Coaxial 50 W 4-18GHz 180° Hybrid Coupler

RoHS Compliant

- High power handle capability up to 50W
- Wide band operation
- High isolation within operational band
- Low Insertion loss
- Low temperature coefficient material offer stable performance over temperature
- Aerospace and military application
- LMDS multi-carrier operation
- High peak to average handle capability
- All specifications can be modified upon request

Electrical Specifications

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 Unbalance			±0.6	±0.8		±0.8	±1.0	dB
Phase Unbalance			±6	±10		±8	±12	deg
VSWR			1.3	1.5		1.5	1.6	
Power Rating	Average	50						W
	Perk	0.5						KW
Impedance		50						Ohms
Weight		1.94						Ounces
Operating Temperature		-45 to +85						℃
Input / Output Connector		SMA-Female						
Material		Aluminum						
Finishing		Gray paint						

Environment Specifications

Operational Temperature (℃)	-45 to +85
Storage Temperature (℃)	-55 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment)（Optional）
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH at 40 deg c
Shock	20G for 11msc half sin wave,3 axis both directions

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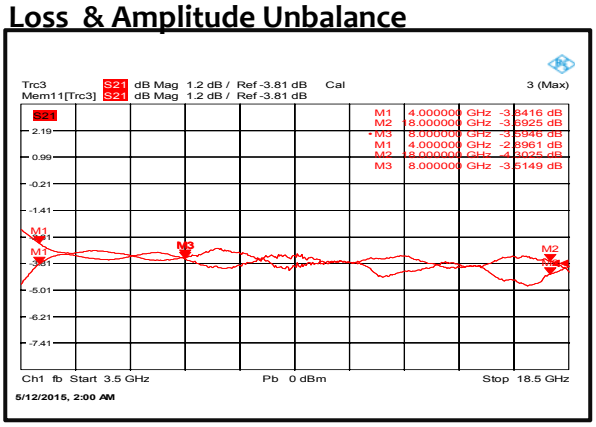
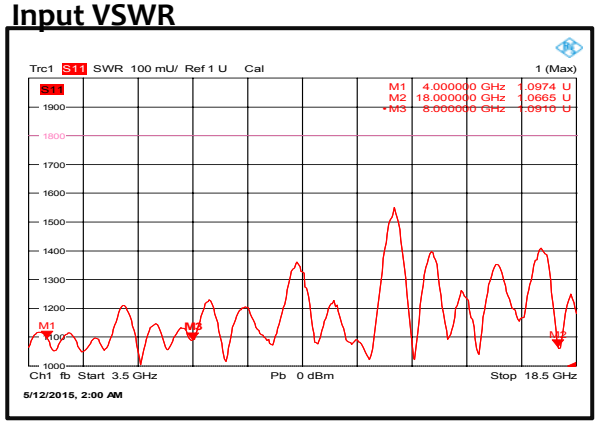
Typical Performance Plots

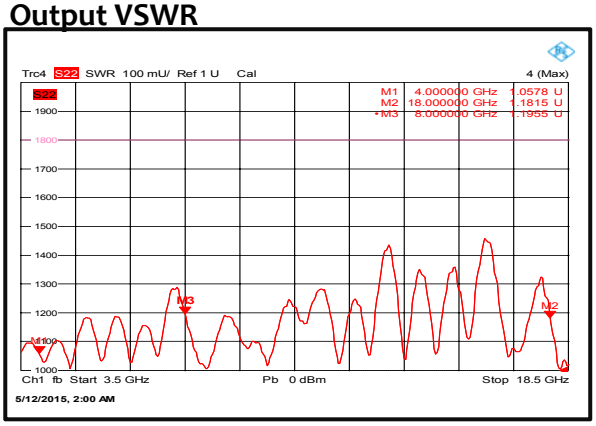
Loss & Amplitude Unbalance



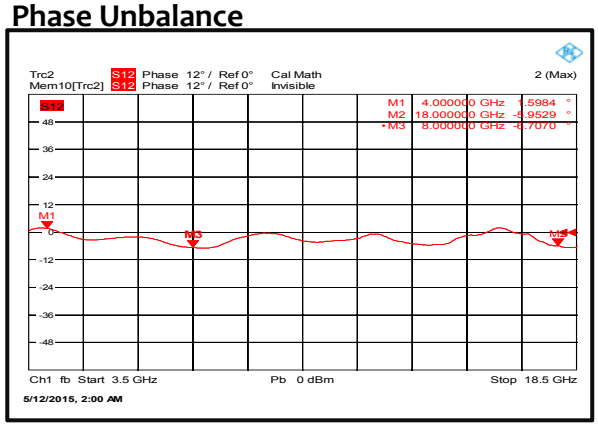
Input VSWR



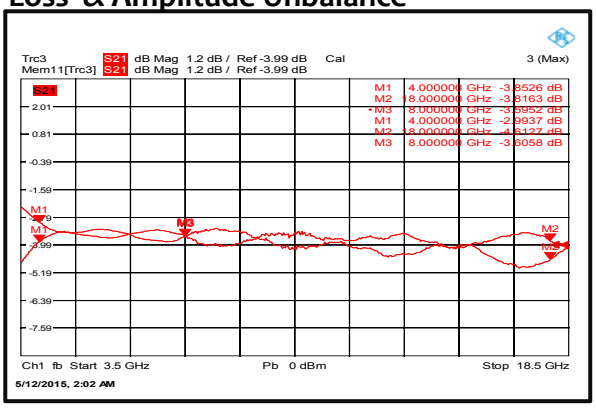
Output VSWR



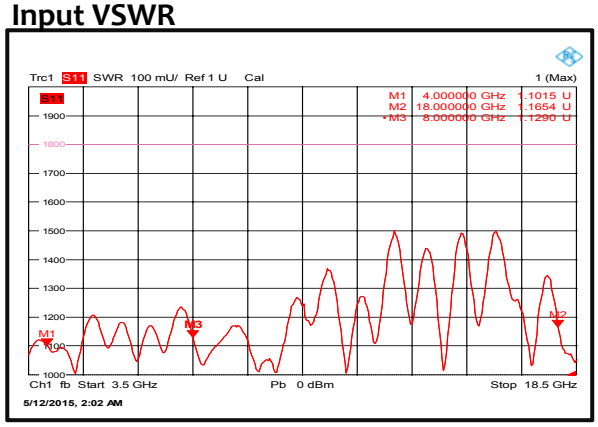
Phase Unbalance



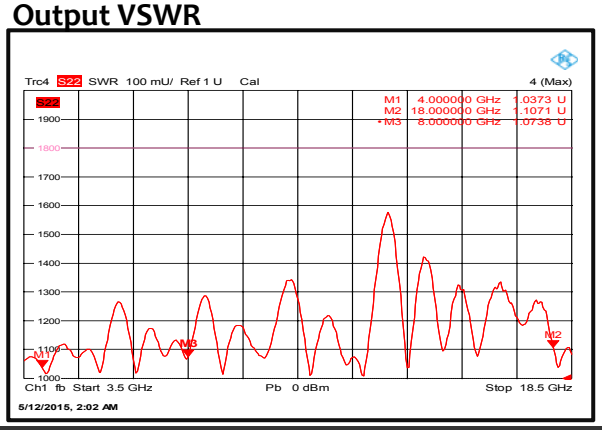
Loss & Amplitude Unbalance



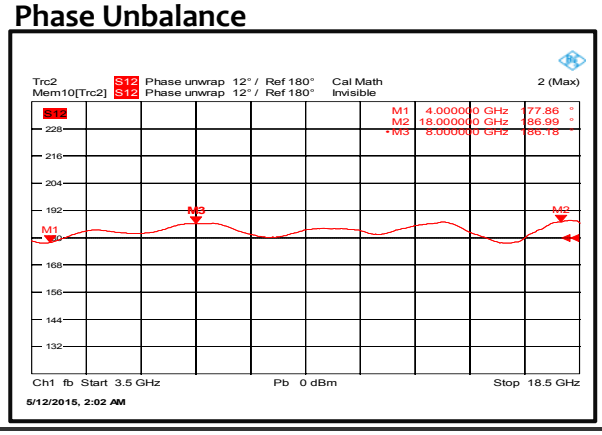
Input VSWR



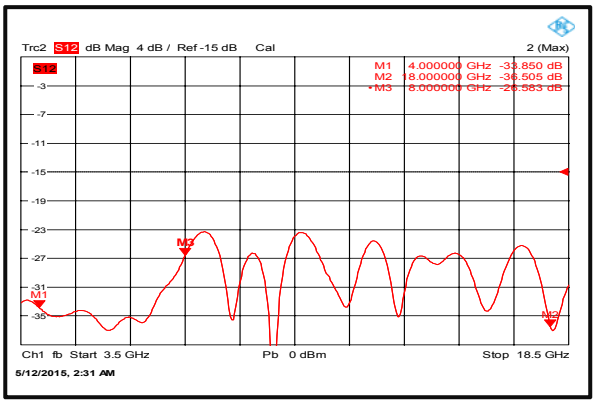
Output VSWR



Phase Unbalance

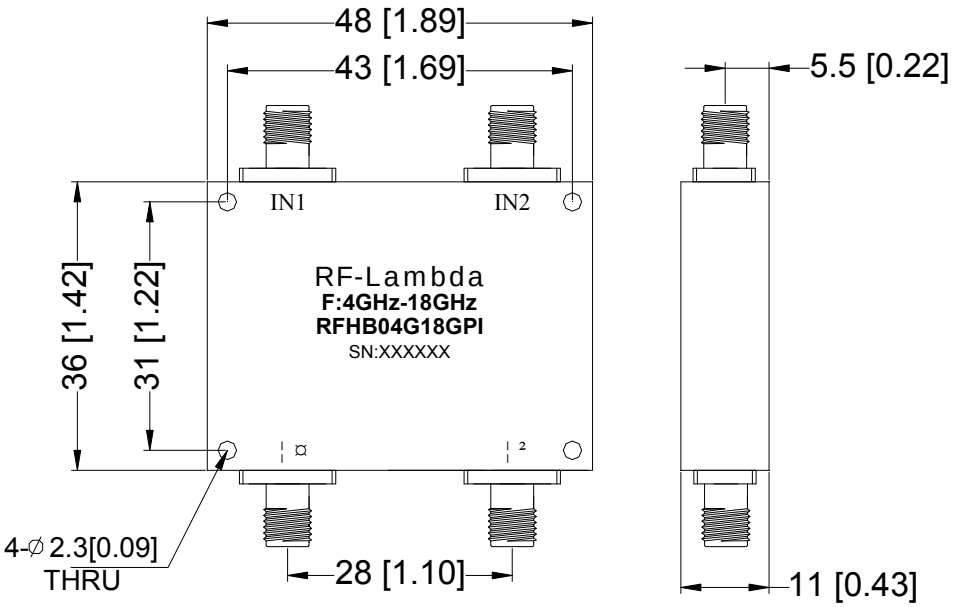


Isolation



Outline Drawing:

All Dimensions in mm（inches）
Tolerances ±0.2（0.008）



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