

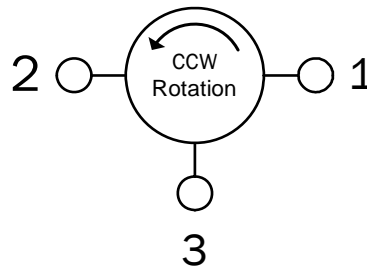


Features

- Typical Insertion Loss Less than 0.2dB
- 75dBc IMD Typical
- Isolation Greater than 23dB
- 200W Forward and Reverse Rating
- Industry Standard 1.0x1.0 Inch Drop-in Package

Applications

- Wireless Infrastructure Systems: 3G, 4G, LTE.



Functional Block Diagram

Product Description

The RFCR2709 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 RFCR2709 circulator is CW (Counter Clockwise) rotation.

Ordering Information

RFCR2709 2090MHz to 2190MHz Single Junction Drop-In Circulator
RFCR2709PCBA-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 |

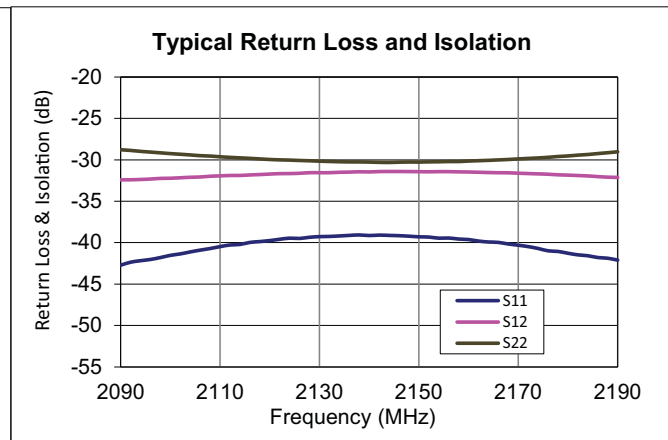
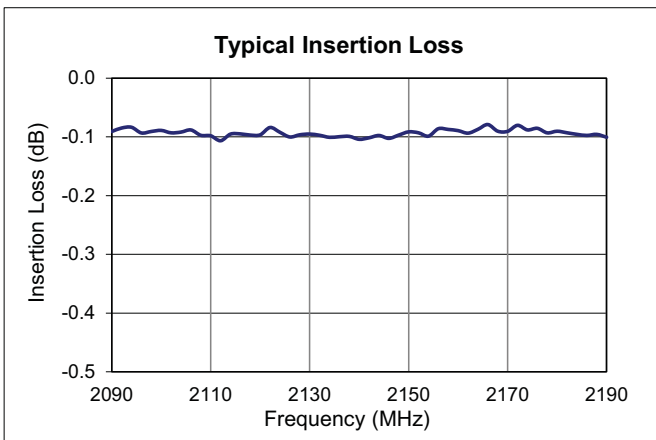
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Absolute Maximum Ratings

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	2090		2190	MHz	
Insertion Loss		<0.20	0.30	dB	
Isolation	20	>23		dB	
Return Loss	20	>23		dB	
Forward IMD		-75		dBm	2Ts at 37W per T, 5MHz Spacing

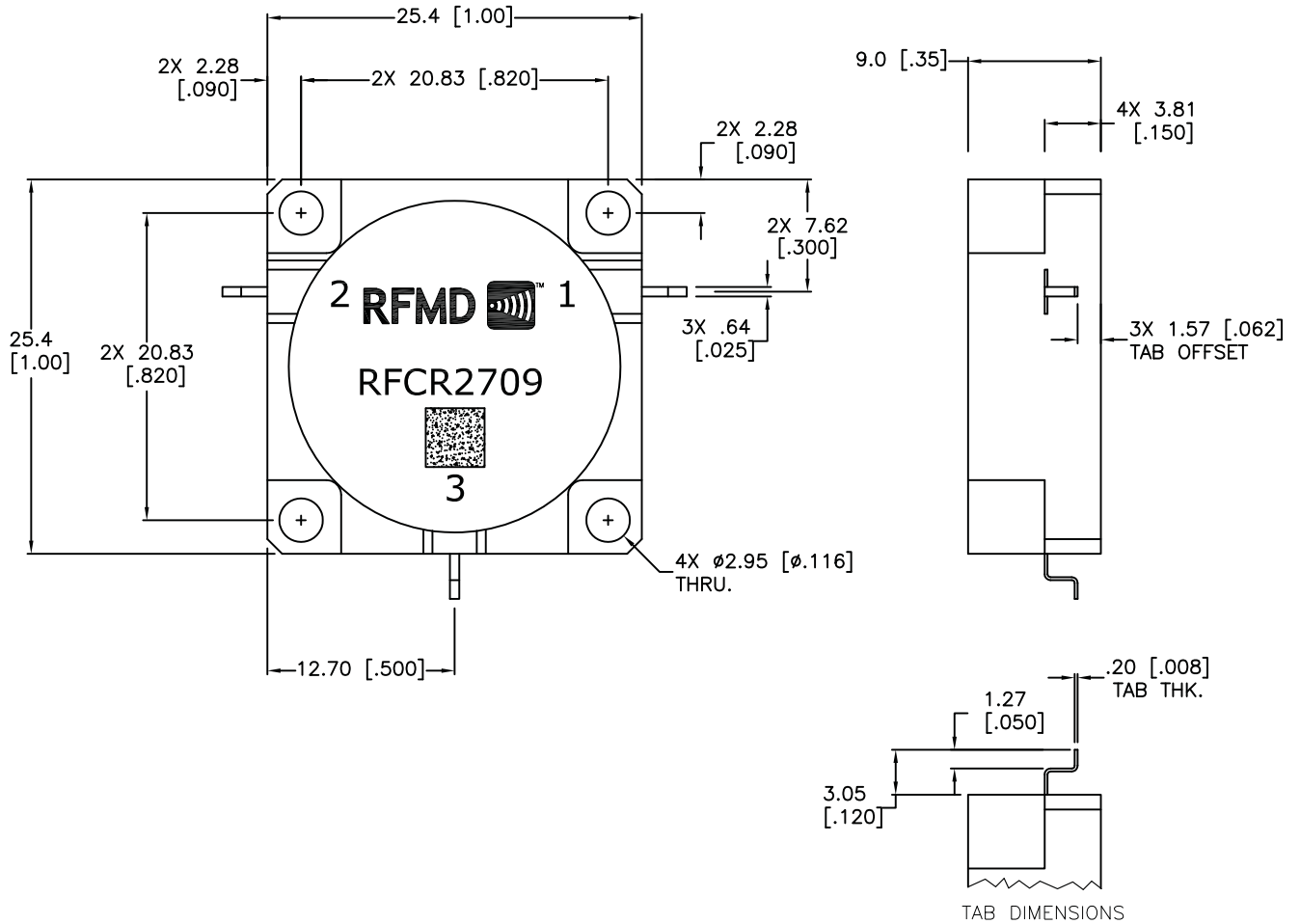
Note: Typical values represent Mid-band performance at 23 °C



Pin	Name	Description
1	OUTPUT	
2	INPUT	
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]	