



Coaxial 50W 90° Hybrid 2 - 8GHz



Features

- High power handling up to 50 W
- Ultra Wide band operation
- High isolation within operational band
- Low Insertion Loss
- High peak to average handling capability

Typical Applications

- Stable performance over temperature
- Aerospace and military applications
- LMDS multi-carrier operation



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

Parameters		Min.	Typ.	Max.	Min.	Typ.	Max.	Units
Frequency Range		2		4	4		8	GHz
Nominal Coupling			3			3		dB
Insertion Loss			0.4	0.6		0.6	0.8	dB
Isolation		20	25		20	25		dB
Amplitude Imbalance			± 0.5	± 0.7		± 0.5	± 0.7	dB
Phase Imbalance			± 4	± 5		± 5	± 6	deg
VSWR			1.15	1.2		1.2	1.25	: 1
Power Rating	Average	50						W
	Peak	500						W
Impedance		50						Ohms
Weight		1.76						Ounces
Input / Output Connectors		SMA - Female						
Material		Aluminum						
Finishing		Blue paint						

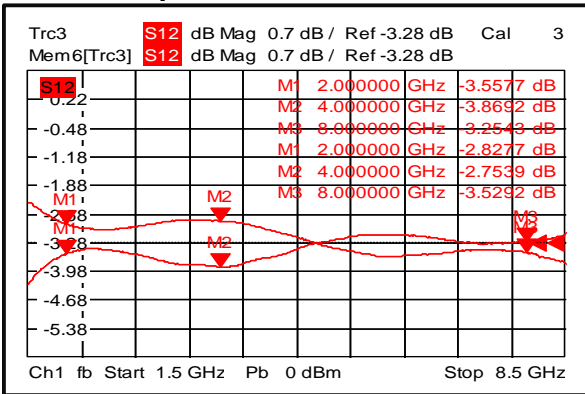
Environmental Specifications

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

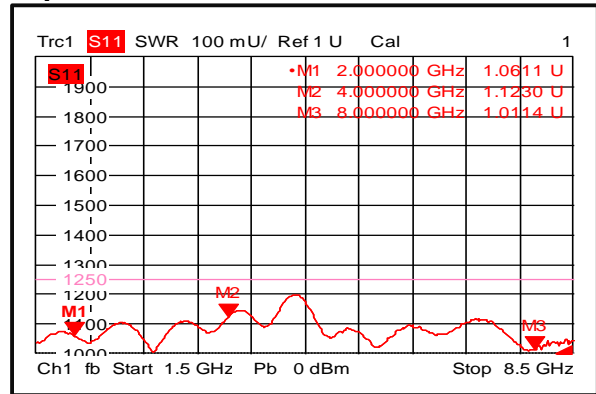


Typical Performance Plots

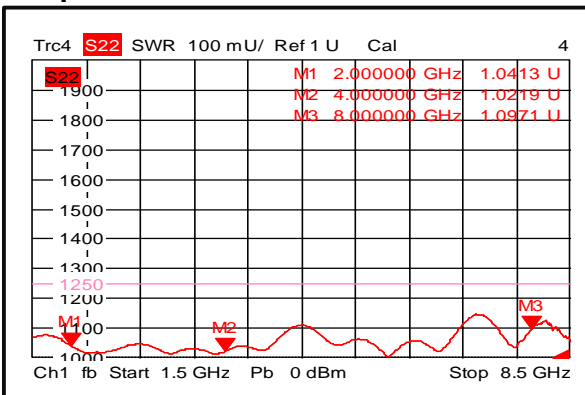
Loss & Amplitude Imbalance



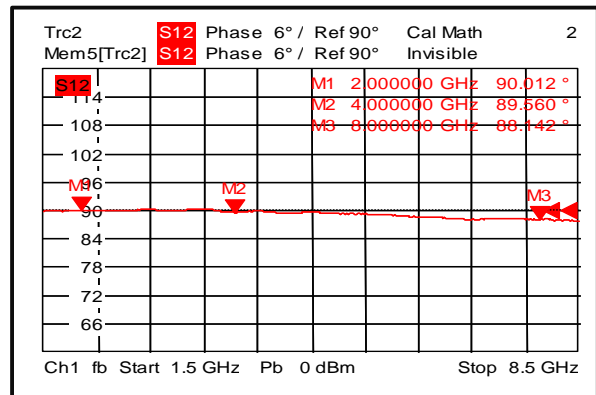
Input VSWR



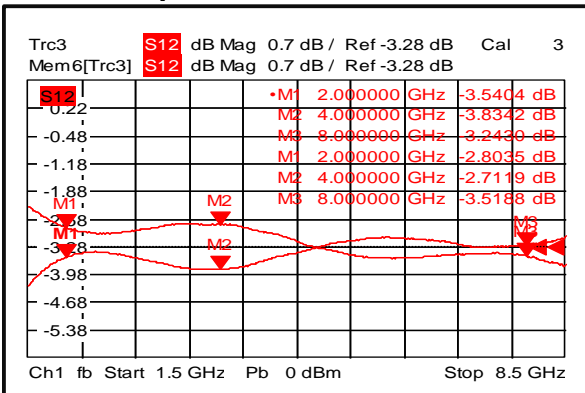
Output VSWR



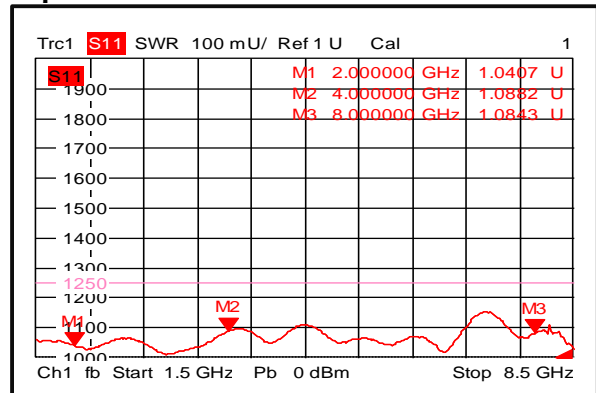
Phase Imbalance



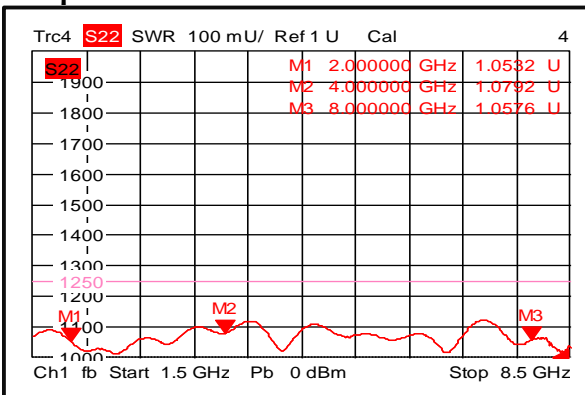
Loss & Amplitude Imbalance



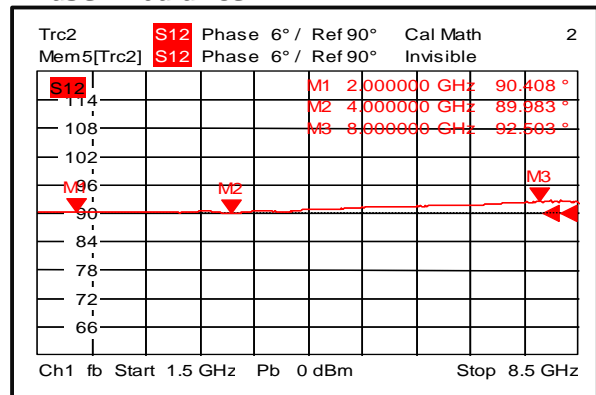
Input VSWR



Output VSWR

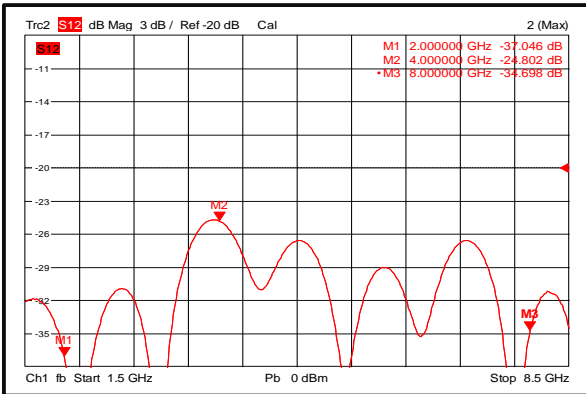


Phase Imbalance





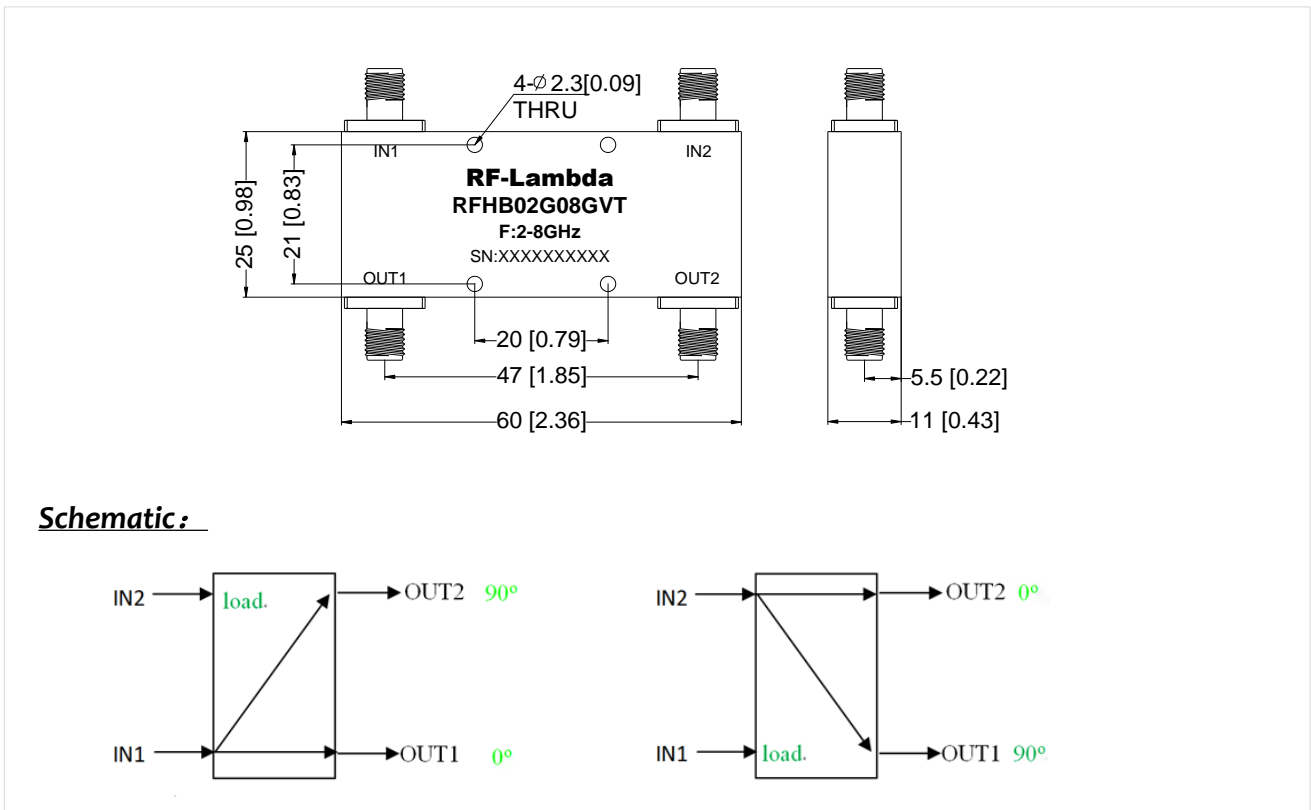
Isolation



Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.2 [0.008]



Coaxial 50W 90° Hybrid Coupler 2 - 8GHz

Important Notice

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