

V1.0.0

GaAs MMIC 3-Way 18-40GHz Power Splitter/Combiner

Features

Frequency: 18-40GHz
Insertion Loss: 0.7dB Typical
Isolation: 20dB Typical

• Input/Output: 50Ω

• Chip Size: 1.575 x 0.965 x 0.1mm

Typical Applications

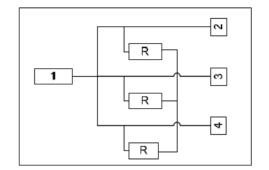
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

 $TA = +25^{\circ}C$, Pin=0dBm

Parameters	Min.	Тур.	Max.	Units
Frequency	18		40	GHz
Nominal Splitter Loss		4.8		dB
Insertion Loss		0.7	1.4	dB
Insertion Loss Flatness		±0.4		dB
Isolation	17	20		dB
Input Return Loss	14	15		dB
Output Return Loss	16	22		dB

Functional Block Diagram

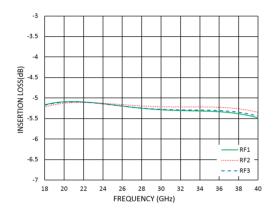


Sales: sales@millermmic.com

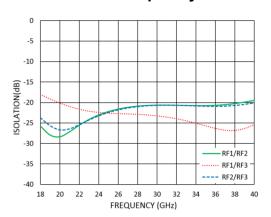


GaAs MMIC 3-Way 18-40GHz **Power Splitter/Combiner**

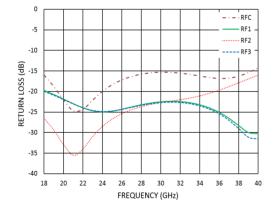
Insertion Loss vs. Frequency



Isolation vs. Frequency



Return Loss vs. Frequency

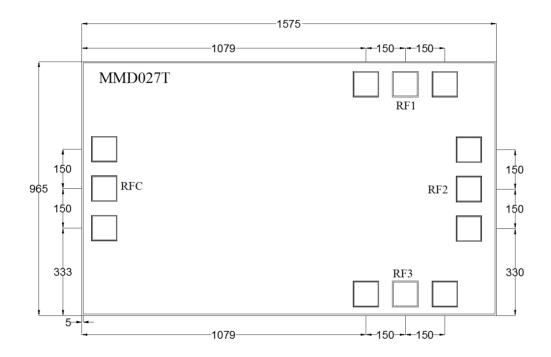




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Outline Drawing: All Dimensions in µm



Absolute Maximum Ratings

RF Input Power	+40dBm	
Operating Temperature	-55°C to +85 °C	
Storage Temperature	-65°C to +150 °C	

No	Symbol	Description
1	RFC	RF Common Port
2,3,4	RF1&RF2 &RF3	RF Branch Ports

Notes:

1. Die thickness: 100µm

2. RF IN/OUT bond pad is 100*100um²

3. Bond pad metalization: Gold4. Backside metalization: Gold5. Backside of the die (GND)

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