

WRD750 Double Ridge Waveguide Circulator 10.4GHz–18GHz



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

Product Description

RFWC750GA-10.4G18G is a waveguide circulator with a frequency range of 10.4 to 18GHz.

The circulator has a minimum isolation of 16dB. The maximum insertion loss is 2.5dB.

The circulator's interface is WRD750.

Features

- High power handling up to 200W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- All specifications can be modified upon request

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 ($T_A=+25^{\circ}\text{C}$)

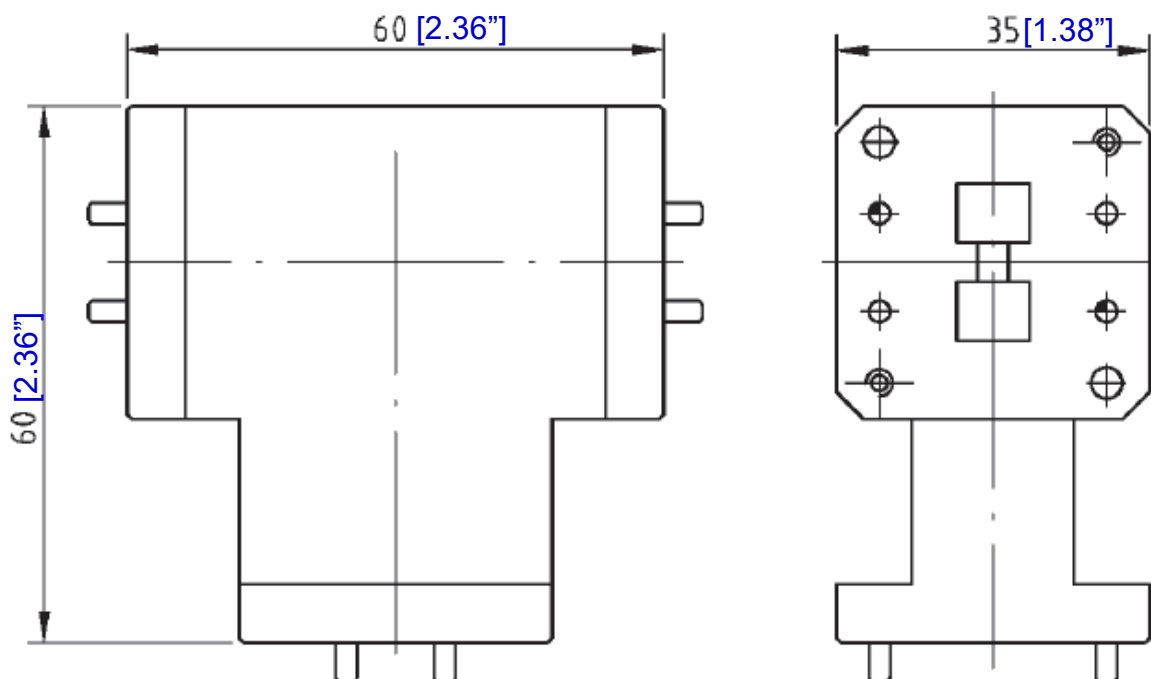
Parameter	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	10.4		15	15		18	GHz
Insertion Loss		2.5			1.0		dB
Isolation	13			16			dB
VSWR			1.8			1.8	:1
Power Handling			200				W
Peak Power			2 (6% Duty Cycle, 200 ns Pulse Width)				KW
Rotation				Clockwise			
Interface				WRD750			
Flange Type				WRD750-C1			

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20°C to +50°C (Case Temperature)
Storage Temperature	-40°C to +70°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)

*For vibration testing details please see additional information section.

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Conductive Oxide
3. All dimensions are in millimeters [inches].
4. Outline Tolerances ± 0.5 [0.02], Mounting Holes Tolerances ± 0.2 (0.008) unless otherwise specified.

Additional Information

Documentation	Webpage
ESD Policy	https://rflambda.com/pdf/rflambda_esd_control.pdf
Connector Torque Specifications	https://www.rflambda.com/pdf/Torque_Specifications.pdf
Random Vibration Test Standard	https://www.rflambda.com/pdf/rflambda_random_vibration_MIL-STD-202G.pdf

Ordering Information

Part Number	Modification	Description
RFWC750GA-10.4G18G	WRD750	10.4GHz-18GHz Waveguide Circulator

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