

[Application Note]

- Part Name : BNT21
- Test Frequency : 70~4000MHz_FR-4 PCB Application note
- Main Application Goal : Evaluation Board Application Circuit Notes
- Measuring Equipment List
Network Analyzer : E5071B , Signal : N5182A, Spectrum Analyzer : N9020A
- Test Result :

Frequency	MHz	70	600	1800	2650	3500	4000	Remark
Gain	dB	21.3	20.9	18.7	17.7	16.8	16.1	-
S11	dB	-10.3	-13.7	-10.0	-10.3	-18.8	-14.6	Log magnitude
S22	dB	-21.9	-17.4	-10.3	-7.2	-6.5	-6.1	Log magnitude
OIP3	dBm	38.1	37.9	36.5	35.9	35.1	34.6	@5dBm/tone, Δf=1MHz
P1dB	dBm	22.0	22.1	21.6	20.9	20.4	20.0	-
NF	dB	1.00	1.19	1.38	1.40	1.67	1.87	-
Current	mA	76						@Vd = 5V

* N.F : Losses on input and output transmission lines on PCB are not de-embedded.

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

***Application Circuit_70~4000MHz**

Schematic Diagram		BOM		Remark	
		C1	0603	10uF	-
		C2	0603	1nF	-
		C3	0603	200pF	-
		C4	0603	200pF	-
		C5	0603	0.3pF	-
		L1	0603	360nH	Coil
		R1	0603	20Kohm	-
E/B Configuration		Reference	Object	Distance	Remark
		Pin2	C3	5.9mm	-
		Pin2	C5	6.8mm	-
		Pin7	C4	6.2mm	-

[S-parameter]

