

UHF Dual Junction Circulator 865MHz-868MHz



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

Product Description

RFLC-216-2-865M868M is a UHF Dual Junction Circulator with a frequency range of 865 to 868MHz.

The circulator has a typical isolation of 25dB. The maximum insertion loss is 1.0dB. The circulator has good isolation performance.

The circulator input and output connectors are SMA-Female.

Features

- High power handling up to 50W
- 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

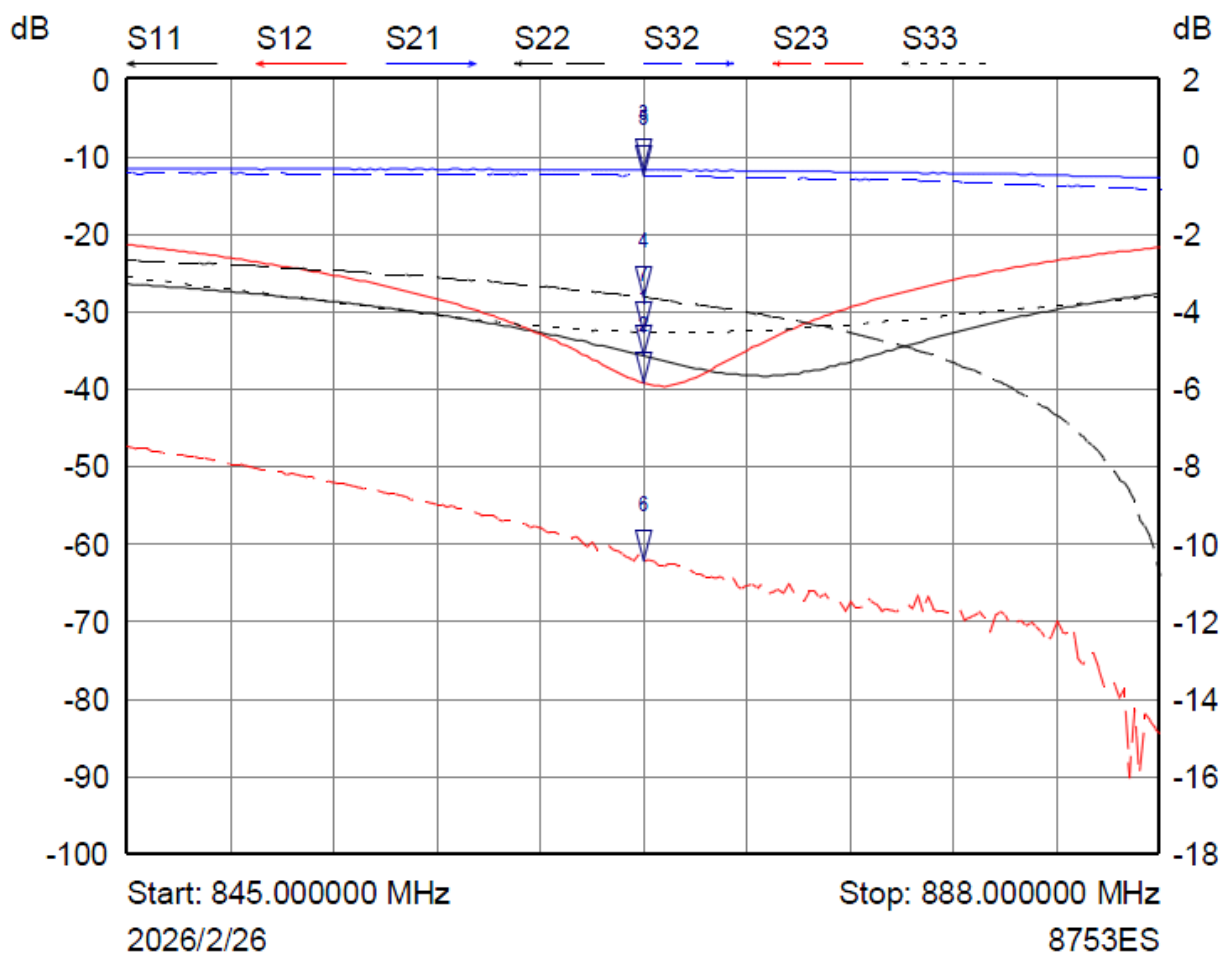
Electrical Specifications($T_A=25^{\circ}\text{C}$)

Parameter		Min	Typ	Max	Units
Frequency Range			865-868		MHz
Insertion Loss	Port 1 -> Port 2			0.5	dB
	Port 2 -> Port 3			1.0	dB
Isolation	Port 3 -> Port 2	50			dB
	Port 2 -> Port 1	25			dB
VSWR				1.25	:1
Power Handling (CW)				50	W
Reverse Power (CW)				20	W
Rotation			Clockwise (Standard) Counter Clockwise (Upon Request)		
Input / Output Connectors			SMA-Female		
Impedance			50		Ω

Environmental Specifications and Test Standards

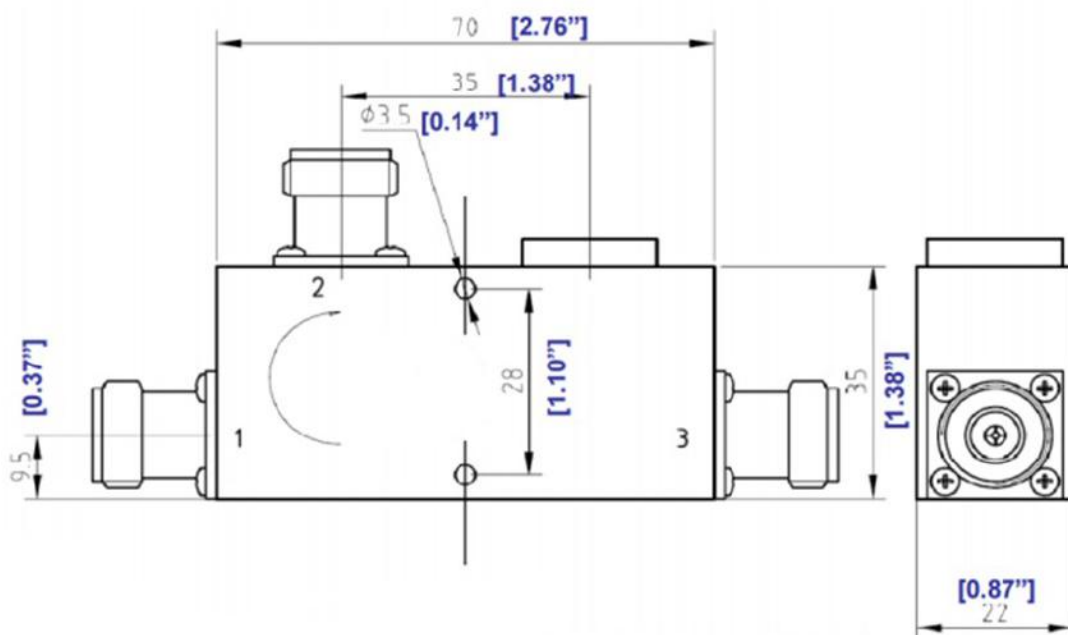
Parameter	Description
Operational Temperature	-40°C to +85°C (Case Temperature)
Storage Temperature	-50°C to +125°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
**Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
Shock	1. Weight >20g, 50g half sine wave for 11ms, 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	866.500000 MHz	-35.6118 dB	
2 ▽	S12	866.500000 MHz	-39.2381 dB	
3 ▽	S21	866.500000 MHz	-0.3362 dB	
4 ▽	S22	866.500000 MHz	-28.1547 dB	
5 ▽	S32	866.500000 MHz	-0.4940 dB	
6 ▽	S23	866.500000 MHz	-62.1650 dB	
7 ▽	S33	866.500000 MHz	-32.6280 dB	

Outline Drawing



Notes:

1. Package Material: Aluminum Alloy
2. Finish: Nickel Plated
3. All dimensions are in millimeters [inches]
4. Standard torque wrench must be used to secure RF connectors.

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
RFLC-216-2-865M868M	Standard	865MHz-868MHz UHF Dual Junction Circulator

Important Notice

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