



Coaxial 20W 90° Hybrid Coupler 2 - 40GHz



Features

- High power handling up to 20W
- 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	2		8	8		40	GHz
Nominal Coupling		3			3		dB
Insertion Loss			1.0			2.5	dB
Isolation	15	18		10	12		dB
Amplitude Imbalance		± 1.5	± 1.8		± 0.8	± 1.2	dB
Phase Imbalance			± 8			± 10	deg
VSWR		1.4	1.6		1.6	1.8	: 1
Power Rating	Average	20					W
	Peak	200					W
Impedance	50					Ohms	
Weight	1.06					ounces	
Input / Output Connectors	2.92 - Female						
Material	Aluminum						
Finishing	Blue paint						

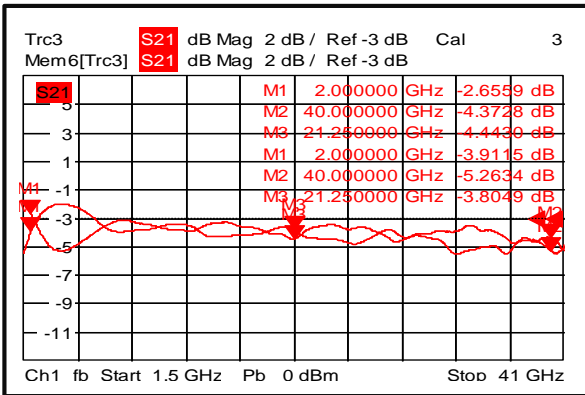
Environmental Specifications

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

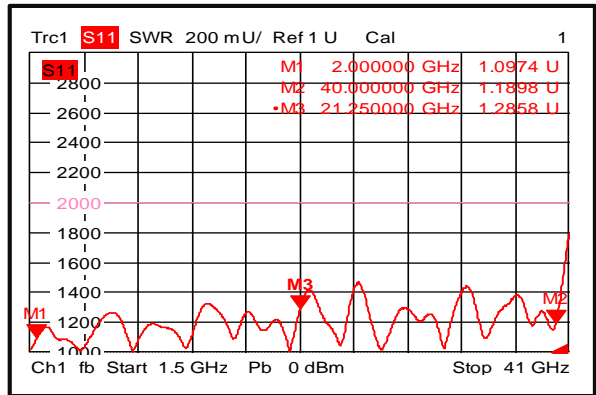


Typical Performance Plots

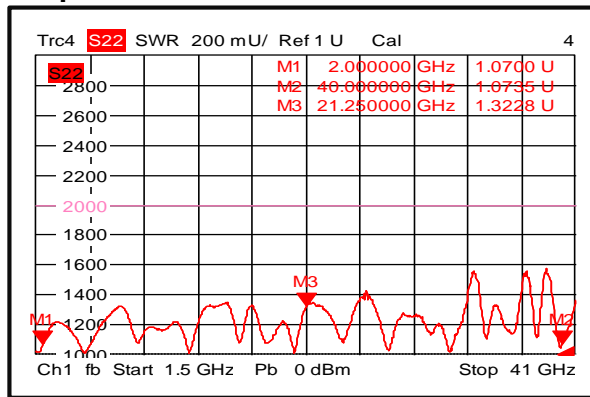
Loss & Amplitude Imbalance



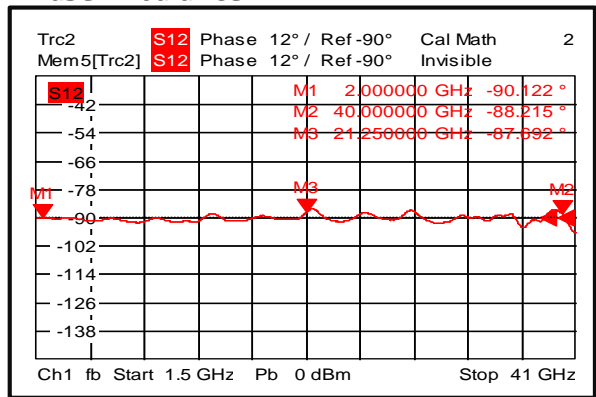
Input VSWR



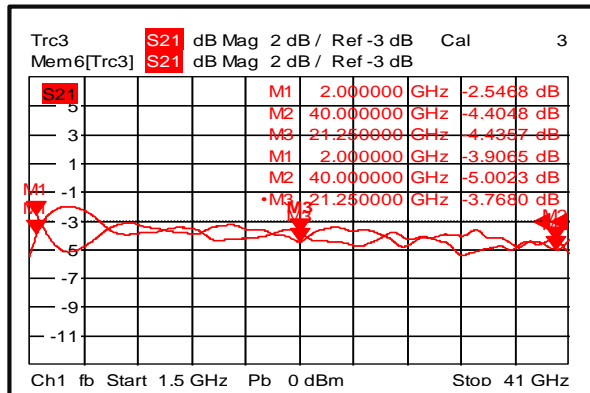
Output VSWR



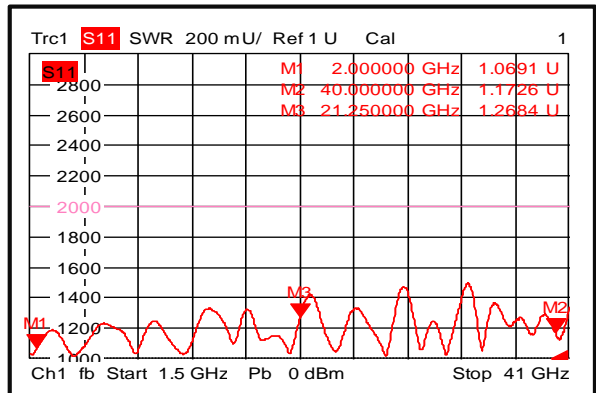
Phase Imbalance



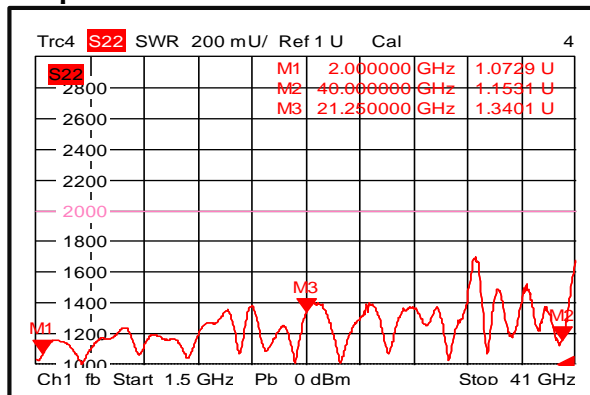
Loss & Amplitude Imbalance



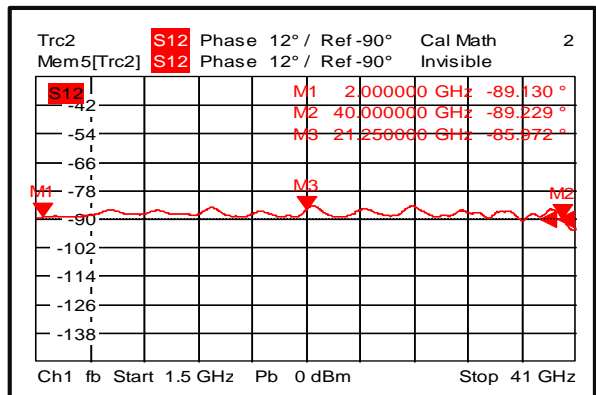
Input VSWR



Output VSWR



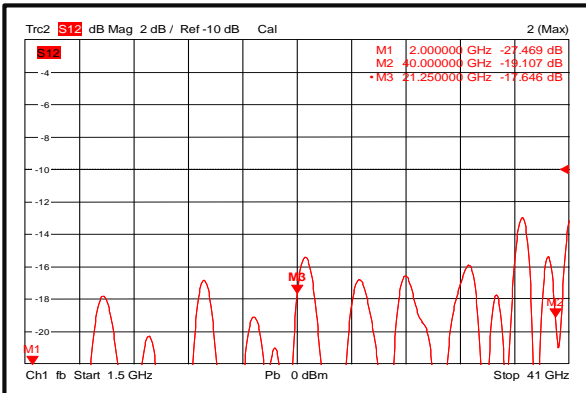
Phase Imbalance



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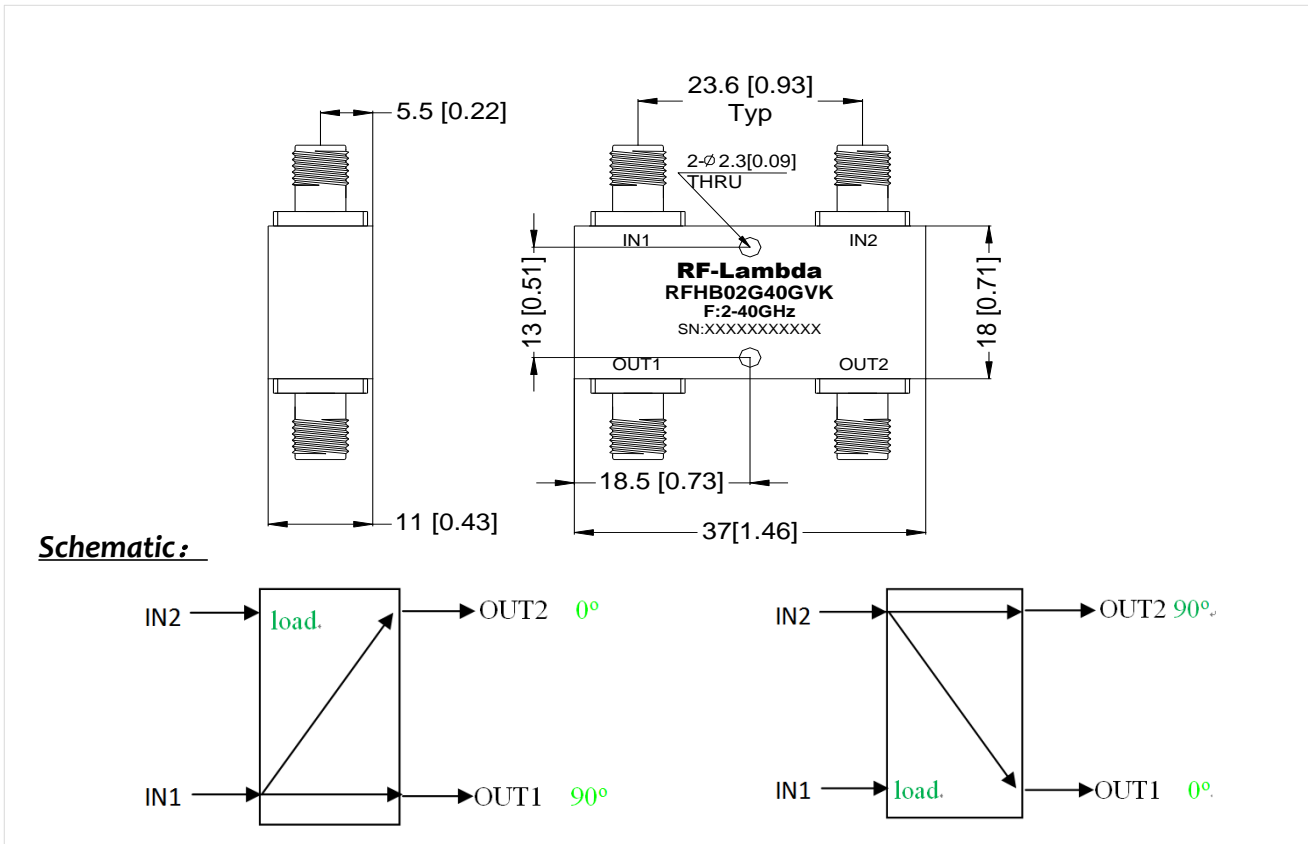
Isolation



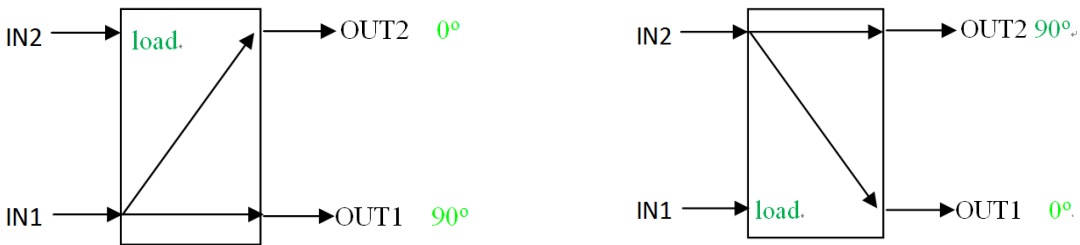
Outline Drawing:

All Dimensions in mm [inches]

Tolerances ± 0.2 [0.008]



Schematic:



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