

/1.0.0

GaAs MMIC 2-Way 6-18GHz Power Splitter/Combiner

#### **Features**

Frequency: 6-18GHz
Insertion Loss: 0.6dR Typi

Insertion Loss: 0.6dB TypicalIsolation: 22dB Typical

Input/Output: 50Ω

• Chip Size: 0.965 x 0.78 x 0.1mm

#### **Typical Applications**

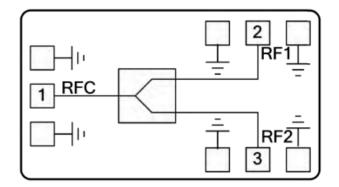
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

## **Electrical Specifications**

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

Parameters	Min.	Тур.	Max.	Units
Frequency	6		18	GHz
Nominal Splitter Loss		3		dB
Insertion Loss		0.6	0.8	dB
Insertion Loss Flatness		±0.2		dB
Isolation	18	22		dB
Input Return Loss	14	17		dB
Output Return Loss	17	20		dB

# **Functional Block Diagram**



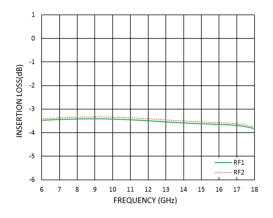
MILLER MMIC INC. www.millermmic.com



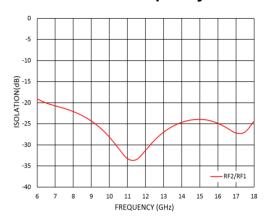
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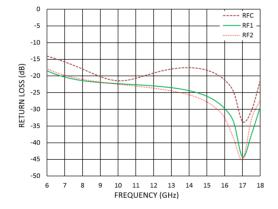
### Insertion Loss vs. Frequency



### Isolation vs. Frequency



### **Return Loss vs. Frequency**



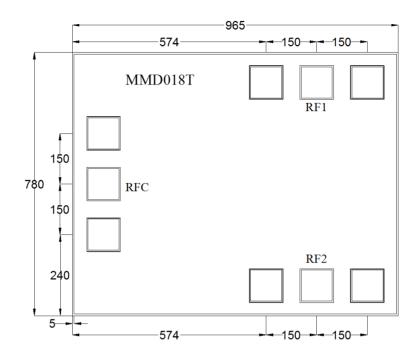
Sales: sales@millermmic.com



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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  RF Common Port	
1	RFC		
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: Gold 4. Backside metalization: Gold

5. Backside of the die (GND)

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