Coaxial

Low Noise Amplifier

ZX60-272LN+

50Ω 2300 to 2700 MHz

Features

- Ultra low noise figure, 0.8 dB typ.
- Output power, up to +18.5 dBm typ.
- Good output IP3, 31.5 dBm typ.
- Good return loss
- Unconditionally stable
- Protected by US patent 6,790,049

Applications

- WiMAX 2.5GHz
- Base transceiver station, tower mounted amplifier, repeater
- General purpose low noise amplifier
- Lab
- Instrumentation
- Test equipment

Case Style:GA955

Connectors	Model
SMA	ZX60-272LN-S+

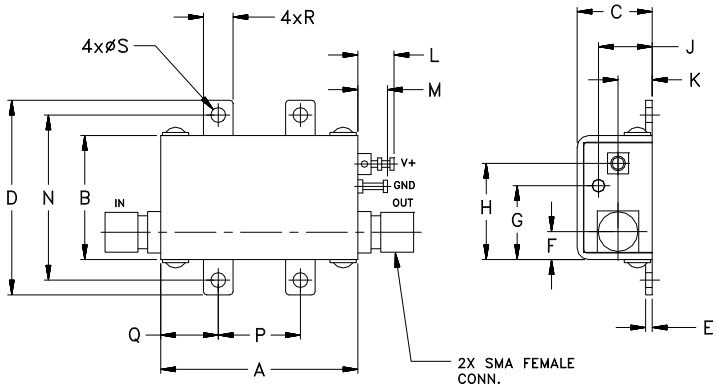
+RoHS Compliant

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		2300		2700	MHz
Noise Figure	2300-2700		0.8	1.1	dB
Gain	2300-2700	11.5	14.0		dB
Gain Flatness	2300-2700		± 0.55	± 1.1	dB
Output Power at 1dB compression	2300-2700	16.0	18.5		dBm
Output third order intercept point (OIP3)	2300-2700		31.5		dBm
Input VSWR	2300-2700		1.2		:1
Output VSWR	2300-2700		1.6		:1
Active Directivity	2300-2700		7		dB
DC Supply Voltage			5.0		V
Supply Current			55	70	mA

Outline Drawing



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

Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 85°C Case
Storage Temperature	-55°C to 100°C
DC Voltage	5.5 V
Input RF Power (no damage)	+17 dBm
Power Consumption	400 mW

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

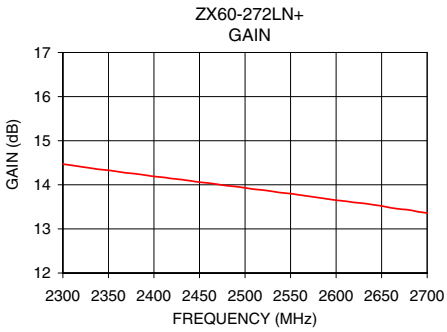
Outline Dimensions (inch / mm)

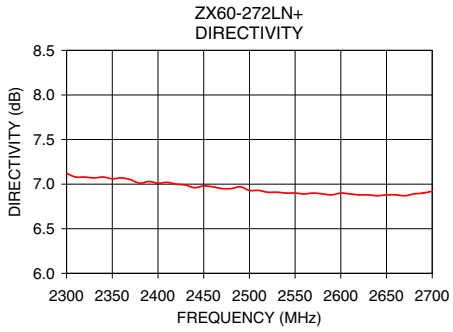
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt.
1.20	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.18	1.00	.50	.35	.18	.106	grams
30.48	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0

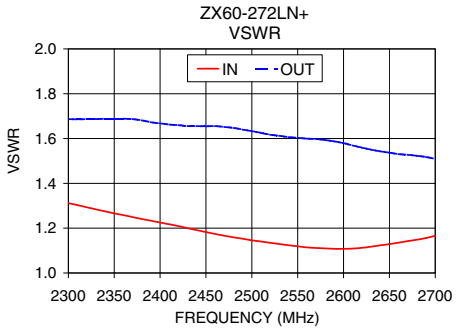
Notes

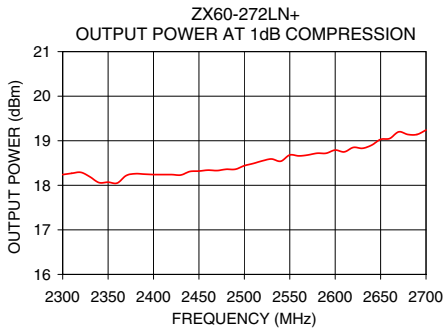
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's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

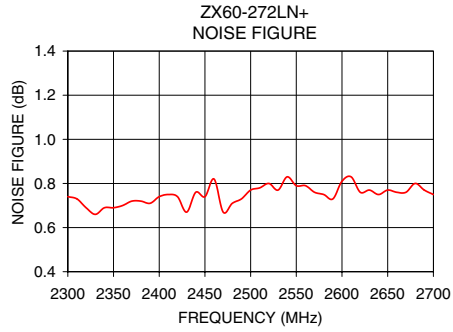
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @ 1dB COMPRESSION (dBm)	OUTPUT IP3 (dBm)	NF (dB)
2300.00	14.47	7.12	1.31	1.69	18.24	31.83	0.74
2320.00	14.41	7.08	1.29	1.69	18.29	31.42	0.69
2340.00	14.35	7.08	1.27	1.69	18.06	31.78	0.69
2360.00	14.30	7.07	1.26	1.69	18.05	32.10	0.70
2380.00	14.25	7.01	1.24	1.68	18.26	30.83	0.72
2400.00	14.19	7.01	1.23	1.67	18.24	31.89	0.74
2420.00	14.14	7.00	1.21	1.66	18.24	32.98	0.74
2440.00	14.09	6.96	1.19	1.66	18.31	29.71	0.76
2460.00	14.04	6.97	1.17	1.66	18.34	30.51	0.82
2480.00	13.98	6.95	1.16	1.65	18.36	34.00	0.71
2500.00	13.93	6.93	1.15	1.63	18.44	30.84	0.77
2520.00	13.88	6.91	1.13	1.62	18.55	30.31	0.80
2540.00	13.82	6.90	1.12	1.61	18.54	30.79	0.83
2560.00	13.77	6.89	1.11	1.60	18.66	31.57	0.79
2580.00	13.71	6.89	1.11	1.59	18.72	31.01	0.75
2600.00	13.65	6.90	1.11	1.58	18.79	31.36	0.81
2620.00	13.60	6.88	1.11	1.56	18.85	31.41	0.76
2640.00	13.55	6.87	1.12	1.54	18.90	30.90	0.75
2680.00	13.43	6.89	1.15	1.52	19.14	30.29	0.80
2700.00	13.36	6.92	1.17	1.51	19.24	31.47	0.75

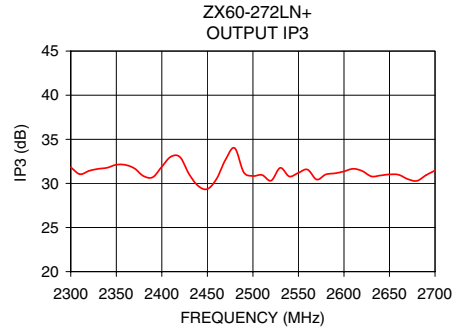












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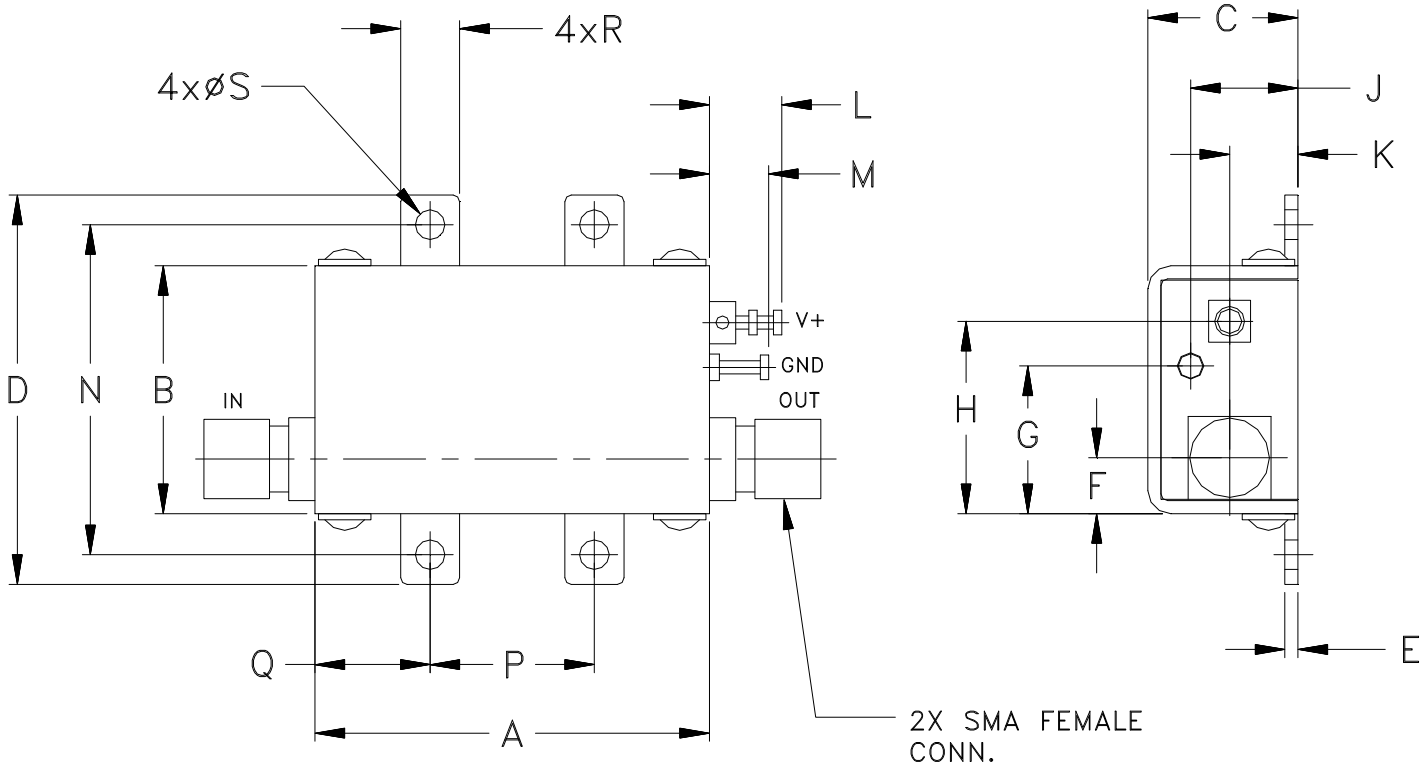
Case Style GA

GA955

Outline Dimensions



CASE #.	A	B	C	D	E	F	G	H	J	K	L	M	N
GA955	1.20 (30.48)	.75 (19.05)	.46 (11.68)	1.18 (29.97)	.04 (1.02)	.17 (4.32)	.45 (11.43)	.59 (14.99)	.33 (8.38)	.21 (5.33)	.22 (5.59)	.18 (4.57)	1.00 (25.40)

CASE #.	P	Q	R	S	WT, GRAM
GA955	.50 (12.70)	.35 (8.89)	.18 (4.57)	.106 (2.69)	35.0

Dimensions are in inches (mm). Tolerances: 2Pl. ± .03; 3Pl. ± .015
Tolerance on hole size and interaxes dimensions to be ± .005.

Note:
1. Case material: Brass
2. Case finish: Nickel plate

Mini-Circuits

Environmental Specifications **ENV23T10**

All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-40° to 85° C Case Temperature	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Stabilization Bake	(non-operating) 125°C, 24 hours	- - -
Burn-in at Elevated Temp.	(DC on) 160 hours at 85° C	MIL-STD-202, Method 108
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition A, except 100°C