25W WR42 Waveguide Isolator 18-26.5GHz

Features

- High power handling up to 25W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature

Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation

Electrical Specifications, T_A=25 ℃

Parameter	Min	Typ	Max	Units
Frequency Range		18~26.5		GHz
Insertion Loss		0.25	0.40	dB
Isolation (Note 1)	20	21		dB
VSWR		1.20	1.25	:1
Forward Power (CW)			25	W
Reverse Power (CW)			5	W
Rotation	Clockwise (Standard) Counter Clockwise (upon request)			
Input / Output Connectors	COVER flat 4 holes			
Flange Type	UG595/U			
Finish	Conductive Oxidation			
Case Material	Aluminum alloy			
Weight	2.2 max.			ounces
Impedance	-------			Ω

Note 1: Units which have a narrower frequency bandwidth can achieve higher isolation & lower insertion loss
Bandwidth (5 ~10) % x Center Frequency (Isolation >25dB)
Bandwidth (20~30) % x Center Frequency (Isolation >23dB)
Bandwidth (40~60) % x Center Frequency (Isolation >22dB)
Ask manufacturer for details

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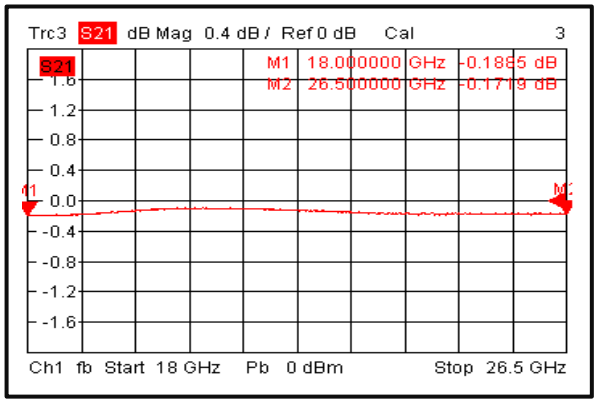
Environmental Specifications and Test Standards

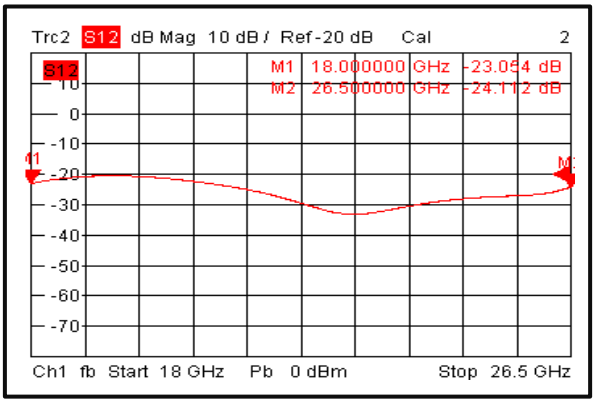
Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-25℃~+60℃
Storage Temperature		-45℃~+85℃
Thermal Shock		1 Hour@ -45℃ → 1 Hour @ +85℃ (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85℃ for 72 Hours
Shock		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	MIL-STD-883 (For Hermetically Sealed Units)

Typical Performance Plots

Insertion Loss



Isolation



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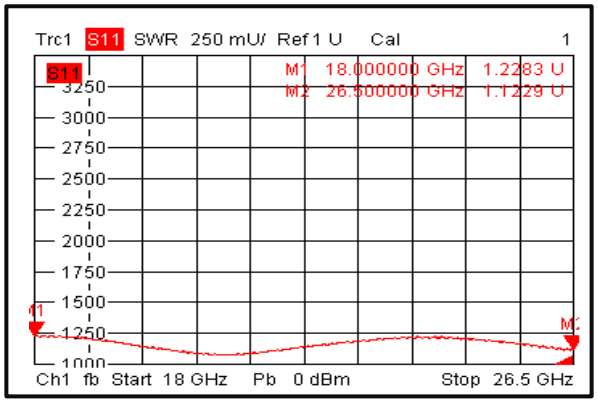
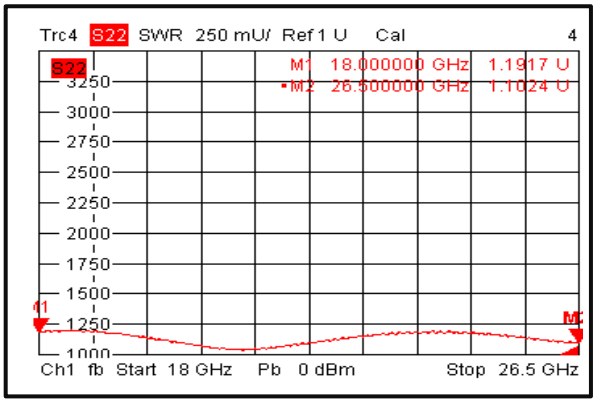
VSWR 1

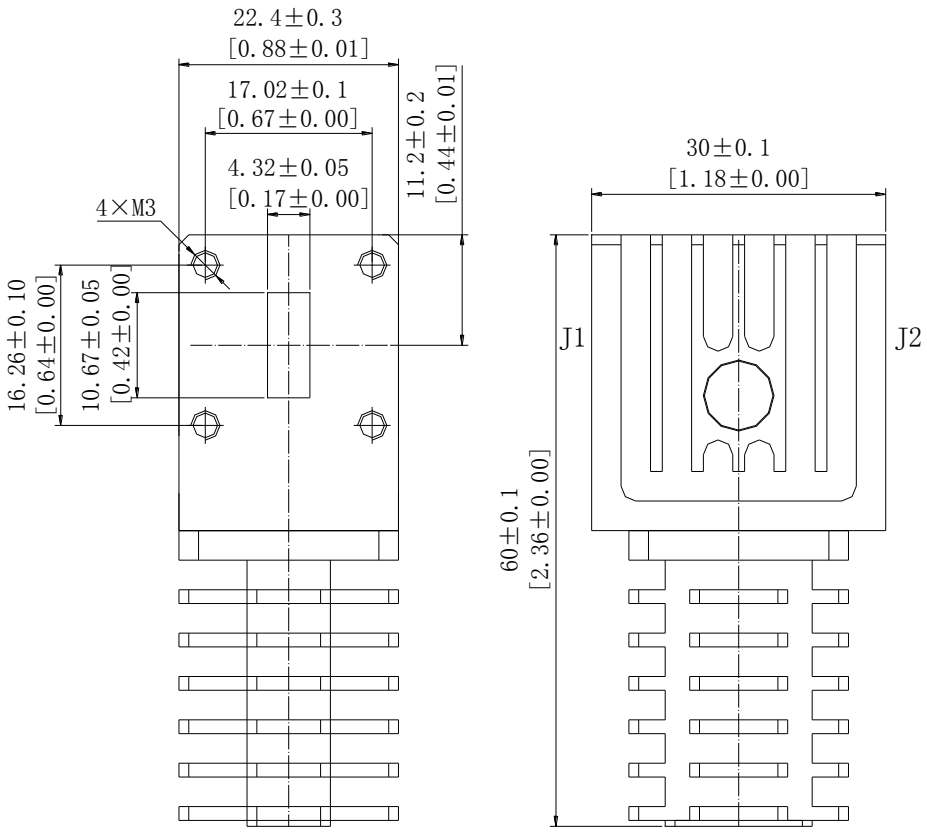


VSWR2



Outline Drawing:

All Dimensions in mm [inches]



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