



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFWC187C4750

WR187 Waveguide Circulator 4.5 - 5GHz 1000W

Features

- High power handling capability up to 1000W
- Wide band operation
- High isolation within operational band
- Low Insertion loss
- Stable performance over temperature
- High peak to average handling capability
- All specifications can be modified upon request



Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation

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

Parameter	Min	Typ.	Max	Units
Frequency Range	4.5-5			GHz
Insertion Loss			0.40	dB
Isolation (Note 1)	21			dB
VSWR			1.20	:1
Average Power			1000	W
Rotation	Clockwise (Standard) Counter Clockwise (available upon request)			
Input / Output Interface	COVER flat 4 holes			
Flange Type	UG 1729/U			
Finish	Conductive Oxidation			
Case Material	Aluminum Alloy			
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 >25dB) Bandwidth (20~30) % x Center Frequency (Isolation >23dB) Bandwidth (40~60) % x Center Frequency (Isolation >21dB) Ask manufacturer for details				

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Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-20°C~+60°C
Storage Temperature		-20°C~+60°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & 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	MIL-STD-883	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)

