

Q-Band Level Setting Attenuator, Head Locking Screw, 33 to 50 GHz

Description:

Model STA-30-22-M1 is a Q-band level setting attenuator that covers the frequency range from 33 to 50 GHz. The attenuator features a precision micrometer dial with a knurled head locking screw, which allows for stable, repeatable settings that can be locked at any attenuation value. The level setting attenuator is an ideal piece of equipment in waveguide systems where broadband level setting is required. The attenuator exhibits 0.5 dB typical insertion loss and up to 30 dB nominal attenuation value across the entire operating bandwidth. The other types, such as direct reading, programmable and fixed tuned attenuators are also available under different model numbers.



Features:

- Full Band Coverage
- Head Locking Screw
- Precision Machined Housing
- Convenient Level Setting

Applications:

- 5G mmWave Systems
- Test Lab
- Instrumentations
- Manual Test Set

Electrical Specifications:

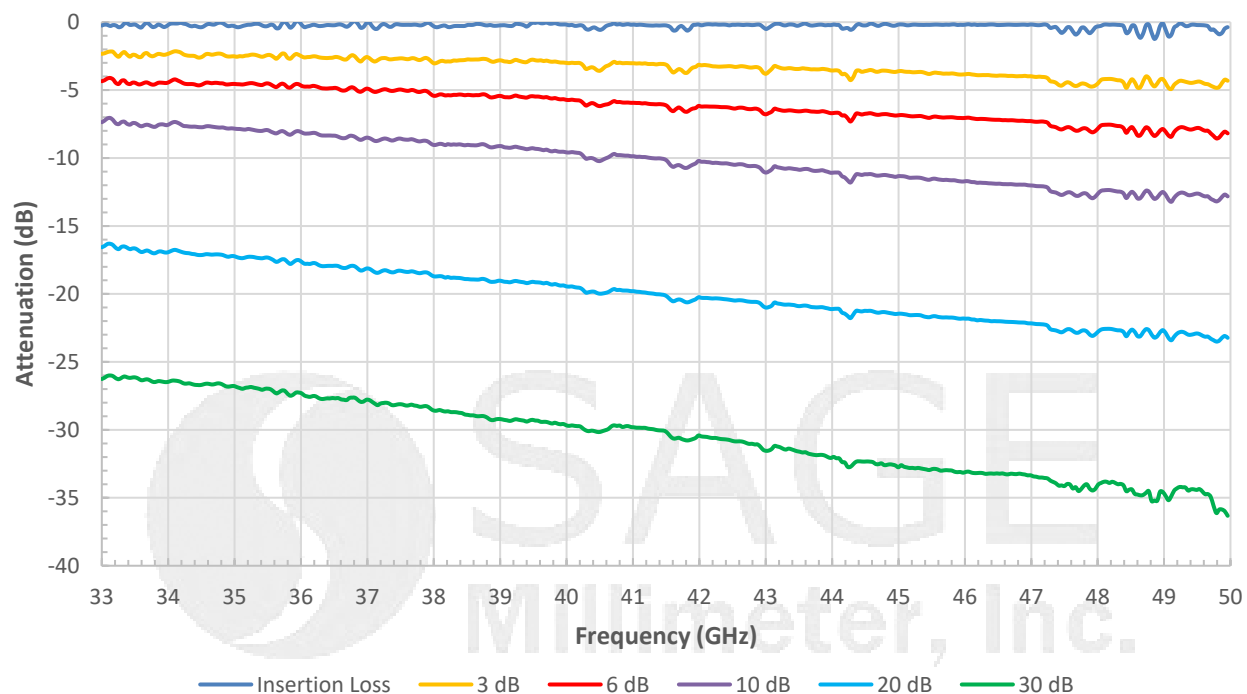
Parameter	Minimum	Typical	Maximum
Frequency Range	33 GHz		50 GHz
Insertion Loss		0.5 dB	
Attenuation Range		30 dB	
Return Loss		20 dB	
Power Handling		750 mW (CW)	1 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

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Mechanical Specifications:

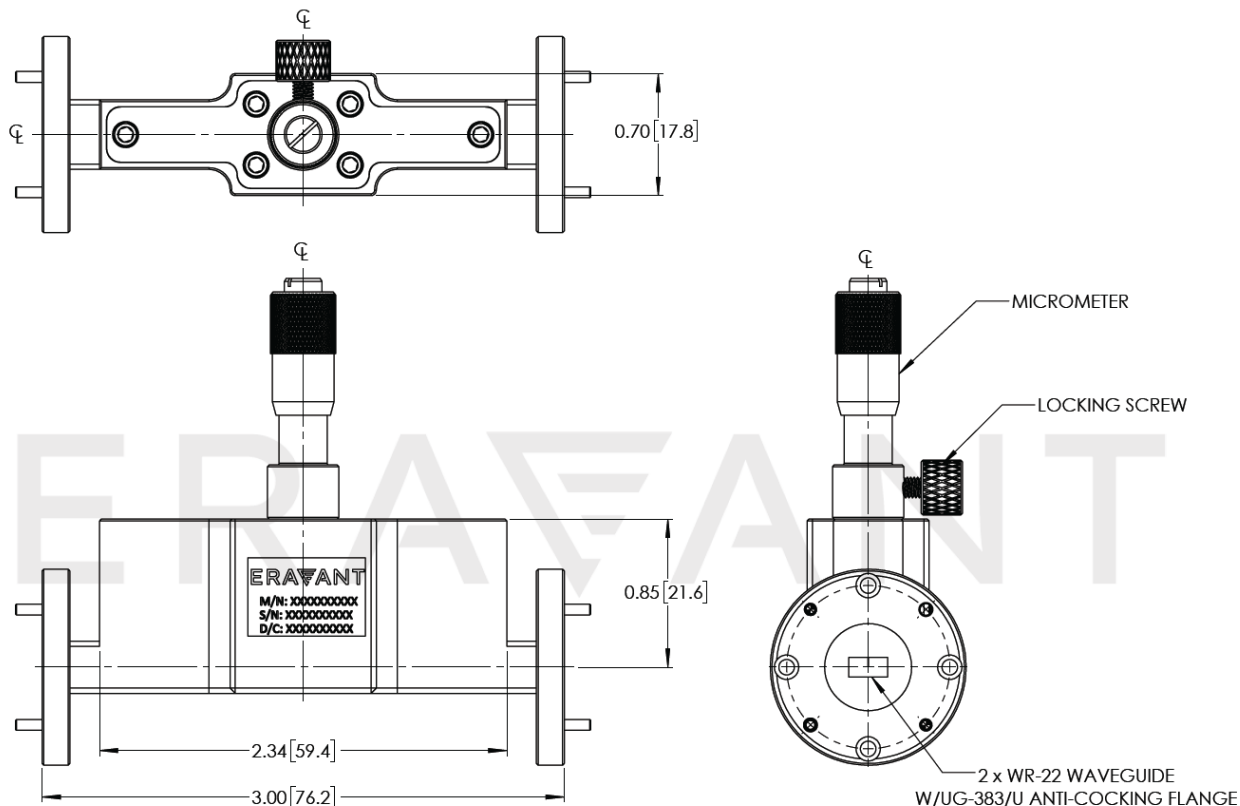
Item	Specification
RF Ports	WR-22 Waveguide with UG-383/U Anti-Cocking Flange
Setting Type	Head Locking Screw Type Micrometer
Micrometer Pitch	0.5mm
Micrometer Resolution	0.01mm
Insertion Length	3.00"
Material	Brass
Finish	Gold Plated
Weight	6.5 oz.
Outline	TA-MQ-A

Typical Measured Attenuation vs Frequency



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



Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit.
- All testing was performed under +25 °C case temperature.
- For more information on the technical details of level-setting attenuators and other types of waveguide attenuators, a short instructional blog is available here ([FIXED, LEVEL SETTING, DIRECT READING, AND PROGRAMMABLE ATTENUATORS](#))
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- RF power should never exceed 1 W.
- Forcing the micrometer down after encountering resistance may damage the resistive sheet inside. This will cause permanent performance degradation and decrease the long-term stability and repeatability of the device.
- Attempting to adjust the micrometer setting while the head locking screw is engaged may damage the micrometer and decrease the long-term stability and repeatability of the device.
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

