

V1.0.0

GaAs MMIC 4-Way 18-40GHz Power Splitter/Combiner

Features

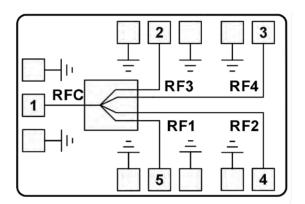
Frequency: 18-40GHz
Insertion Loss: 0.5dB Typical
Isolation: 22dB Typical
Input/Output: 50Ω

• Chip Size: 2.154 x 3.215 x 0.1mm

Typical Applications

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

Functional Block Diagram



Electrical Specifications

TA = +25°C ,Pin=0dBm

Parameters	Min.	Тур.	Max.	Units
Frequency	18		40	GHz
Nominal Splitter Loss		6		dB
Insertion Loss		0.5	0.9	dB
Flatness		±0.2		dB
Isolation		22		dB
Input Return Loss		18		dB
Output Return Loss		20		dB

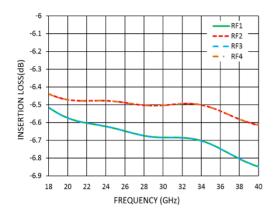
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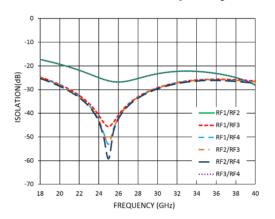
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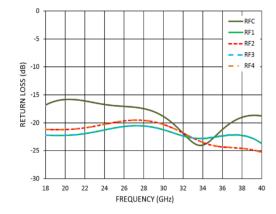
Insertion Loss vs. Frequency



Isolation vs. Frequency



Return Loss vs. Frequency



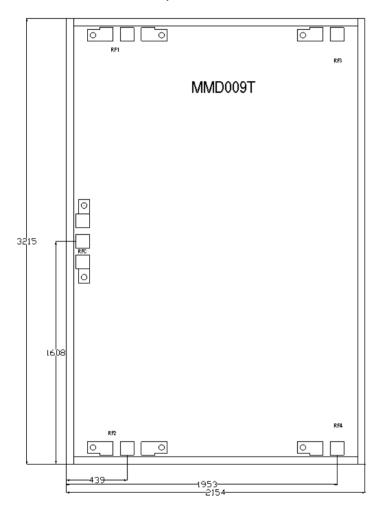


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Outline Drawing:

All Dimensions in µm



Absolute Maximum Ratings

RF Input Power	+31dBm	
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 $100 \times 100 \mu m^2$

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

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