Triple Junction Isolator

MM-CICICI-040120-Cryo

4-12 GHz

General Description:

MM-CICICI-040120-Cryo are ultra-low insertion loss cryogenic isolators and circulators operating in the 4-12 GHz frequency range. They have been designed from ground up to meet the strict requirements of ultra_x0002_low temperature physics research. The OFHC copper body ensures minimum loss and that this loss reaches the lowest possible temperature to minimize thermal noise.

Features:

- Broad Bandwidth
- High Isolation
- Low Insertion Loss; Low VSWR

Applications:

- quantum computing

Electrical Specifications :

Parameter	Value			Units
	Min	Typ	Max	
Frequency Range	4		12	GHz
Insertion Loss		0.85		dB
Return loss		-16		:1
Isolation		48		dB
Impedance		50		Ω

Mechanical Specifications:

Parameter	Value
Size	69.9x25.5x14.7 mm
Weight	225g
Material / Finishing	Nickel plated
RF Connector	SMA-K

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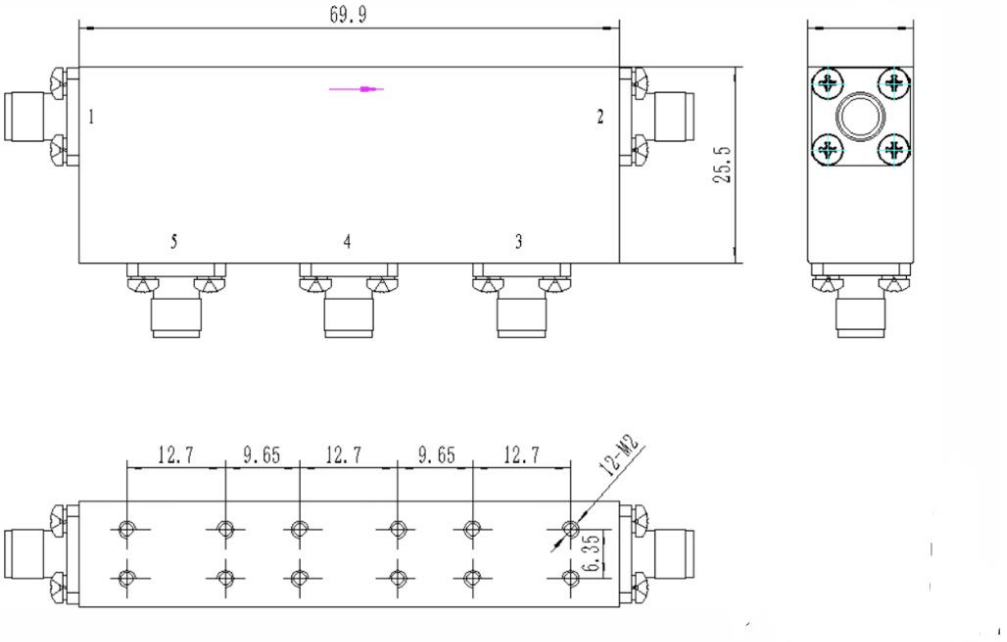
Outline Drawing:

mm



Environmental Conditions:

Parameter	Standard	Description
Operational Temperature		10mK-100K
Storage Temperature		-55℃~+85℃
Random Vibration	MIL-STD-883K, Method 2026, Cond. IB	50 - 2000 Hz, 7.3 Grms
Humidity	MIL-STD-202, Method 103B, Cond. B	100% RH at 35c, 95%RH at 40℃
Altitude	MIL-STD-883K, Method 1001, Cond. C	50,000 feet

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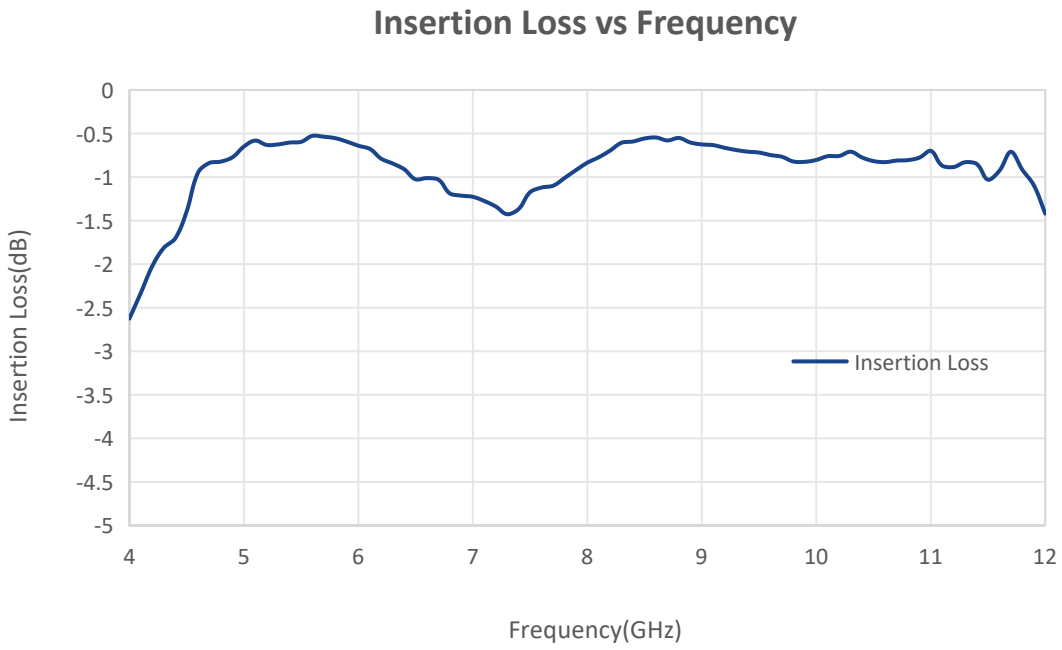
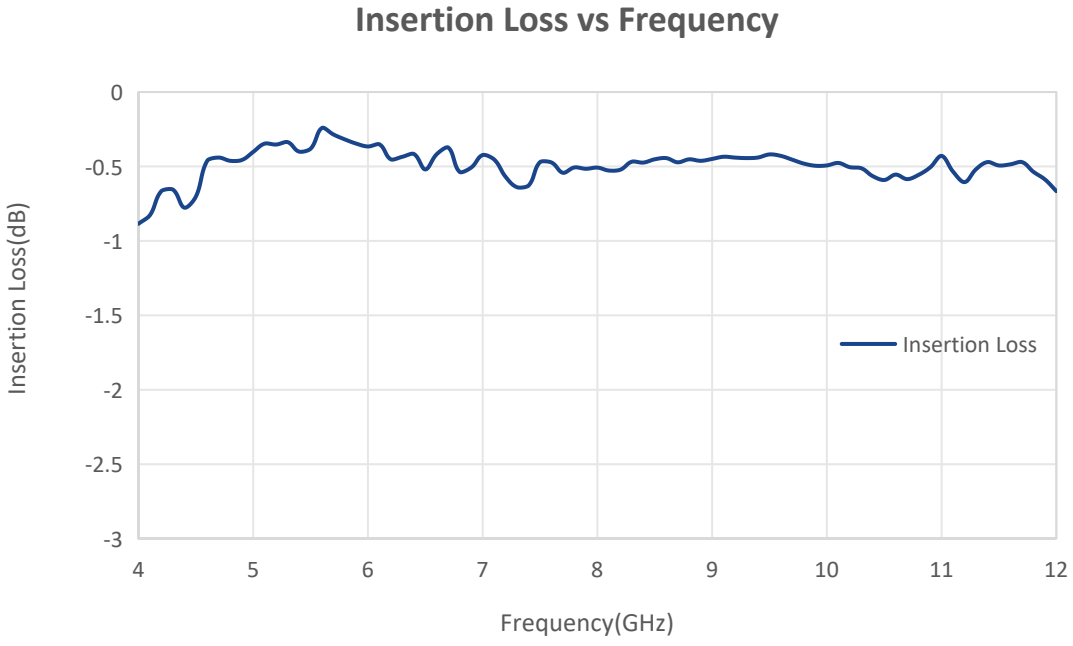
Typical Performance Data(TEM=77K):

Port1 to Port2:



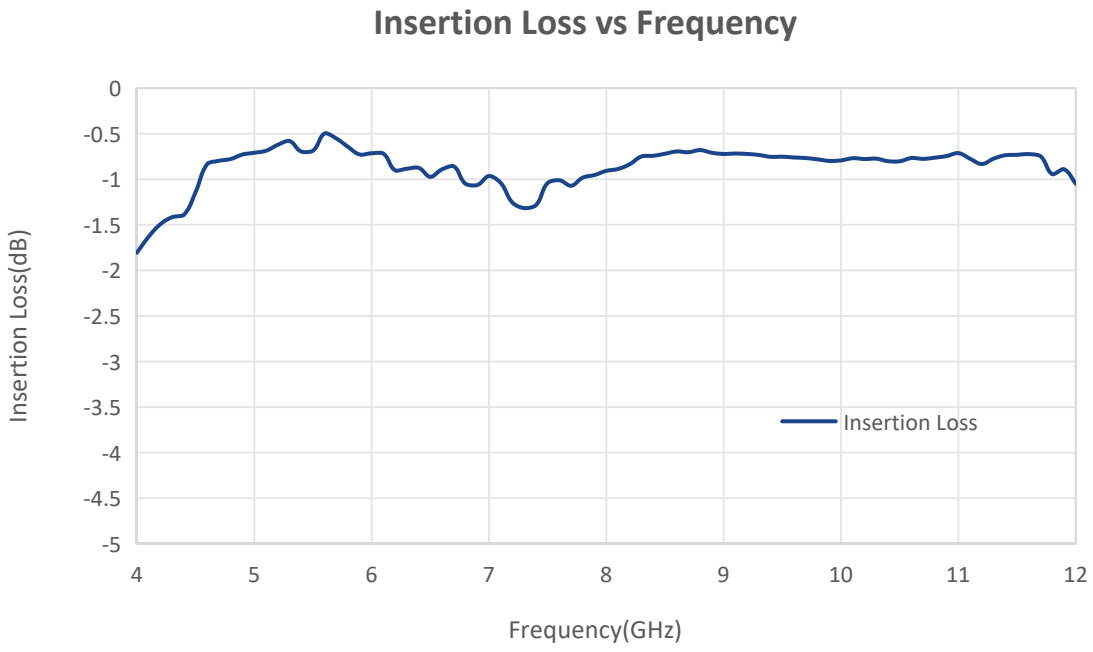
Port2 to Port3:



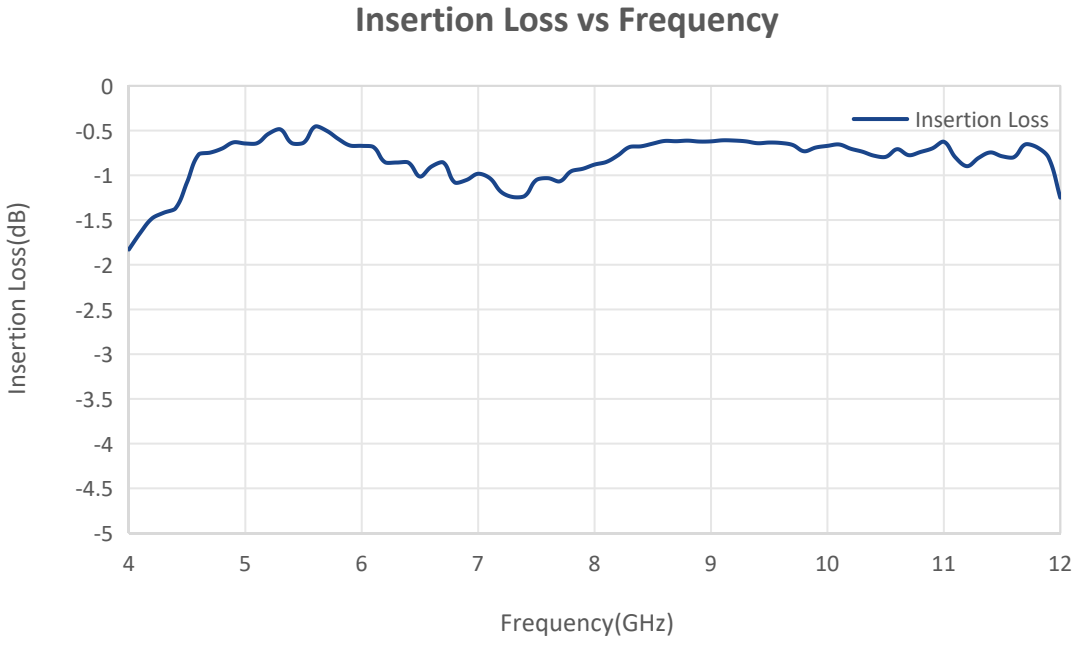
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data(TEM=77K):

Port3 to Port4:



Port4 to Port5:



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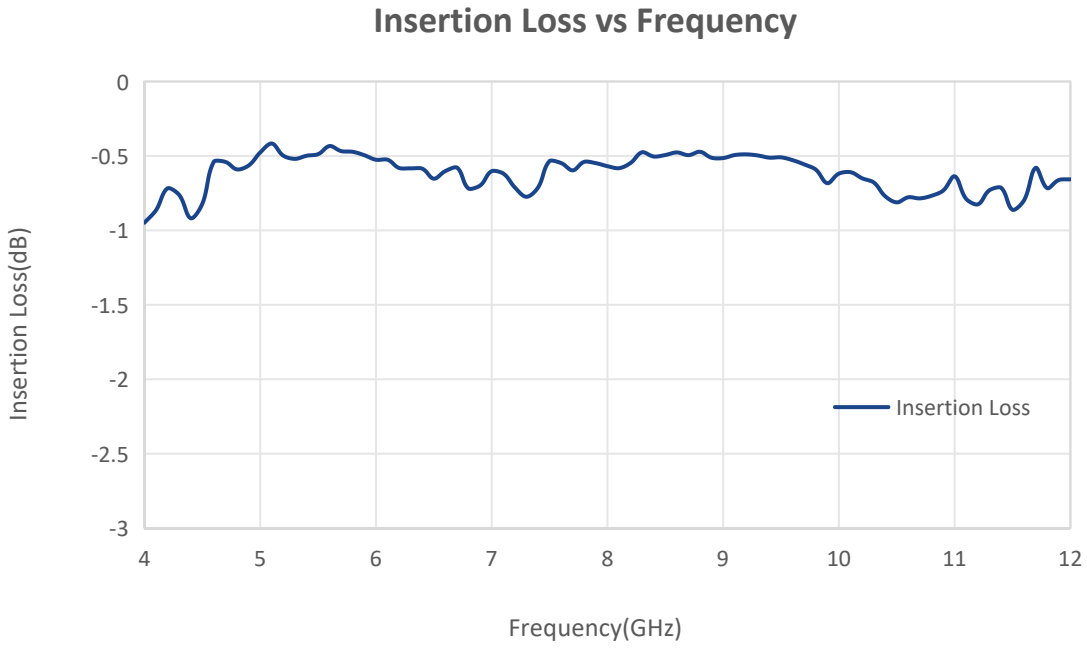
Port5 to Port1:



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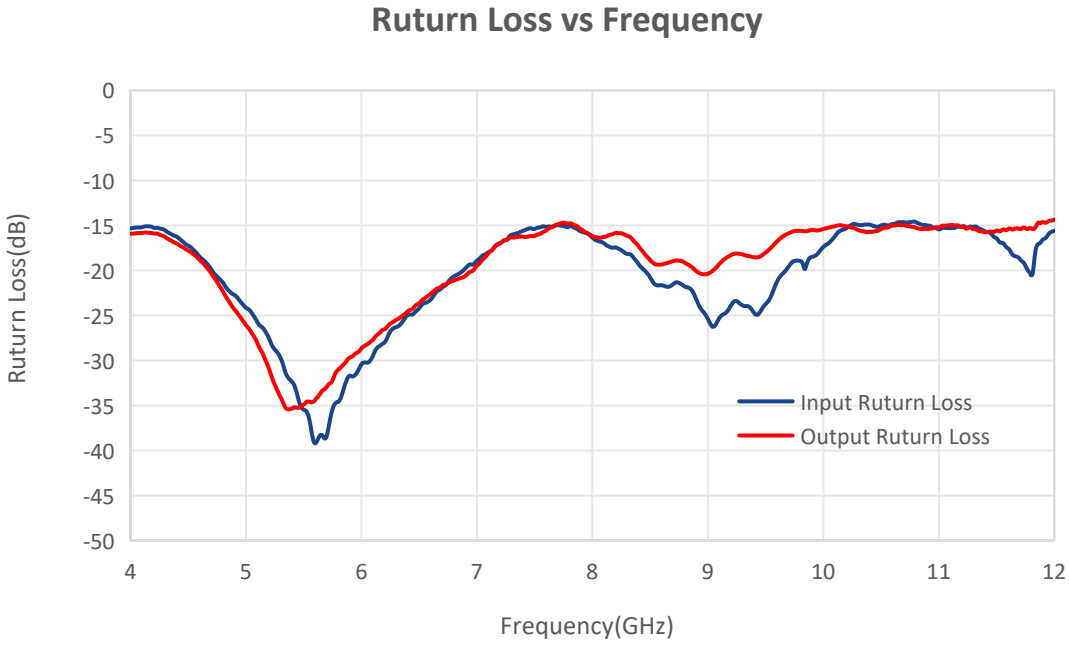

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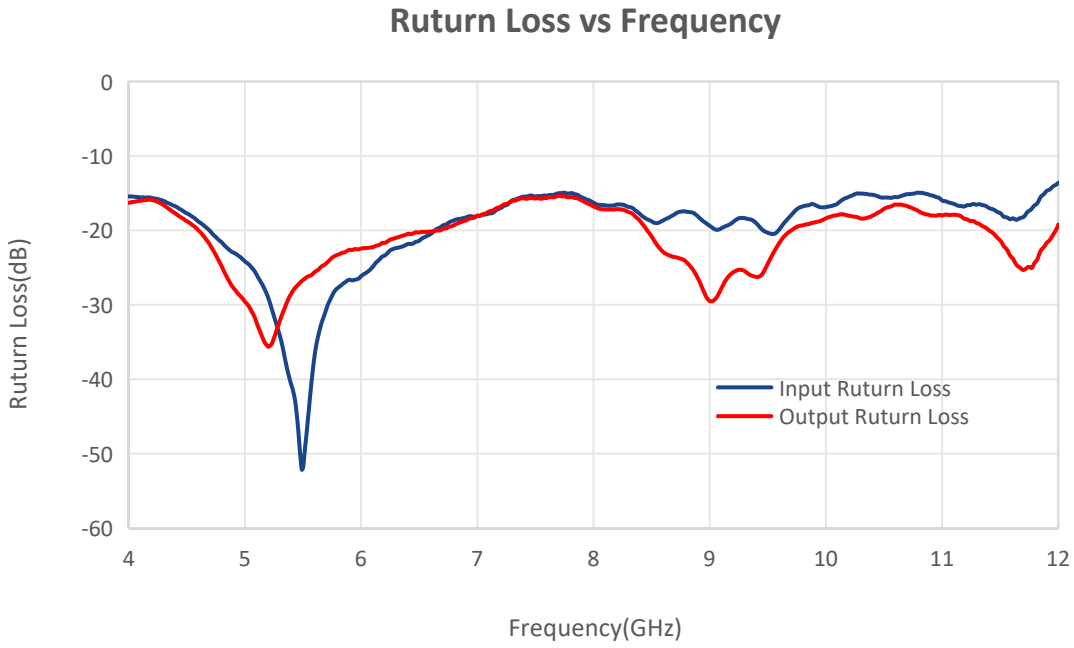
Port2 to Port3:



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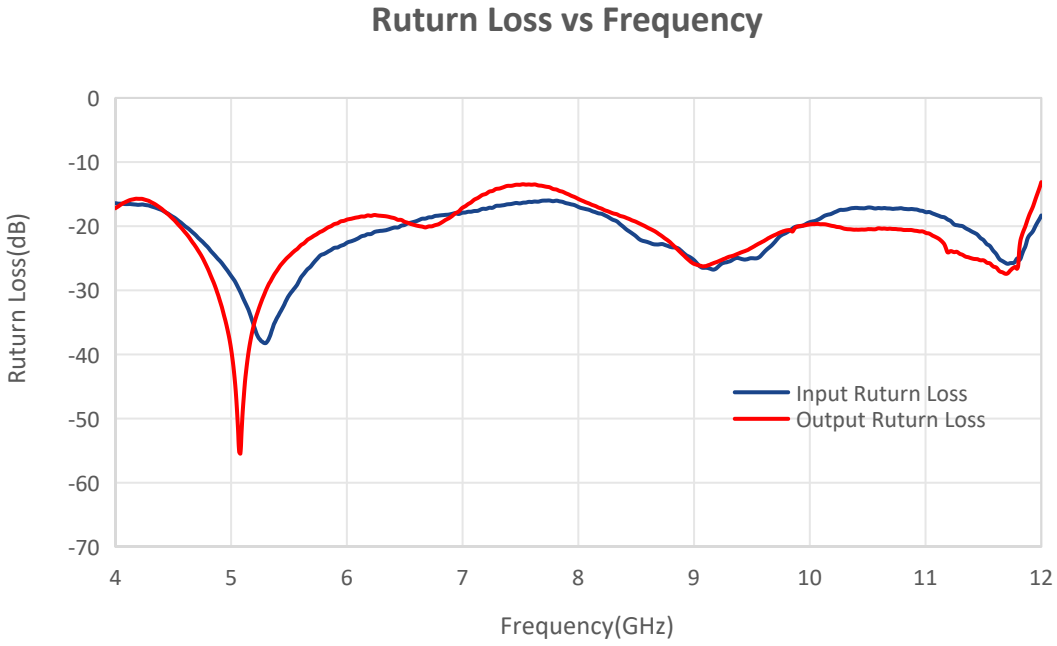

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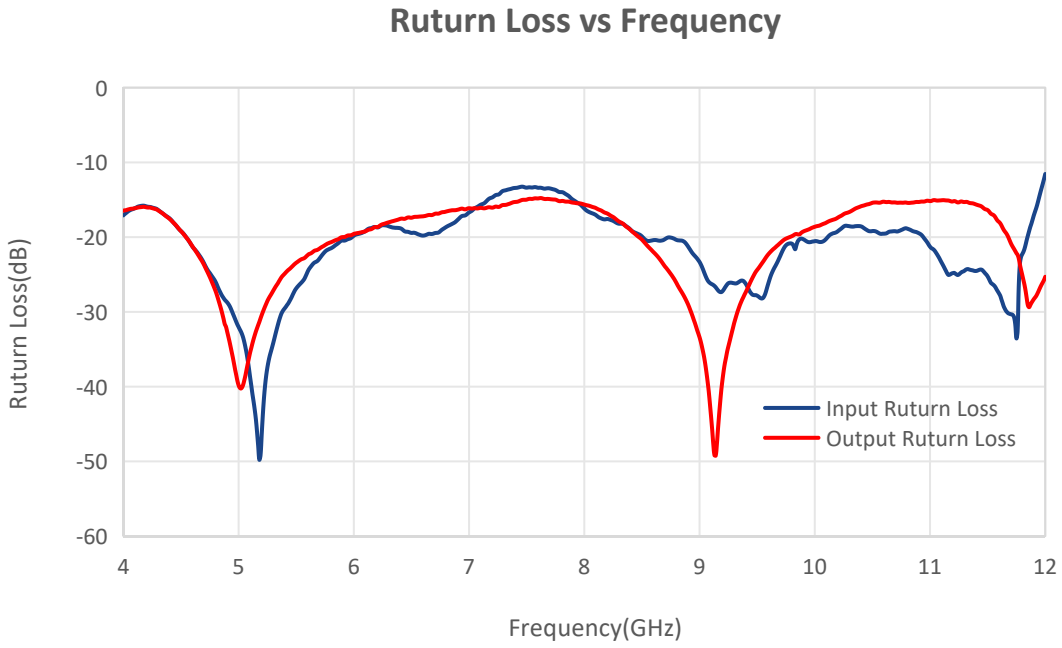
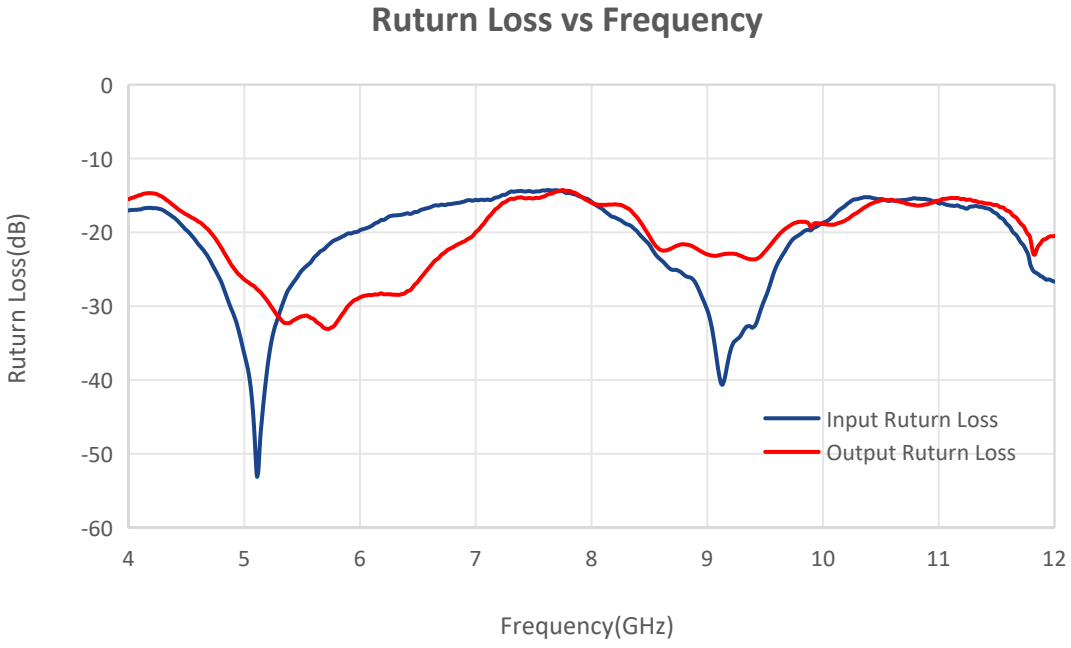


Port5 to Port1:



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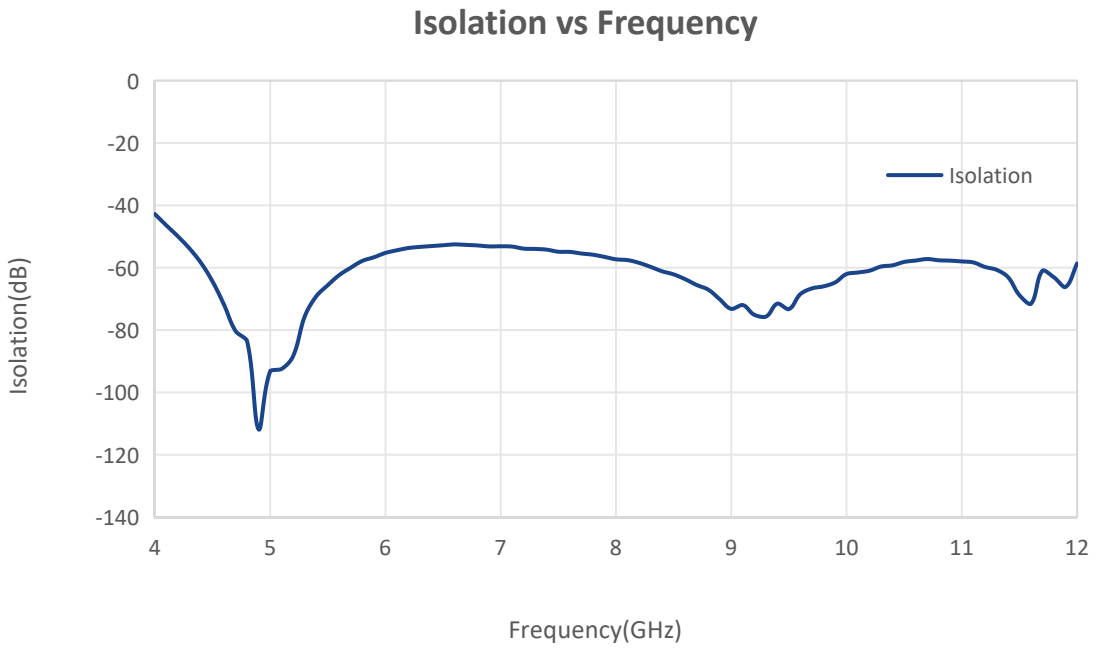
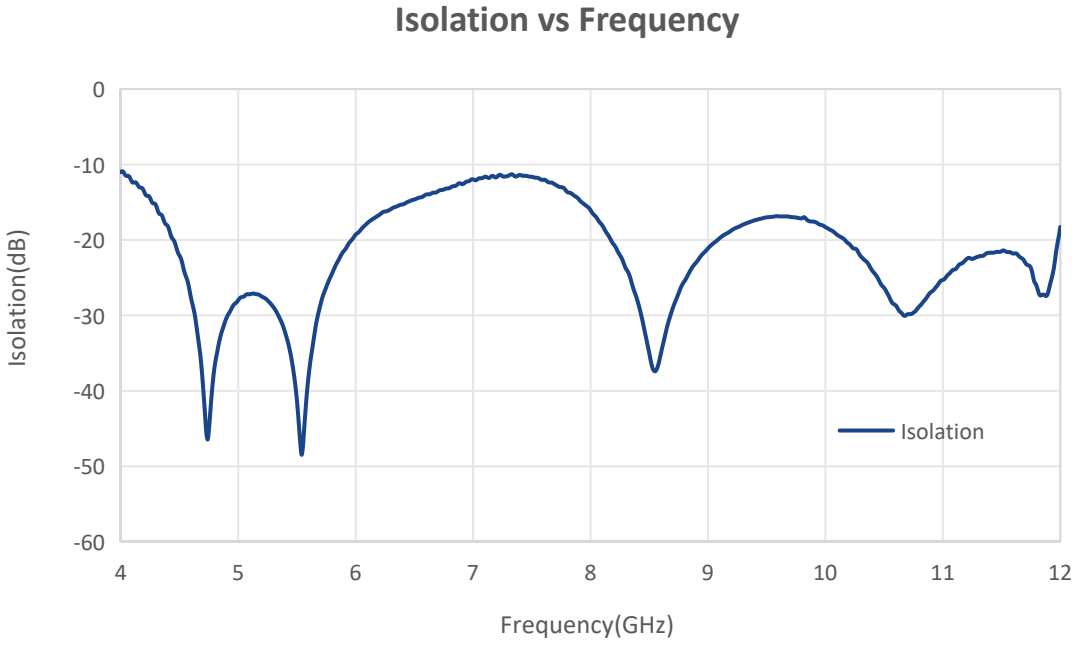


Port3 to Port2:



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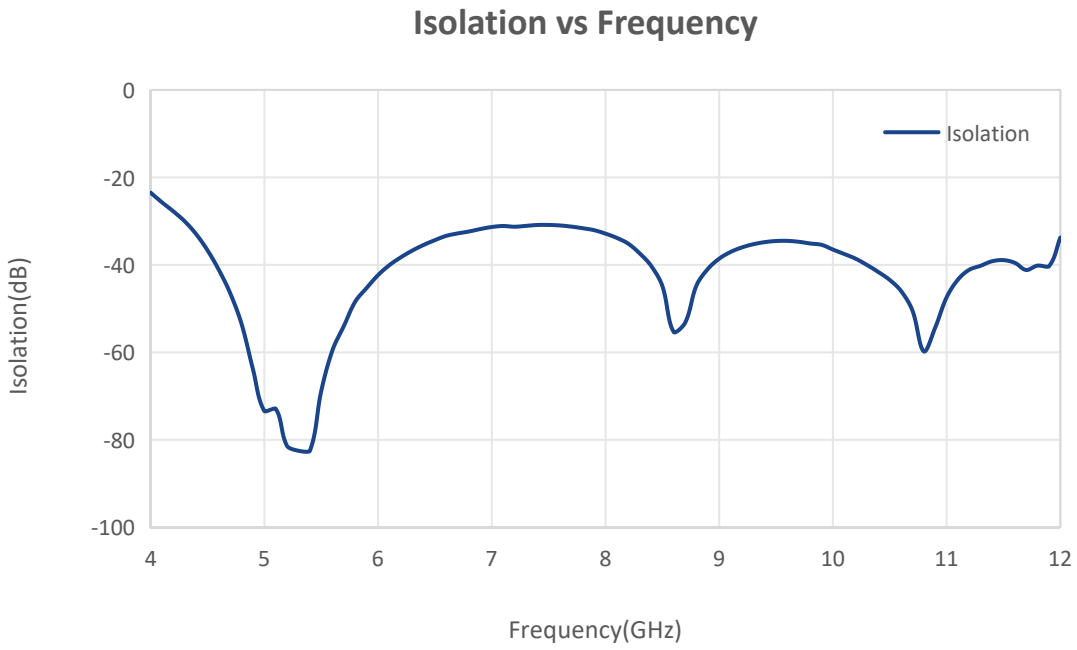
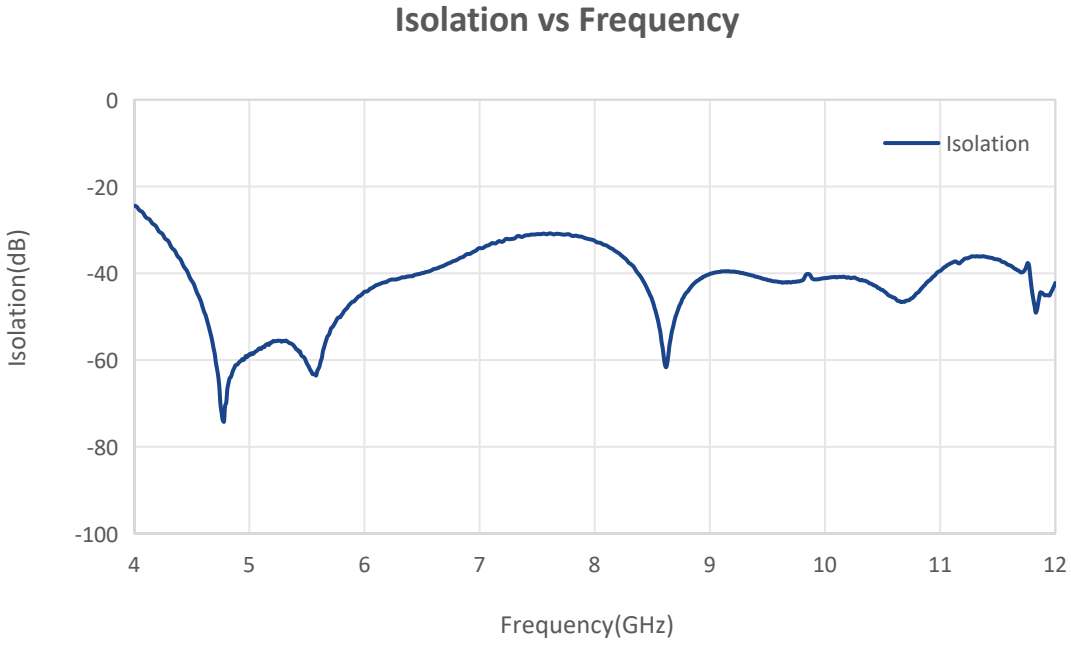
Port4 to Port3:



Port5 to Port4:



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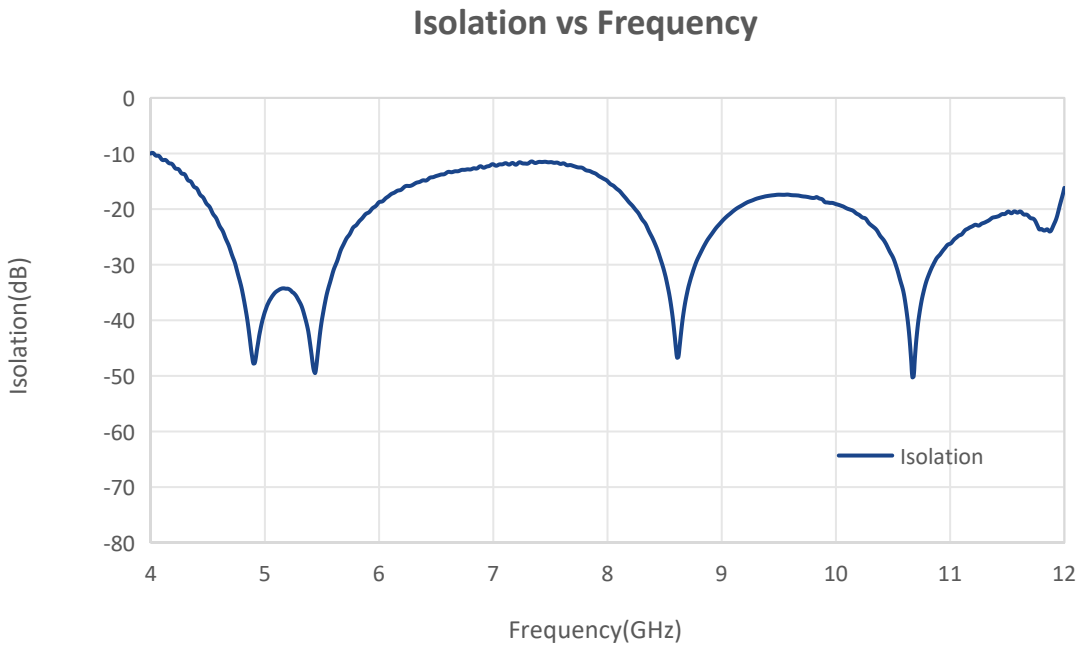
Port1 to Port5:



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