

RF MMIC Innovator

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[CLASSIFICATION] APPLICATION NOTE

[DATE] 2021.01

[REVISION NO.] REV.A

[MEASURING INSTRUMENTS]

- NA_AGILENT E5071B

- SA_AGILENT E4440A

- SG_AGILENT N5182A

- SG_AGILENT N5182B

Broadband Amp BNT22

Application Note



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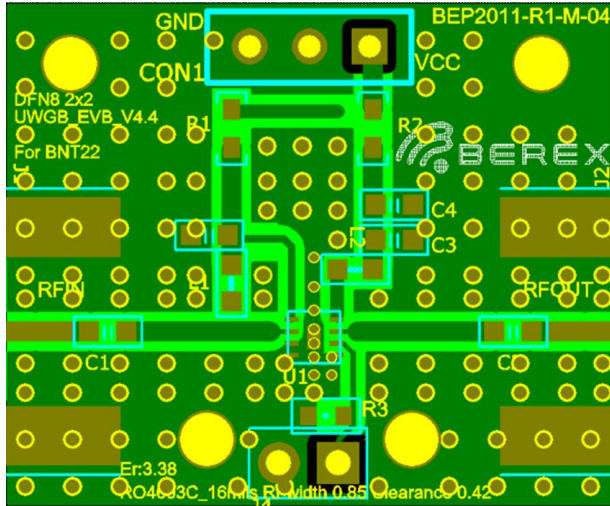
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 1.1 6.4GHZ TEST RESULT(S-PARAMETER, OIP3, P1, NF,ACLR)..... 4

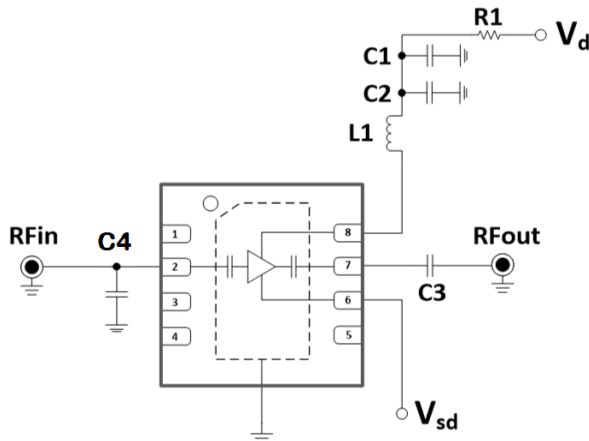
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1. BNT22_ 6.4GHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	1uF	Samsung
C2	0603 CAP	100pF	Samsung
C3	A3216 CAP	15pF	Samsung
C4	0603 CAP	0.3pF	Samsung
L1	0603 IND	1.2nH	Samsung
R1	0603 RES	2ohm	Samsung
U1	DFN 2X2	BNT22	BEREX



Note:

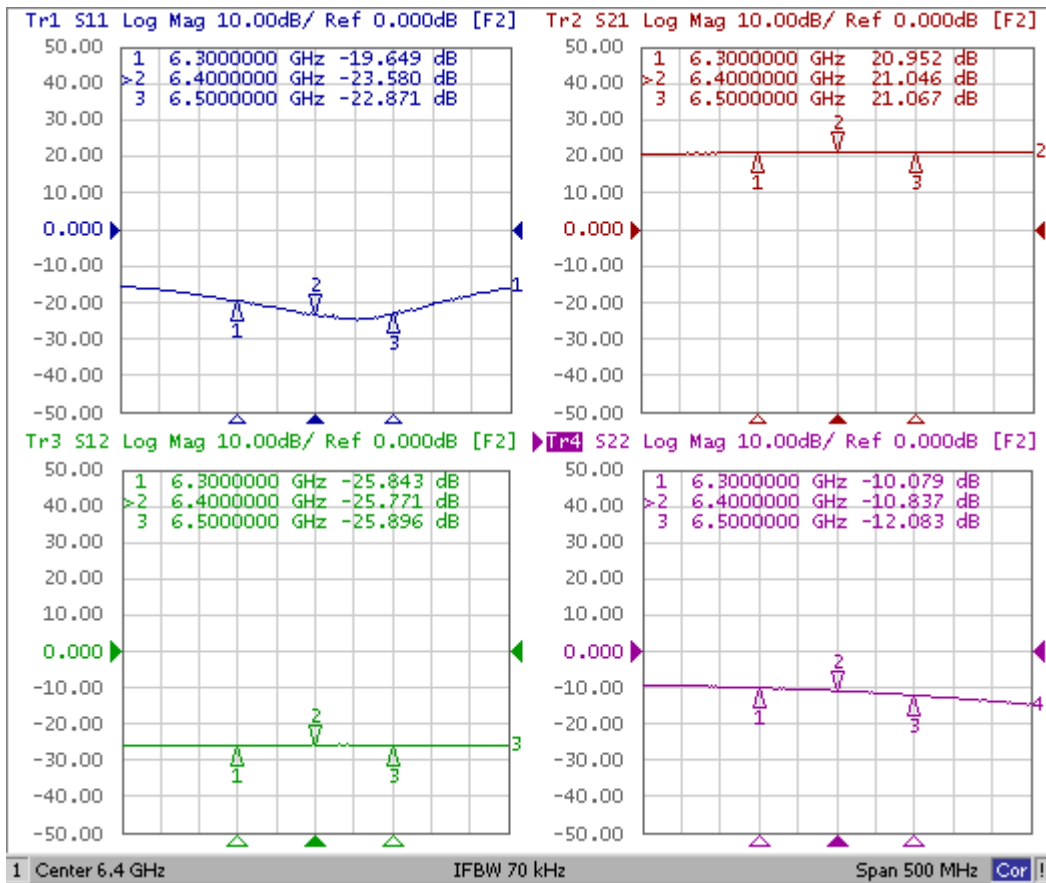
1. PCB: 16mil thick RO4003

TITLE	
BNT22 Evaluation Board	
(6.4GHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

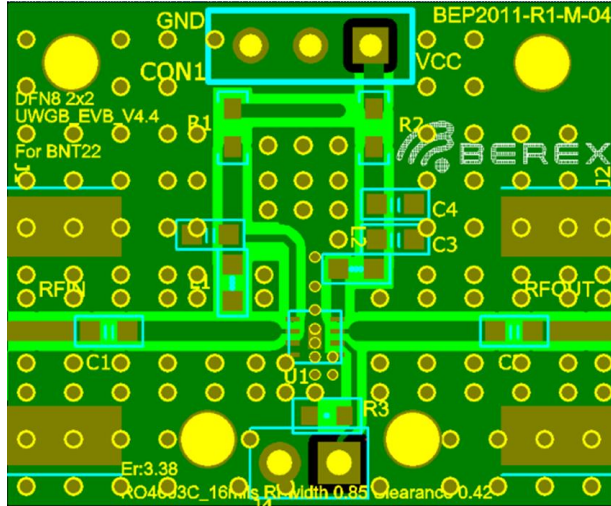
1.1 BNT22_6.4GHz Test Result

SN	Freq [GHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
-	6.3	5	90	21.0	32.2	17.3	-19.6	-10.1	2.95
-	6.4	5	90	21.0	32.0	17.3	-23.6	-10.9	3.02
-	6.5	5	90	21.1	32.3	17.4	-22.9	-12.1	3.08

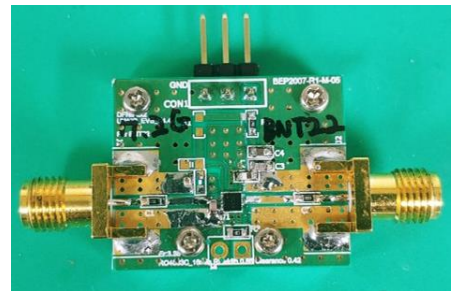
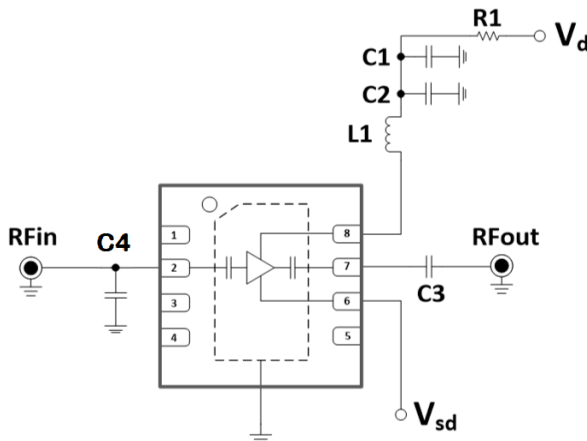
(1) OIP3 was tested @Pout = 5dBm/tone 1MHz offset



2. BNT22_ 7.2GHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	1uF	Samsung
C2	0603 CAP	100pF	Samsung
C3	A3216 CAP	15pF	Samsung
C4	0603 CAP	0.3pF	Samsung
L1	0603 IND	1.2nH	Samsung
R1	0603 RES	2ohm	Samsung
U1	DFN 2X2	BNT22	BEREX



Note:

- PCB: 16mil thick RO4003

TITLE	
BNT22 Evaluation Board	
(7.2GHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

2.1 BNT22_ 7.2GHz Test Result

SN	Freq [GHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
-	7.1	5	84	21.7	31.4	17.2	-19.1	-13.2	3.24
-	7.2	5	84	21.8	31.1	16.8	-21.4	-15.0	3.31
-	7.3	5	84	21.9	30.7	16.6	-18.5	-17.4	3.39

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

