

Ultra Wide Band Coaxial Circulator 17 - 22GHz



Features

- High power handling up to 10W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

Typical Applications

- Aerospace and Military Applications
- Test and Measurement
- Wireless Infrastructure

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

Parameter	Min.	Typ.	Max.	Units
Frequency Range	17-22			GHz
Insertion Loss		1.0	1.50	dB
Isolation	15	16		dB
VSWR		1.30	1.40	:1
Forward Power (CW)			10	W
Rotation	Clockwise			
Input /Output Connectors	SMA-Female			
Finish	Nickel Plated			
Case Material	Aluminum Alloy			
Weight	1.1 Max.			ounces
Impedance	50			Ω

Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss
 Bandwidth (5 ~10) % x Center Frequency (Isolation >20dB)
 Bandwidth (20~30) % x Center Frequency (Isolation >19dB)
 Bandwidth (40~60) % x Center Frequency (Isolation >17dB)
 Ask manufacturer for details

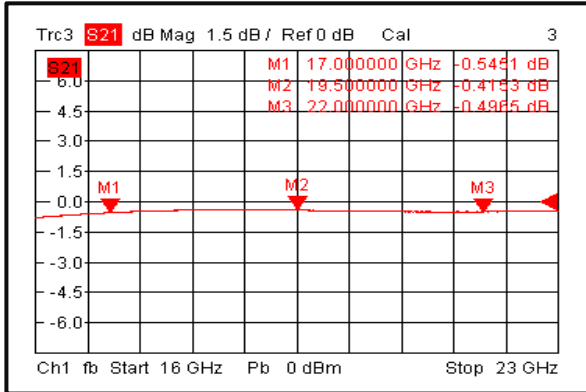
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Environmental Specifications and Test Standards

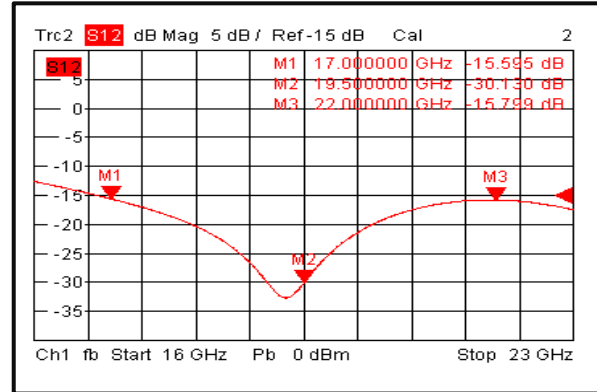
Parameter	Description
Operational Temperature	-20°C~+70°C (Case Temperature)
Storage Temperature	-45°C~+85°C
Thermal Shock	-40°C → +85°C (5 Cycles / 10 hours)
Random Vibration	MIL-STD-202G Table 214-I, Test Condition Letter C 1.5 Hours Per Axis
High Temperature Burn In	Temperature +85°C for 72 Hours
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

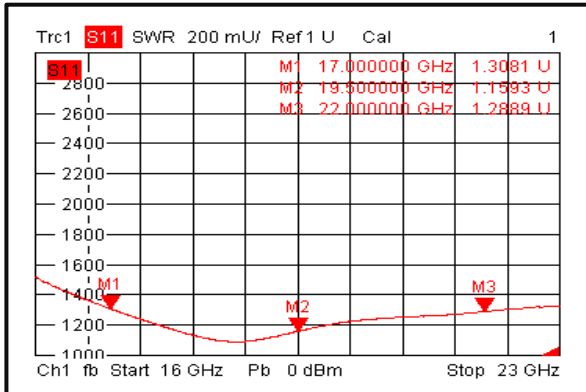
Insertion Loss



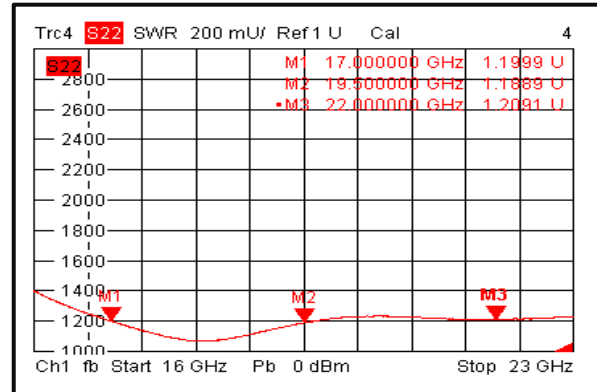
Isolation



VSWR 1



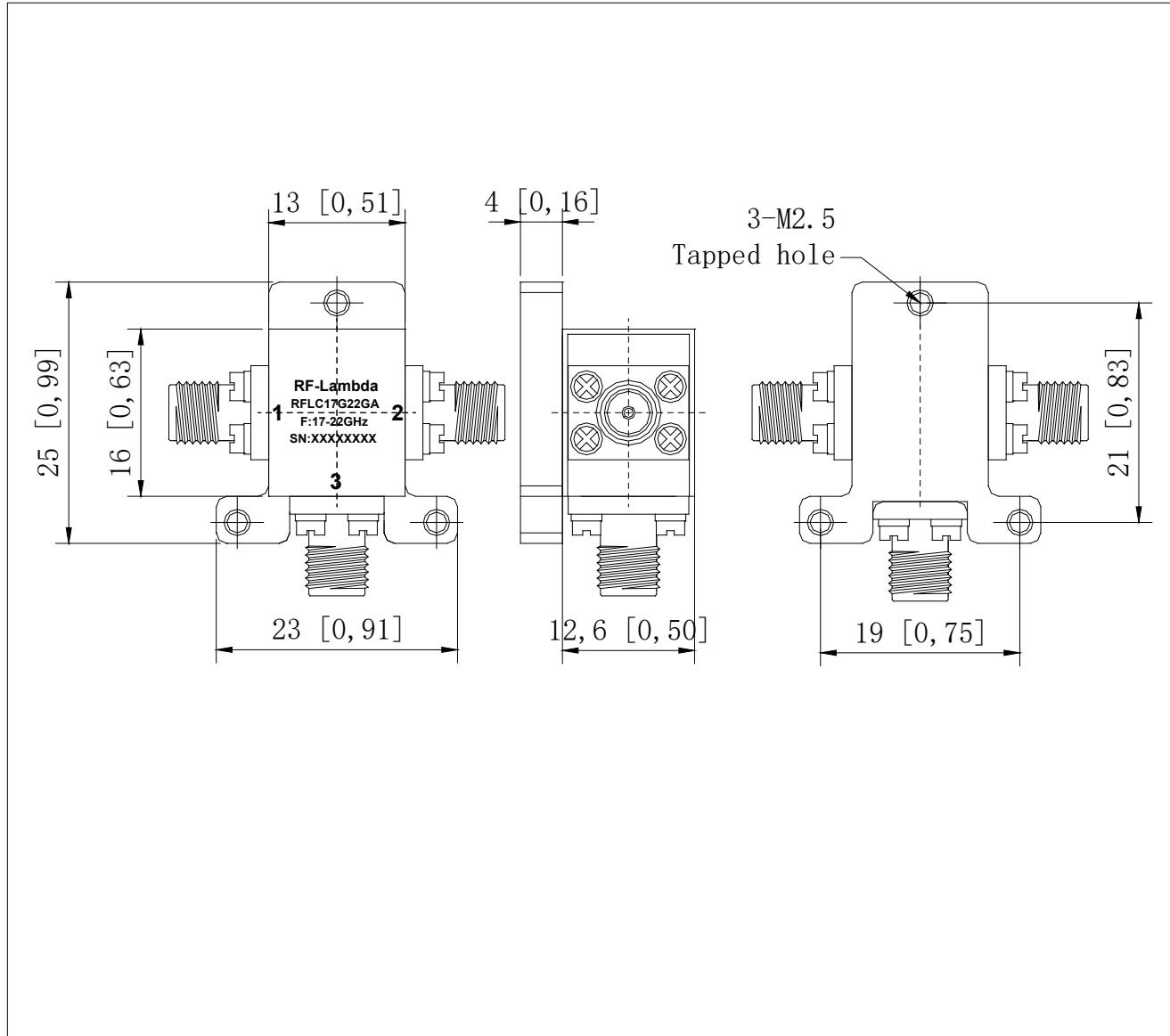
VSWR2



Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



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