

V1.0.0

GaAs MMIC 2-Way 18-26GHz Power Splitter/Combiner

#### **Features**

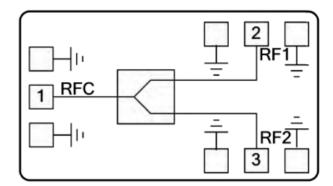
Frequency: 18-26GHz
Insertion Loss: 0.4dB Typical
Isolation: 23dB Typical

• Input/Output: 50Ω

• Chip Size: 0.965 x 0.965 x 0.1mm

### **Typical Applications**

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



**Functional Block Diagram** 

## **Electrical Specifications**

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

Parameters	Min.	Тур.	Max.	Units
Frequency	18		26	GHz
Nominal Splitter Loss		3		dB
Insertion Loss		0.4	0.6	dB
Insertion Loss Flatness		±0.1		dB
Isolation	18	23		dB
Input Return Loss	17	22		dB
Output Return Loss	21	25		dB

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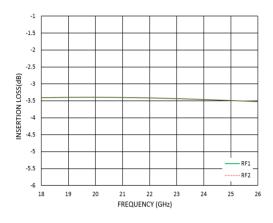
Sales: sales@millermmic.com



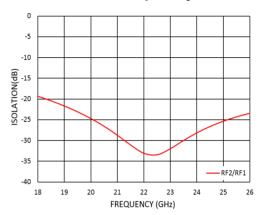
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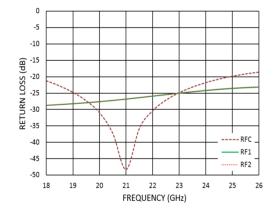
# **Insertion Loss vs. Frequency**



## Isolation vs. Frequency



## **Return Loss vs. Frequency**

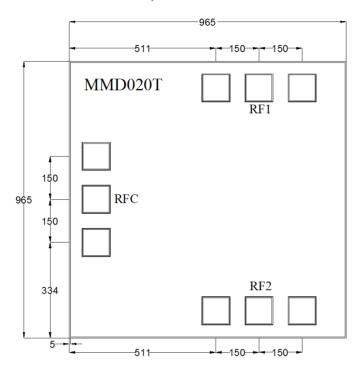




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### Outline Drawing: All Dimensions in µm



# **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	RF1&RF2	RF Branch Ports

#### Notes:

1. Die thickness: 100µm

2. RF IN/OUT bond pad is 100\*100um<sup>2</sup>

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

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