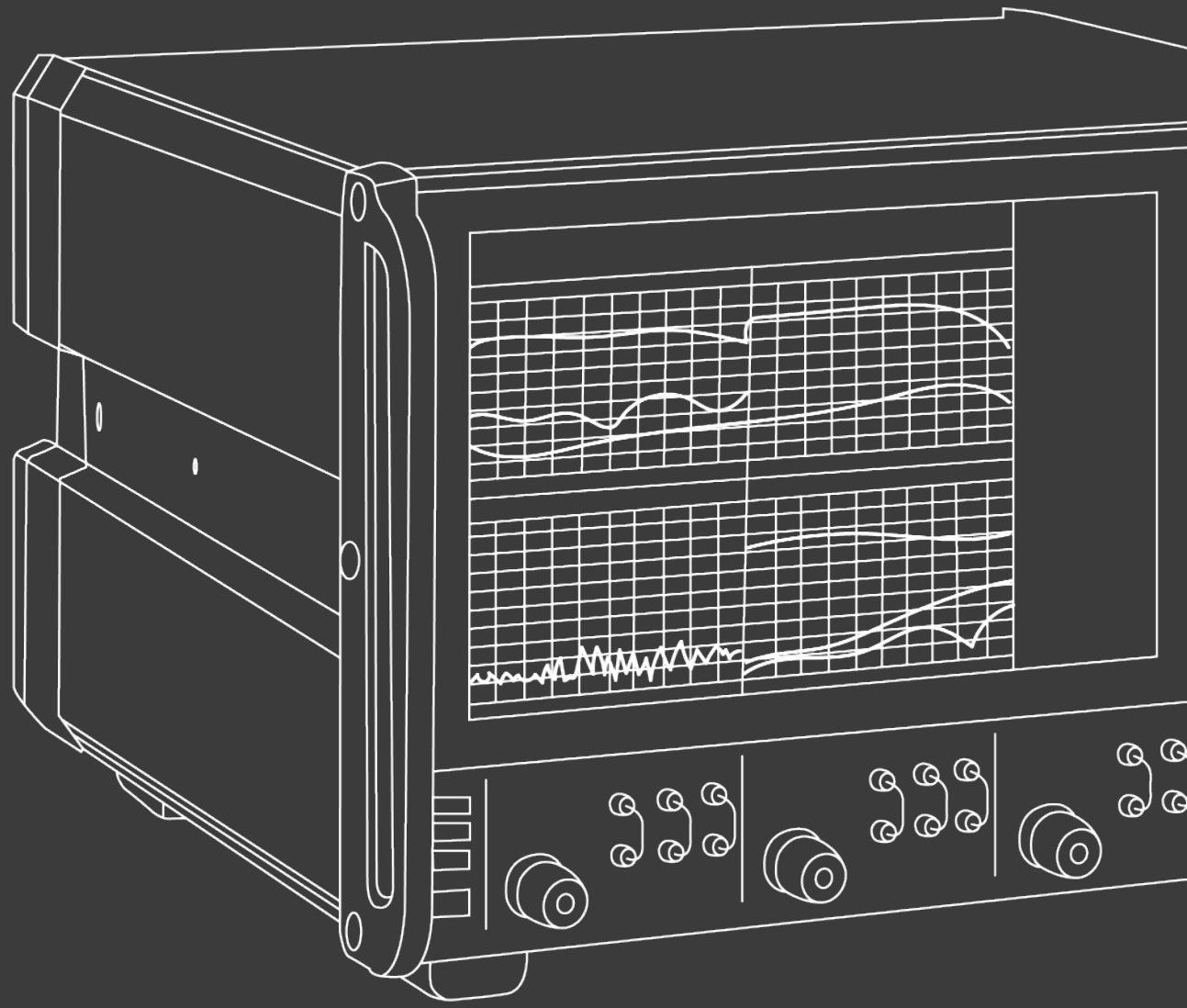
ERAVANT

MAKING MILLIMETERWAVE ACCESSIBLE

# BROAD BANDWIDTH COMPONENTS FOR TEST EQUIPMENT



# CONTENTS

# INTRODUCTION

**Eravant** designs and manufactures total solutions for microwave and millimeterwave applications covering 10 MHz to 330 GHz.

- **This presentation introduces Eravant's broadband products suitable for test instrumentation**
- Our full product offering, including Limited Run models, are listed on our website at www.eravant.com

**Additional products and presentations are available upon customer request:**

- Custom models for components and subassemblies can be configured to customer specifications
- Presentations for specific applications such as 5G/6G, IoT, Thermal Vacuum and Space, Communications and Radar are available on-line
- Products in Ka, Q, U, V, E, W, F, D, G and J bands are also described in updated presentations

# ERAVANT PRODUCT OFFERINGS

- Although standard models are not specifically designed and manufactured for Space and Thermal Vacuum applications, many of them are suitable for these and other extreme environments. Examples include:
    - SAR, SAC, SAF, SAH, SAJ, SAP, SAT and SAZ antenna families
    - SWG, SWB, SWW, SWT, SWF, SWI, SWH, SWR, SWD, SWX, SWM and SWF waveguide components
    - SUF Uni-Guide™ Waveguide Connectors
    - Models with the “V” suffix are qualified for Thermal Vacuum applications
    - Includes antennas, isolators, attenuators, couplers, adapters and subassemblies
- Many models can be adapted for Space and TVAC applications by simply updating the manufacturing process using “no-out-gassing” materials such as adhesives, OFHC copper or stainless steel, etc.

# ANTENNAS

# STANDARD GAIN HORN ANTENNA

**FAMILY: SAZ**
18 to 330 GHz

## 14 Models Cover Full Waveguide Bands Up To 330 GHz

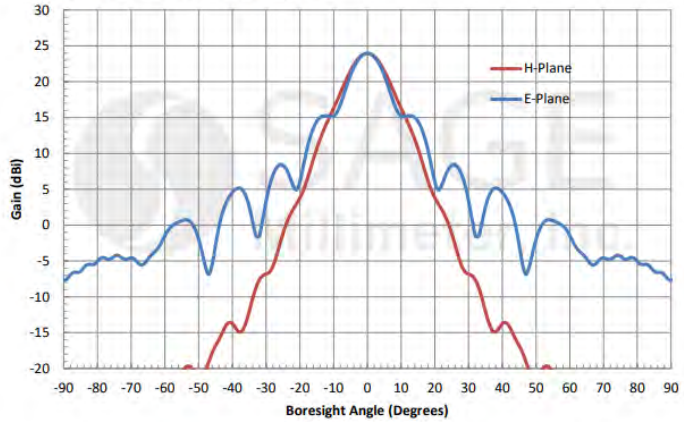
**SAZ-2410-05-S1**
**140 to 220 GHz, 24 dBi**

**SAZ-2410-10-S1**
**75 to 110 GHz, 24 dBi**

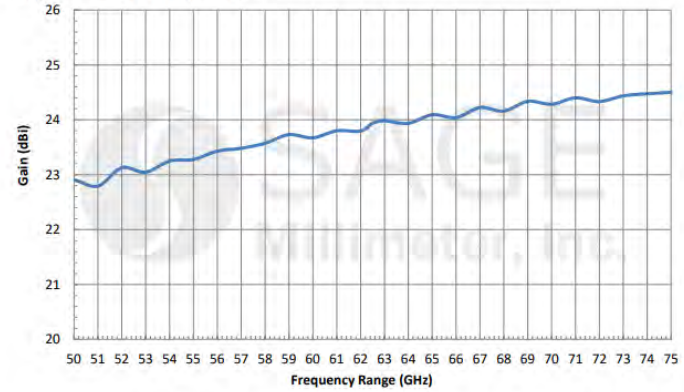
**SAZ-2410-15-S1**
**50 to 75 GHz, 24 dBi**

**SAZ-2410-28-S1**
**26.5 to 40 GHz, 24 dBi**

**Typical Antenna Patterns @ 62.5 GHz**




**Typical Gain vs. Frequency**



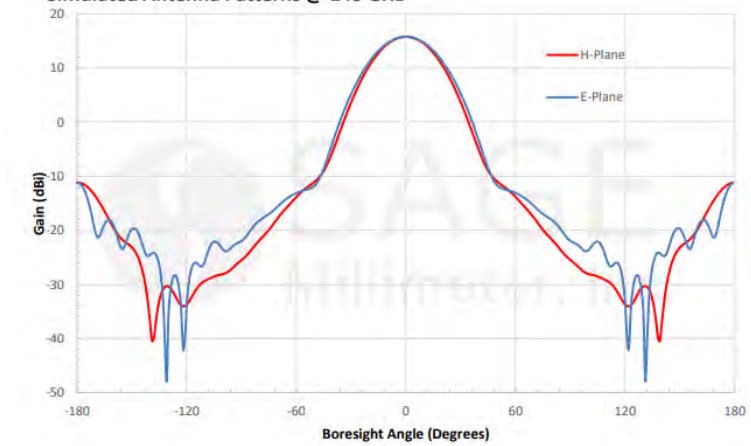
# SCALAR FEED HORN ANTENNA

**FAMILY: SAF**
18 to 220 GHz

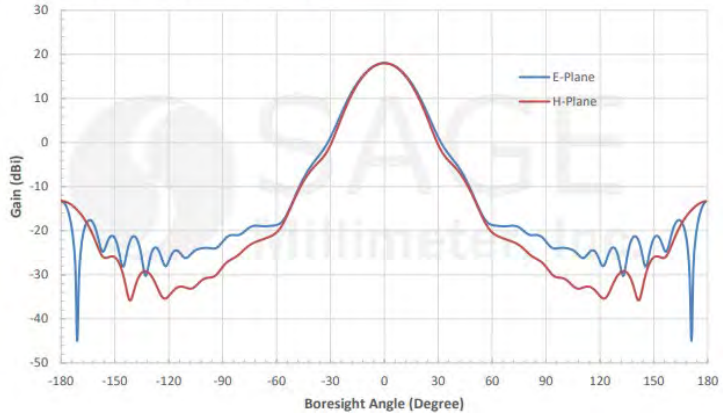
**More Than 60 Models – Full Waveguide Bandwidth**


**SAF-1141741535-082-S1**
**110 to 170 GHz, 15 dB**

**Simulated Antenna Patterns @ 140 GHz**



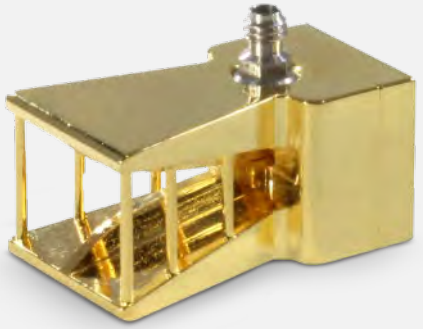

**Simulated Antenna Patterns @ 33 GHz**



# DUAL RIDGED HORN ANTENNA LINEARLY POLARIZED

**FAMILY: SAV**
1 to 110 GHz

## 6 Models with Multi-Octave Bandwidth

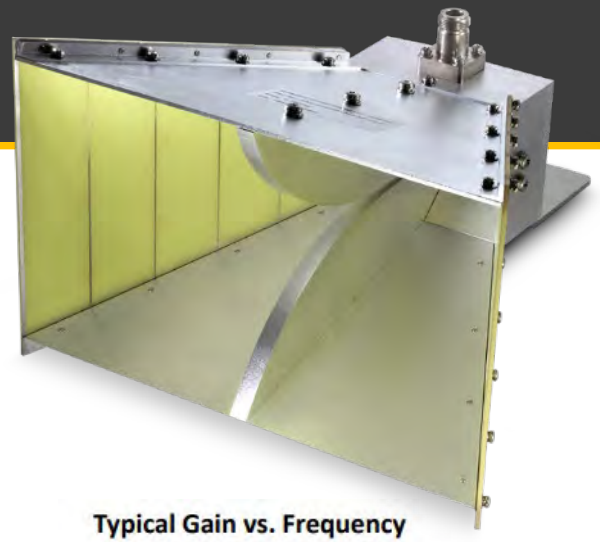


**SAV-1431141535-1F-U5**
**14 to 110 GHz**

**SAV-0636731522-VF-U5**
**6 to 67 GHz**

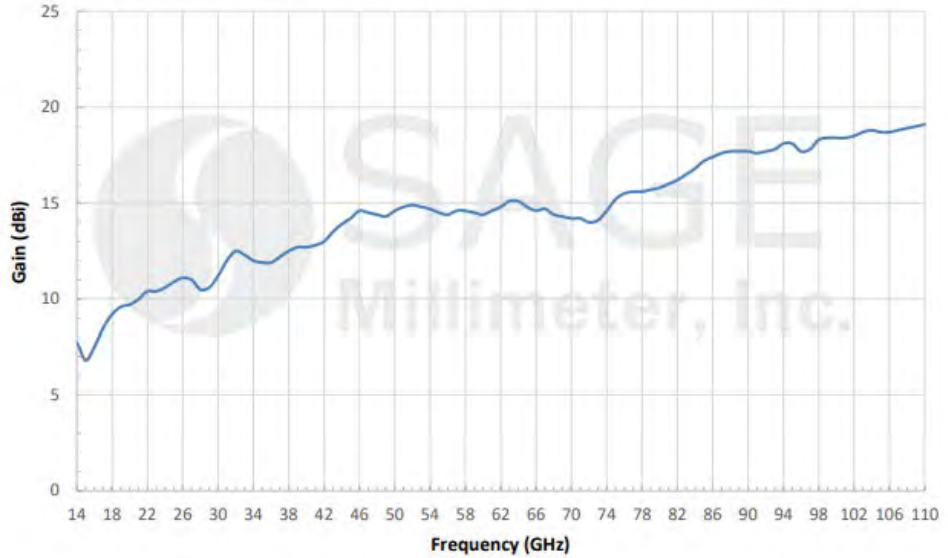

**SAV-0636731429-VF-S1**
**6 to 67 GHz**

**SAV-0434031427-KF-U5**
**4 to 40 GHz**



**SAV-0131831040-NF-U2**
**1 to 18 GHz**

**Typical Gain vs. Frequency**



# QUAD RIDGE DUAL POLARIZED SQUARE ANTENNA

**FAMILY: SAV**
1 to 67 GHz

**10 Models with Mult-Octave Bandwidth**

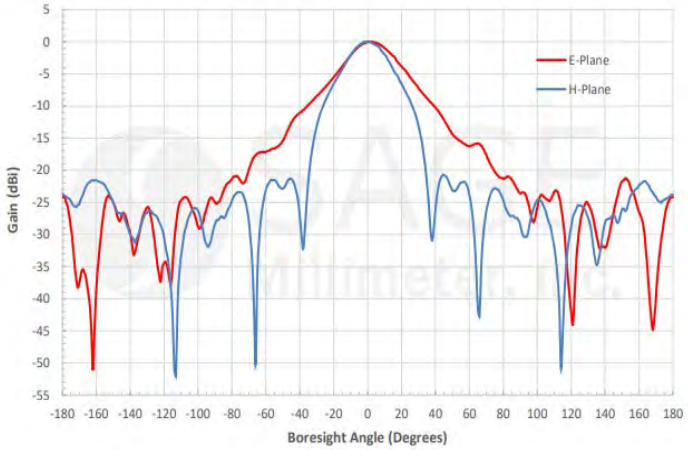
**SAV-0130430883-SF-U4-QR**
**1 to 4 GHz**


**SAV-0632531431-SF-U3-QR**
**6 to 25 GHz**

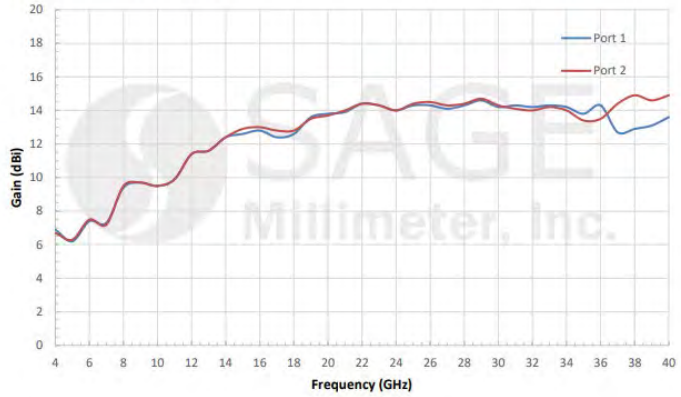
**SAV-0434031428-KF-U5-QR**
**6 to 67 GHz**

**SAV-0535031140-2F-U5-QR**
**5 to 50 GHz**

**Typical Antenna Pattern @ 22 GHz**




**Typical Gain vs. Frequency**



# QUAD RIDGED DUAL POLARIZED CIRCULAR ANTENNA

**FAMILY: SAC**
1 to 40 GHz

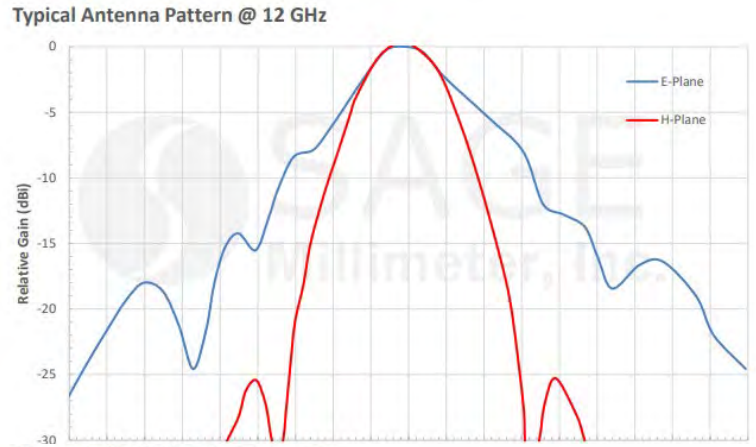
**6 Models: Wide Bandwidth**

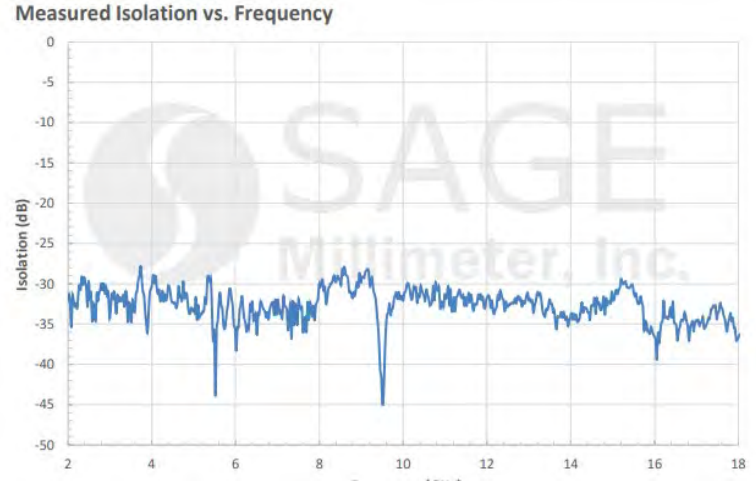
**SAC-0231831225-SF-S4-DP**
**2 to 18 GHz**

**SAC-0432431235-SF-S4-DP-RD**
**4 to 24 GHz**

**SAC-1834031621-KF-S5-DP**
**18 to 40 GHz**

**SAC-2734031517-KF-S5-D**
**27 to 40 GHz**

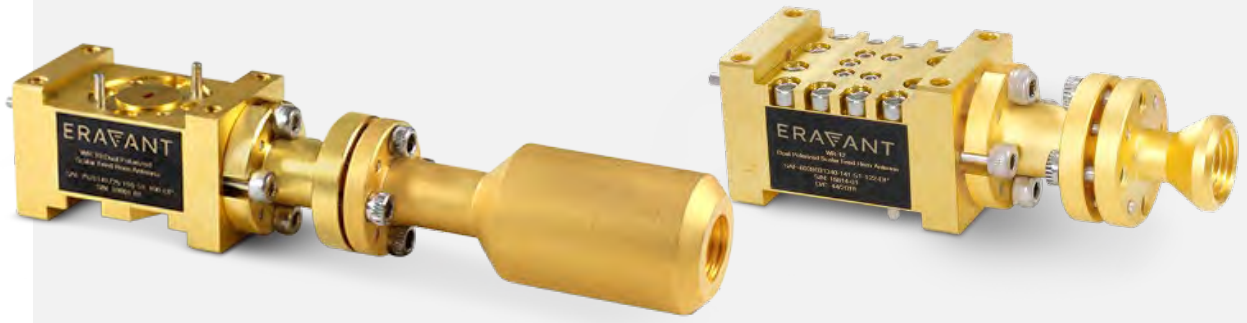


# DUAL POLARIZED SCALAR HORN ANTENNA

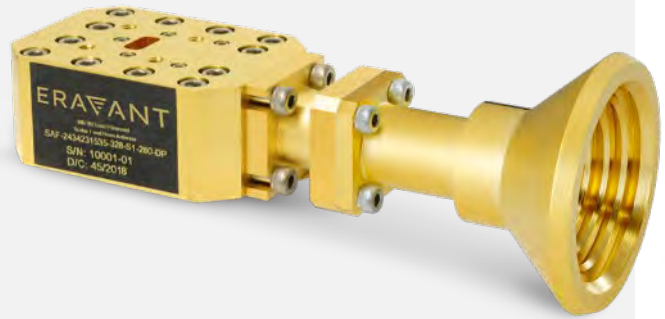
**FAMILY: SAF**
23 to 170 GHz

## 16 Models: Waveguide Bandwidth



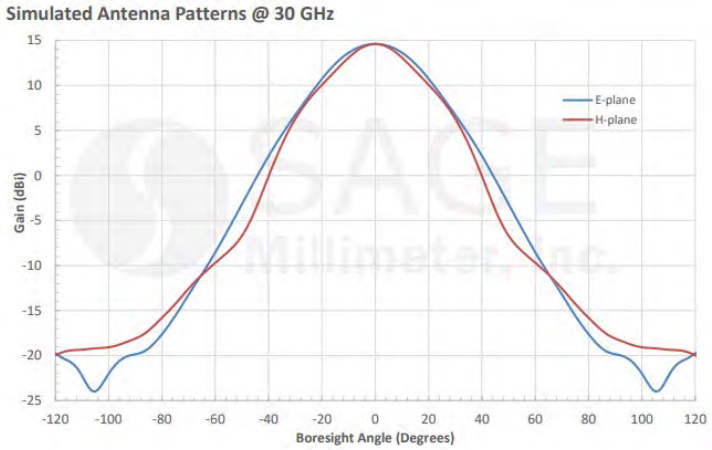

**SAF-1141741525-082-S1-065-DP**
**110 to 170 GHz**

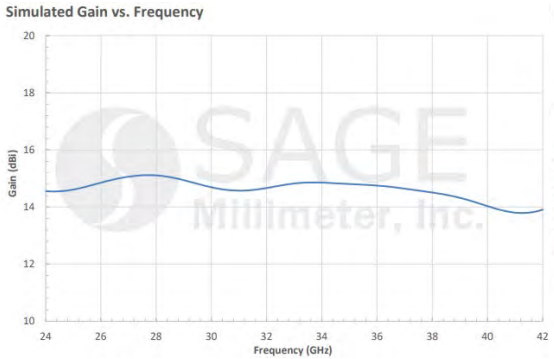
**SAF-6039031340-141-S1-122-DP**
**60 to 90 GHz**

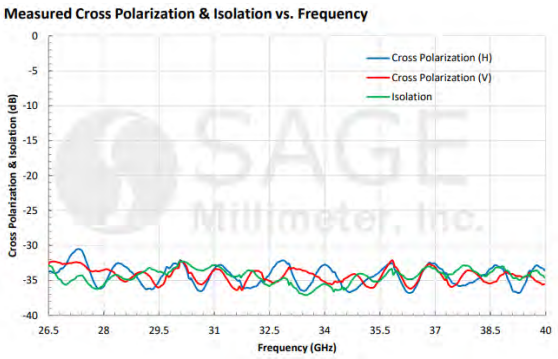




**SAF-4036031340-219-S1-188-DP**
**40 to 60 GHz**

**SAF-2434231535-328-S1-280-DP**
**24 to 42 GHz**



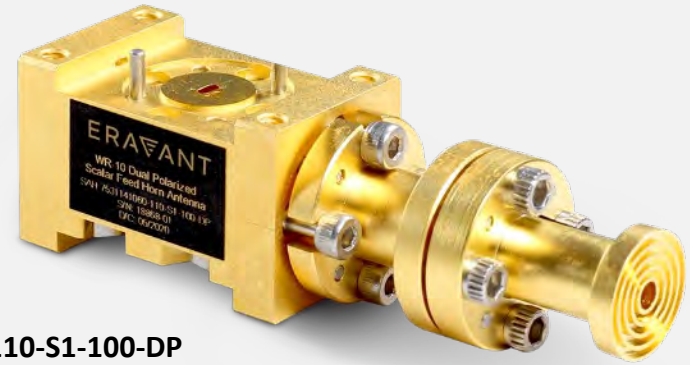



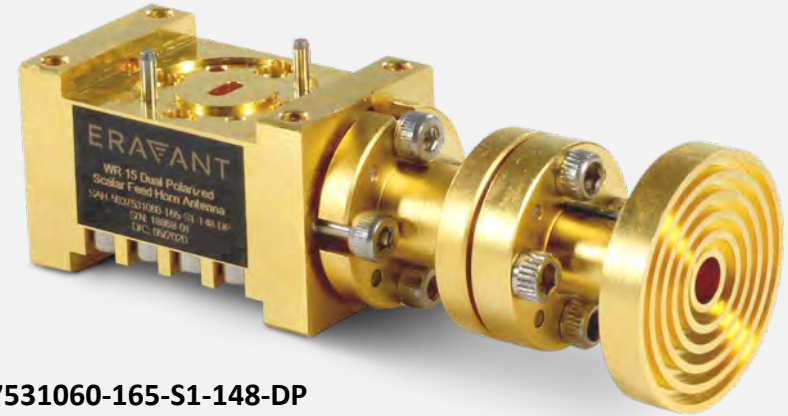
# DUAL POLARIZED CHOKE HORN ANTENNA

**FAMILY: SAH**
24 to 110 GHz

**4 Models: Full Waveguide Bandwidth**

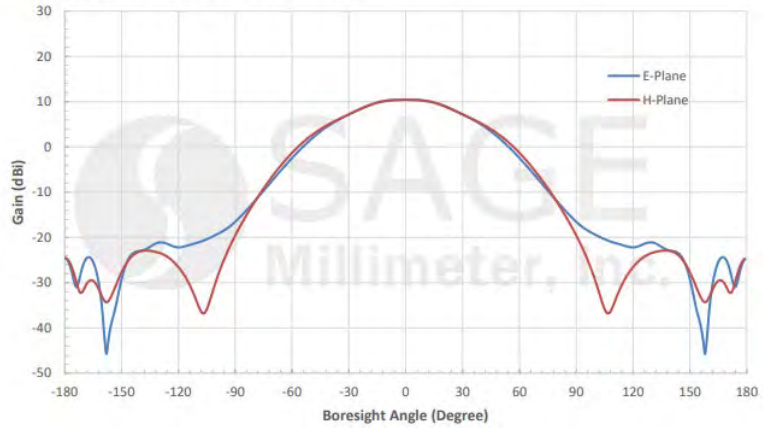



**SAH-7531141060-110-S1-100-DP**
**75 to 110 GHz**

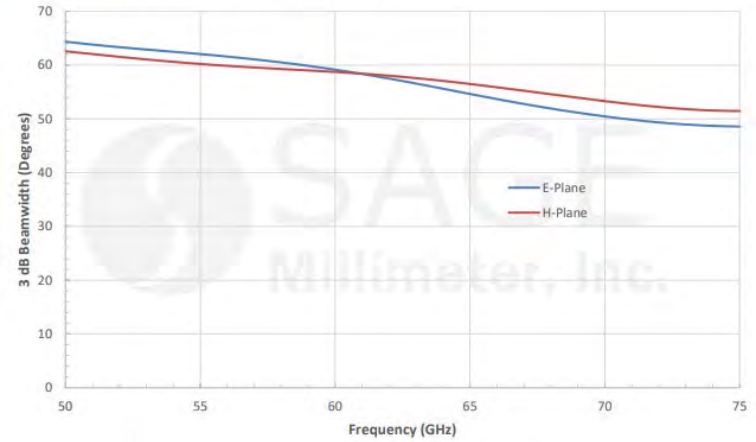



**SAH-5037531060-165-S1-148-DP**
**50 to 75 GHz**

Simulated Antenna Patterns @ 62 GHz




Simulated 3 dB Beamwidth vs. Frequency



# OMNIDIRECTIONAL ANTENNA

**FAMILY: SAO**
26.5 to 140 GHz

## More Than 20 Models: Full Waveguide Bandwidth

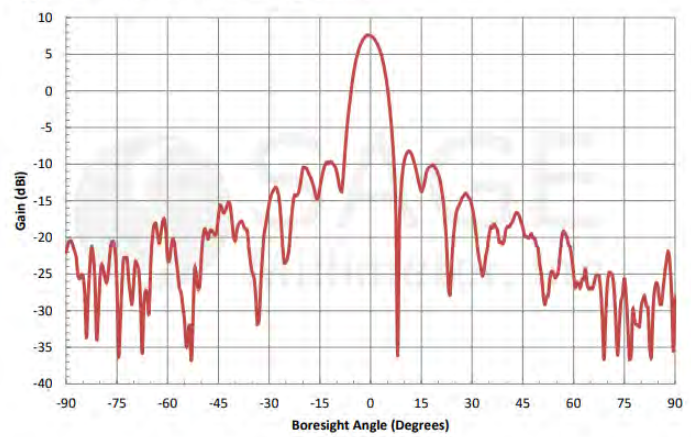

**SAO-9031440345-08-S1**
**90 to 140 GHz**


**SAO-6039030230-12-S1**
**60 to 90 GHz**

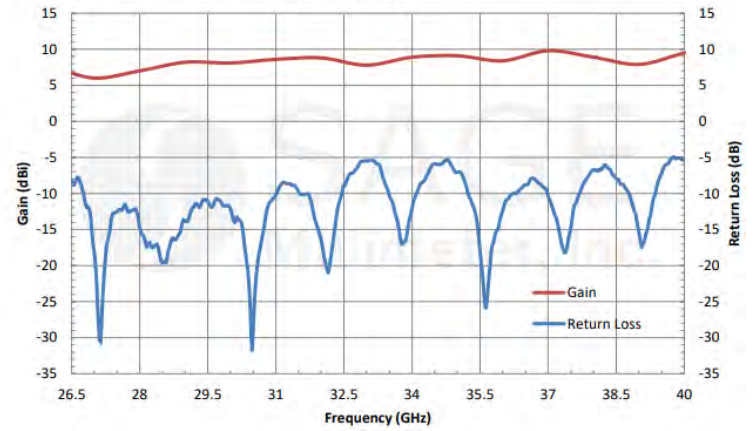
**SAO-2734030345-28-S1**
**26.5 to 40 GHz**

**SAO-2734030810-28-S1**
**26.5 to 40 GHz**

**Typical E-Plane Antenna Pattern @ 33 GHz**




**Typical Gain and Return Loss vs. Frequency**



# AMPLIFIERS

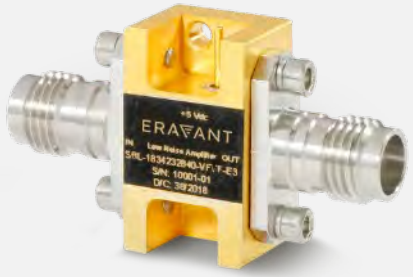
# ULTRA BROADBAND AMPLIFIER

**FAMILY: SBB**
10 MHz to 95 GHz

## More Than 30 Models: Up to 95 GHz


**SBB-5039532510-1F1F-S1**
**50 to 95 GHz**

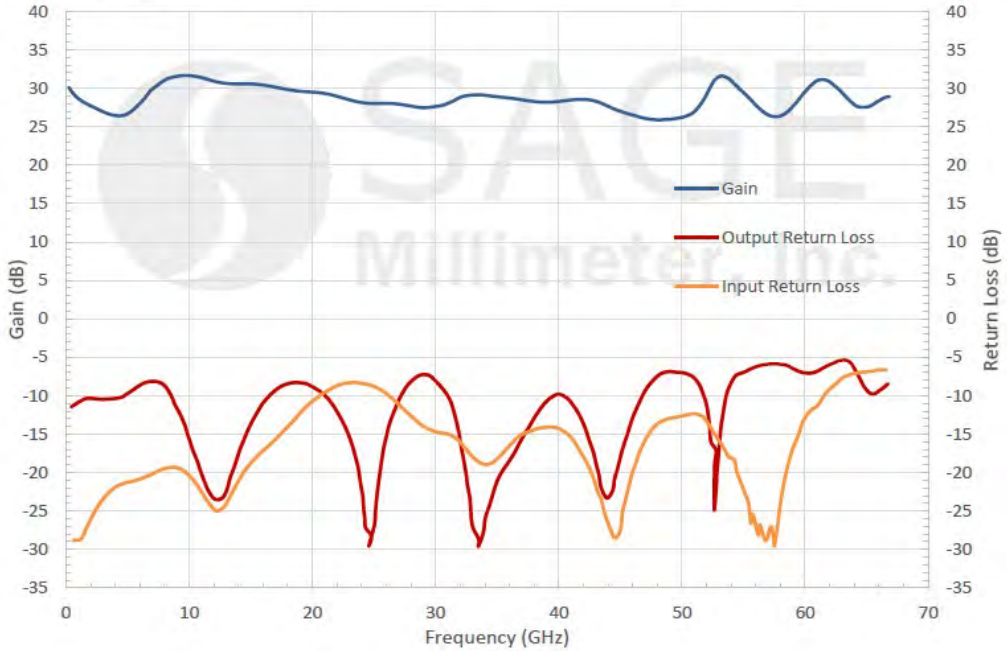

**SBB-0115033218-2F2F-E3**
**10 MHz to 50 GHz**




**SBB-1834232815-KFKF-E3**
**18 to 42 GHz**


**SBB-1834034018-KFKF-E3**
**18 to 40 GHz**

**Typical Gain and Return Loss vs. Frequency**
Bias: +12 $V_{DC}$/600 mA



# BROADBAND LOW NOISE AMPLIFIER

**FAMILY: SBL**
0.3 to 270 GHz

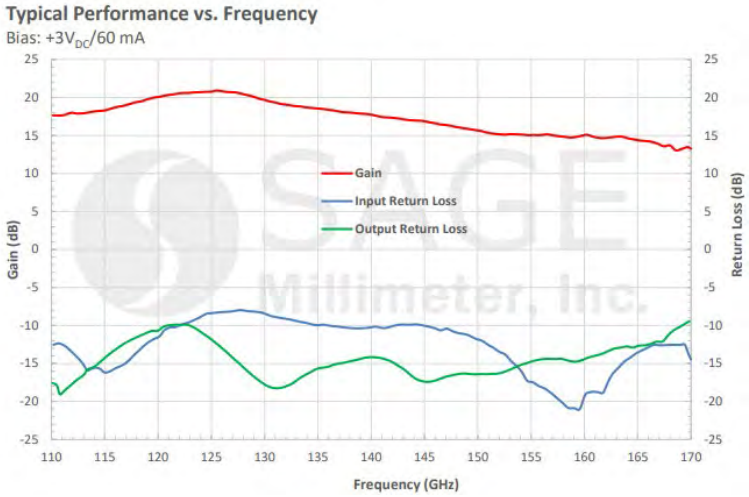
## More Than 100 Models: Up To Full Waveguide Bandwidth

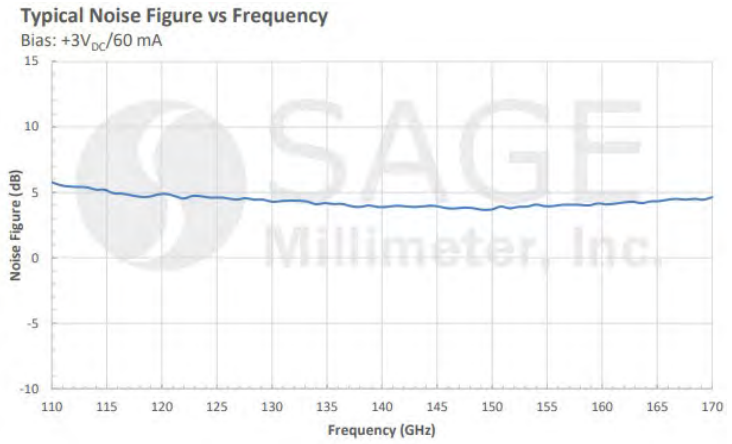

**SBL-2242741585-0303-E1**
**220 to 270 GHz**


**SBL-7531143550-1010-E1**
**75 to 110 GHz**


**SBL-5539532560-1212-E1**
**55 to 95 GHz**


**SBL-3335033040-2222-E1**
**33 to 50 GHz**



# BROADBAND POWER AMPLIFIER

**FAMILY: SBP**
18 to 230 GHz

## More Than 200 Models: Up To Full Waveguide Bandwidth

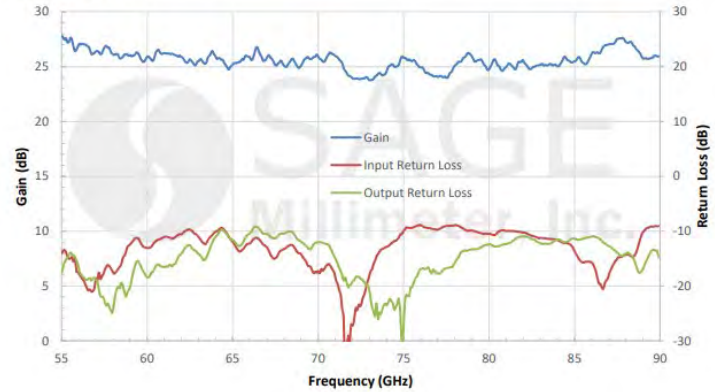

**SBP-2142341507-0404-E1**
**210 to 230 GHz**


**SBP-6039032516-1212-S1**
**60 to 90 GHz**

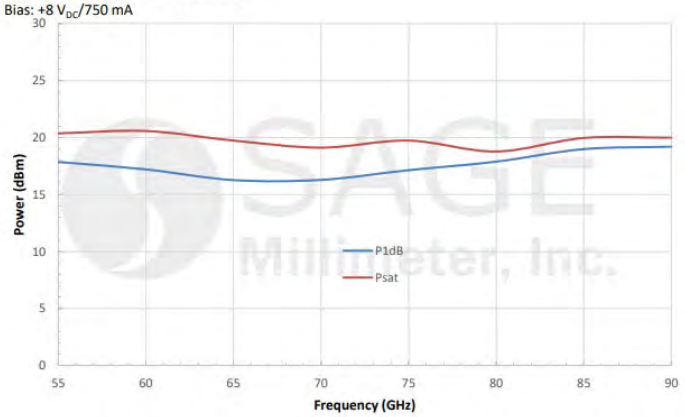

**SBP-3335034520-2222-E1**
**33 to 50 GHz**


**SBP-2734034526-2828-E1**
**26.5 to 40 GHz**

**Typical Gain and Return Loss vs. Frequency**
Bias: +8 $V_{DC}$/603 mA




**Typical Power vs. Frequency**
Bias: +8 $V_{DC}$/750 mA

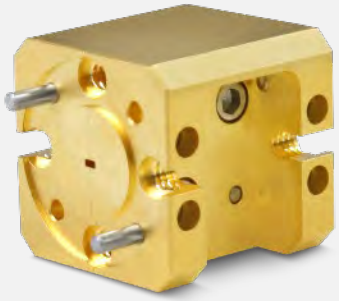


# MULTIPLIERS

# BROADBAND PASSIVE MULTIPLIER

**FAMILY: SFA**
22 to 330 GHz

**More Than 40 Models: Up To Full Waveguide Bandwidth**

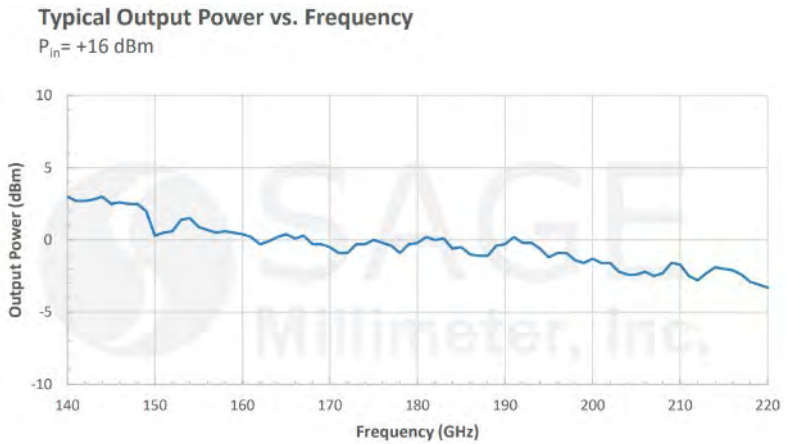


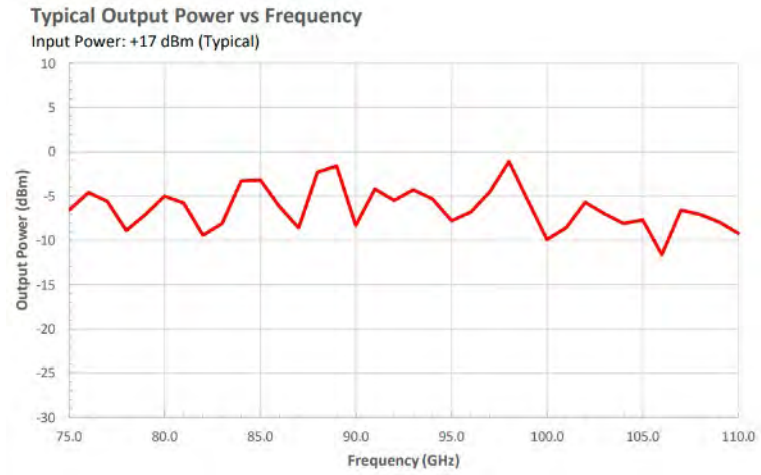
**SFP-03310-UEB**
**220 to 330 GHz**

**SFP-05210-S2**
**140 to 220 GHz**

**SFP-104KF-S2**
**75 to 110 GHz**

**SFP-243423303-28SF-S1**
**24 to 42 GHz**



# BROADBAND ACTIVE MULTIPLIER

**FAMILY: SFA**
20 to 220 GHz

## More Than 150 Models: Up To Full Waveguide Bandwidth

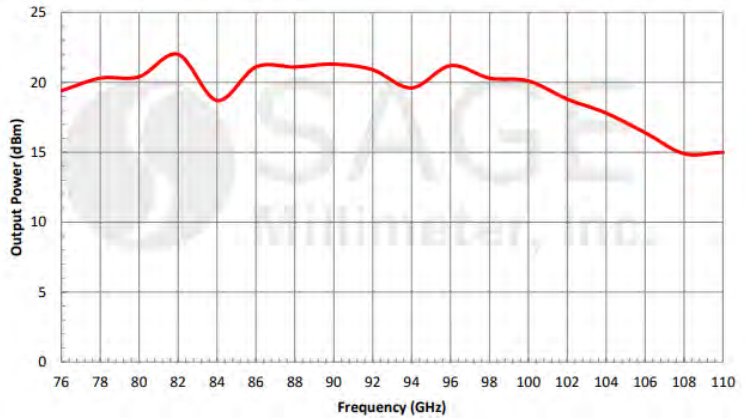

**SFA-753114616-10SF-E1**
**75 to 110 GHz**


**SFA-194224208-0510-E1**
**190 to 220 GHz**

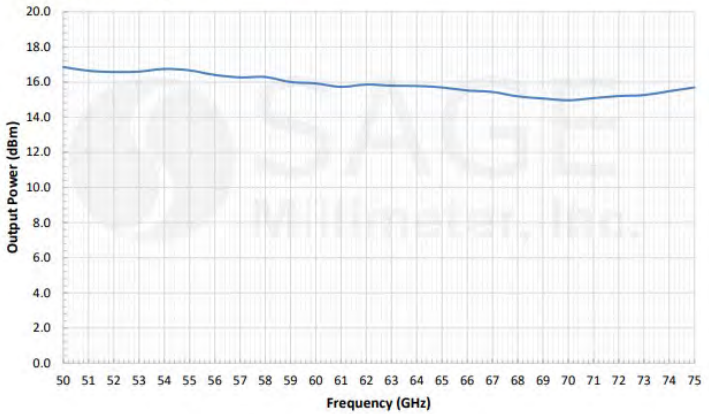

**SFA-194SF-E1**
**40 to 60 GHz**


**SFA-282SF-E1**
**26.5 to 40 GHz**

**Typical Output Power vs. Frequency**
Bias: +13 $V_{DC}$/ 550 mA, Input Power: +3 dBm




**Typical Output Power vs. Frequency**
Bias: +8 $V_{DC}$/550 mA; Input Power: +3 dBm



# CONVERTERS

# BROADBAND BALANCED MIXER

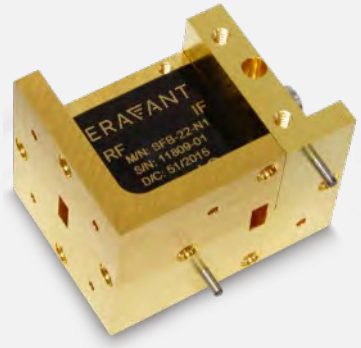
**FAMILY: SFB**
11 to 220 GHz

**More Than 30 Models: Full Waveguide Bandwidth**

**SFB-05-E2**
**140 t0 220 GHz**

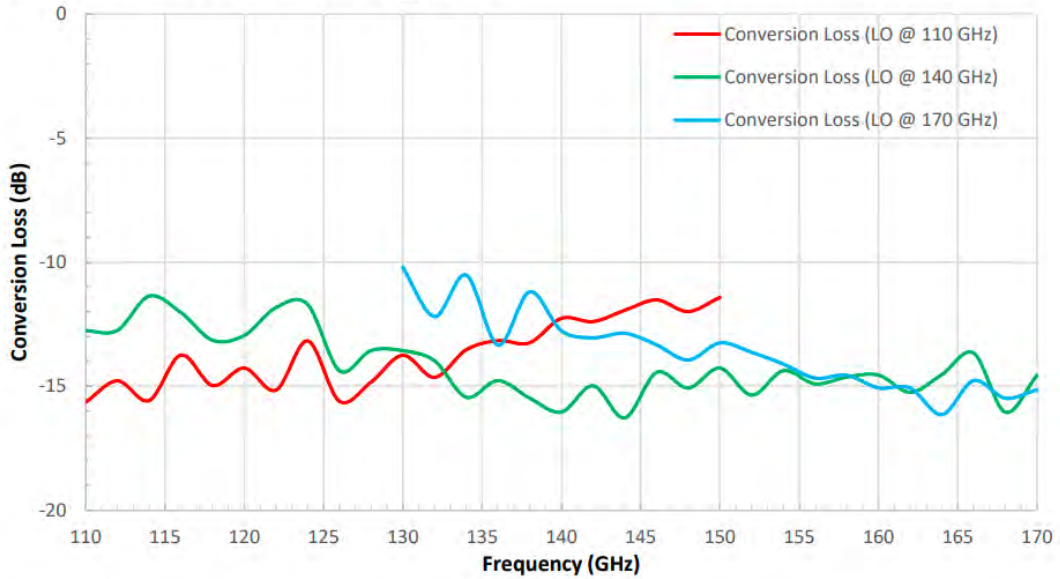
**SFB-06-E2**
**110 to 170 GHz**

**SFB-10-N1**
**75 to 110 GHz**



**SFB-22-N1**
**33 to 50 GHz**

**Typical Conversion Loss vs. Frequency**
RF: -20 dBm; LO: +3 dBm, Bias: +5 $V_{DC}$/1 mA



# QUADRATURE MIXER

**FAMILY: SFS**
20 to 112 GHz

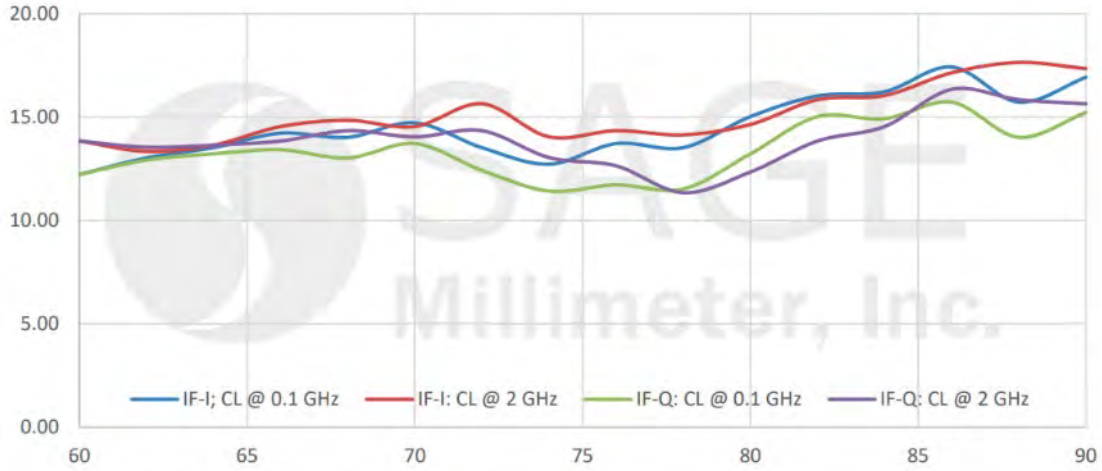
**More Than 25 Models**


**SFQ-11411415-0808SF-N1**
**110 to 112 GHz**


**SFQ-60390315-1212SF-E1-M**
**60 to 90 GHz**


**SFQ-40360312-1919SF-N1-M**
**40 to 60 GHz**

**Typical Conversion Loss vs. LO Frequency**
Bias: +5Vdc/1mA, RF= -20 dBm, LO= +10 dBm



# DETECTORS

# BROADBAND AMPLITUDE DETECTOR

**FAMILY: SFD**
18 to 220 GHz

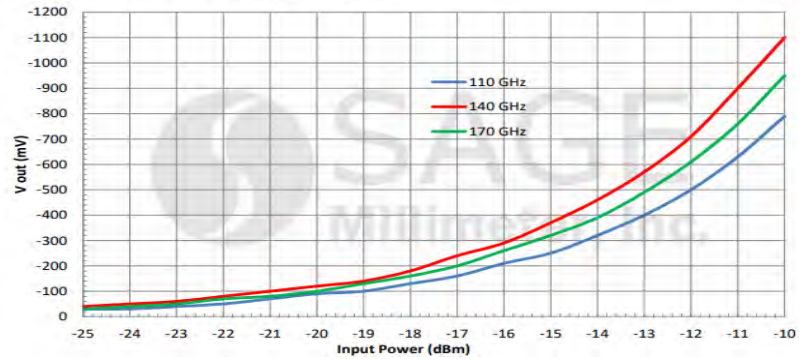
**More Than 20 Models: Full Waveguide Bandwidth**


**SFD-144224-05SF-N1**
**140 to 220 GHz**

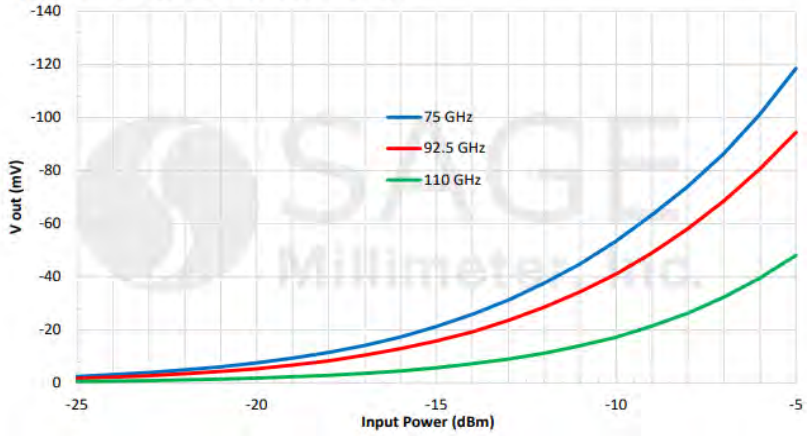

**SFD-114174-06SF-N1**
**110 to 170 GHz**


**SFD-753114-10SF-N1**
**75 to 110 GHz**

**Typical Detected Voltage vs. Input Power**




**Typical Detected Voltage vs. Input Power**

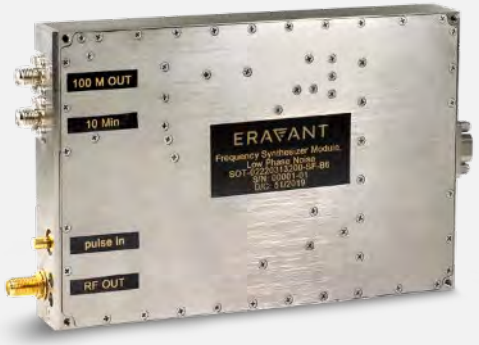


# SYNTHESIZERS

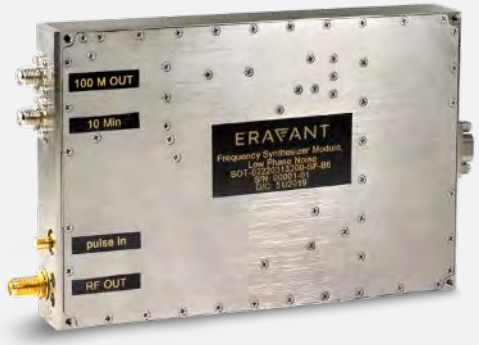
# FREQUENCY SYNTHESIZER

**FAMILY: SOT**
100 MHz to 20 GHz

## 3 Models: Two-Decade Bandwidth

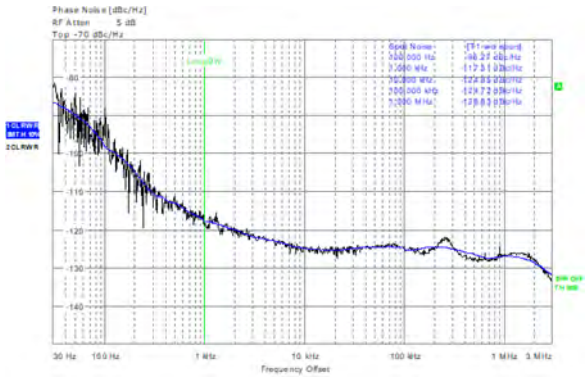


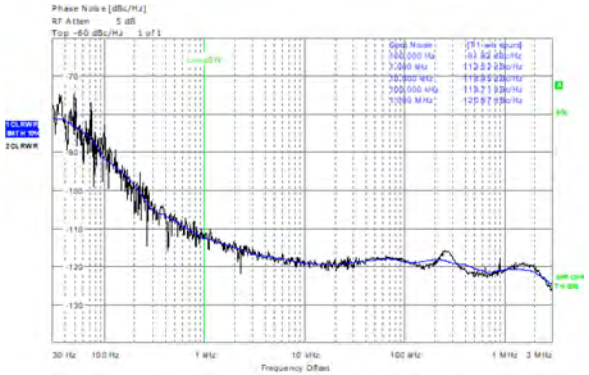

**SOT-01210313200-SF-B6**
**100 MHz to 10 GHz**
**Low Phase Noise**

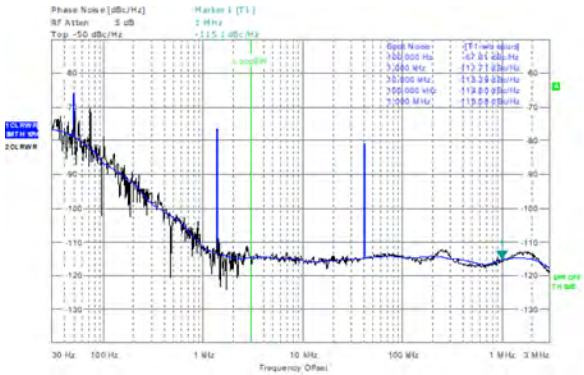



**SOT-02215300200-SF-E6**
**200 MHz to 20 GHz**
**High Speed**


**SOT-02220313200-SF-B6**
**200 MHz to 20 GHz**
**Low Phase Noise**







# CONTROL DEVICES

# PIN DIODE ATTENUATOR

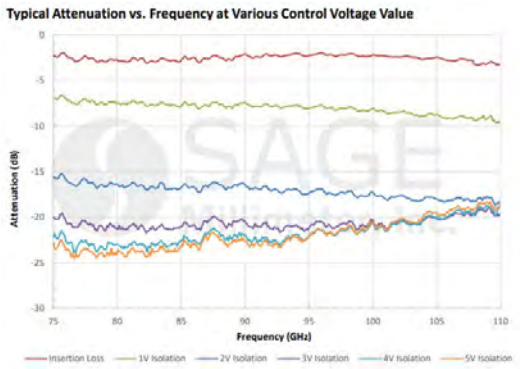
**FAMILY: SKA**
18 to 110 GHz

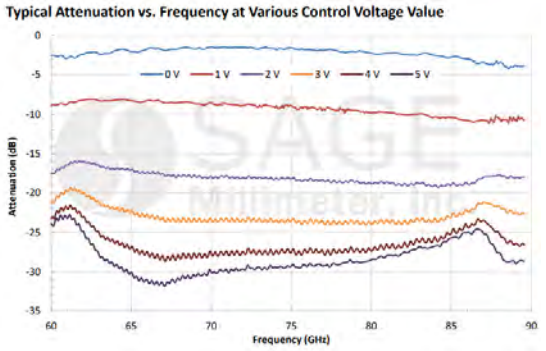
## More Than 20 Models: Full Waveguide Bandwidth

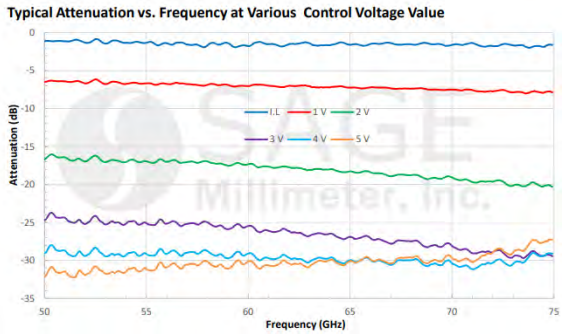

**SKA-7531142520-1010-A1**
**75 to 110 GHz**


**SKA-6039033030-1212-A1**
**60 to 90 GHz**


**SKA-5037533030-1515-A1**
**50 to 75 GHz**



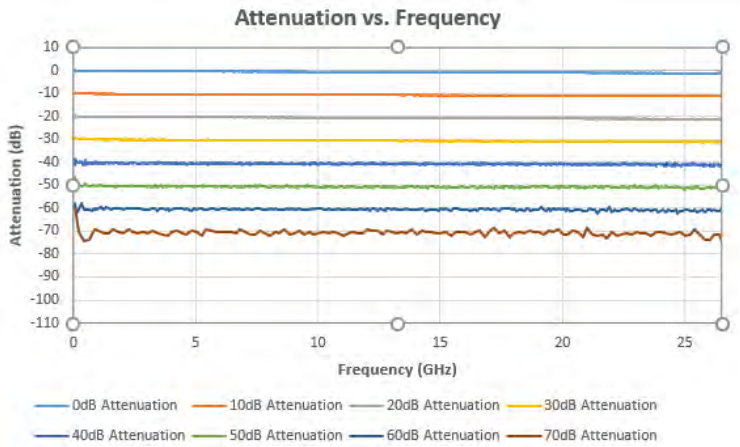
# COAXIAL PROGRAMMABLE ATTENUATOR

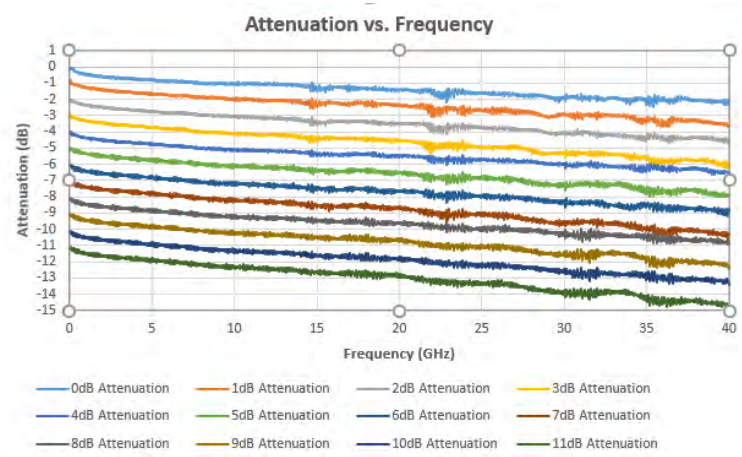
**FAMILY: STA**
**DC to 50 GHz, Up to 110 dB**

## More Than 15 Models: 1 dB, 5 dB, 10 dB Step Size

**Features:**

- DC to 50 GHz Coverage
- High Attenuation Value up to 110 dB
- Step Size, 1 dB, 5 dB and 10 dB Available
- TTL Control via Logic Table
- Low DC Power Once Latching

# WAVEGUIDE DIRECT READING AND PROGRAMMABLE ATTENUATOR

**FAMILY: STA**
50 to 330 GHz

**More Than 10 Models: Full Waveguide Bandwidth**

**STA-40-03-S1**
**220 to 330 GHz**

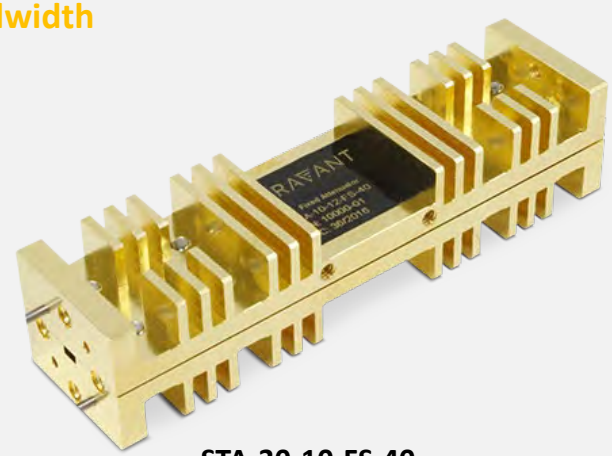
| Parameter | Minimum | Typical | Maximum |
|---|---|---|---|
| Frequency Range | 220 GHz | | 330 GHz |
| Insertion Loss | | 4.5 dB | |
| Attenuation Range | 0 dB | | 40 dB |
| Attenuation Accuracy | 0.25 dB or 4.5% of reading, whichever is larger, up to 40 dB | | |
| Attenuation Resolution | 0.1 dB from 0 to 10 dB, 0.2 dB from 10 to 30 dB, 0.5 dB from 30 to 40 dB | | |
| Return Loss | | 15 dB | |
| Operating Voltage | +24 $V_{DC}$ (100 to 240 $V_{AC}$ Adapter is Supplied) | | |
| Power Handling | | | 10 mW (CW) |
| Specification Temperature | | +25 ˚C | |
| Operating Temperature | +5 ˚C | | +35 ˚C |

# WAVEGUIDE FIXED ATTENUATOR

**FAMILY: STA**
18 to 330 GHz

## More Than 140 Models: Full Waveguide Bandwidth

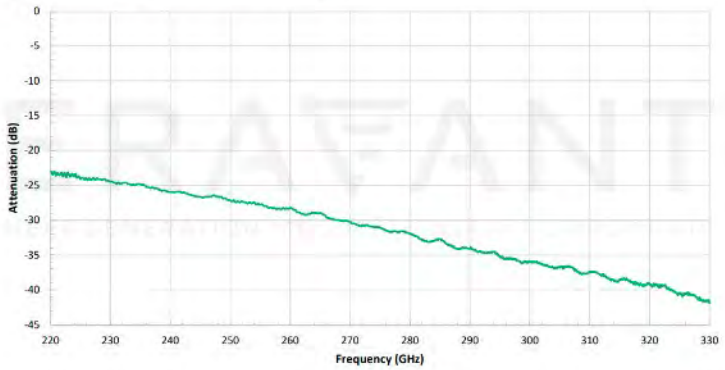

**STA-30-03-F1**
**220 to 330 GHz, 30 dB**




**STA-30-10-FS-40**
**75 to 110 GHz, 10 Watts**

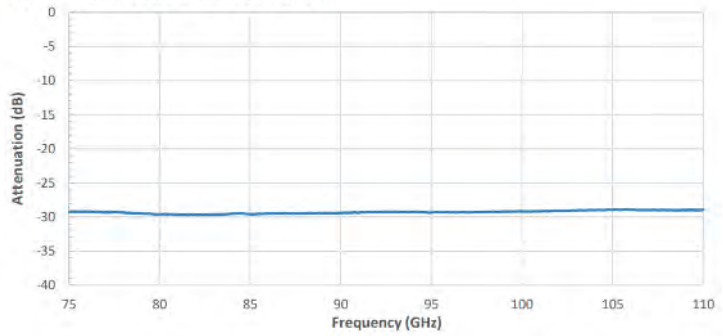

**STA-30-28-F2**
**26.5 to 40 GHz, 30 dB**

**Typical Measured Attenuation vs Frequency**




**W-Band Fixed Attenuator, 30 dB, 10 Watts**

**Typical Attenuation vs. Frequency**

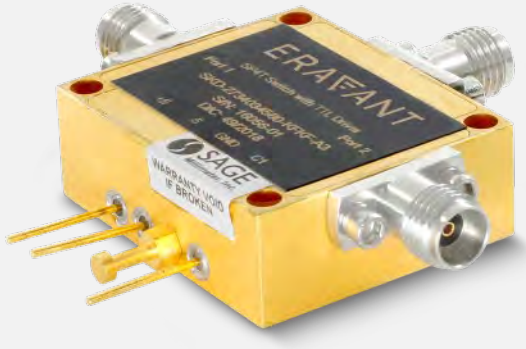


# PIN DIODE SPST SWITCH

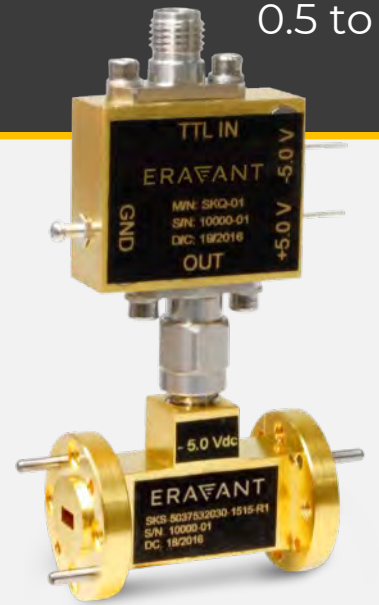
**FAMILY: SKS**
0.5 to 290 GHz

**More Than 10 Models: Full Waveguide Bandwidth**

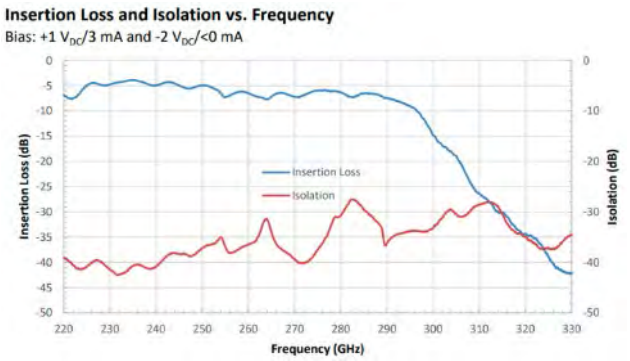
**SKS-2242946035-0303-R1-M**
**220 to 290 GHz**

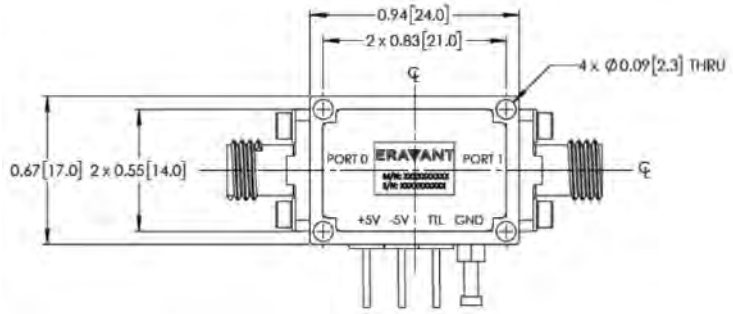


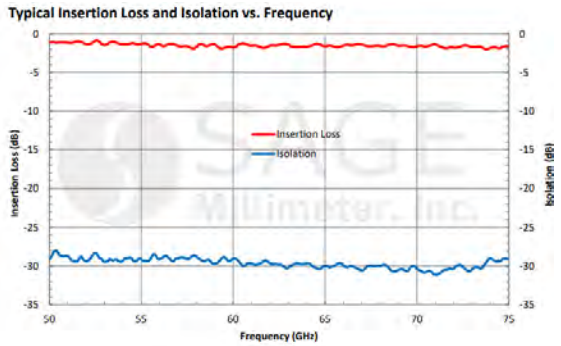
**SKS-0525035050-2F2F-A3**
**0.5 to 50 GHz**




**SKS-5037533030-1515-R1**
**50 to 75 GHz**



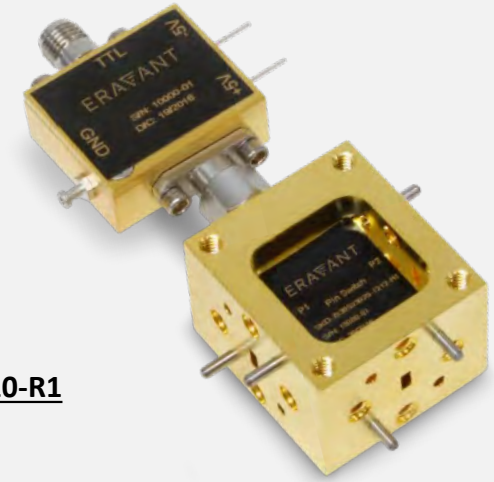



# PIN DIODE SPDT SWITCH

**FAMILY: SKD**
0.5 to 110 GHz

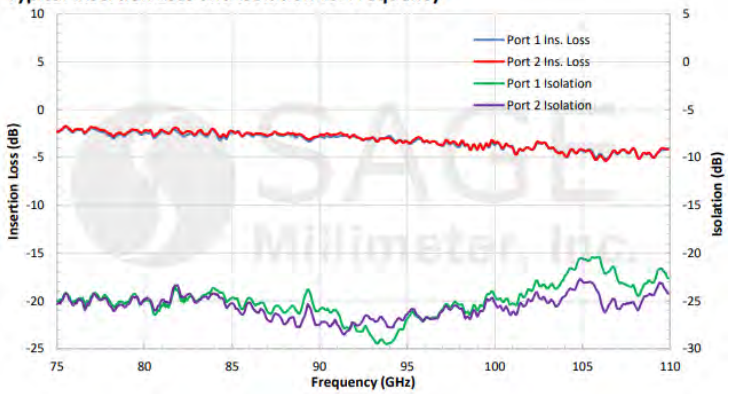
## More Than 15 Models: Full Waveguide Bandwidth



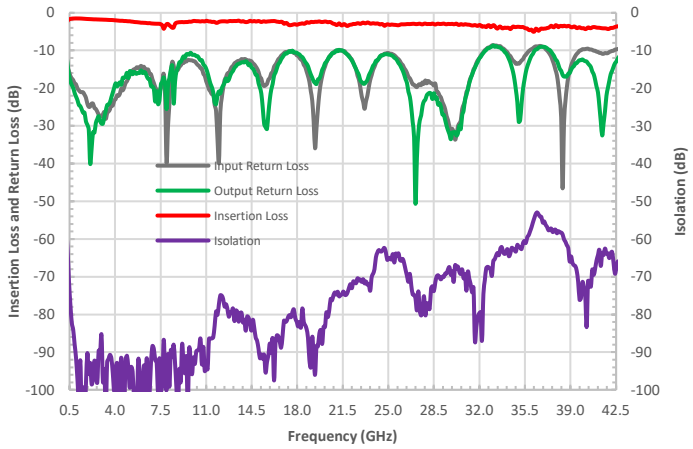

**SKD-7531144020-1010-R1**
**75 to 110 GHz**


**SKD-0524334560-KFKF-A3**
**0.5 GHz to 43 GHz**

**Typical Insertion Loss and Isolation vs. Frequency**



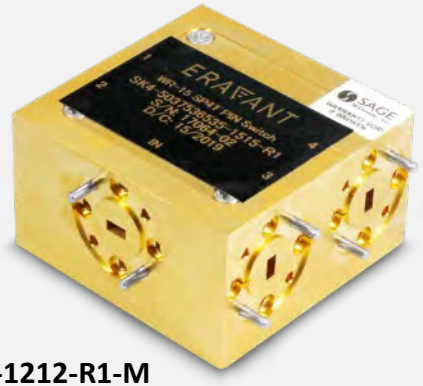

**Typical Performance vs. Frequency**



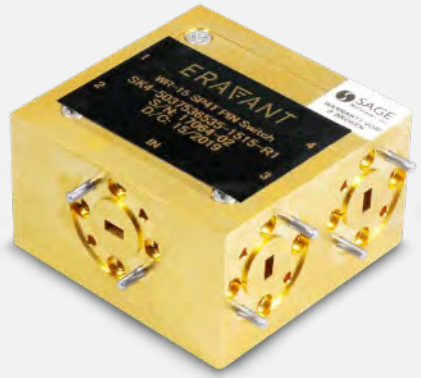
# PIN DIODE SP4T SWITCH

**FAMILY: SK4**
0.5 to 90 GHz

**More Than 10 Models: Full Waveguide Bandwidth**

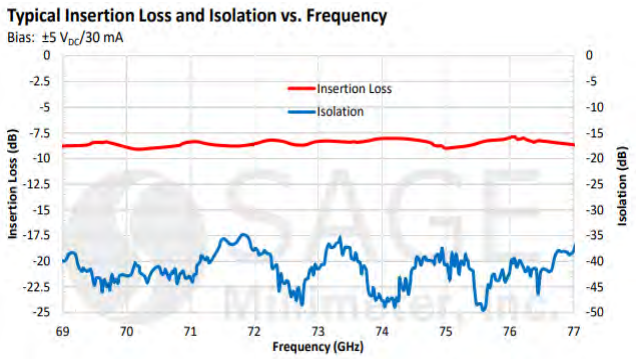


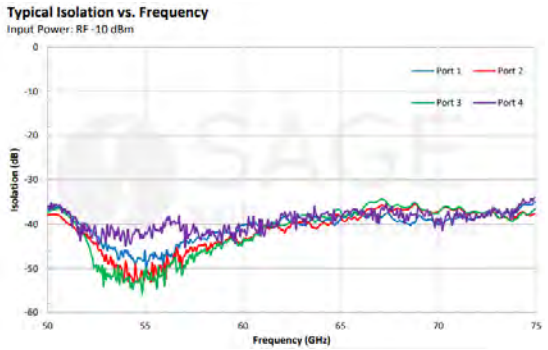
**SK4-6039038030-1212-R1-M**
**60 to 90 GHz**

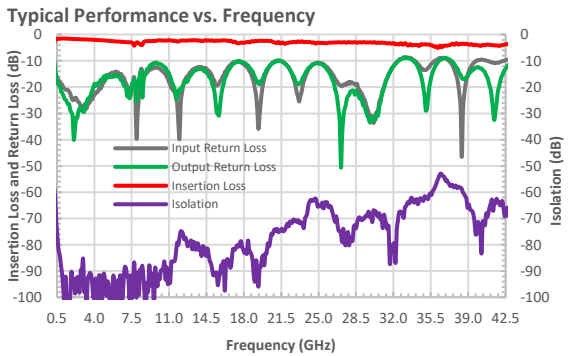


**SK4-5037536535-1515-R1-M**
**50 to 75 GHz**

**SK4-0524335060-KFKF-A3**
**0.5 GHz to 43 GHz**



# PIN DIODE SP8T SWITCH

**FAMILY: SK8**
0.5 to 40 GHz

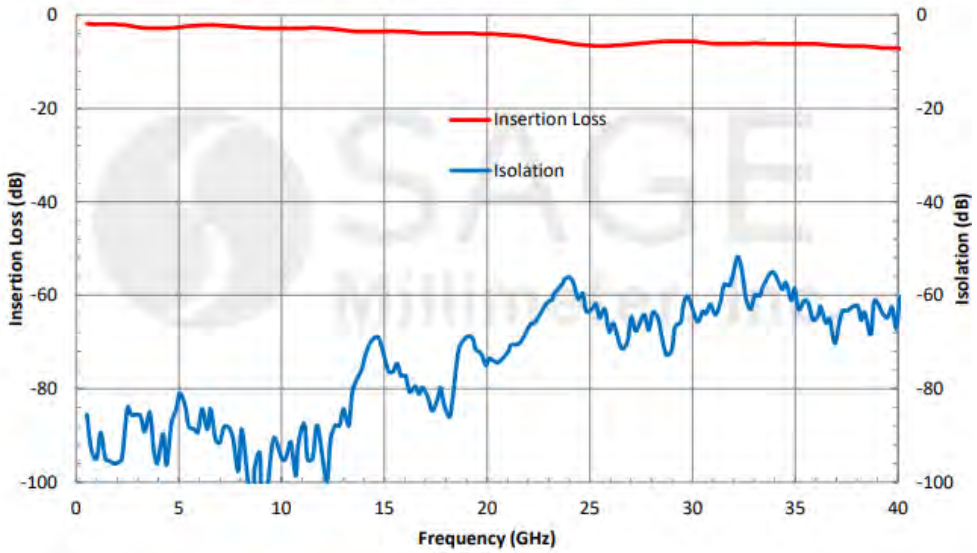
**2 Models: 0.5 to 40 GHz Bandwidth**

**Features:**

- Low Insertion Loss
- High Isolation
- Absorptive
- TTL Controlled


**SK4-6039038030-1212-R1-M**
**0.5 to 40 GHz**

**Typical Insertion Loss and Isolation vs. Frequency**



# WAVEGUIDE MOTORIZED SWITCH

**FAMILY: SWJ**
18 to 220 GHz

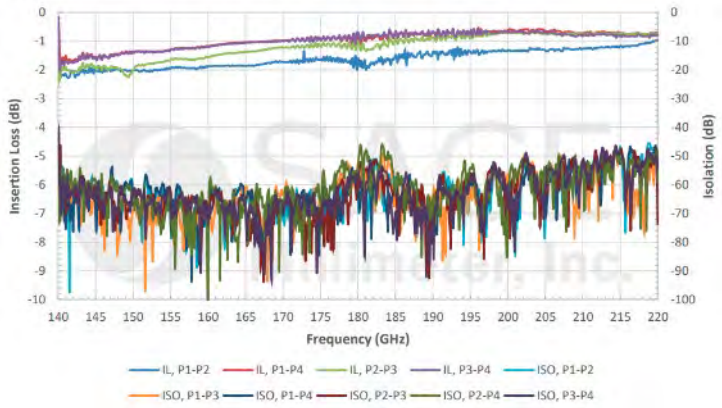
**11 Models: Full Waveguide Bandwidth**


**SWJ-05-T1**
**140 to 220 GHz**

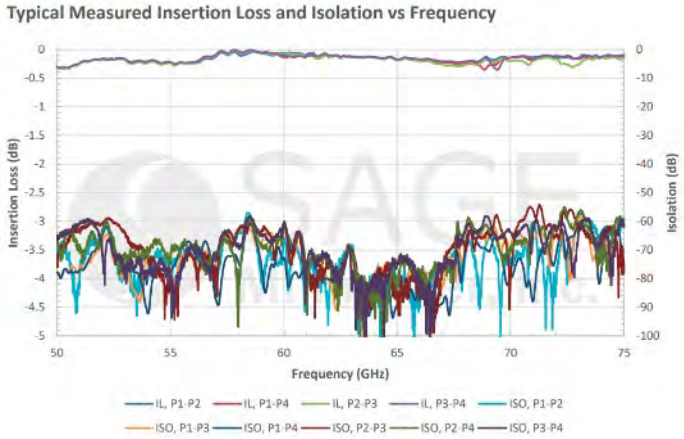

**SWJ-15-T1**
**50 to 75 GHz**

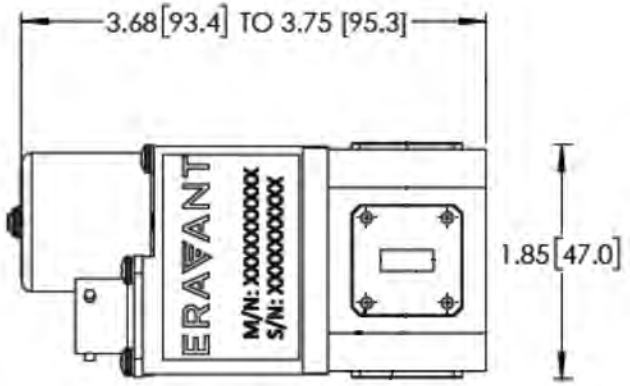

**SWJ-42-T1**
**18 to 26.5 GHz**

Typical Measured Insertion Loss and Isolation vs Frequency




Typical Measured Insertion Loss and Isolation vs Frequency



# FERRITE DEVICES

# FARADAY ISOLATOR

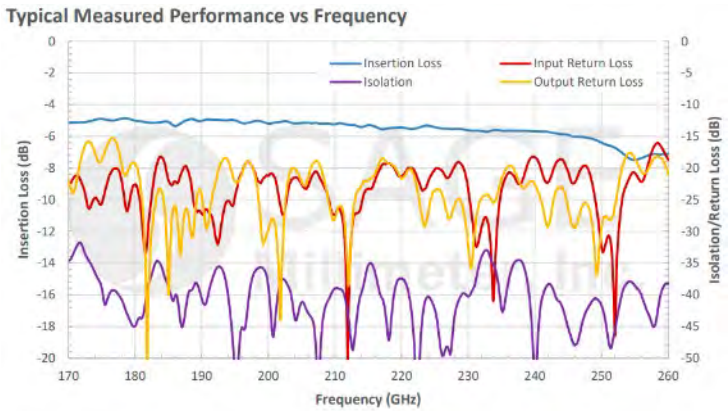
**FAMILY: STF**
18 to 260 GHz

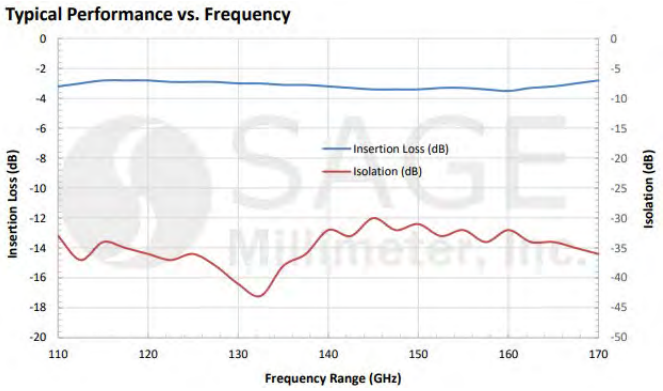
## More Than 20 Models: Full Waveguide Bandwidth

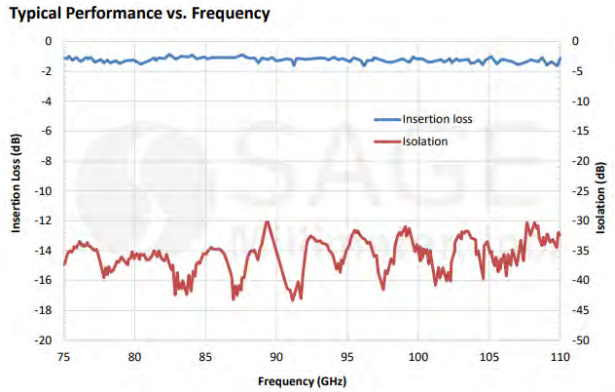

**STF-04-S1**
**170 to 260 GHz**


**STF-06-S1**
**110 to 170 GHz**


**STF-10-S1**
**75 to 110 GHz**



# COMPACT FARADAY ISOLATORS

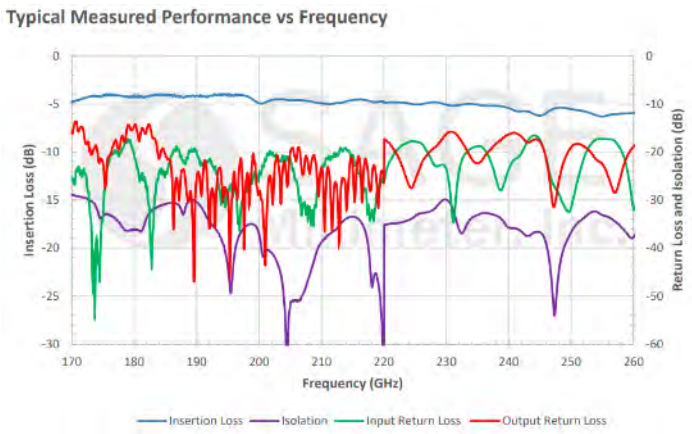
**FAMILY: STF**
18 to 265 GHz

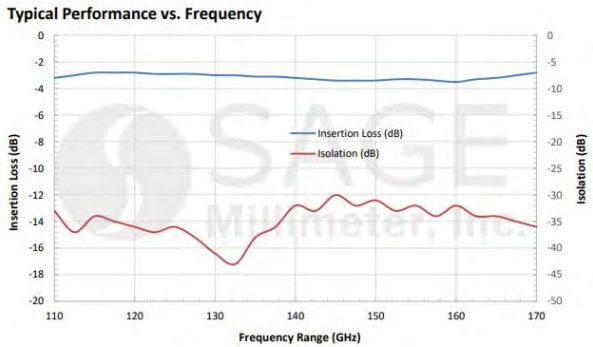
## More Than 10 Models: Full Waveguide Bandwidth

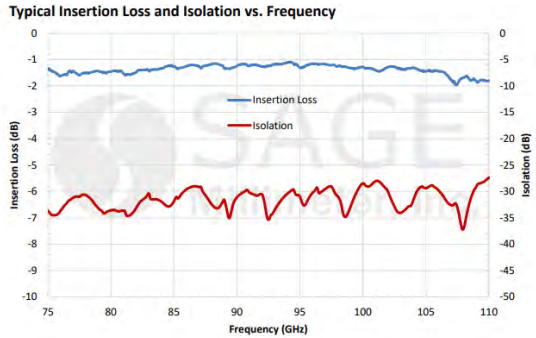

**STF-04-S1-M**
**170 to 260 GHz**


**STF-06-S1-C**
**110 to 170 GHz**


**STF-10-S1-C**
**75 to 110 GHz**



# PASSIVE WAVEGUIDE COMPONENTS

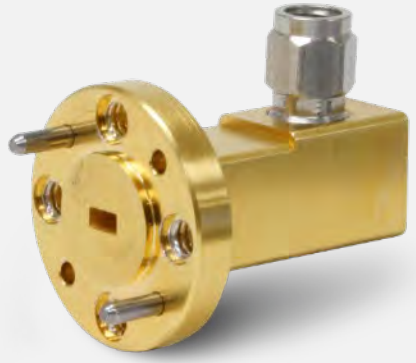
# WAVEGUIDE TO COAX ADAPTER (RIGHT ANGLE)

**FAMILY: SWC**
8.2 to 110 GHz

**More Than 60 Models: Full Waveguide Bandwidth**

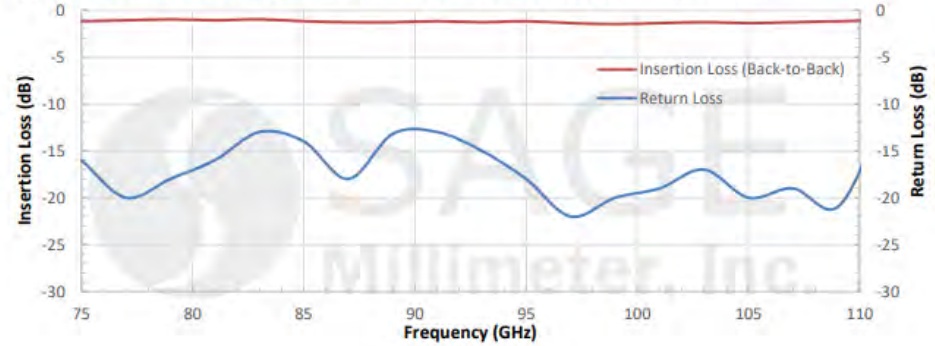
**SWC-101F-R1**
**75 to 110 GHz**

**SWC-15VF-R1**
**50 to 75 GHz**

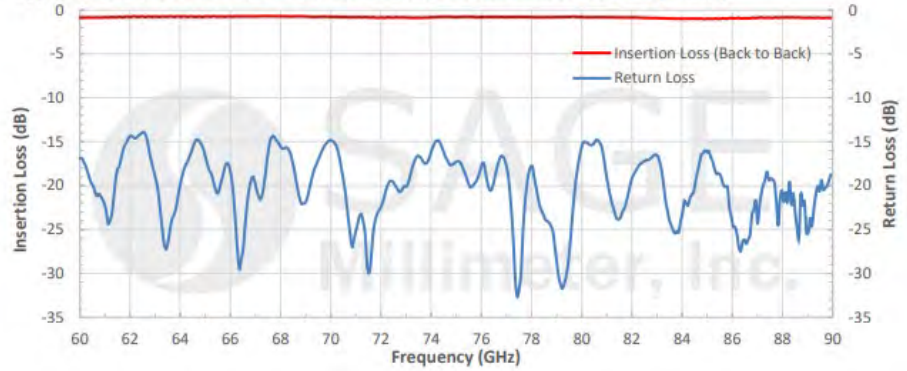


**SWC-121M-R1**
**60 to 90 GHz**

**Typical Return Loss and Back-to-Back Insertion Loss vs. Frequency**




**Typical Return Loss and Back to Back Insertion Loss vs. Frequency**



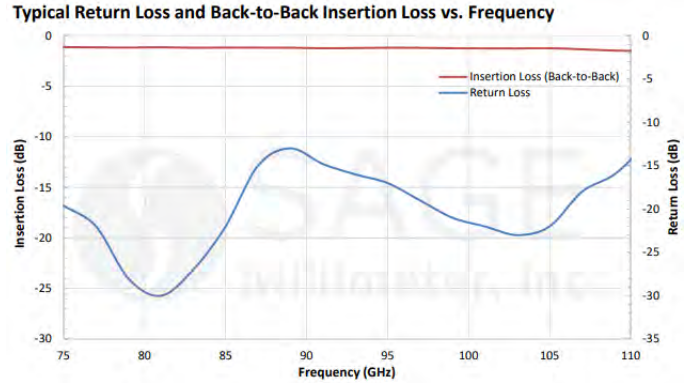
# WAVEGUIDE TO COAX ADAPTER (END LAUNCH)

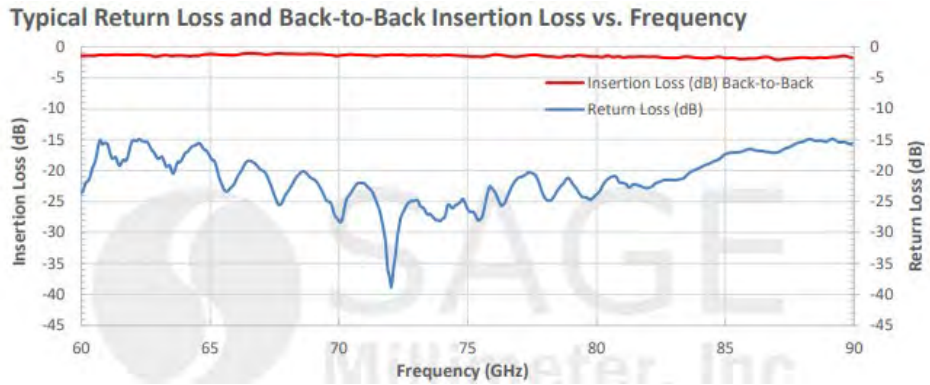
**FAMILY: SWC**
8.2 to 110 GHz

**More Than 60 Models: Full Waveguide Bandwidth**

**SWC-15VM-E1**
**50 to 75 GHz**

**SWC-121M-R1**
**60 to 90 GHz**



# WAVEGUIDE DIRECTIONAL COUPLER

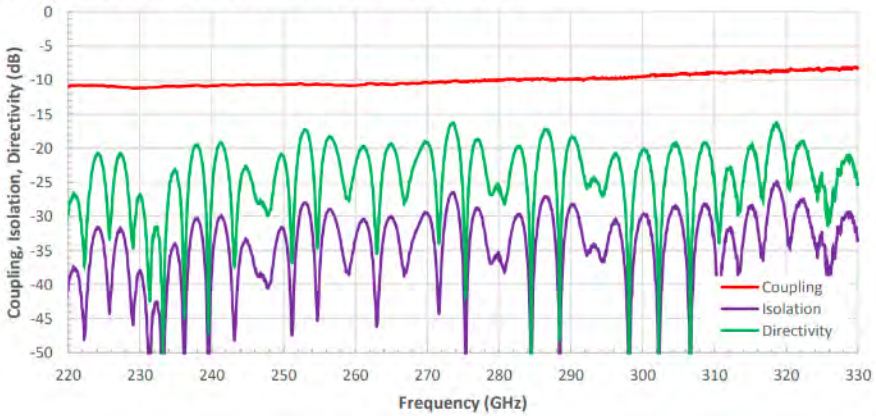
**FAMILY: SWD**
18 to 330 GHz

## More Than 180 Models: Full Waveguide Bandwidth

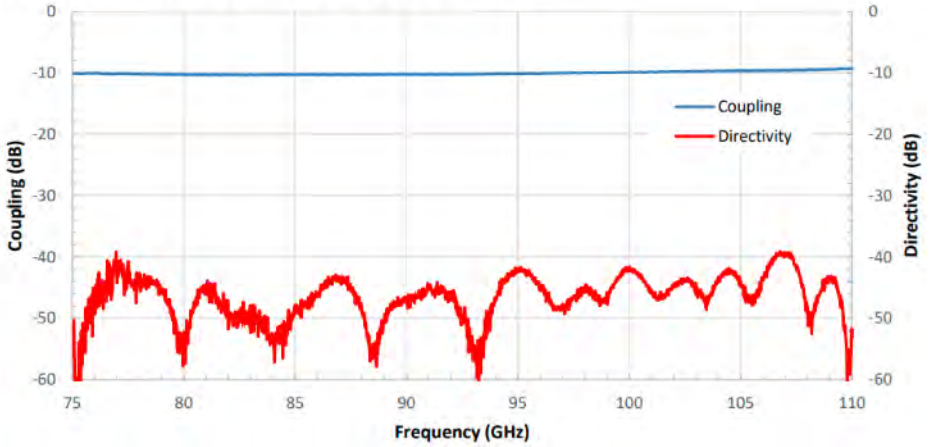
**SWD-1020H-03-SB**
**220 to 330 GHz, 10 dB**


**SWD-1040H-10-DB**
**75 to 110 GHz, 10 dB**

**Typical Measured Performance vs Frequency**




**Typical Coupling and Directivity vs Frequency**



# WAVEGUIDE CROSSGUIDE COUPLER

**FAMILY: SWX**
26.5 to 110 GHz

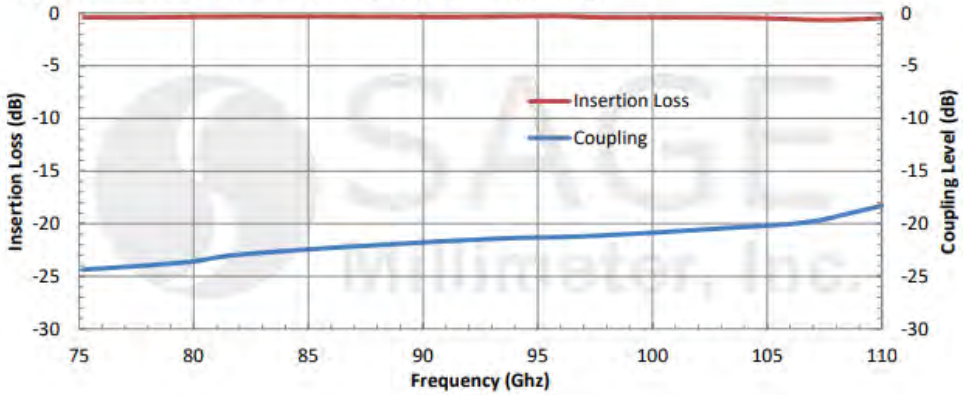
## More Than 30 Models: Full Waveguide Bandwidth

**SWX-75311420-10-4B**
**75 to 110 GHz, 20 dB**

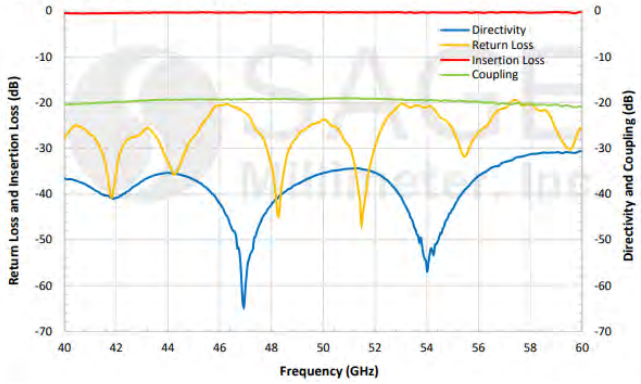
**SWX-40360320-19-4B**
**40 to 60 GHz, 20 dB**

**SWX-50375330-15-4B**
**50 to 75 GHz, 30 dB**

**Typical Insertion Loss and Coupling vs. Frequency**




**Typical Performance vs. Frequency**

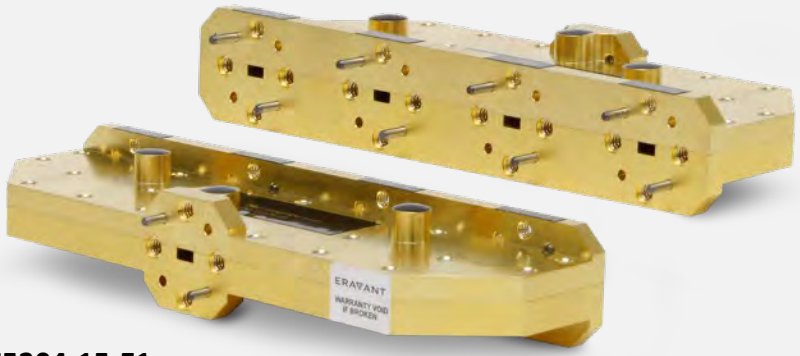


# WAVEGUIDE POWER DIVIDERS

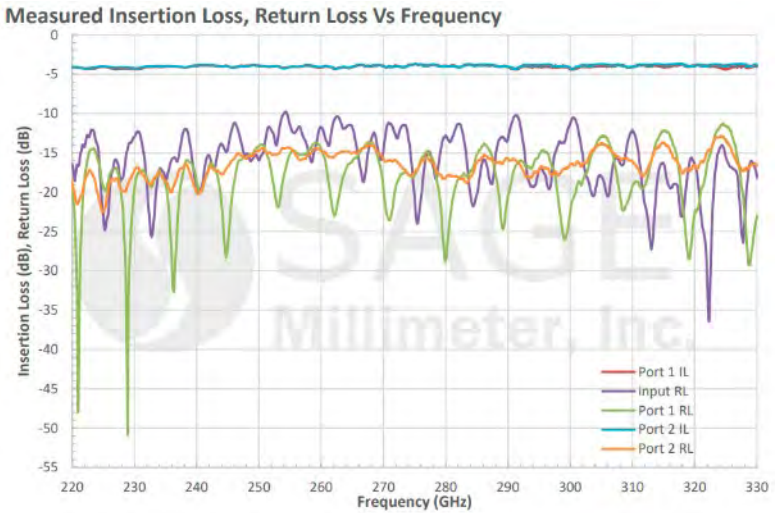
**FAMILY: SWP**
18 to 330 GHz

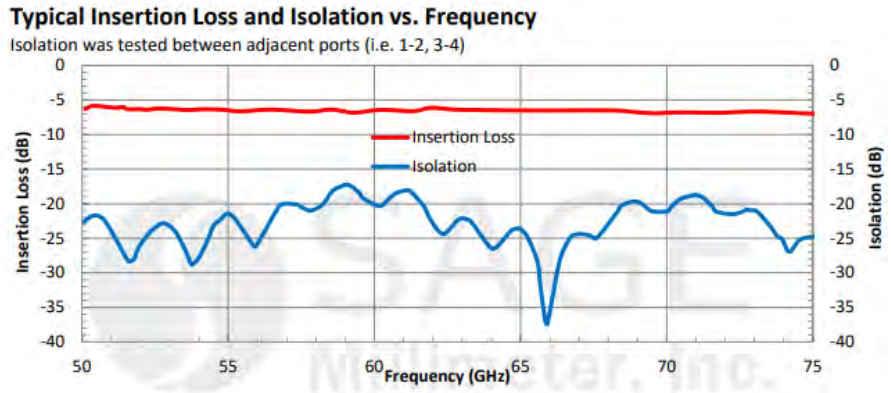
**More Than 35 Models: Full Waveguide Bandwidth**


**SWP-22433402-03-S1**
**220 to 330 GHz, 2 Ways**




**SWP-50375304-15-E1**
**50 to 75 GHz, 4 Ways**

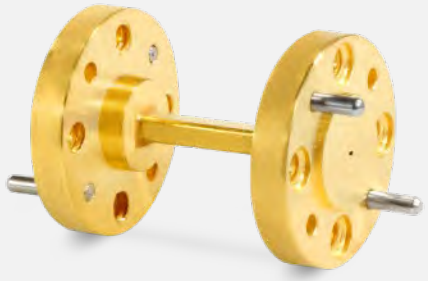


# RECTANGULAR WAVEGUIDE (RIGID)

**FAMILY: SWG**
18 to 325 GHz

**More Than 500 Models: WR-03 to WR-42**



**SWG-03010-FB**
**WR-03 Straight Section, 1”**

**SWB-06090-EB**
**WR-06 E-Plane Bend, 90°**

**SWB-10090-TB**
**WR-10 Twist, 90°**

**SWG-10020-FB**
**WR-10 Straight Section, 2”**

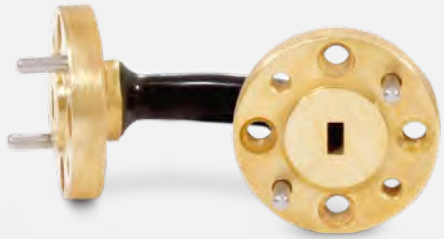
**SWB-10090-HB**
**WR-10 H-Plane Bend, 90°**

**SWB-12090-TB**
**WR-12 Twist, 90°**

# RECTANGULAR WAVEGUIDES (FLEXIBLE)

**FAMILY: SWG**
7.05 to 110 GHz

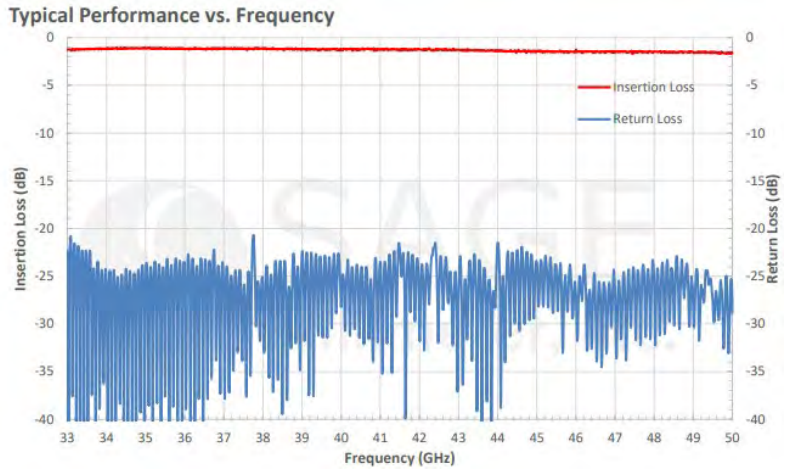
**More Than 50 Models: WR-10 to WR-112**

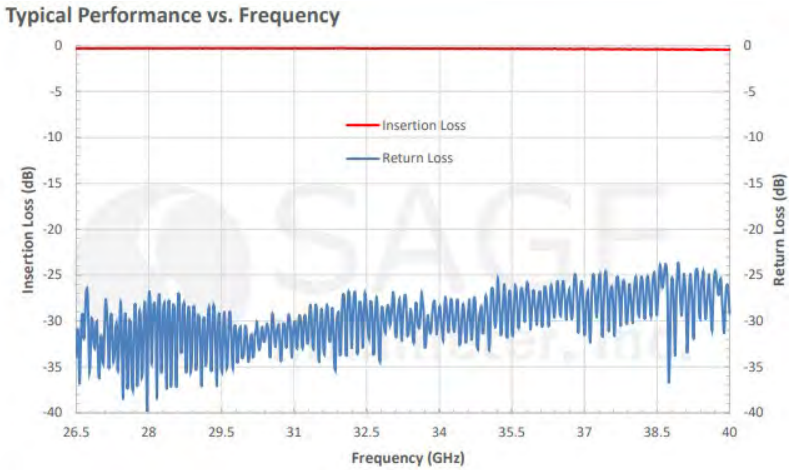


**SWG-10020-FB-F**
**WR-10 Length 2”**

**SWG-28059-FB-FT-G**
**WR-28 Length 5.9”**

**SWG-22236-FB-FT-A-G**
**WR-22 Length 23.6”**



# PASSIVE COAXIAL COMPONENTS

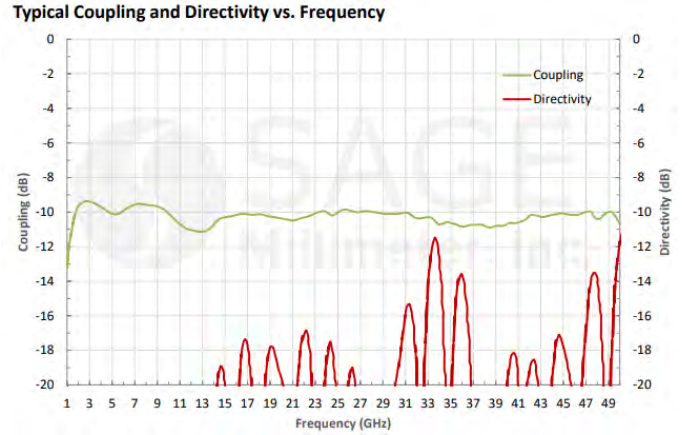
# COAXIAL DIRECTIONAL COUPLERS

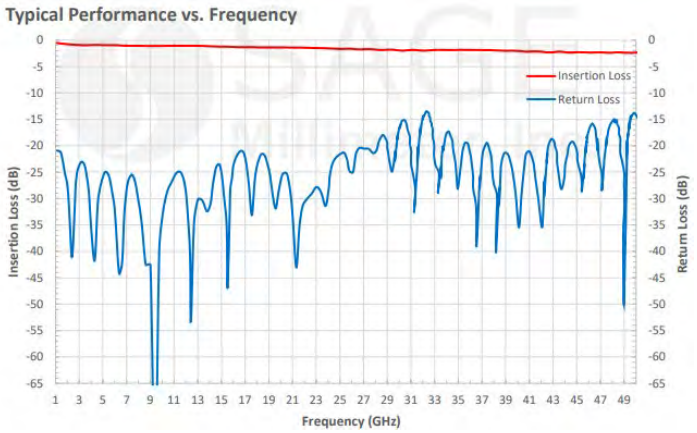
**FAMILY: SCD**
1 to 50 GHz, 10 to 67 GHz

## More Than 25 Models: Broad Bandwidth


**SCD-0136731008-VF-SA**
**1 to 67 GHz, 10 dB**


**SCD-0135032008-2F-SA**
**1 to 50 GHz, 20 dB**



# COAX POWER DIVIDERS

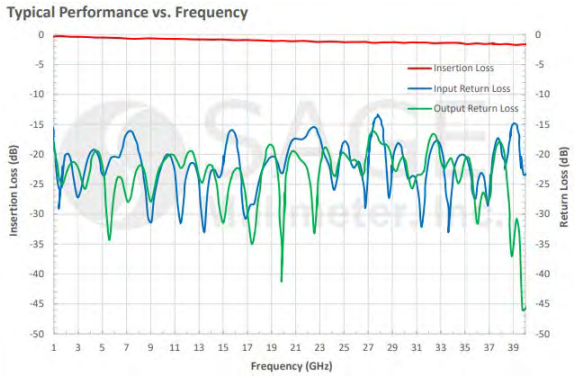
**FAMILY: SCS**
1 to 65 GHz

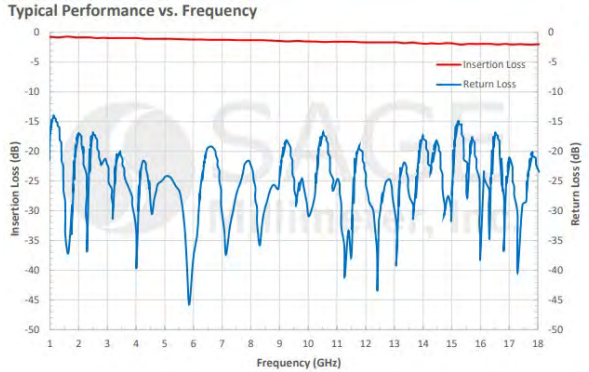
**More Than 50 Models: 2 Way, 4 Way, 8 Way, 16 Way**

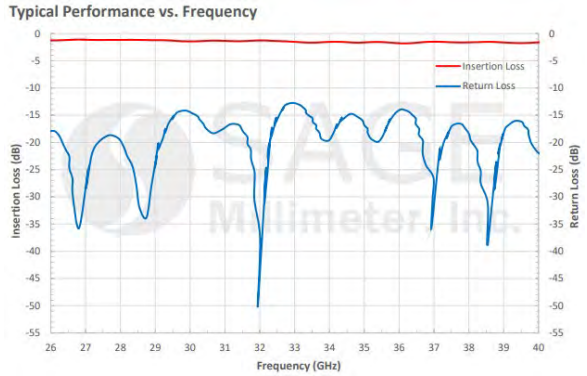

**SCS-0134031215-KFKF-22**
**1 to 40 GHz, 2 Way**


**SCS-0134035014-KFKF-42**
**1 to 40 GHz, 4 Way**


**SCS-1034032615-KFKF-82**
**10 to 40 GHz, 8 Way**



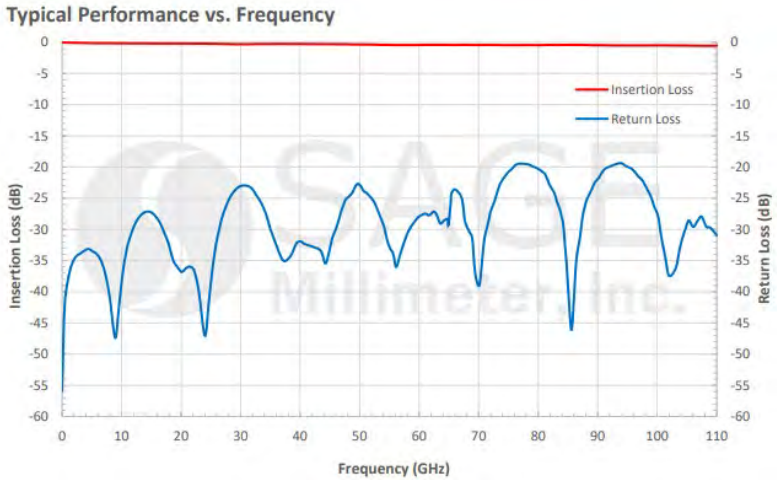
# COAXIAL ADAPTER (IN SERIES)

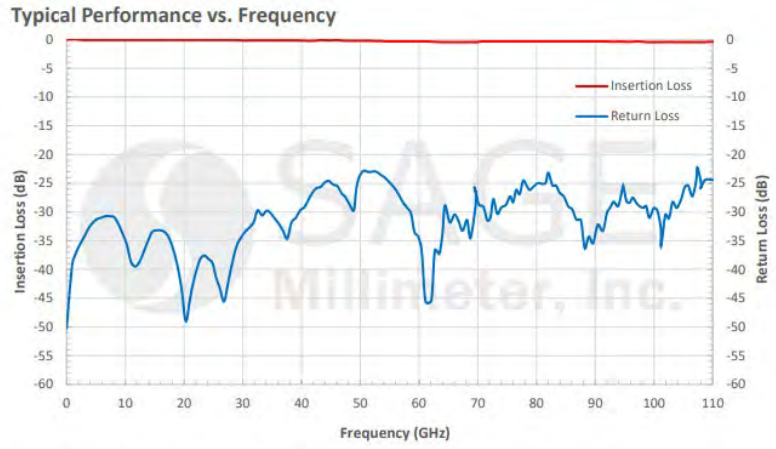
**FAMILY: SCT**
DC to 110 GHz

**More Than 60 Models: 1 mm, 1.85 mm, 2.4 mm, 2.92 mm**

**SCT-1F1F-UB**
**DC to 110 GHz**

**SCT-1M1M-UB**
**DC to 110 GHz**



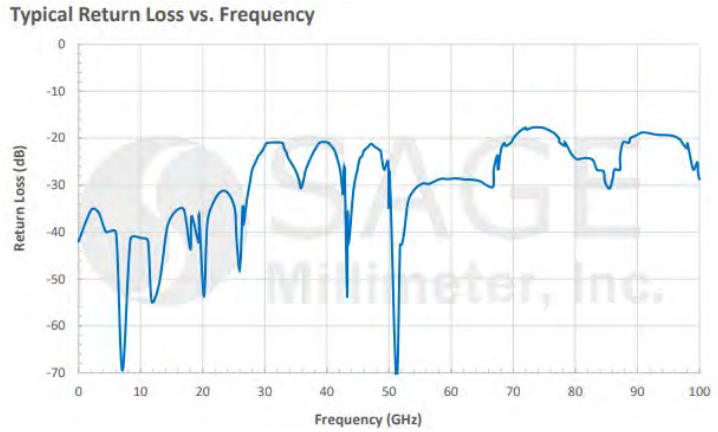
# COAXIAL ADAPTER (BETWEEN SERIES)

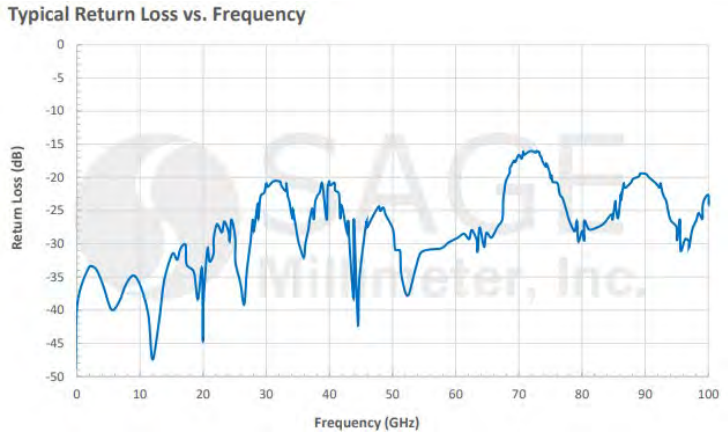
**FAMILY: SCT**
DC to 90 GHz

**More Than 90 Models: 1 mm, 1.35 mm, 1.85 mm, 2.4 mm, 2.92 mm**

**SCT-AF1M-UB**
**DC to 100 GHz**

**SCT-AF1F-UB**
**DC to 100 GHz**



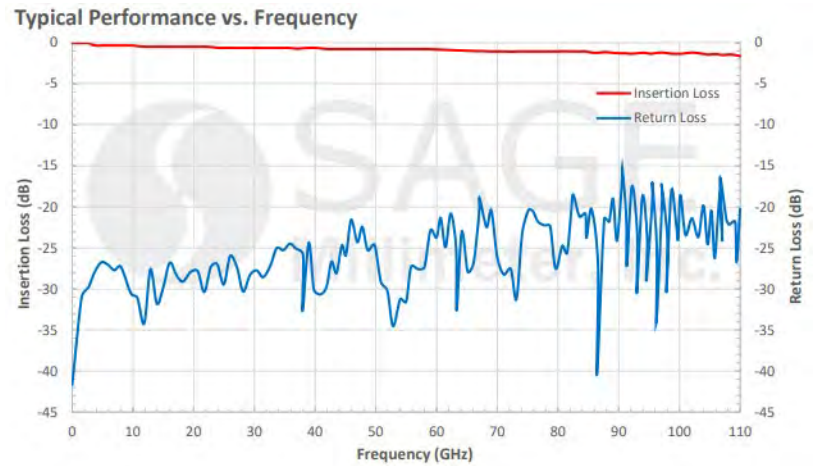
# COAXIAL CABLE (FLEXIBLE)

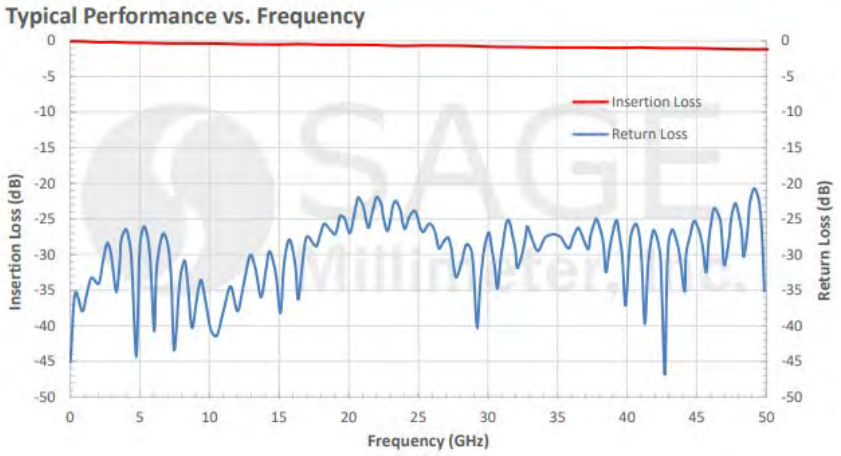
**FAMILY: SCW**
DC to 110 GHz

**More Than 100 Models: 1 mm, 1.35 mm,1.85 mm, 2.4 mm, 2.92 mm**

**SCW-1M1M003-F1**
**DC to 110 GHz, 3”**

**SCW-2M2M006-F1**
**DC to 50 GHz, 6”**



# COAXIAL CABLE (SEMI-RIGID)

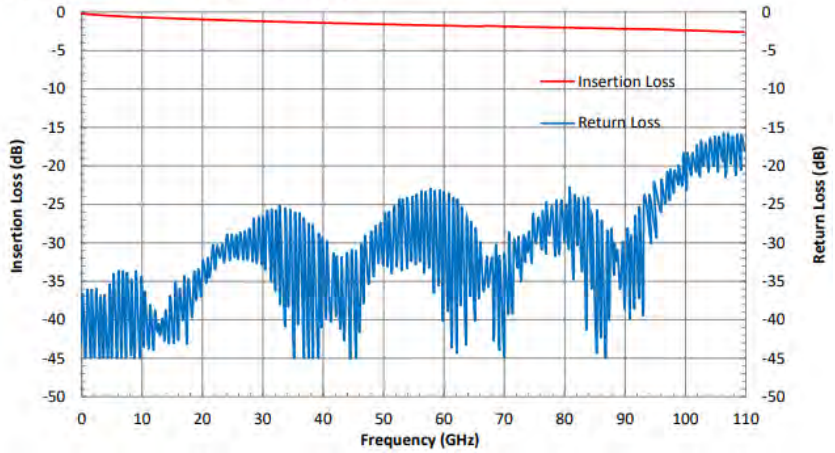
**FAMILY: SCW**
DC to 110 GHz

**More Than 50 Models: 1 mm, 1.85 mm, 2.4 mm, 2.92 mm**

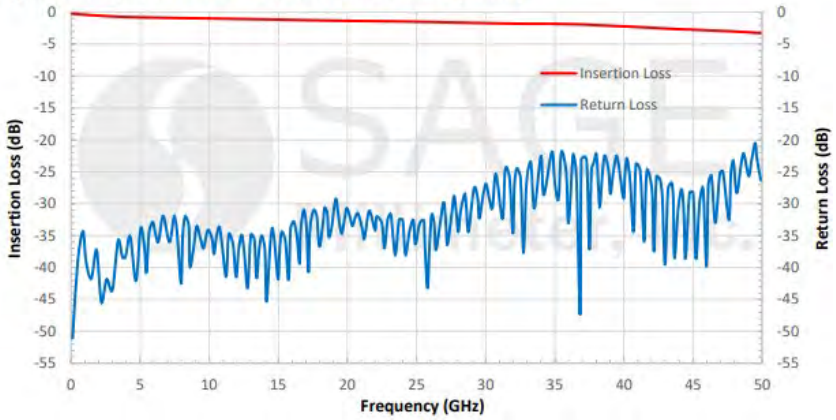
**SCW-1M1M006-S1**
**DC to 110 GHz, 6”**

**SCW-2M2M012-S1**
**DC to 50 GHz, 12”**

**Typical Performance vs. Frequency**




**Typical Insertion Loss & Return Loss vs. Frequency**



# TEST EQUIPMENT

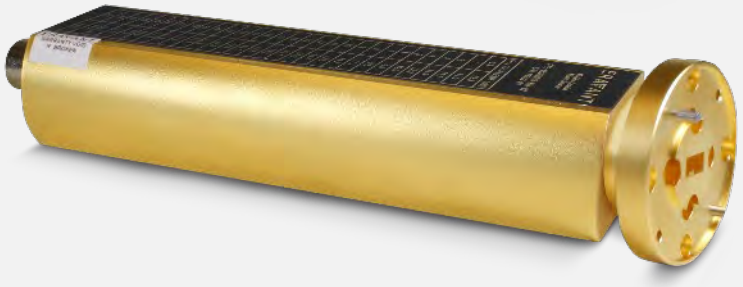
# WAVEGUIDE NOISE SOURCES

**FAMILY: STZ**
26.5 to 170 GHz

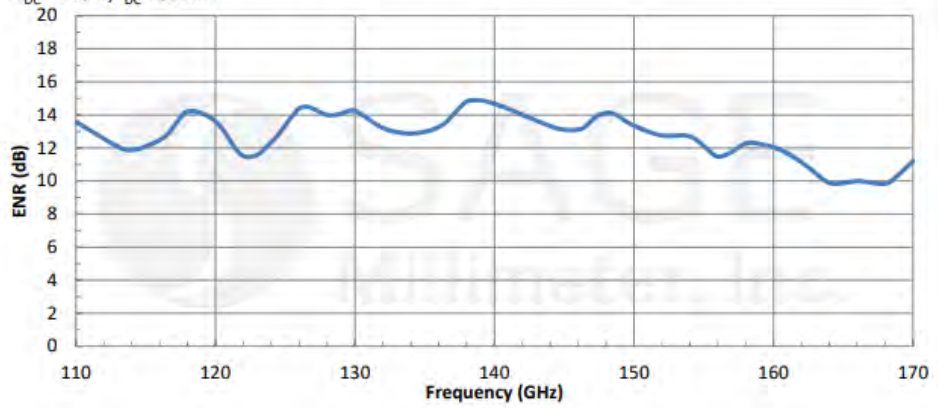
## More Than 20 Models: Full Waveguide Bandwidth

**STZ-06-I1**
**110 to 170 GHz**

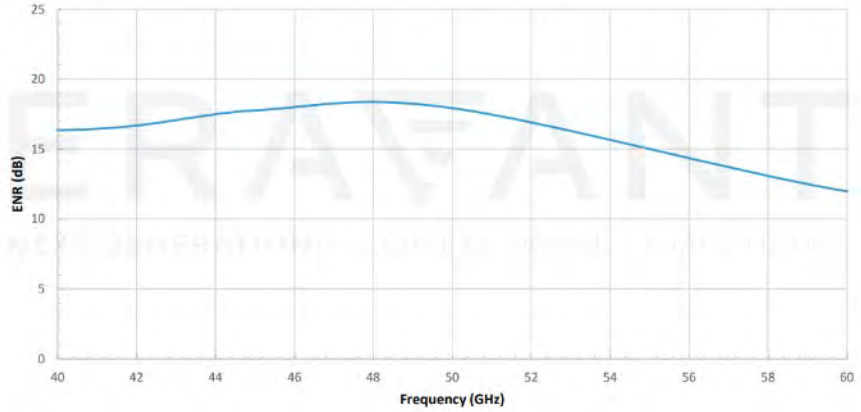

**STZ-19-02**
**40 to 60 GHz**



**Typical ENR vs. Frequency**
$V_{DC}$= +28 V, $I_{DC}$= 60 mA




**ENR vs. Frequency**
Bias: +28 $V_{DC}$/18 mA

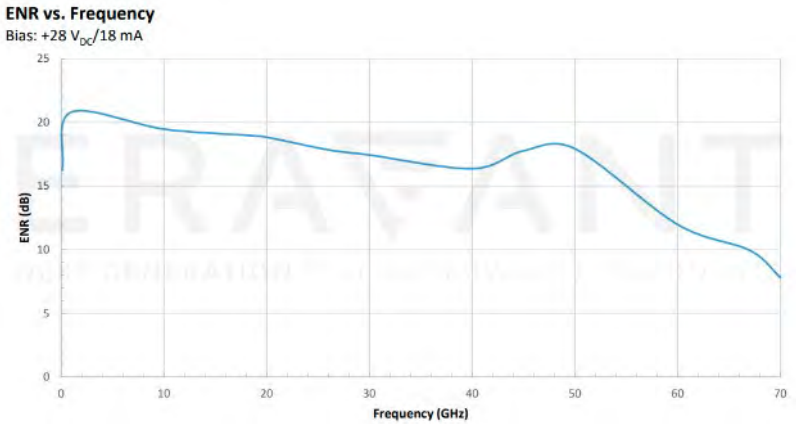


# COAXIAL NOISE SOURCES

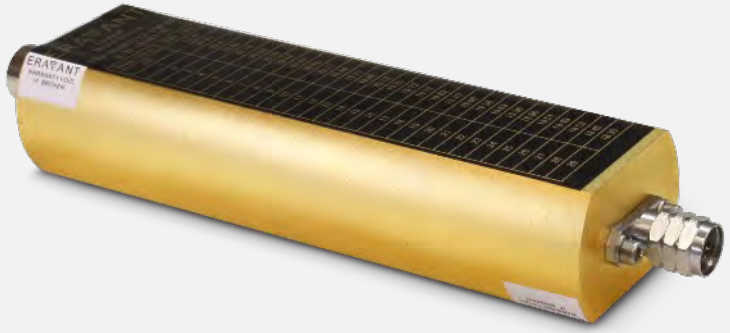
**FAMILY: STZ**
0.5 to 67 GHz

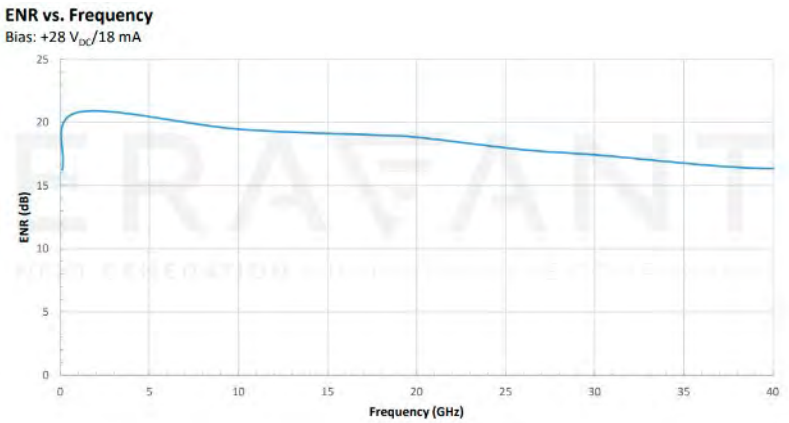
**Wide Bandwidth: 1.85 mm, 2.4 mm, 2.92 mm**

**STZ-05267313-VM-0T2**
**0.5 to 67 GHz**




**STZ-05240318-KM-02**
**0.5 to 40 GHz**





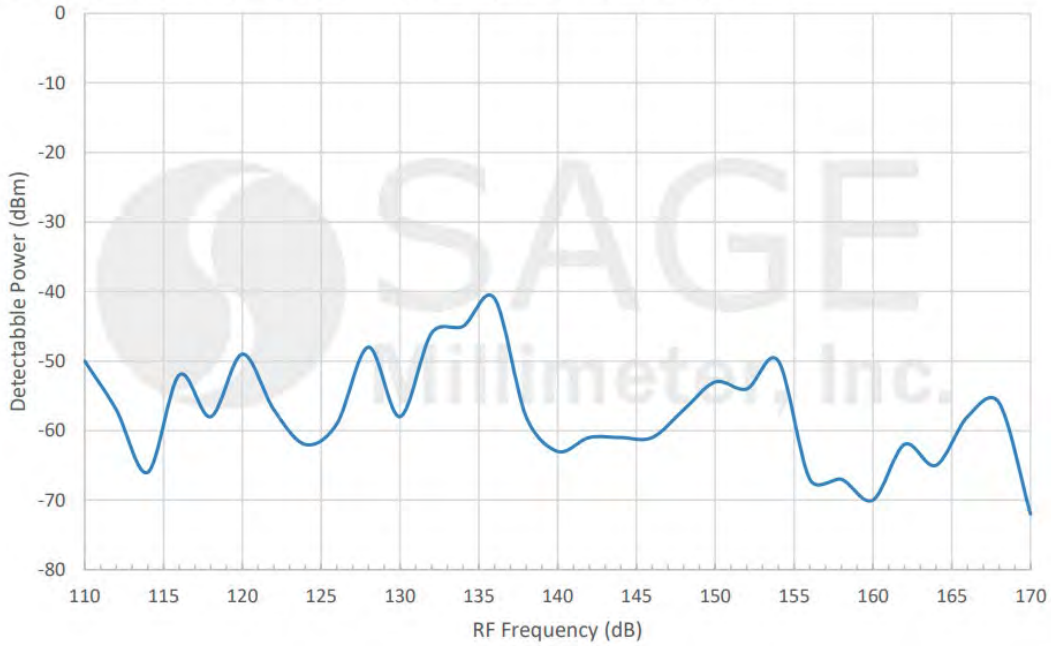
# SPECTRUM ANALYZER HARMONIC MIXER

**FAMILY: STH**
18 to 170 GHz

## More Than 8 Models: Full Waveguide Bandwidth

**STH-06SF-S1**
**110 to 170 GHz**


**Detectable Power versus RF Frequency**
Test Condition: LO Frequency: RF/30; LO Power: +16 dBm; IF: 300 MHz



# COAXIAL VNA CALIBRATION KIT

**FAMILY: STQ-TO**
DC to 67 GHz

**4 Models: Each Kit Includes Male & Female Shorts, Opens and Loads, Adapters, Torque Wrench and Calibration Data**

**STQ-TO-VFVM-U3-CKIT1**
**1.85 mm, DC to 67 GHz**

**STQ-TO-2F2M-U3-CKIT1**
**2.4 mm, DC to 50 GHz**

**STQ-TO-KFKM-U3-CKIT1**
**2.92 mm, DC to 40 GHz**

**STQ-TO-3F3M-U3-CKIT1**
**DC to 26.5 GHz**

# WAVEGUIDE VNA CALIBRATION KIT

**FAMILY: STQ-TO**
18 to 220 GHz

**More Than 20 Models: Optional Equipment Includes Proxi-Flange™ Contactless Waveguide Adapters**

**STQ-TO-05-S1-CKIT1-CF**
**140 to 220 GHz with Proxi-Flange™**


**Contactless Flanges Speed Up VNA Calibration and Measurements**

# SYNTHESIZER/SWEEPER FREQUENCY EXTENDER

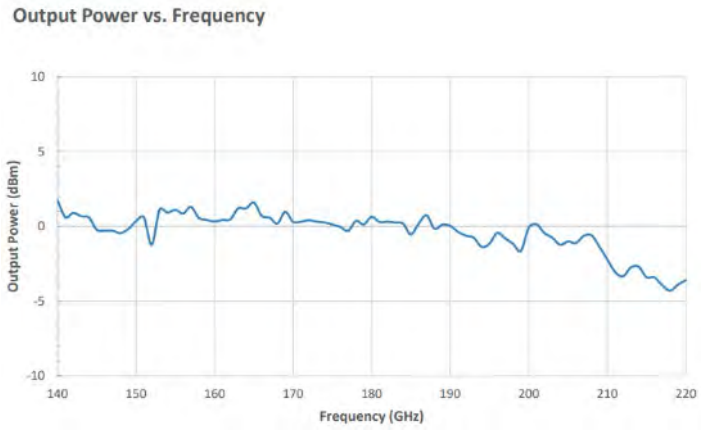
**FAMILY: STE**
40 to 220 GHz

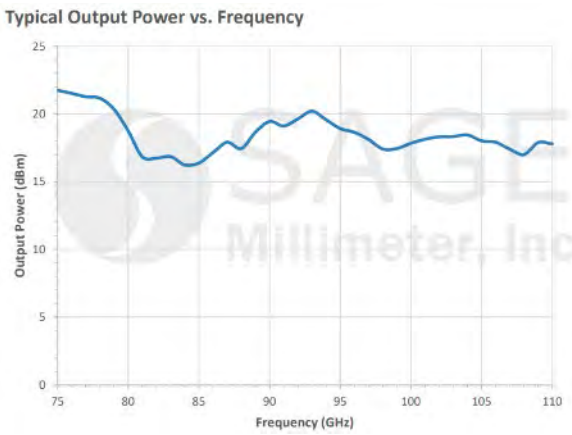
**9 Models: WR-05 to WR-19 Bands**

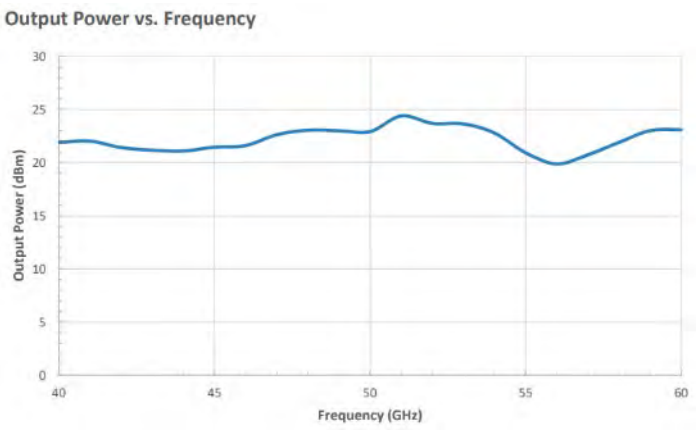
**STE-154224KF1205-N03-S1**
**140 to 220 GHz, 0 dBm**

**STE-SF610-S1**
**75 to 110 GHz, +16 dBm**

**STE-SF419-S1**
**40 to 60 GHz, +20 dBm**



# FREQUENCY DOWN-CONVERTERS

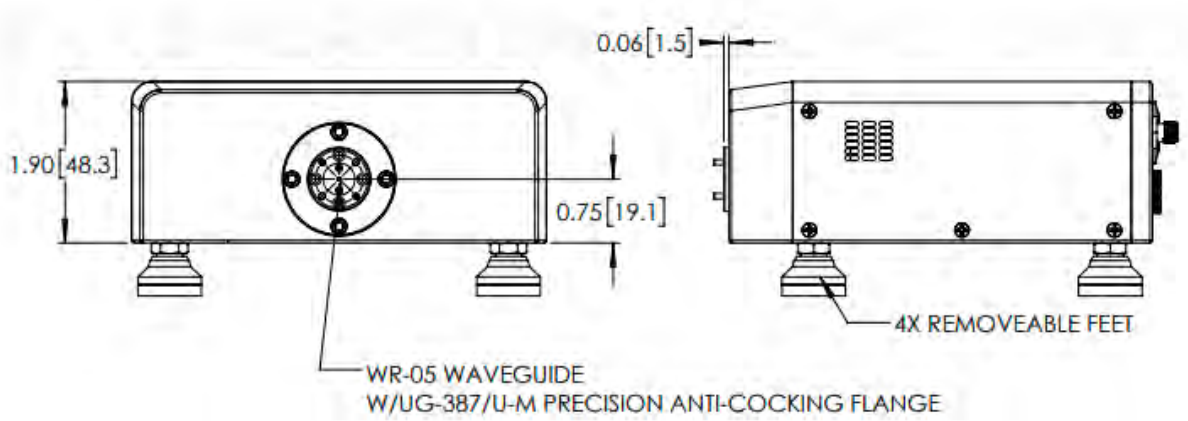
**FAMILY: STC**
26.5 to 220 GHz

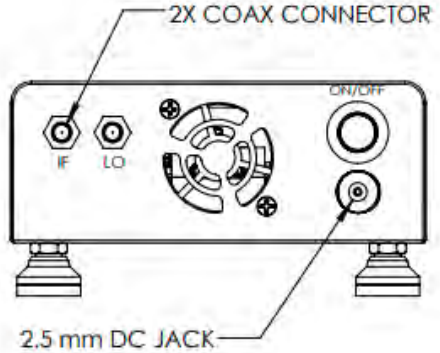
**More Than 20 Models: WR-05 to WR-28 Bands**

**STC-N15-05-S1**
**140 to 220 GHz**

**STC-N15-06-S1**
**110 to 170 GHz**

**STC-N12-15-S1**
**50 to 75 GHz**



# NOISE FIGURE & GAIN TEST EXTENDER

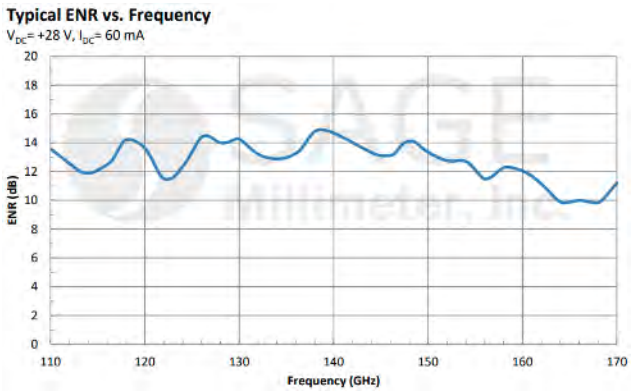
**FAMILY: STG**
26.5 to 170 GHz

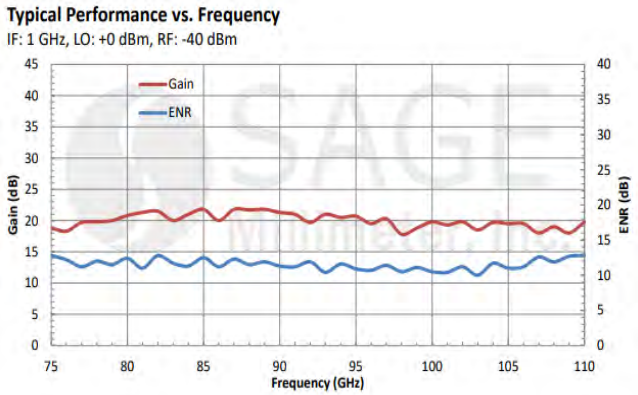
## More Than 8 Models: WR-06 to WR-28 Bands

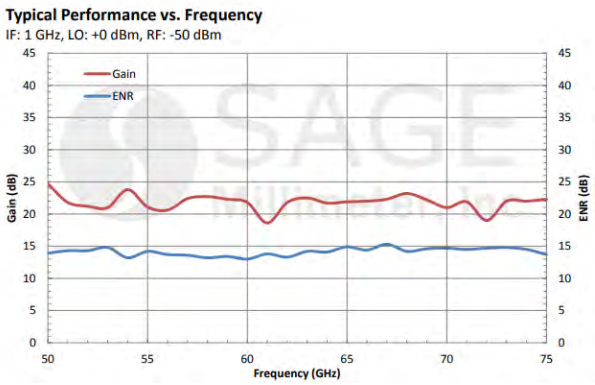

**STG-06-S1**
**110 to 170 GHz**


**STG-10-S1**
**75 to 110 GHz**


**STG-15-S1**
**50 to 75 GHz**



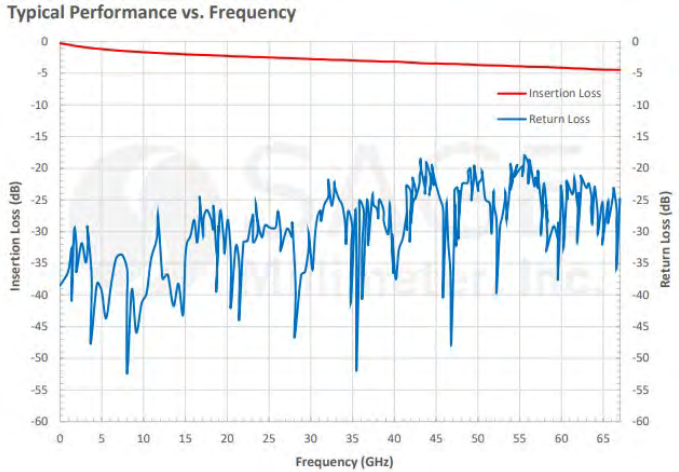
# COAX CABLE (VECTOR NETWORK ANALYZER)

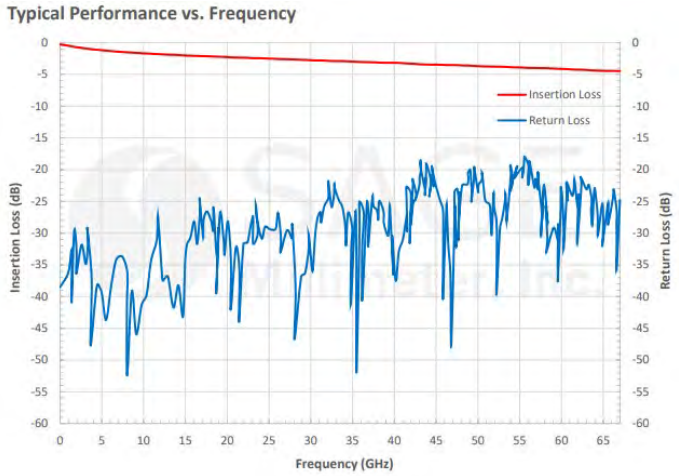
**FAMILY: STQ-CW**
DC to 67 GHz

**More Than 10 Models: 1.85 mm, 2.4 mm, 2.92 mm, 3.5 mm**

**STQ-CW-VFVF025-F1**
**DC to 67 GHz, 25”**

**STQ-CW-VFVM025-F1**
**DC to 67 GHz, 25”**



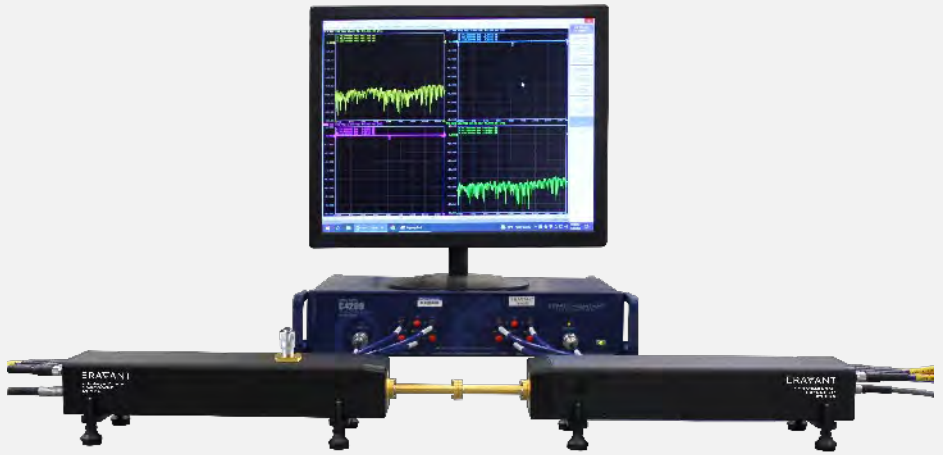



# VECTOR NETWORK ANALYZER FREQUENCY EXTENDER

**FAMILY: STO**
50 to 330 GHz

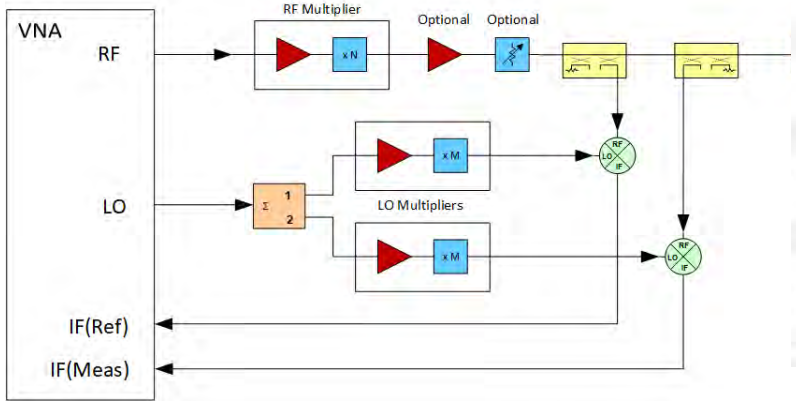
**Waveguide Bands: WR-03 to WR-15**

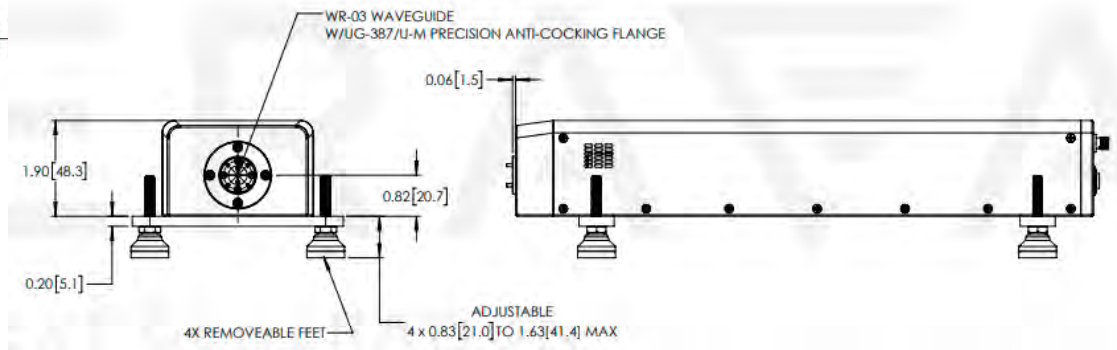
**STO-1020313-CMC-S1**
**75 to 110 GHz**

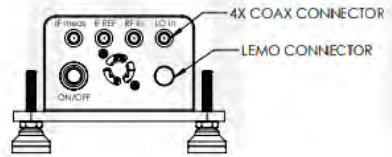


**STO-03203N05-CMC-S1**
**220 to 330 GHz**

**STO-1520315-CMC-S1**
**50 to 75 GHz**



# PROXI-FLANGE™ CONTACTLESS WAVEGUIDE FLANGE

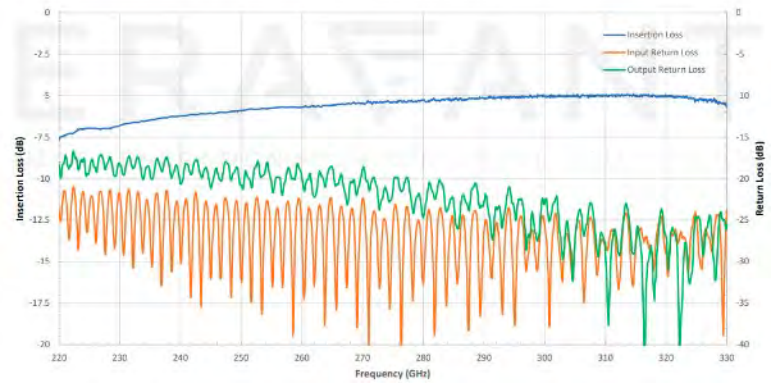
**FAMILY: STQ-WG**
18 to 330 GHz

**Waveguide Bands: WR-03 to WR-42**

**STQ-WG-03025-FB-CF**
**220 TO 330 GHz**

**STQ-WG-34025-FB-CF**
**22 to 33 GHz**


**Typical Measured Performance vs Frequency**
(Note: Data presented was taken with a shim inserted between connecting flanges to create a 0.0015" air gap)




**No Waveguide Screws Required During Calibration and Testing**

**No Damage To Waveguide Interfaces On Test System or Components**

# WAVE-GLIDE™ RAIL SYSTEM FOR VNA FREQUENCY EXTENDERS

**FAMILY: STQ-TL**

**Compatible With All Industry Standard VNA Frequency Extenders**

**STQ-TL-RW-S10-M1**

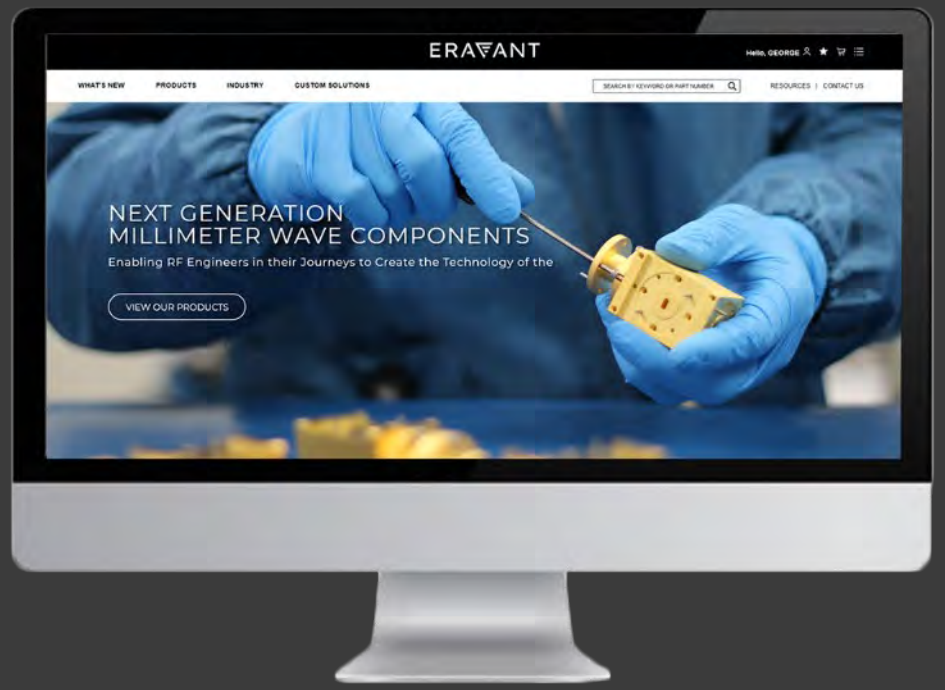
**Maintains Alignment Between VNA Frequency Extender Test Ports**

**Streamlines and Simplifies Calibration and Testing Procedures**

ERAVANT

NEXT GENERATION MILLIMETERWAVE COMPONENTS

# CHECK OUT OUR WEBSITE FOR MORE!

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