

Ultra Wide Bandwidth Amplifier

ZX60-14012L-S+

50Ω 300 KHz to 14 GHz

Features

- Wide bandwidth, 300 kHz to 14 GHz
- Reverse voltage connection protected
- Over-voltage transient protected
- Excellent flatness over frequency range, ±1dB typ.
- +11dBm typ. output power at 1dB compression
- Low cost
- Protected by US patent 6,790,049

Applications

- Broad band
- Buffer or low level driver
- General purpose
- Lab
- Instrumentation
- Test equipment



CASE STYLE: GC957

Connectors	Model
SMA	ZX60-14012L-S+

+RoHS Compliant

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

Electrical Specifications at T_{AMB} = 25°C

MODEL NO.	FREQ. (MHz) f _L - f _U	GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) Isolation-Gain	DC VOLTAGE @ Pin V+ (V) (Note 2)	DC OPERATING CURRENT @ Pin V+ (mA)				
		Typ.	Min.	Flatness Typ.	Max.	Output (1 dB Comp.) Typ.	Min. (Note 3)	NF (dB) (Note 1) Typ.	Max.			IP3 (dBm) Typ.	In	Out	Typ.	Max.
ZX60-14012L-S+	0.3-14000	12	9	±1.0	±2.0	11	9	5.5	7.5	20	1.3	1.7	4.5 - 8.5	12	62	68

1. Noise figure tested and guaranteed over the 10-14000 MHz range.
2. Unit is internally voltage regulated over 10.5 to 20 VDC input range.
3. +4 dBm min. power output @ 10000-14000 MHz

Maximum Ratings

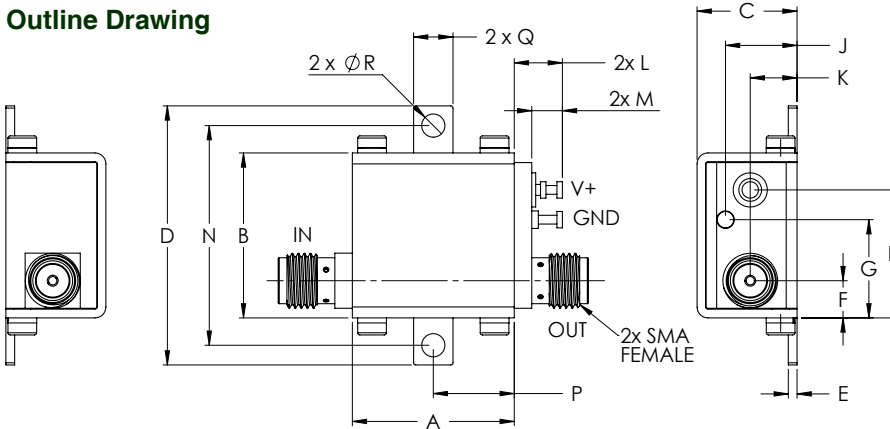
Operating Temperature	-40°C to 80°C case
	-40°C to 55°C ambient at 12V
	-40°C to 50°C ambient at 15V
	-40°C to 40°C ambient at 20V
Storage Temperature	-55°C to 100°C
DC Voltage	20V
Input Power(no Damage)	10dBm

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



NOTE: When soldering the DC connections, caution must be used to avoid overheating the DC terminals. See Application Note [AN-40-10](#).

Outline Drawing



Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	WT. GRAM
.74	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.14	1.00	.37	.18	.106	23.0
18.80	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38	5.33	5.59	3.56	25.40	9.40	4.57	2.69	

Notes

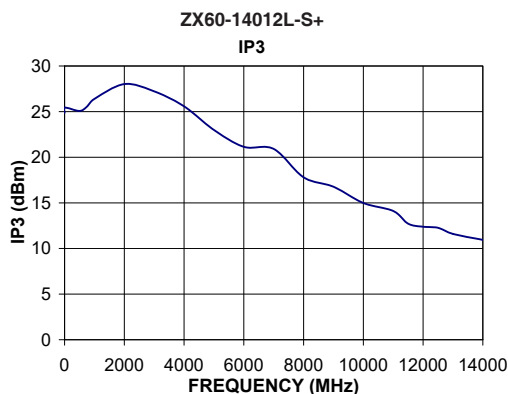
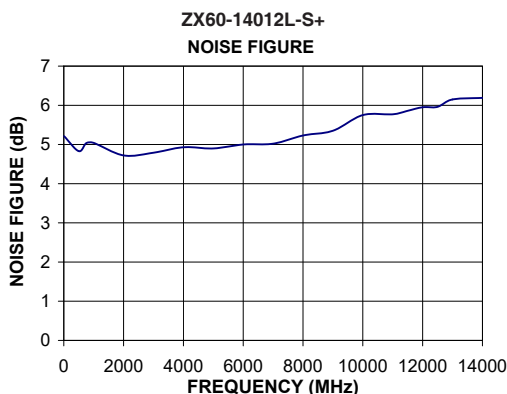
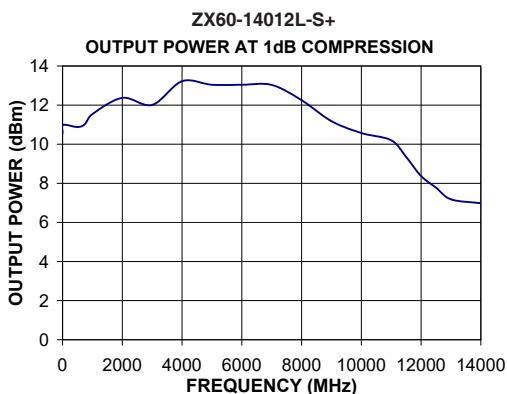
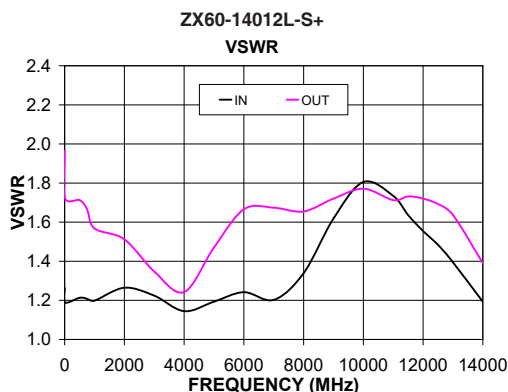
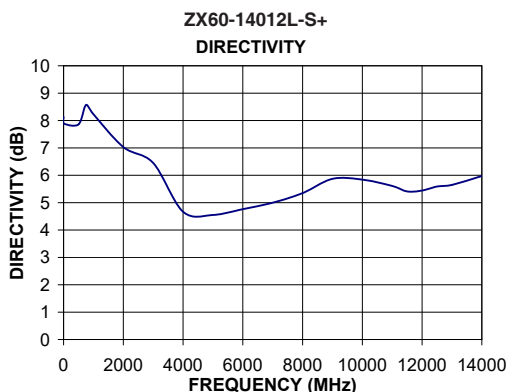
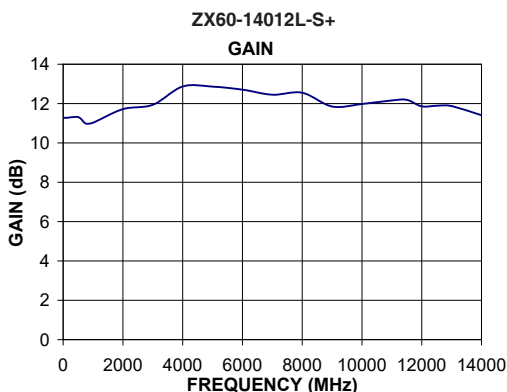
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Typical Performance Data & Curves at 25°C ZX60-14012L-S+

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @1dB COMPRESSION (dBm)	IP3 (dBm)	NF (dB)
0.3	11.68	8.13	1.26	1.96	10.56	24.86	-----
10	11.29	7.89	1.19	1.72	10.99	25.44	5.21
500	11.31	7.86	1.21	1.71	10.88	25.08	4.83
750	10.99	8.57	1.21	1.67	11.03	25.55	5.03
1000	11.03	8.23	1.20	1.57	11.54	26.40	5.04
2000	11.72	7.03	1.26	1.51	12.37	28.02	4.72
3000	11.94	6.45	1.22	1.35	12.01	27.22	4.79
4000	12.87	4.67	1.14	1.24	13.22	25.58	4.93
5000	12.86	4.55	1.19	1.47	13.04	22.99	4.90
6000	12.71	4.76	1.24	1.67	13.04	21.14	5.00
7000	12.45	5.00	1.20	1.67	13.03	20.91	5.02
8000	12.55	5.35	1.34	1.65	12.25	17.80	5.23
9000	11.85	5.87	1.62	1.72	11.18	16.77	5.35
10000	11.98	5.84	1.81	1.77	10.57	14.99	5.75
11000	12.16	5.61	1.73	1.71	10.20	14.11	5.77
11500	12.19	5.41	1.64	1.73	9.35	12.73	5.86
12000	11.86	5.44	1.55	1.72	8.37	12.38	5.95
12500	11.89	5.59	1.48	1.69	7.78	12.27	5.96
13000	11.87	5.65	1.39	1.64	7.18	11.60	6.15
14000	11.41	5.97	1.19	1.39	6.98	10.94	6.19



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