

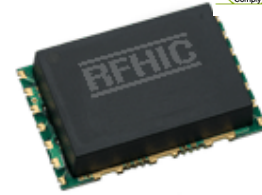


**Product Features**

- 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

**Application**

- Repeater
- Base Station
- Radar
- Radio



Package Type: HY-5A

**Description**

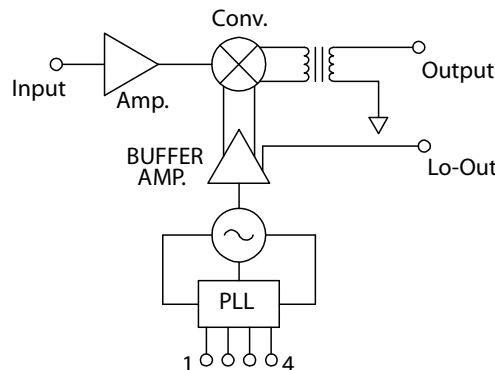
Converter is a very compact size due to using simple matching circuit board including PLL circuits. Customers can apply this part to systems.

**Specifications**

(Operating Temperature:-30°C~+80°C)

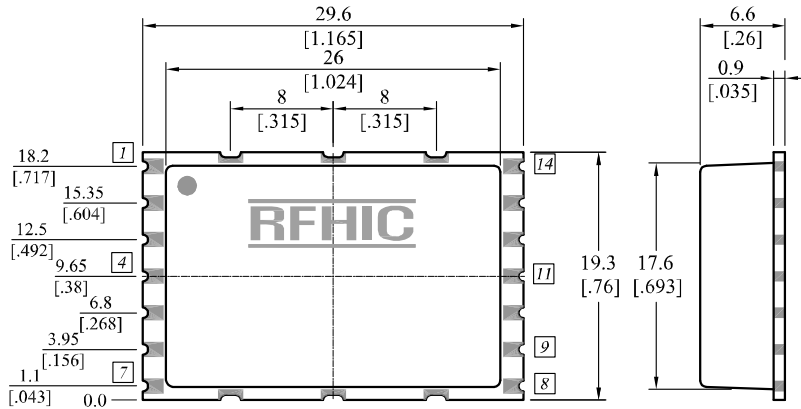
PARAMETER	RFUR16-52 (UP)	RFDR16-53 (Down)	RFDR14-58 (Down)	RFUR14-59 (UP)
Input Frequency Range (MHz)(BW:30MHz)	70 (IF)	1550~1650 (RF)	1480~1520 (RF)	70 (IF)
Output Frequency Range (MHz)	1550~1650 (RF)	70 (IF)	70 (IF)	1480~1520 (RF)
Local Frequency Range (MHz)	1480~1520(LO)	1480~1520(LO)	1410~1450(LO)	1410~1450(LO)
Conversion Gain (dB)	6.5±1	5.5±1	7±1	6±1
Gain Flatness @ 50MHz (dB) (Max.)	±1	±1	±1	±1
Noise Figure (Typ.)(dB)	7	8	10	10
OIP3 (dBm)	24	24	24	24
LO to RF Leakage (dBm)	-15	-18	-15	-10
LO to IF Leakage (dBm)	-15	-18	-20	-20
RF to IF / IF to RF Leakage (dBm)	-20	-20	-20	-20
LO Output Level	> 3	> 3	> 3	> 3
LO Phase Noise (Typ.) Step Size : 100KHz	-70dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-70dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-70dBc/Hz @1KHz -95dBc/Hz @10KHz -115dBc/Hz @100KHz	-70dBc/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**

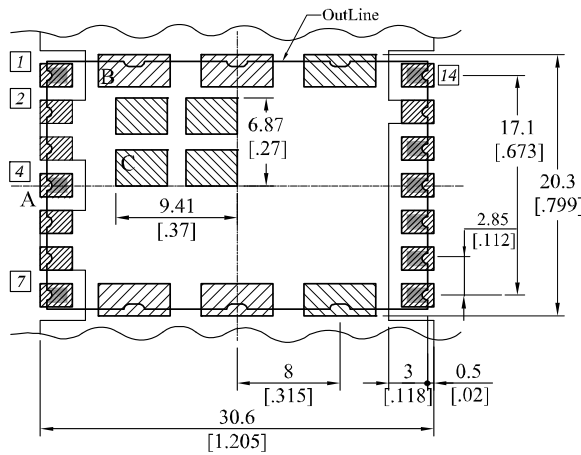


**Pacakage Dimensions (Type: HY-5A)**

Unit : $\frac{\text{mm}}{\text{[inch]}}$	Tolerance : $\pm \frac{0.2}{.008}$
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**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	
	WxL	w
	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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