COAXIAL

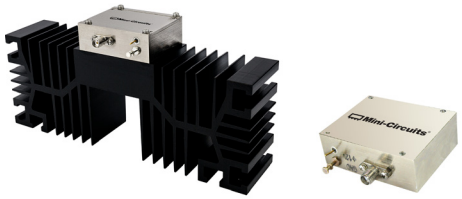
Medium High Power Amplifier

ZVE-8G+
ZVE-8GX+

50Ω 2000 to 8000 MHz SMA Female

FEATURES

- Wideband, 2000 to 8000 MHz
- Low Noise, 4 dB Typ.
- High IP3, +40 dBm Typ.
- High Dynamic Range
- High Gain, 30 dB Min.



Generic photo used for illustration purposes only

Model No.	ZVE-8G+	ZVE-8GX+▲
Option	With Heatsink	Without Heatsink
Case Style	BN333	
Connectors	SMA Female	

+RoHS Compliant
The +Suffix identifies RoHS Compliance.
See our website for methodologies and qualifications

APPLICATIONS

- Satellite Communications
- Line-Of-Sight Transmitters
- Signal Generators
- Spread-Spectrum Communications

ELECTRICAL SPECIFICATIONS AT +25 °C

Parameter	Condition (MHz)	ZVE-8G+ ZVE-8GX+▲ Min.	Typ.	Max.	Units
Frequency Range		2000		8000	MHz
Gain	2000–8000	30	–	–	dB
Gain Flatness	2000–8000	–	–	2.0	dB
Input VSWR	2000–8000	–	–	2.0	:1
Output VSWR	2000–8000	–	–	2.0	:1
Output Power at 1 dB Compression	2000–8000	+30[1]	–	–	dBm
Output IP3	2000–8000	–	+40	–	dBm
Noise Figure	2000–8000	–	4	–	dB
Device Operating Voltage	–	–	+12	–	V
Device Operating Current	–	–	–	1.2	A

1. At +25 °C; +30 dBm typ. at +54 °C ambient.
Open load is not recommended as it can potentially cause damage.
With no load, derate maximum input power to +20 dBm.

▲To order without heatsink, add suffix X to model number. Alternative heatsinking and heat removal must be provided by the user to limit maximum baseplate temperature to +85 °C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heatsink to be 1.3 °C/W max.

ABSOLUTE MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55 °C to +54 °C
Storage Temperature	-65 °C to +150 °C
DC Voltage	+18 V
Input RF Power (No Damage)	+20 dBm

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

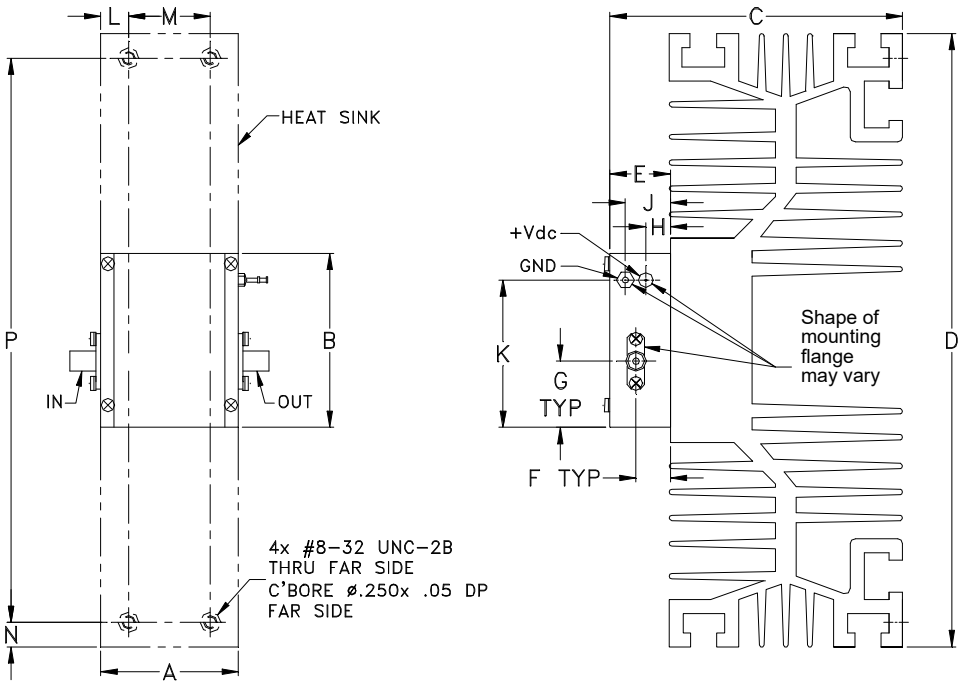
REV. J
ECO-028560
ZVE-8G(X)+
MCL NY
260914

Medium High Power Amplifier

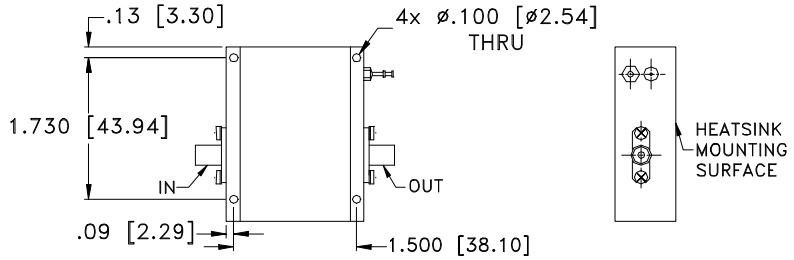
ZVE-8G+
ZVE-8GX+

50Ω 2000 to 8000 MHz SMA Female

OUTLINE DRAWING FOR MODELS WITH HEATSINK (ZVE-8G+)



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK (ZVE-8GX+)



OUTLINE DIMENSIONS (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
1.680	2.130	3.6	7.5	.74	.42	.81	.30	.55	1.80	.34	1.000	.30	6.900	grams*
42.67	54.10	91.44	190.50	18.80	10.67	20.57	7.62	13.97	45.72	8.64	25.40	7.62	175.26	700

*100 grams without heatsink

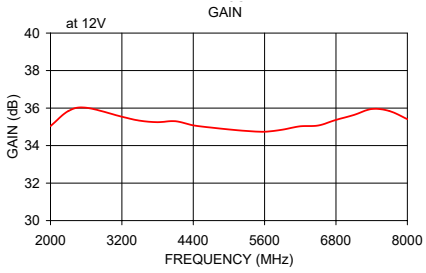
Medium High Power Amplifier

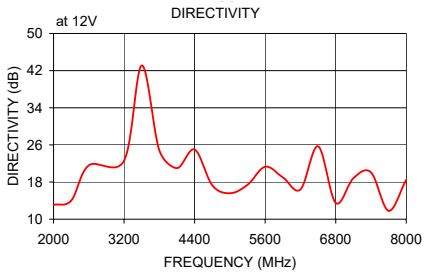
ZVE-8G+
ZVE-8GX+

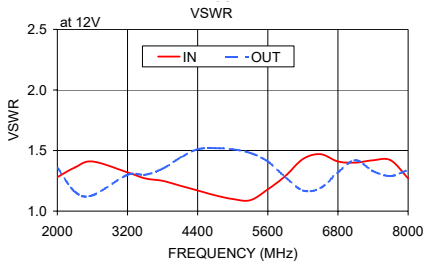
50Ω 2000 to 8000 MHz SMA Female

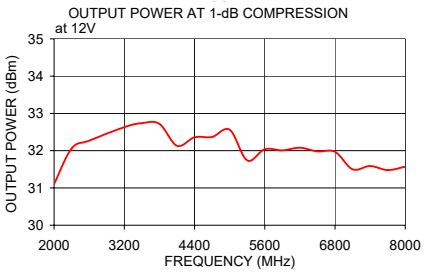
TYPICAL PERFORMANCE DATA/CURVES

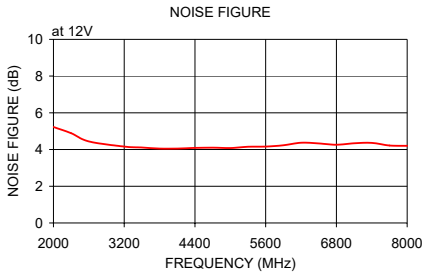
Frequency (MHz)	Gain (dB) +12 V	Directivity (dB) +12 V	VSWR (:1) IN	VSWR (:1) OUT	P_{OUT} at 1 dB Compr. (dBm) +12 V	Noise Figure (dB) +12 V
2000	35.04	13.10	1.28	1.36	31.11	5.23
2300	35.84	14.00	1.36	1.16	32.06	4.89
2600	36.02	21.60	1.41	1.13	32.27	4.44
3200	35.54	22.60	1.32	1.30	32.63	4.16
3500	35.33	43.10	1.27	1.30	32.74	4.11
3800	35.25	24.80	1.25	1.35	32.72	4.05
4100	35.30	21.00	1.21	1.44	32.13	4.05
4400	35.08	25.00	1.17	1.51	32.36	4.09
4700	34.96	17.30	1.13	1.52	32.37	4.10
5000	34.86	15.60	1.10	1.51	32.56	4.08
5300	34.78	17.40	1.09	1.48	31.74	4.15
5600	34.74	21.30	1.18	1.41	32.04	4.16
5900	34.85	19.00	1.29	1.28	32.01	4.23
6200	35.03	16.40	1.43	1.17	32.08	4.37
6500	35.07	25.70	1.47	1.19	31.98	4.33
6800	35.37	13.50	1.41	1.32	31.97	4.26
7100	35.63	18.80	1.40	1.42	31.50	4.34
7400	35.95	20.10	1.42	1.33	31.59	4.36
7700	35.84	11.80	1.42	1.29	31.48	4.22
8000	35.41	18.50	1.27	1.34	31.57	4.20











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-Circuits' 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/terms/viewterm.html