Coaxial

Low Noise Amplifier

ZHL-1724HLN+

50Ω 1700 to 2400 MHz

Features

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

Applications

- PCS/DCS
- UMTS
- communication systems

Model No.	ZHL-1724HLN+	ZHL-1724HLNX+▲
Case Style	NN92	
Connectors	SMA	

+RoHS Compliant

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

Electrical Specifications

Parameter	Frequency (MHz)	ZHL-1724HLN-S+			ZHL-1724HLNX-S+▲			Units
		Min.	Typ.	Max.	Min	Typ.	Max.	
Frequency Range		1700		2400	1700		2400	MHz
Noise Figure	1700-2400	—	1.10	1.5	—	1.10	1.5	dB
Gain	1700-2400	30	36	—	30	36	—	dB
Gain Flatness	1700-2400	—	0.7	±1.0	—	0.7	±1.0	dB
Output Power at 1dB compression	1700-2400	—	+26	—	—	+26	—	dBm
Output third order intercept point	1700-2400	—	+36	—	—	+36	—	dBm
Input VSWR	1700-2400	—	1.4	—	—	1.4	—	:1
Output VSWR	1700-2400	—	1.6	—	—	1.6	—	:1
DC Supply Voltage		—	15	—	—	15	—	V
Supply Current[1]		—	580	725	—	580	725	mA

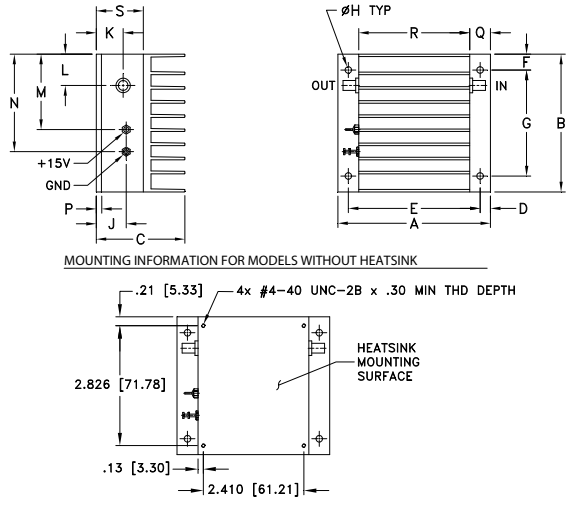
Noise Figure specified at room temperature, increases to 2.3 dB max. at +65°C

Open load is not recommended, potentially can cause damage.

With no load derate max input power by 20 dB

▲Heat sink not included. Alternative heat sinking and heat removal must be provided by the user to limit maximum base-plate 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.

Outline Drawing



Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
DC Voltage	20V
Input RF Power (no damage)	+10 dBm

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

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	wt
3.66	3.25	2.13	.25	3.16	.38	2.50	.156	.72	.64	.74	1.78	2.30	.125	.50	2.66	1.13	grams*
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	28.7	500.0

*362 grams without heatsink

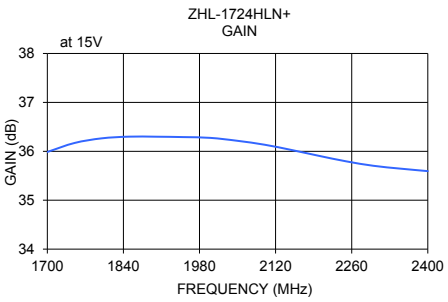
Notes

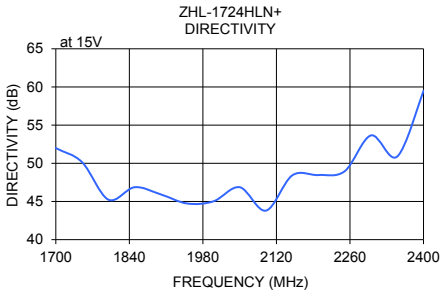
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

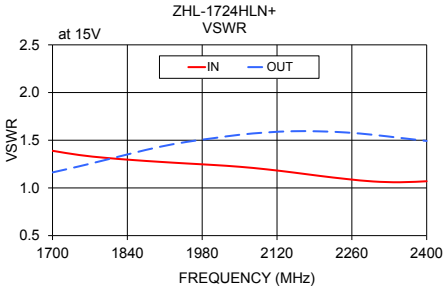
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.

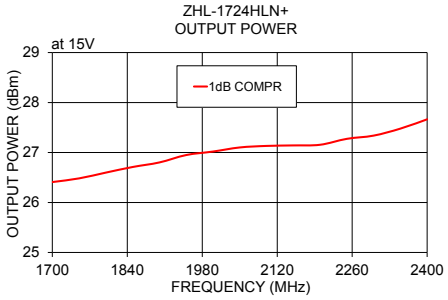
C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCLStore/terms.jsp

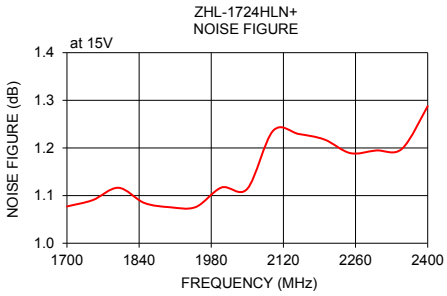
FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		POUT at 1 dB COMPR. (dBm)	NOISE FIGURE (dB)	IP3 (dBm)
	15V	15V	IN	OUT	15V	15V	15V
1700	35.99	51.99	1.39	1.16	26.41	1.08	37.48
1750	36.17	50.14	1.35	1.23	26.48	1.09	37.75
1800	36.26	45.24	1.32	1.29	26.60	1.12	38.18
1850	36.30	46.87	1.29	1.36	26.71	1.08	38.57
1900	36.30	45.92	1.27	1.43	26.80	1.08	38.76
1950	36.29	44.73	1.26	1.48	26.95	1.08	39.12
2000	36.27	45.02	1.24	1.52	27.02	1.12	39.42
2050	36.21	46.87	1.22	1.56	27.10	1.11	39.28
2100	36.13	43.80	1.20	1.58	27.13	1.24	39.35
2150	36.03	48.41	1.16	1.59	27.14	1.23	39.06
2200	35.91	48.46	1.13	1.59	27.16	1.22	39.03
2250	35.79	48.96	1.09	1.58	27.27	1.19	38.50
2300	35.70	53.65	1.07	1.56	27.34	1.19	38.62
2350	35.65	50.89	1.06	1.52	27.48	1.20	38.46
2400	35.59	59.49	1.07	1.49	27.66	1.29	38.54

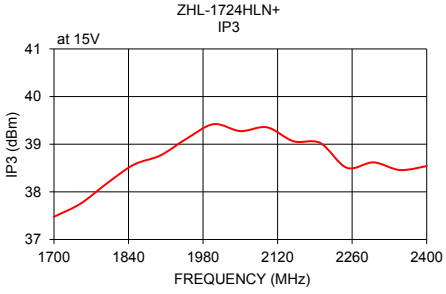












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