



Coaxial 50W 0.5-18GHz 10dB Directional Coupler



- 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		0.5		12.4	12.4		18	GHz
Nominal Coupling		9	10	11	9	10	11	dB
Frequency Sensitivity			±0.8	±1.0		±0.7	±1.0	dB
Directivity		12	14		10	12		dB
Insertion Loss (Excl Coupling)			0.5	0.7		0.7	0.9	dB
VSWR Primary			1.3	1.5		1.4	1.6	
VSWR Secondary			1.4	1.5		1.5	1.6	
Power Rating	Average	50						W
	Peak	0.3						KW
Impedance		50						Ohms
Operating Temperature		-45 to +85						°C
Weight		70						g
Input / Output Connector		SMA-Fe male						
Material		Aluminum						
Finishing		Gray Paint						



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The power beyond expectations

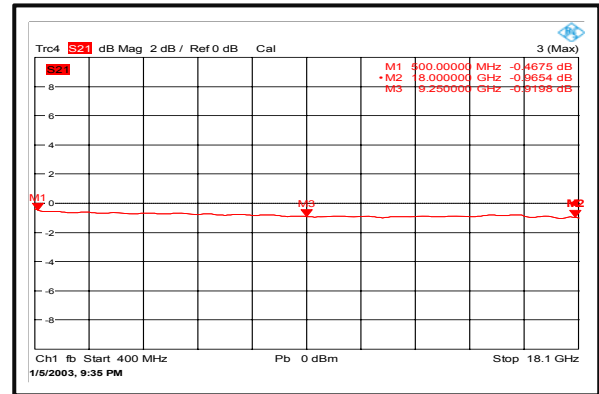
RFDC5M18G10

Environment specifications

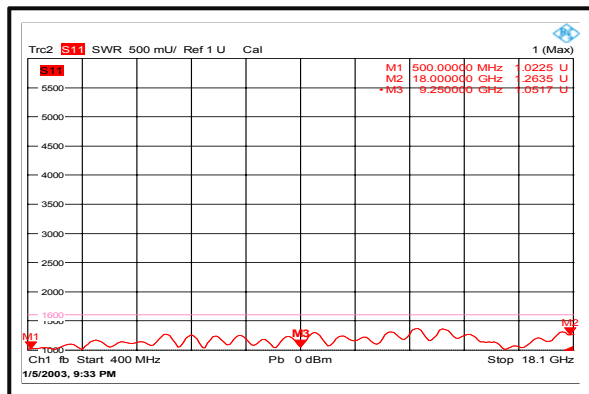
Operational Temperature (°C)	-45 to +85
Storage Temperature (°C)	-55 to +125
Altitude	30,000 ft. (Epoxy Seal Controlled environment) 60,000 ft 1.0psi min (Hermetically Seal Un-controlled environment) (Optional)
Vibration	25g rms (15 degree 2KHz) endurance, 1 hour per axis
Humidity	100% RH at 35c, 95%RH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

Typical Performance Plots

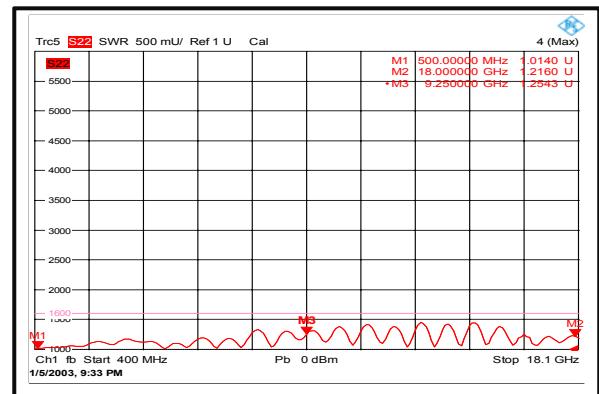
Insertion Loss



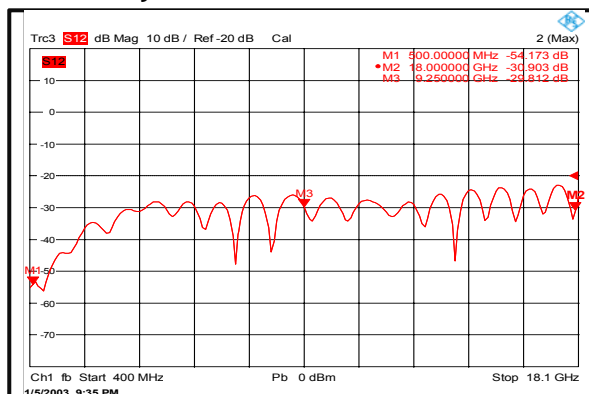
Primary VSWR



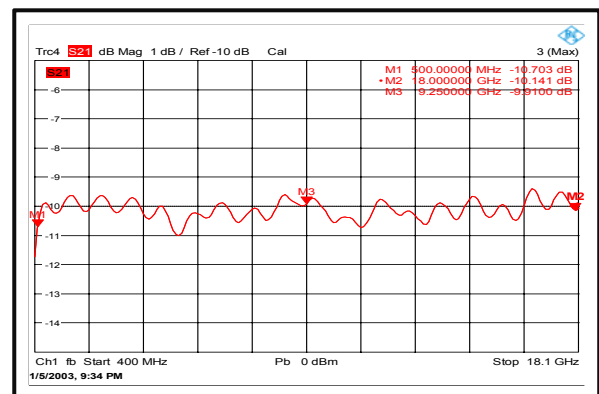
Secondary VSWR



Directivity



Nominal Coupling



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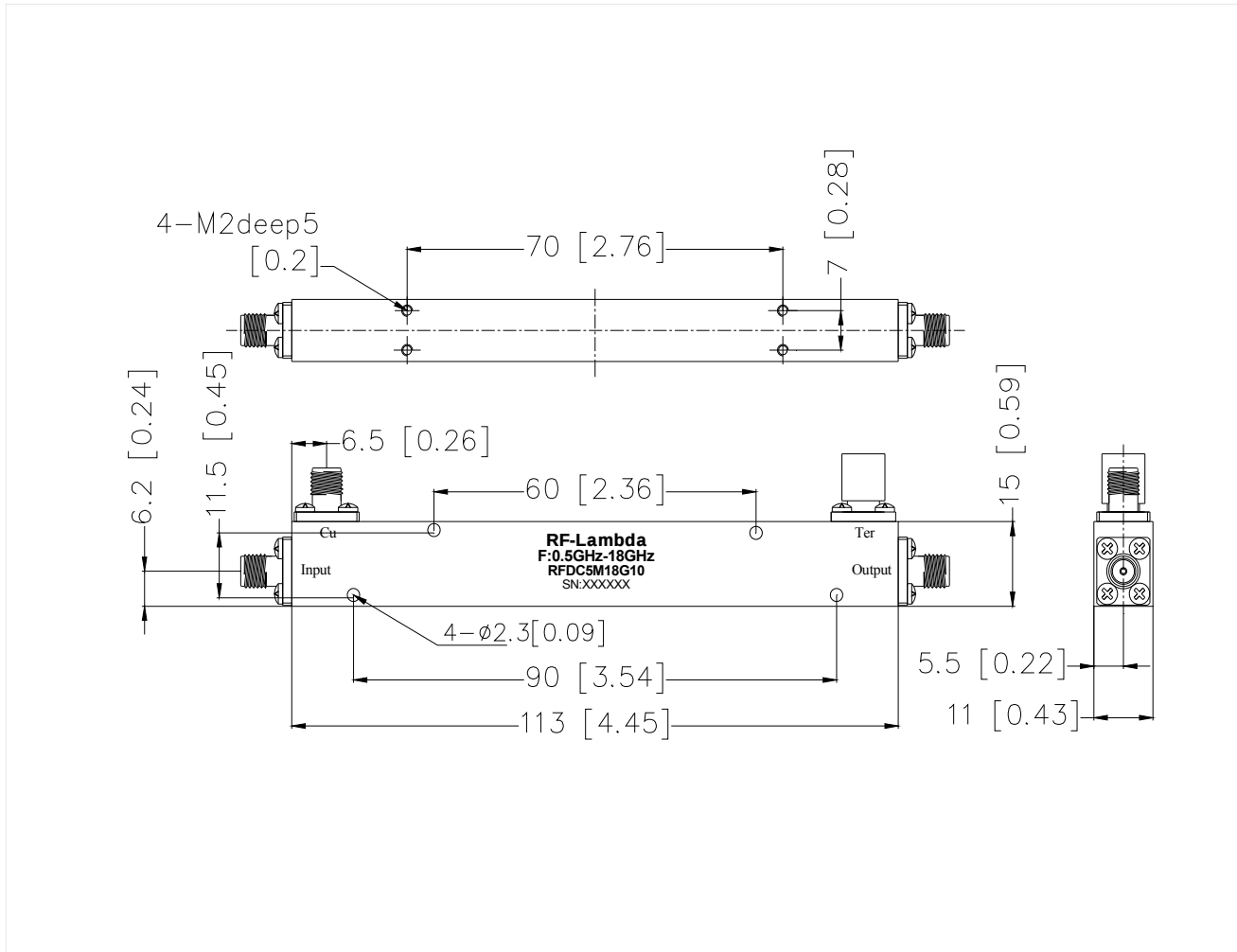
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Outline Drawing:

All Dimensions in mm (inches)

Tolerance ± 0.25 (0.01)



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