

# Low Noise Amplifier

ZX60-242GLN+

50Ω

1710 to 2400 MHz

## Features

- Ultra low noise figure, 0.85 dB typ.
- High gain, 30 dB typ.
- Output power, up to +20 dBm typ.
- Good output IP3, 36.5 dBm typ.
- Unconditionally stable
- Protected by US patent 6,790,049

## Applications

- Base transceiver station, tower mounted amplifier, repeater
- WCDMA
- TD SCDMA
- PCS Rx / PCS Tx
- General purpose low noise amplifier
- Lab
- Instrumentation
- Test equipment



Case Style: GA955

Connectors	Model
SMA	ZX60-242GLN-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		1710		2400	MHz
Noise Figure	1710 - 1880		0.80	1.05	dB
	1850 - 1990		0.80	1.05	
	1990 - 2200		0.90	1.10	
	2200 - 2400		0.90	1.20	
Gain	1710 - 1880	28.0	31.0		dB
	1850 - 1990	28.0	30.5		
	1990 - 2200	26.5	29.5		
	2200 - 2400	25.5	28.0		
Gain Flatness	1710 - 1880		± 0.60	± 1.20	dB
	1850 - 1990		± 0.50	± 1.00	
	1990 - 2200		± 0.70	± 1.40	
	2200 - 2400		± 0.65	± 1.30	
Output Power at 1dB compression	1710 - 1880	18.0	20.0		dBm
	1850 - 1990	18.0	20.0		
	1990 - 2200	18.0	20.5		
	2200 - 2400	18.5	21.0		
Output third order intercept point	1710 - 1880		36		dBm
	1850 - 1990		36		
	1990 - 2200		37		
	2200 - 2400		37		
Input VSWR	1710 - 1880		1.4		:1
	1850 - 1990		1.3		
	1990 - 2200		1.2		
	2200 - 2400		1.7		
Output VSWR	1710 - 1880		1.3		:1
	1850 - 1990		1.3		
	1990 - 2200		1.5		
	2200 - 2400		1.7		
Active Directivity	1710-2400		11.5		dB
DC Supply Voltage			5.0		V
Supply Current			120	150	mA

### Notes

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 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](http://www.minicircuits.com/MCLStore/terms.jsp)

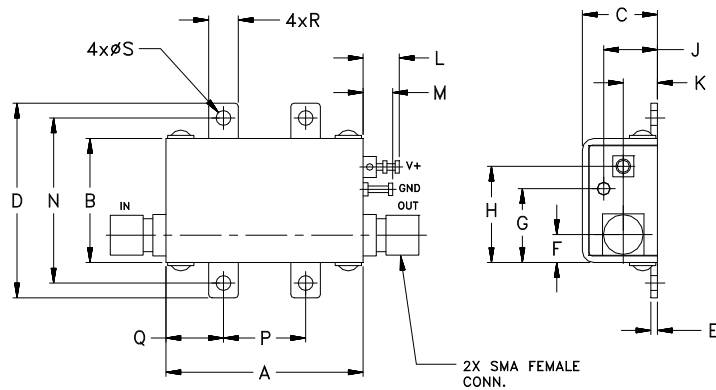


## Maximum Ratings

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	825 mW

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

## Outline Drawing



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

## Outline Dimensions (inch)

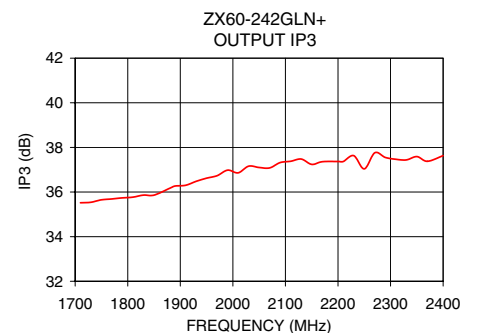
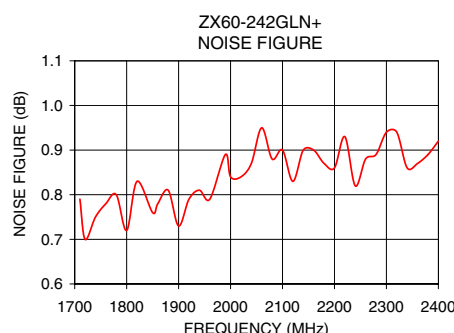
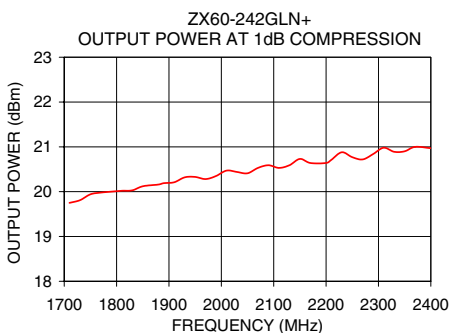
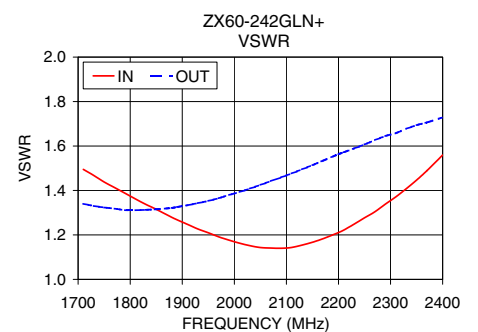
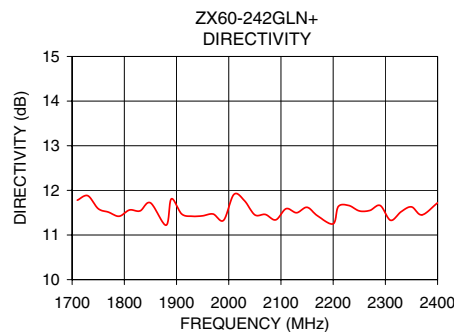
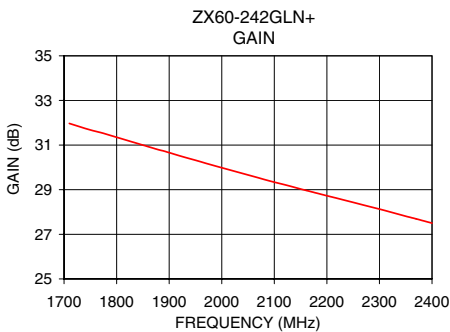
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt.
1.20	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.18	1.00	.50	.35	.18	.106	grams
30.48	19.05	11.68	29.97	1.02	4.32	11.43	14.99	8.38	5.33	5.59	4.57	25.40	12.70	8.89	4.57	2.69	35.0

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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @ 1dB COMPRESSION (dBm)	OUTPUT IP3 (dBm)	NF (dB)
1710.00	31.97	11.78	1.49	1.34	19.75	35.52	0.79
1750.00	31.68	11.59	1.44	1.32	19.94	35.65	0.77
1800.00	31.35	11.52	1.38	1.31	20.00	35.59	0.72
1850.00	31.00	11.72	1.32	1.32	20.12	35.86	0.76
1880.00	30.79	11.22	1.28	1.32	20.16	36.17	0.81
1900.00	30.66	11.28	1.26	1.33	20.21	36.29	0.73
1950.00	30.32	11.43	1.21	1.35	20.33	36.62	0.80
1990.00	30.05	11.33	1.18	1.38	20.35	36.98	0.89
2040.00	29.73	11.88	1.15	1.42	20.41	37.15	0.87
2060.00	29.60	11.50	1.14	1.43	20.45	37.00	0.95
2100.00	29.35	11.54	1.14	1.47	20.56	37.23	0.90
2140.00	29.09	11.53	1.16	1.51	20.68	37.23	0.90
2180.00	28.85	11.36	1.19	1.54	20.60	37.44	0.87
2200.00	28.73	11.25	1.21	1.56	20.64	37.37	0.86
2260.00	28.37	11.50	1.29	1.62	20.72	37.31	0.88
2300.00	28.12	11.35	1.35	1.65	20.90	37.52	0.94
2320.00	28.00	11.66	1.39	1.67	20.93	37.29	0.94
2360.00	27.75	11.73	1.47	1.70	20.95	37.42	0.87
2380.00	27.63	11.76	1.51	1.72	20.98	37.18	0.89
2400.00	27.50	11.72	1.56	1.73	20.97	37.63	0.92



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