

## Waveguide Frequency Converter/Mixer, Model MV-1

### Description:

Spacek Labs model MV-1 is a V-band mixer for the RF frequency range of 50 to 75 GHz. Our cross-bar mixer design uses two custom-made hermetic point-contact Schottky barrier diodes. This mixer can be designed in a variety of frequency combinations from single point to full waveguide bands.

Spacek Labs offers a full line of mixers covering the frequency range of 18-110 GHz which can also function as upconverters. These mixers are available with optional DC bias to allow LO input levels as low as 0 dBm.

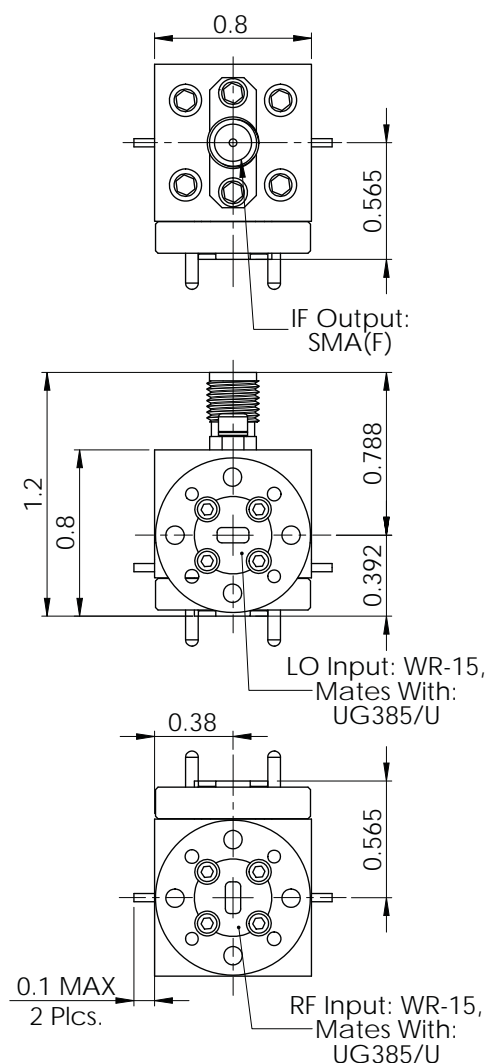
Additionally, to complement your mixer's capabilities, Spacek Labs offers waveguide to coax transitions, filters, detectors, frequency sources, passive and active multipliers and amplifiers.

### Electrical Specifications:

Description	Specification
RF Input Frequency	50-75 GHz
LO Input Frequency	50-75 GHz
LO Input Power	+10 to +15 dBm
IF Output Frequency	DC to 2 GHz in SMA (F)
Conversion Loss	6.0 dB typ., 8.5 dB max
DC Bias	NA

### Mechanical Specifications:

Description	Specification
RF Input Flange	WR-15, UG385/U
LO Input Flange	WR-15, UG385/U
IF Output Connector	SMA (F) Coaxial
Dimensions OA	(See drawing)
Material	Brass
Finish	Gold
Weight	5 ounces / 0.14 kg



FREQUENCY MIXERS

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Notes: Product data is periodically updated to reflect product / raw material / process / testing changes. This data should not be used as guaranteed specifications. Please contact Spacek Labs to make sure you have the most current data.