

V1.0.0

GaAs MMIC 4-Way 2-18GHz Power Splitter/Combiner

#### **Features**

• Frequency: 2-18GHz

Insertion Loss: 2.5dB TypicalIsolation: 18dB Typical

Input/Output: 50Ω

• Chip Size: 3.649 x 4.724 x 0.1mm

#### **Typical Applications**

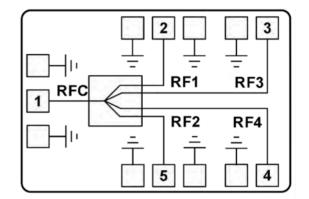
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

## **Electrical Specifications**

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

Parameters	Min.	Тур.	Max.	Units
Frequency	2		18	GHz
Nominal Splitter Loss		6		dB
Insertion Loss		2.5	2.6	dB
Insertion Loss Flatness		±0.75		dB
Isolation	14	18		dB
Input Return Loss	12	15		dB
Output Return Loss	16	20		dB

# **Functional Block Diagram**



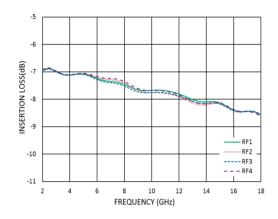
Sales: sales@millermmic.com



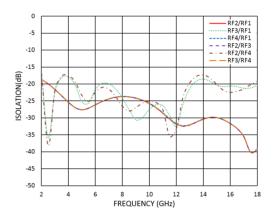
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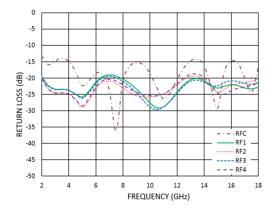
#### Insertion Loss vs. Frequency



#### Isolation vs. Frequency



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



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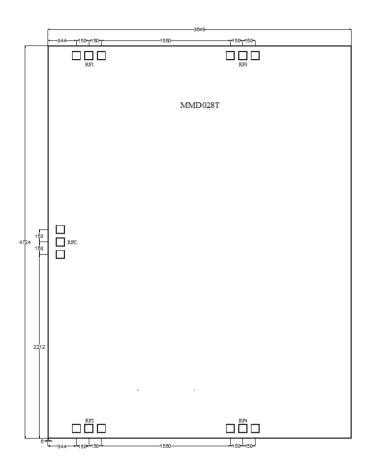


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#### **Outline Drawing:**

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	
2,3,4,5	RF1&RF2&RF3&RF4	RF Branch Ports	

#### Notes:

1. Die thickness: 100µm

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

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

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