP3, +33 dBm typ.
- Low Noise figure, 1.5 dB typ.
- Broadband flat gain response
- Excellent return loss, 20 dB typ.
- Internal voltage regulated
- Over-voltage and transient protected

Applications

- PCS, UMTS
- Mobile satellite service
- Baseband amp, fiber optic driver
- Aeronautical and defense communications

Electrical Specifications at 25°C

Parameter	Condition (MHz)	Min.	Typ.	Max.	Units
Frequency Range		950		2150	MHz
Noise Figure	950 - 2150 1500 - 2000	— —	1.5 1.3	2.2 2.0	dB
Gain	950 - 2150 1500 - 2000	22.5 23	25 25	— —	dB
Gain Flatness	950 - 2150 1500 - 2000	— —	±1.1 ±0.9	±1.8 ±1.5	dB
Output Power at 1dB compression	950 - 2150 1500 - 2000	17.5 22	22 24	— —	dBm
Output Power at 3dB compression	950 - 2150 1500 - 2000	— —	22.5 25.2	— —	dBm
Output third order intercept point[1]	950 - 2150 1500 - 2000	— —	+33 +34	— —	dBm
Input VSWR	950 - 2150 1500 - 2000	— —	1.3 1.3	— —	:1
Output VSWR	950 - 2150 1500 - 2000	— —	1.2 1.2	— —	:1
Active Directivity	950 - 2150 1500 - 2000	— —	26 21	— —	dB
DC Supply Voltage[2]		—	12	—	V
Supply Current		—	255	300	mA

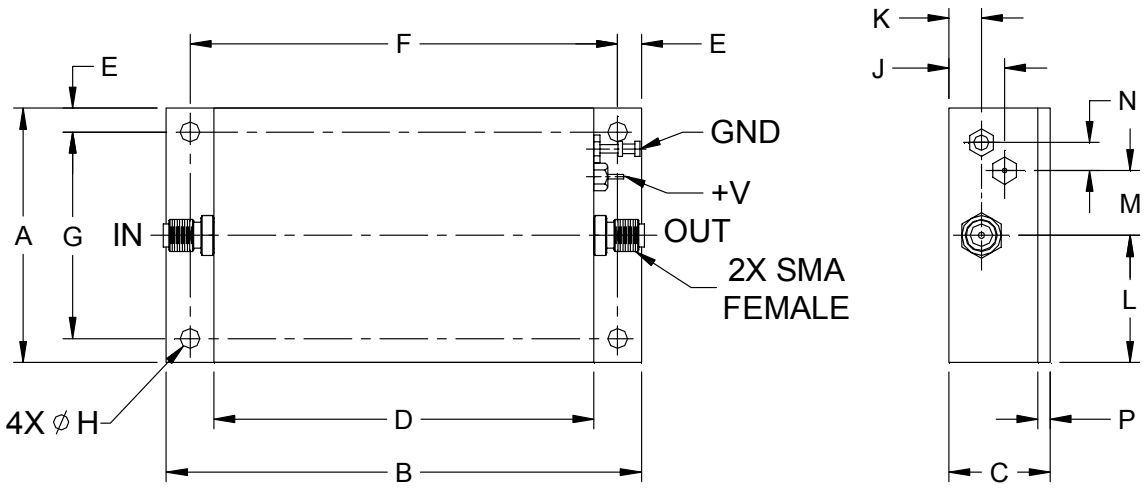
1. 1 MHz tonse spacing.
2. Unit is internally voltage regulated for 6.5 to 17VDC input voltage range.

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.

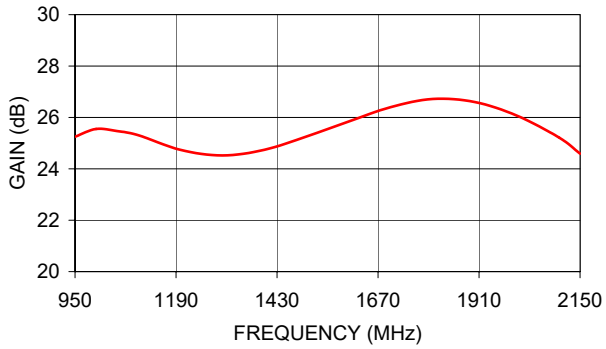
Outline Drawing



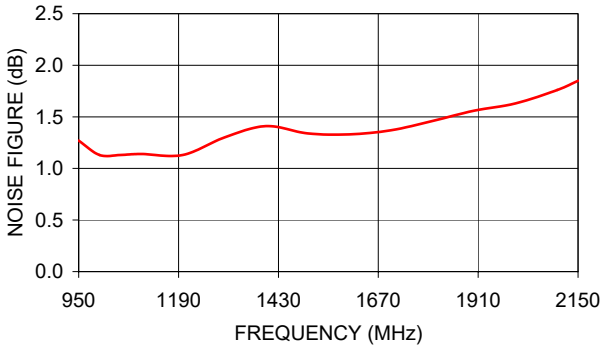
Outline Dimensions (inch / mm)

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

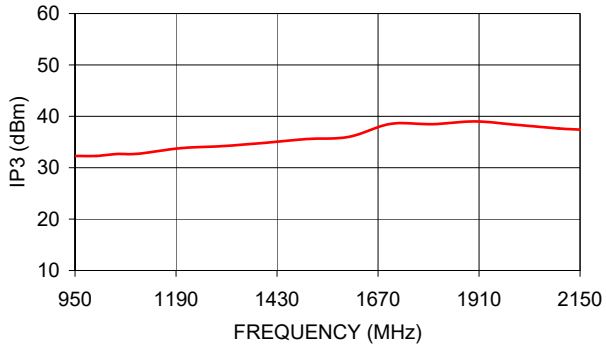
ZRL-2150+
GAIN



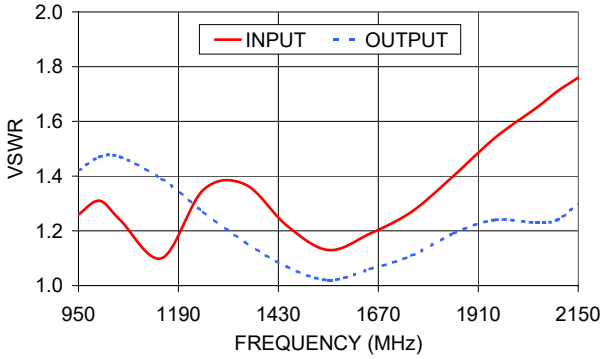
ZRL-2150+
NOISE FIGURE



ZRL-2150+
IP3



ZRL-2150+
VSWR



Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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