



### Coaxial 50W 15dB Dual Directional Coupler 6-18 GHz



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

#### Features

- High power handling up to 50W
- Wide band operation
- High directivity within operational band
- Low Insertion Loss
- Stable performance over temperature

#### Typical Applications

- Aerospace and Military
- Wireless Infrastructure
- Test and Measurement

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

Parameters		Min.	Typ.	Max.	Units
Frequency Range		6		18	GHz
Nominal Coupling		14	15	16	dB
Frequency Sensitivity			$\pm 0.5$	$\pm 0.75$	dB
Directivity		12	15		dB
Insertion Loss (Excl Coupling)				0.5	dB
Insertion Loss (true)			0.6	0.8	dB
VSWR Primary			1.35	1.5	:1
VSWR Secondary			1.35	1.5	:1
Power Rating	Average	50			W
	Peak	500			W
Impedance		50			Ohms
Weight		/			ounces
Input / Output Connectors		SMA-Female			
Material		Aluminum			
Finish		Blue Paint			

Coaxial 50W 15dB Dual Directional Coupler 6-18 GHz



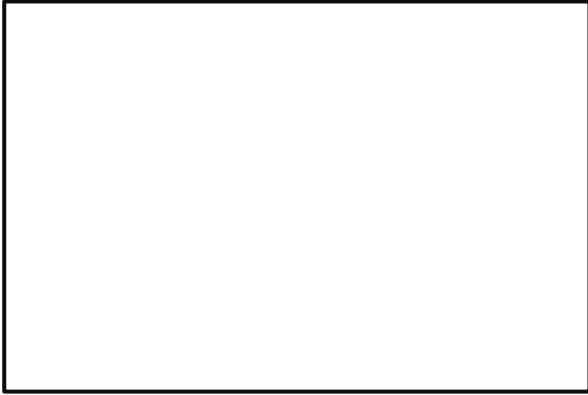
**Environmental Specifications and Test Standards**

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-50°C~+105°C
Thermal Shock		1 Hour@ -40°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		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)

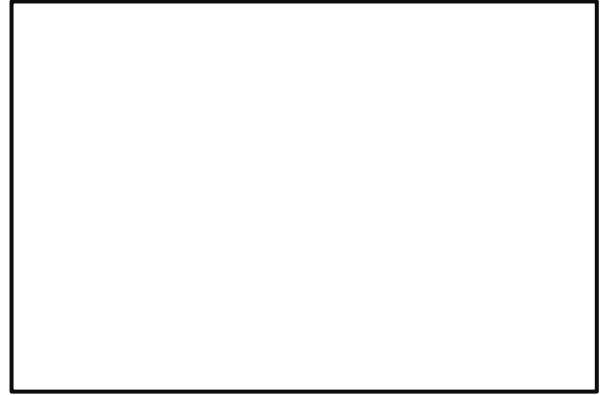


Typical Performance Plots

Insertion Loss



Primary VSWR



Secondary VSWR



Directivity



Nominal Coupling



**Coaxial 50W 15dB Dual Directional Coupler 6-18 GHz**

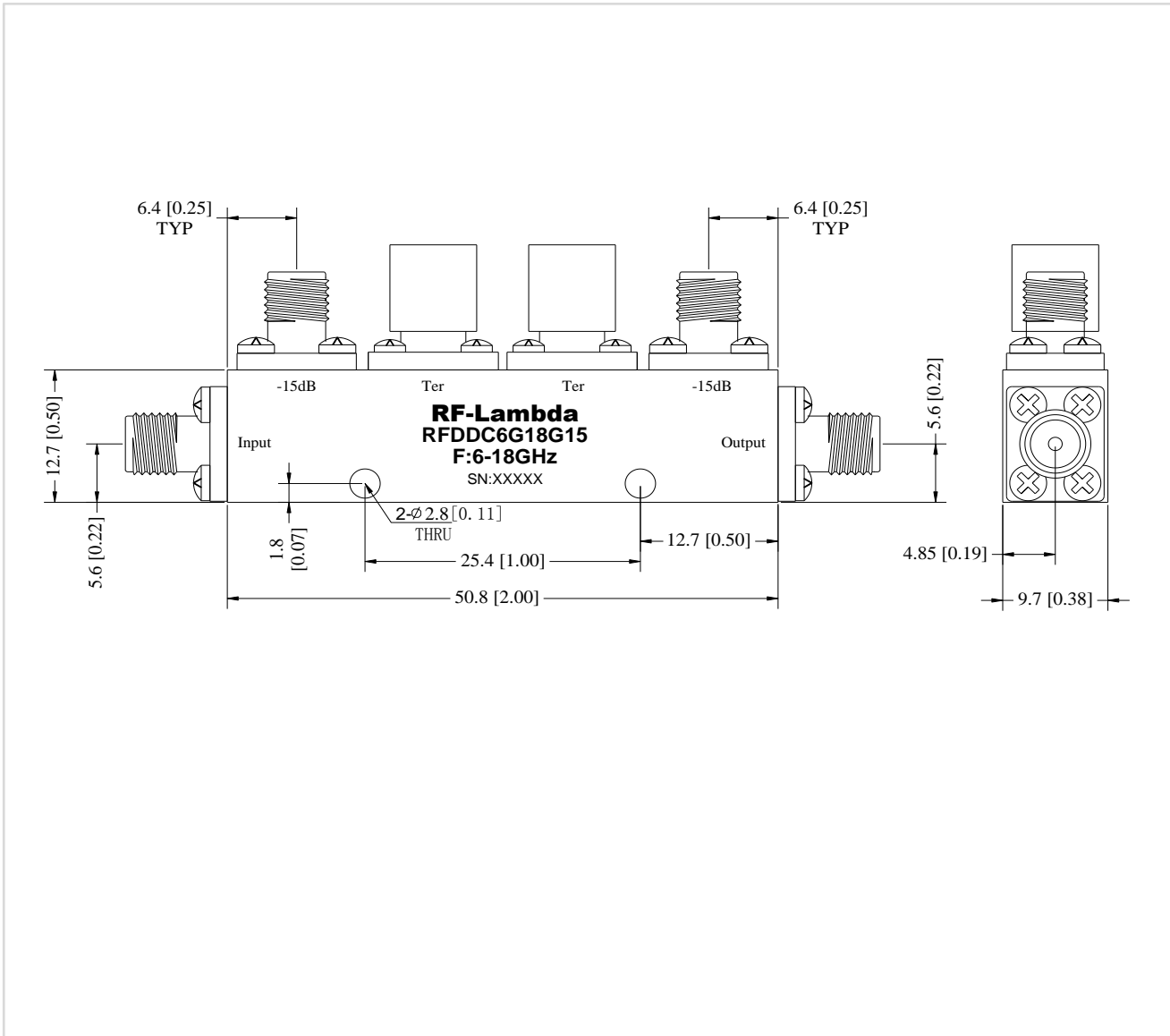


### Outline Drawing:

All Dimensions in mm [inches]

Outline Tolerances  $\pm 0.5$  [0.02]

Mounting Holes Tolerances  $\pm 0.2$  [0.008]



Coaxial 50W 15dB Dual Directional Coupler 6-18 GHz

### Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.