

SFP-2242943N05-0310-SB

WR-03 X3, Passive Frequency Multiplier, 220 to 285 GHz

SFP-2242943N05-0310-SB is a WR-03 X3 passive multiplier that utilizes GaAs Schottky diodes to generate third order harmonics with good harmonic and fundamental suppression. This multiplier requires an input frequency range of 73.33 to 95 GHz at +17 dBm RF power to yield typical -5 dBm output power at 220 to 285 GHz. The multiplier is equipped with a WR-10 waveguide and UG-387/U-M anti-cocking flange as its input port and a WR-03 waveguide and UG-387/U-M anti-cocking flange as its output port.



Electrical Specifications:

| Parameter | Minimum | Typical | Maximum |
|---------------------------|-----------|---------|---------|
| Input Frequency | 73.33 GHz | | 95 GHz |
| Output Frequency | 220 GHz | | 285 GHz |
| Input Power | | +17 dBm | |
| Damage Input Power | | | +20 dBm |
| Output Power | | -5 dBm | |
| Harmonic Suppression | | 20 dB | |
| Specification Temperature | | +25°C | |
| Operating Temperature | 0°C | | +50°C |

Mechanical Specifications:

| Item | Specification |
|----------------|---|
| RF Input Port | WR-10 Waveguide with UG-387/U-M Anti-Cocking Flange |
| RF Output Port | WR-03 Waveguide with UG-387/U-M Anti-Cocking Flange |
| Material | Aluminum |
| Finish | Gold Plated |
| Weight | 0.4 Oz |
| Size | 0.75" (L) X 0.75" (W) X 0.75" (H) |
| Outline | FP-03W3-A |

ECCN

3A001.b.7

FEATURES

- Compact Package

APPLICATIONS

- THz
- Source Modules
- Frequency Extenders

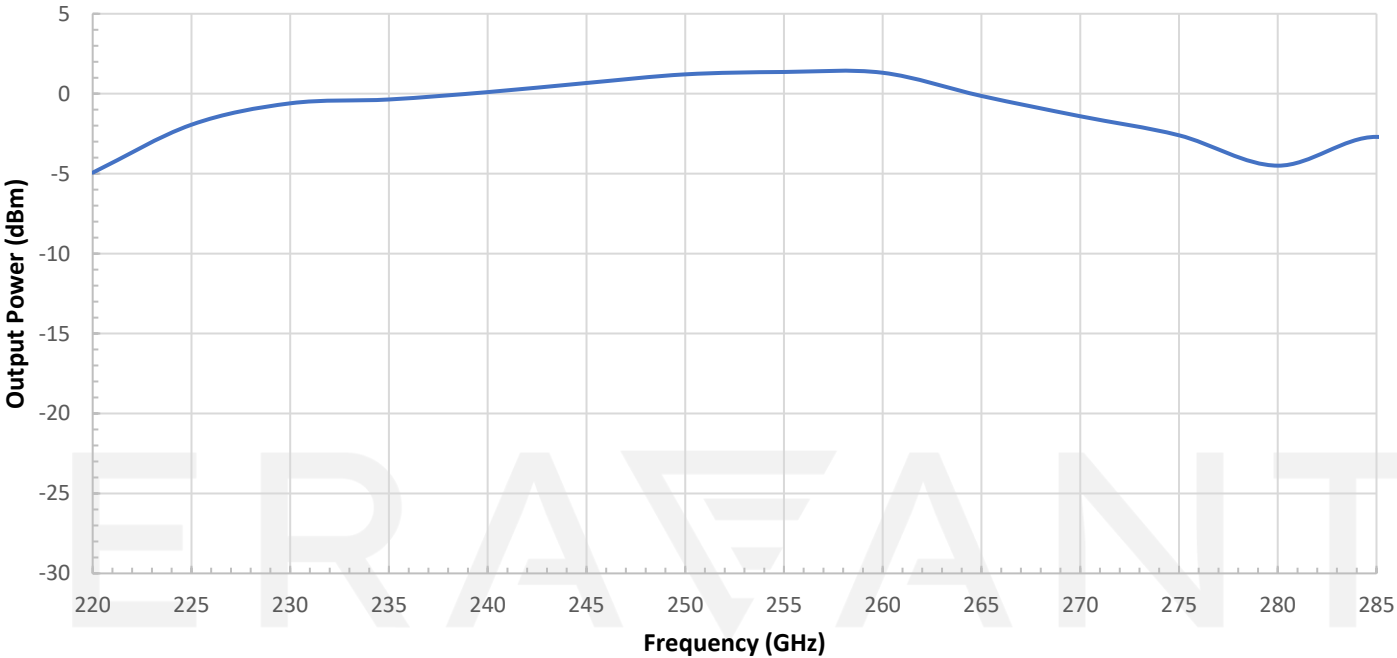
SUPPLEMENTAL DETAILS



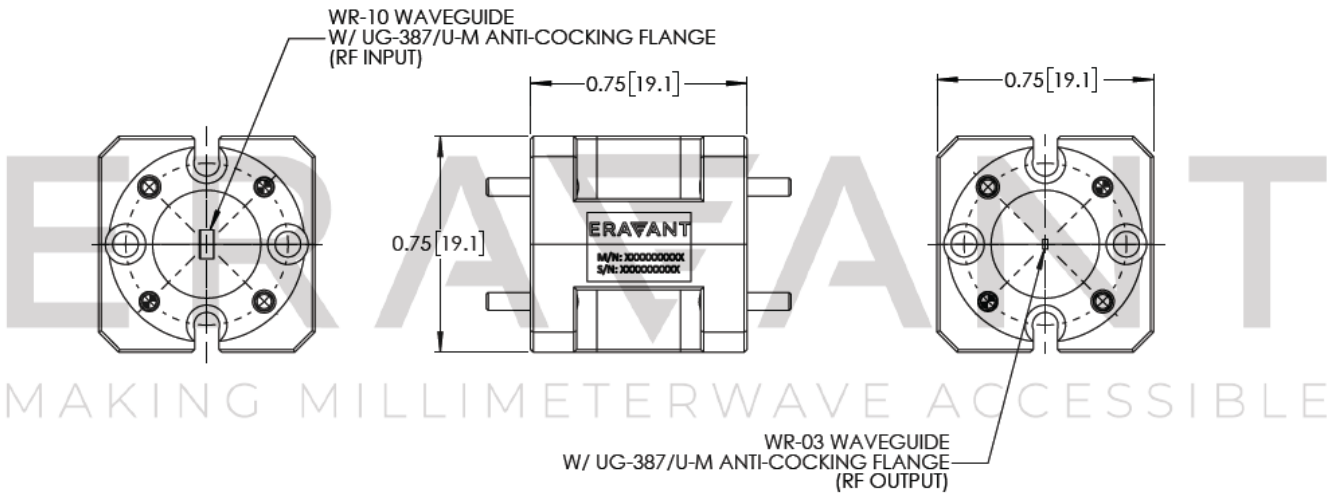
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Output Power vs. Frequency

Input: +17 dBm



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



NOTE:

- All data presented is collected from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings of the multiplier will damage the device.
- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- The multiplier is a static sensitive device. Always follow ESD rules when working with the multiplier.
- 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.

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