

High IP3

# Low Noise Amplifier

ZRL-2150+

50Ω

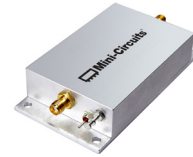
950 to 2150 MHz

## 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



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

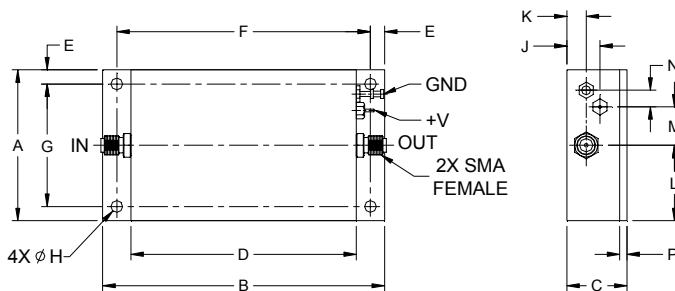
## Electrical Specifications at 25°C

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

1. 1 MHz tone spacing.

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

## Outline Drawing



## 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 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

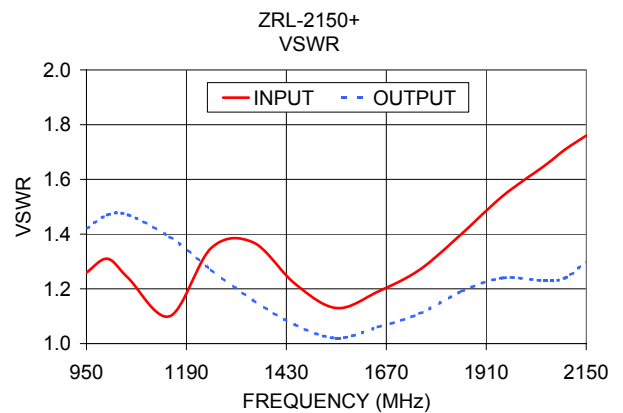
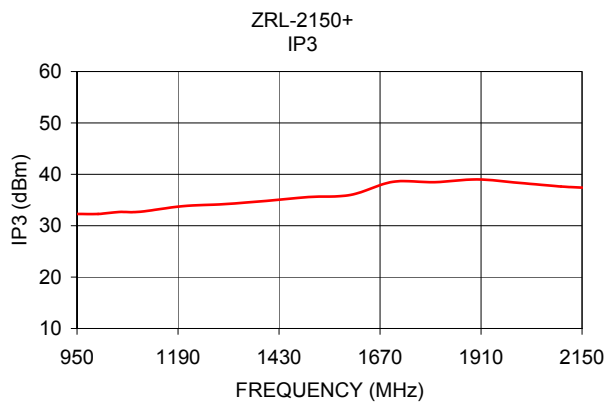
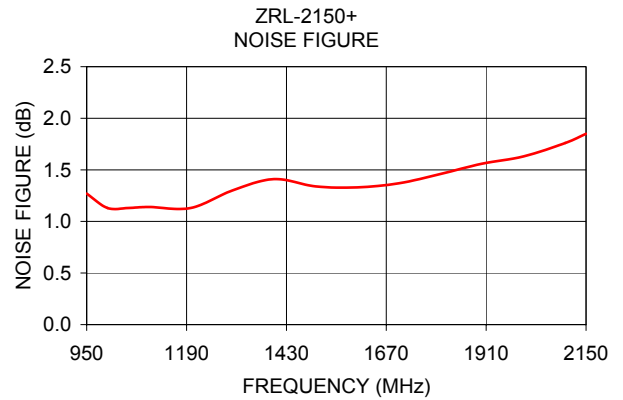
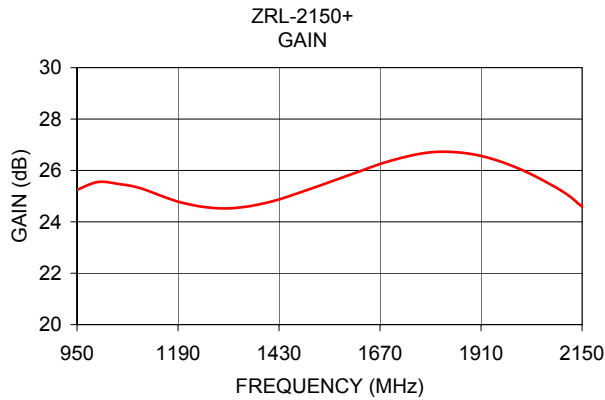
### Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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Page 1 of 2



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