


REPLACEMENT PART REFERENCE GUIDE, PMA2-252LNA+

AN-60-112

Original Part:	PMA2-252LN+	
Replacement Part:	PMA2-252LNA+	

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

MECHANICAL DIMENSIONS

Case Style: MC1631-1

The PMA2-252LNA+ uses the MC1631-1 case style while the PMA2-252LN+ uses the MC1631 case style.

CONCLUSION:

1) **FORM-FIT-FUNCTIONAL ANALYSIS_a**:

The Replacement Part has a slightly higher maximum package height of 1mm versus the Original Part's maximum package height of 0.55mm.

The Replacement Part minimum and maximum voltage ratings on the Specification Table were changed. The Replacement Part's minimum rating is now +3.5V instead of the Original Part's minimum voltage rating of +3.8V. Replacement Part's maximum rating is now +4.5V instead of the Original Part's maximum voltage rating of +4.2V.

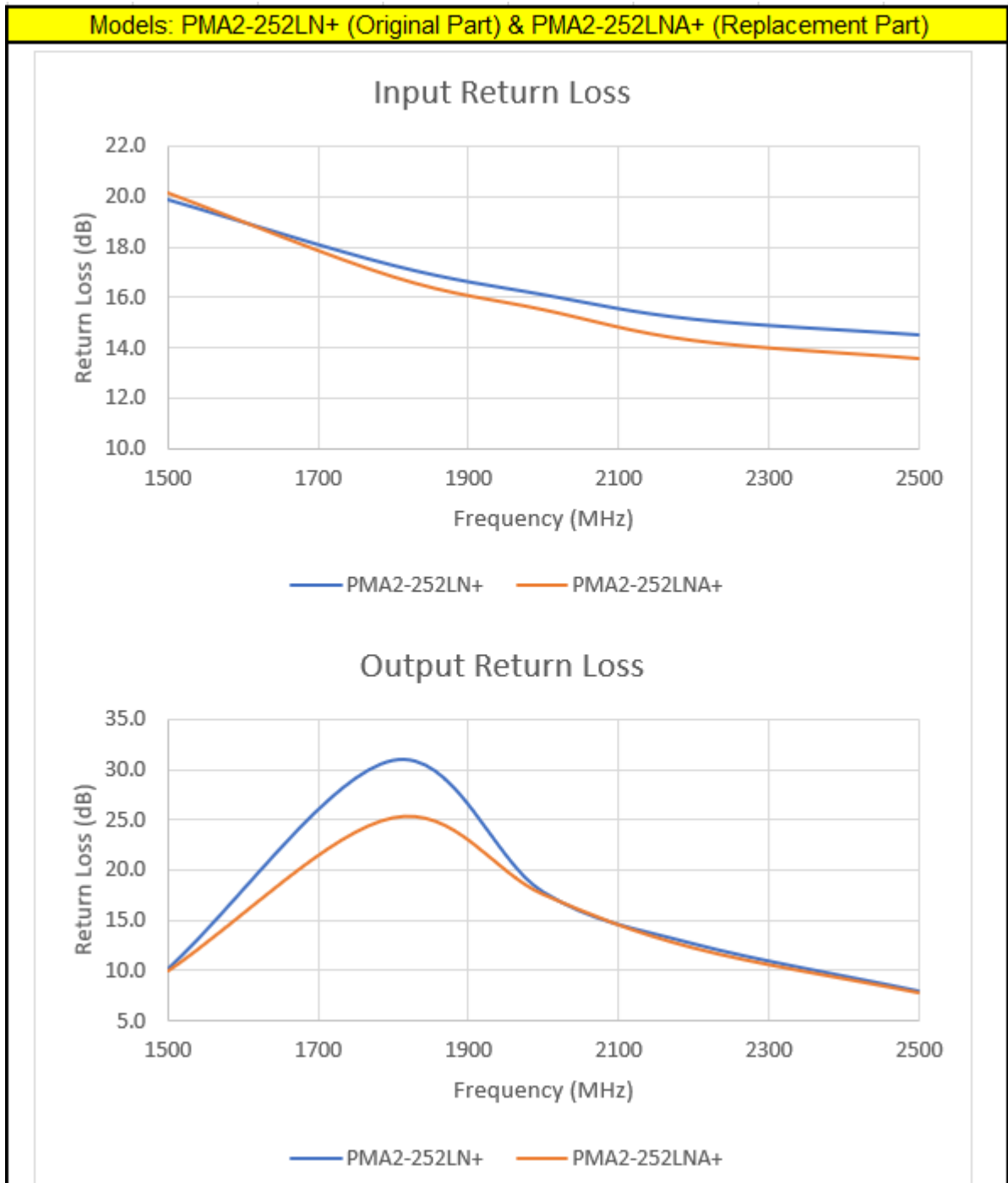
Replacement Part and Original Part feature the same expected performance. See section 2 for typical performance and graphs.

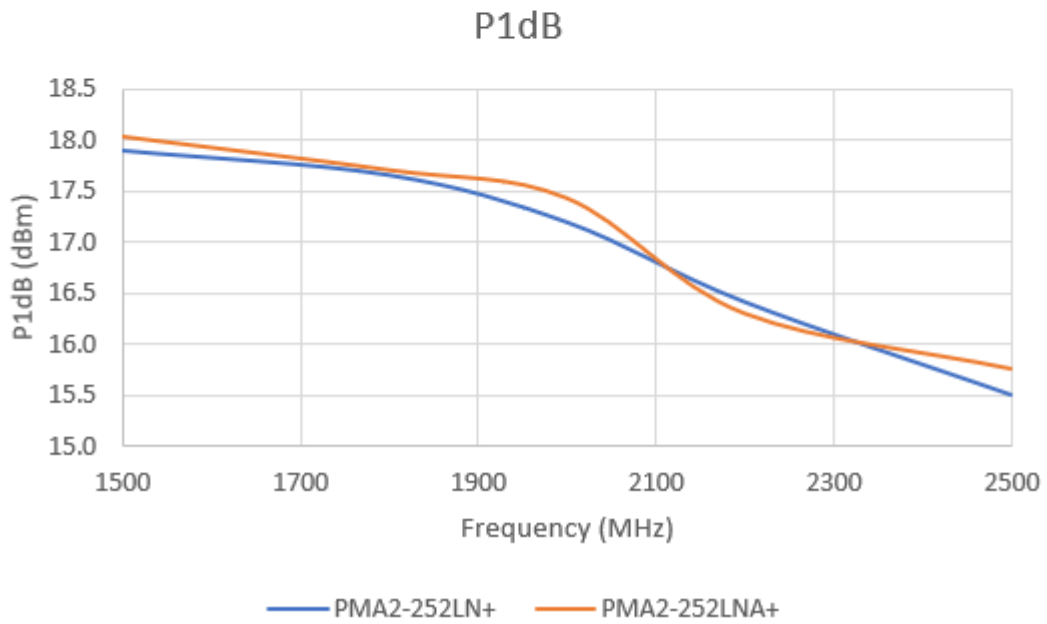
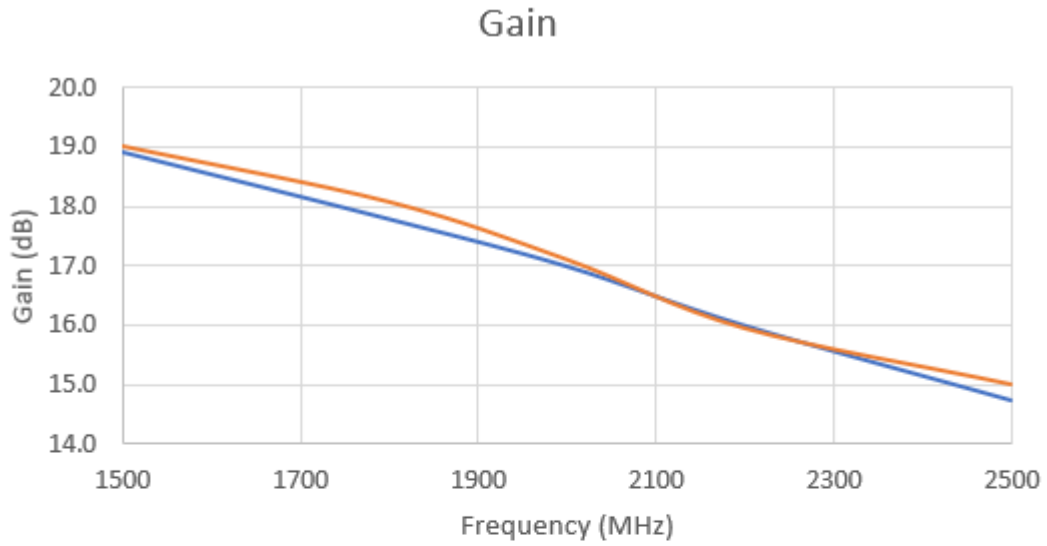
2) TYPICAL PERFORMANCE COMPARISON AT ROOM TEMPERATURE:

MODEL: PMA2-252LN+, PMA2-252LNA+

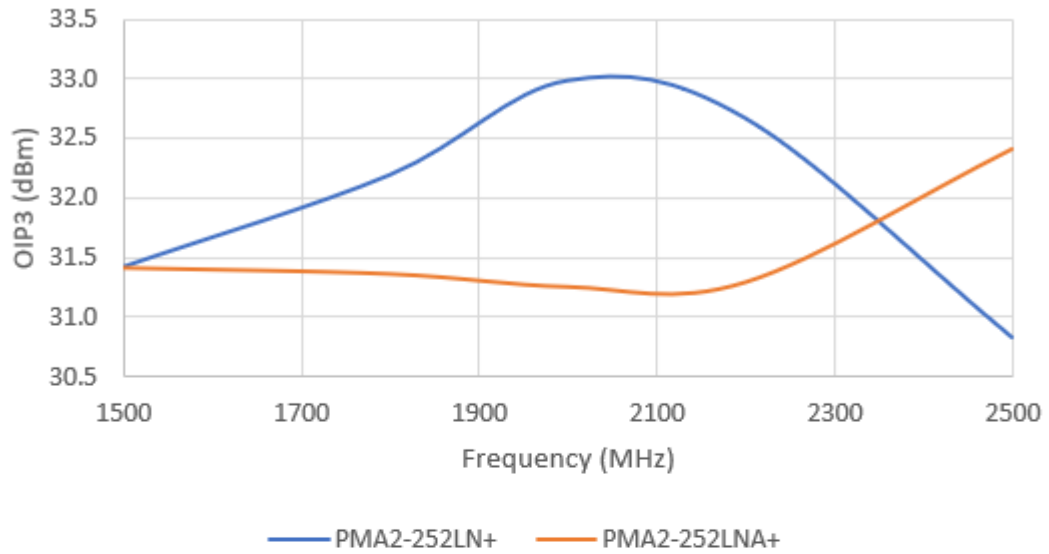
Parameter	Freq (MHz)		1 Unit PMA2-252LN+	1 Unit PMA2-252LNA+
	From	To	Typical	Typical
INPUT RETURN LOSS(dB)	1500	1500	19.9	20.2
	1800	1800	17.3	16.8
	2000	2000	16.1	15.5
	2200	2200	15.1	14.3
	2500	2500	14.5	13.6
OUTPUT RETURN LOSS(dB)	1500	1500	10.1	9.9
	1800	1800	30.9	25.3
	2000	2000	17.8	17.6
	2200	2200	12.7	12.2
	2500	2500	7.9	7.7
GAIN (dB)	1500	1500	18.9	19.0
	1800	1800	17.8	18.1
	2000	2000	17.0	17.1
	2200	2200	16.0	15.9
	2500	2500	14.8	15.0
P1dB(dBm)	1500	1500	17.9	18.0
	1800	1800	17.7	17.7
	2000	2000	17.2	17.4
	2200	2200	16.4	16.3
	2500	2500	15.5	15.8
OIP3(dBm)	1500	1500	31.4	31.4
	1800	1800	32.2	31.4
	2000	2000	33.0	31.3
	2200	2200	32.7	31.3
	2500	2500	30.8	32.4
NOISE FIGURE(dB)	1500	1500	0.9	0.7
	1800	1800	0.9	0.8
	2000	2000	0.9	0.9
	2200	2200	1.0	1.0
	2500	2500	1.2	1.2

3) TYPICAL PERFORMANCE GRAPHS AT ROOM TEMPERATURE:

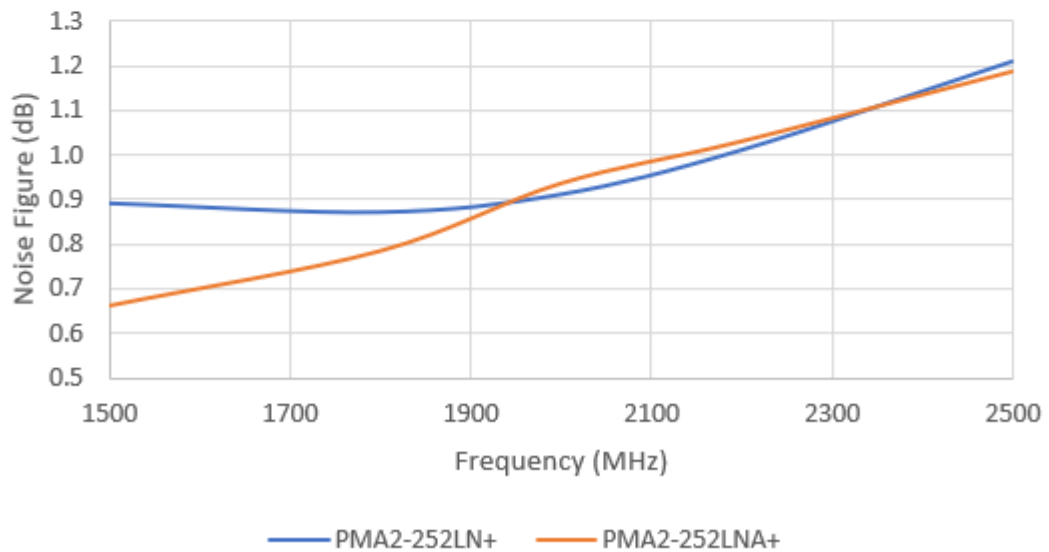




OIP3



Noise Figure





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