

# [Application Note]

▪ PART Name : BL083

▪ TEST FREQUENCY : 428MHz~438MHz

▪ Main Application Goal : S11 Best Matching

▪ Measuring Equipment List

Network Analyzer : N5080A , Signal : N5182A & N5182B, Spectrum Analyzer : N9020A

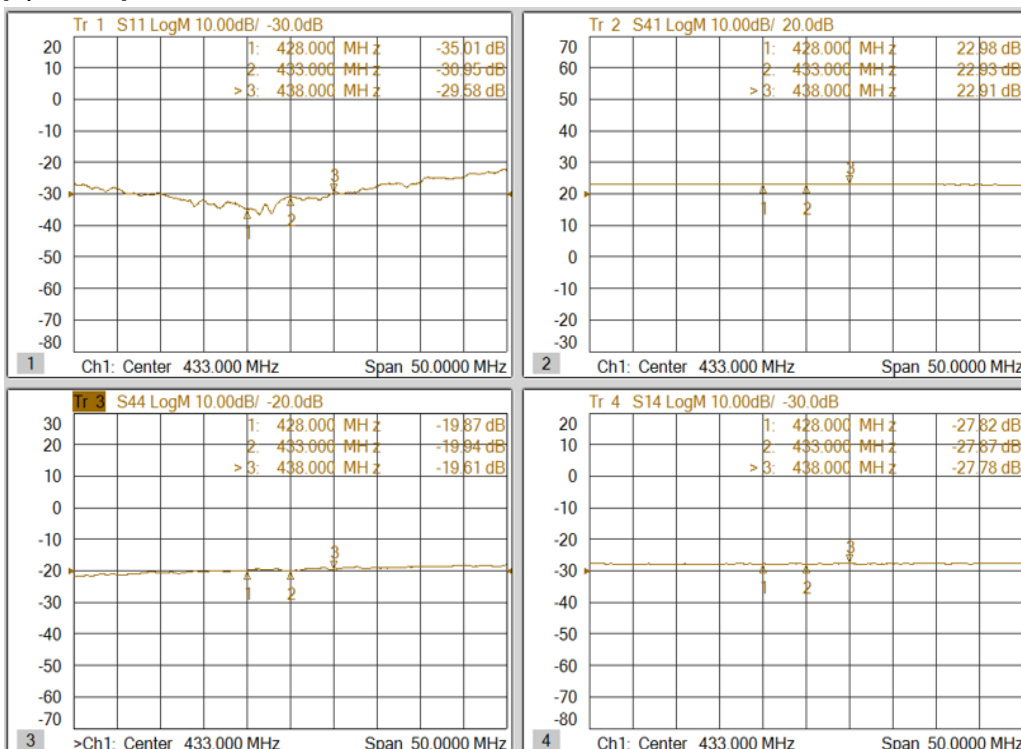
▪Test Result :

Frequency	MHz	428	433	438	Mark
Gain	dB	22.9	22.9	22.9	
S11	dB	-35.1	-30.9	-29.5	
S22	dB	-19.8	-19.9	-19.6	
OIP3	dBm	27.9	28.0	28.1	@0dBm/tone
P1dB	dBm	17.0	17.0	17.0	
NF	dB	1.13	1.12	1.14	
Current	mA	39			Vcc = 3.0V

Appendix: TEST items available to change depending on the situation.

*Application Circuit_428MHz~438MHz		
Schematic Diagram	BOM	Marks
	C1	0603 1 nF
	C2	0603 100 pF
	C3	0603 470 pF
	C4	0603 470 pF
	C5	0603 0.3 pF
	C6	0603 0.3 pF
	L1	0603 68 nH
	L2	0603 22 nH
	L3	0603 Thru
	U1	SOT363 BL083
E/B Configuration	Marks	
	<ol style="list-style-type: none"> <li>1. Distance between the edge of the series Inductor(L2) and the input pin of BL083 - 2.4mm.</li> <li>2. Distance between the edge of the shunt cap(C5) and the input pin of BL083 - 4.4mm.</li> <li>3. Distance between the edge of the shunt cap(C6) and the input pin of BL083 - 1.6mm.</li> </ol>	

[S-parameter]



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