

# Coaxial High Power Amplifier

## ZVE-3W-183+

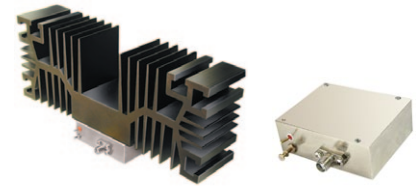
50Ω 3W 6 to 18 GHz

### Features

- High power, 3 Watt
- Wideband, 6 to 18 GHz
- High IP3, +44 dBm typ.
- High dynamic range
- High gain, 35dB typ. and good directivity, 35dB typ.
- Internal voltage regulated for 13 to 18VDC

### Applications

- Radar
- Video and test instrumentation
- Lab use



Model No.	ZVE-3W-183+	ZVE-3W-183X+ <sup>▲</sup>
Case Style	BN1327	
Connectors	SMA	
Price (Qty.)	\$1295.00 ea. (1-9)	\$1220.00 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.

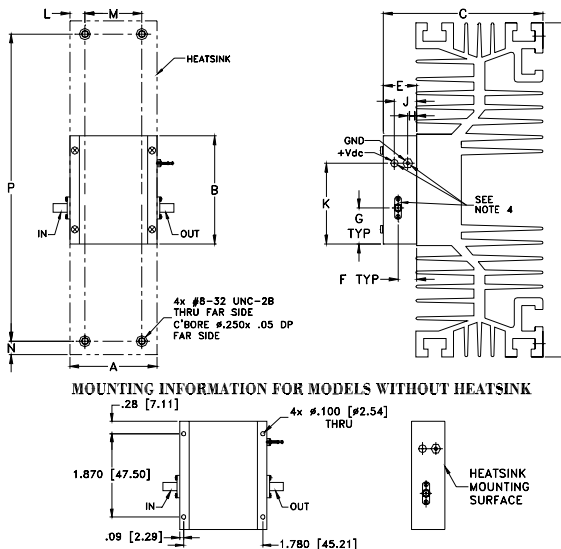
### Electrical Specifications

Parameter	Condition (MHz)	ZVE-3W-183+ ZVE-3W-183X+ <sup>▲</sup>			Units
		Min.	Typ.	Max.	
Frequency Range		6000	—	18000	MHz
Gain	6000-18000	29	35	40	dB
Gain Flatness	6000-18000	—	±1.4	±2.0	dB
Output Power at 1dB compression	6000-18000	+31.5	+34	—	dBm
Saturated Output Power at 3dB compression	6000-18000	+32.5	+35	—	dBm
Noise Figure	6000-18000	—	5.5	—	dB
Output third order intercept point	6000-18000	—	+44	—	dBm
Input VSWR	6000-18000	—	1.5	2.0	:1
Output VSWR	6000-18000	—	1.2	2.0	:1
DC Supply Voltage		13	15	18	V
Supply Current <sup>1</sup>		—	1.3	2.2	A

1. Power Supply should be capable of delivering 3A at start-up.

<sup>▲</sup> Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 85°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 2°C/W max.

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	wt
1.960	2.430	3.6	7.5	.74	.42	.81	.20	.49	1.81	.34	1.280	.30	6.900	grams*
49.78	61.72	91.44	190.50	18.80	10.67	20.57	5.08	12.45	45.97	8.64	32.51	7.62	175.26	875

\*120 grams without heatsink

### Maximum Ratings

Parameter	Ratings
Operating Temperature	-40°C to 55°C
Storage Temperature	-55°C to 100°C
Base Plate Temperature	85°C
DC Voltage	18V
Input RF Power (no damage)	+20 dBm

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



For detailed performance specs & shopping online see web site

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 The Design Engineers Search Engine Provides ACTUAL Data Instantly at [minicircuits.com](http://minicircuits.com)

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](http://www.minicircuits.com/MCLStore/terms.jsp).

REV. OR  
M128741  
ZVE-3W-183+  
ED-13283/1  
WZ/CP/AM  
100902  
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FREQUENCY (MHz)	GAIN (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
	15V	IN	OUT	15V	15V	15V
6000.00	36.05	1.48	1.14	6.12	34.26	43.09
7000.00	35.16	1.30	1.37	5.56	34.89	43.72
8000.00	35.71	1.75	1.25	5.24	35.13	43.23
9000.00	36.07	1.65	1.24	5.25	34.8	43.08
10000.00	36.27	1.49	1.27	5.11	34.28	43.01
11000.00	36.16	1.44	1.20	5.11	34.78	43.07
12000.00	35.25	1.18	1.06	5.08	34.55	44.17
13000.00	34.42	1.38	1.14	5.04	34.26	44.67
14000.00	34.48	1.43	1.02	5.02	34.35	43.74
15000.00	35.07	1.18	1.13	5.02	34.33	44.26
16000.00	35.27	1.61	1.13	5.01	34.11	44.97
17000.00	36.32	1.40	1.07	5.01	34.02	48.27
18000.00	35.31	1.27	1.53	5.18	33.77	49.92

