

Coaxial Amplifier

ZRON-8G+ ZRON-8GX+

50Ω Medium Power 2000 to 8000 MHz

Features

- wideband, 2000 to 8000 MHz
- unconditionally stable
- high IP3, +30 dBm typ.

Applications

- optical and spread-spectrum communications
- line-of-site transmit/receive
- wideband test instrumentation



ZRON-8G+



ZRON-8GX+

Generic photo used for illustration purposes only

CASE STYLE: AV243

Connectors	Model
SMA	ZRON-8G+
SMA	ZRON-8GX+

+RoHS Compliant

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

Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		GAIN (dB)		MAXIMUM POWER (dBm)		DYNAMIC RANGE		VSWR (:1) Typ.		DC POWER	
	f_L	f_U	Min.	Flatness ¹ Max.	Output (1 dB Compr.)	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (mA) Max.
ZRON-8G+	2000	8000	20	±1.5	+20	+10	6.0	+30	2.0	2.0	15	310
ZRON-8GX+*	2000	8000	20	±1.5	+20	+10	6.0	+30	2.0	2.0	15	310

* Heat sink not included

¹ Measured at 25°C

Open load is not recommended, potentially can cause damage. With no load derate max input power by 20 dB

To order without heat sink, add suffix X to model number. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 71°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 5°C/W Max.

Maximum Ratings

Operating Temperature, case 0°C to 60°C

Storage Temperature -55°C to 125°C

DC Voltage +18V Max.

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

Notes

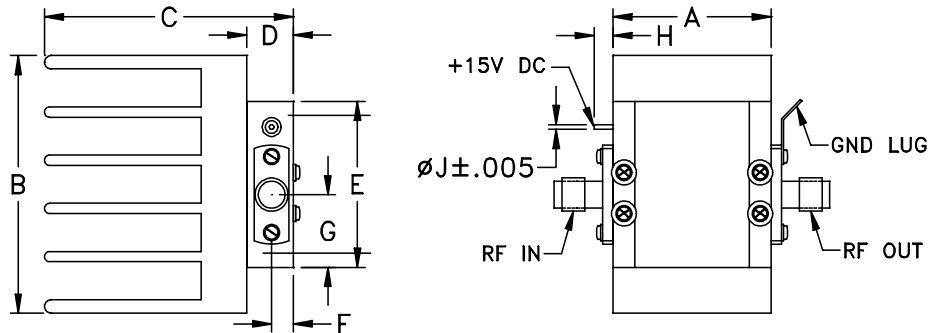
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B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

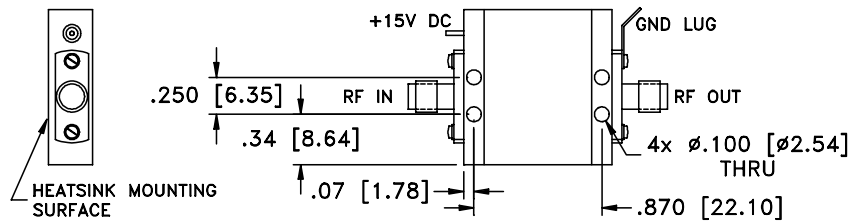
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Outline Drawing



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



Outline Dimensions ^(inch)_(mm)

A	B	C	D	E	F	G	H	J	wt
1.01	1.63	1.64	.35	1.05	.14	.46	.12	.030	grams*
25.65	41.40	41.66	8.89	26.67	3.56	11.68	3.05	0.76	58

*17 grams without heatsink

Notes

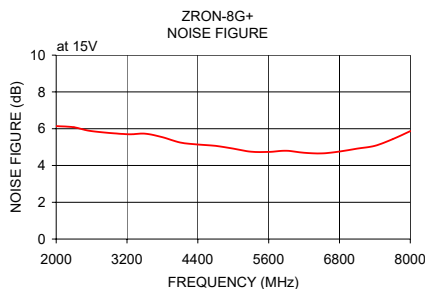
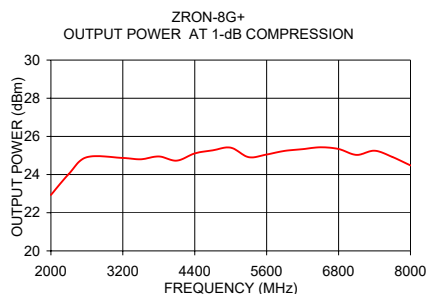
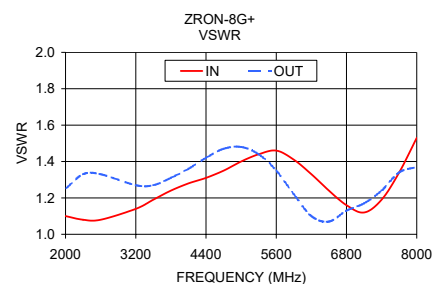
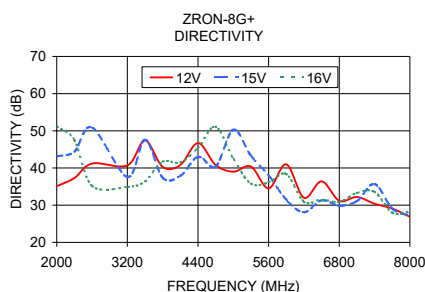
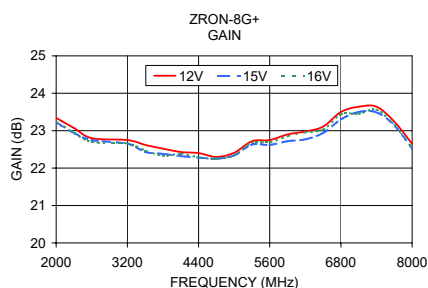
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Typical Performance Data/Curves

ZRON-8G+ ZRON-8GX+

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)
	12V	15V	16V	12V	15V	16V	IN	OUT		
2000.00	23.34	23.22	23.25	35.10	43.10	51.20	1.10	1.25	6.14	22.93
2300.00	23.07	22.94	22.94	37.30	44.40	47.50	1.08	1.33	6.08	24.04
2600.00	22.80	22.75	22.70	41.20	50.90	35.20	1.08	1.33	5.87	24.91
3200.00	22.75	22.65	22.66	40.70	37.60	34.90	1.14	1.27	5.70	24.87
3500.00	22.62	22.43	22.47	47.40	47.60	36.40	1.19	1.27	5.73	24.80
3800.00	22.52	22.38	22.33	40.30	37.40	41.70	1.24	1.31	5.54	24.95
4100.00	22.43	22.32	22.38	40.80	37.90	41.50	1.28	1.36	5.25	24.73
4400.00	22.40	22.28	22.29	46.70	43.00	45.50	1.31	1.42	5.14	25.11
4700.00	22.30	22.25	22.25	40.80	40.40	51.10	1.35	1.47	5.07	25.27
5000.00	22.41	22.34	22.34	39.00	50.30	42.50	1.40	1.48	4.92	25.41
5300.00	22.72	22.63	22.68	40.40	43.30	35.80	1.44	1.44	4.75	24.91
5600.00	22.75	22.62	22.69	34.50	38.00	36.20	1.46	1.35	4.74	25.05
5900.00	22.90	22.72	22.85	41.00	31.50	38.40	1.41	1.22	4.80	25.24
6200.00	22.98	22.77	22.96	32.00	28.10	30.90	1.33	1.10	4.69	25.33
6500.00	23.11	22.94	23.03	36.40	31.30	31.50	1.24	1.07	4.66	25.43
6800.00	23.50	23.30	23.44	31.20	29.90	30.90	1.16	1.13	4.76	25.34
7100.00	23.64	23.50	23.45	32.20	31.10	33.30	1.12	1.17	4.92	25.03
7400.00	23.64	23.49	23.56	30.40	35.70	33.60	1.19	1.24	5.07	25.25
7700.00	23.24	23.14	23.14	29.10	29.10	28.00	1.34	1.34	5.43	24.92
8000.00	22.65	22.52	22.55	26.90	27.10	28.10	1.53	1.37	5.87	24.48



Notes

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Amplifier

ZRON-8G+

Typical Performance Data

FREQUENCY (MHz)	GAIN (dB)			DIRECTIVITY (dB)			VSWR IN (:1) 15V	VSWR OUT (:1) 15V	NOISE FIGURE (dB) 15V	Pout at 1dB Comp. (dBm) 15V
	12V	15V	16V	12V	15V	16V				
2000.0	23.34	23.22	23.25	35.11	43.07	51.20	1.10	1.25	6.14	22.93
2300.0	23.07	22.94	22.94	37.29	44.44	47.49	1.08	1.33	6.08	24.04
2600.0	22.80	22.75	22.70	41.21	50.92	35.19	1.08	1.33	5.87	24.91
3200.0	22.75	22.65	22.66	40.71	37.62	34.94	1.14	1.27	5.70	24.87
3500.0	22.62	22.43	22.47	47.36	47.65	36.37	1.19	1.27	5.73	24.80
3800.0	22.52	22.38	22.33	40.29	37.36	41.74	1.24	1.31	5.54	24.95
4100.0	22.43	22.32	22.38	40.76	37.91	41.52	1.28	1.36	5.25	24.73
4400.0	22.40	22.28	22.29	46.70	43.00	45.49	1.31	1.42	5.14	25.11
4700.0	22.30	22.25	22.25	40.84	40.36	51.15	1.35	1.47	5.07	25.27
5000.0	22.41	22.34	22.34	38.97	50.29	42.51	1.40	1.48	4.92	25.41
5300.0	22.72	22.63	22.68	40.42	43.26	35.79	1.44	1.44	4.75	24.91
5600.0	22.75	22.62	22.69	34.51	37.98	36.17	1.46	1.35	4.74	25.05
5900.0	22.90	22.72	22.85	41.02	31.52	38.38	1.41	1.22	4.80	25.24
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6500.0	23.11	22.94	23.03	36.43	31.34	31.50	1.24	1.07	4.66	25.43
6800.0	23.50	23.30	23.44	31.16	29.89	30.90	1.16	1.13	4.76	25.34
7100.0	23.64	23.50	23.45	32.17	31.13	33.26	1.12	1.17	4.92	25.03
7400.0	23.64	23.49	23.56	30.38	35.71	33.64	1.19	1.24	5.07	25.25
7700.0	23.24	23.14	23.14	29.12	29.07	27.99	1.34	1.34	5.43	24.92
8000.0	22.65	22.52	22.55	26.89	27.09	28.07	1.53	1.37	5.87	24.48

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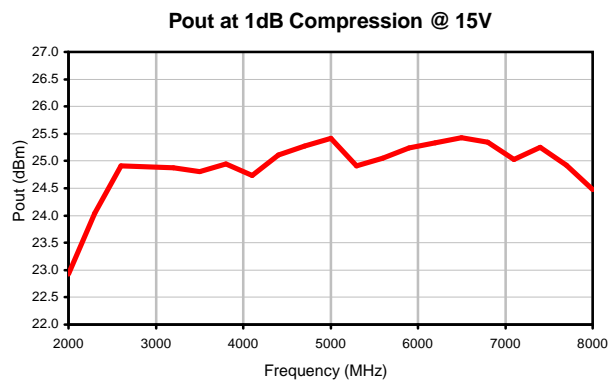
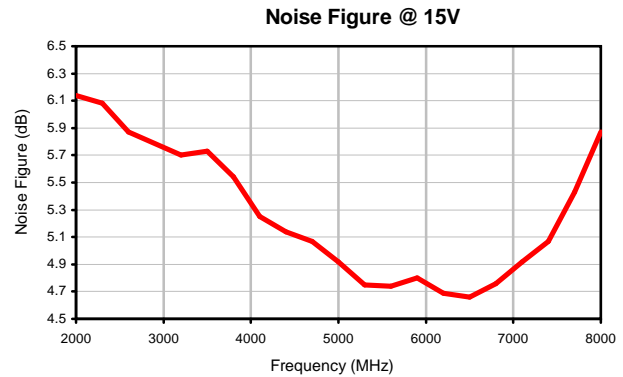
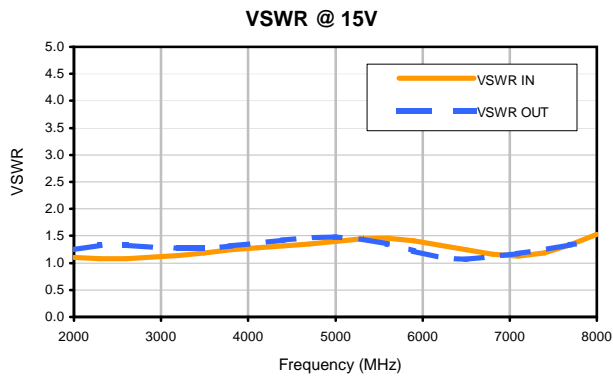
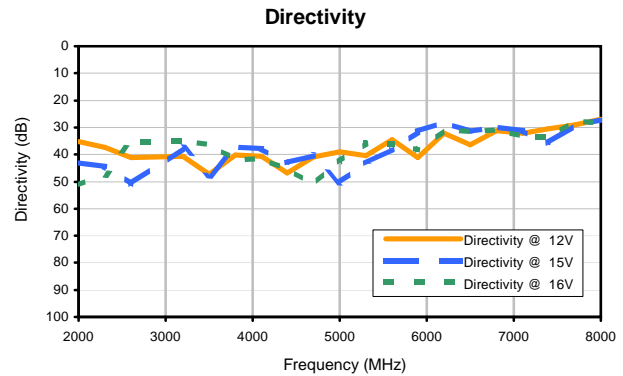
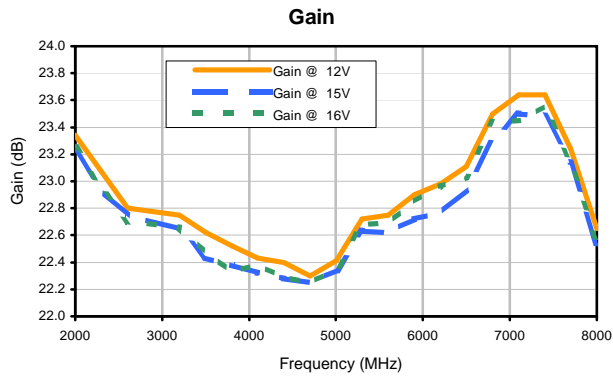
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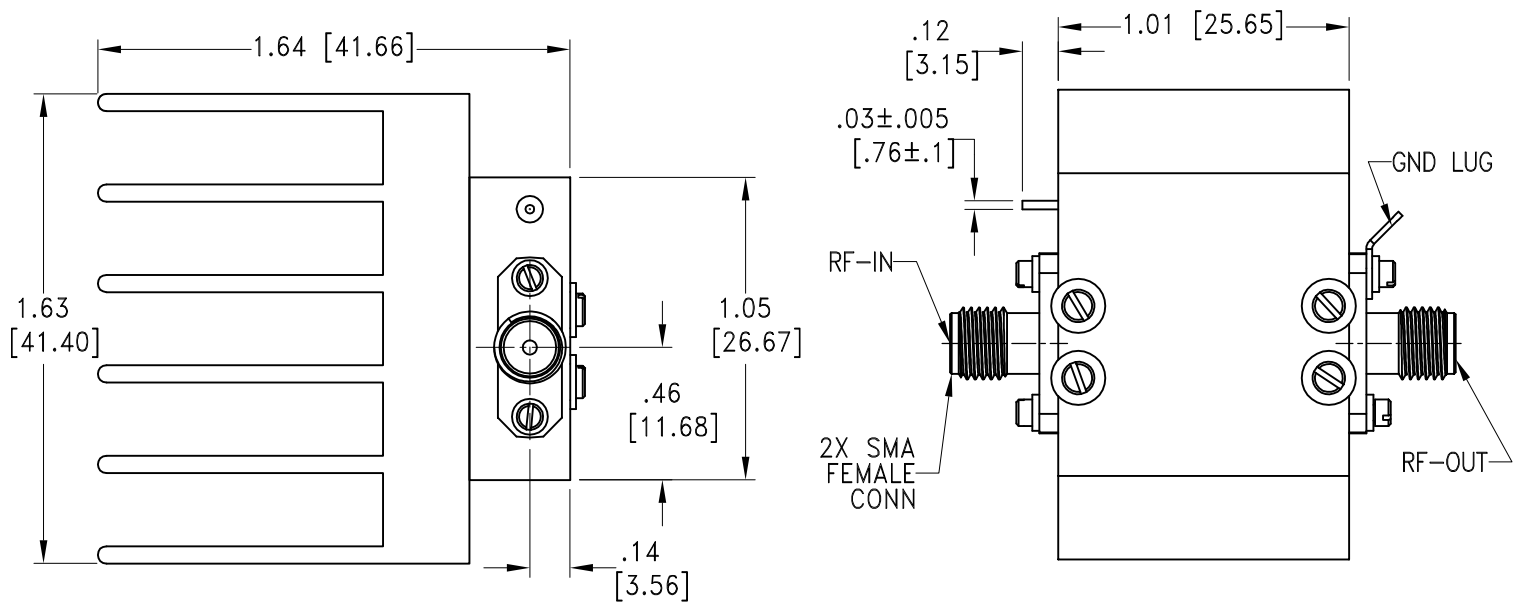


Typical Performance Curves

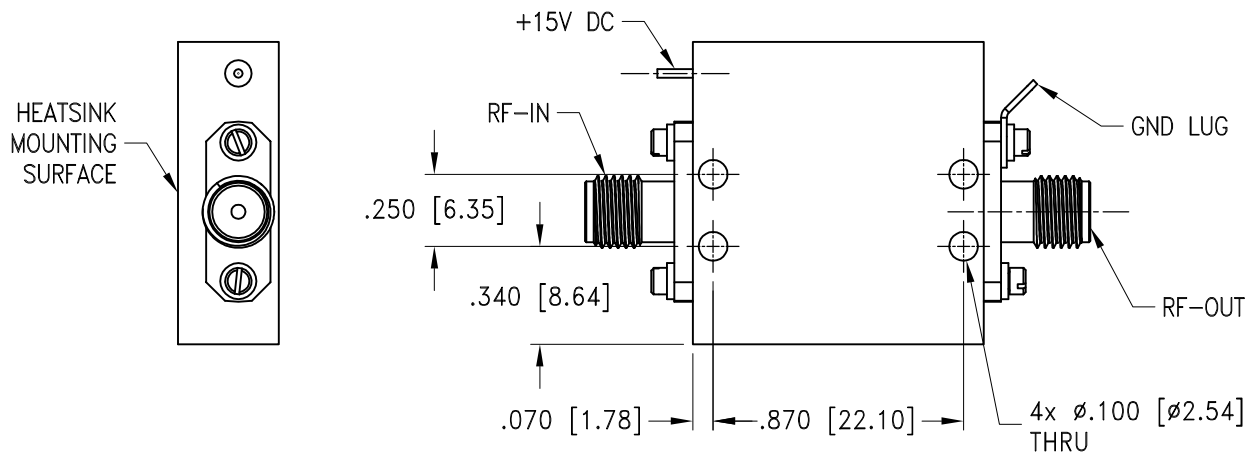


Outline Dimensions

AV243



MOUNTING INFORMATION OF MODEL WITHOUT HEATSINK



Weight: 58 grams; Weight without heatsink: 17 grams

Dimensions are in inches (mm). Tolerances: 2 Pl. ±.03; 3 Pl. ±.015

Notes:

1. Case material: Aluminum alloy
2. Case finish: Nickel plate.
3. Heat sink finish: Black anodize.

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RF/IF MICROWAVE COMPONENTS



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	0° to 60° C Case Temperature or Ambient Temperature	Individual Model Data Sheet
Storage Temperature	55° to 125° C or -55° to 100° Ambient Environment	Individual Model Data Sheet
Stabilization Bake	(non-operating) 125°C, 24 hours	- - -
Burn-in at Elevated Temp.	(DC on) 160 hours at 85° C	MIL-STD-202, Method 108
Thermal Shock	-55° to 100°C, 5 cycles	MIL-STD-202, Method 107, Condition A, except 100°C