Anteral

OMT-10-01

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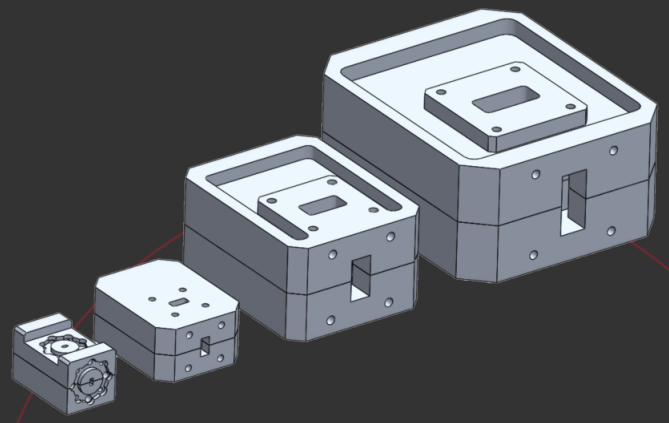

W-Band OMT

75 to 110 GHz, WR10, 35 dB Isolation, 35 dB XP

DESCRIPTION

Anteral's wide-band orthomode transducers (OMTs) are used for either combine two orthogonal linear polarized signals into one circular or elliptical polarized signal or to separate a circular or elliptical polarized signal that is input in two orthogonal linear polarizations.

The OMT-10-01 model operates at the W-band between 75 and 110 GHz. The OMT supports either horizontal or vertical polarized signals with more than 35 dB cross-polarization rejections and 35 dB isolation. The OMT is configured with anti-cocking flanges and a 2.54 x 2.54 mm square waveguide for the antenna port and two WR-10 waveguides for the horizontal and vertical waveguide ports.

APPLICATIONS

Wide-band orthomode transducers (OMTs) are especially useful when high isolation and high cross polarization is required to combine or separete two linear polarized waveforms. Therefore, these OMTs are widely used in radar applications, communication, and antenna ranges among others.

Anteral also offers their Dual Polarized Scalar Feed Horn Antennas (DPSFHA) with around 13 dBi gain and 17dBi gain at frequencies from 75 to 110 GHz.

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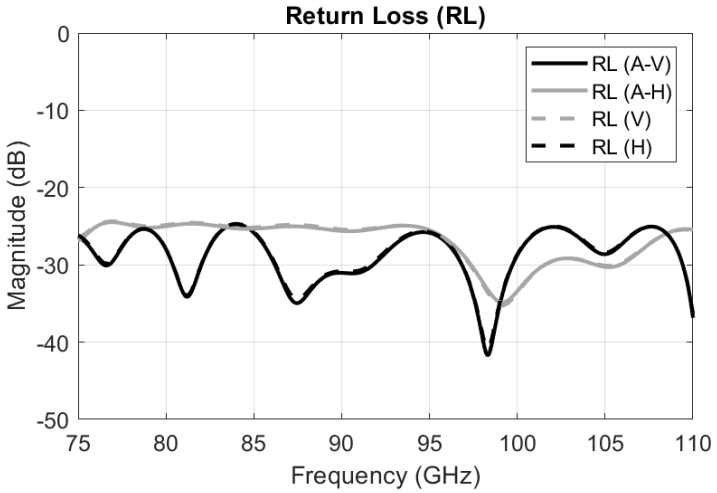
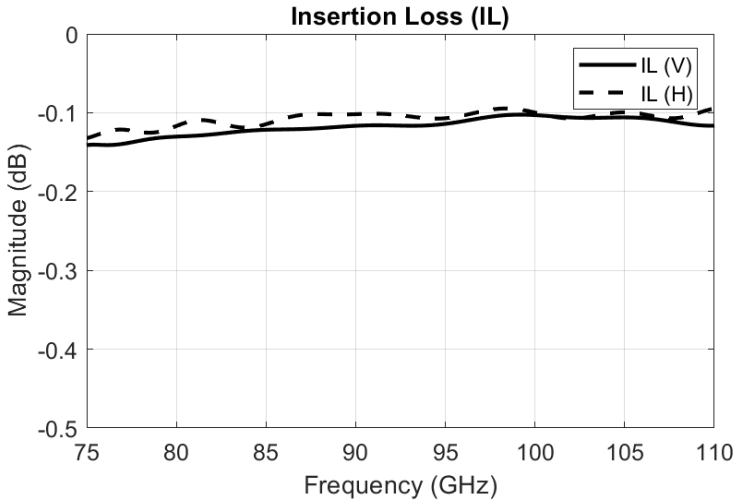
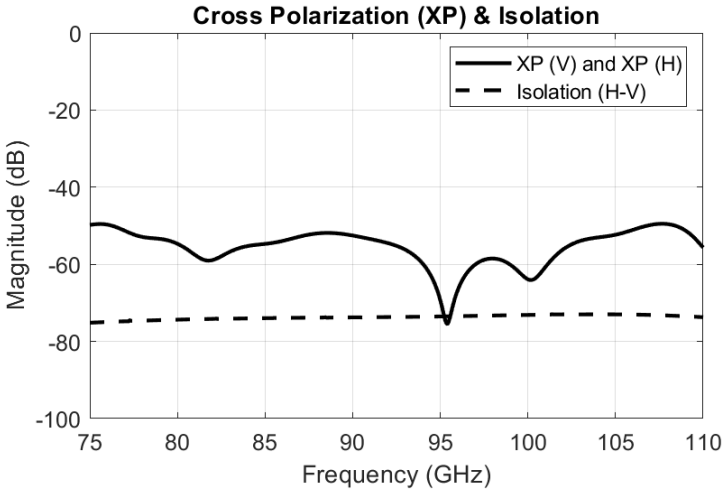
ELECTRICAL SPECIFICATIONS

Parameter	Minimum	Typical	Maximum
Frequency	75 GHz		110 GHz
Isolation (H to V Port)		35 dB	
Insertion Loss (A to H Port)		1.5 dB	
Insertion Loss (A to V Port)		1.5 dB	
Cross-Polarization (A to H Port)		35 dB	
Cross-Polarization (A to H Port)		35 dB	
Return Loss (H Port)		15 dB	
Return Loss (V Port)		15 dB	
Return Loss (A Port, H Pol)		15 dB	
Return Loss (A Port, V Pol)		15 dB	







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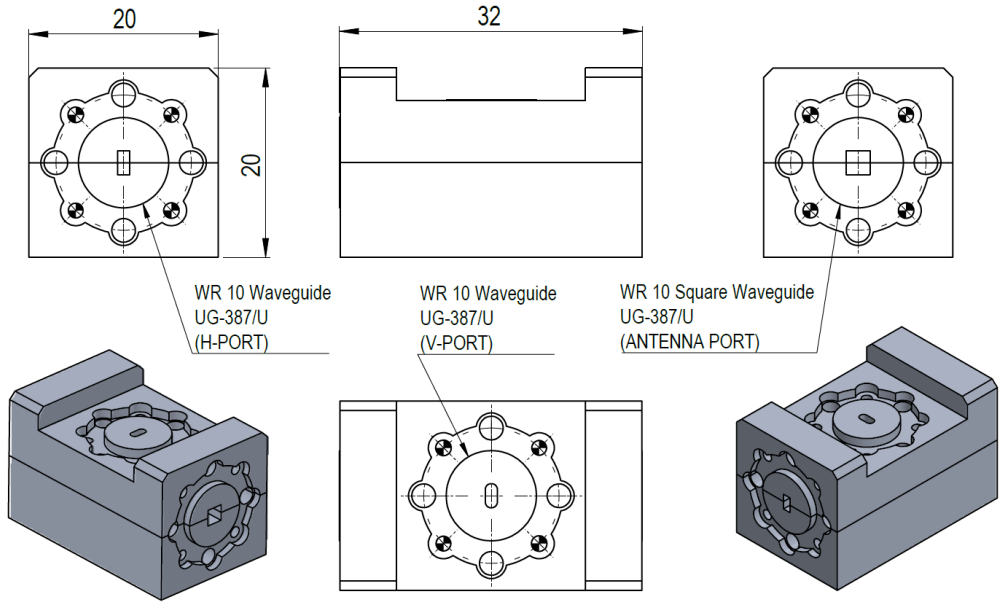
MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port	2.54 mm x 2.54 mm
Antenna Flange	UG-387/U-M Anti-Cocking Flange
H and V Ports	WR-10 (2.54 mm x 1.27 mm)
H and V Flanges	UG-387/U-M Anti-Cocking Flange
Size	20 x 20 x 32 mm
Weight	25 g
Material	Aluminum
Finish	Gold plated

MECHANICAL OUTLINE



Additional notes

The return loss, isolation, and XP data are simulated. Actual values have been checked experimentaly but they could vary slightly.
The frequency performance of all items is checked before delivery to fulfill specifications.

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