STQ-WG-12025-FB-CF

WR-12 Proxi-Flange™ Contactless Flange Straight Waveguide Section

STQ-WG-12025-FB-CF is an Eravant trademarked Proxi-Flange™, patent pending, with a E-band contactless flange straight waveguide section with WR-12 waveguides and UG-387/U Anti-Cocking flanges. The Proxi-Flange™ is constructed with a special waveguide flange populated with an array of small pin-like structures to realize the RF choking actions. The Proxi-Flange™ avoids the problem of poor return loss and high insertion loss caused by imperfect contact when two waveguide flanges are mated. The captive screws normally used in waveguide test sets can cause cocking issues if tightened unevenly, but Proxi-Flange™ eliminates the need for any waveguide screws, resulting in improved device durability, measurement consistency, and test repeatability. Eravant's Wave-Glide™, patent pending, fixture - the Novel Apparatus of Millimeter-Wave Frequency for Accurate and Automatic Testing, further enhances the Proxi-Flange™ benefits and makes it the perfect candidate for volume production and automatic test lines where frequent connection and disconnection between DUTs and test equipment occurs. Model STQ-WG-12025-FB-CF is offered to cover the frequency range of 60 to 90 GHz with an insertion length of 2.5". Other insertion lengths and other frequency bands are offered under various model numbers to cover frequency ranges from 18 to 325 GHz.

Electrical Specifications

Parameter	Minimum	Typical	Maximum
Frequency Range	60 GHz		90 GHz
Insertion Loss		1.0 dB	
Return Loss		30 dB	
Power Handling			10 W (CW)
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

Mechanical Specifications

Item	Specification
Waveguide Size	WR-12 Waveguide with UG-387/U Anti-Cocking Flange
Insertion Length	2.5"
Flange Material	Beryllium Copper (BeCu)
Waveguide Material	Beryllium Copper (BeCu)
Finish	Gold Plated
Weight	0.7 Oz
Outline	WG-FE-A-CF

ECCN

- EAR99

FEATURES

- Frequency Range: 60 to 90 GHz
- Contactless Connection
- Rugged Waveguide Configuration
- Low Insertion Loss
- High Return Loss

APPLICATIONS

- Test Instrumentation
- Automatic Test Setup
- Volume Production Testing

RECOMMENDED PAIRINGS

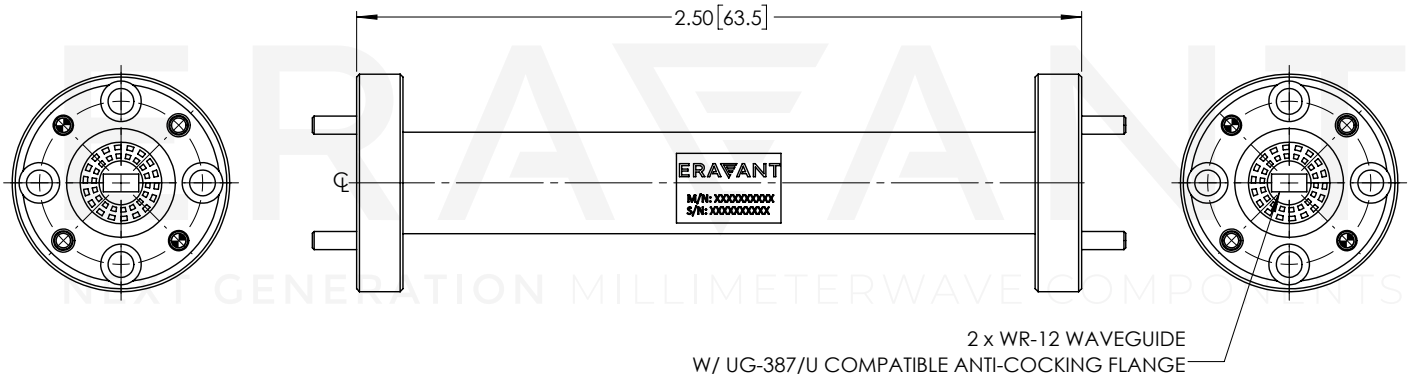
- Cal-kit: STQ-TO-12-S1-CKIT1
- Wave-Glide™ Rail System
- Waveguide Quick Connects
- STO-12203-U6 E-Band Vector Network Analyzer Extender Pair

Components Included in Each Kit

Item	Eravant Model Number	Quantity
Waveguide Screws, 3/32 Hex Head	SWH-332-SS-10	1 Container (10 Pieces)
Contactless Flange	STQ-WG-12025-FB-CF	1 Piece
Waveguide Screwdriver, 3/32 Hex Head	SWH-332-DS	1 Piece
USB Flash Drive	-	1 Piece
Black Test Equipment Case	-	1 Piece

Mechanical Outline

Unless otherwise specified, all dimensions are in inches [millimeters]



NOTE

- On condition 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 case temperature.
- Other mechanical configurations with different lengths and other frequency bands are available under different model numbers.
- The **Proxi-Flange™** family is a trademarked and patent pending product of Eravant.
- Eravant reserves the right to change the information presented without notice.

CAUTION

- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

APPENDIX: CONTACTLESS FLANGE CASE AND FRONT VIEW

STQ Contactless Flange Front View

STQ Case Outside View

STQ Case Inside View

APPENDIX: TYPICAL PERFORMANCE