STE-KF806-20-S1

Advanced

D-Band X8 High Power Frequency Extender

Description:



Model STE-KF806-20-S1 is a D-Band X8 frequency extender with exclusive semiconductor and circuit technology from ACST GmbH. The frequency extender uses an input signal from 16.875 to 20 GHz at +5 dBm, along with filtering to produce a 135 to 160 GHz RF signal at +20 dBm. The extender is designed and manufactured as a bench top unit to extend the low frequency synthesizer or sweeper without losing functionalities and features. The extender also features adjustable legs, which can be removed, to allow for an easy test set up.

Features:

- X8 Frequency Extension
- Low Harmonic Content

Applications:

- Test Lab
- Network Analyzer Systems
- Automatic Test Set
- Antenna Range

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Output Frequency	135 GHz		160 GHz
Input Frequency	16.875 GHz		20 GHz
Output Power		+20 dBm	
Input Power		+5 dBm	
Input Damage Level			+20 dBm
Harmonic Suppression		15 dBc	
Spurious Suppression		60 dBc	
Voltage Input	+6 V_{DC}	+8 V_{DC}	+12 V_{DC}
Bias Current		1,100 mA	
Specification Temperature		+25 °C	
Operation Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Input Port	K (F)
Output Port	WR-06 Waveguide with UG-387/U-M Flange
DC Bias Port	2.5 mm DC Jack (AC-to-DC power converter included)
Power Switch	On-Off Rocker Switch with Indicator Light
Finish	Black Anodized
Weight	6.6 lbs
Size	6.15” (W) x 6.89” (L) x 3.20” (H)
Outline	TE-D

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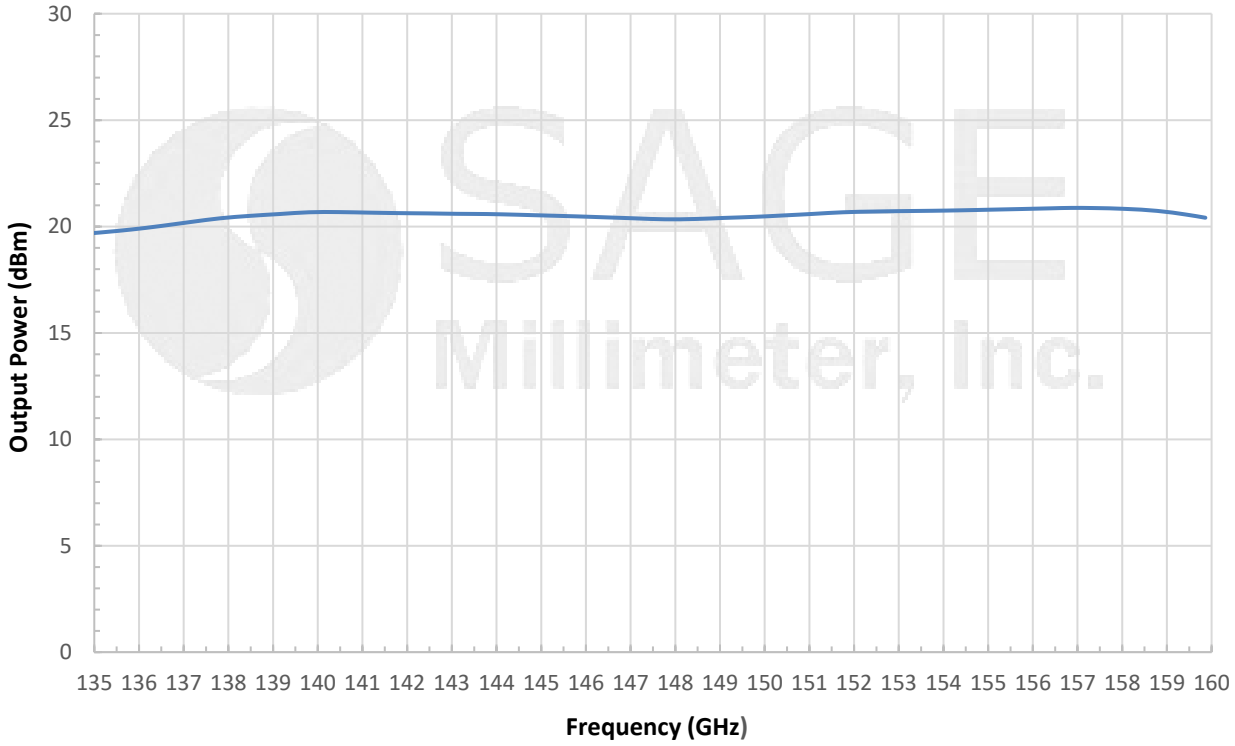
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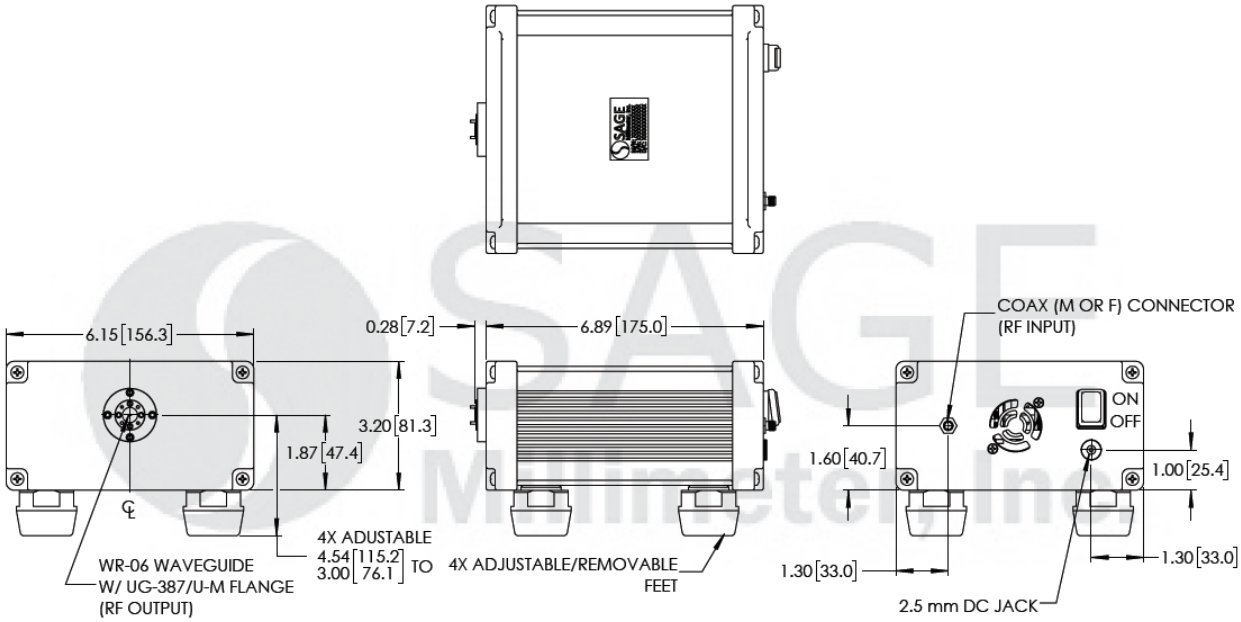
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Typical Pout vs. Frequency

Bias: +8 V_{DC}/1,100 mA, Input Power: +5 dBm



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



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Note:

- All data presented is collected from a sample lot. Actual data may vary unit to unit, slightly.
- All testing was performed under +25 ˚C case temperature.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.
- Other frequency multiplication factors available under different model numbers.

Caution:

- Exceeding absolute maximum ratings will damage the device.
- Any foreign objects in the waveguide will degrade performance and may damage the device.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**

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