STA-60-10-P1-2

Rev. 1.1

W-Band Programmable Attenuator

Description:

Model STA-60-10-P1-2 is a motorized, programmable rotary vane attenuator for use in millimeterwave systems across the standard W-band frequency range of 75 to 110 GHz. The attenuation control is an IEEE-488 interface to accommodate remote operations from 0 to 60 dB. Attenuation increments are 0.05 dB between 0 and 20 dB and 0.1 dB between 20 and 60 dB. On the front panel, a local adjustment switch and digital readout allow for convenient manual operations. When used remotely, the local switch can be locked to prevent inadvertent adjustments. The motor control and interface circuits are custom designed and uniquely packaged within the attenuator housing. The microprocessor based electronics ramp the speed of a precision stepper motor to ensure fast and accurate positioning.

Features:

- Full Band Coverage
- High Attenuation Accuracy
- IEEE-488 Control Port

Applications:

- Test Lab
- Instrumentations
- Auto Test Set

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Frequency Range	75 GHz		110 GHz
Attenuation Range	0 dB		60 dB
Attenuation Step Size	0.05 dB from 0 to 20 dB and 0.10 dB from 20 to 60 dB		
Insertion Loss		0.8 dB	1.0 dB
Operating Voltage	+24 V_{DC} (100 to 240 V_{AC} Adapter is Supplied)		
Return Loss			17 dB
Power Handling			100 mW

Mechanical Specifications:

Parameter	Connector
RF Input/Output	WR-10 Waveguide with UG-387/U-M Flange
Control Interface	IEEE-488
Bias	2.5 mm Connector
Finish	Black Anodized
Weight	4.06 lb
Outline	TA-PW

www.sagemillimeter.com | 3043 Kashiwa Street, Torrance, CA 90505
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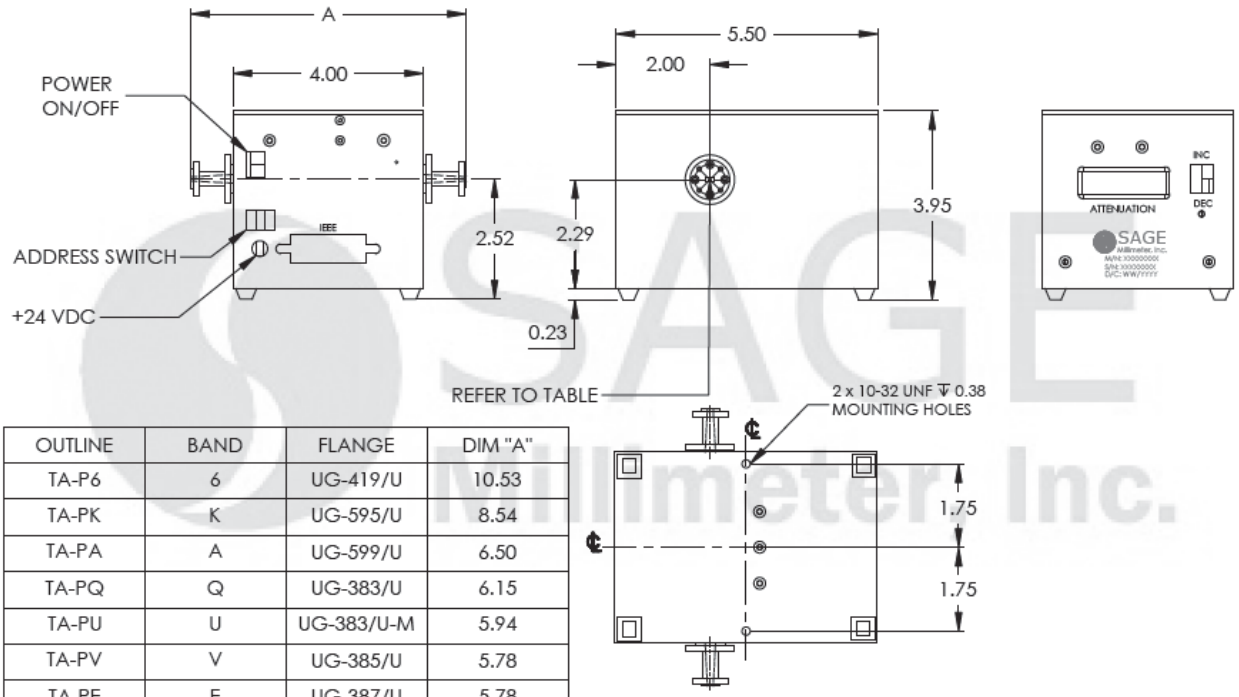
W-Band Programmable Attenuator

Mechanical Outline: (Unless otherwise specified, all dimensions are in inches)



OUTLINE	BAND	FLANGE	DIM "A"
TA-P6	6	UG-419/U	10.53
TA-PK	K	UG-595/U	8.54
TA-PA	A	UG-599/U	6.50
TA-PQ	Q	UG-383/U	6.15
TA-PU	U	UG-383/U-M	5.94
TA-PV	V	UG-385/U	5.78
TA-PE	E	UG-387/U	5.78
TA-PW	W	UG-387/U-M	5.78
TA-PF	F	UG-387/U-M	5.78
TA-PD	D	UG-387/U-M	5.78
TA-PG	G	UG-387/U-M	5.78

Note:

- National Instrument's USB adapter, Model #NI GPIB-USB, is highly recommended if a USB interface is required.
- Calibration accuracy is 0.1 dB or 3% of the reading, whichever is greater, for attenuation ranges up to 40 dB, 5% up to 50 dB, and "for reference only" above 50 dB.
- The attenuation flatness is ±2% or ±0.5 dB of the indicated value, whichever is greater, for the frequency band.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings shown will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and may damage the device.

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