

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



CASE STYLE: GC957

Connectors	Model	Price	Qty.
SMA	ZX60-3011+	\$139.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Applications

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

Low Noise Amplifier Electrical Specifications (T_{AMB}=25°C)

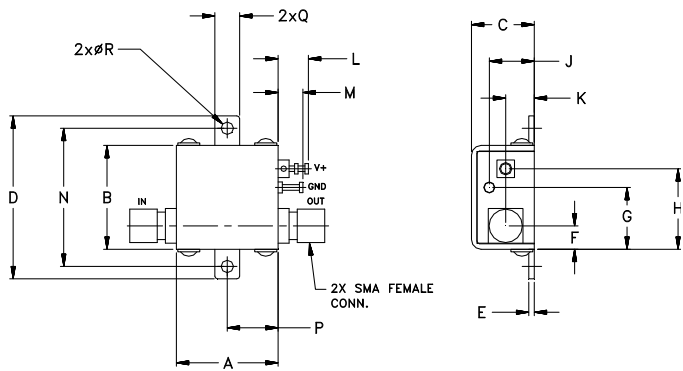
MODEL NO.	FREQUENCY (MHz)		NOISE FIGURE (dB)		GAIN (dB)			MAXIMUM POWER (dBm)			INTERCEPT POINT (dBm)	VSWR (:1) Typ.			DC POWER	
	f _L	f _U	Typ.	Max.	Typ.	Min.	Flatness Typ.	Output (1 dB Compr.)		Input (no damage)		Typ.	In	Out	Volt (V)	Max. Current (mA)
								Typ.	Min.							
ZX60-3011+	400	1000	1.4	2.5	15	12	±.70	21.5	19.5	+15	31	1.7	1.6	12	120	
	1000	1700	1.5	2.5	13.5	11	±1.0	21.5	19.5	+15	31	1.7	1.6	12	120	
	1700	2400	1.7	2.6	11.5	9	±1.0	21.0	18.5	+15	31	1.7	1.6	12	120	
	2400	3000	1.8	2.8	10.0	7.5	±.70	20.4	18.0	+15	31	1.7	1.6	12	120	

Maximum Ratings

Operating Temperature	-40°C to 85°C case
	-40°C to 60°C ambient
Storage Temperature	-55°C to 100°C
DC Voltage	+6.5V Min. to 15V Max.
Input Power(no damage)	15dBm
Power	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.

Outline Drawing



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	.18	1.00	.37	.18	.106	grams
18.80	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38	5.33	5.59	4.57	25.40	9.40	4.57	2.69	23.0

Mini-Circuits®
ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

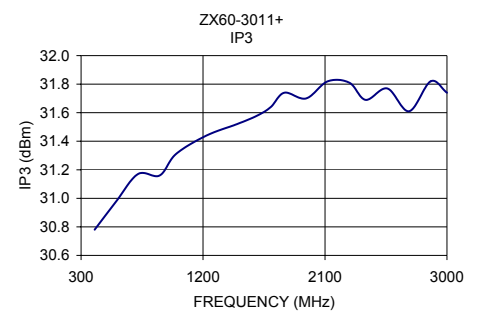
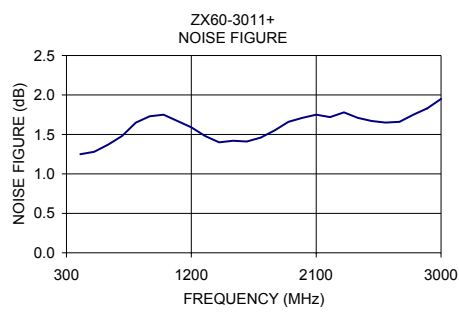
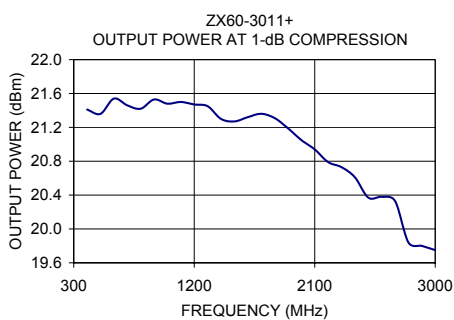
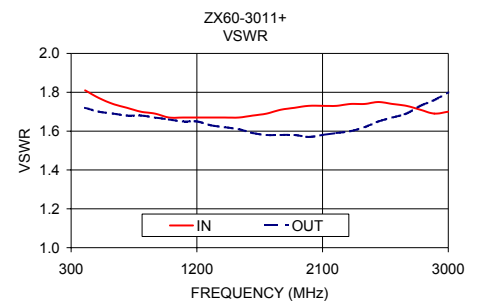
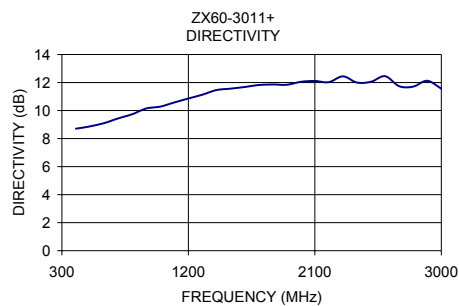
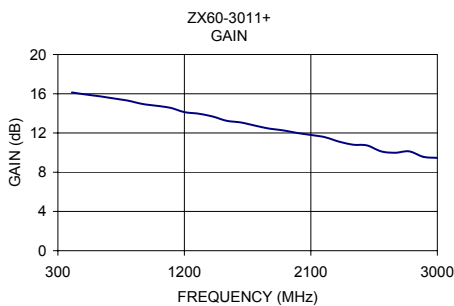
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Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	IP3 (dBm)	NOISE FIGURE (dB)
	12V	12V	IN	OUT	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
2600.20	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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