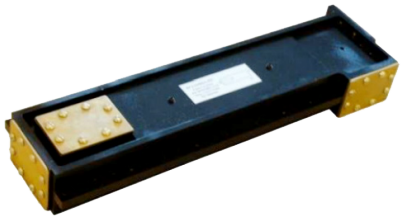
WR62 4-Port High Power Waveguide Circulator 14GHz-15GHz



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

Product Description

RFWC62D-14G15G is a WR62 4-Port waveguide high power circulator with a frequency range of 14 to 15GHz.

The circulator has a typical isolation of 21dB. The maximum insertion loss is 0.4dB.The circulator has good isolation performance.

The circulator waveguide type is WR62.

Features

- High power handling up to 375W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss

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)

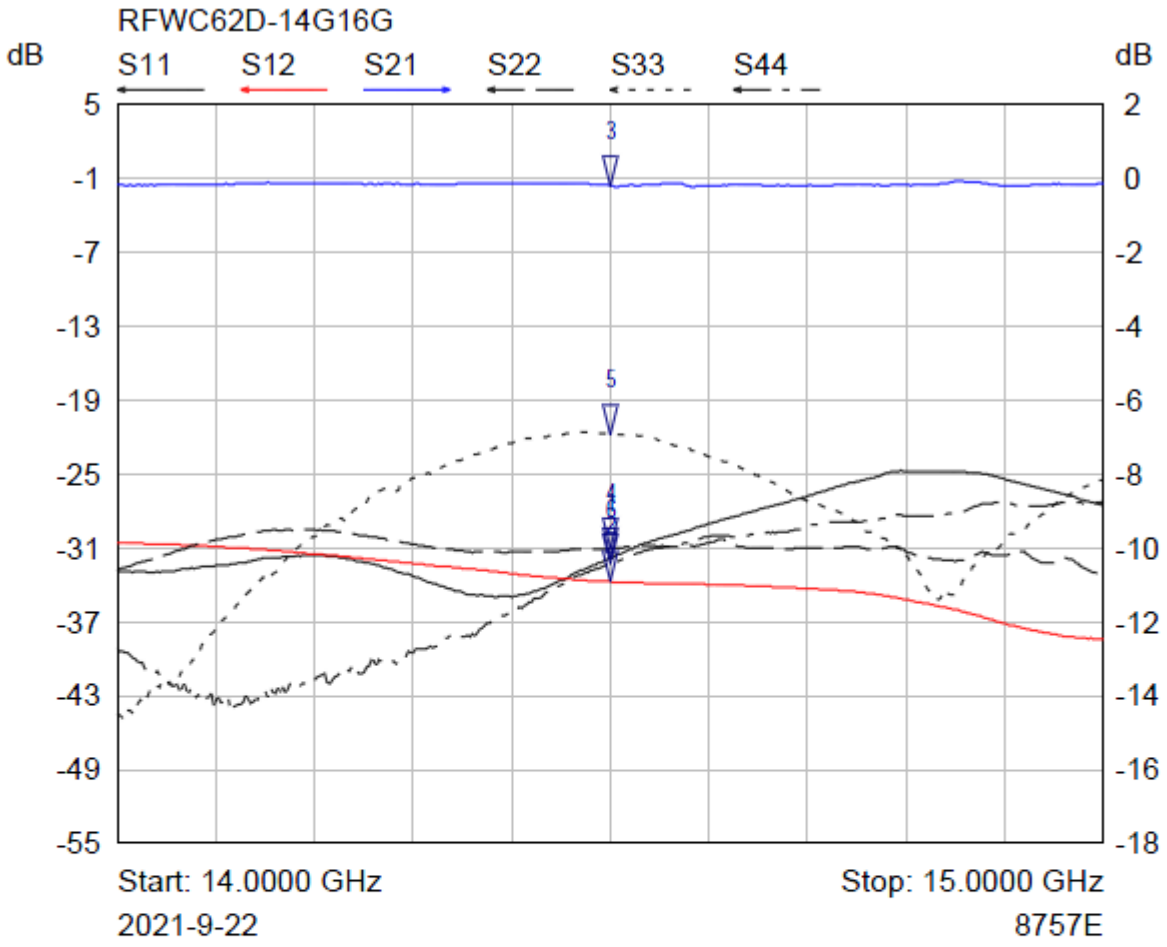
Parameter	Min	Typ	Max	Units
Frequency Range		14~15		GHz
Insertion Loss			0.40	dB
Isolation	21			dB
VSWR			1.20	:1
Power Handling		7.5KW (Duty Cycle: 5% max || PW 50 μs max || PRF 100 kHz max), 375W CW max		
		100W CW Max (For termination)		
Rotation		Clockwise		
Interface		WR62		
Flange Type		UG1655/U		

RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com

Environmental Specifications and Test Standards

Parameter	Description
Operational Temperature	-20ºC to +50ºC (should be taken to ensure the surface temperature should be less than 70ºC)
Storage Temperature	-50ºC to +105ºC
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)

Typical Performance Plots

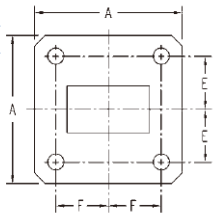


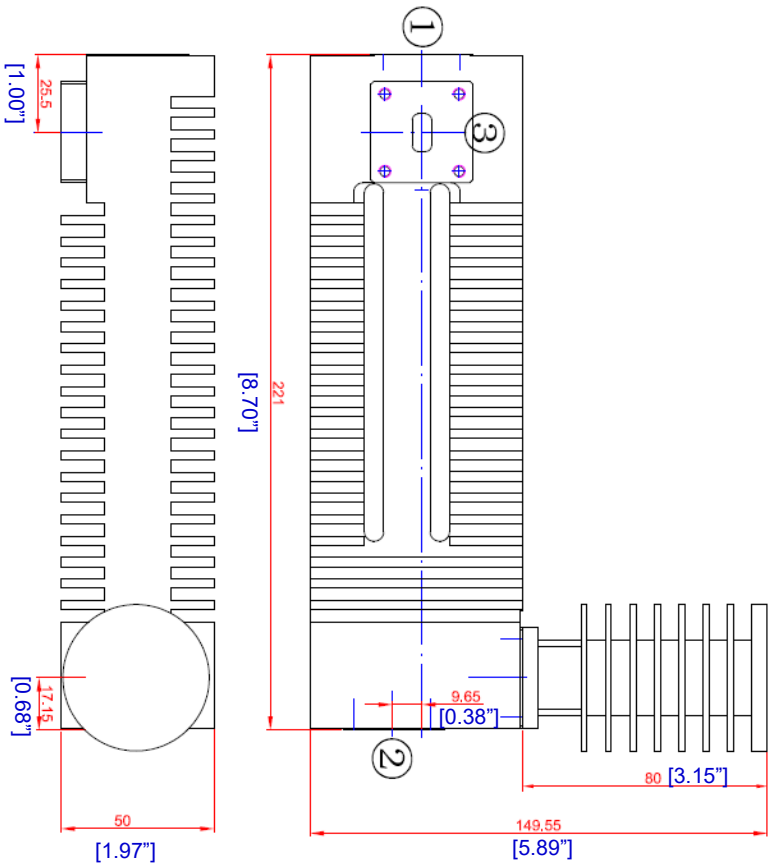
Mkr	Trace	X-Axis	Value	Notes
1	S11	14.5000 GHz	-31.82 dB	
2	S12	14.5000 GHz	-33.74 dB	
3	S21	14.5000 GHz	-0.19 dB	
4	S22	14.5000 GHz	-31.05 dB	
5	S33	14.5000 GHz	-21.76 dB	
6	S44	14.5000 GHz	-32.32 dB	

SN:20210901

Outline Drawing

WR62	WG18	R140
UG419/U	UBR140	
Dimensions	inches	mm
A	1.31 [1]	33.30
E	0.478	12.14
F	0.497	12.63
Hole Dia.	0.144 [2]	4.085





Notes:
1. Package Material: Aluminum Alloy or Copper
2. Plating: Conductive Oxide(not painted)
3. All dimensions are in millimeters [inches].
4. Tolerance ±0.25[0.01].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
RFWC62D-14G15G	WR62	14GHz~15GHz High Power Waveguide Circulator

Important Notice

RF-LAMBDA USA LLC: www.rflambda.com
Sales: sales@rflambda.com Technical: support@rflambda.com