STE-KF610-11-S1-C

W-Band ACCESS X6 Full Band Frequency Extender, 70 to 116 GHz, +10 dBm Pout

STE-KF610-11-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 +10 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 extention 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. An AC to DC Power adapter and a **Proxi-Flange™ Contactless Flange (STQ-WG-10010-FB-CF)**, is also included.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Output Frequency	70 GHz		116 GHz
Input Frequency	11.6 GHz		18.33 GHz
Output Power		+10 dBm	
Input Power	-3 dBm	+0 dBm	+5 dBm
Return Loss		10 dB	
Harmonic Suppression		-20 dBc	
Multiplication Factor		6	
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

3A001.b.7

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

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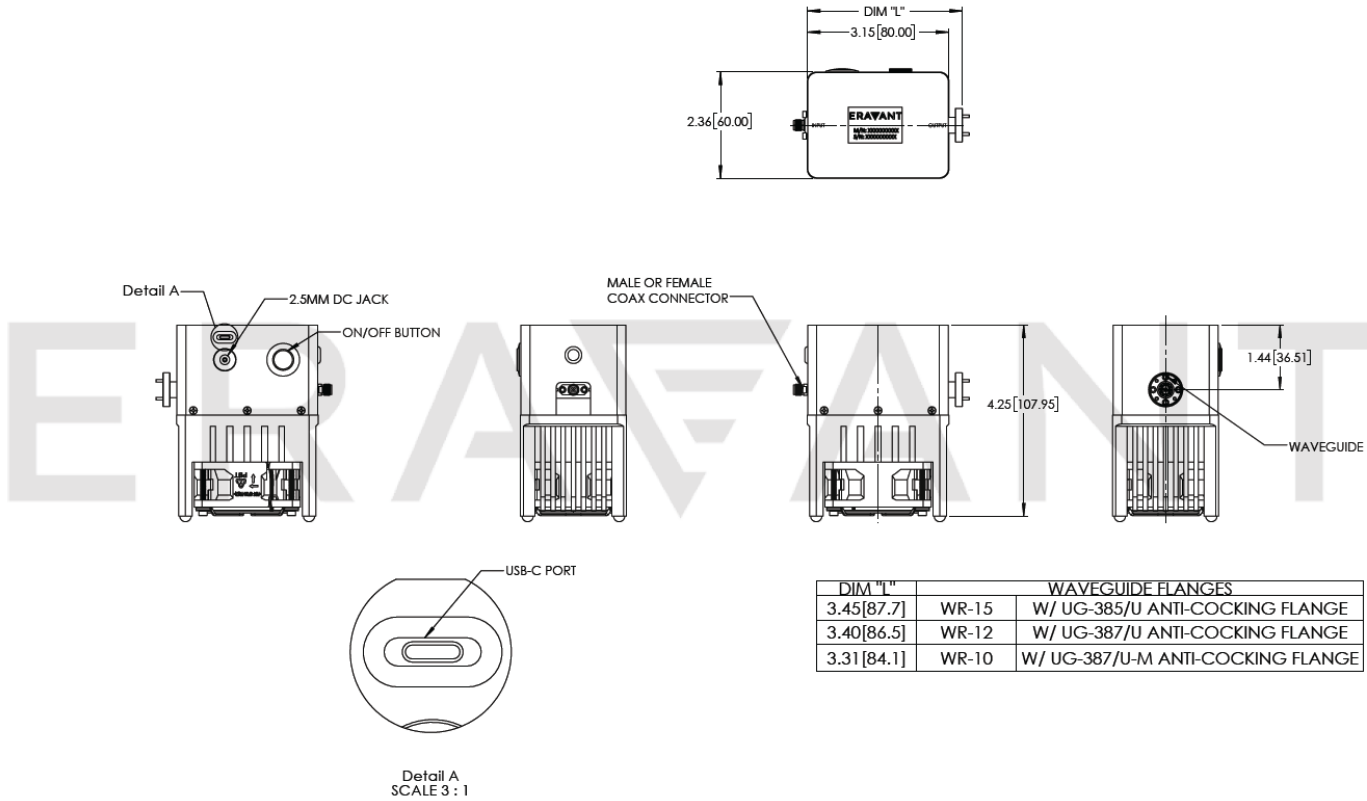
Components Included:

Item	Eravant Model Number	Quantity
Proxi-Flange™ Contactless Flange, 1.0” Long	STQ-WG-10010-FB-CF	1
Waveguide Screws, 3/32 Hex Head	SWH-332-SS-10	1 (10 Screws Total)
Waveguide Screwdriver, 3/32 Hex Head	SWH-332-DS	1
Waveguide Screw, 5/64 Hex Head	SWH-564-SS-10	1 (10 Screws Total)
Waveguide Screwdriver, 5/64 Hex Head	SWH-564-DS	1
USB-C Cable	PES-AEUSUS164-1	1
Coax 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])



DIM "L"	WAVEGUIDE FLANGES	
3.45[87.7]	WR-15	W/ UG-385/U ANTI-COCKING FLANGE
3.40[86.5]	WR-12	W/ UG-387/U ANTI-COCKING FLANGE
3.31[84.1]	WR-10	W/ UG-387/U-M ANTI-COCKING FLANGE

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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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