

## Product Features

- Integrated Monolithic GaAs Converter Package Module
- High Reliability
- Lower Manufacturing Cost
- Higher Productivity
- Very Low Noise Figure & Low Distortion
- Very Low Phase Noise (Ceramic Resonator used)
- Pb Free / RoHS Standard



Package Type: HY-5A

## Description

Cellular Converter is a very compact size due to using simple matching circuit board including PLL circuits. Customers can apply this part to Cellular systems.

## Application

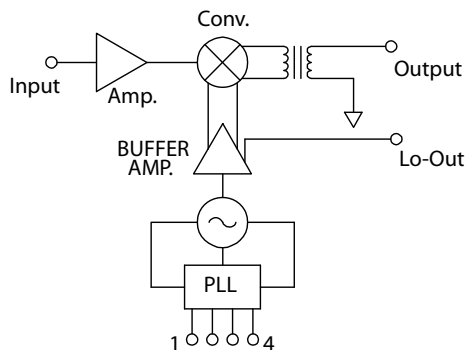
- Repeater
- Base Station

## Specifications

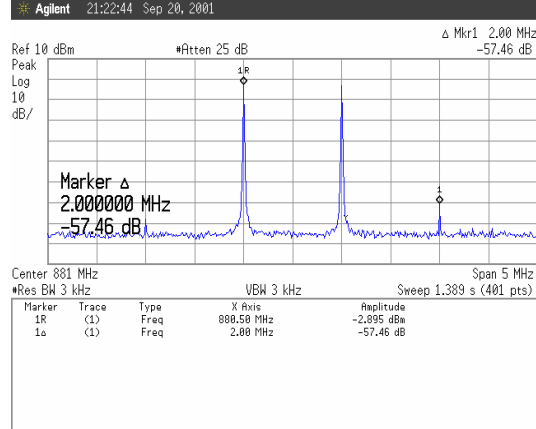
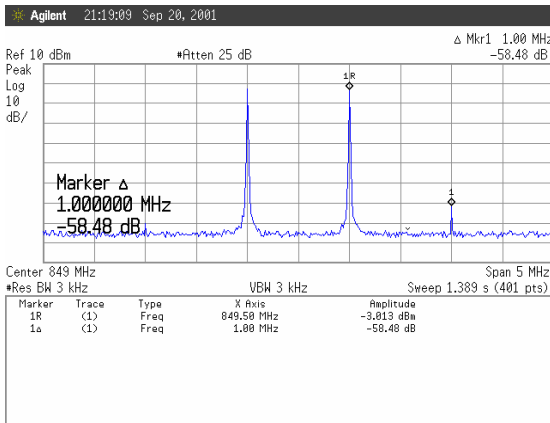
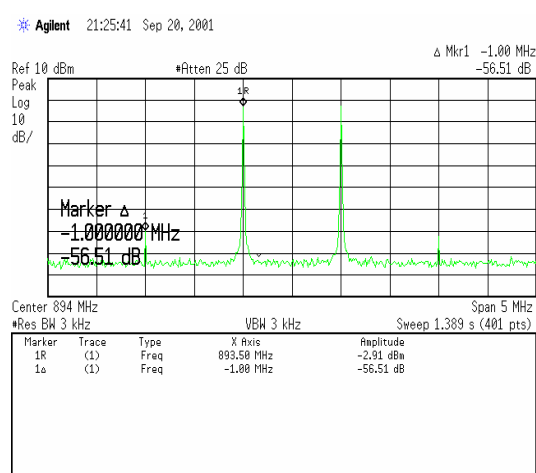
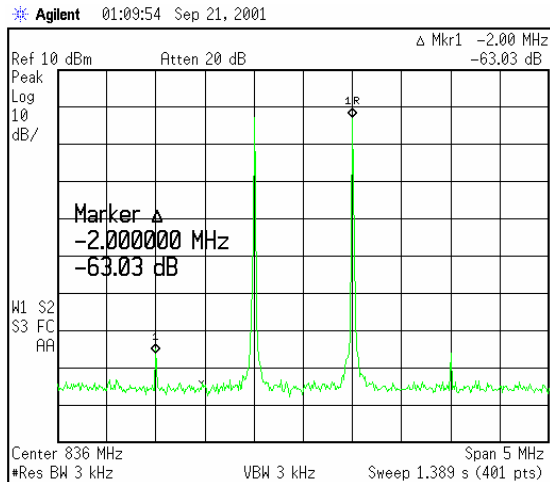
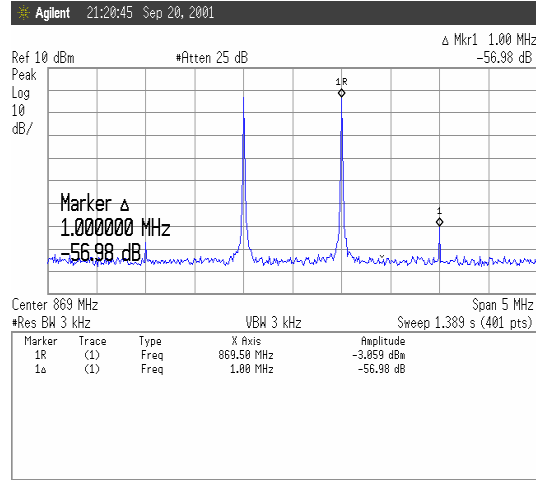
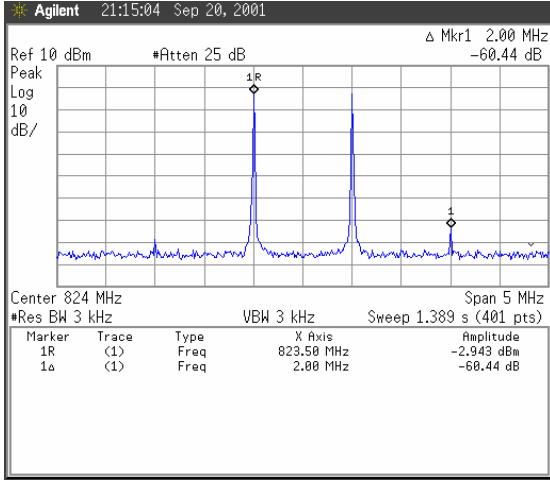
(Operating Temperature: -30°C ~ +80°C)

PARAMETER	RFUR08-50 (Rx-Up)	RFDR08-51 (Rx-Down)	RFDR08-55 (Tx-Down)	RFUR08-56 (Tx-Up)
Input Frequency Range (MHz)(BW:30MHz)	70 (IF)	824~849 (RF)	869~894 (RF)	70 (IF)
Output Frequency Range (MHz)	824~849 (RF)	70 (IF)	70 (IF)	869~894 (RF)
Conversion Gain (dB)	8±1	9±1	9±1	8±1
LO Frequency Range (MHz)	754~779	754~779	939~964	939~964
Gain Flatness@50MHz (dB) (Max.)	±1	±1	±1	±1
Noise Figure (Typ)(dB)	6	6	10	10
OIP3 (Typ)(dBm)	26	28	28	26
LO to RF Leakage (dBm)	-10	-20	-20	-10
LO to IF Leakage (dBm)	-20	-20	-20	-20
RF to IF / IF to RF Leakage (dBm)	-20	-20	-20	-20
LO Output Level (dBm)	4±1	4±1	4±1	4±1
LO Phase Noise (Typ) Step Size : 10KHz	-65dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-65dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-65dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-65dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz
PLL Control (LMX2326)	3 wire	3 wire	3 wire	3 wire
Vcc / Idd	5V / 170mA	5V / 170mA	5V / 170mA	5V / 170mA

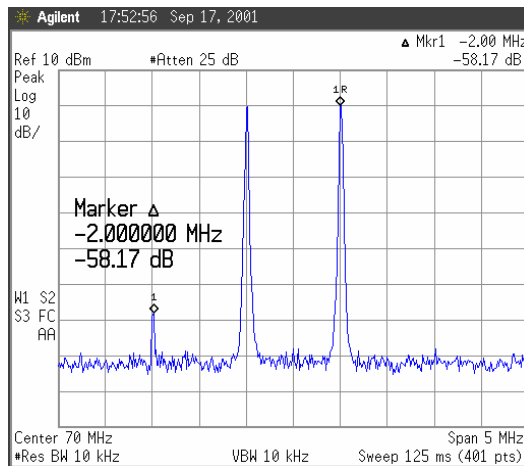
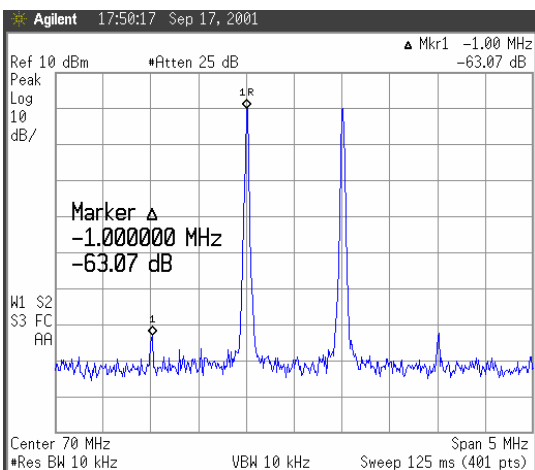
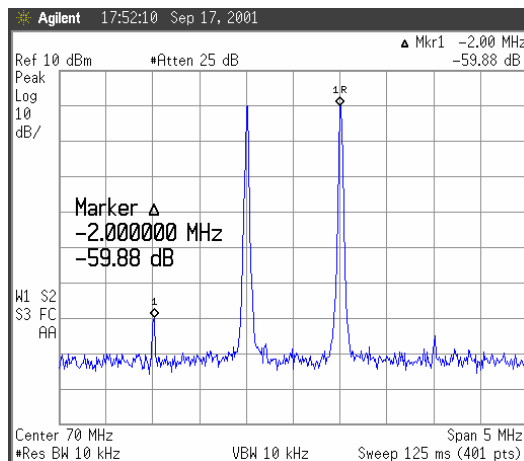
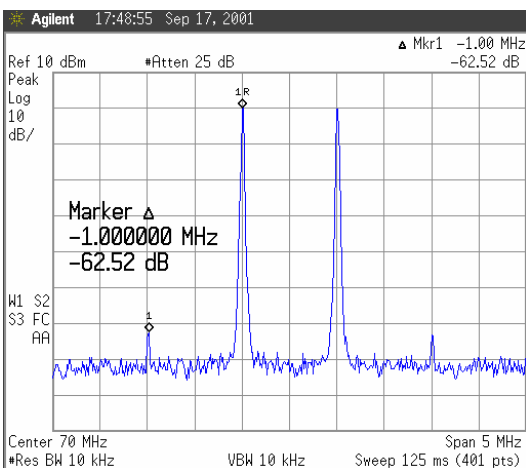
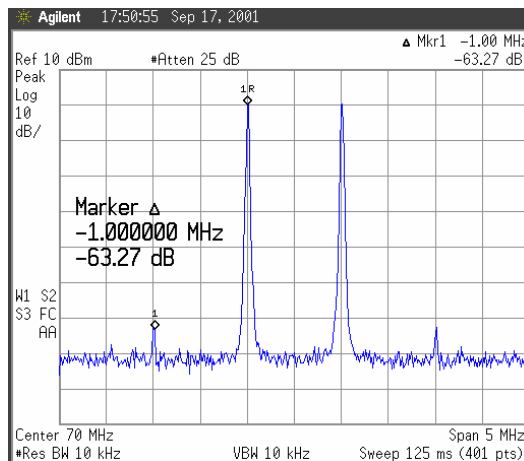
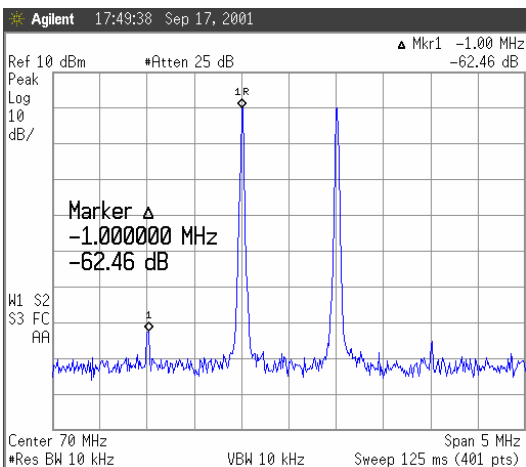
## Functional Diagram



**RFUR08-50, 56 OIP3 TEST (Up Converter)**

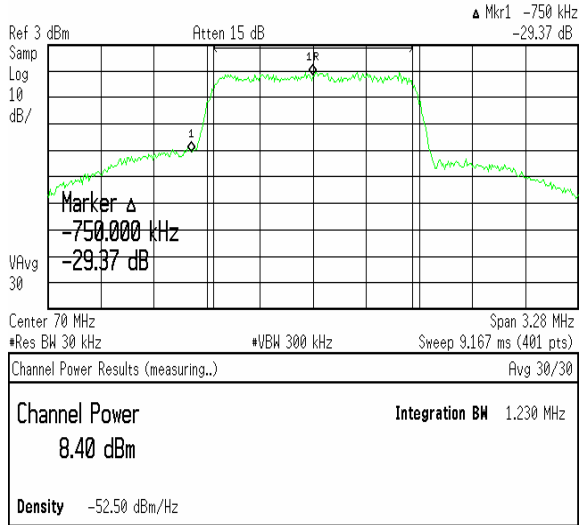


**RFDR08-51, 55 OIP3 TEST (Down Converter)**

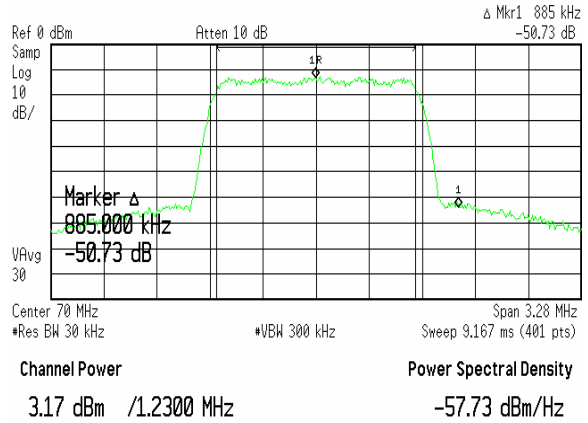


**RFDR08-51, 55 CDMA POWER TEST (Down Converter)**

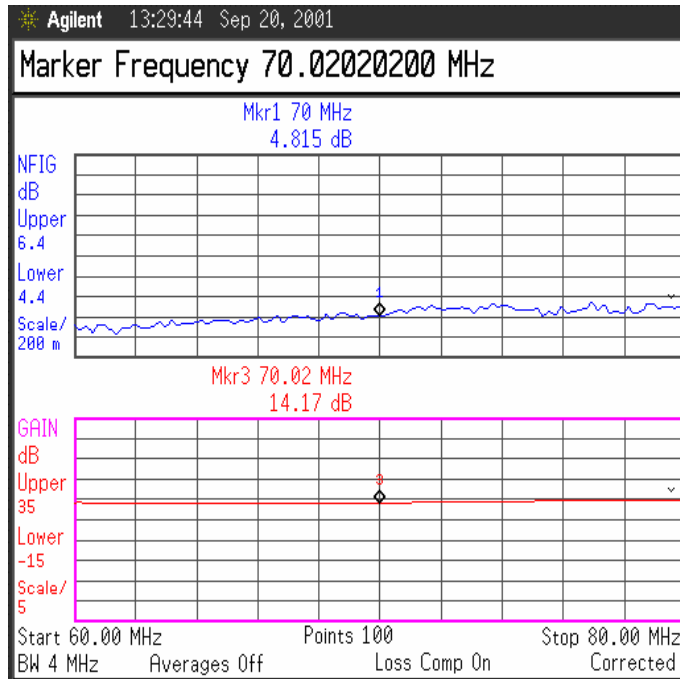
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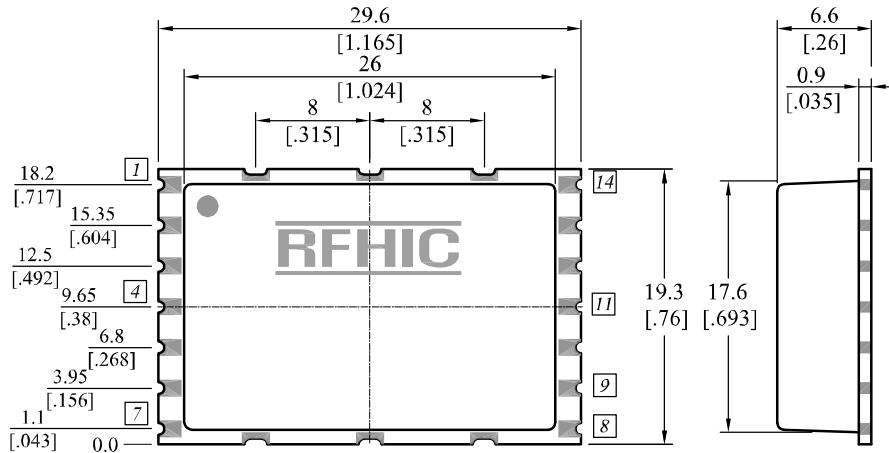
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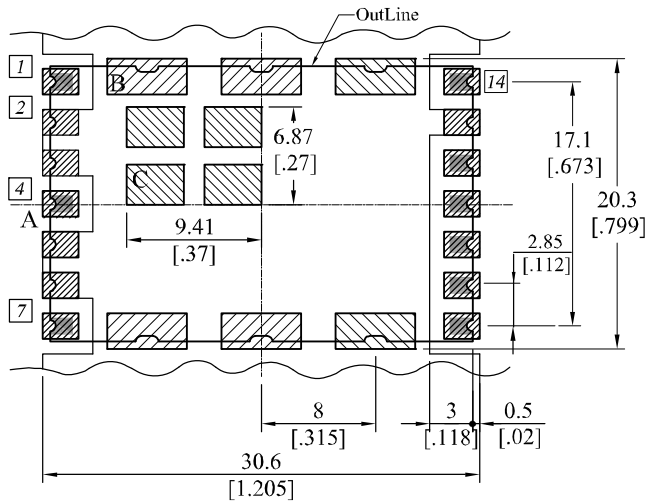
**RFDR08-51, 55 Noise Figure (Down Converter)**



**Pacakage Dimensions (Type: HY-5A)**



**Recommended Pattern**



Pin No.	Function	Pin No.	Function
1	Input	14	Output
2	Ground	13	Ground
3	Ground	12	Lo_Out
4	Vcc+5V	11	Fo/LD
5	Ground	10	LE
6	Ground	9	Data
7	Ref in	8	Clock

Pattern Size W x L		
	mm	inch
A	2.5 x 1.8	.098 x .071
B	5.6 x 2.5	.22 x .098
C	4 x 2.8	.157 x .11

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