

100W High Power Circulator 1.35GHz-1.85GHz



Product Description

RFLCX17G13G18S is a high power circulator with a frequency range of 1.35 to 1.85GHz.

The circulator has a typical isolation of 20dB. The maximum insertion loss is 0.3dB.

The operating temperature of this product is within -40 to +70°C

Features

- High power handling up to 250W
- 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

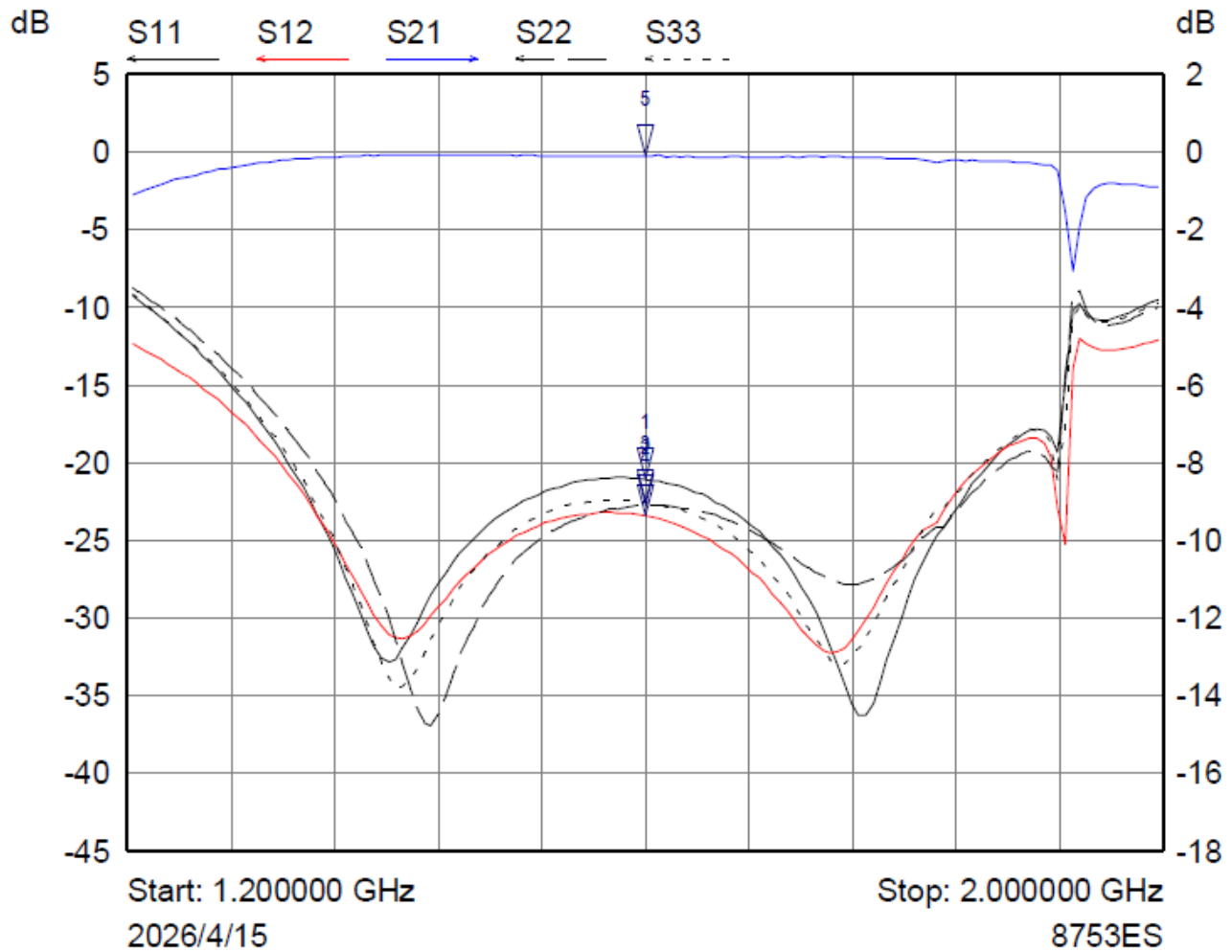
Electrical Specifications (T_A=25°C)

Parameter	Min.	Typ.	Max.	Units
Frequency Range		1.35 – 1.85		GHz
Bandwidth		500		MHz
Insertion Loss			0.3	dB
Isolation	20			dB
VSWR			1.2	:1
Forward Power (CW)			100	W
Reverse Power(CW)			100	W
Peak Power			500	W
Rotation		Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors		SMA–Female		
Impedance		50		Ω

Environmental Specifications and Test Standards

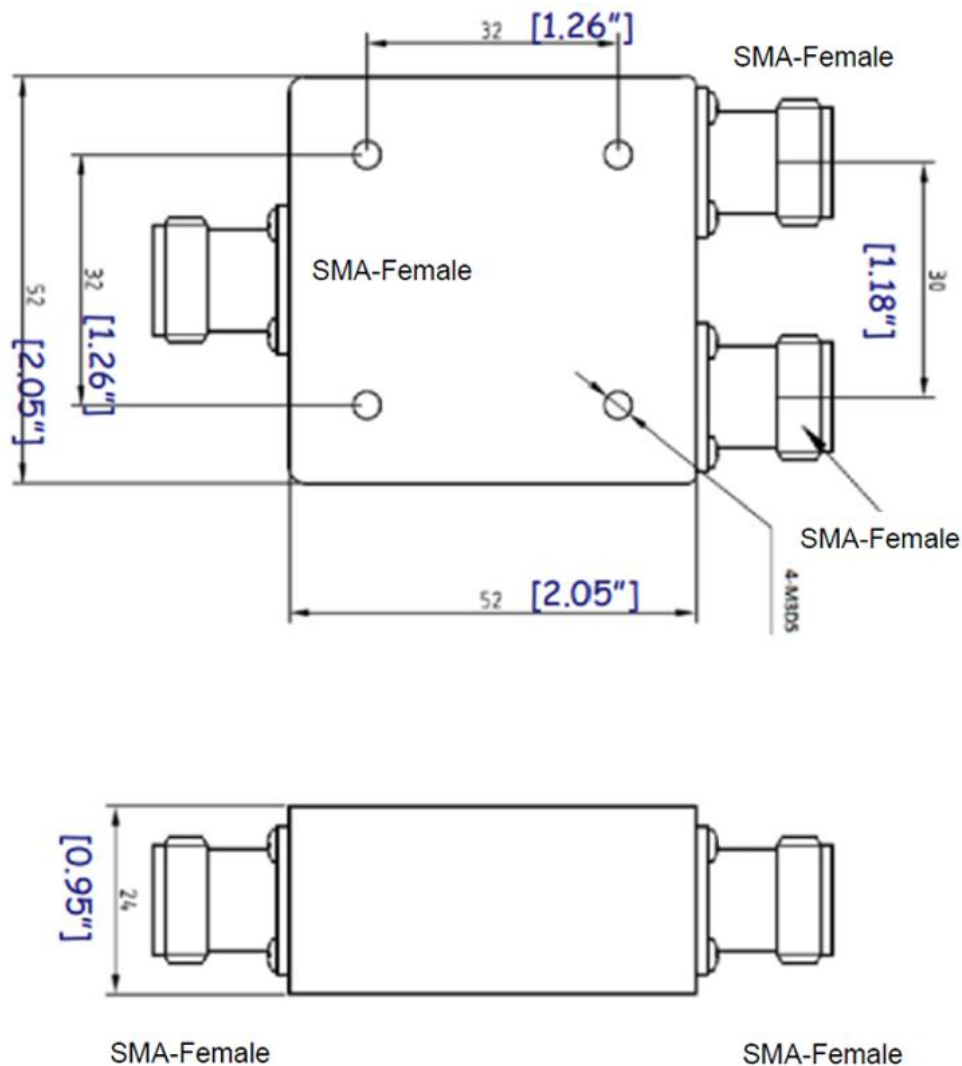
Parameter	Description
Operational Temperature	-40°C to +70°C (Case Temperature)
Storage Temperature	-40°C to +85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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	1.600000 GHz	-21.0668 dB	
2 ▽	S22	1.600000 GHz	-22.7678 dB	
3 ▽	S33	1.600000 GHz	-22.5378 dB	
4 ▽	S12	1.600000 GHz	-23.4233 dB	
5 ▽	S21	1.600000 GHz	-0.0980 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches].

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
RFLCX17G13G18S	Connectors SMA-Female	1.35GHz-1.85GHz High Power Circulator

Important Notice

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