STI-15420405-05-S2

G-Band Phase Noise Analyzer Down-Converter

STI-15420405-05-S2 is a G-Band phase noise analyzer (PNA) down-converter that converts millimeterwave (mmW) signals from a frequency range of 150 to 200 GHz to the baseband at 10 MHz to 1.6 GHz. The down-converter requires two 0 dBm driving power as its LO input signals at 6.25 to 8.33 GHz from the PNA. The down-converter then convert the DUT mmW signals up to +10 dBm to two IF outputs feeding low frequency PNA, such as Holzworth's HA7062 equipment, for phase noise analysis. The down-converter has low harmonic levels and excellent gain flatness, extending the microwave PNA to perform the phase noise testing beyond 50 GHz. Various models are available in full waveguide bands, from WR-15 to WR-03 are available to cover the frequency range of 50 to 330 GHz.

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Input Frequency	150 GHz		200 GHz
IF Output Frequency	10 MHz	100 MHz	1.6 GHz
LO Input Frequency	6.25 GHz		8.33 GHz
LO Power		0 dBm	+20 dBm
Conversion Gain		5 dB	
Harmonic Suppression		-20 dBc	
Input P1dB		+10 dBm	
RF Input Power Damage Level			+15 dBm
Power Supply (AC Adapter Provided)	100 V_{AC}		240 V_{AC}
Specification Temperature		+25 ˚C	
Operating Temperature	0 ˚C		+50 ˚C

Mechanical Specifications:

Item	Specification
RF Port	WR-05 Waveguide with UG-387/U-M Precision Anti-Cocking Flange
LO Ports	SMA (F)
IF Ports	SMA (F)
DC Bias Port	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	On-Off Latching Switch with Indicator Light
Enclosure Material	Black Anodized Aluminum
Weight	4.4 Lbs
Size	9.00" (L) x 3.00" (W) x 2.00" (H)
Outline	TI-G-A

ECCN

3A001.b.7

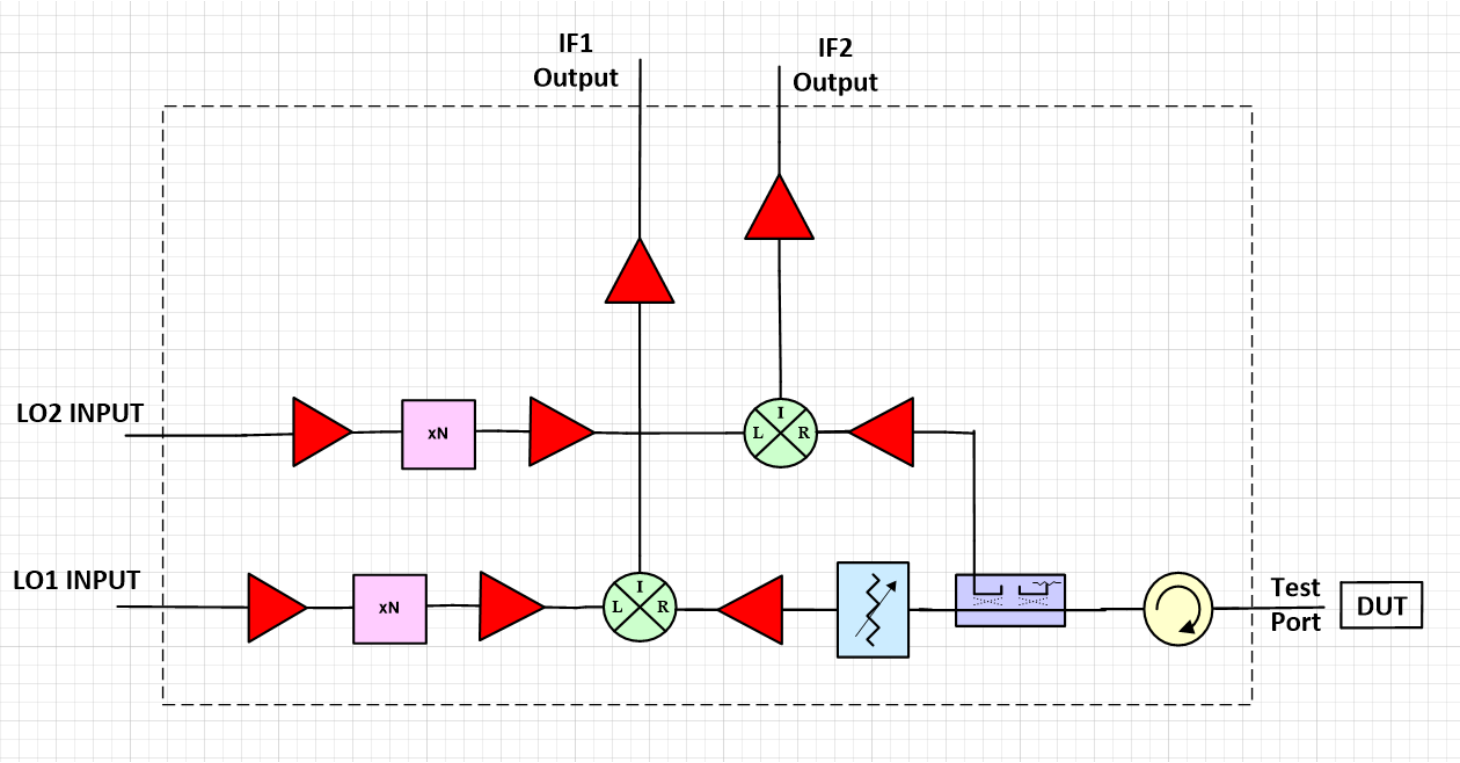
FEATURES

APPLICATIONS

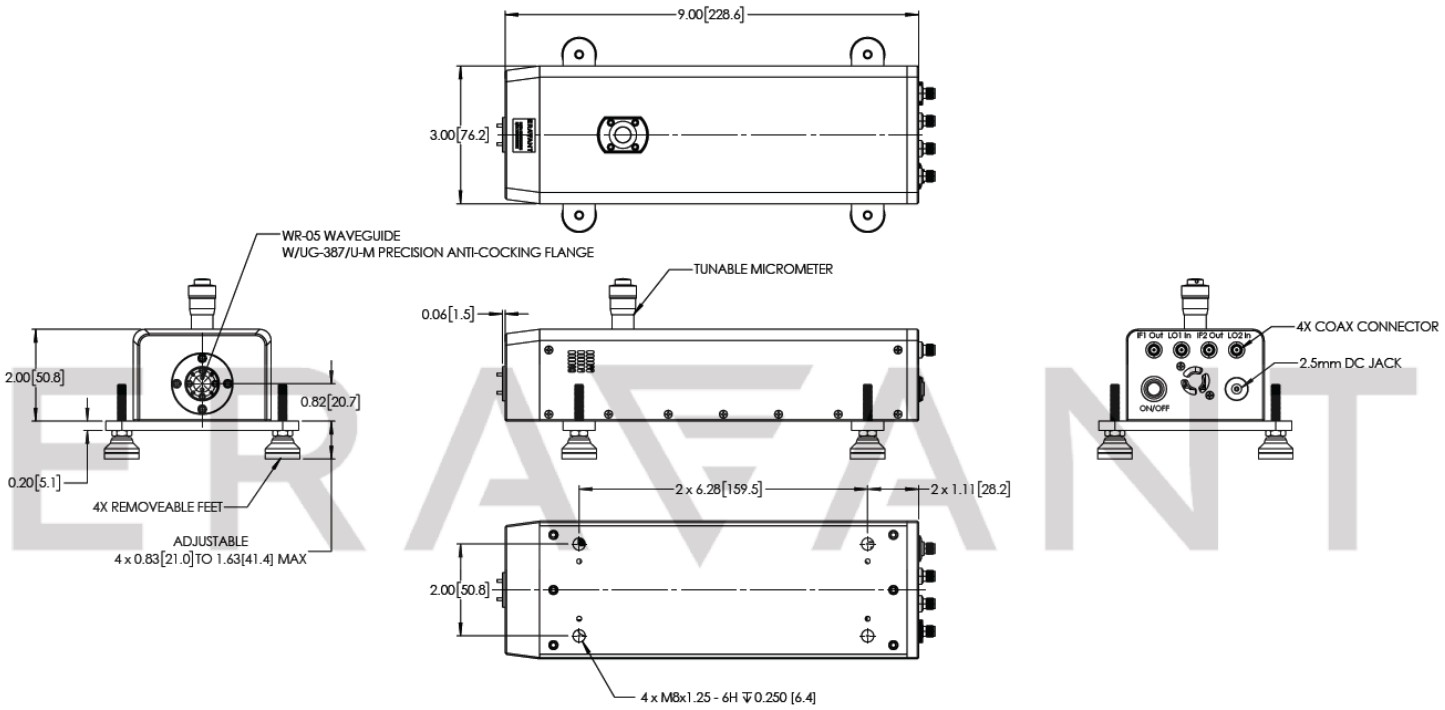
- Frequency Extension
- Phase Noise Measurements
- Holzworth HA7062 Phase Noise Analyzers

SUPPLEMENTAL DETAILS

Block Diagram:



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



FEET REMOVED TO SHOW RAIL MOUNTING LOCATION

NOTE:

- On condition that 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 room temperature.
- Eravant reserves the right to change the information presented without notice.

CAUTION:

- Exceeding absolute maximum ratings of the device will damage the device.
- If a waveguide is present, any foreign objects in the waveguide will cause performance degradation and may damage or destroy the unit.
- 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