REPLACEMENT PART REFERENCE GUIDE, ZHL-30W-252X-S+ and ZHL-30W-252-S+

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

ORIGINAL PART:	ZHL-30W-252X-S+ ZHL-30W-252-S+	
REPLACEMENT PART:	ZHL-0G62G5030X+ ZHL-0G62G5030+	

Note: This replacement part reference guide is applicable for the ZHL-30W-252X-S+ (amplifier without heatsink) and the ZHL-30W-252-S+ (amplifier with heatsink). The heatsink properties and dimensions for the original part and the replacement part are the same.

MECHANICAL DIMENSIONS

Case Style: BT1344
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-30W-252X-S+	Replacement Part ZHL-0G62G5030X+
Gain	47 dB, Min	45 dB, Min
P1dB	No Min Spec Specified	+43 dBm, Min
Input Return Loss	No Min Spec Specified	9.5 dB, Min
Output Return Loss	No Min Spec Specified	9.5 dB, Min
Noise Figure	No Max Spec Specified	10 dB, Max
DC Supply Current with Fan	6.3 A, Max	6.4 A, Max

For typical performance and graphs: See paragraphs 2 and 3

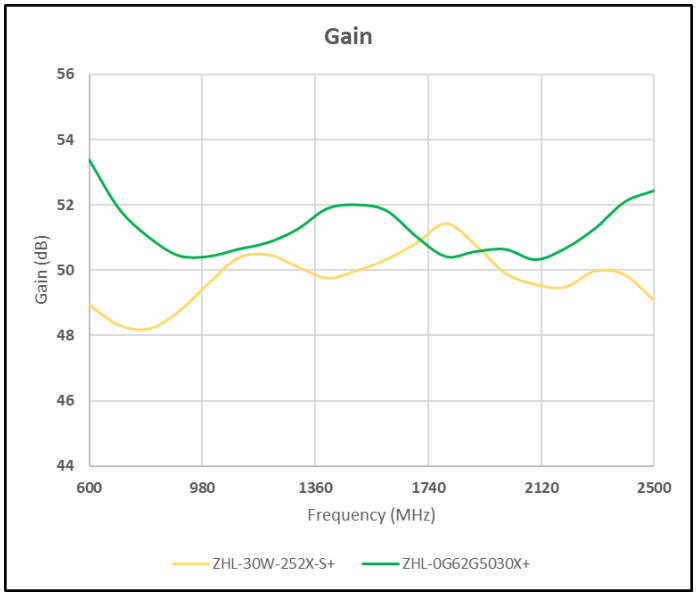
2) TYPICAL PERFORMANCE COMPARISON AT ROOM TEMPERATURE:

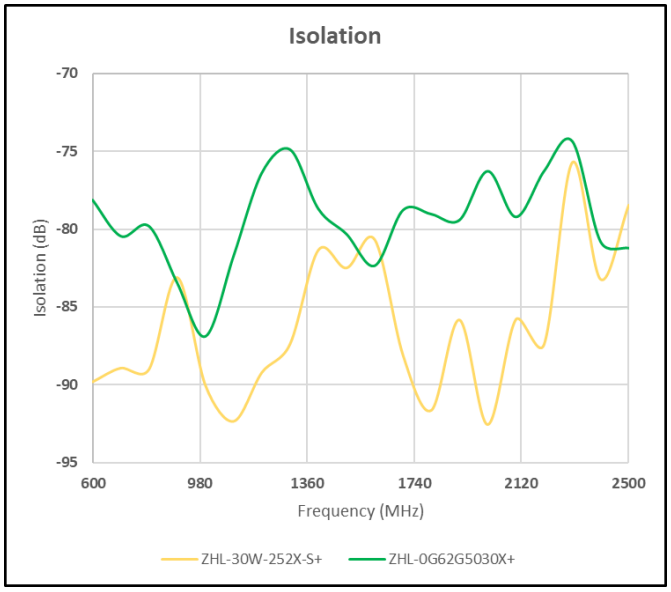
MODEL: ZHL-30W-252X-S+ (Original), ZHL-0G62G5030X+ (Replacement) (RF Parameters)

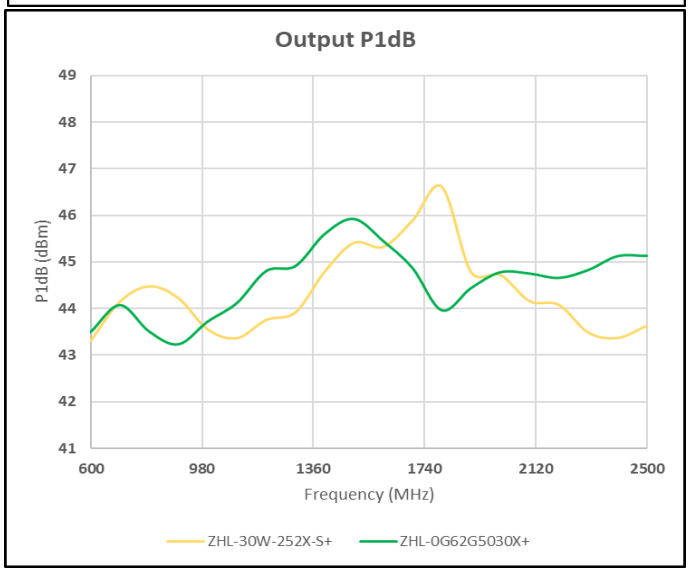
RF Parameter	Frequency MHz		Original Design @ 1 Unit ZHL-30W-252(X)-S+			Replacment Design @ 5 Units ZHL-0G62G5030(X)+		
	From	To	Min	Avg	Max	Min	Avg	Max
Gain (dB)	600	2500	48.15	49.82	51.43	49.98	51.16	54.08
Gain Flatness (dB)	600	2500		1.64		1.41	1.61	1.74
Isolation (dB)	600	2500	75.70	86.65	110.65	67.46	78.78	114.36
P1dB Compression (dBm)	600	2500	43.30	44.40	46.61	43.01	44.58	46.12
P3dB Compression (dBm)	600	2500	44.71	46.16	47.38	45.39	47.04	48.07
Psat (dBm)	600	2500	44.97	46.34	47.50	46.04	47.44	48.52
Input Return Loss (dB)	600	2500	15.98	21.61	31.15	13.29	16.45	18.11
Output Return Loss (dB)	600	2500	15.75	25.43	40.78	14.63	21.66	43.97
DC Current (A)	600	2500		5.06		4.81	4.90	5.02

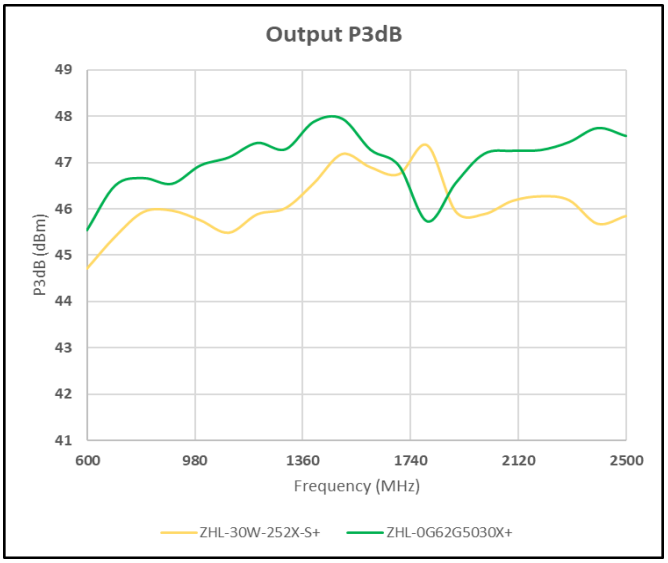
Please note that data compiled above and plotted on next page is for ZHL-30W-252X-S+ and ZHL-0G62G5030X+ (models without heatsink). Similar performance can be expected between the model supplied without heatsink and the model supplied with heatsink.

3) TYPICAL PERFORMANCE GRAPHS AT ROOM TEMPERATURE:









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