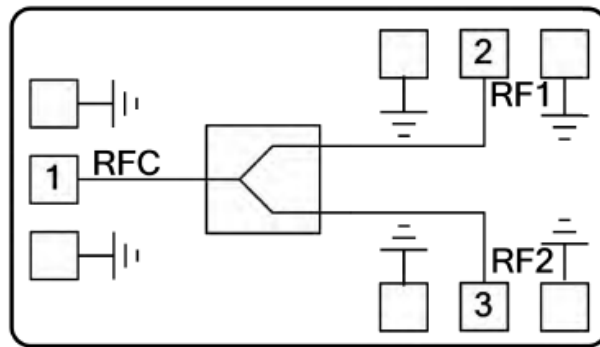




Features

- Frequency: 1-20GHz
- Insertion Loss: 1.8dB Typical
- Isolation: 18dB Typical
- Input/Output: 50Ω
- Chip Size: 3.085 x 2.54 x 0.1mm

Functional Block Diagram



Typical Applications

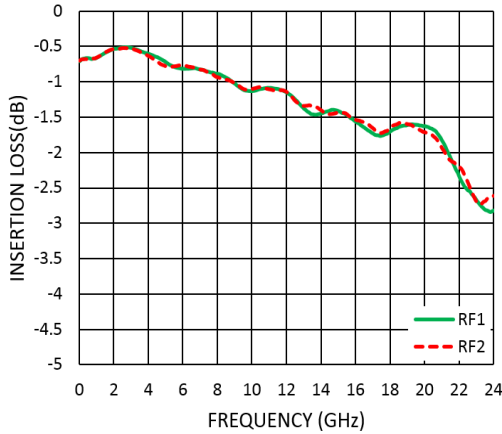
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

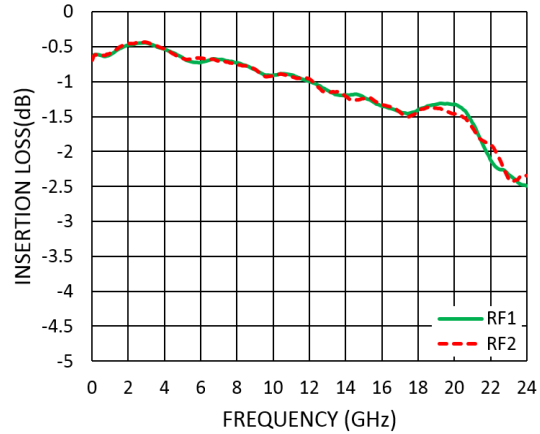
TA = +25°C ,Pin=0dBm

Parameters	Min.	Typ.	Max.	Units
Frequency	1		20	GHz
Nominal Splitter Loss		3		dB
Insertion Loss		1.8	2.0	dB
Insertion Loss Flatness		±0.6		dB
Amplitude Imbalance		±0.05		dB
Phase Imbalance		±1		deg
Isolation	13	17		dB
Input Return Loss		-15		dB
Output Return Loss		-20		dB

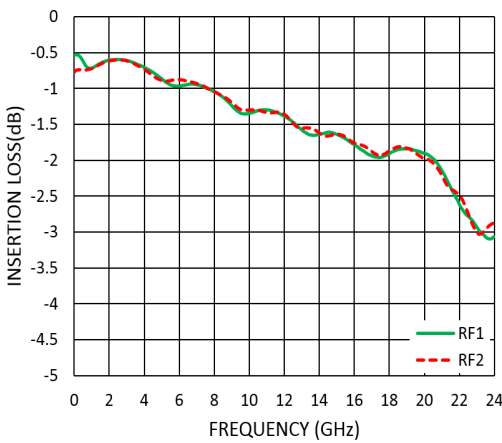
Insertion Loss vs. Frequency
TA = +25°C



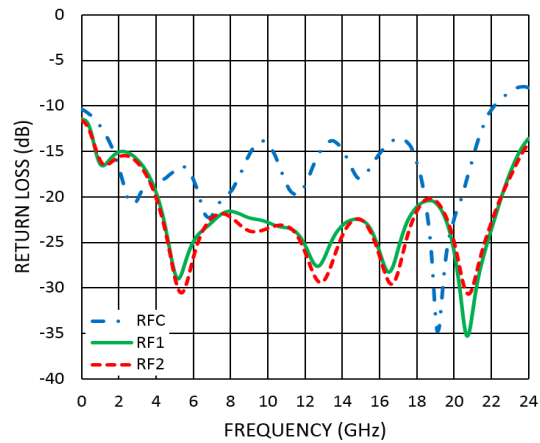
Insertion Loss vs. Frequency
TA = -40°C



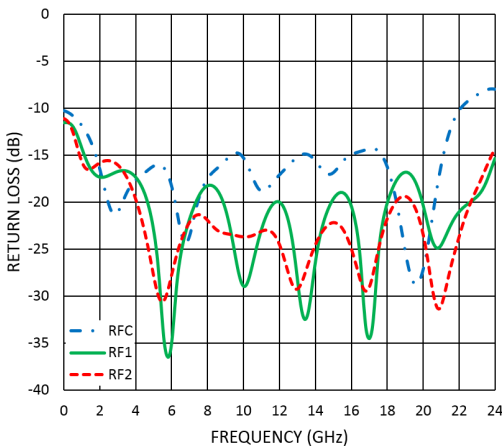
Insertion Loss vs. Frequency
TA = +85°C



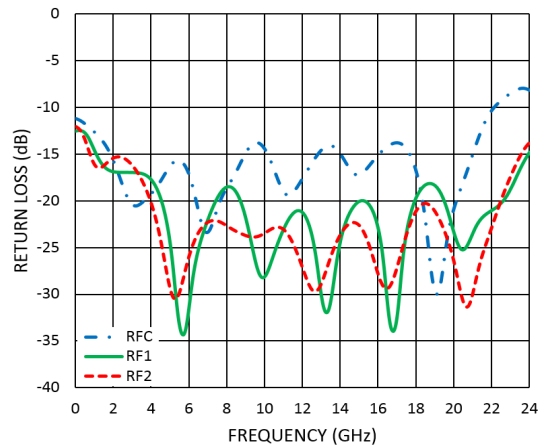
Return Loss vs. Frequency
TA = +25°C



Return Loss vs. Frequency
TA = -40°C



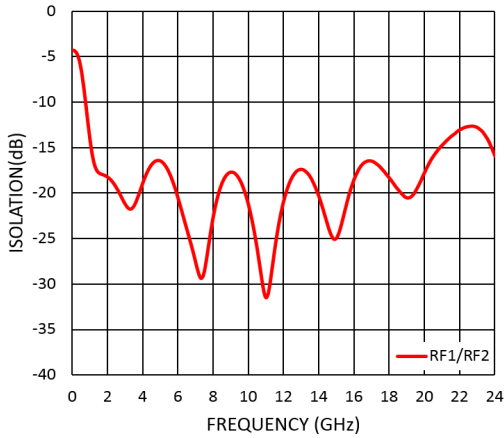
Return Loss vs. Frequency
TA = +85°C





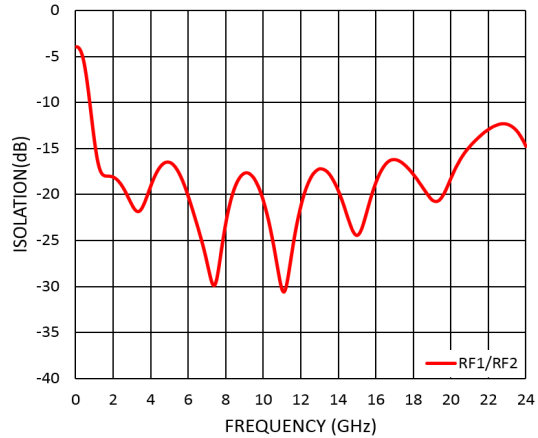
Isolation vs. Frequency

TA = +25°C



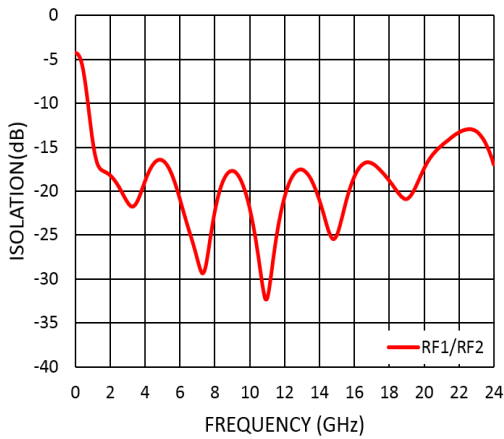
Isolation vs. Frequency

TA = -40°C



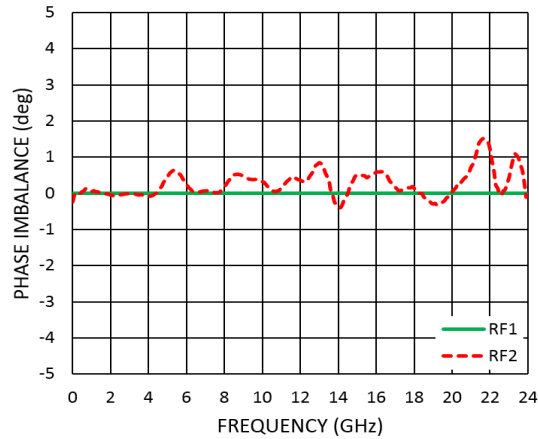
Isolation vs. Frequency

TA = +85°C



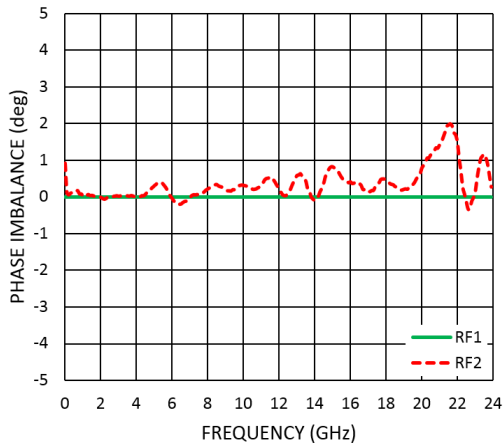
Phase Imbalance vs. Frequency

TA = +25°C



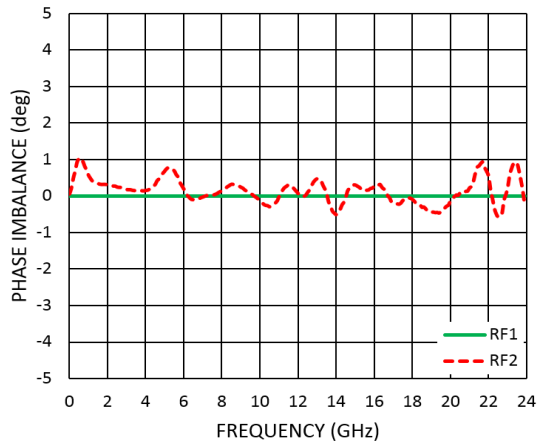
Phase Imbalance vs. Frequency

TA = -40°C



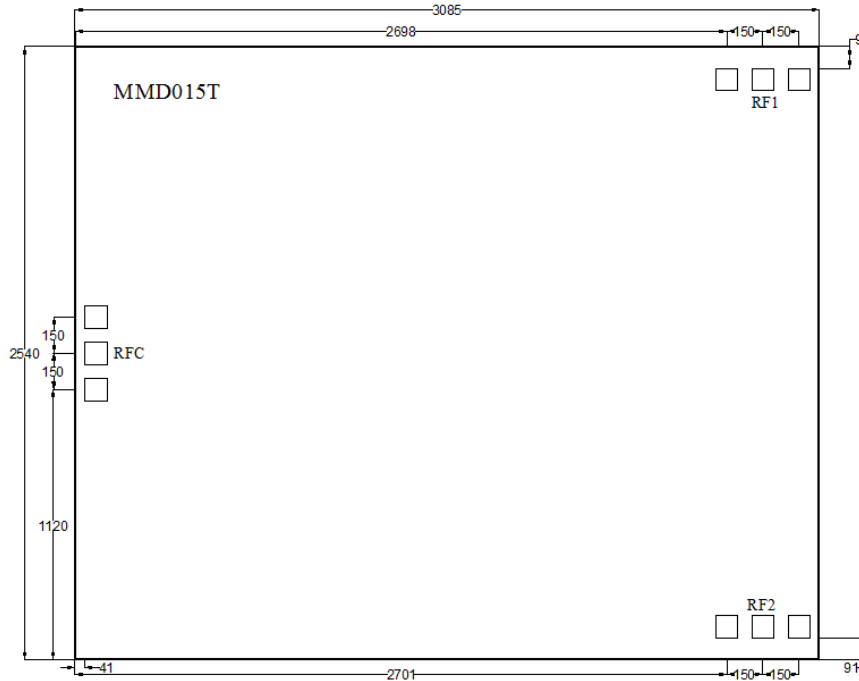
Phase Imbalance vs. Frequency

TA = +85°C





Outline Drawing: All Dimensions in 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: 100 μm
2. RF bond pad is 92*92 μm^2
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)

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