

RF MMIC Innovator

www.berex.com

[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 BBA02

Application Note



Contents

RF MMIC INNOVATOR WWW.BEREX.COM 1

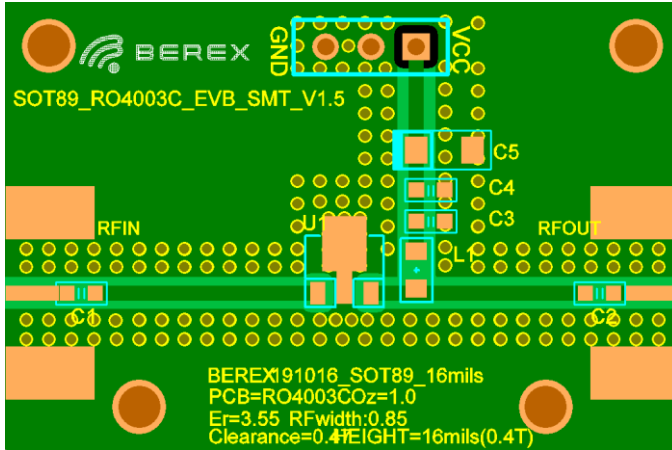
1. 6.4GHZ APPLICATION 3

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

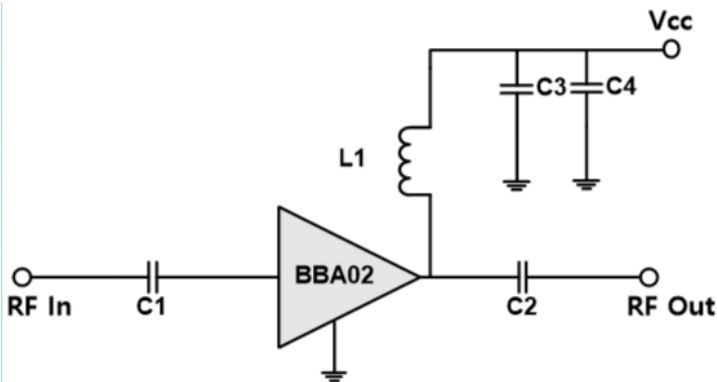
2. 7.2GHZ APPLICATION 6

 2.1 7.2GHZ TEST RESULT(S-PARAMETER, OIP3, P1, NF,ACLR)..... 7

1. BBA02_ 6.4GHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	10pF	Samsung
C2	0603 CAP	10pF	Samsung
C3	0603 CAP	100pF	Samsung
C4	0603 CAP	1uF	Samsung
L1	0603 IND	1nH	Samsung
U1	SOT89	BBA02	BEREX



Note:

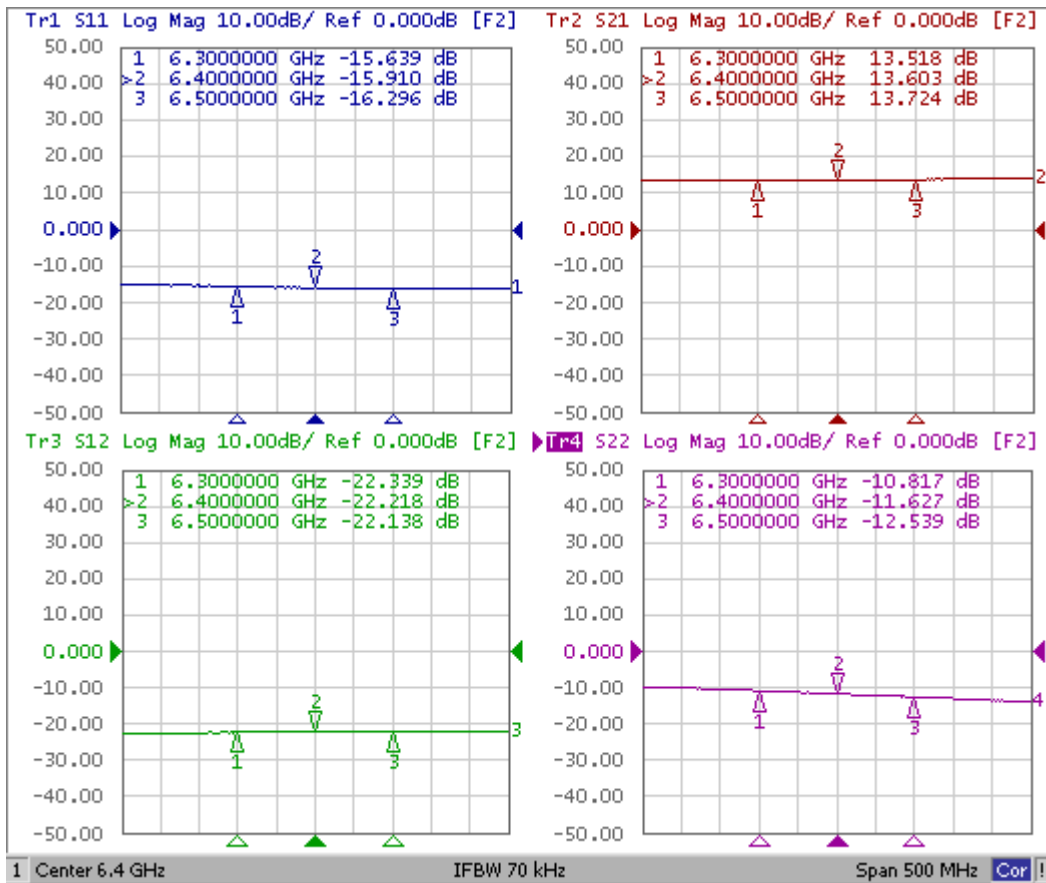
1. PCB: 16mil thick RO4003

TITLE	
BBA02 Evaluation Board	
(6.4GHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

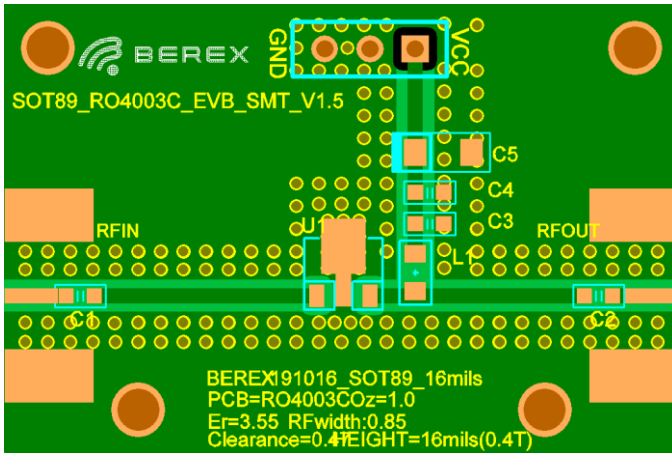
1.1 BBA02_6.4GHz Test Result

SN	Freq [GHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
-	6.3	5	91	13.5	23.5	14.8	-15.6	-10.8	5.15
-	6.4	5	91	13.6	23.3	15.0	-15.9	-11.6	5.28
-	6.5	5	91	13.7	23.6	15.1	-16.3	-12.5	5.43

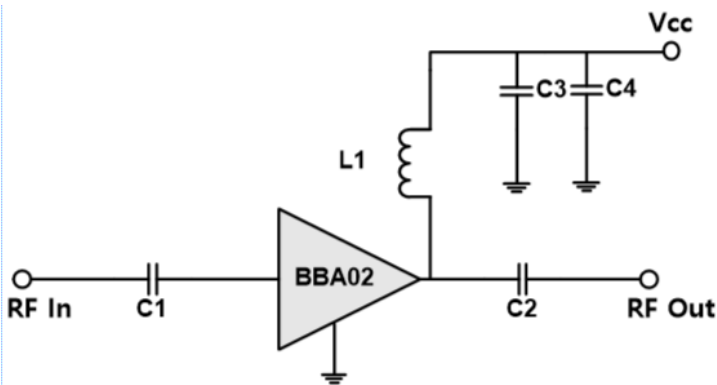
(1) OIP3 was tested @Pout = 5dBm/tone 1MHz offset



2. BBA02_ 7.2GHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	10pF	Samsung
C2	0603 CAP	10pF	Samsung
C3	0603 CAP	100pF	Samsung
C4	0603 CAP	1uF	Samsung
L1	0603 IND	1nH	Samsung
U1	SOT89	BBA02	BEREX



Note:

- 2. PCB: 16mil thick RO4003

TITLE	
BBA02 Evaluation Board	
(7.2GHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

2.1 BBA02_ 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	91	14.4	19.9	13.0	-14.4	-16.9	6.49
-	7.2	5	91	14.5	19.4	12.7	-13.8	-16.4	6.67
-	7.3	5	91	14.6	18.2	12.2	-13.0	-15.6	6.83

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

