

REPLACEMENT PART REFERENCE GUIDE,
ZHL-100W-272X + and ZHL-100W-272+

Replacement Part has been judged by Mini-Circuits Engineering as a suitable replacement to Original Part.

ORIGINAL PART:	ZHL-100W-272X + ZHL-100W-272+	
REPLACEMENT PART:	ZHL-0G72G7100X+ ZHL-0G72G7100+	

Note: This replacement part reference guide is applicable for the ZHL-100W-272X + (amplifier without heatsink) and the ZHL-100W-272+ (amplifier with heatsink). The heatsink properties and dimensions for the original part and the replacement part are the same.

MECHANICAL DIMENSIONS

Case Style: BT2247
Replacement part uses same case style as original part.

CONCLUSION:

1) FORM-FIT-FUNCTIONAL ANALYSIS_a:

The Replacement Part is Form, Fit compatible.

Following is a summary of changes/improvements in the electrical specification:

Parameter	Original Part ZHL-100W-272X +	Replacement Part ZHL-0G72G7100X+
Gain	+45 dB, Min No Max Spec Specified	+45 dB, Min +53 dB, Max
Gain Flatness	±2.1 dB, Max	±2.0 dB, Max
Input VSWR	No Max Spec Specified	2:1, Max
Output VSWR	No Max Spec Specified	2:1, Max
P1dB	No Min Spec Specified	+48.5 dBm, Min
P3dB	+48 dBm, Min	No Min Spec Specified
PSat	No Min Spec Specified	+49.5 dBm, Min
OIP2	No Min Spec Specified	+55 dBm, Min
OIP3	No Min Spec Specified	+50 dBm, Min
2 nd Harmonics	No Max Spec Specified	-10 dBc, Max
3 rd Harmonics	No Max Spec Specified	-10 dBc, Max
DC Supply Voltage	+28 V, Min +32 V, Max	+28 V, Min +31 V, Max
DC Supply Current	16 A, Max	15 A, Max
DC Supply Current with Fan	No Max Spec Specified	15.4 A, Max

For typical performance and graphs: See paragraphs 2 and 3

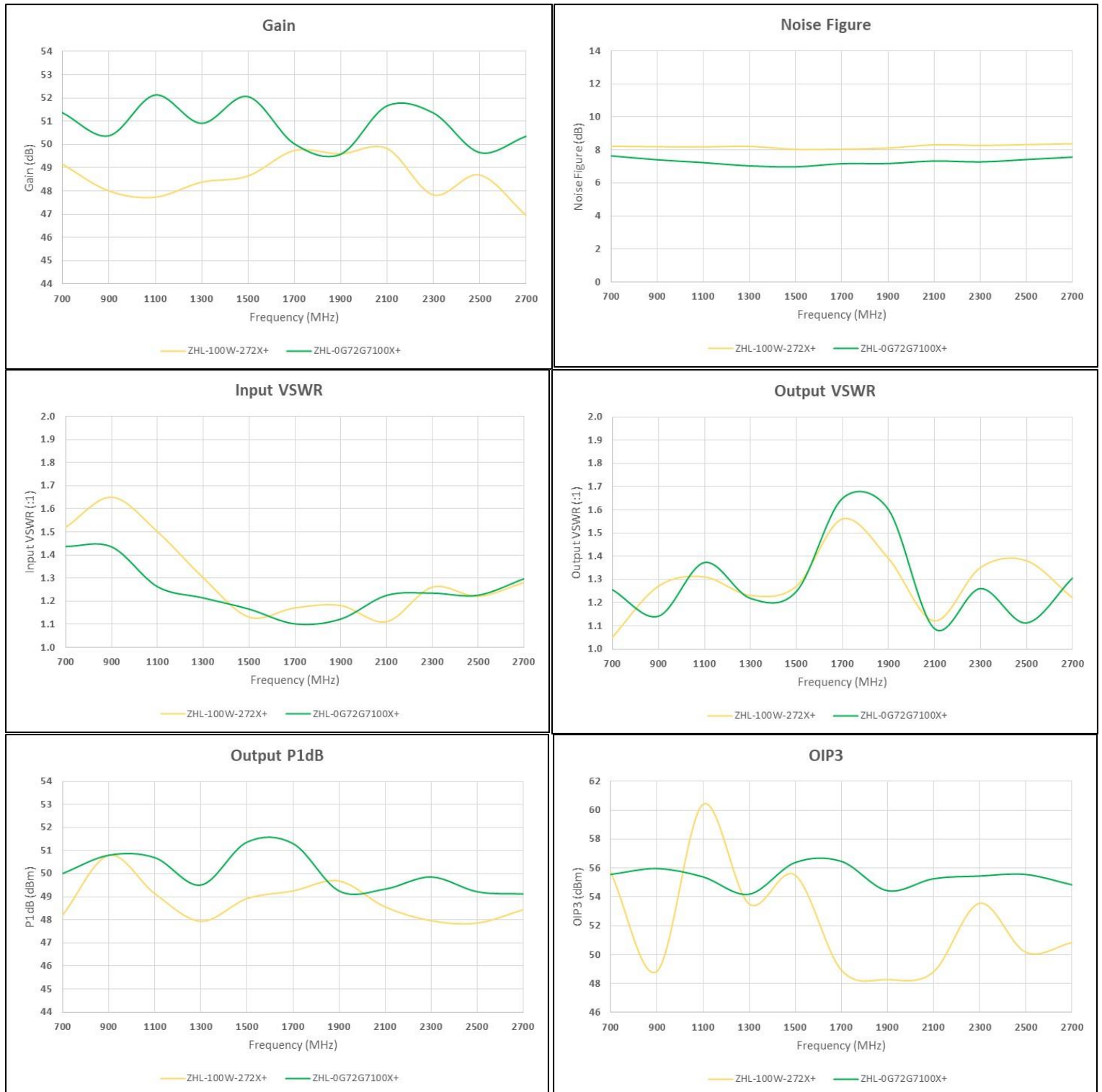
2) TYPICAL PERFORMANCE COMPARISON AT ROOM TEMPERATURE:

MODEL: ZHL-100W-272X + (Original), ZHL-0G72G7100X+ (Replacement) (RF Parameters)

Parameter	Frequency MHz		Original Design ZHL-100W-272X+			Replacement Design ZHL-0G72G7100X+		
	From	To	Min	Avg	Max	Min	Avg	Max
Gain (dB)	700	2700	46.97	48.60	49.82	48.92	50.95	52.70
Input VSWR (:1)	700	2700	1.11	1.30	1.65	1.08	1.21	1.49
Output VSWR (:1)	700	2700	1.05	1.29	1.56	1.00	1.22	1.77
P1dB (dBm)	700	2700	47.87	48.80	50.80	48.47	50.14	51.96
OIP3 Worse of Upper/Lower (dBm)	700.1	2700.1	48.31	52.27	60.43	53.66	55.45	56.92
Noise Figure (dB)	700	2700	8.03	8.20	8.37	6.79	7.25	7.76

Please note that data compiled above and plotted on the next two pages is for ZHL-100W-272X + and ZHL-0G72G7100X+ (models without heatsink). Similar performance can be expected between the model supplied without heatsink and the model supplied with heatsink.

3) TYPICAL PERFORMANCE GRAPHS AT ROOM TEMPERATURE:





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