[Application Note]

- **Part Name : BNT22**
- **Test Frequency : ~8000MHz**
- **Main Application Goal : 8GHz Band S21 improvements**
- **Measuring Equipment List**

  Network Analyzer : E5071B , Signal : N5182A, Spectrum Analyzer : N9020A

- **Test Result : Before tuning_Apply L1 (1.2nH)**

Frequency	MHz	4500	8000	8300	Remark
Gain	dB	19.7	17.6	13.0	–
S11	dB	-15.2	-1.8	-0.4	Log magnitude
S22	dB	-9.8	-6.3	-7.8	Log magnitude
Current	mA	91			@Vd = 5V

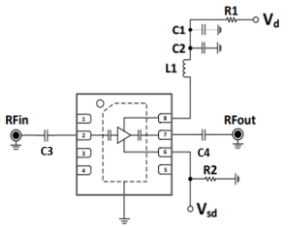
- **Test Result : After tuning**

Frequency	MHz	4500	8000	8300	Remark
Gain	dB	19.9	20.1	15.0	–
S11	dB	-14.2	-3.0	-0.5	Log magnitude
S22	dB	-15.7	-12.7	-11.0	Log magnitude
Current	mA	91			@Vd = 5V

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

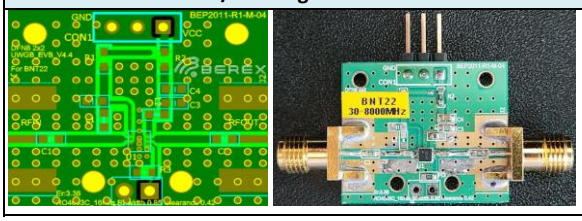
*After Tuning Application Circuit_~8000MHz

Schematic Diagram

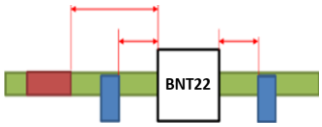


BOM			Remark
C1	0603	1nF	–
C2	0603	100pF	–
C3	0603	1nF	–
C4	0603	1nF	–
L1	0603	1.2nH	–
R1	0603	3ohm	–
R2	0603	20Kohm	–
U1	DFN2x2	BNT22	–

E/B Configuration



Reference	Object	Distance	Remark
Pin2	C3	0.6mm	–
Pin7	C4	0.6mm	–



[S-parameter_Red line_Before tuning, Yellow line_After tuning]