

# [Application Note]

▪ Part Name : BNT21

▪ Test Frequency : 2000~6000MHz

▪ Main Application Goal : Application Circuit Notes

▪ Measuring Equipment List

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

▪ Test Result :

Frequency	MHz	2140	4650	5800	Remark
Gain	dB	18.4	15.6	15.8	-
S11	dB	-7.3	-9.4	-24.2	Log magnitude
S22	dB	-10.8	-3.7	-2.2	Log magnitude
OIP3	dBm	38.6	36.8	31.9	@5dBm/tone, Δf=1MHz
P1dB	dBm	22.3	20.8	18.8	-
NF	dB	1.39	1.75	2.65	10th average
Current	mA	83			@Vd = 5V

\* NF : 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\_2000~6000MHz**

Schematic Diagram		BOM		Remark	
		C1,C2	0603	200pF	-
		C3	0603	1.2nF	-
		C4	0603	10uF	-
		C5	0603	0.5pF	-
		C6	0603	0.3pF	-
		L1	0603	5.6nH	-
		L2	0603	1nH	-
		R1	0603	20Kohm	-
		U1	DFN2x2	BNT21	-

  

E/B Configuration		Reference	Object	Distance	Remark
		Input Pin	C1	2.3mm	-
		Input Pin	C5	1.7mm	-
		Output Pin	C6	2.1mm	-
		Output Pin	C2	6.9mm	-
		Output Pin	L2	3.7mm	-

[S-parameter]

