



# Miniature Surface Mount Circulators

MAFRIN0149, MAFRIN0150, MAFRIN0151

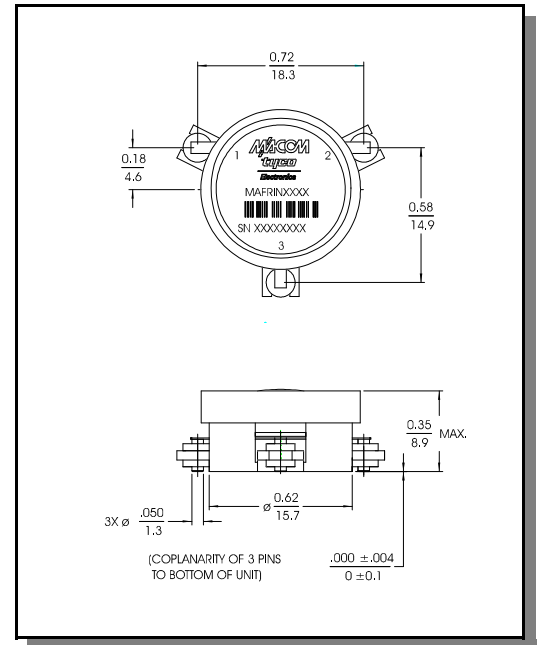
## Features

- Designed for Wireless Telecommunication Systems: GSM1800, PCS1900, UMTS2100 (3G)
- High performance at low cost in a miniaturized package.
- Small size, 0.6" Vs. industry standard of 1"
- Low Mass, less than 9.0 grams vs. industry standard of greater than 18.0 grams.
- The small size utilizes less real estate on RF board while providing equal or better RF performance than the industry 1 inch standard.
- Incorporates a patented Robust Lead approach which withstands the most severe shipping, handling and processing procedures without degradation in RF or mechanical performance.
- One piece housing and patented robust lead design guarantees co-planarity between the contacts and the ground plane of 0.1 mm.
- The small size and low mass make the device suitable for automatic pick and place systems and for solder reflow profiles. This hands-free soldering further lowers the cost of ownership
- Tape-and-reel packaging being investigated
- Environmentally safe materials used, no lead option available.

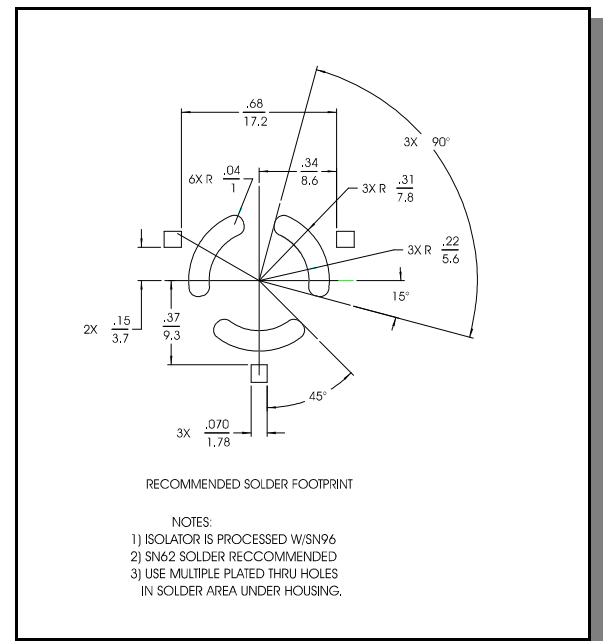
## Description

M/A-COM's surface mount and drop-in circulators and isolators, designed for wireless Base Station and Power Amplifier applications, feature high reliability performance at a low cost. These proven robust designs are qualification tested. Tests include temperature cycling, high temperature exposure, vibration, shock, and corrosion / moisture testing. These designs feature a low cost package ideally suited for high volume manufacturing. M/A-COM is the world's largest supplier of surface mount and drop-in isolators and circulators for the wireless infrastructure market.

## Outline Drawing



## Mounting Dimensions



## Specifications

| Parameter             |                              |
|-----------------------|------------------------------|
| Isolation             | 20 dB Min.<br>25 dB Typical  |
| Insertion Loss        | 0.35 Max.<br>0.25 dB Typical |
| Forward Power         | 50 Watts                     |
| Reflected Power       | 50 Watts                     |
| VSWR                  | 1.22:1 Max.                  |
| Operating Temperature | -10 °C to +70 °C             |

| Model Number | Frequency Range |
|--------------|-----------------|
| MAFRIN0149   | 1805 -1880 MHz  |
| MAFRIN0150   | 1930 - 1990 MHz |
| MAFRIN0151   | 2110 –2170 MHz  |

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