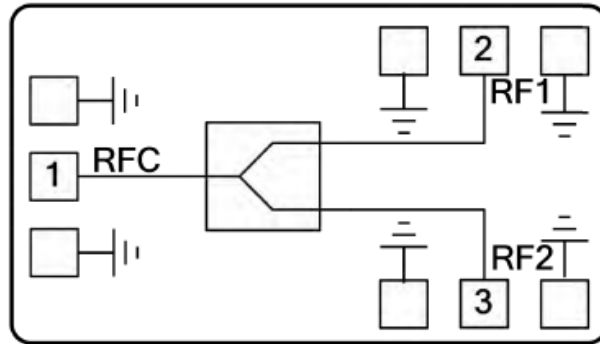




### Features

- Frequency: 2-18GHz
- Insertion Loss: 1.5dB Typical
- Isolation: 18dB Typical
- Input/Output: 50Ω
- Chip Size: 1.904 x 1.950 x 0.1mm

### Functional Block Diagram



### Typical Applications

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

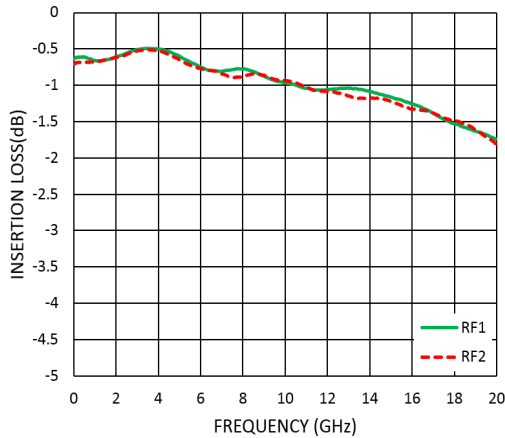
### Electrical Specifications

TA = +25°C ,Pin=0dBm

| Parameters              | Min. | Typ.  | Max. | Units |
|-------------------------|------|-------|------|-------|
| Frequency               | 2    |       | 18   | GHz   |
| Nominal Splitter Loss   |      | 3     |      | dB    |
| Insertion Loss          |      | 1.5   | 1.8  | dB    |
| Insertion Loss Flatness |      | ±0.6  |      | dB    |
| Amplitude Imbalance     |      | ±0.05 |      | dB    |
| Phase Imbalance         |      | ±1.5  |      | deg   |
| Isolation               | 15   | 18    |      | dB    |
| Input Return Loss       |      | -16   |      | dB    |
| Output Return Loss      |      | -18   |      | dB    |

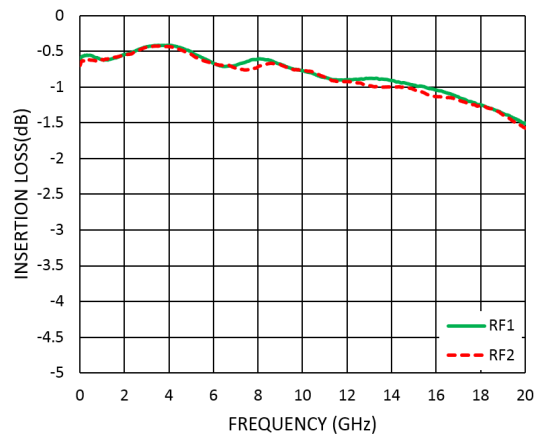
**Insertion Loss vs. Frequency**

**TA = +25°C**



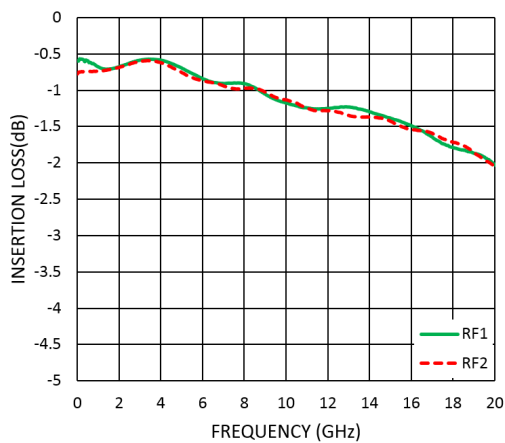
**Insertion Loss vs. Frequency**

**TA = -40°C**



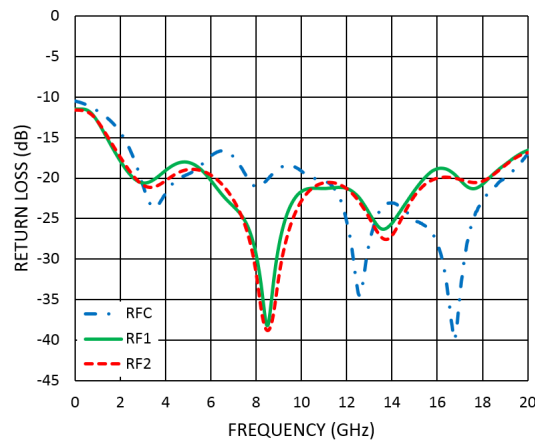
**Insertion Loss vs. Frequency**

**TA = +85°C**



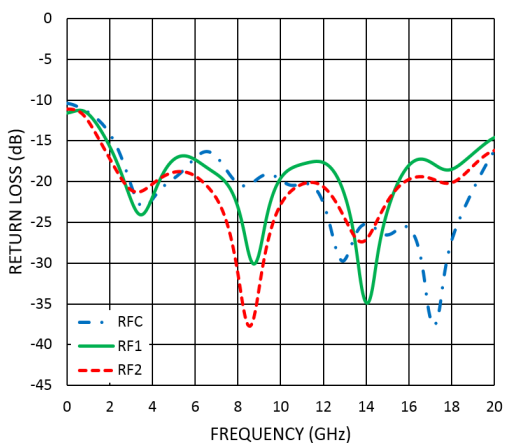
**Return Loss vs. Frequency**

**TA = +25°C**



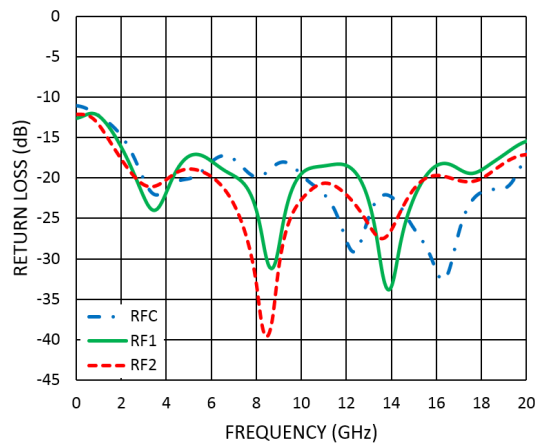
**Return Loss vs. Frequency**

**TA = -40°C**



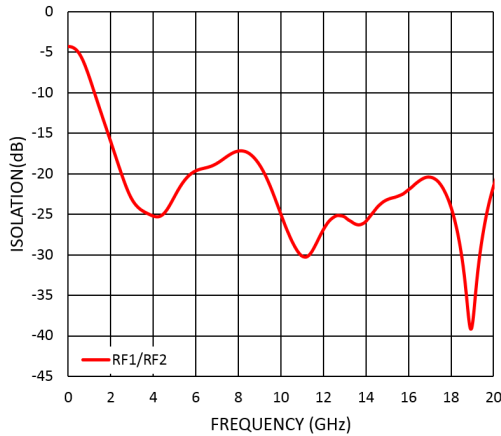
**Return Loss vs. Frequency**

**TA = +85°C**



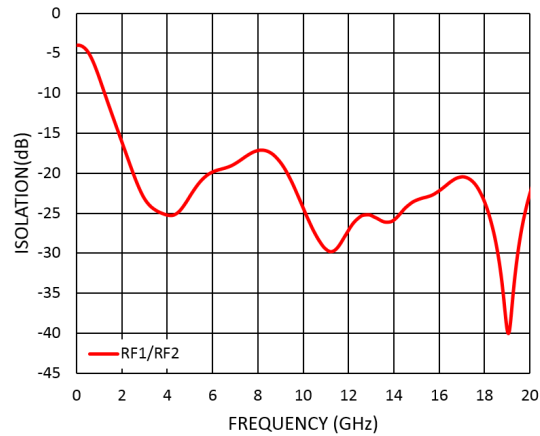
### Isolation vs. Frequency

TA = +25°C



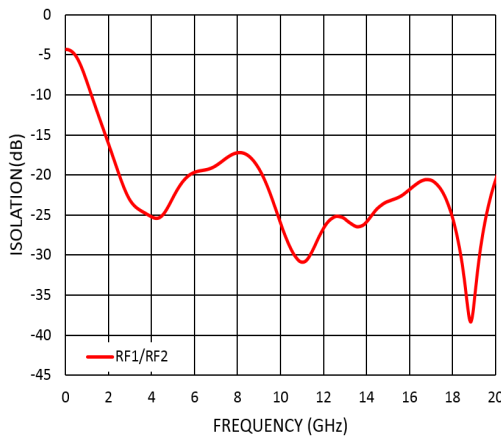
### Isolation vs. Frequency

TA = -40°C



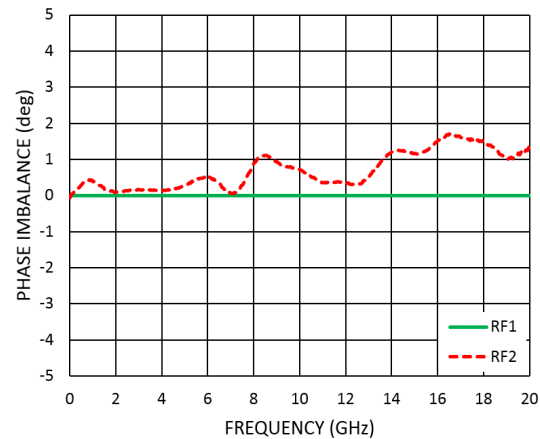
### Isolation vs. Frequency

TA = +85°C



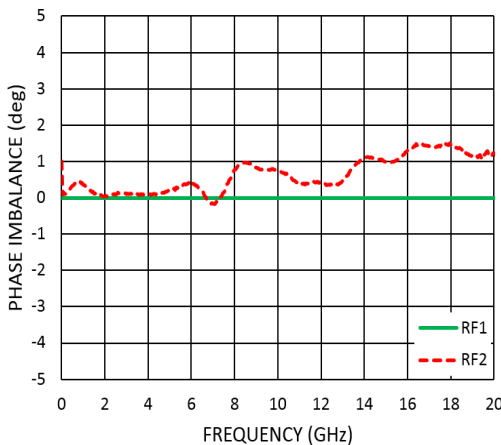
### Phase Imbalance vs. Frequency

TA = +25°C



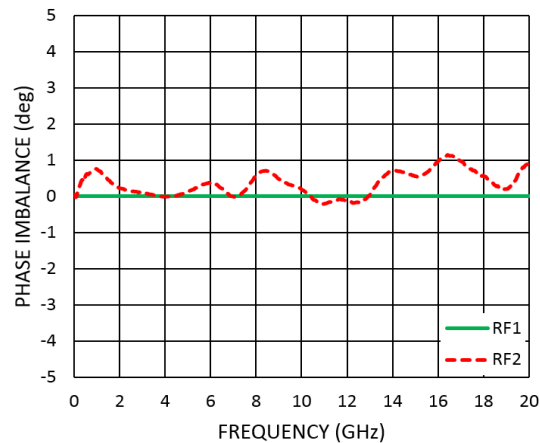
### Phase Imbalance vs. Frequency

TA = -40°C



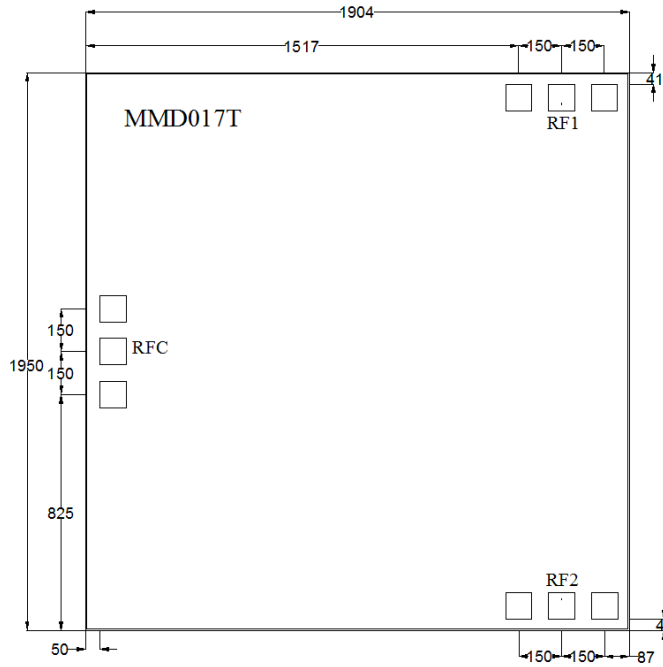
### Phase Imbalance vs. Frequency

TA = +85°C





### Outline Drawing: All Dimensions in $\mu\text{m}$



### 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: 100 $\mu\text{m}$
2. RF bond pad is 92\*92 $\mu\text{m}^2$
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)

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