



RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

RFHB17M19MVT

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

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 ($^\circ\text{C}$)	-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 35 $^\circ\text{C}$, 95%RH at 40 $^\circ\text{C}$
Shock	20G for 11msec half sine wave, 3 axis both directions

Coaxial 200W 90° Hybrid Coupler 1.71 – 1.88GHz



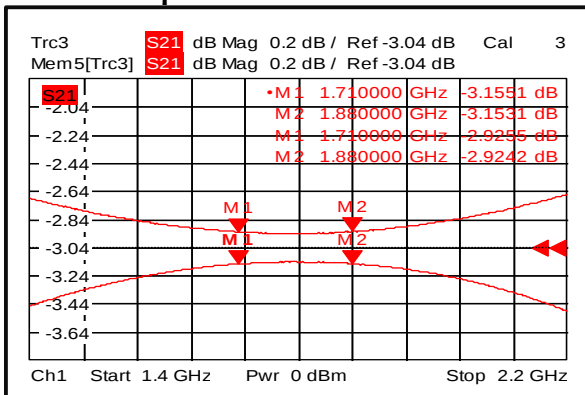
RF-LAMBDA

LEADER OF RF BROADBAND SOLUTIONS

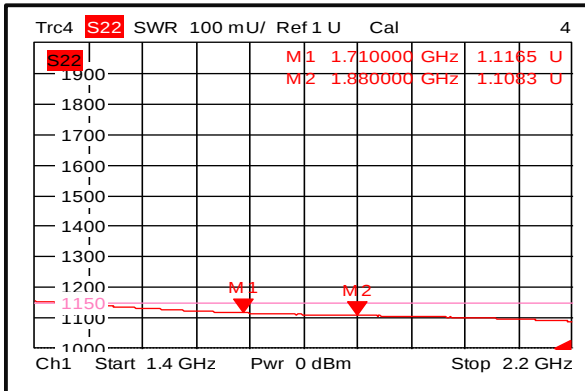
RFHB17M19MVT

Typical Performance Plots

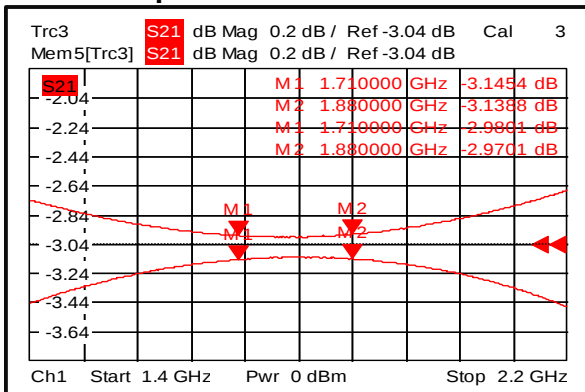
Loss & Amplitude Imbalance



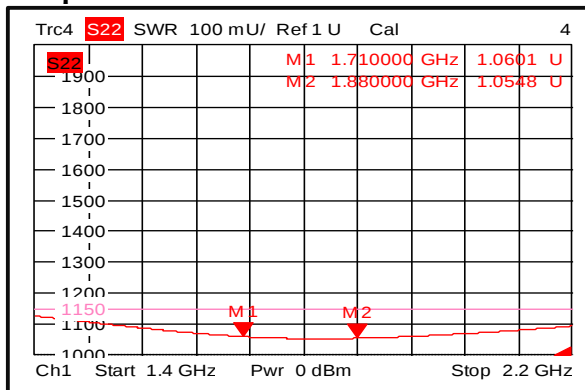
Output VSWR



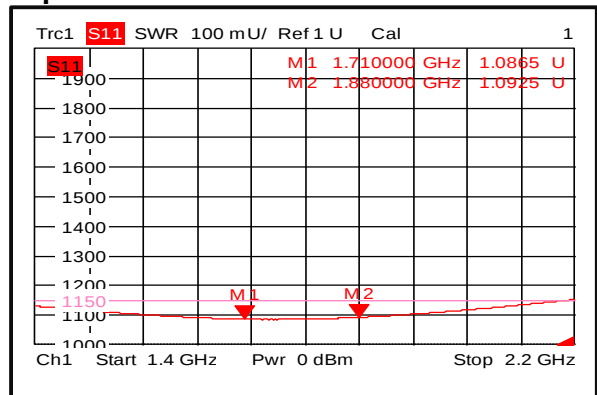
Loss & Amplitude Imbalance



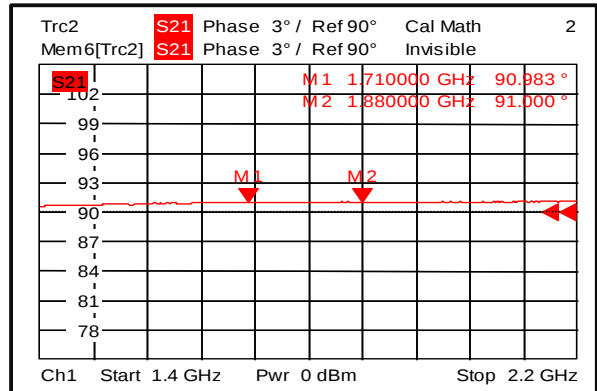
Output VSWR



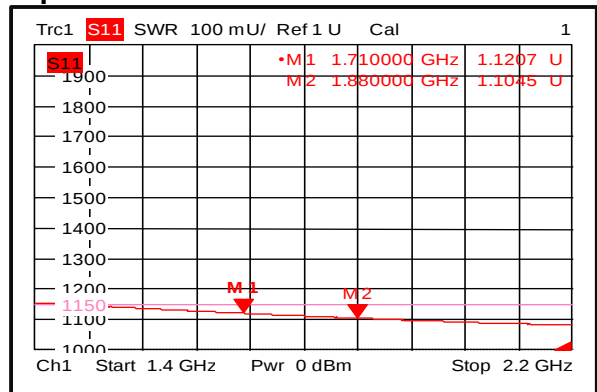
Input VSWR



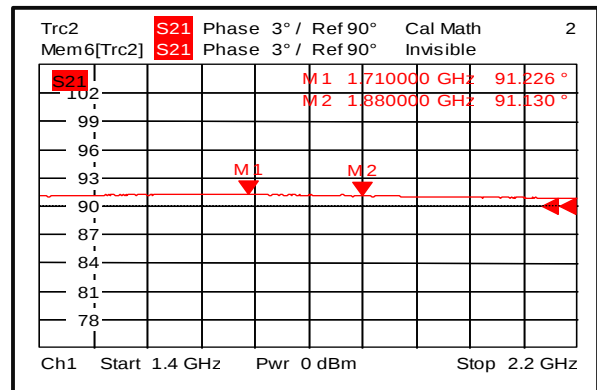
Phase Imbalance



Input VSWR



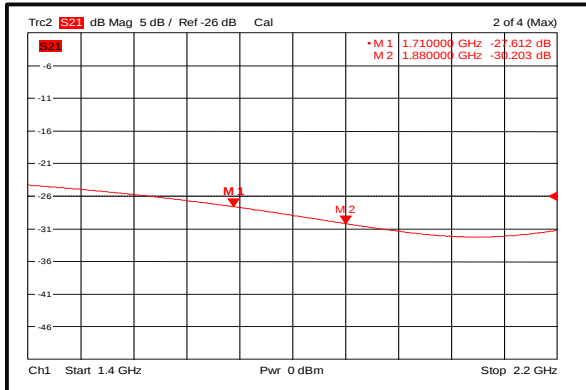
Phase Imbalance



Coaxial 200W 90° Hybrid Coupler 1.71 – 1.88GHz



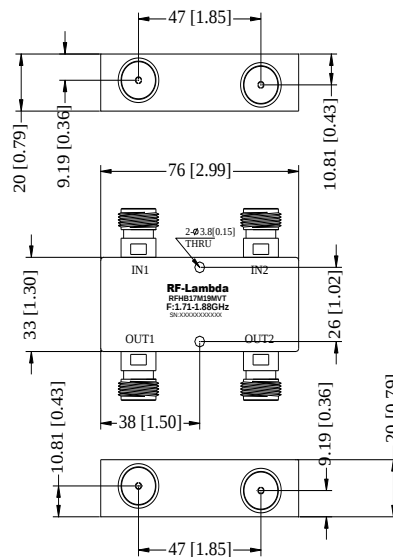
Isolation



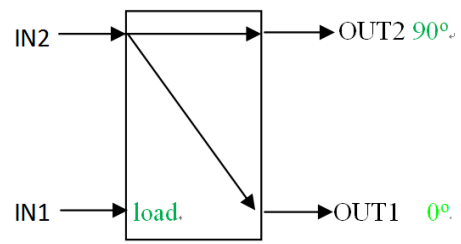
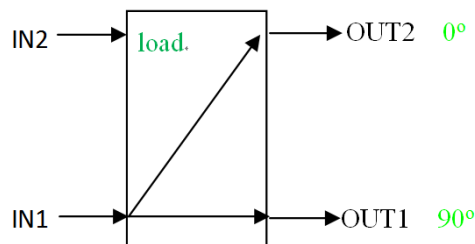
Outline Drawing:

All Dimensions in mm [inches]

Tolerance ± 0.25 [0.01]



Schematic:



Important Notice

The information contained herein is believed to be reliable. RF-Lambda makes no warranties regarding the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for any of the information contained herein. RF-Lambda assumes no responsibility or liability whatsoever for the use of the information contained herein. The information contained herein is provided "AS IS, WHERE IS" and with all faults, and the entire risk associated with such information is entirely with the user. All information contained herein is subject to change without notice. Customers should obtain and verify the latest relevant information before placing orders for RF-Lambda products. The information contained herein or any use of such information does not grant, explicitly or implicitly, to any party any patent rights, licenses, or any other intellectual property rights, whether with regard to such information itself or anything described by such information. RF-Lambda products are not warranted or authorized for use as critical components in medical, life-saving, or life sustaining applications, or other applications where a failure would reasonably be expected to cause severe personal injury or death.