

High Linearity Amplifier

ZX60-2411BM+

50Ω 800 MHz to 2400 MHz

Features

- High linearity
- High IP3, +46 dBm typ
- Reverse voltage connection protected
- 4.5V - 5.5V operation
- Small size
- Low cost
- Protected by US patent 6,790,049

Applications

- High linearity drivers
- Buffer amplifier
- Transmit side gain stage
- General purpose small signal
- Lab, instrumentation
- Test equipment



CASE STYLE: GA955

Connectors	Model	Price	Qty.
SMA	ZX60-2411BM-S+	\$119.95 ea.	(1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

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

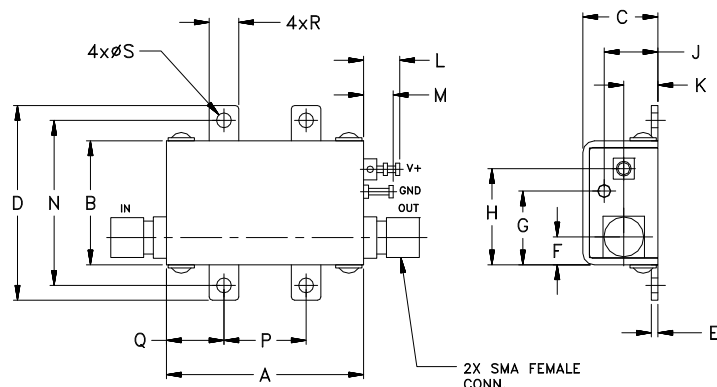
MODEL NO.	FREQ. (MHz)	GAIN (dB)				MAXIMUM POWER (dBm)	DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) Isoltion-Gain	DC VOLTAGE @PIN V+ (V)	DC OPERATING CURRENT @ PIN V+ (mA)	
		Flatness					Output (1dB Comp.)	NF (dB)					IP3 (dBm)	
		Typ.	Min.	Typ.	Max.				Typ.	Typ.				
ZX60-2411BM+	800-1300	11.50	9.00	±0.7	±1.2	22.00	4.50	43.50	1.40	1.15	10.50	5	280	360
	1300-1900	11.50	10.00	±0.4	±0.7	24.00	3.50	46.50	1.20	1.15	9.00	5	280	360
	1900-2400	11.00	9.00	±0.7	±1.5	24.00	3.00	46.00	1.55	1.65	10.50	5	280	360

Maximum Ratings

Operating Temperature	-40°C to 80°C case
	-40°C to 50°C ambient at 5V
Storage Temperature	-55°C to 100°C
DC Voltage	6V
Input Power(no Damage)	+14dBm@800-1300MHz
	+15dBm@1300-1900MHz
	+16dBm@1900-2400MHz

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

Outline Drawing



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

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ISO 9001 ISO 14001 AS 9100 CERTIFIED

For detailed performance specs & shopping online see web site

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IF/RF MICROWAVE COMPONENTS

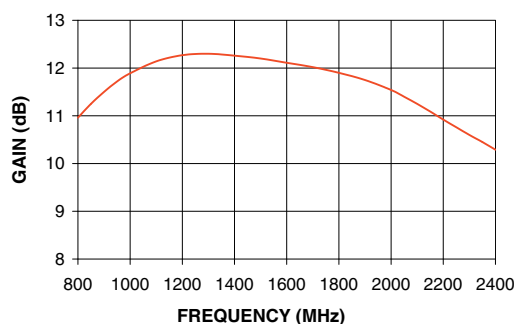
Notes: 1. Performance and quality attributes and conditions not expressly stated in this specification sheet are intended to be excluded and do not form a part of this specification sheet. 2. Electrical specifications and performance data contained herein are based on Mini-Circuit's applicable established test performance criteria and measurement instructions. 3. The parts covered by this specification sheet 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.

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Page 1 of 2

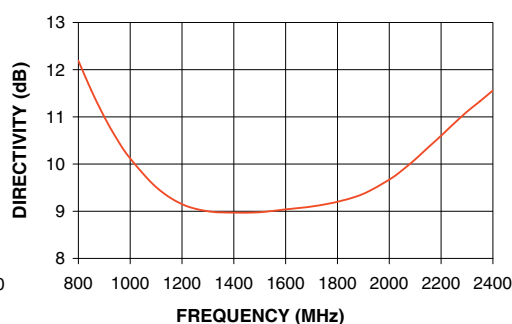
Typical Performance Data & Curves at 25°C ZX60-2411BM+

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @ 1dB COMPRESSION (dBm)	IP3 (dBm)	NF (dB)
800	10.96	12.19	1.88	1.24	21.96	43.77	4.69
850	11.25	11.56	1.72	1.24	22.36	45.06	4.45
900	11.50	11.00	1.58	1.23	22.63	44.85	4.30
950	11.72	10.52	1.47	1.21	22.96	45.91	3.96
1000	11.89	10.12	1.37	1.20	23.31	45.61	3.74
1100	12.14	9.51	1.23	1.15	23.96	46.49	3.46
1200	12.27	9.15	1.17	1.11	24.34	47.17	3.23
1300	12.30	9.00	1.18	1.08	24.53	47.37	3.06
1400	12.26	8.97	1.20	1.10	24.63	47.76	3.03
1500	12.20	8.98	1.22	1.13	24.62	47.87	2.99
1600	12.11	9.04	1.20	1.14	24.53	48.53	2.95
1700	12.02	9.10	1.15	1.13	24.41	49.04	2.94
1800	11.90	9.20	1.09	1.16	24.34	48.05	3.16
1900	11.75	9.37	1.16	1.27	24.32	46.99	2.97
2000	11.54	9.67	1.33	1.43	24.35	46.72	3.02
2050	11.40	9.87	1.43	1.53	24.29	46.79	3.06
2100	11.25	10.10	1.53	1.62	24.26	46.54	3.05
2150	11.09	10.35	1.62	1.70	24.23	46.89	3.09
2200	10.92	10.60	1.71	1.77	24.21	46.80	3.09
2250	10.76	10.86	1.77	1.82	24.15	47.49	3.14
2300	10.60	11.11	1.80	1.84	24.04	47.86	3.16
2350	10.45	11.33	1.80	1.84	23.88	48.20	3.18
2400	10.29	11.56	1.77	1.82	23.66	47.65	3.19

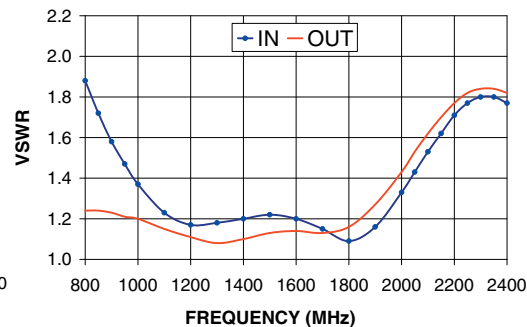
**ZX60-2411BM+
GAIN**



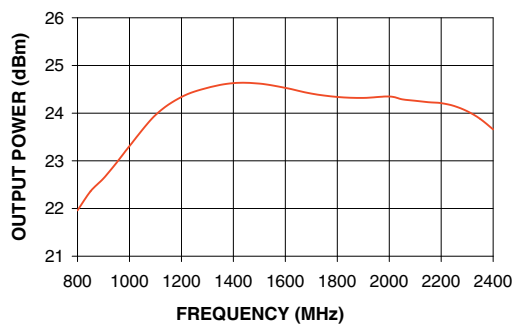
**ZX60-2411BM+
DIRECTIVITY**



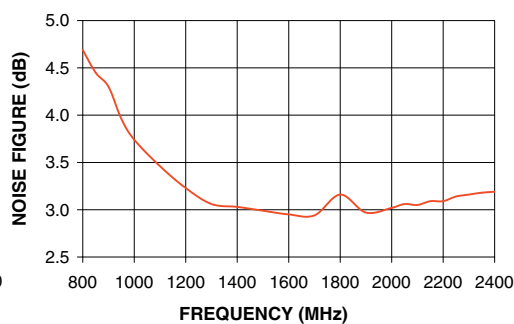
**ZX60-2411BM+
VSWR**



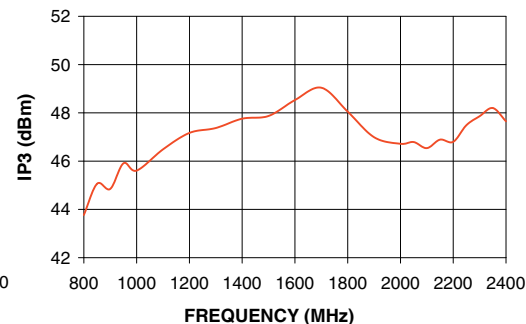
**ZX60-2411BM+
OUTPUT POWER AT 1dB COMPRESSION**



**ZX60-2411BM+
NOISE FIGURE**



**ZX60-2411BM+
IP3**



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