SWP-50375304-15-E1-WPC

4-Way Waveguide Power Divider, 50 to 65 GHz

SWP-50375304-15-E1-WPC is a V band, 4-way waveguide power divider that operates across the frequency range of 50 to 65 GHz. The power divider offers a typical insertion loss of 1.0 dB at each output port and a typical adjacent port isolation of 15 dB and non-adjacent port isolation of 20 dB. The ports are well balanced and in phase for either power dividing or power combining applications across the full band. This model comes as an inline design with WR-15 waveguides and UG-385/U anti-cocking flanges. Other configurations are available under different model numbers.

Electrical Specifications:

Parameter		Minimum	Typical	Maximum
Frequency		50 GHz		65 GHz
Insertion Loss			1.0 dB	
Power Unbalance			±0.20 dB	
Isolation	Adjacent Port		15 dB	
	Non-Adjacent Port		20 dB	
Return Loss	Adjacent Port		15 dB	
	Non-Adjacent Port		15 dB	
Specification Temperature			+25°C	
Operating Temperature		-40°C		+85°C

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FEATURES

- Full Waveguide Band Operation
- Low Insertion Loss
- High Isolation
- Inline Configuration

APPLICATIONS

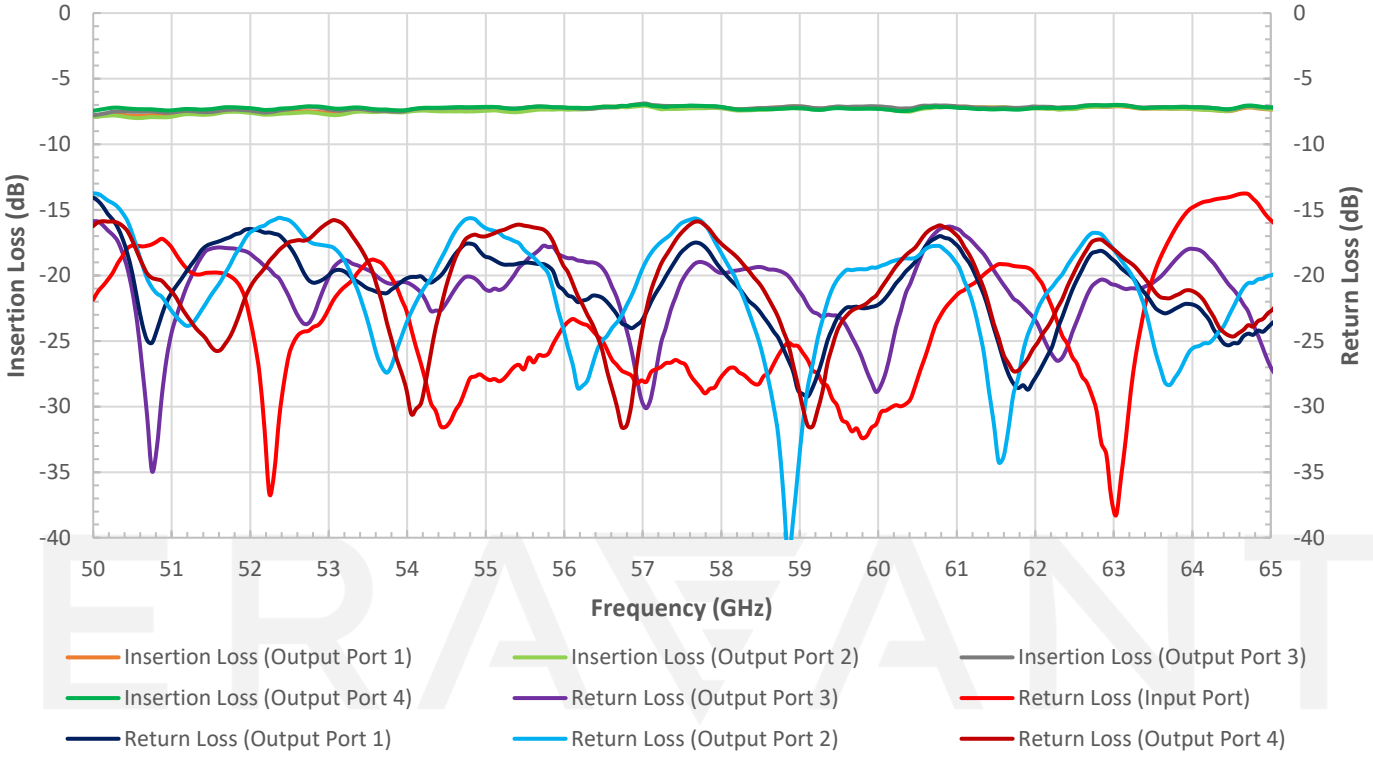
- IEEE 802.11ab, WiGig
- Power Combining and Dividing
- Test Instrumentation
- Sub-assemblies

SUPPLEMENTAL DETAILS

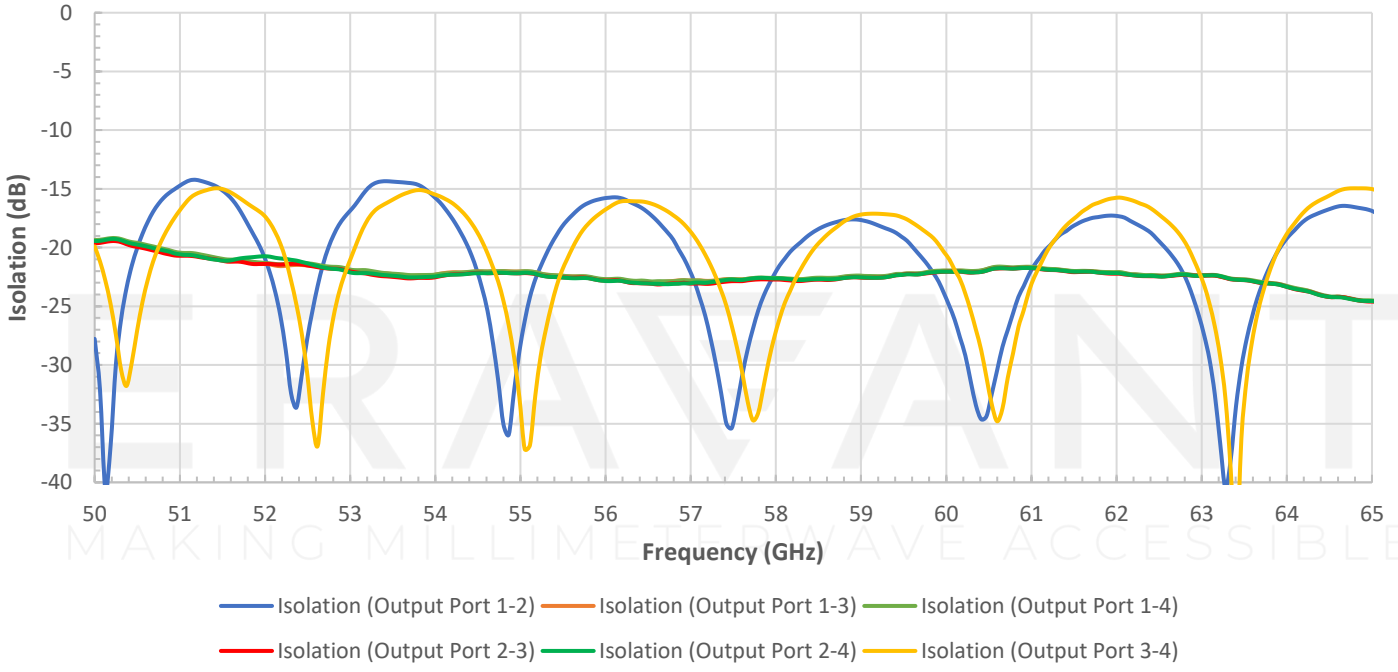
Mechanical Specifications:

Item	Specification
Waveguide Ports	WR-15 Waveguide with UG-385/U Anti-Cocking Flange
Port Separation	1.15”
Material	Aluminum
Finish	Gold Plated
Weight	3.4 Oz
Outline	WP-V4I-A2

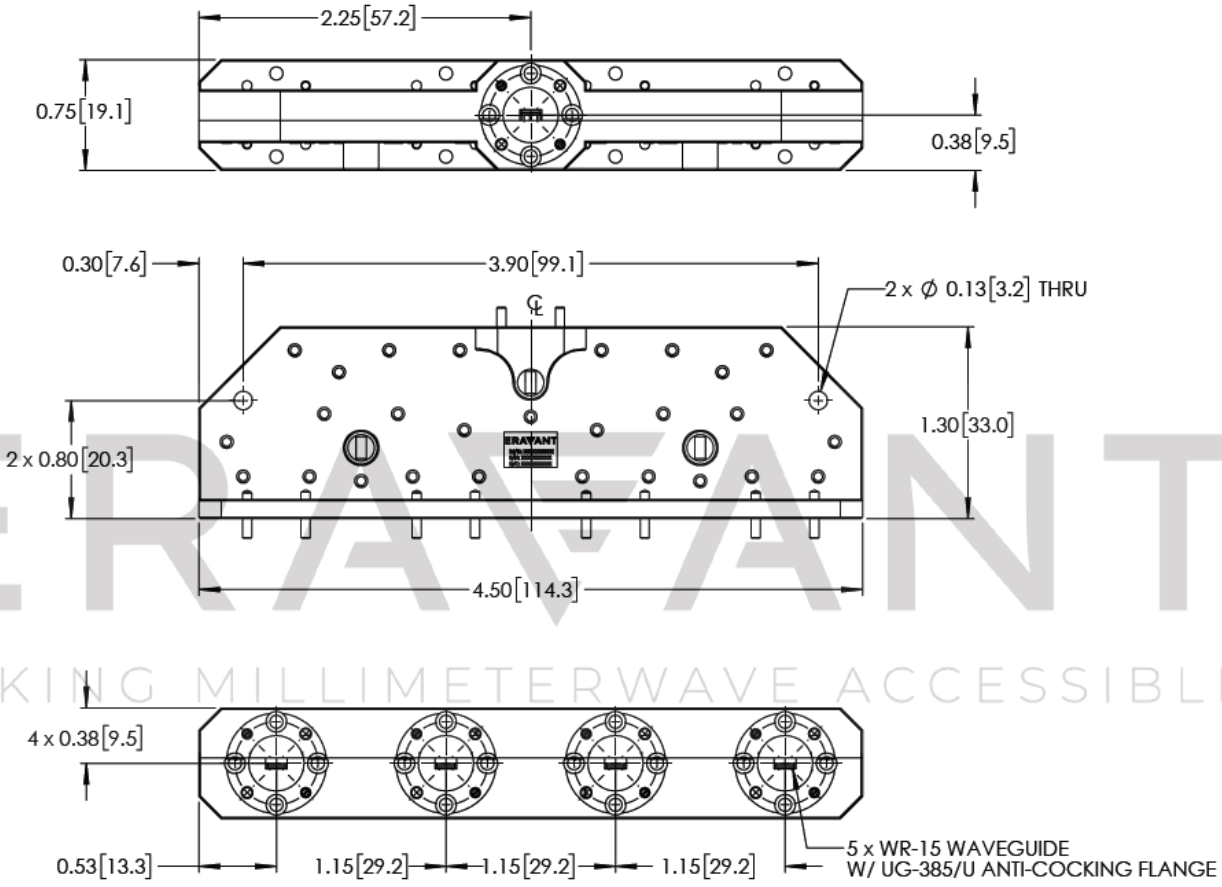
Typical Insertion and Return Loss vs Frequency



Typical Isolation vs Frequency



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:

- Any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- 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.