

RF MMIC Innovator

www.berex.com

[Classification] Application Note

[Date] 2010.05

[Revision No.] Rev.A

[Measuring Instruments]

- NA_Agilent 8753ES

- SA_Agilent E4404B

- SG_Agilent 4438C

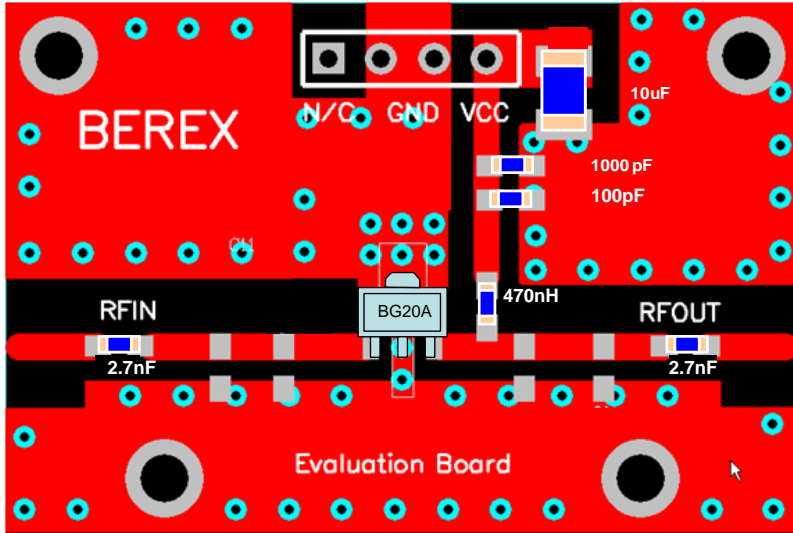
- SG_IFR 3416

Internally matched IF Amp BG20A

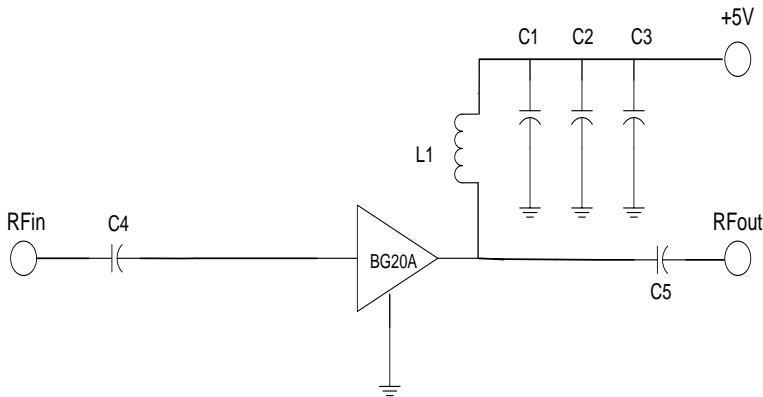
Application Note



1. BG20A_ 70~1000MHz Application Note



Ref. Des.	Description/ Part Number	Values	Vendor
C1	0603 CAP	100pF	Samsung
C2	604 CAP	1000pF	Samsung
C3	A3216 CAP	10uF	AVX
C4	0603 CAP	2.7nF	Samsung
C5	0603 CAP	2.7nF	Samsung
C6	0603 CAP	NA	
C7	0603 CAP	NA	
C8	0603 CAP	NA	
C9	0603 CAP	NA	
C10	0603 CAP	NA	
C11	0603 CAP	NA	
C12	0603 CAP	NA	
L1	0603 IND	470nH	Ceratech
L2	0603 IND	NZ	
L3	0603 IND	NA	
R1	0603 RES	NA	
U1	SOT89 PKG	BG20A	BEREX



Note:

1. PCB: 31mil thick FR4

TITLE	
BG20A Evaluation Board	
(70~1000MHz)	
Drawing Number	Rev.
Date	Drawn By
FILE NAME	SHEET

1.1 BG20A_70~1000MHz Test Result

SN	Freq [MHz]	Vcc [V]	Icc [mA]	Gain [dB]	OIP3 [dBm] ⁽¹⁾	P1dB [dBm]	IRL [dB]	ORL [dB]	NF [dB]
-	70	5	83	24	37.5	20.8	-25	-10	3.4
-	150	5	83	23.7	38	21	-28	-10	3.4
-	250	5	83	23.5	37	20.9	-28	-11	3.5
-	500	5	83	22.9	35.3	20.8	-26	-9.7	3.6
-	800	5	83	21.8	31	19.2	-21	-8.4	3.6

(1) OIP3 was tested @Pout=10dBm/tone 1MHz offset

