

Coaxial

# Low Noise Amplifier

## ZHL-1724HLN

50Ω

1700 to 2400 MHz

### Features

- very low noise, 1.5 dB max.
- wideband, 1700 to 2400 MHz
- high dynamic range

### Applications

- PCS/DCS
- UMTS
- communication systems



ZHL-1724HLNX-S



ZHL-1724HLN-S

CASE STYLE: NN92

Connectors	Model	Price	Qty.
SMA	ZHL-1724HLN	\$399.50 ea.	(1-9)
SMA	ZHL-1724HLNX	\$389.50 ea.	(1-9)

### Low Noise Amplifier Electrical Specifications

MODEL NO.	FREQUENCY (MHz)		NOISE FIGURE (dB)	GAIN (dB)		MAXIMUM POWER (dBm)		INTERCEPT POINT (dBm)	VSWR (:1) Max.		DC POWER	
	f <sub>L</sub>	f <sub>U</sub>		Max.	Min.	Flatness Max.	Output (1 dB Compr.) Typ.		Input (no damage)	IP3 Typ.	In	Out
ZHL-1724HLN	1700	2400	1.5	30	±1.0	+26	+10	+36	2.4	2.4	15	725
ZHL-1724HLN*	1700	2400	1.5	30	±1.0	+26	+10	+36	2.4	2.4	15	725

\* Heat sink not included  
 Noise Figure specified at room temperature, increases to 2.3 dB max. at +65°C  
 Open load is not recommended, potentially can cause damage.  
 With no load derate max input power by 20 dB

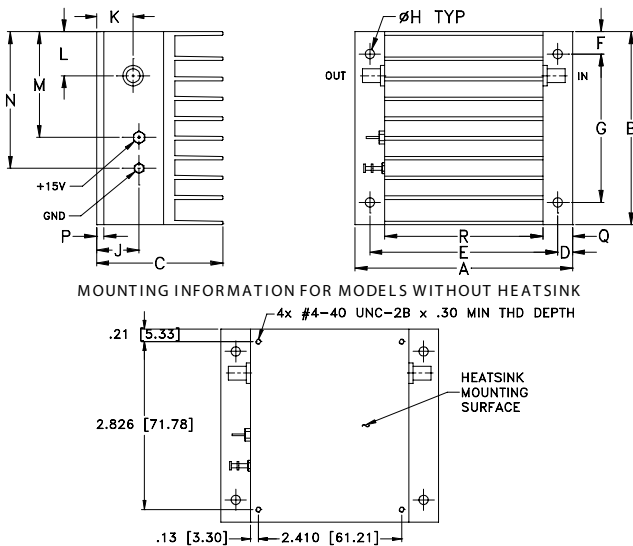
To order without heat sink, add suffix X to model number. Alternative heat sinking and heat removal must be provided by the user to limit maximum temperature to 65°C, in order to ensure proper performance. For reference, this requires thermal resistance of user's external heat sink to be 1.8°C/W Max.

### Maximum Ratings

Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
DC Voltage	+20V Max.

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

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	wt
3.66	3.25	2.13	.25	3.16	.38	2.50	.156	.72	.64	.74	1.78	2.30	3.18	12.70	67.56	500.0
92.96	82.55	54.10	6.35	80.26	9.65	63.50	3.96	18.29	16.26	18.80	45.21	58.42	3.18	12.70	67.56	500.0

\*362 grams without heatsink



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).

# Typical Performance Data/Curves

# ZHL-1724HLN

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		
1700.00	39.56	40.17	40.15	11.20	10.70	17.30	2.09	1.11	1.33	28.99
1751.20	38.88	39.50	39.50	15.20	12.30	12.20	1.77	1.14	1.21	29.09
1821.90	39.10	39.69	39.66	15.80	3.10	14.50	1.44	1.12	1.10	28.70
1895.50	38.37	38.94	38.93	23.50	13.20	9.00	1.19	1.17	1.08	27.52
1969.20	38.48	39.09	39.09	15.20	10.90	14.80	1.10	1.22	1.12	27.22
2041.00	38.68	39.37	39.35	24.60	16.90	21.50	1.24	1.29	1.16	26.69
2130.80	38.05	38.89	38.87	13.30	17.80	17.30	1.46	1.42	1.20	27.37
2220.50	38.23	39.17	39.16	10.60	24.20	10.60	1.48	1.52	1.21	28.97
2310.30	37.42	38.47	38.48	17.30	26.60	13.90	1.69	1.68	1.20	29.40
2400.00	37.51	38.68	38.69	13.80	14.90	14.80	1.98	1.76	1.19	29.12

