



Coaxial 200W 90° Hybrid 1.71 – 1.88GHz



Features

- High power handling up to 200W
- Functional Bandwidth : 1.4GHz to 2.2 GHz
- High isolation within operational band
- Low Insertion Loss
- Stable performance over temperature
- High peak to average handling capability

Typical Applications

- Aerospace and military applications
- LMDS multi-carrier operation



Electrical Specifications, $T_A=25^\circ C$

Parameters	Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range	1.71		1.88	1.4		2.2	GHz
Nominal Coupling		3			3		dB
Insertion Loss		0.15	0.3		0.25	0.35	dB
Isolation	26	28		21	25		dB
Amplitude Imbalance		± 0.1	± 0.2		± 0.35	± 0.5	dB
Phase Imbalance		± 1.5	± 3		± 2.0	± 4	deg
VSWR		1.1	1.15		1.15	1.2	: 1
Power Rating	Average	200					W
	Peak	3					KW
Impedance	50						Ohms
Weight	/						ounces
Input / Output Connectors	N-Female						
Material	Aluminum						
Finishing	Blue paint						

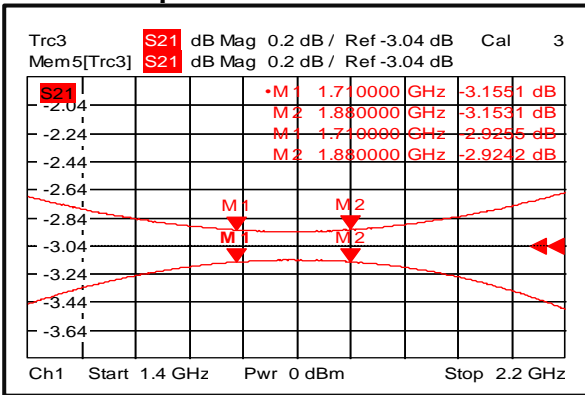
Environmental Specifications

Operational Temperature (°C)	-45 to +85
Storage Temperature (°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 35°C, 95%RH at 40°C
Shock	20G for 11msec half sine wave, 3 axis both directions

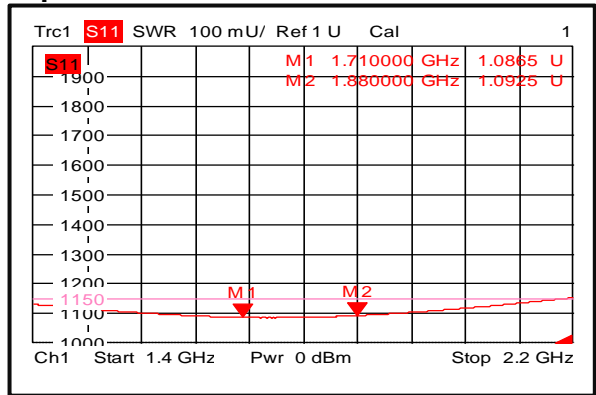


Typical Performance Plots

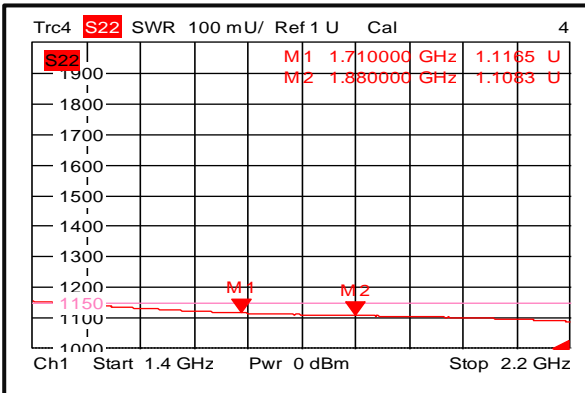
Loss & Amplitude Imbalance



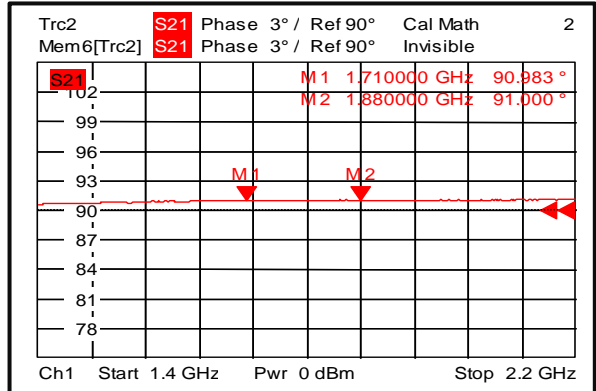
Input VSWR



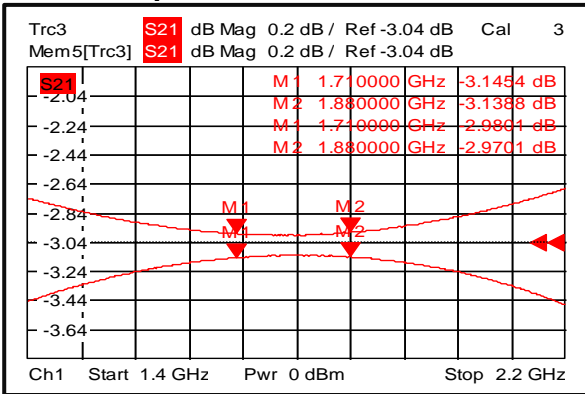
Output VSWR



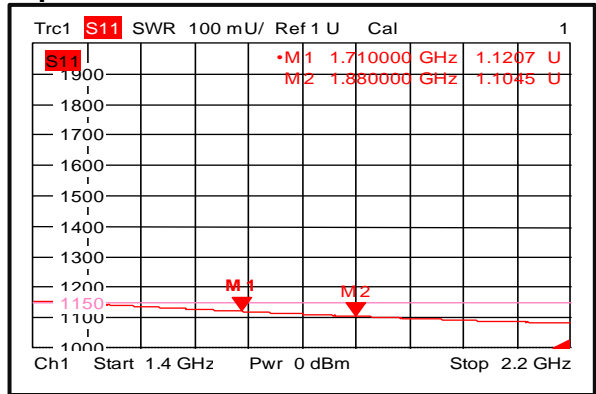
Phase Imbalance



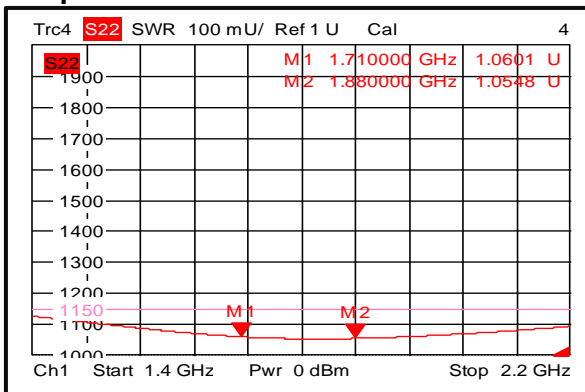
Loss & Amplitude Imbalance



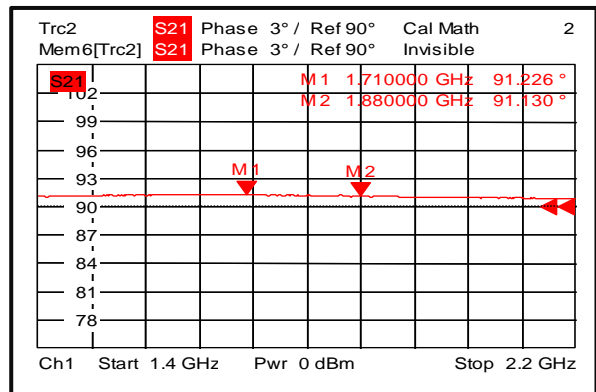
Input VSWR



Output VSWR



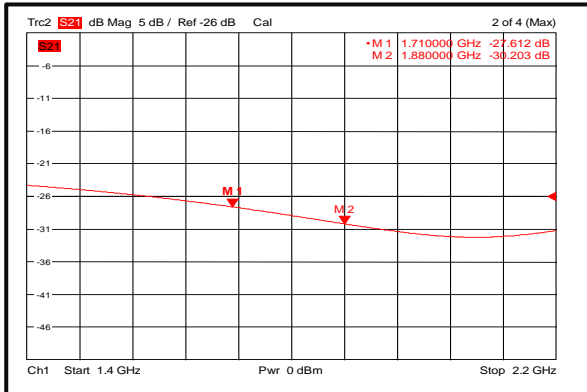
Phase Imbalance



Coaxial 200W 90° Hybrid Coupler 1.71 - 1.88GHz

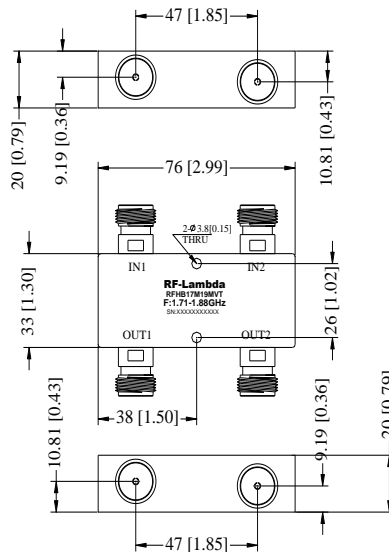


Isolation

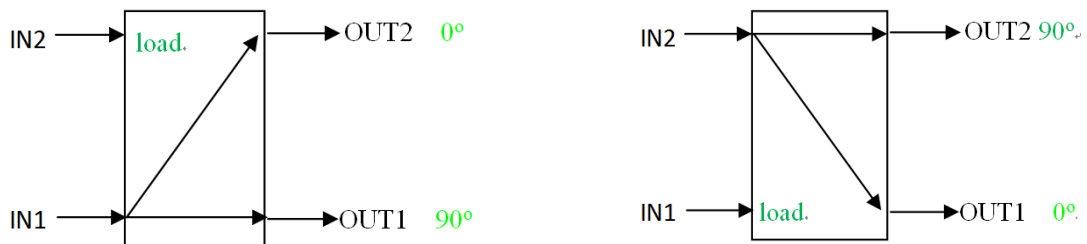


Outline Drawing:

All Dimensions in mm [inches]
Tolerance ± 0.25 [0.01]



Schematic:



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