

Coaxial Amplifier

ZX60-2514M+

50Ω High Isolation 0.5 to 2.5 GHz



CASE STYLE: GC957

Connectors Model
SMA ZX60-2514M-S+

+RoHS Compliant

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

Features

- from 2.8V to 5V operation
- wide bandwidth, 0.5 to 2.5 GHz
- high active directivity, 20 dB typ.
- output power, up to 18.3 dBm typ.
- protected by US patent 6,790,049

Applications

- buffer amplifier
- LO amplifiers for mixers
- cellular
- PCN

Electrical Specifications $T_{AMB}=25^{\circ}\text{C}$

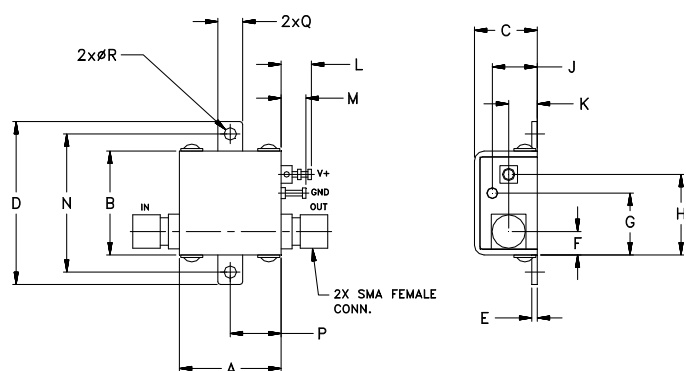
MODEL NO.	FREQ. (GHz)		DC VOLTS (V)	GAIN, dB Typical						MAXIMUM POWER (dBm)			DYNAMIC RANGE			VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) (Isolation-Gain)	DC OPERATING CURRENT @ Pin V+ (mA)		
				over frequency, GHz						Output (1 dB Comp.) Typ.			NF (dB) Typ. IP3 (dBm) Typ.								
	f _L	f _U		0.5	1.0	1.5	2.0	2.5	Min. at 2 GHz	f _L	f _U	Input (no damage)	at 1 GHz	at 1 GHz	at 2 GHz	In	Out		Typ	Typ	Max
ZX60-2514M+	0.5	2.5	5.0 2.8	14.1 12.9	16.5 14.9	16.4 14.8	15.7 14.3	14.1 13.0	14.0	18.3 14.3	16.2 14.2	10 10	4.8 4.9	30.3 26.0	27.8 24.9	1.5 1.5	1.7 1.7	20 20	75 67	90 —	

Maximum Ratings

Operating Temperature	-40°C to 85°C case
Storage Temperature	-55°C to 100°C
DC Voltage	7V
Input Power(no damage)	10 dBm
Power	500mW

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 terminal. See Application Note. [AN-40-010](#).

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

Notes

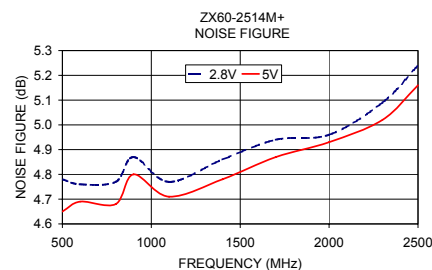
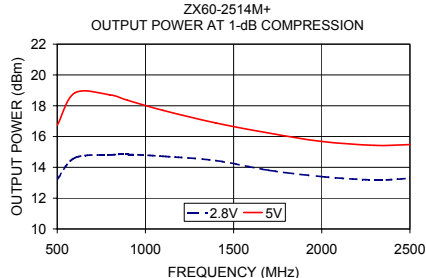
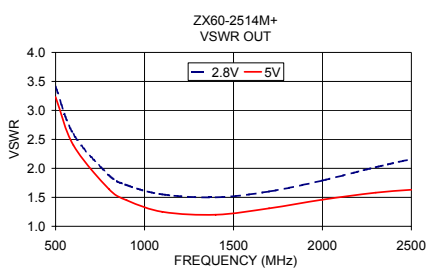
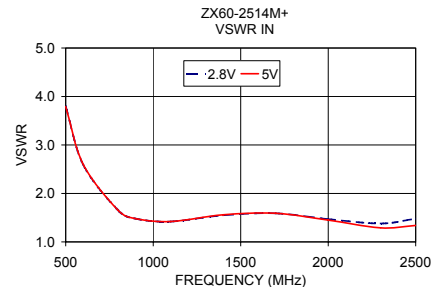
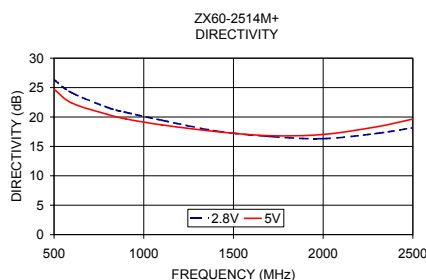
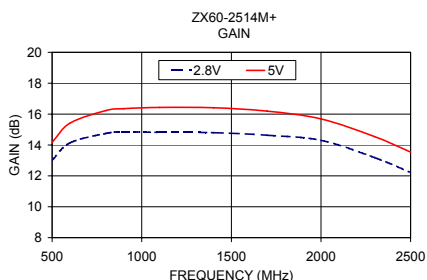
- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's 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



Typical Performance Data/Curves

ZX60-2514M+

FREQUENCY (MHz)	GAIN (dB)		DIRECTIVITY (dB)		VSWR IN (:1)		VSWR OUT (:1)		NOISE FIGURE (dB)		POUT at 1 dB COMPR. (dBm)	
	2.8V	5V	2.8V	5V	2.8V	5V	2.8V	5V	2.8V	5V	2.8V	5V
500.00	13.02	14.17	26.34	24.71	3.80	3.79	3.41	3.23	4.78	4.65	13.23	16.73
600.00	14.14	15.42	24.11	22.36	2.59	2.60	2.59	2.40	4.76	4.69	14.62	18.84
800.00	14.75	16.23	21.61	20.42	1.65	1.65	1.88	1.64	4.77	4.68	14.81	18.70
900.00	14.85	16.35	20.80	19.67	1.48	1.48	1.71	1.45	4.87	4.80	14.84	18.35
1100.00	14.82	16.43	19.45	18.65	1.42	1.42	1.55	1.25	4.77	4.71	14.72	17.70
1400.00	14.80	16.41	17.63	17.53	1.55	1.56	1.50	1.20	4.86	4.78	14.44	16.88
1700.00	14.63	16.19	16.69	16.82	1.59	1.59	1.60	1.31	4.94	4.87	13.81	16.23
2000.00	14.30	15.69	16.32	17.03	1.47	1.45	1.79	1.46	4.96	4.93	13.40	15.68
2300.00	13.18	14.54	17.22	18.34	1.38	1.29	2.02	1.58	5.09	5.02	13.18	15.43
2500.00	12.23	13.54	18.16	19.65	1.48	1.34	2.16	1.63	5.24	5.16	13.29	15.48



Notes

- 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.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- 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

