

BRF MMIC Innovator

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[CLASSIFICATION] APPLICATION NOTE

[DATE] 2015. 01

[REVISION No.] REV.A

[MEASURING INSTRUMENTS]

- NA_AGILENT 8753ES

- SA_AGILENT E4404A

- SG_AGILENT 4438C

- SG_IFR 3416

High Power Amp BT301

Application Note



Contents

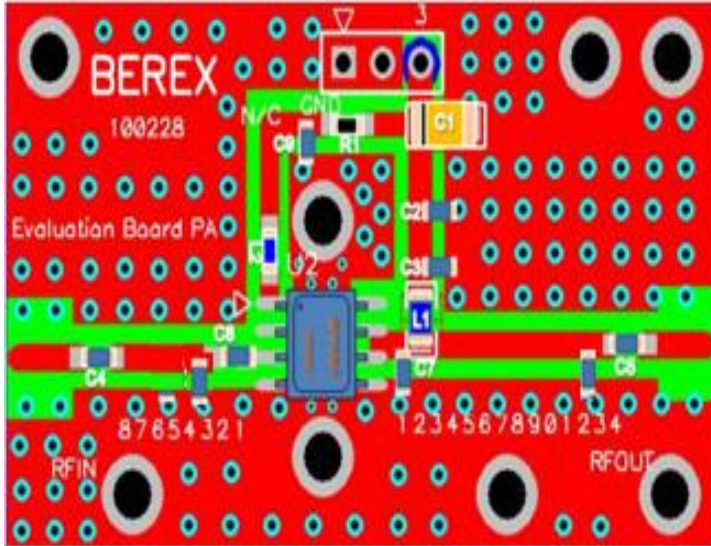
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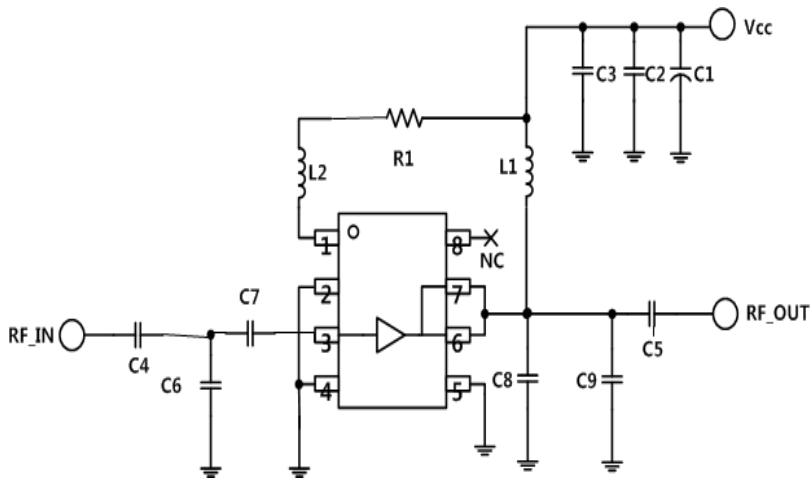
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1. BT301_ 3500MHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	A3216 CAP	10uF	AVX
C2	0603 CAP	1000pF	Samsung
C3	0603 CAP	100pF	Samsung
C4	0603 CAP	22pF	Samsung
C5	0603 CAP	22pF	Samsung
C6	0603 CAP	0.75pF	Samsung
C7	0603 CAP	0.3pF	Samsung
C8	0603 CAP	1pF	Samsung
C9	0603 CAP	0.75pF	Samsung
L1	1008 IND	18nH	Ceratech
L2	0603 IND	4.7nH	Ceratech
R1	0603RES	12ohm	Samsung
U1	SOIC8	BT301	BEREX



Note:

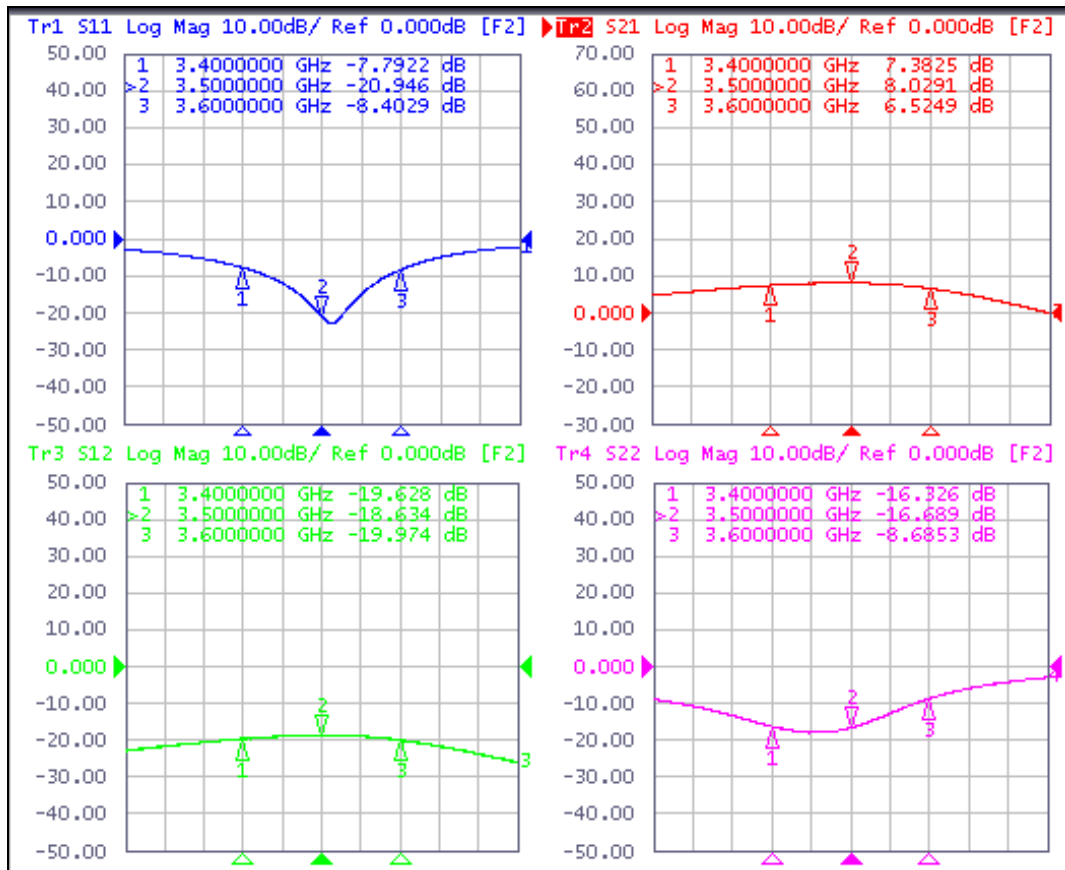
1. PCB: 31mil thick FR4

TITLE	
BT301 Evaluation Board	
(3500 MHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

1.1 BT301_3500MHz Test Result

SN	Freq [MHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
-	3400	5	328	7.3	45.3	28.1	-7.7	-16.3	7.8
-	3500	5	328	8.0	43.7	27.6	-20.9	-16.6	7.6
-	3600	5	328	6.5	38.3	25.5	-8.4	-8.6	8.2

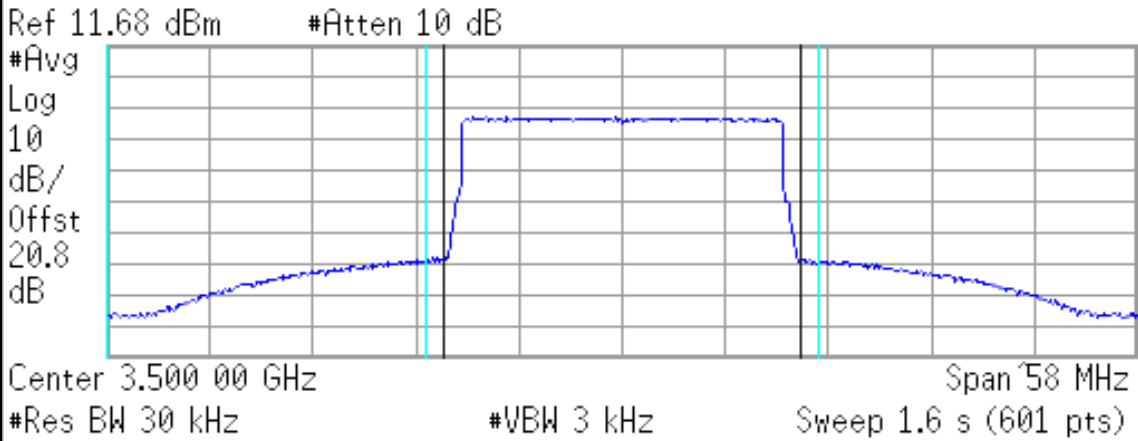
(1) OIP3_tested @Pout=16dBm/tone 1MHz offset



1-2. LTE_20MHz_ACLR Test Result

Out Power : 15.4 dBm

LTE_FDD_20MHz_TM 3p1_100 : 2600 -50dBc



RMS Results		Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm
Carrier Power	20.00 MHz	18.00 MHz	-50.01	-34.55	-50.36	-34.90	
	15.46 dBm /						
	20.0000 MHz						