

High IP3

# Low Noise Amplifier

ZHL-1010-75+

75Ω Medium High Power 50 to 1000 MHz

## Features

- wideband, 50 to 1000 MHz
- low noise, 3.5 dB typ.
- high IP3, +47 dBm typ.
- very high IP2, 68-83 dBm typ.

## Applications

- VHF/UHF
- CATV
- cellular
- instrumentation



Generic photo used for illustration purposes only

CASE STYLE: S32

Connectors Model  
BNC ZHL-1010-75+

**+RoHS Compliant**

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

## Electrical Specifications

MODEL NO.	FREQ. (MHz)		GAIN (dB)		MAXIMUM POWER OUTPUT (dBm)		DYNAMIC RANGE		VSWR (:1) Max.		DC POWER	
	$f_L$	$f_U$	Min.	Flatness Max.	(1 dB Compr.) Min.	Input (no damage)	NF (dB) Typ.	IP3 (dBm) Typ.	In	Out	Volt (V) Nom.	Current (A) Max.
ZHL-1010-75	50	1000	9.5	±0.7	+26	+20	3.5	+47	1.5	1.5	12	0.525

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

## Maximum Ratings

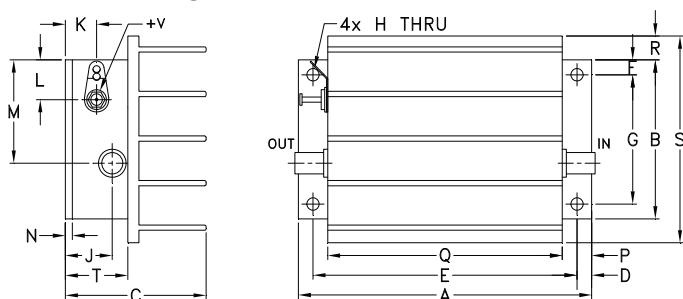
Operating Temperature -20°C to 65°C

Storage Temperature -55°C to 100°C

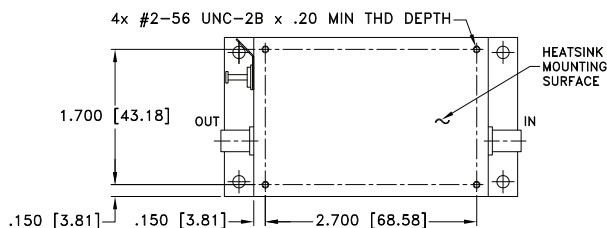
DC Voltage +13V Max.

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

## Outline Drawing



MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



## Outline Dimensions (inch mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	wt
3.75	2.00	1.80	.19	3.375	.19	1.625	.144	.50	.40	.50	1.30	.10	.38	3.00	.30	2.60	.80	grams
95.25	50.80	45.72	4.83	85.73	4.83	41.28	3.66	12.70	10.16	12.70	33.02	2.54	9.65	76.20	7.62	66.04	20.32	220.0
wt. w/o heat sink																		150

### Notes

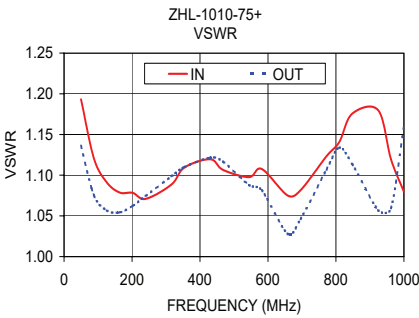
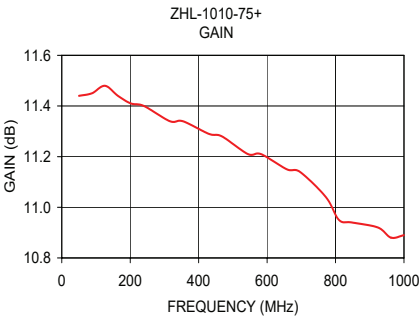
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REV. C  
M163317  
ZHL-1010-75+  
200508  
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FREQUENCY (MHz)	GAIN (dB)	VSWR (:1)	
		IN	OUT
	12V		
50.00	11.44	1.19	1.14
164.00	11.44	1.08	1.05
240.00	11.40	1.07	1.07
354.00	11.34	1.11	1.11
468.00	11.28	1.11	1.12
544.00	11.21	1.10	1.09
658.00	11.15	1.07	1.03
772.00	11.04	1.12	1.11
848.00	10.94	1.18	1.11
962.00	10.88	1.12	1.06
1000.00	10.89	1.08	1.16

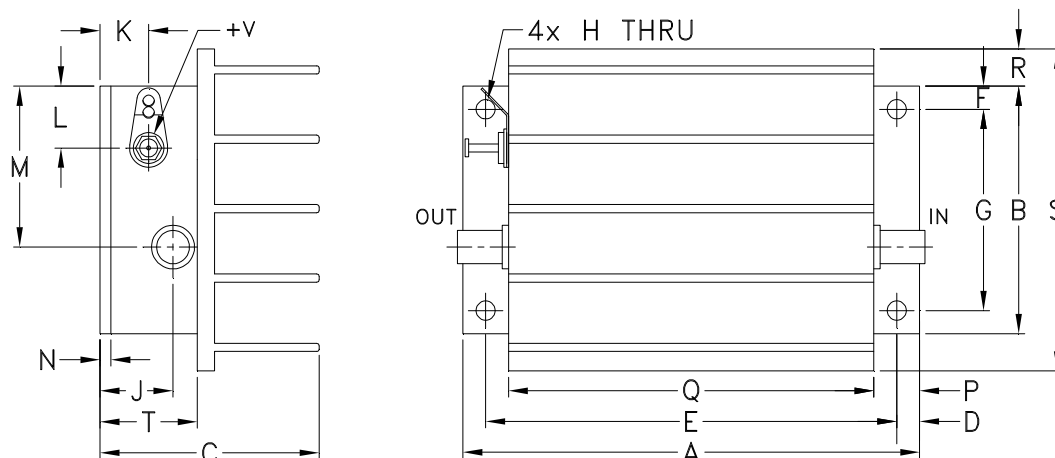


Notes

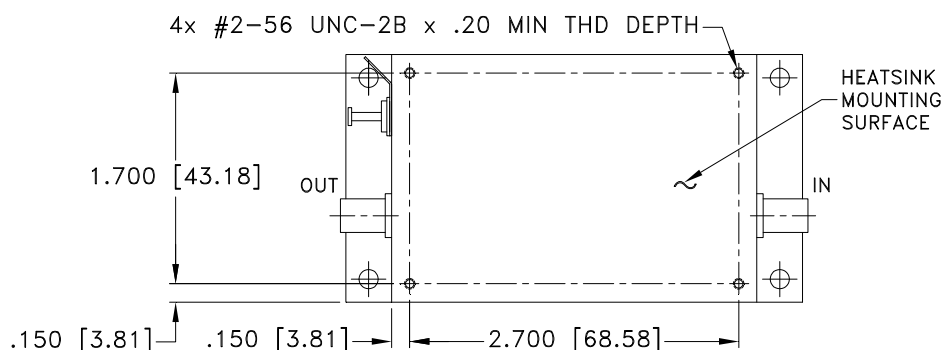
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### Outline Dimensions



### MOUNTING INFORMATION FOR MODELS WITHOUT HEATSINK



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
S32	3.75 (95.25)	2.00 (50.80)	1.80 (45.72)	.19 (4.83)	3.375 (85.73)	.19 (4.83)	1.625 (41.28)	.144 (3.66)	.50 (12.70)	.40 (10.16)	.50 (12.70)	1.30 (33.02)	.10 (2.54)

CASE#	P	Q	R	S	T	WT. GRAMS	WT. WITHOUT HEATSINK GRAMS
S32	.38 (9.65)	3.00 (76.20)	.30 (7.62)	2.60 (66.04)	.80 (20.32)	220.0	150.0

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

### Notes:

- Case material: Aluminum alloy.
- Case finish:  
For RoHS Case Styles: Clear chemical conversion coating, non-chrome or trivalent chrome based.
- Heat sink finish: Black anodize.



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: [www.minicircuits.com](http://www.minicircuits.com)

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	-20° to 65° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C 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