

## Product Features

- Integrated Monolithic GaAs Mixer Package Module
- High Reliability
- Lower Manufacturing Cost
- Higher Productivity
- Very Low Noise Figure & Low Distortion

## Application

- Repeater
- Base Station
- RF Sub-Systems



Package Type: HY-3

## Description

The MD0993 operates from a positive +5V rail consuming 145 mA of current while only requiring a  $0 \pm 2$  dBm LO drive. The MCM is implemented with reliable and mature GaAs MESFET technology.

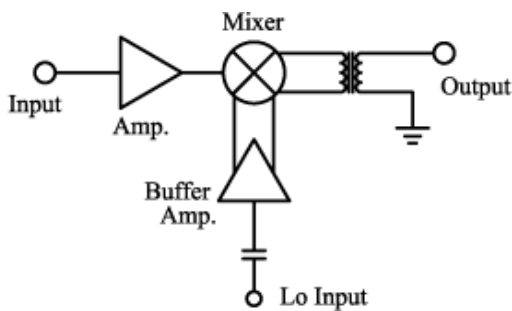
## Specifications

(Operating Temperature:  $-30^{\circ}\text{C} \sim +70^{\circ}\text{C}$ )

Part Number	RF Frequency (MHz)	LO Frequency (MHz)	IF Frequency (MHz)	Conversion Gain (dB)	OIP3 (dBm)	NF (dB)	Output P1dB (dB)	LO to IF Leakage (dBm)	RF to IF Leakage (dBm)	Vdd / Idd
<b>MD0993</b>	700 ~ 900	630 ~ 830	70~200	12	28	8.5	8	-15	-15	5V / 145mA

Test Conditions :  $T_a=25^{\circ}\text{C}$ ,  $V_{dd}=5\text{V}$ ,  $P_{i0}0\text{dBm}$ ,  $\text{IF}=70\text{MHz}$ ,

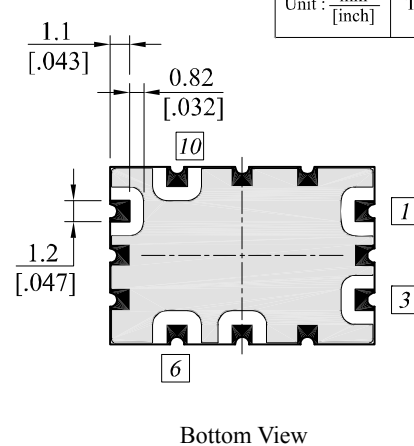
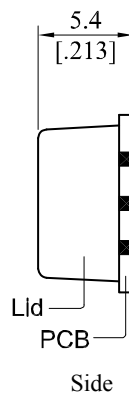
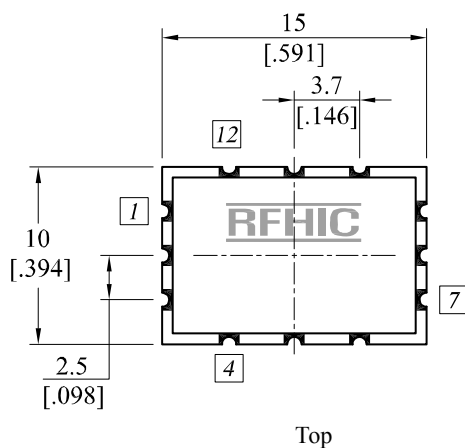
## Functional Diagram



## Functional Pin Layout

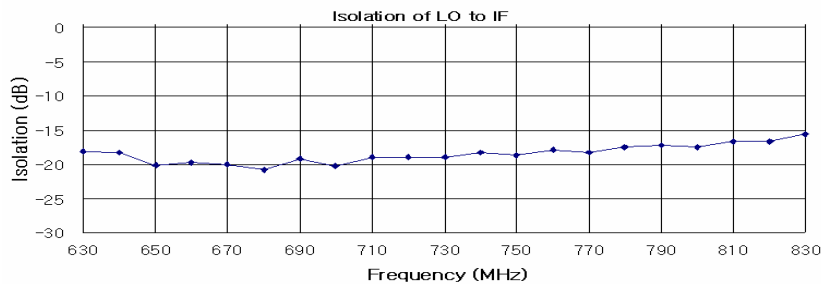
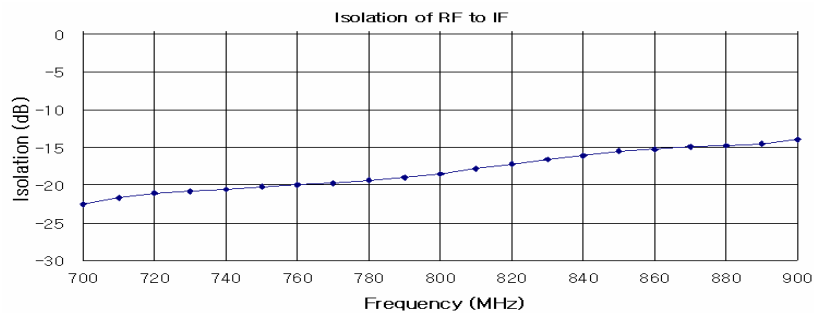
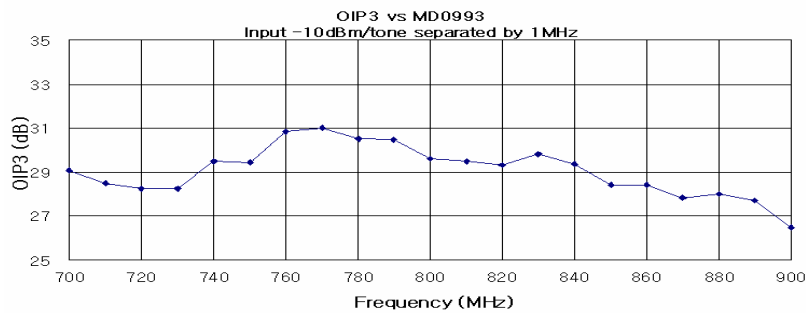
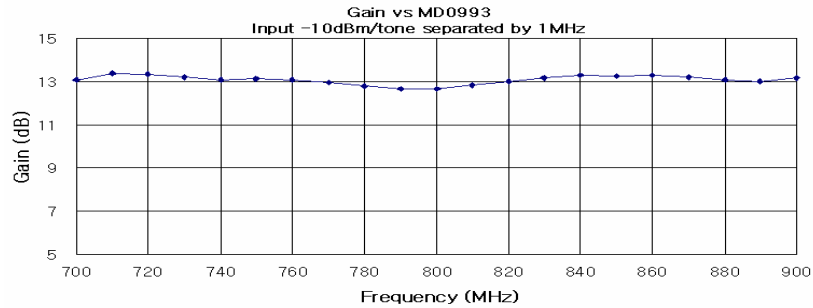
Pin No.	Function
6 or 10, AND 3	Vdd+5V
1	Input
9	Output
5	LO Input
2, 4, 6, 7, 8, 11, 12	Ground

## Package Dimensions (Type: HY-3)



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

Test Condition: RF = 700~900MHz@-10dBm, LO = 630~830MHz@2dBm, IF = 70MHz



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