

Coaxial Wideband Amplifier

ZJL-153+

50Ω 5000 to 15000 MHz

The Big Deal

- Wide bandwidth, 5000 to 15000 MHz
- Medium output power, +18 dBm typ
- Single +5V supply voltage



CASE STYLE: BW459

Product Overview

The ZJL-153+ is a Class A, wide frequency range, ideal for a variety of lab applications as well as applications including communications, radar and more. The ruggedly-designed amplifier provides unconditional stability. Housed in a rugged aluminum alloy case measuring 1.0 x 1.07 x 0.61", the unit features SMA connectors and filtered DC pin for the single +5V supply voltage.

Key Features

Feature	Advantages
Wideband, 5000 to 15000 MHz	Suitable for a broad range of wideband applications, including test setups, communications and defense applications.
Medium P1dB, +18 dBm typ.	Usable for medium power applications, good as buffer amplifier.
Single +5V supply voltage	Simplifier the power supply configuration
Unconditional stability	Provides reliable performance independent of input and load conditions.

Coaxial Wideband Amplifier

ZJL-153+

50Ω

5000 to 15000 MHz

Features

- ultra wideband, 5000 to 15000 MHz
- compact rugged case, 1.0"x1.07"x0.61" (including mounting bracket)

Applications

- communications systems
- radar
- instrumentation
- laboratory use



CASE STYLE: BW459

Connectors	Model
SMA	ZJL-153-S+

+RoHS Compliant

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

Electrical Specifications at 25°C

Parameter	ZJL-153+			Units
	Min.	Typ.	Max.	
Frequency Range	5000	—	15000	MHz
Gain	10	13	—	dB
Gain Flatness	—	±1.5	—	dB
Output Power at 1dB compression	+16	+18	—	dBm
Noise Figure	—	6.0	—	dB
Output third order intercept point	—	+23	—	dBm
Input VSWR	—	1.7	—	:1
Output VSWR	—	1.7	—	:1
DC Supply Voltage	—	5	—	V
Supply Current	—	—	180	mA

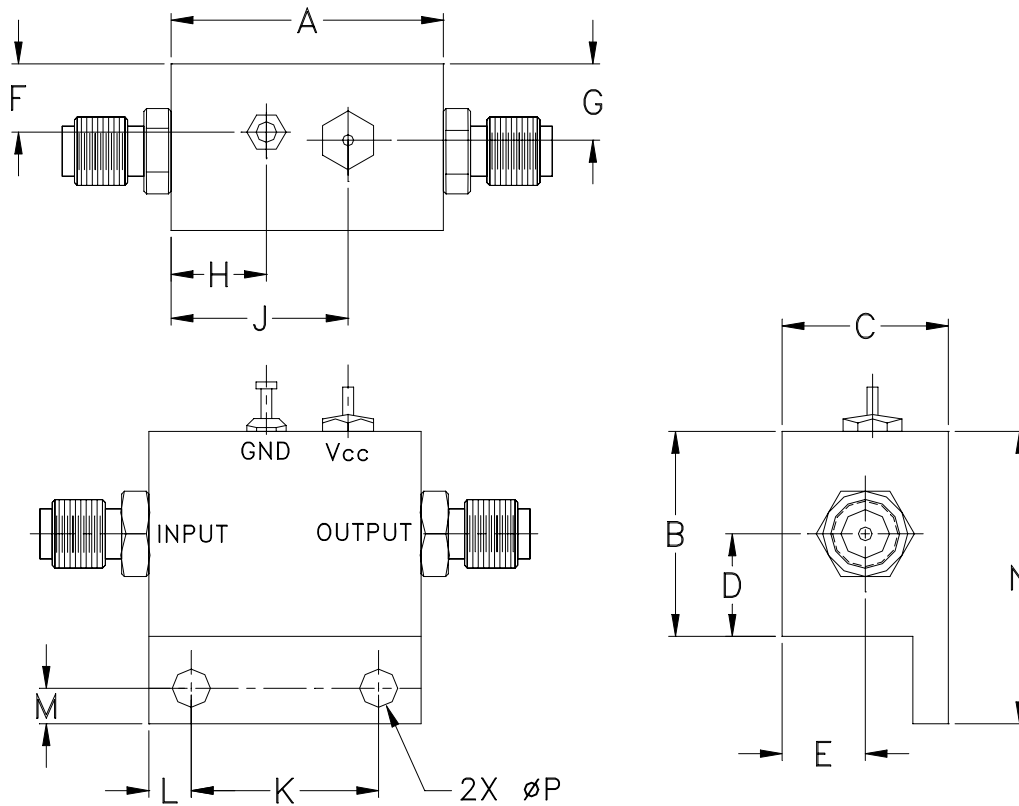
Open/Short load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB.

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 50°C
Storage Temperature	-55°C to 100°C
DC Voltage	+5.5V max.
Input RF Power (no damage)	+13 dBm

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

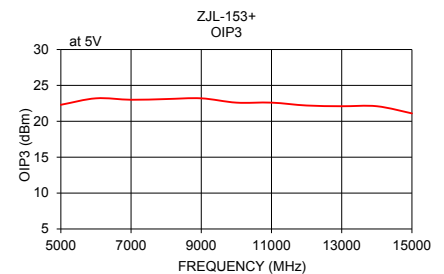
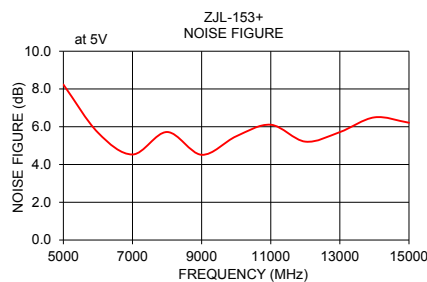
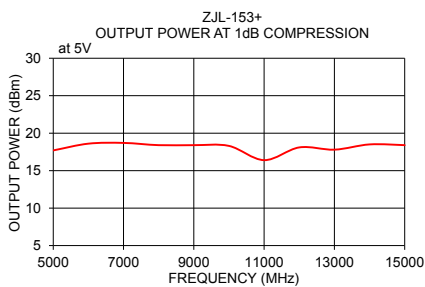
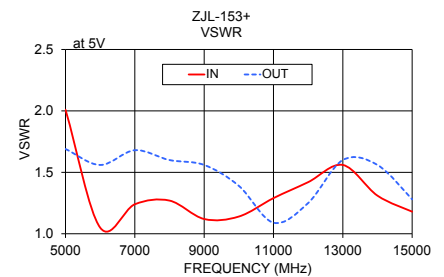
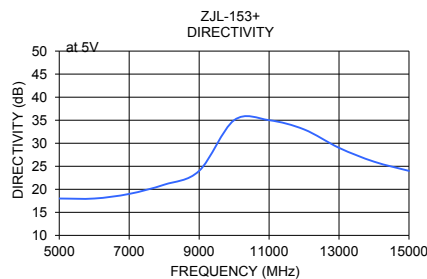
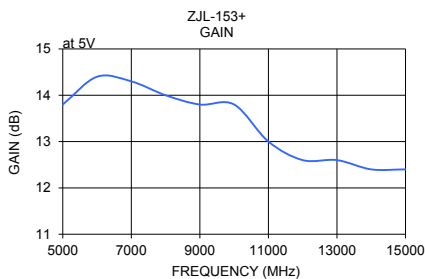
Outline Drawing



Outline Dimensions (inch)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
1.00	.75	.61	.38	.29	.25	.26	.35	.65	.688	.156	.13	1.07	.140	grams
25.40	19.05	15.49	9.65	7.37	6.35	6.60	8.89	16.51	17.48	3.96	3.30	27.18	3.56	25

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)	OIP3 (dBm)
	5V	5V	IN	OUT	5V	5V	5V
5000	13.80	18.00	2.01	1.69	17.70	8.24	22.30
6000	14.40	18.00	1.05	1.56	18.60	5.69	23.20
7000	14.30	19.00	1.24	1.68	18.70	4.53	23.00
8000	14.00	21.00	1.27	1.60	18.40	5.72	23.10
9000	13.80	24.00	1.12	1.56	18.40	4.51	23.20
10000	13.80	35.00	1.14	1.39	18.30	5.49	22.60
11000	13.00	35.00	1.29	1.09	16.40	6.11	22.60
12000	12.60	33.00	1.42	1.25	18.10	5.21	22.20
13000	12.60	29.00	1.56	1.60	17.80	5.72	22.10
14000	12.40	26.00	1.31	1.56	18.50	6.50	22.10
15000	12.40	24.00	1.18	1.28	18.40	6.21	21.10



Additional 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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