VA100

WR-10 voltage variable attenuator

MicroHarmonics
Superior mm-Wave Components

Specifications	
Flange	WR-10 UG387/UM
Frequency (GHz)	75-110
Insertion Loss (dB, avg)	1.2
VSWR (typ max)	1.5:1
Dynamic Range (dB, min)	0-35
Flatness (dB, avg/max)	
@ 0 dB Attenuation	±0.5/0.6
@ 10 dB Attenuation	±0.6/0.8
@ 20 dB Attenuation	±0.9/1.0
@ 30 dB Attenuation	±2.5/2.8
@ 35 dB Attenuation	±4.9/6.4
Max Forward Power (W)	2.3
Switching Speed (Hz)	100
Voltage Control Range (V)	0-10
Max Control Current (mA)	180
Control Circuit Connector	SMP-m

CAUTION: Avoid magnetic fields

WR-10 Voltage Variable Attenuator

The two primary technologies used for electronically tunable attenuation in the mm-wave are PIN diode and rotary vane. Micro Harmonics has developed a third approach that uses the principle of Faraday rotation to rotate the RF signal polarity into a fixed resistive vane. There are no moving parts and no sensitivity to electrostatic discharge.

The Micro Harmonics attenuator has lower insertion loss, lower reflections, higher dynamic range, and higher power handling than the PIN diode. It has a much smaller form factor and higher switching speed than the rotary vane. These properties make the Micro Harmonics attenuator an attractive option since it combines some of the best attributes of the PIN diode and the rotary vane attenuators.

- **Anti-cocking waveguide flanges**
- **Comprehensive test data**
- **High power handling**
- **High dynamic range**
- **Low insertion loss**
- **Insensitive to ESD**
- **Compact size**
- **Low VSWR**

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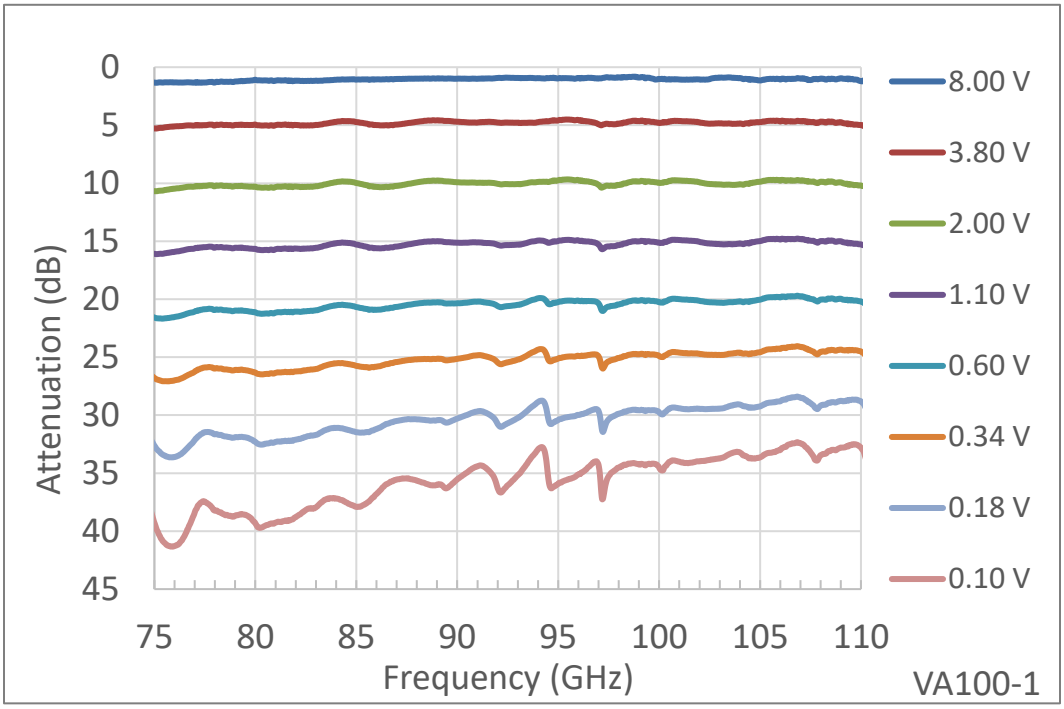
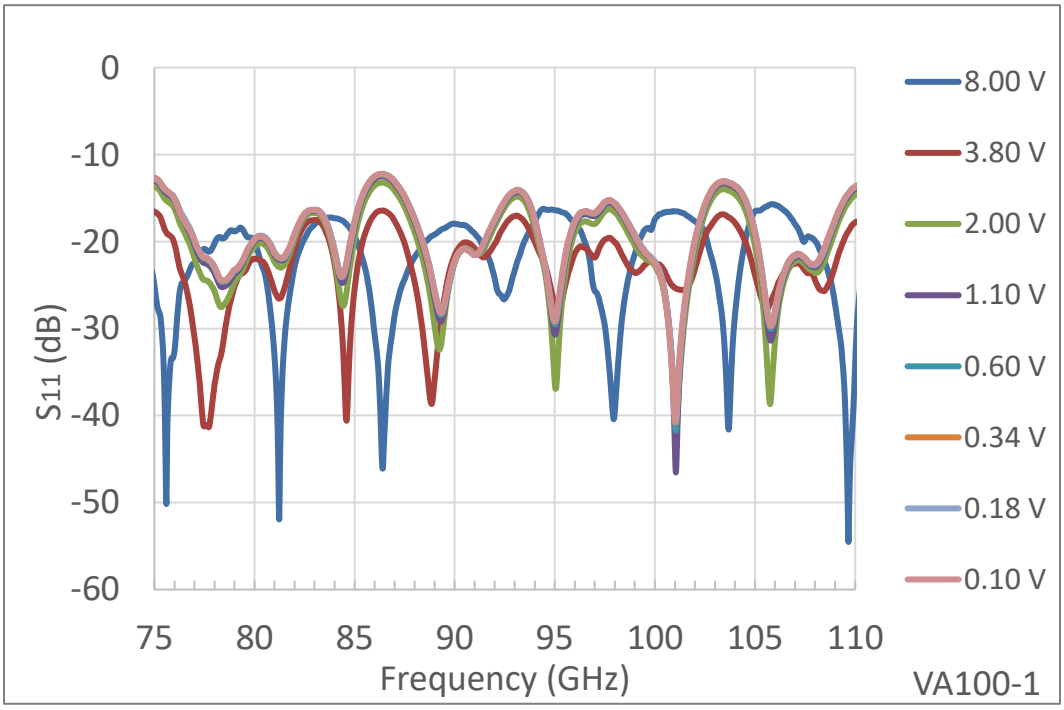
Attenuation



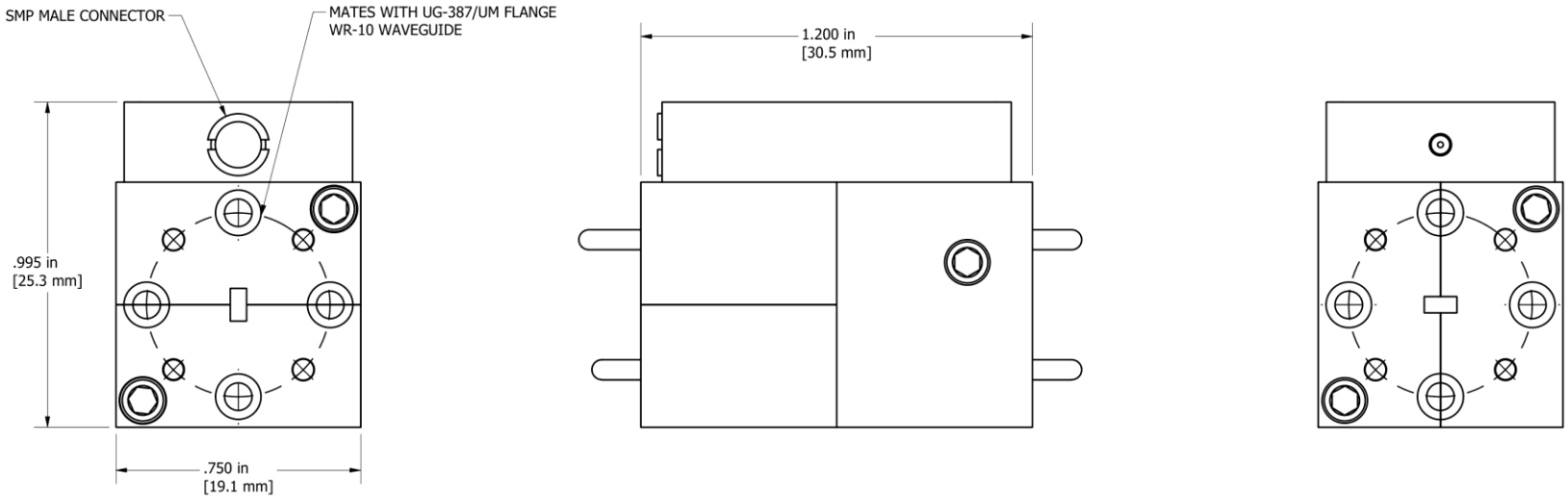
Port Reflections

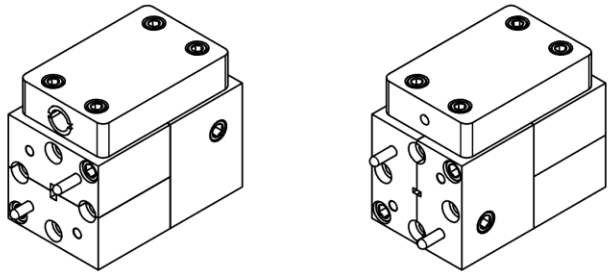


Micro Harmonics	Proprietary - Micro Harmonics Corporation
	Date 8/21/2023

REVISION HISTORY

ZONE	REV	DESCRIPTION	DATE	APPROVED
	-	RELEASE FOR MANUFACTURE	8/21/2023	SCS





NOTES: INPUT AND OUTPUT PORTS ARE ROTATED 90°

PART NUMBER - DESCRIPTION			
VA100 Dimension Drawing			
DWG. UNITS: INCHES	DRAWN BY: SCS	SIZE: B	PAGE NUMBER: 1 of 1
APPROVAL: JTK - 8/21/2023			

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REV: -