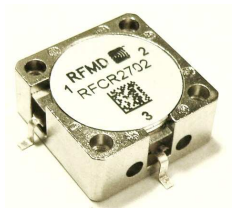


Package: Drop-in, 0.75in x 0.75in

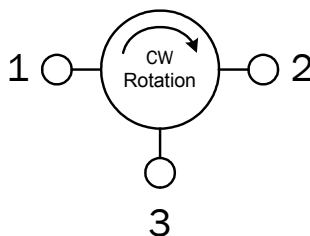


## Features

- Typical Insertion Loss Less than 0.2dB
- -75dBc IMD Typical
- Isolation Greater than 25dB
- 100W Forward and Reverse Rating
- Industry Standard 0.75x0.75 Inch Drop-in Package

## Applications

- Wireless Infrastructure Systems: LTE



Functional Block Diagram

## Product Description

The RFCR2702 is a small profile, low cost drop-in circulator designed for various wireless applications. The circulator features a robust construction for high reliability, low insertion loss, excellent IMD (Inter-Modulation Distortion) performance, and magnetically shield. The circulator is RoHS compliant.

The RFCR2702 circulator is CW (Clockwise) rotation.

## Ordering Information

RFCR2702      2010MHz to 2025MHz Single Junction Drop-In Circulator  
RFCR2702PCBA-41X      Fully Assembled Evaluation Board

### Optimum Technology Matching® Applied

- |                                      |                                      |                                     |                                    |
|--------------------------------------|--------------------------------------|-------------------------------------|------------------------------------|
| <input type="checkbox"/> GaAs HBT    | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT  |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS    | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT   | <input type="checkbox"/> SiGe HBT    | <input type="checkbox"/> Si BJT     | <input type="checkbox"/> LDMOS     |

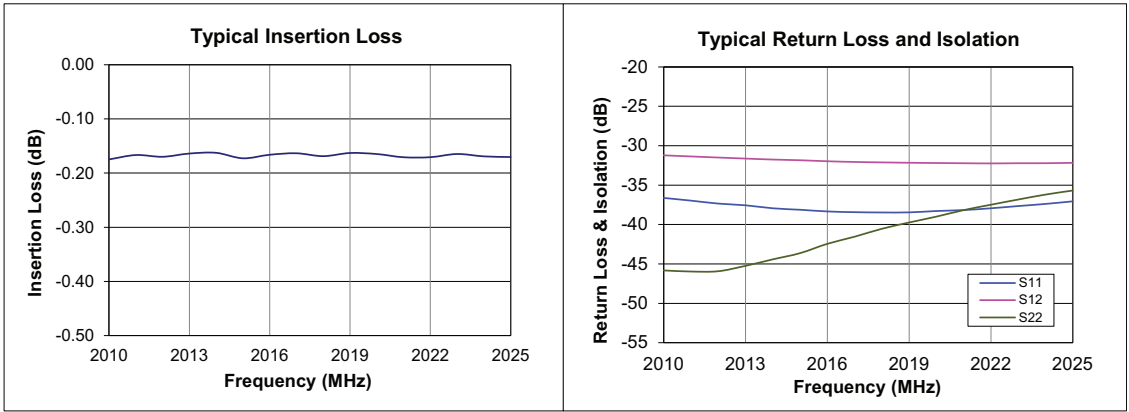
RF MICRO DEVICES®, RFMD®, Optimum Technology Matching®, Enabling Wireless Connectivity™, PowerStar®, POLARIS™ TOTAL RADIO™ and UltimateBlue™ are trademarks of RFMD, LLC. BLUETOOTH is a trademark owned by Bluetooth SIG, Inc., U.S.A. and licensed for use by RFMD. All other trade names, trademarks and registered trademarks are the property of their respective owners. ©2012, RF Micro Devices, Inc.

## Absolute Maximum Ratings

| Parameter             | Rating     | Unit |
|-----------------------|------------|------|
| Forward Power         | 150        | W    |
| Reverse Power         | 100        | W    |
| Operating Temperature | -40 to +85 | °C   |
| Storage Temperature   | -40 to +90 | °C   |

| Parameter       | Specification |       |      | Unit | Condition                                    |
|-----------------|---------------|-------|------|------|--|
|                 | Min.          | Typ.  | Max. |      |  |
| Overall         |               |       |      |      |  |
| Frequency Range | 2010          |       | 2025 | MHz  |  |
| Insertion Loss  |               | <0.20 | 0.30 | dB   |  |
| Isolation       | 20            | >25   |      | dB   |  |
| Return Loss     | 20            | >25   |      | dB   |  |
| Forward IMD     |               | -75   | -70  | dBc  | 2T at 37.5 Watts per T<br>5MHz spacing (dBm) |

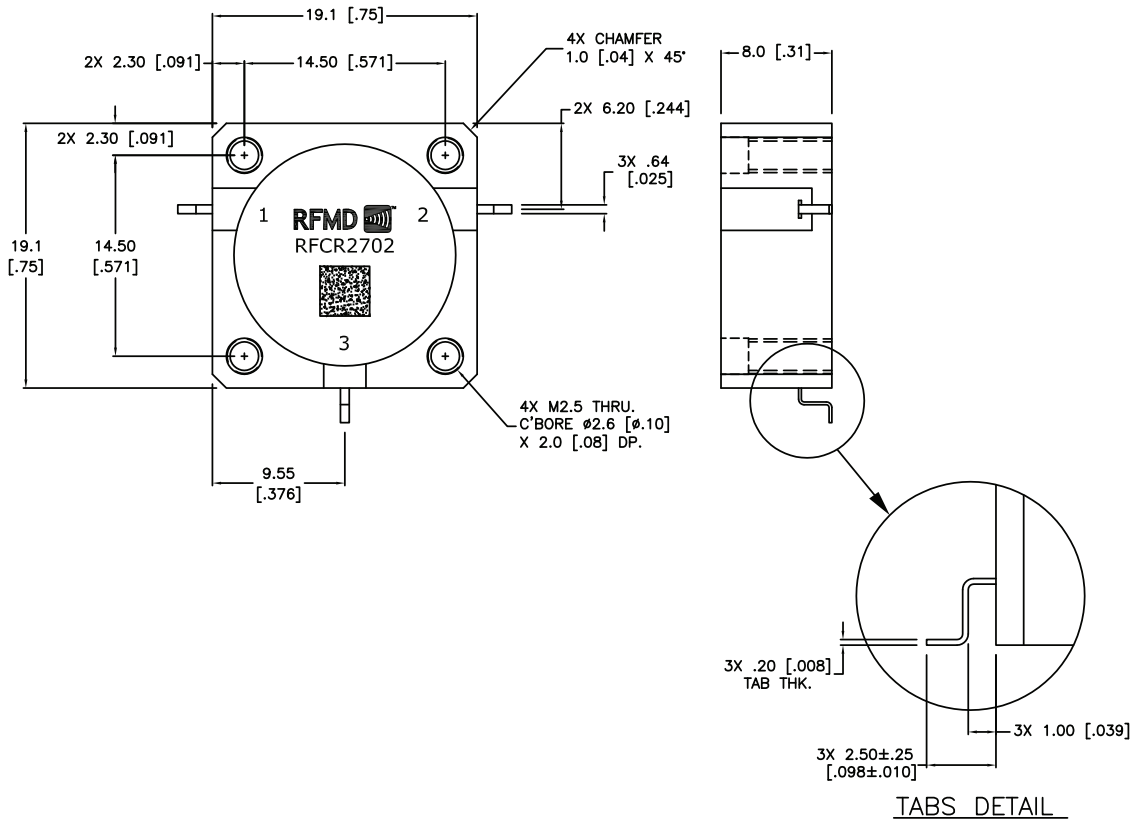
Note: Typical values represent Mid-band performance at 25 °C



| Pin | Name       | Description |
|-----|------------|-------------|
| 1   | INPUT      |             |
| 2   | OUTPUT     |             |
| 3   | TERMINATED |             |

## Package Drawing

Dimensions in millimeters (inches)



Unless otherwise specified dimensions are in mm/[inches].

Tolerances are:

| Fractions | Decimals        | Angles |
|-----------|-----------------|--------|
| ±         | .x± .3 [.01]    | ±0.5°  |
|           | .xx± .13 [.005] |        |