STE-KF228-S1

Ka-Band X2 Frequency Extender, 20 dBm Output Power

STE-KF228-S1 is a Ka-Band X2 frequency extender that uses an input frequency range of 12 to 21 GHz at +5 dBm along with harmonic generation and filtering to produce a 24 to 42 GHz RF signal. The extender is designed and manufactured as a bench top unit to extend the low frequency synthesizer or sweeper without losing all of the functionalities and features. The extender also features adjustable legs, which can also be removed, to allow for an easy test set up.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Output Frequency	24 GHz		42 GHz
Input Frequency	12 GHz		21 GHz
Output Power (No Attenuation)		+20 dBm	
Dynamic Range		30 dB	
Input Power		+5 dBm	+20 dBm
Port Return Loss		10 dB	
Harmonic Suppression		-15 dBc	
Spurious Suppression		-60 dBc	
Power Supply	100 V_{AC}		240 V_{AC}
Specification Temperature		+25°C	
Operating Temperature	0°C		+50°C

Mechanical Specifications:

Item	Specification
Input Port	2.92 mm (F)
Output Port	WR-28 Waveguide with UG-599/U Flange
DC Bias	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	Off-On Latching Switch with Indicator Light
Finish	Black Anodized
Weight	2.3 lbs
Size	4.89” (W) x 6.00” (L) x 2.00” (H)
Outline	TE-A

ECCN

3A001.b.7

FEATURES

- Full Waveguide Band Operation
- Low Harmonic Emission

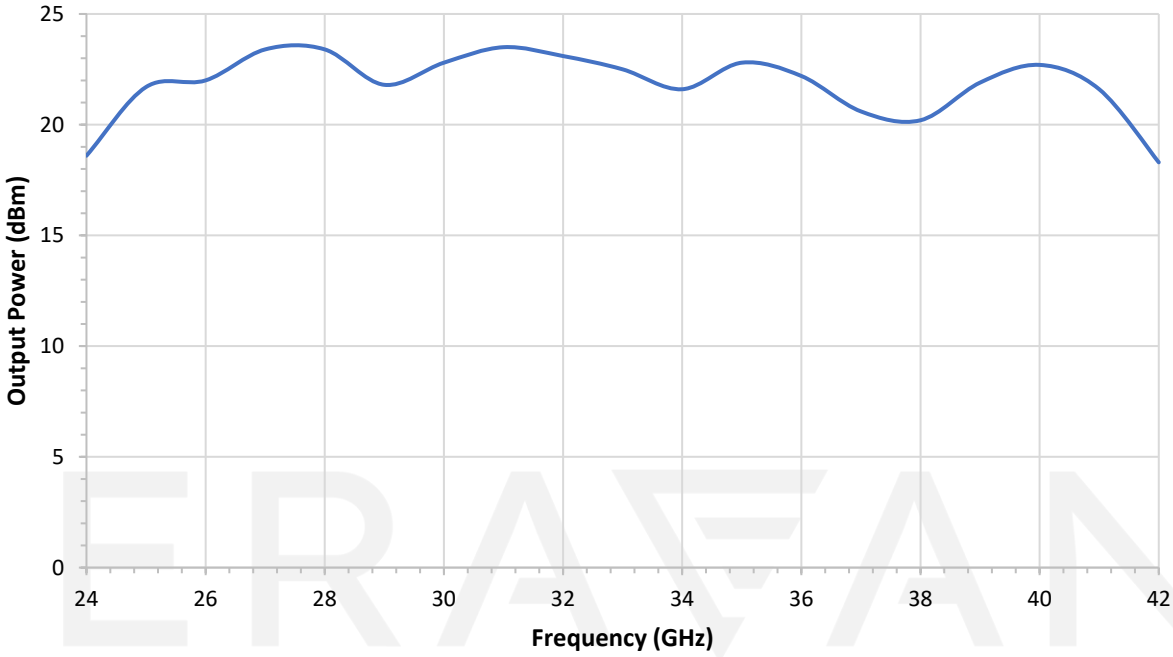
APPLICATIONS

- Test Lab
- Network Analyzer Systems
- Antenna Range

SUPPLEMENTAL DETAILS

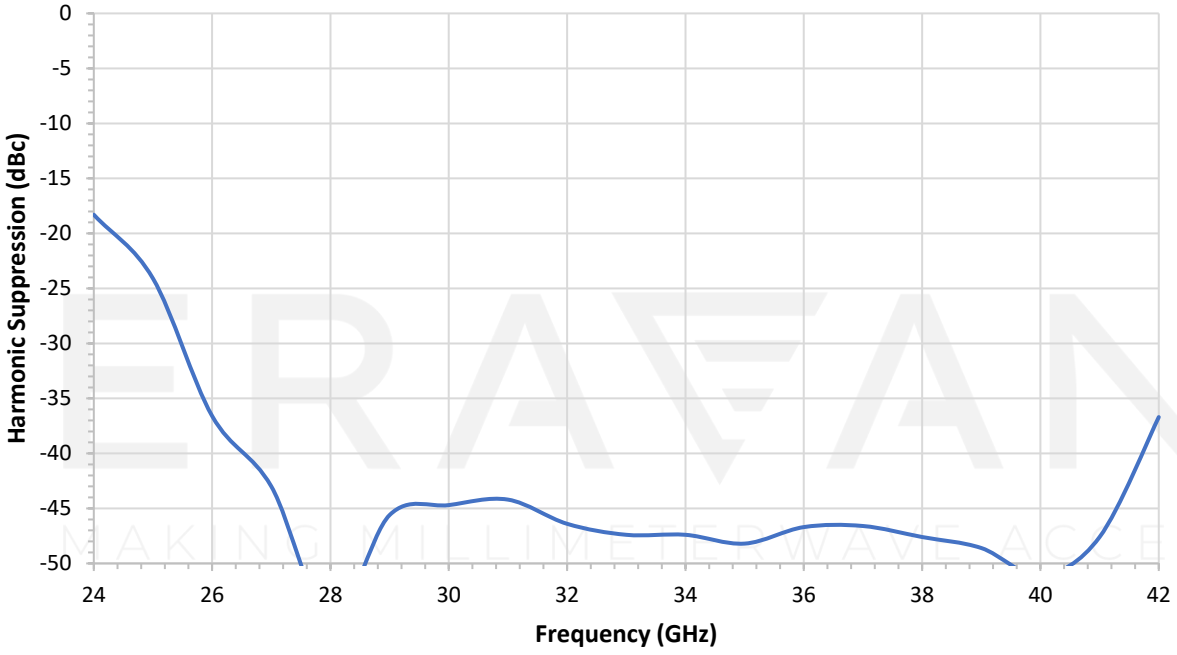
Output Power vs. Frequency

Input Power = +5 dBm

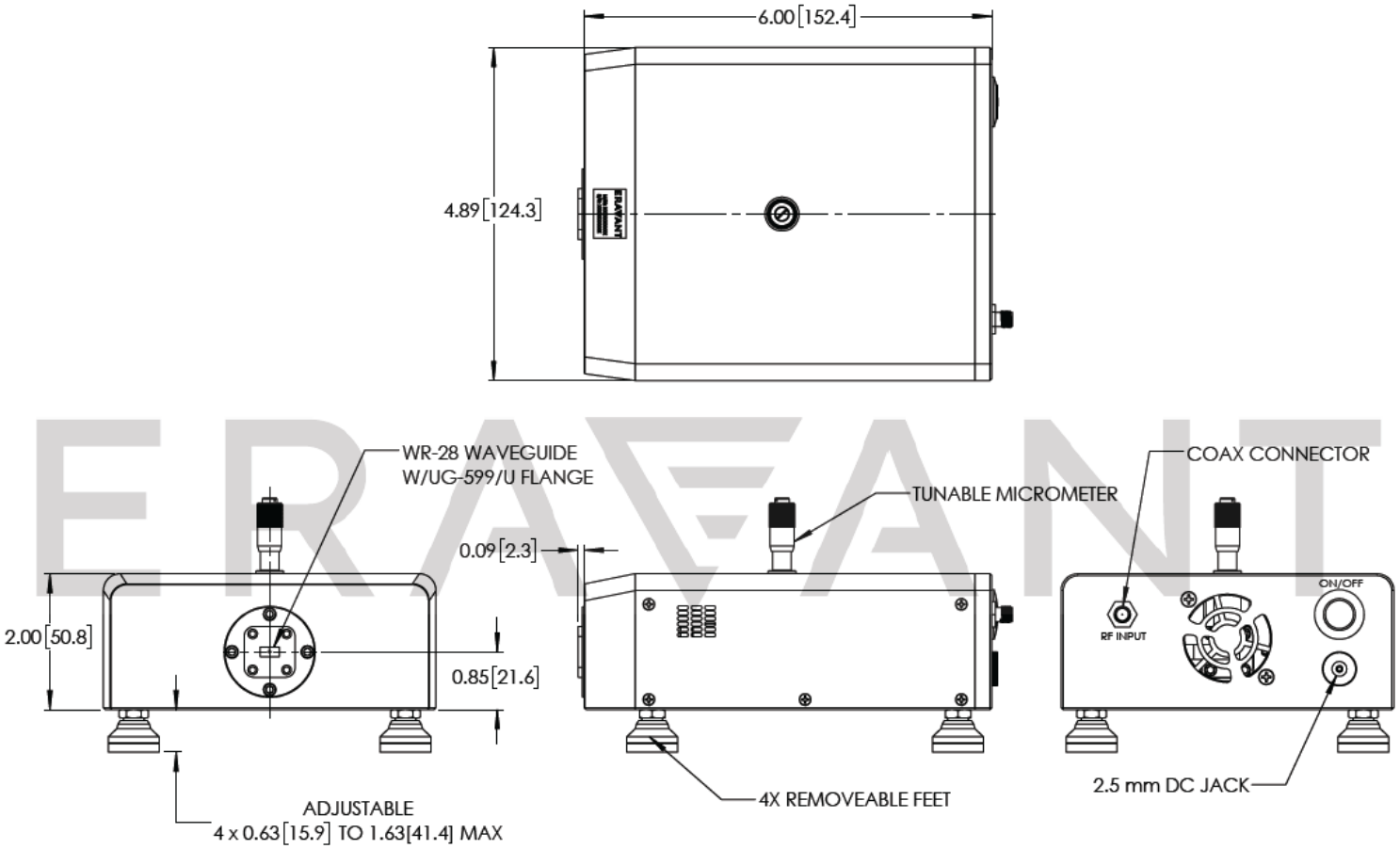


Harmonic Suppression vs. Frequency

Input Power = +5 dBm



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



NOTE:

- On condition that test data is provided it is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- On condition that simulated test data is provided, actual measured data may slightly vary.
- Power Supply adapter is included with the frequency extender.
- Other frequency multiplication factors are available under different model numbers.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings shown will damage the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- For 1 mm connectors proper torque should be applied: 4.0 ± 0.15 inch-pounds (0.45 ± 0.02 Nm). Torque wrench model SCH-06004-S1 is highly recommended.
- For 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm, and SMA connectors proper torque should be applied: 8.0 ± 0.15 inch-pounds (0.90 ± 0.02 Nm). Torque wrench model SCH-08008-S1 is highly recommended