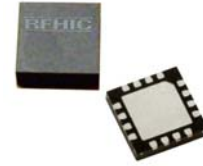


Product Features

- Integrated Monolithic GaAs MESFET
- Active Mixer Packages Module
- Pb-free 3mm 16-pin QFN package
- Lower Manufacturing Cost
- Higher Productivity and Reliability
- Very Low Noise Figure & Low Distortion

Applications

- Repeater
- Base Station



Package Type: QFN-3

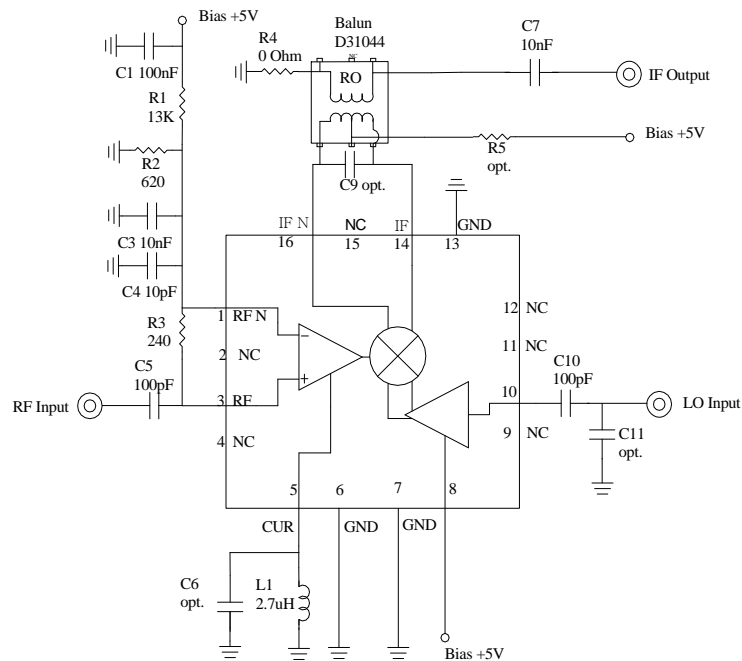
Description

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

Electrical Specifications (Typical Performance at -30°C ~ 80°C)

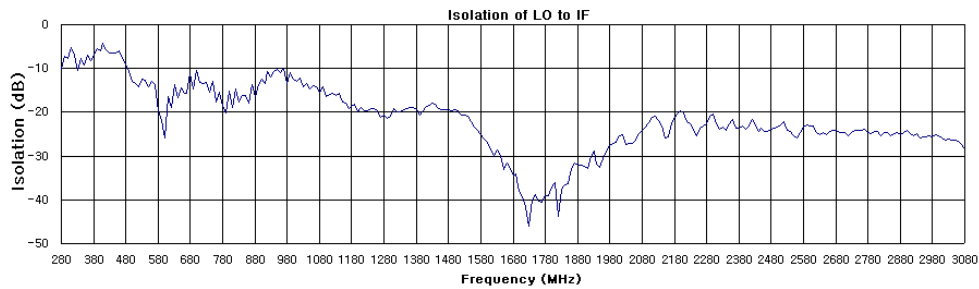
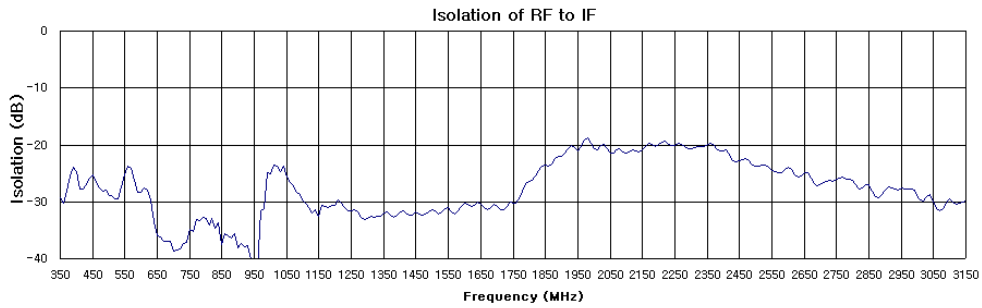
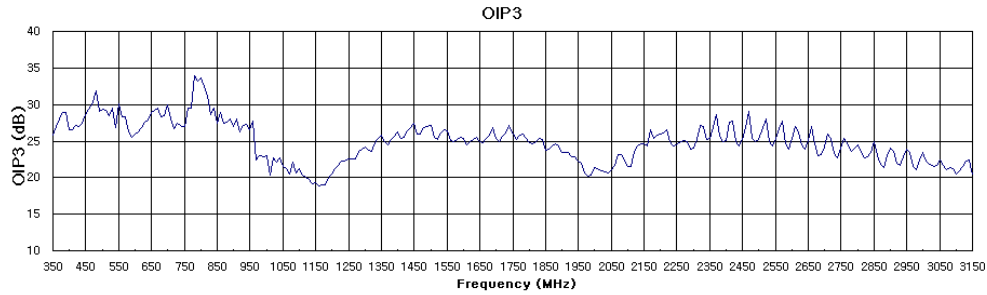
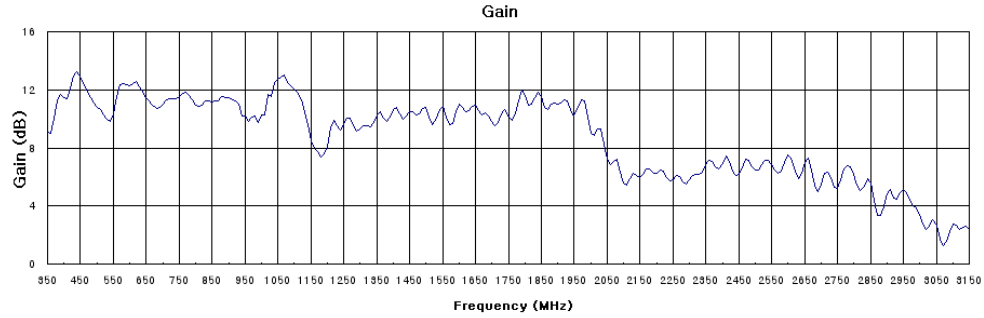
RF Frequency	LO Frequency	IF Frequency	Conversion Gain	OIP3	LO to IF Leakage	IF to RF Leakage	Vdd / Idd
(MHz)	(MHz)	(MHz)	(dB)	(dBm)	(dBm)	(dBm)	(V / mA)
836	766	70	11	28	-15	-20	5 / 145
1850	1780		10	25	-20	-20	5 / 145
2140	2070		6	25	-20	-20	5 / 145
3500	3430		0	20	-20	-25	5 / 145

Application Circuit : Matched externally for broadband



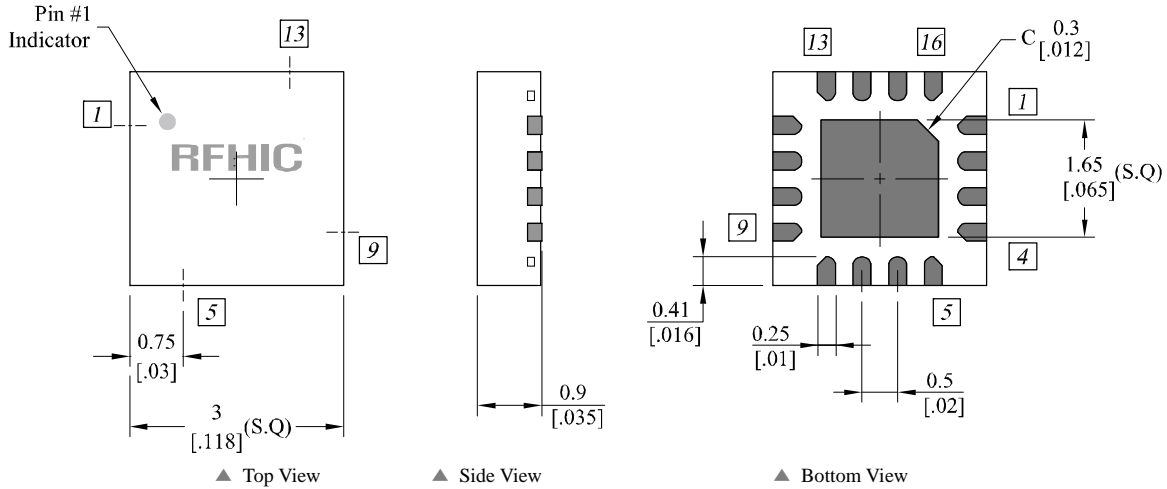
Typical Performance @25°C

Test Condition : Input 350~3150MHz@-10dBm/tone separated by 1MHz, Output 70MHz



Package Dimensions (Type: QFN3x3)

* Unit: mm[inch] | Tolerance: ± 0.2 [.008]



Pin Description							
Pin No	Function	Pin No	Function	Pin No	Function	Pin No	Function
1	RFN In	5	CUR	9	NC	13	Ground
2	NC	6	Ground	10	Lo_In	14	IF Out
3	RF In	7	Ground	11	NC	15	NC
4	NC	8	Bias	12	NC	16	IFN Out

*** Mounting Configuration Notes**

1. Ground / thermal via holes are critical for the proper performance of this device.
2. Add as much copper as possible to inner and outer layers near the part to ensure optimal thermal performance.
3. Mounting screws can be added near the part to fasten the board to a heatsink. Ensure that the ground / thermal via hole region contacts the heatsink.
4. Do not put solder mask on the backside of the PCB in the region where the board contacts the heatsink.
5. RF trace width depends upon the PCB material and construction.
6. Use 1 oz. Copper minimum.

Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
MO9Q	2013.1.8	8.2	Change by a new dimension form	-
MO9Q	2012.2.18	8.1	-	-

RFHIC Corporation reserves the right to make changes to any products herein or to discontinue any product at any time without notice. While product specifications have been thoroughly examined for reliability, RFHIC Corporation strongly recommends buyers to verify that the information they are using is accurate before ordering. RFHIC Corporation does not assume any liability for the suitability of its products for any particular purpose, and disclaims any and all liability, including without limitation consequential or incidental damages. RFHIC products are not intended for use in life support equipment or application where malfunction of the product can be expected to result in personal injury or death. Buyer uses or sells such products for any such unintended or unauthorized application, buyer shall indemnify, protect and hold RFHIC Corporation and its directors, officers, stockholders, employees, representatives and distributors harmless against any and all claims arising out of such unauthorized use.

Sales, inquiries and support should be directed to the local authorized geographic distributor for RFHIC Corporation. For customers in the US, please contact the US Sales Team at 919-677-8780. For all other inquiries, please contact the International Sales Team at 82-31-250-5078.