

Coaxial

Low Noise Amplifier

ZX60-3011+

50Ω

400 to 3000 MHz

Features

- high dynamic range
- wide bandwidth, 400 to 3000 MHz
- low noise figure 1.5 dB typ.
- 1dB compression, +21 dBm
- medium IP3
- reverse voltage connection protected
- over-voltage transient protected
- low cost
- protected by US patent 6,790,049

Applications

- buffer amplifier
- LO amplifiers for mixers
- cellular
- PCN
- general purpose small signal



Generic photo used for illustration purposes only

CASE STYLE: GC957

Connectors	Model
SMA	ZX60-3011+

+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		400		3000	MHz
Noise Figure	400-1000		1.4	2.5	dB
	1000-1700		1.5	2.5	
	1700-2400		1.7	2.6	
	2400-3000		1.8	2.8	
Gain	400-1000	12	15.0		dB
	1000-1700	11	13.5		
	1700-2400	9	11.5		
	2400-3000	7.5	10.0		
Gain Flatness	400-1000		±.70		dB
	1000-1700		±1.0		
	1700-2400		±1.0		
	2400-3000		±.70		
Output Power at 1dB compression	400-1000	19.5	21.5		dBm
	1000-1700	19.5	21.5		
	1700-2400	18.5	21.0		
	2400-3000	18.0	20.4		
Output third order intercept point			31		dBm
Input VSWR			1.7		:1
Output VSWR	400-3000		1.6		:1
DC Supply Voltage			12		V
Supply Current			120		mA

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 85°C Case -40°C to 60°C ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+6.5 V Min. to 15V Max.
Input RF Power (no damage)	+15 dBm
Power Dissipation	1.12W Typ. at 12V

¹ Other voltages available in the 6.5 to 20V range, please contact factory.
Permanent damage may occur if any of these limits are exceeded.

Notes

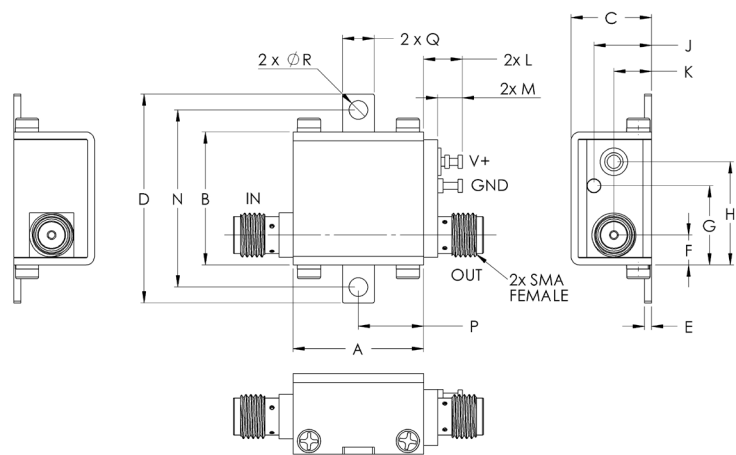
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www.minicircuits.com P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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Outline Drawing



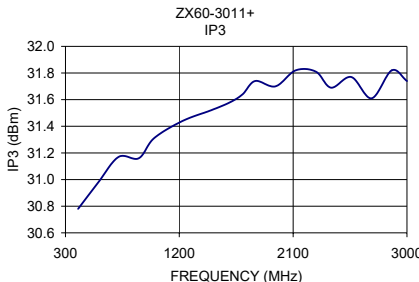
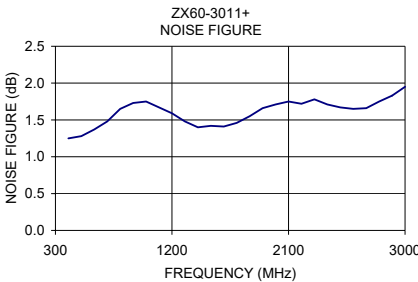
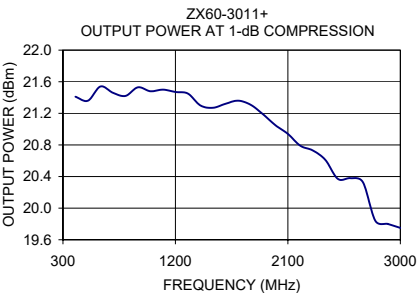
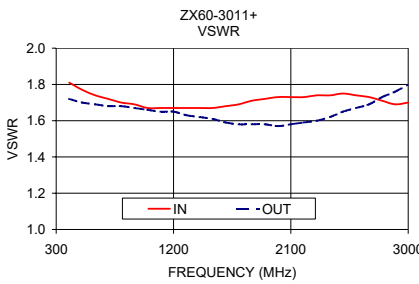
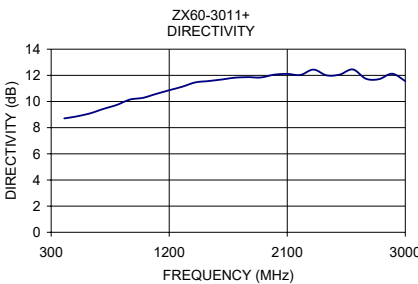
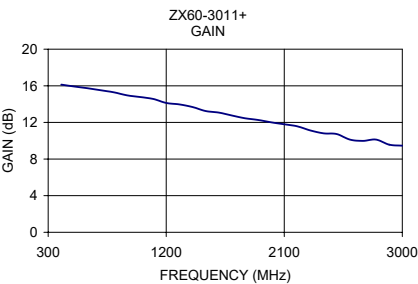
NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminal. See Application Note. [AN-40-010](#).

Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	wt
.74	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.14	1.00	.37	.18	.106	grams
18.80	19.1	11.68	30.0	1.02	4.32	11.4	14.99	8.38	5.33	5.59	3.56	25.40	9.40	4.57	2.69	23.0

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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POUT at 1dB COMPR. (dBm)	IP3 (dBm)	NOISE FIGURE (dB)
	12V	12V			12V		12V
400.00	16.13	8.71	1.81	1.72	21.41	30.78	1.25
500.00	15.92	8.87	1.77	1.70	21.36	30.98	1.28
900.20	14.96	10.15	1.69	1.67	21.53	31.16	1.73
1000.00	14.78	10.28	1.67	1.66	21.48	31.31	1.75
1200.00	14.13	10.86	1.67	1.65	21.47	31.44	1.59
1400.00	13.68	11.46	1.67	1.62	21.30	31.52	1.40
1600.00	13.08	11.68	1.68	1.59	21.32	31.58	1.41
1800.00	12.46	11.86	1.71	1.58	21.31	31.74	1.55
1900.00	12.27	11.84	1.72	1.58	21.19	31.70	1.66
2100.00	11.80	12.11	1.73	1.58	20.94	31.82	1.75
2300.00	11.12	12.14	1.74	1.60	20.73	31.81	1.78
2400.00	10.81	12.00	1.74	1.62	20.61	31.69	1.71
2600.00	10.13	12.45	1.74	1.67	20.38	31.77	1.65
2900.00	9.57	12.12	1.69	1.76	19.80	31.82	1.83
3000.00	9.46	11.56	1.70	1.80	19.75	31.74	1.95



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