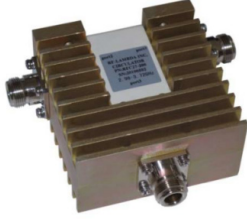


## High Power Coaxial Circulator 1.45 ~ 1.65GHz



Note: The photo is for illustration purposes only.  
Please refer to the outline drawing.

### Product Description

RFC216W500G155 is a high power coaxial circulator with a frequency range of 1.45 to 1.65GHz.

The circulator has a typical isolation of 18dB. The maximum insertion loss is 0.35dB.

The operating temperature of this product is within -20 to +60°C

### Features

- High power handling up to 500W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

### Typical Applications

- Wireless Infrastructure
- Military and Aerospace Applications
- Test Instrumentation
- Radar Systems
- 5G Wireless Communications
- Microwave Radio Systems
- TR Modules
- Research and Development
- Cellular Base Stations

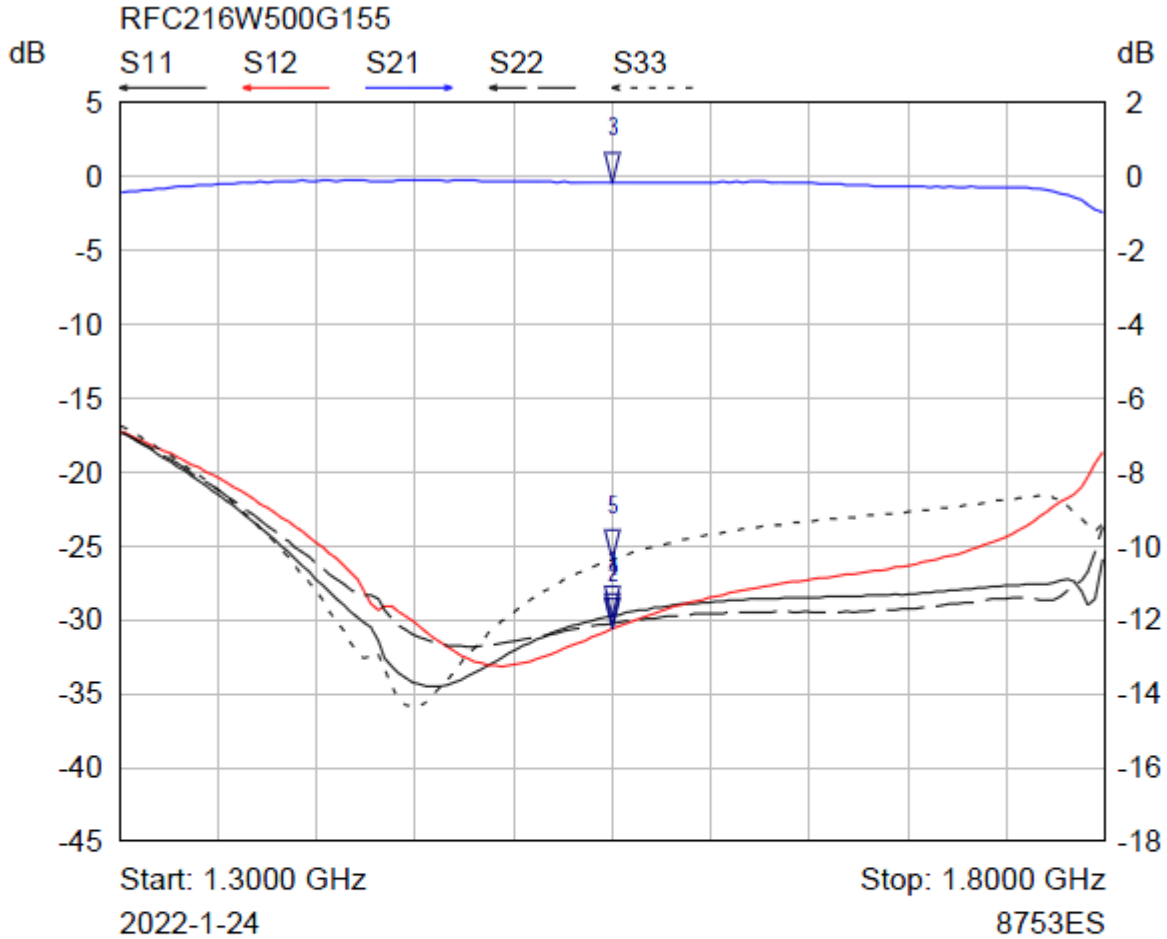
### Electrical Specifications(T<sub>A</sub>=25°C)

Parameter	Min	Typ	Max	Units
Frequency Range		1.45-1.65		GHz
Insertion Loss			0.35	dB
Isolation (Note 1)	18			dB
VSWR			1.29	:1
Forward Power (CW)			500	W
Peak Power			1.2	KW
Rotation		Clockwise (Standard) Counter Clockwise (upon request)		
Input / Output Connectors		N-Female(Input)--N-Female(Output)		
Impedance		50		Ω

**Environmental Specifications and Test Standards**

Parameter	Description
Operational Temperature	-20°C to +60°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude	Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883 (For Hermetically Sealed Units)

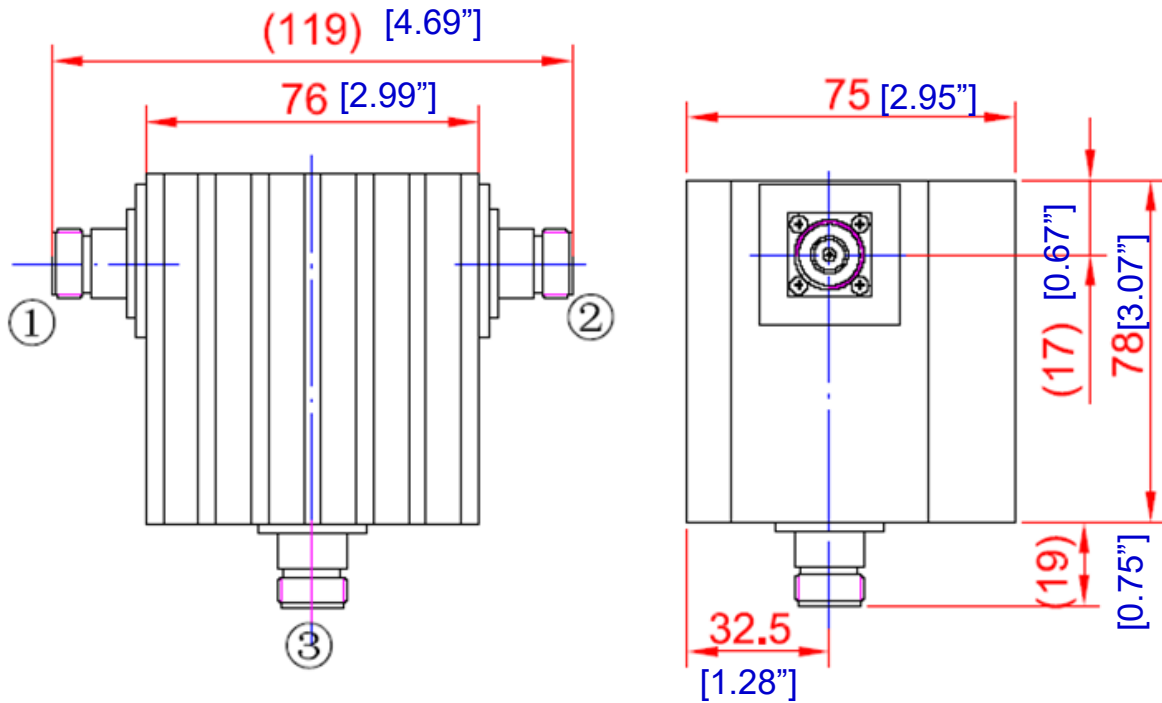
**Typical Performance Plots**



Mkr	Trace	X-Axis	Value	Notes
1 ▾	S11	1.5500 GHz	-29.72 dB	
2 ▾	S12	1.5500 GHz	-30.60 dB	
3 ▾	S21	1.5500 GHz	-0.18 dB	
4 ▾	S22	1.5500 GHz	-30.24 dB	
5 ▾	S33	1.5500 GHz	-25.92 dB	

SN:220104

Typical Performance Plots



Notes:

1. Package Material: Aluminum Alloy / Copper
2. Finish : Nickel
3. All dimensions are in millimeters [inches]
4. Tolerance  $\pm 0.25(0.01)$ , unless otherwise specified.

Additional Information

Documentation	Webpage
Connector Torque Specifications	<a href="https://www.rflambda.com/pdf/Torque_Specifications.pdf">https://www.rflambda.com/pdf/Torque_Specifications.pdf</a>
Random Vibration Test Standard	<a href="https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf">https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf</a>

**Ordering Information**

Part Number	Modification	Description
RFC216W500G155	connectors N-Female	1.45GHz – 1.65GHz Coaxial Circulator

**Important Notice**

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