

RF MMIC Innovator

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[CLASSIFICATION] APPLICATION NOTE

[DATE] 2024.07

[REVISION No.] REV.B

[MEASURING INSTRUMENTS]

- NA_AGILENT E5071C

- SA_AGILENT N9020A

- SG_AGILENT 4438C

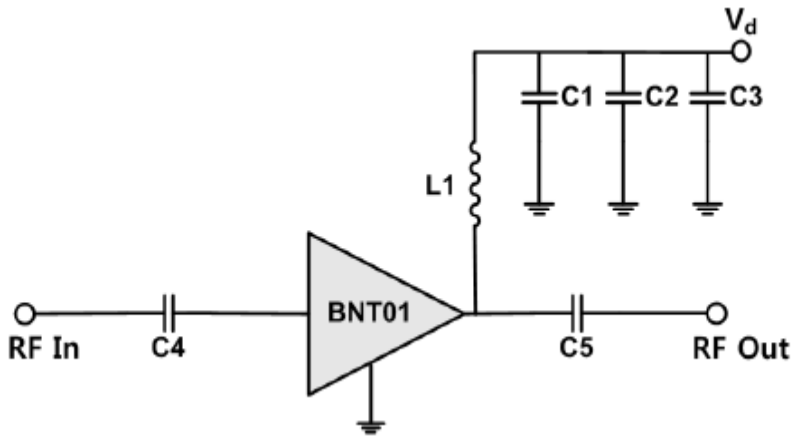
- SG_IFR 3416

Gain Block Amp BNT01

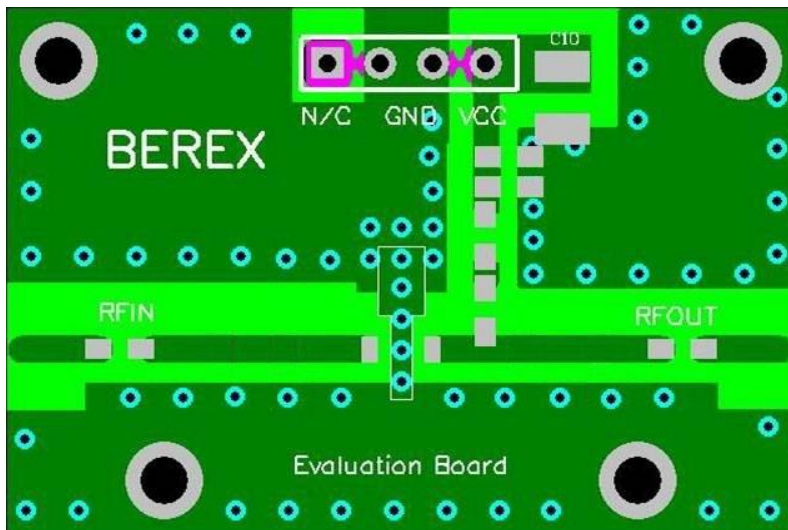
Application Note



1. BNT01_ 900MHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	100pF	Samsung
C2	0603 CAP	1000pF	Samsung
C3	A3216 CAP	10uF	AVX
C4	0603 CAP	22pF	Samsung
C5	0603 CAP	22pF	Samsung
L1	0603 CAP	150nH	Samsung
U1	SOT89 PKG	BNT01	BEREX



Note:

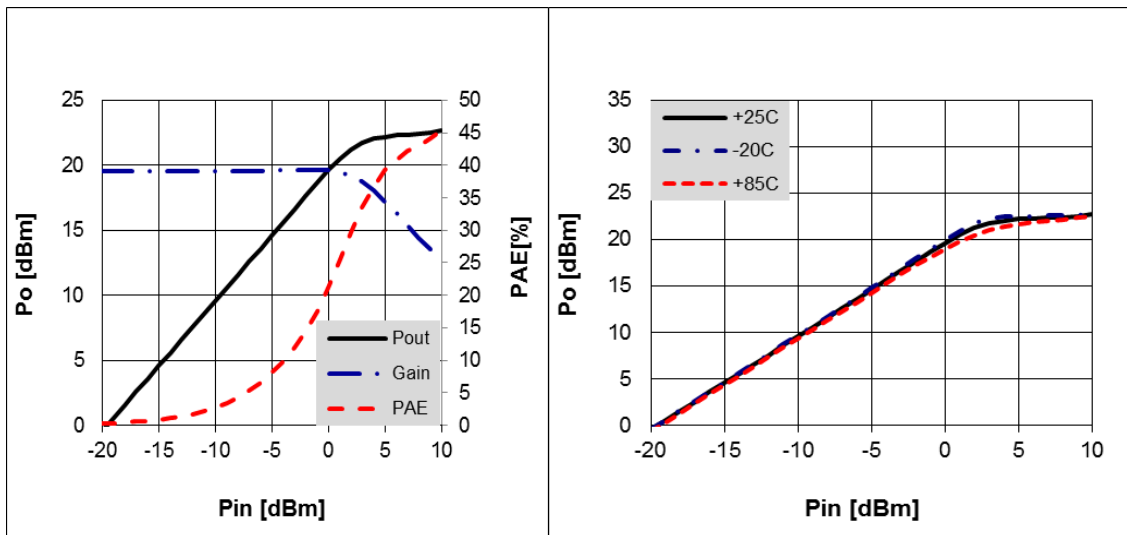
1. PCB: 31mil thick FR4

TITLE	
BNT01 Evaluation Board	
(900MHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

1.1 BNT01_ 900MHz Test Result

Temp	Freq [MHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
+25	900	4.4	65	19.5	36	21.5	-24.5	-16.5	1.4
-20	900	4.4	55	19.6	32.6	22	-24.7	-16.2	-
+85	900	4.4	75	19.7	33.5	20.7	-23.8	-17.5	-

(1) OIP3 was tested @Pout=5dBm/tone 1MHz offset



-40°C

-20°C

