

Coaxial High Power Amplifier

ZHL-03-5WF+

50Ω 5W 60 to 300 MHz

Features

- High power, +39dBm typ.
- Low noise figure, 3 dB typ.
- High IP3, +49 dBm typ.
- Class A amplifier
- Available with built-in fan with thermal shut-off

Applications

- VHF transmitters
- instrumentation
- test equipment



Model No.	ZHL-03-5WF+ ▲ZHL-03-5WFX+
Case Style	CP641
Connectors	SMA

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

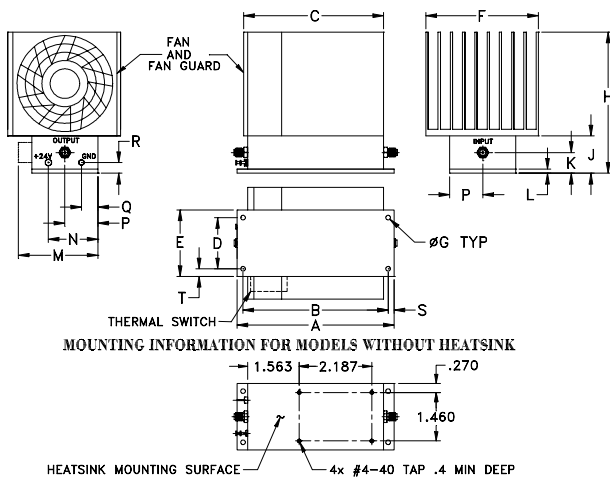
Electrical Specifications

Parameter	ZHL-03-5WF+ ▲ZHL-03-5WFX+			Units
	Min.	Typ.	Max.	
Frequency Range	60	—	300	MHz
Gain	30	—	—	dB
Gain Flatness	—	—	±1.0	dB
Output Power at 1dB compression	+36	—	—	dBm
Noise Figure	—	3.0	—	dB
Output third order intercept point	—	+49	—	dBm
Input VSWR	—	1.4	—	:1
Output VSWR	—	1.5	—	:1
DC Supply Voltage	—	24	—	V
Supply Current	—	—	2.8	A

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

▲ Heat sink and fan 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 0.3°C/W max.

Outline Drawing



Maximum Ratings

Parameter	Ratings
Operating Temperature	-20°C to 65°C
Storage Temperature	-55°C to 100°C
Base Plate Temperature	85°C
DC Voltage	28V
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	T	wt
4.75	4.375	4.18	1.540	2.00	3.36	.144	4.24	1.12	.58	.125	2.38	1.50	1.00	.50	.34	.19	.23	grams*
120.65	111.13	106.17	39.12	50.80	85.34	3.66	107.70	28.45	14.73	3.18	60.45	38.10	25.40	12.70	8.64	4.83	5.84	750

*290 grams without heatsink

Notes

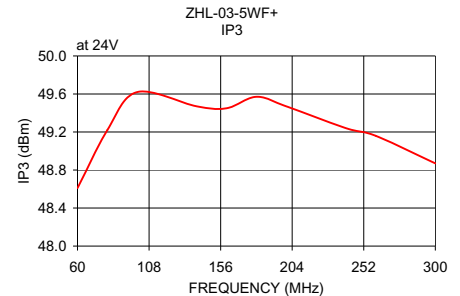
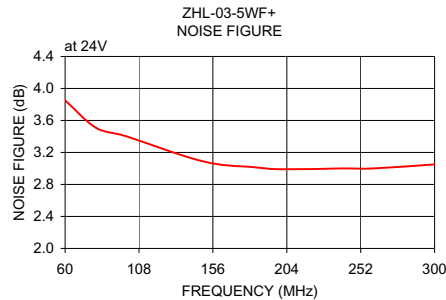
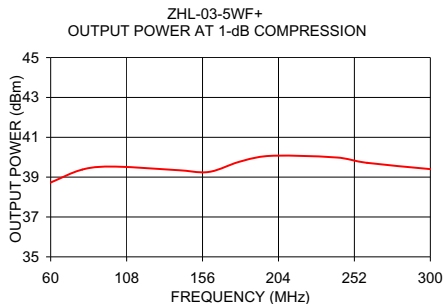
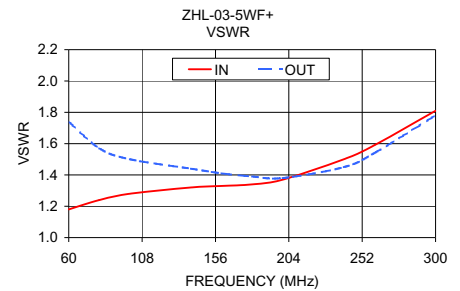
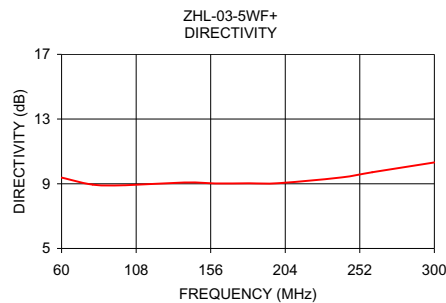
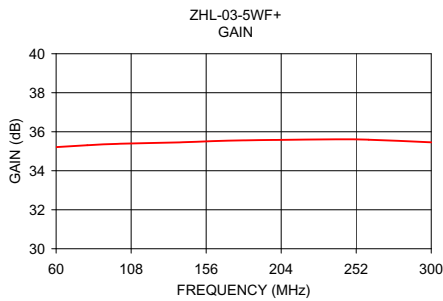
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FREQUENCY (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT at 1 dB COMPR. (dBm)	IP3 (dBm)
	24V	24V	IN	OUT	24V	24V	24V
60.00	35.21	9.38	1.18	1.74	3.85	38.73	48.61
80.00	35.31	8.95	1.24	1.57	3.51	39.38	49.22
100.00	35.38	8.91	1.28	1.50	3.40	39.53	49.62
140.00	35.46	9.08	1.32	1.44	3.14	39.35	49.47
160.00	35.52	9.02	1.33	1.41	3.05	39.26	49.45
180.00	35.56	9.03	1.34	1.39	3.02	39.79	49.57
200.00	35.58	9.04	1.37	1.38	2.99	40.07	49.47
240.00	35.61	9.39	1.50	1.45	3.00	39.99	49.24
260.00	35.59	9.71	1.59	1.54	3.00	39.72	49.16
300.00	35.46	10.32	1.81	1.78	3.05	39.40	48.87



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