

Ultra Low Noise Amplifier

ZX60-1614LN

50Ω 1217 MHz to 1620 MHz

Features

- Ultra low noise figure 0.5 typ.
- 11V-13V operation
- Good IP3, +30 dBm typ.
- Reverse voltage connection protected
- Small size
- Low cost
- Protected by US patent 6,790,049

Applications

- Low noise amplifier RF front end
- Low noise pre-amp
- Buffer amplifier
- LNA for dual GPS application, 1227MHz and 1559MHz
- General purpose small signal
- Lab
- Instrumentation
- Test equipment



CASE STYLE: GA955

Connectors	Model
SMA	ZX60-1614LN-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) Output (1 dB Comp.) Typ.	DYNAMIC RANGE			VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) Isolation-Gain Typ.	DC VOLTAGE @ Pin V+ (V)	DC OPERATING CURRENT @ Pin V+ (mA)	
		Typ.	Min.	Flatness			NF (dB)	IP3 (dBm)	In	Out	Typ.			Typ.	Max.
				Typ.	Max.										
ZX60-1614LN	1217-1620	14	11	±1.1	±2.0	13.5	0.5	0.9	30	1.3	1.3	11.5	12	42	50

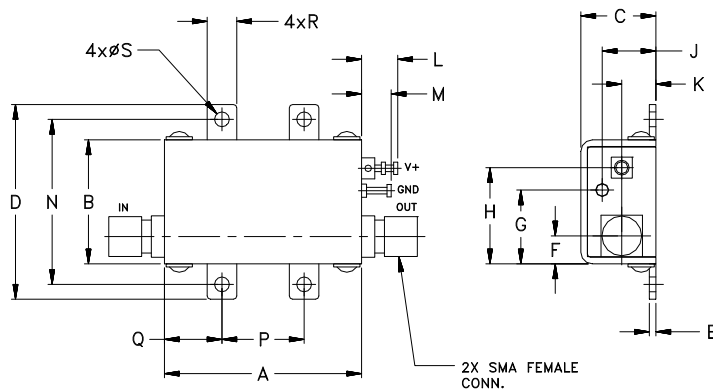
Maximum Ratings

Operating Temperature	-40°C to 80°C case
Storage Temperature	-55°C to 100°C
DC Voltage	15V
Input Power(no Damage)	13dBm

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	S	wt. grams
1.20	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.18	1.00	.50	.35	.18	.106	35.0
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	

Notes

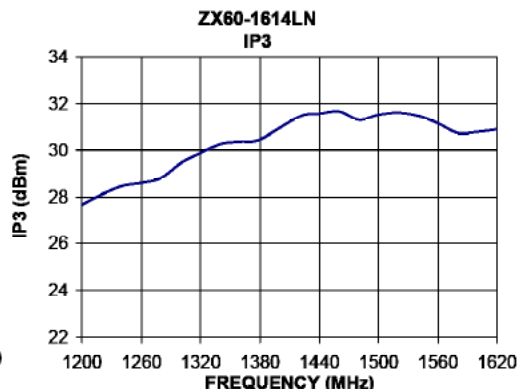
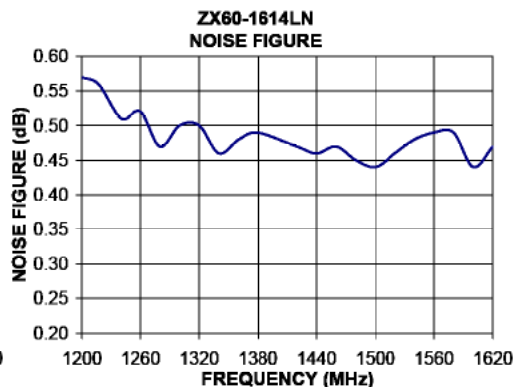
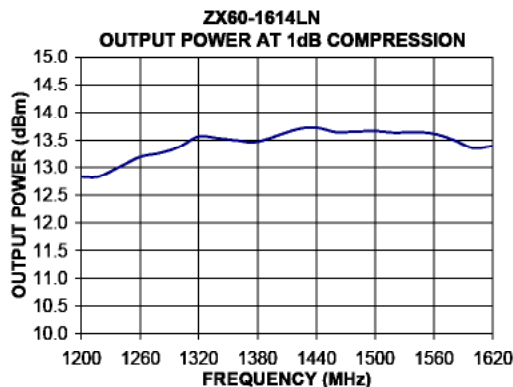
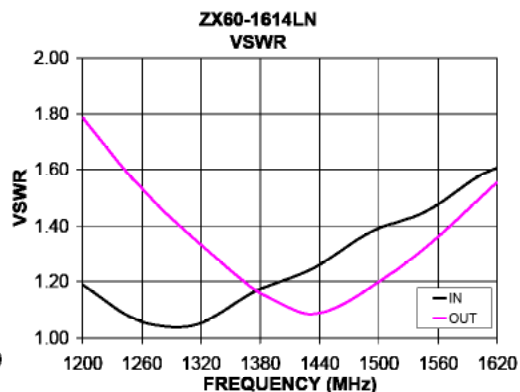
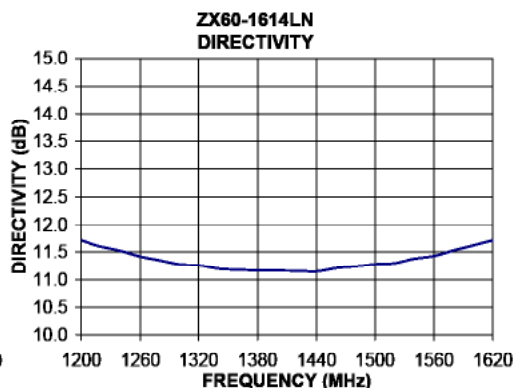
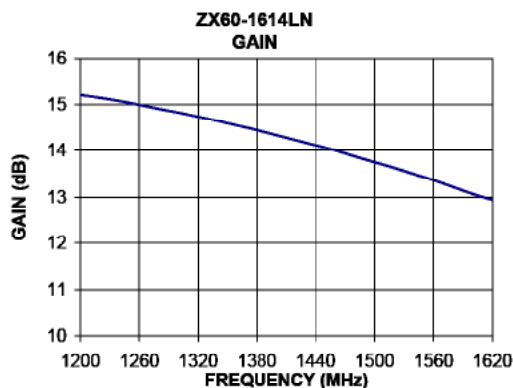
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Typical Performance Data & Curves at 25°C

ZX60-1614LN

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @1dB COMPRESSION (dBm)	IP3 (dBm)	NF (dB)
1217	15.15	11.61	1.15	1.71	12.83	28.05	0.56
1240	15.07	11.52	1.09	1.61	13.02	28.46	0.51
1260	14.99	11.42	1.06	1.53	13.19	28.60	0.52
1280	14.90	11.35	1.04	1.46	13.26	28.81	0.47
1300	14.82	11.28	1.04	1.40	13.37	29.45	0.50
1320	14.73	11.26	1.05	1.33	13.56	29.89	0.50
1340	14.64	11.20	1.09	1.27	13.53	30.29	0.46
1360	14.54	11.18	1.13	1.21	13.49	30.39	0.48
1380	14.44	11.17	1.17	1.16	13.47	30.48	0.49
1420	14.22	11.16	1.23	1.09	13.69	31.44	0.47
1440	14.11	11.15	1.26	1.09	13.72	31.57	0.46
1460	14.00	11.21	1.31	1.11	13.64	31.66	0.47
1480	13.87	11.24	1.35	1.15	13.65	31.31	0.45
1500	13.75	11.28	1.39	1.20	13.66	31.52	0.44
1520	13.63	11.30	1.42	1.25	13.63	31.61	0.46
1540	13.50	11.38	1.44	1.30	13.64	31.47	0.48
1560	13.37	11.43	1.48	1.36	13.61	31.15	0.49
1580	13.22	11.53	1.53	1.43	13.50	30.74	0.49
1600	13.07	11.62	1.58	1.49	13.35	30.79	0.44
1620	12.94	11.71	1.61	1.56	13.39	30.90	0.47



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