

Part No:

# HWPSD08-90140-S2



## WR-08 SMA Female Waveguide Detector - 90 GHz to 140 GHz

### Electrical

• Input	WR-08 Waveguide
• Output Connector	SMA Female
• Frequency Range	90 GHz to 140 GHz
• Flange	UG-387/U-M
• Sensitivity	700 mV/mW Typical
• Flatness	+/- 1.7 dB Max
• Polarity	Positive
• Tangential Sensitivity	-40 dBm (BW 40 Hz, dBm)
• CW Max Input Power	+16 dBm
• Absolute Max Input Power	+20 dBm
• Temperature Range	-55 °C to 85 °C

### Material

• Body	Gold Plated
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Note: All plating thickness values are in micro-inches.

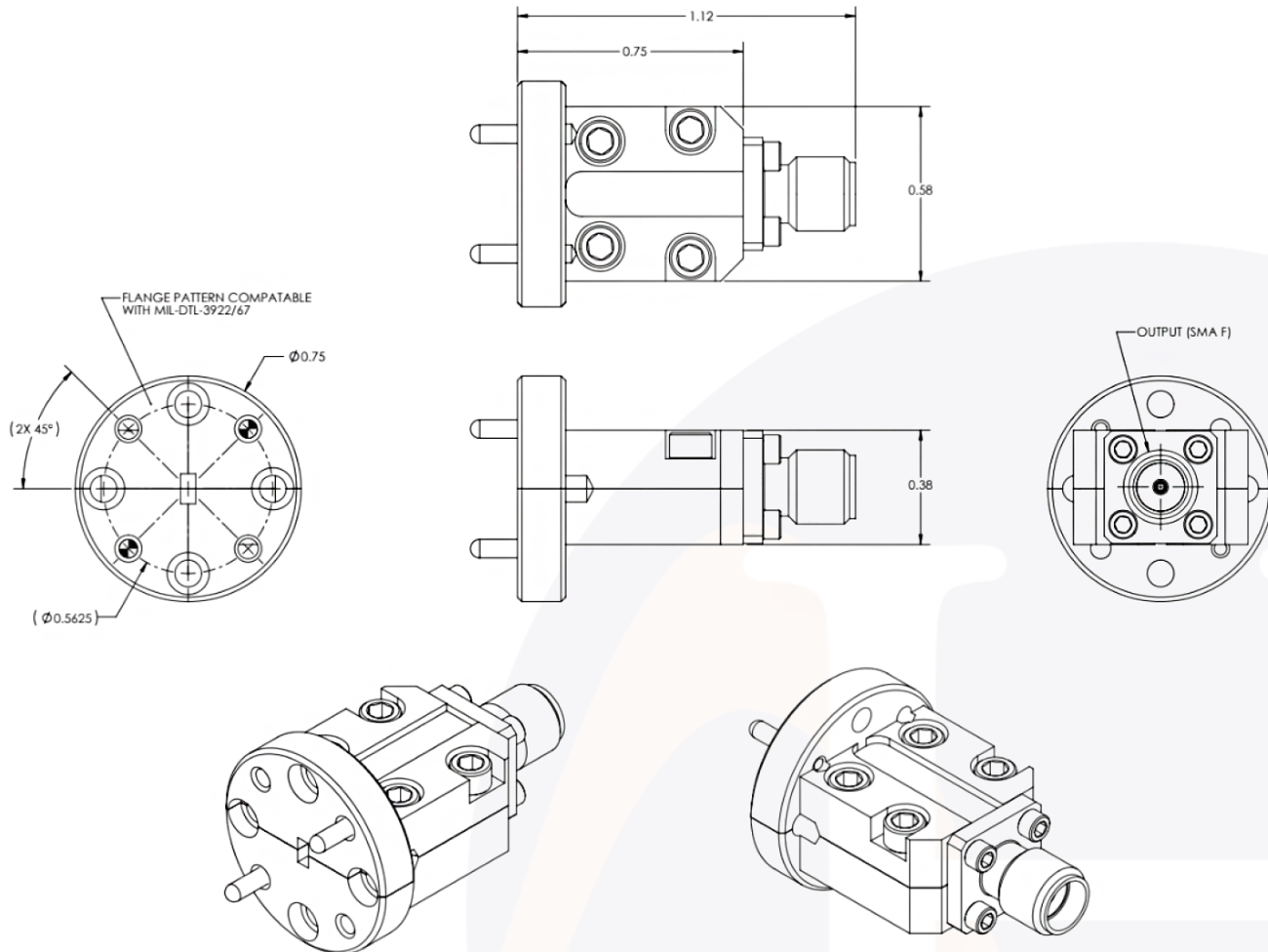
The HASCO **HWPSD08-90140-S2** is an SMA Female waveguide detector from HASCO. This waveguide detector will operate from 90 GHz to 140 GHz. This detector that can be used for full or narrow band applications. The detector is zero biased and intended for small signal detection purposes. With a distinct circuitry design and careful diode selection, the detector exhibits high sensitivity and extremely flat output characteristics. The detector is designed to have a 10 MHz video bandwidth and a 1 milliohm video output impedance. The minimum detectable signal level is approximately -50 dBm.

The HWPSD08-90140-S2 is RoHS compliant.



Waveguide detectors offered by HASCO are square root small signal detectors. What this means is, for RF power in the range of -45 dBm to approximately 0 dBm, the detector output voltage is proportional to its incident power measure in watts. Because of the behavior exhibited, these detectors are also called “square law” detectors. In “linear” operations, the detected voltage output is proportional to the square-root value of the input power. In other words, the power to be detected vs. the output voltage is squared, not linear.

# WR-08 SMA Female Waveguide Detector | 90 GHz to 140 GHz | Outline Drawing



LTR	DESCRIPTION	DATE	APPR.	DRAWN BY: <i>NS</i>	CHECKED BY: <i>JMS</i>
-	RELEASE	08/22	TAC	APPROVED BY: <i>TAC</i>	
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MATERIALS: <b>SEE DATA SHEET</b>	CAGE CODE: <b>0T8L4</b>	SCALE: <b>N/A</b>	SIZE: <b>A</b>
FINISHES: <b>SEE DATA SHEET</b>	PART NO./DRAWING NO. <b>HWPSD08-90140-S2</b>		REV: <b>B</b>