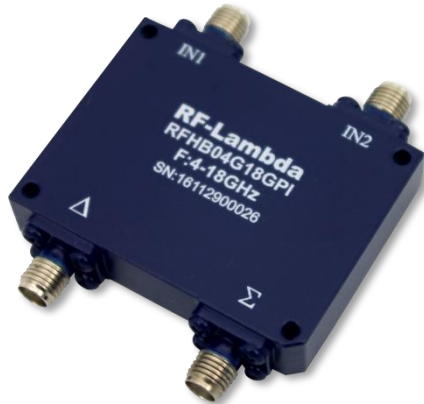




### Coaxial 50W 180° Hybrid Coupler 4 - 18GHz



#### Features

- High power handling up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation
- High peak to average handling capability
- All specifications can be modified upon request

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

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units	
Frequency Range	4		8	8		18	GHz	
Nominal Coupling		3			3		dB	
Insertion Loss		1.0	1.2		1.3	1.6	dB	
Isolation	18	20		16	18		dB	
Amplitude Imbalance		$\pm 0.6$	$\pm 0.8$		$\pm 0.8$	$\pm 1.0$	dB	
Phase Imbalance		$\pm 6$	$\pm 10$		$\pm 8$	$\pm 12$	deg	
VSWR		1.3	1.5		1.5	1.6	: 1	
Power Rating	Average	50						W
	Peak	500						W
Impedance	50						Ohms	
Weight	2.12						Ounces	
Input / Output Connectors	SMA-Female							
Material	Aluminum							
Finishing	Blue paint							

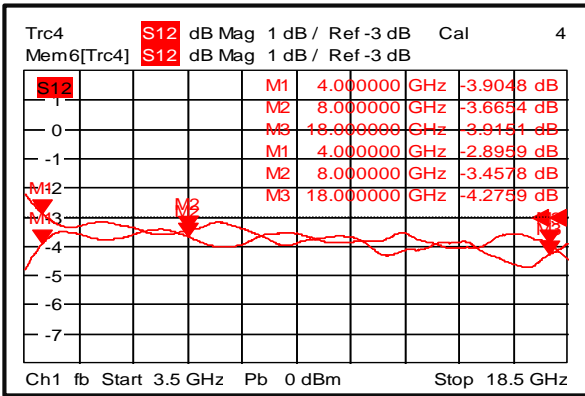
#### Environmental Specifications

Operational Temperature ( $^\circ\text{C}$ )	-45 to +85
Storage Temperature ( $^\circ\text{C}$ )	-55 to +125
Altitude	30,000 ft. (Epoxy Sealed Controlled environment)
	60,000 ft. 1.0psi min (Hermetically Sealed Un-controlled environment) (Optional)
Vibration	25g RMS (15 degrees 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msec half sine wave, 3 axis both directions

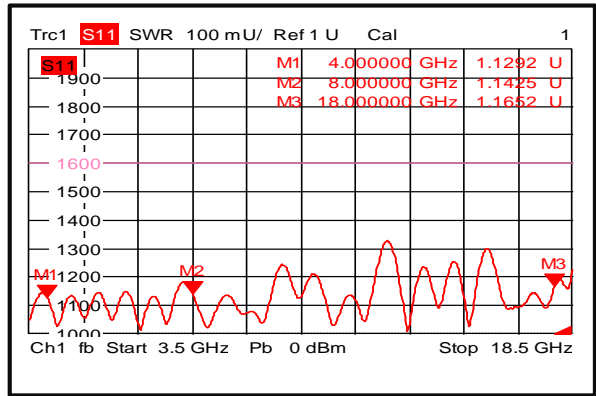


**Typical Performance Plots**

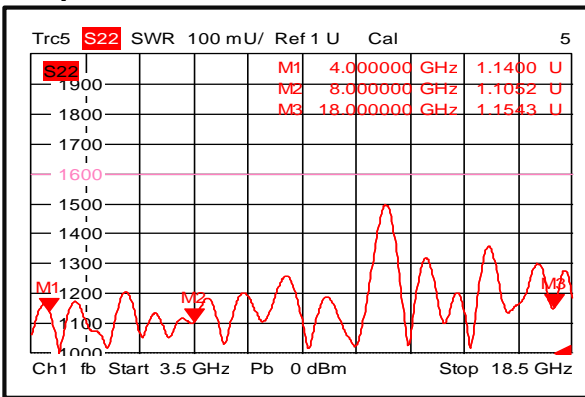
**Loss & Amplitude Imbalance**



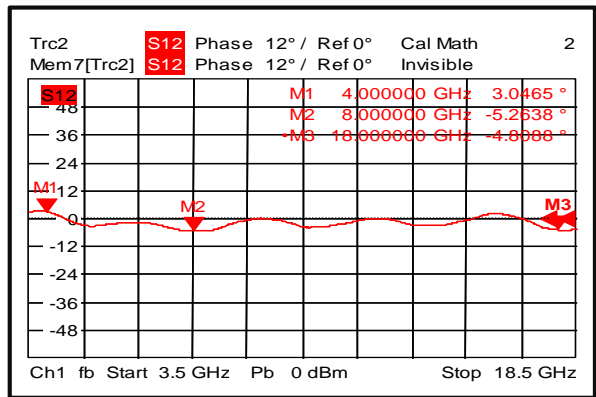
**Input VSWR**



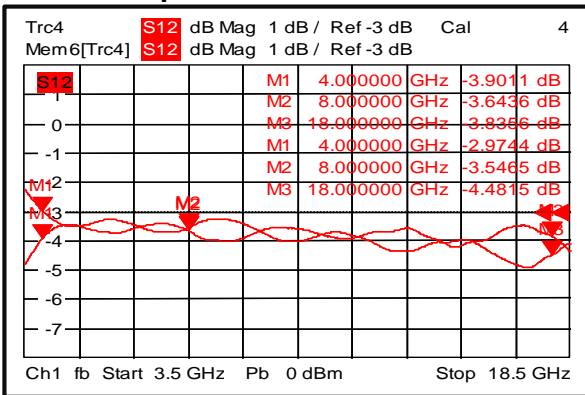
**Output VSWR**



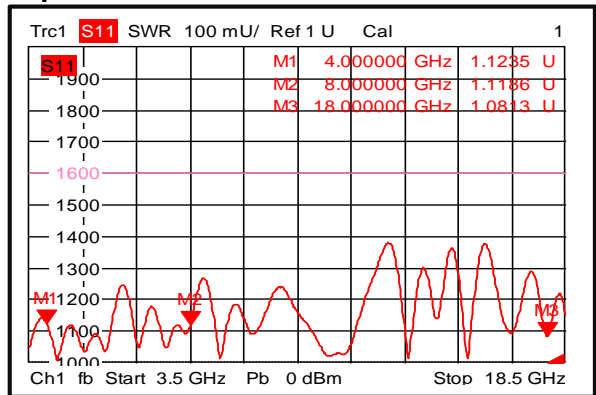
**Phase Imbalance**



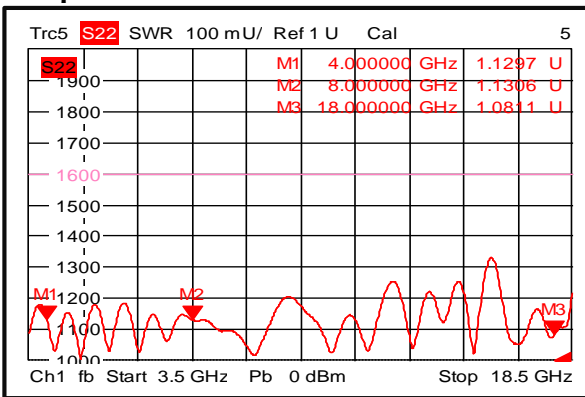
**Loss & Amplitude Imbalance**



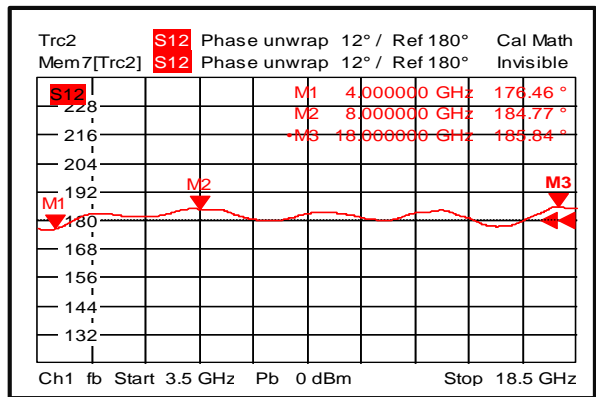
**Input VSWR**



**Output VSWR**



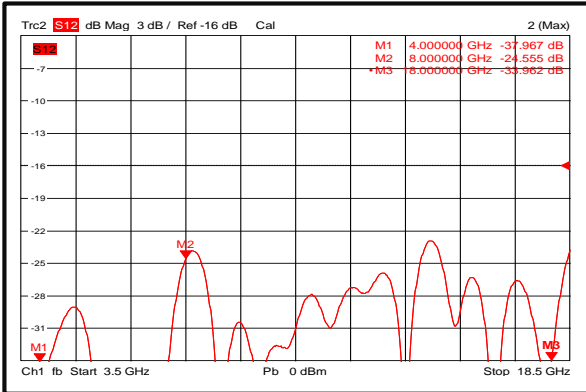
**Phase Imbalance**



**Coaxial 50W 180° Hybrid Coupler 4 - 18 GHz**

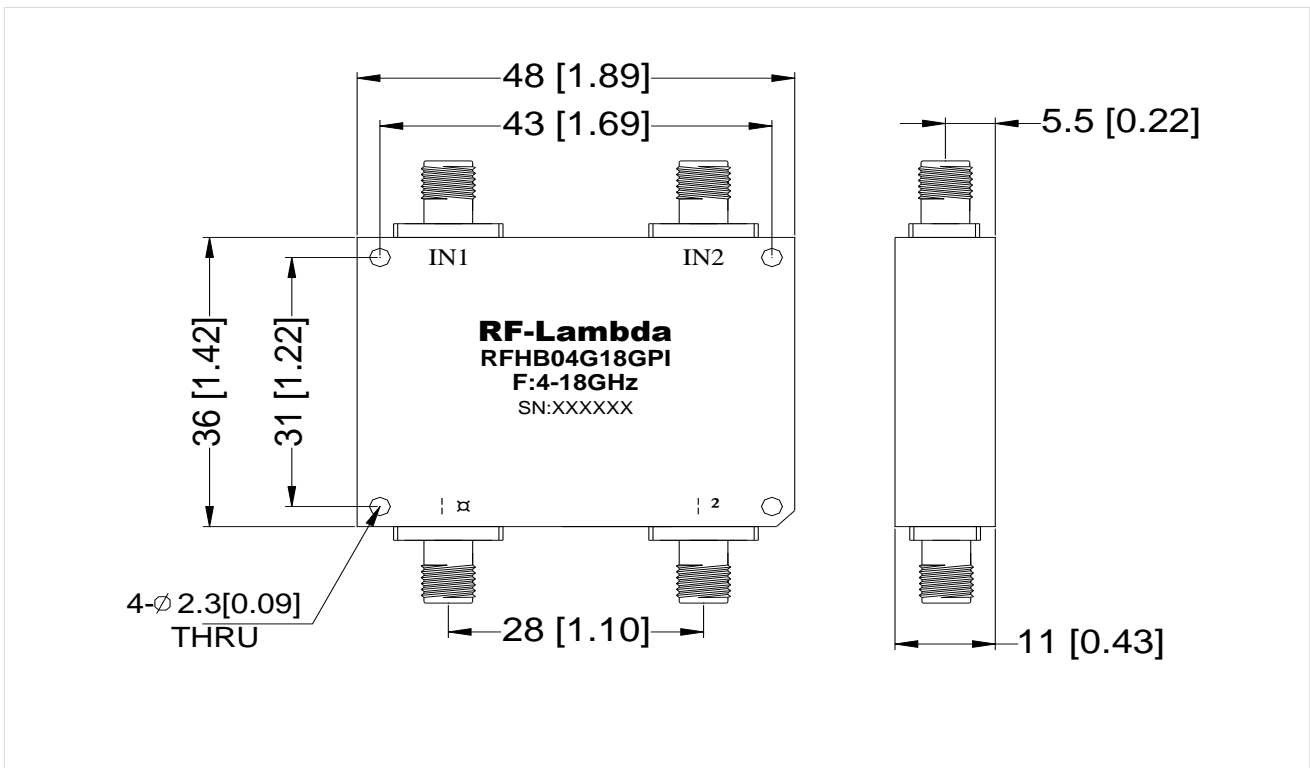


**Isolation**



**Outline Drawing:**

All Dimensions in mm [inches]  
Tolerances  $\pm 0.2$  [0.008]



**Important Notice**

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**Coaxial 50W 180° Hybrid Coupler 4 - 18 GHz**