

# High Linearity Amplifier

## ZX60-2411BM-S+

50Ω 800 MHz to 2400 MHz

### Features

- High linearity
- High IP3, +40 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



Connectors	Model
SMA	ZX60-2411BM-S+

### +RoHS Compliant

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

### Electrical Specifications at T<sub>AMB</sub> = 25°C

MODEL NO.	FREQ. (MHz)	GAIN (dB)				MAXIMUM POWER (dBm) Output (1dB Comp.)	DYNAMIC RANGE		VSWR (:1) Typ.		ACTIVE DIRECTIVITY (dB) Isolation-Gain	DC VOLTAGE @ PIN V+ (V)	DC OPERATING CURRENT @ PIN V+ (mA)		
		Flatness					NF (dB)	IP3 (dBm)	In	Out			Typ.	Typ.	Max.
		Typ.	Min.	Typ.	Max.										
ZX60-2411BM-S+	800-1300	13.50	9.00	±0.7	±1.2	22.00	3.50	42.00	1.40	1.25	7.0	5	280	360	
	1300-1900	14.00	10.00	±0.4	±0.7	24.00	2.60	40.00	1.30	1.35	5.0	5	280	360	
	1900-2400	13.00	9.00	±0.7	±1.5	23.00	3.00	37.00	1.55	1.70	5.0	5	280	360	

### Maximum Ratings

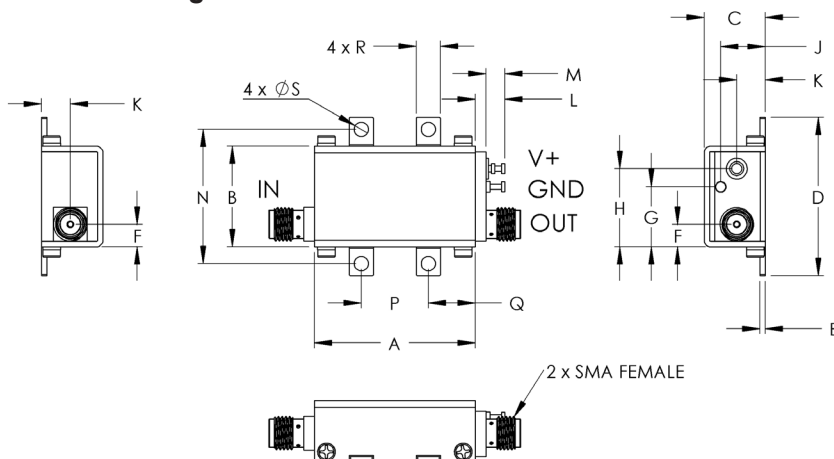
Operating Temperature	-40°C to 80°C case
	-40°C to 50°C ambient at 5V
Storage Temperature	-55°C to 100°C
DC Voltage	6V
Input Power(no Damage)	+14dBm @ 800-1300MHz
	+15dBm @ 1300-1900MHz
	+16dBm @ 1900-2400MHz

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



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.
1.20	.75	.46	1.18	.04	.17	.45	.59	.33	.21	.22	.14	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	3.56	25.40	12.70	8.89	4.57	2.69	35.0

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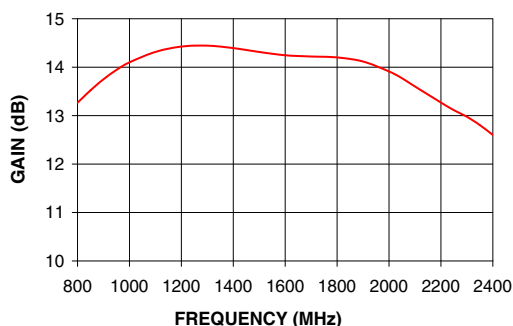
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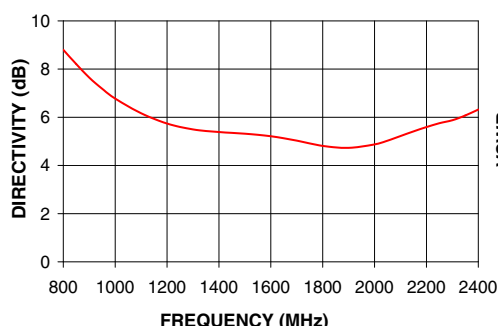
# Typical Performance Data & Curves at 25°C ZX60-2411BM-S+

FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR IN (:1)	VSWR OUT (:1)	POWER OUT @ 1dB COMPRESSION (dBm)	IP3 (dBm)	NF (dB)
800	13.27	8.80	1.39	1.30	23.49	41.56	3.73
850	13.52	8.21	1.29	1.29	23.64	42.81	3.45
900	13.75	7.65	1.20	1.29	23.79	43.25	3.19
950	13.94	7.18	1.13	1.27	24.19	43.06	3.05
1000	14.10	6.78	1.08	1.25	24.58	42.14	2.91
1100	14.32	6.17	1.01	1.16	25.05	42.50	2.73
1200	14.43	5.74	1.09	1.04	25.38	42.23	2.57
1300	14.45	5.50	1.19	1.10	25.52	41.47	2.49
1400	14.39	5.39	1.30	1.25	25.46	41.39	2.48
1500	14.31	5.32	1.38	1.37	25.40	40.69	2.45
1600	14.25	5.21	1.39	1.42	25.32	40.49	2.46
1700	14.22	5.03	1.30	1.38	25.20	40.11	2.45
1800	14.20	4.81	1.15	1.30	25.50	40.04	2.54
1900	14.12	4.73	1.05	1.30	25.46	39.62	2.61
2000	13.91	4.88	1.27	1.48	25.23	38.99	2.72
2050	13.77	5.03	1.38	1.61	25.02	38.56	2.77
2100	13.60	5.22	1.49	1.73	24.80	38.30	2.78
2150	13.43	5.41	1.56	1.82	24.42	37.74	3.01
2200	13.27	5.60	1.59	1.88	24.03	37.47	2.88
2250	13.11	5.76	1.56	1.88	23.87	37.10	2.95
2300	12.98	5.88	1.49	1.83	23.71	36.93	3.00
2350	12.80	6.08	1.37	1.74	23.36	36.22	3.07
2400	12.60	6.32	1.23	1.64	23.01	35.66	3.27

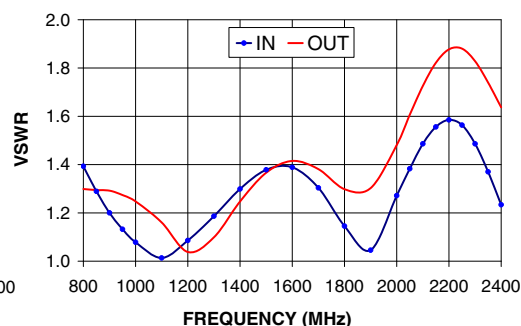
ZX60-2411BM-S+  
GAIN



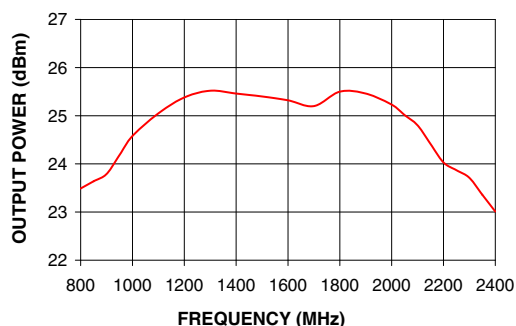
ZX60-2411BM-S+  
DIRECTIVITY



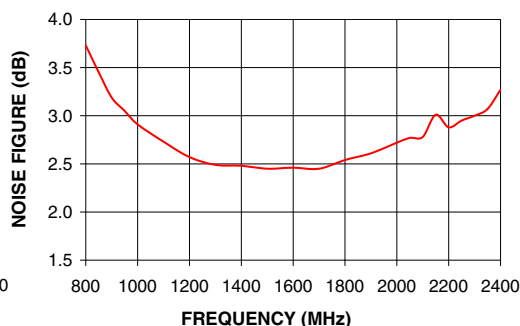
ZX60-2411BM-S+  
VSWR



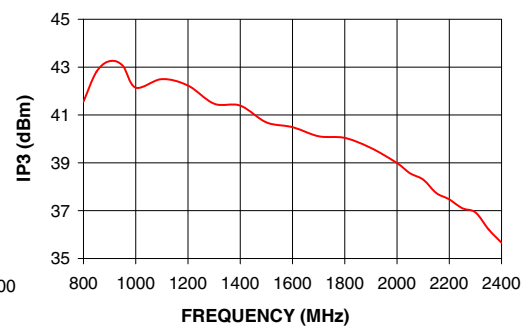
ZX60-2411BM-S+  
OUTPUT POWER AT 1dB COMPRESSION



ZX60-2411BM-S+  
NOISE FIGURE



ZX60-2411BM-S+  
IP3



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