

Ultra Low Loss Isolator
860 MHz — 960 MHz

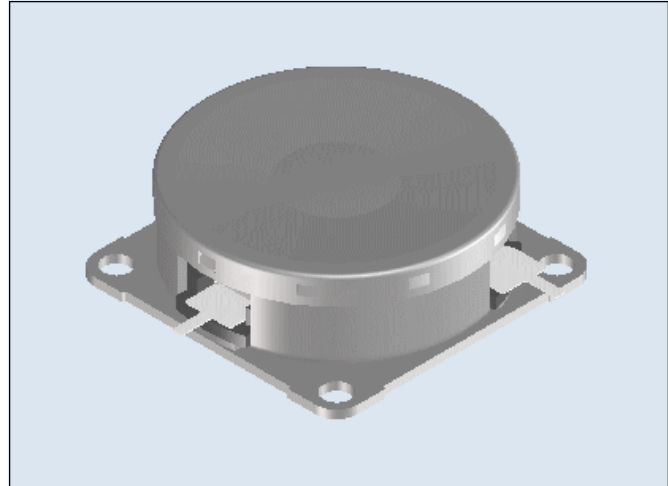
MAFRIN0448
Version 02

Features

- <0.1 dB Insertion Loss
- Designed for wireless base station market
- 25 dB Isolation typical
- Low cost 31.75mm Drop-In package
- RoHs Compliant

Description

This circulator is designed specifically for wireless base station applications and features high reliability performance at a low cost. It is in a low cost package ideally suited for high volume manufacturing. M/A-Com is one of the largest suppliers of isolators and circulators in the world.



Electrical Specifications: $T_A = +25^\circ\text{C}$, $Z_0 = 50 \text{ Ohms}$

Parameter	Test Conditions	Units	Minimum	Typical	Maximum
Frequency Range	Over T_{op}^1	MHz	860		960
Insertion Loss	Over T_{op}^1	dB		0.08	0.1
Isolation	Over T_{op}^1	dB	23.0	25.0	
Return Loss	Over T_{op}^1	dB	22.0	25.0	
Intermodulation Product	IM3, 2 tones, 30 Watts each over T_{op}^1 (see table) IM5, 2 tones, 30 Watts each over T_{op}^1	dBc			
Harmonics	1 tone @ 30 Watts of T_{op}^1	dBc			
Insertion Delay	@ 883MHz, Test Fixture	Degree			
Delay	Test Fixture Removed	nSec			
Circulation	Over T_{op}^1			CW	

1. See "Absolute Maximum Ratings" for T_{op} .

Absolute Maximum Ratings:

Parameter	Absolute Maximum
Forward Power	200 Watts
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +100°C

1. Operation of this device above any one of these parameters may cause permanent damage.

Ordering Information

Part Number	Packaging
MAFRIN0448	Flat Pack

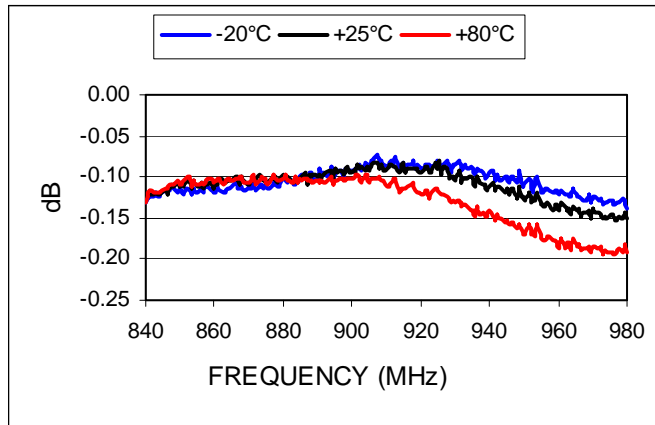
1

M/A-COM Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice. M/A-COM makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does M/A-COM assume any liability whatsoever arising out of the use or application of any product(s) or information.

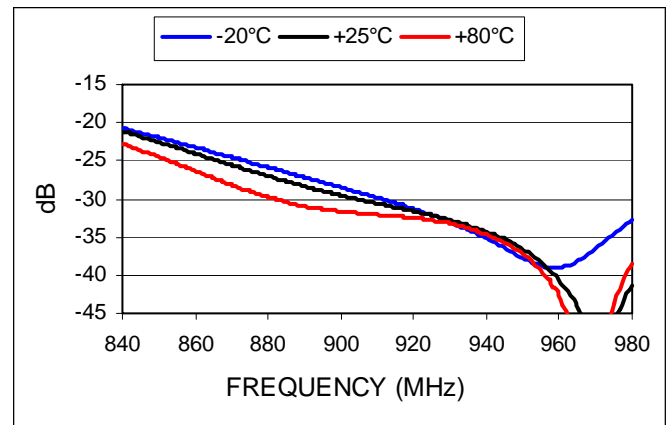
- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macom.com for additional data sheets and product information.

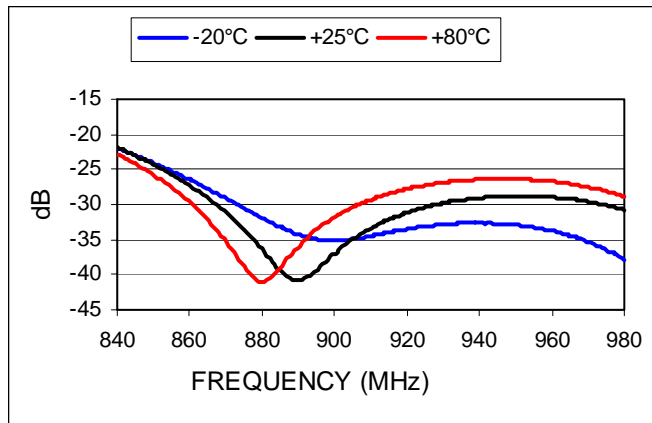
Insertion Loss (S21)



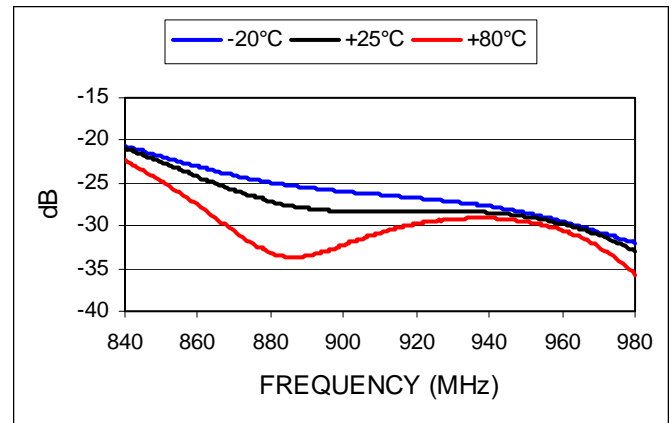
Isolation (S12)



Return Loss (S11)



Return Loss (S22)



Ultra Low Loss Isolator
860 MHz — 960 MHz

MAFRIN0448
Version 02

Environmental Specifications

Devices are designed to function after exposure to the shock, vibration, thermal shock and moisture conditions typically encountered in base station and other infrastructure environments.

S-Parameters

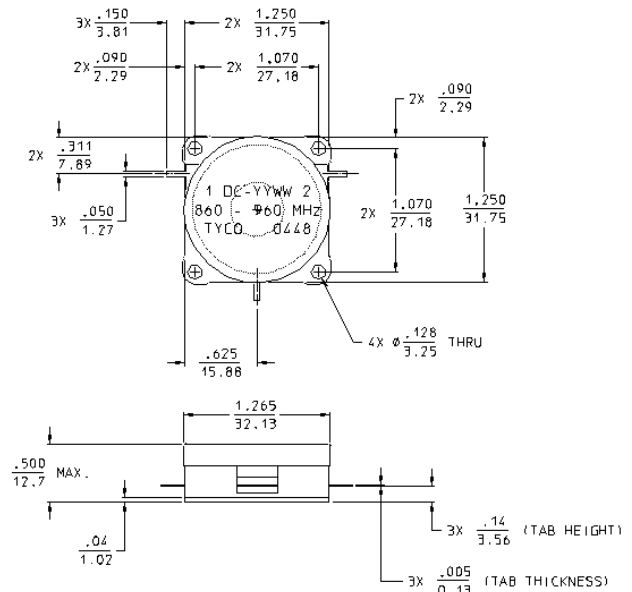
S-parameters are available on the M/A Com web-site at:

www.macom.com/tech_app_resources/techapp_design_info

Port Description:

Port Number	Description
1	RF In
2	RF Out
3	Terminated

Outline Drawing



1. Dimensions in mm.
2. Tolerances: ± 0.3 mm unless otherwise noted.
3. Housing: Cold Rolled Steel with SnPb 90/10 plating.
4. Cover: CRS with SnPb 90/10 plating.
5. Leads: Copper.