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=+25ºC)

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				

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Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +50ºC (Case Temperature)
Storage Temperature	-40ºC to +70ºC
Thermal Shock	-40ºC → +85ºC (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.

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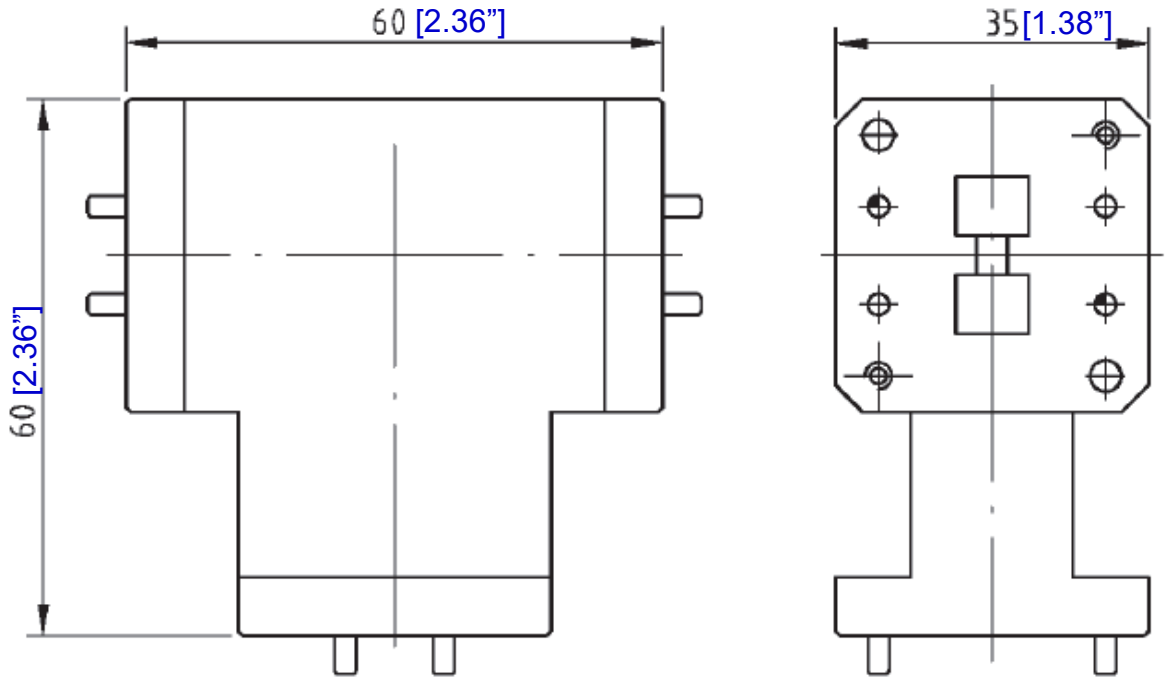
Outline Drawing



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

Important Notice

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