Coaxial

Wideband Amplifier

ZVM-273HP+
ZVM-273HPX+

50Ω 13 to 26.5GHz

The Big Deal

- Wideband 13 – 26.5 GHz
- Output power up to +27dBm
- Excellent directivity, 36 dB typ. @ 20 GHz
- Unconditionally stable
- Excellent gain flatness, ±1 dB

ZVM-273HP+

ZVM-273HPX+

Product Overview

Mini-Circuits ZVM-273HP+ is a three stage balanced, wideband coaxial amplifier delivering up to 0.5W power and operating over 13 to 26.5 GHz. It is unconditionally stable. Its outstanding isolation enables it to be used as a wideband isolation amplifier or buffer amplifier in a variety of microwave systems including point to point radios, military EW and radar, DBS, and VSAT.

Key Features

Feature	Advantages
Wideband	Wide frequency coverage up to 26.5 GHz supports many microwave applications.
Pout up to +27 dBm	Can be used as a low-cost driver for high power amplifiers.
Excellent active directivity, 36 dB @ 20 GHz (directivity = isolation – gain)	Can be used as an inter-stage isolation amplifier, minimizing interaction of adjacent components.
Unconditionally stable	Eliminates the need for any compensating network to prevent unintended oscillation.

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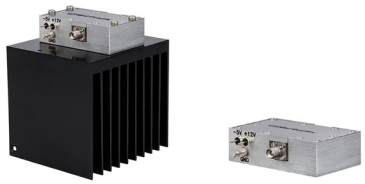
Features
- Wideband, 13 to 26.5 GHz
- Output Power up to +27 dBm
- Excellent Directivity, 36 dB typ. at 20 GHz
- Unconditionally stable
- Excellent Gain Flatness, ±1 dB

Applications
- Point to point radio
- Military and radar
- DBS
- VSAT
- Wideband isolation amplifier



Generic photo used for illustration purposes only

Model No.	ZVM-273HP+	ZVM-273HPX+*
Case Style	CP1973	
Connectors	2.92 mm	

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

Electrical Specifications at 25°C

Parameter	Condition (GHz)	ZVM-273HP+ ZVM-273HPX+*			Units
		Min.	Typ.	Max.	
Frequency Range		13.0		26.5	GHz
DC Voltage (+)		—	12	—	V
DC Voltage (-)		—	-5	—	V
DC Current (+)		—	559	590	mA
DC Current (-)		—	0.5	—	mA
Gain	13 - 17	—	13	—	dB
	17 - 20	—	14.5	—	
	20 - 26.5	—	13	—	
Input Return Loss	13 - 17	—	18	—	dB
	17 - 19	—	24	—	
	19 - 26.5	—	15	—	
Output Return Loss	13 - 14	—	10	—	dB
	14 - 22	—	14	—	
	22 - 26.5	—	18	—	
Directivity (Isolation- Gain)	20	—	36	—	dB
Output Power @ 1 dB compression	13 - 14	—	23	—	dBm
	14 - 16	—	25	—	
	16 - 26.5	—	26.5	—	
OIP3	13 - 14	—	30	—	dBm
	14 - 20	—	34	—	
	20 - 26.5	—	30	—	
Noise Figure	13 - 15	—	9.5	—	dB
	15 - 18	—	9.0	—	
	18 - 22	—	8.5	—	
	22 - 26.5	—	8.0	—	

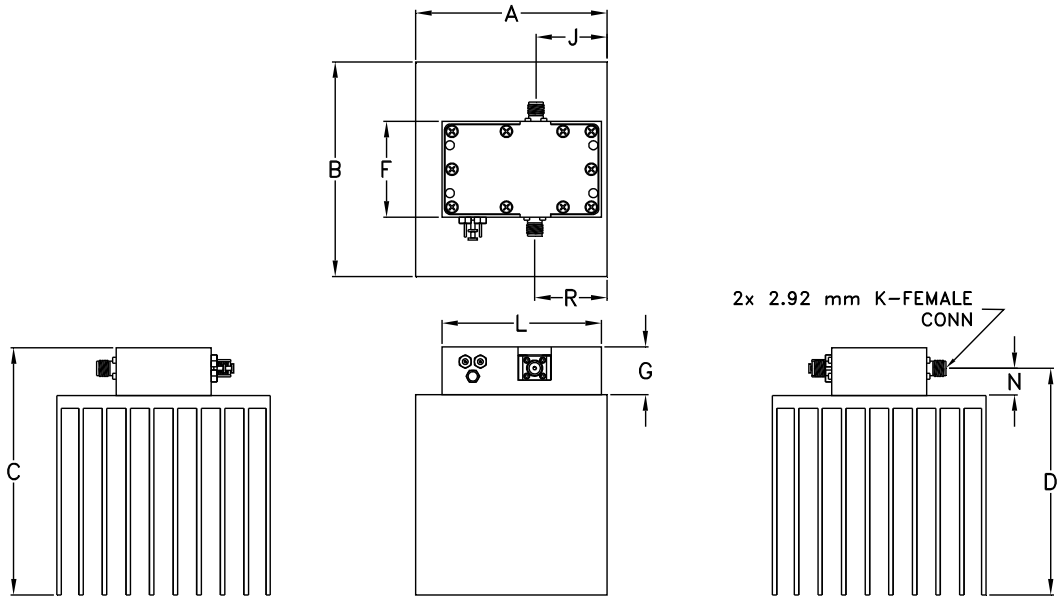
*Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate temperature to 85°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 1.3°C/W max.

Maximum Ratings

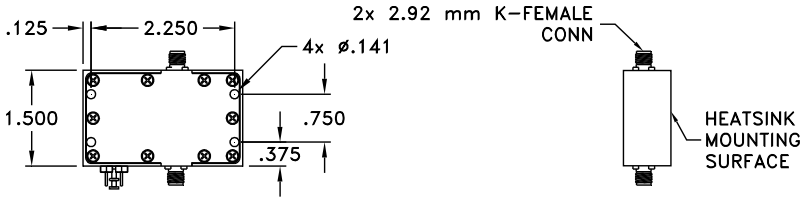
Parameter	Ratings
Operating Temperature (Base Plate)	-40°C to 75°C
Storage Temperature	-55°C to 100°C
DC Voltage (+)	+14 V
DC Voltage (-)	-6 V
Operating Current at 12V	620 mA
Input RF Power (no damage)	+16 dBm

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

Outline Drawing



MOUNTING INFORMATION OF MODEL WITHOUT HEATSINK



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K
3.00	3.36	3.87	3.55	--	1.50	.747	--	1.15	--
76.20	85.34	98.30	90.17	--	38.10	18.97	--	29.21	--

L	M	N	P	Q	R	S	T	wt
2.50	--	.415	--	--	1.17	--	--	grams*
63.50	--	10.54	--	--	29.72	--	--	595.0

*135 grams without heatsink