

Package: Drop-in, 1in x 1 in

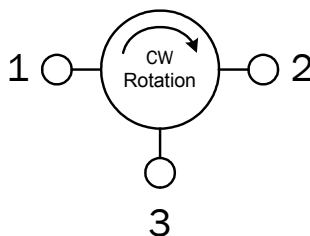


## Features

- Typical Insertion Loss Less than 0.2dB
- -70dBc IMD Typical
- Isolation Greater than 23dB
- 200 W Forward and Reverse Power Rating
- Industry Standard 1.0 x 1.0 Inch Drop-in Package

## Applications

- Wireless Infrastructure Systems: DCS 1800, CDMA.



Functional Block Diagram

## Product Description

The RFCR2502 is a small profile, low cost drop-in circulator 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 RFCR2502 circulator is CW (Clockwise) rotation.

## Ordering Information

RFCR2502 1805MHz to 1880MHz Single Junction Drop-In Circulator  
RFCR2502PCBA-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     |

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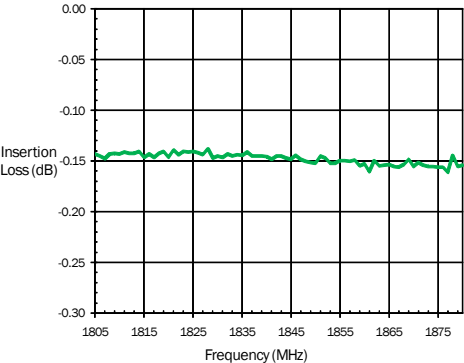
### Absolute Maximum Ratings

Parameter	Rating	Unit
Forward Power (Peak/Average)	1000/200	W
Reverse Power	200	W
Operating Temperature	-40 to +85	°C
Storage Temperature	-40 to +95	°C

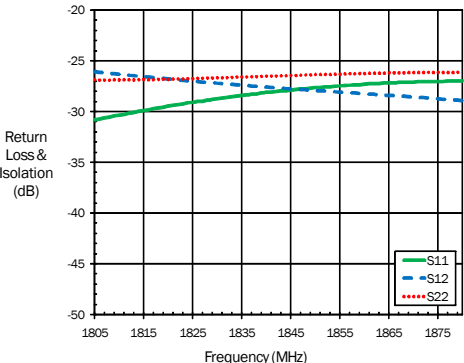
Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					
Frequency Range	1805		1880	MHz	
Insertion Loss		<0.20	0.30	dB	
Isolation	20	>23		dB	
Return Loss	20	>23		dB	
IMD		-70		dBc	2Tx37.0Watts

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

Typical Insertion Loss



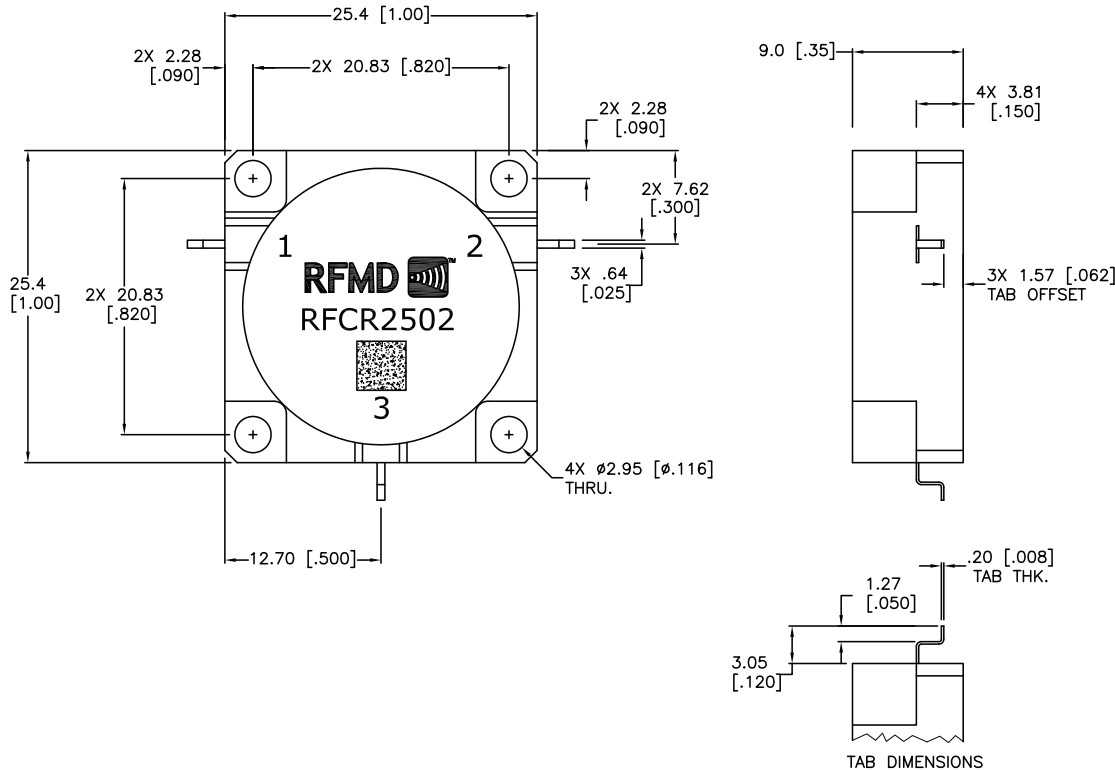
Typical Return Loss and Isolation



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]	