



WR10 Waveguide 1W Variable Attenuator 73.8 - 112GHz



Note: The photo is for illustration purposes only.
Please refer to outline drawing



Features

- WR10 Waveguide Variable Attenuator
- High Power Handling Capability
- Low Insertion Loss
- Customization available upon request

Electrical Specifications , $T_A=25^\circ C$

Parameter	Min.	Typ.	Max.	Units
Frequency Range	73.8		112	GHz
VSWR			1.35	: 1
Power Rating(CW)			1	W
Insertion Loss			2	dB
Attenuation Range (Relative to IL)		35		dB
Waveguide Type	WR10			
Flange type	UG387			
Flange Holes	Through			
Material	Copper/Brass			
Finish	Gold Plated			

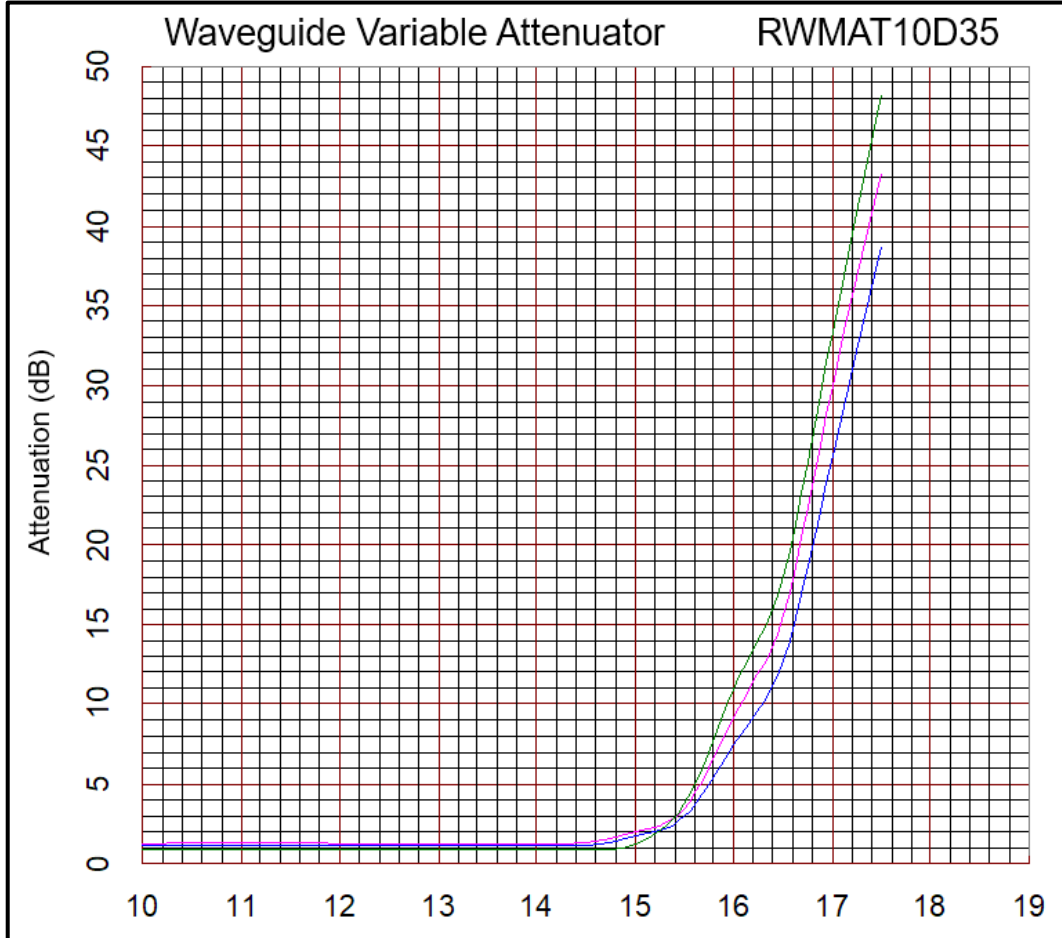
Environmental Specifications and Test Standards

Parameter	Standard	Description
Operational Temperature	MIL-STD-39016	-40°C~+85°C
Storage Temperature		-55°C~+125°C
Thermal Shock		1 Hour@ -45°C → 1 Hour @ +85°C (5 Cycles)
Random Vibration		Acceleration Spectral Density 6 (m/s) Total 92.6 RMS
Electrical & Temperature Burn In		Temperature +85°C for 72 Hours
Shock		1. Weight >20g, 50g half sine wave for 11ms, Speed variation 3.44m/s 2. Weight <=20g, 100g Half sine wave for 6ms, Speed variation 3.75m/s 3. Total 18 times (6 directions, 3 repetitions per direction).
Altitude		Standard: 30,000 Ft (Epoxy Sealed Controlled Environment) Optional: Hermetically Sealed (60,000 ft. 1.0 PSI min)
Hermetically Sealed (Optional)	MIL-STD-883	MIL-STD-883 (For Hermetically Sealed Units)

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Typical Performance Plots



— F1=73.8GHz — F2=91.9GHz — F3=110GHz

Scale (mm)	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5
F1= 73.8GHz	1.1089	1.1125	1.1240	1.1371	1.1328	1.1464	1.1508	1.1389	1.1418	1.1630
F2= 91.9GHz	1.2836	1.2963	1.2965	1.2931	1.2757	1.2828	1.2674	1.2675	1.2707	1.2928
F3= 110GHz	0.8468	0.8454	0.8580	0.8623	0.8583	0.8723	0.8594	0.8679	0.8696	0.9013

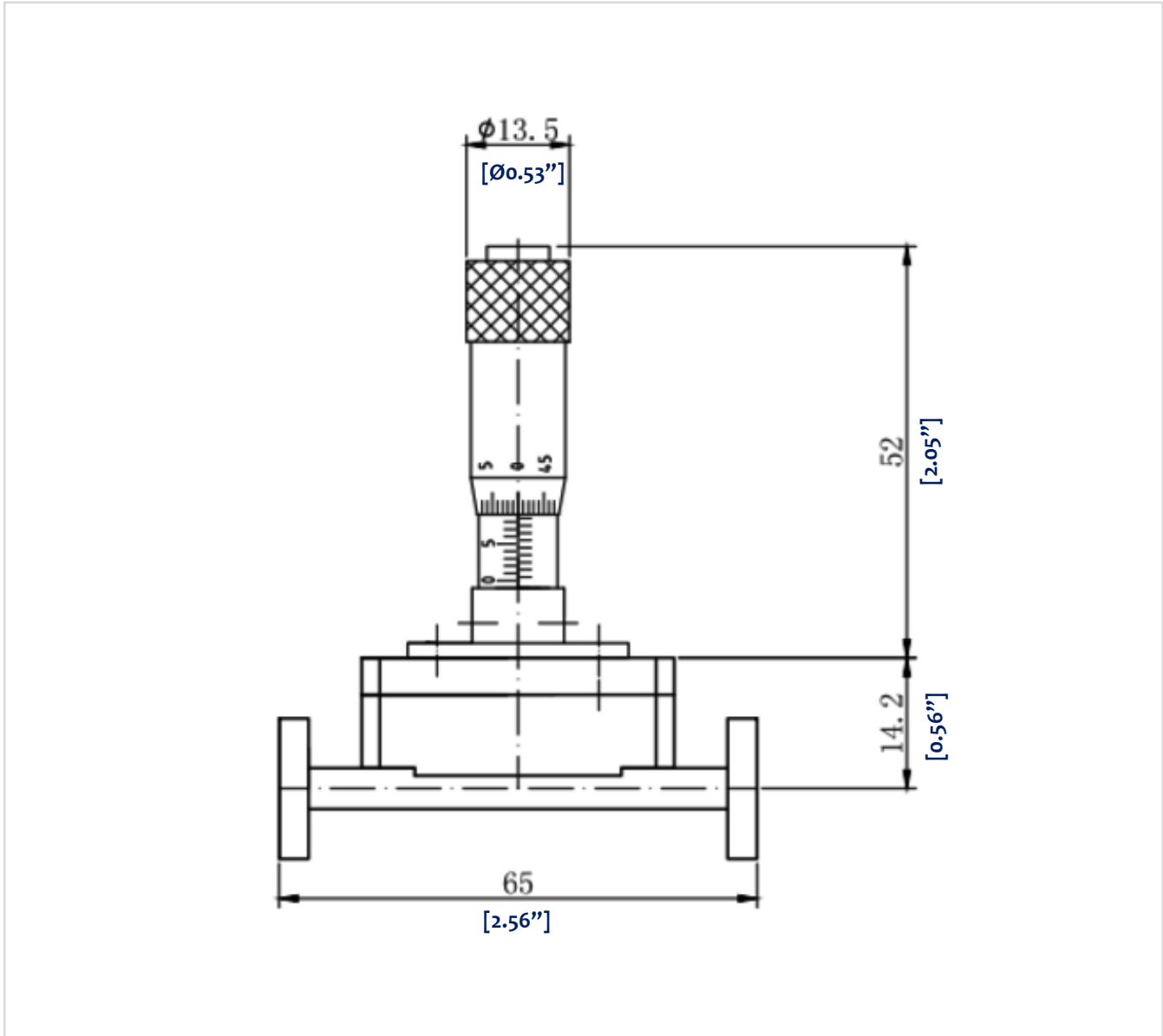
Scale (mm)	15.0	15.5	16.0	16.5	17.0	17.5				
F1= 73.8GHz	1.7537	2.9166	7.4415	12.7072	25.5006	38.737				
F2= 91.9GHz	1.9744	3.4402	9.1666	15.5671	30.0103	43.2694				
F3= 110GHz	1.2742	3.6935	10.8682	18.0894	33.3764	48.2853				

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Outline Drawing:

All Dimensions in mm [inches]



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