

STE-KF610-16-S1-C

W-Band ACCESS X6 Full Band Frequency Extender,
70 to 116 GHz, +16 dBm Pout

STE-KF610-16-S1-C is a W-band compact X6 frequency extender. The extender delivers frequency of 70 to 116 GHz with a typical output power of +16 dBm for an input signal within 11.6 to 18.33 GHz range. The extender has a typical harmonic suppression of -20 dBc. The compact design offers a practical solution for microwave frequency extension of signal generators, such as Eravant synthesizer **STL-SG-022203-S1**. The input port configuration is a female K connector and the output is a WR-10 waveguide with a UG-387/U-M anti-cocking flange. Calibration data stored in the device memory can be directly accessed via USB-C cable.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Output Frequency	70 GHz		116 GHz
Input Frequency	11.6 GHz		18.33 GHz
Output Power		+16 dBm	
Input Power	-3 dBm	+0 dBm	+5 dBm
Return Loss		10 dB	
Harmonic Suppression		-20 dBc	
Power Supply	100 V _{AC}		240 V _{AC}
Specification Temperature		+25 °C	
Operating Temperature	0 °C		+50 °C

Mechanical Specifications:

Item	Specification
Output Port	WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange
Input Port	K(F)
DC Bias Port	2.5 mm DC Jack (AC-to-DC power converter included)
Memory Port	USB-C Socket
DC Bias Switch	On-Off Latching Switch with Indicator Light
Enclosure Material	Black Anodized Aluminum
Weight	1.5 lbs.
Size	2.36" (W) x 3.15" (L) x 4.25" (H)
Outline	TE-WG-A-C-2



ECCN

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FEATURES

- 70-116 GHz Extended Coverage
- Low Harmonic Emission
- Built-in Memory Cal Data
- Compact Size
- Forced Air Cooling
- Input Voltage: 100 to 240 V_{AC}

APPLICATIONS

- Signal Generator Frequency Extension
- Antenna Range

RECOMMENDED PAIRINGS

- [Waveguide Quick Connects](#)
- [Cable: SCW-SMSM040-F1-A](#)
- [Coax Adapters](#)
- [Waveguide to Coax Adapters](#)

RECOMMENDED RESOURCES

- [Contactless WG Flange & mmW Sub-THz Test Setup Applications](#)
- [Proxi-Flange: Conference Papers](#)

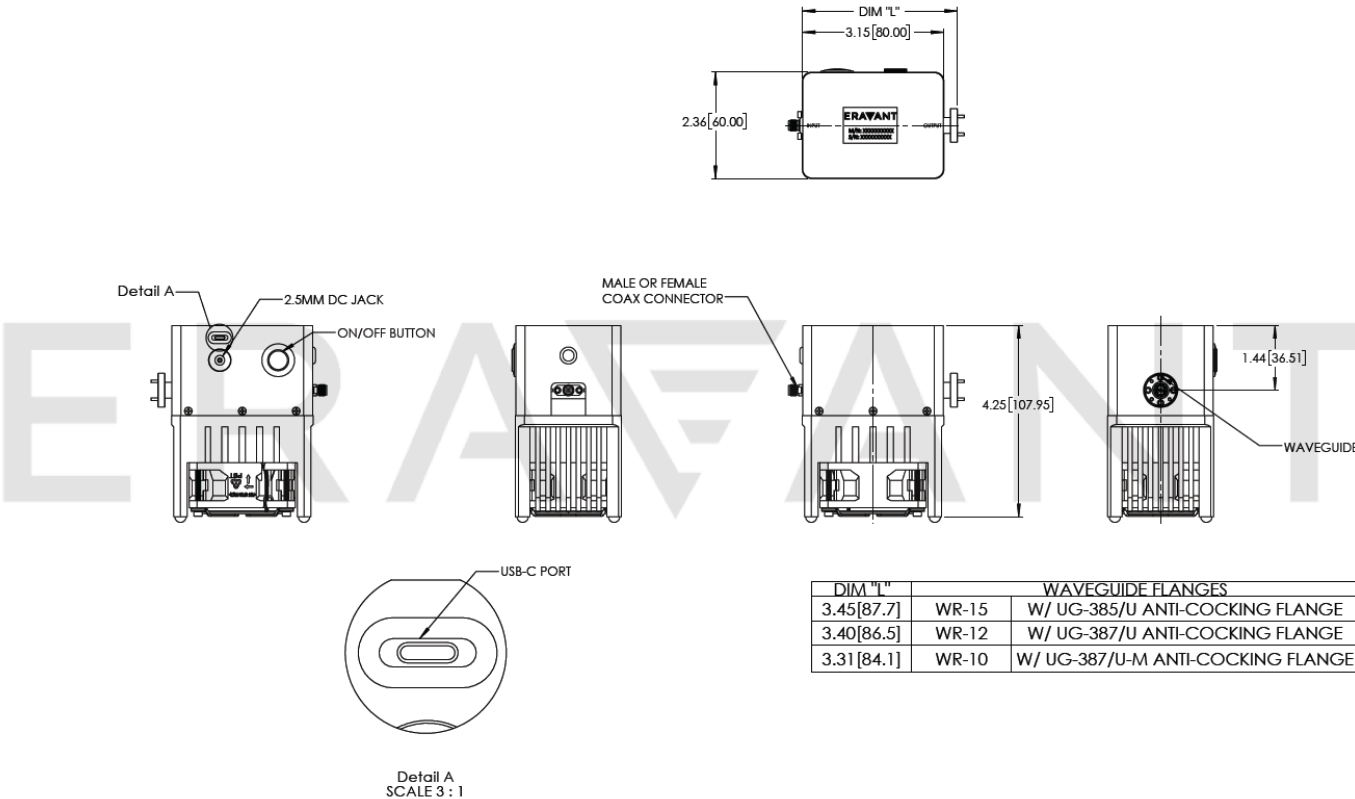


Components Included:

Item	Eravant Model Number	Quantity
Waveguide Screws, 3/32 Hex Head	SWH-332-SS-10	1 (10 Screws Total)
Waveguide Screwdriver, 3/32 Hex Head	SWH-332-DS	1
USB-C Cable	PES-AEUSUS164-1	1
Connector Torque Wrench	SCH-08008-S1	1
AC-to-DC Power Adapter	PEP-PJ2555-1	1

Note: Connecting cables are not included. Eravant coaxial cable, model SCW-SMSM040-F1-A is highly recommended.

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



NOTE:

- Performance plots shown above represent a sample lot performance. Actual data may show some unit-to-unit variation.
- Eravant offers calibration services. It is recommended that calibration be performed every 12 months to ensure equipment compliance.
- Connecting cables are not included. The use of Eravant coaxial cables (model **SCW-SMSM040-F1-A**) is highly recommended.
- Coaxial adapters may be necessary, depending on the connector type of the signal source. Appropriate Eravant adapters are recommended.
- To test a DUT with a coaxial interface, use suitable Eravant waveguide-to-coaxial adapters.
- Operation outside the specified frequency range may result in degraded performance.
- Eravant reserves the right to modify product information without prior notice.

CAUTION:

- Any foreign objects in the waveguide may cause performance degradation and damage the unit.
- Exceeding the absolute maximum ratings of the device may cause permanent damage to the extenders.
- 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.

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