

## X/Ku-Band OMT

10 to 15 GHz, WR75, 35 dB Isolation, 35 dB XP

### DESCRIPTION

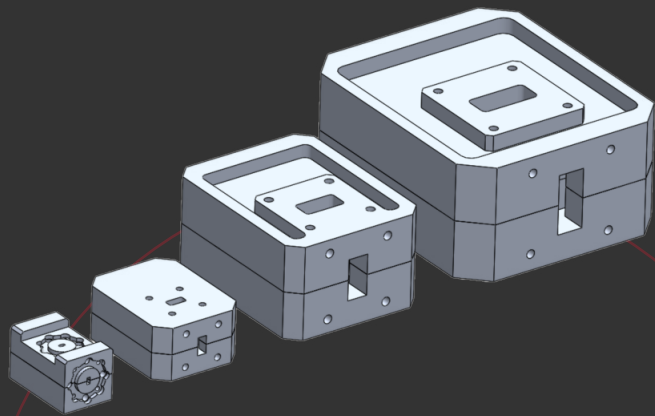
Anteral's wide-band orthomode transducers (OMTs) are used for either combine two orthogonal linear polarized signals into one circular or elliptical polarized signal or to separate a circular or elliptical polarized signal that is input in two orthogonal linear polarizations.

The OMT-75-01 model operates at the X/Ku-band between 10 and 15 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 a 19.05 x 19.05 mm square waveguide for the antenna port and two WR-75 waveguides for the horizontal and vertical waveguide ports.

### APPLICATIONS

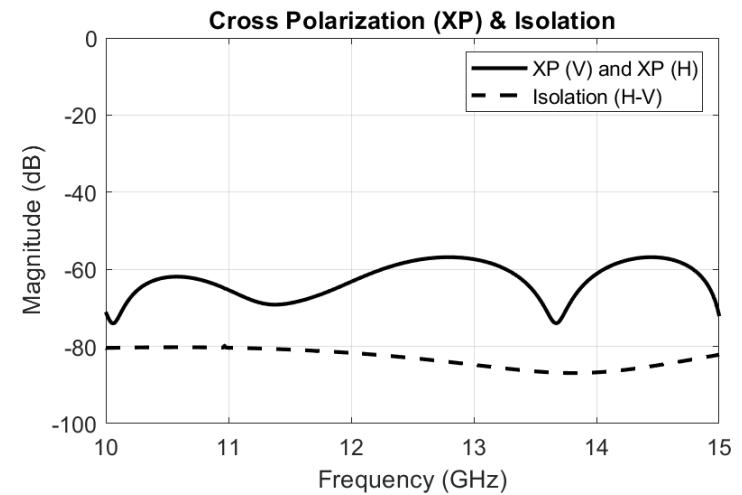
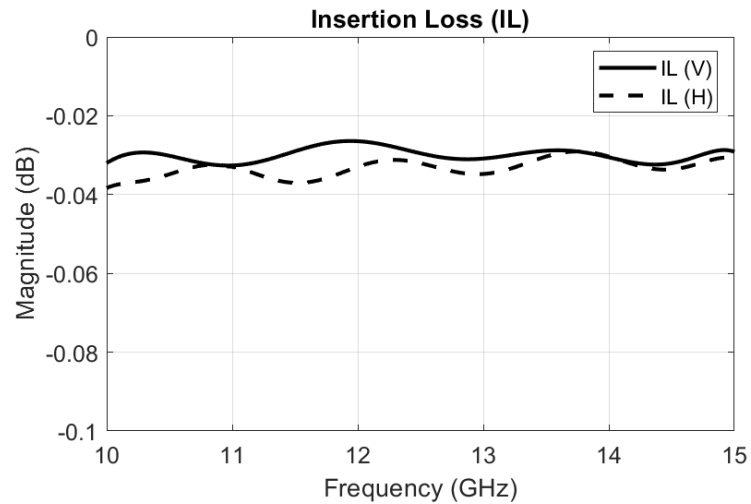
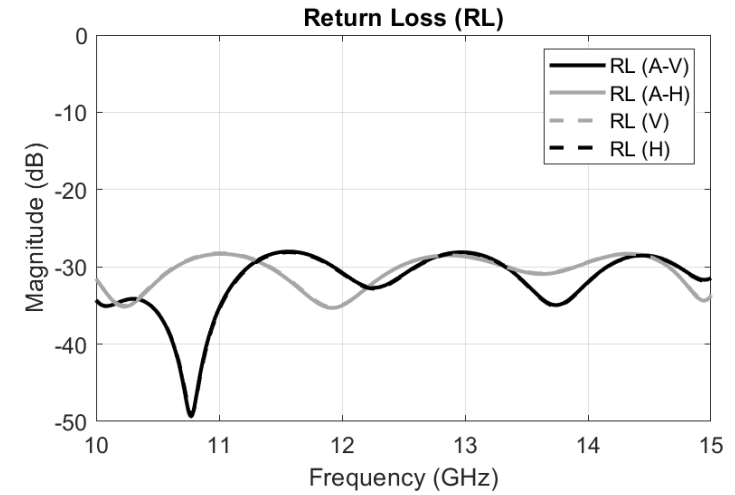
Wide-band orthomode transducers (OMTs) are especially useful when high isolation and high cross polarization is required to combine or separate two linear polarized waveforms. Therefore, these OMTs are widely used in radar applications, communication, and antenna ranges among others.

Anteral also offers their **Dual Polarized Lens Horn Antennas (DPLHA)** with around 30dBi gain at frequencies from 10 to 15 GHz.



### ELECTRICAL SPECIFICATIONS

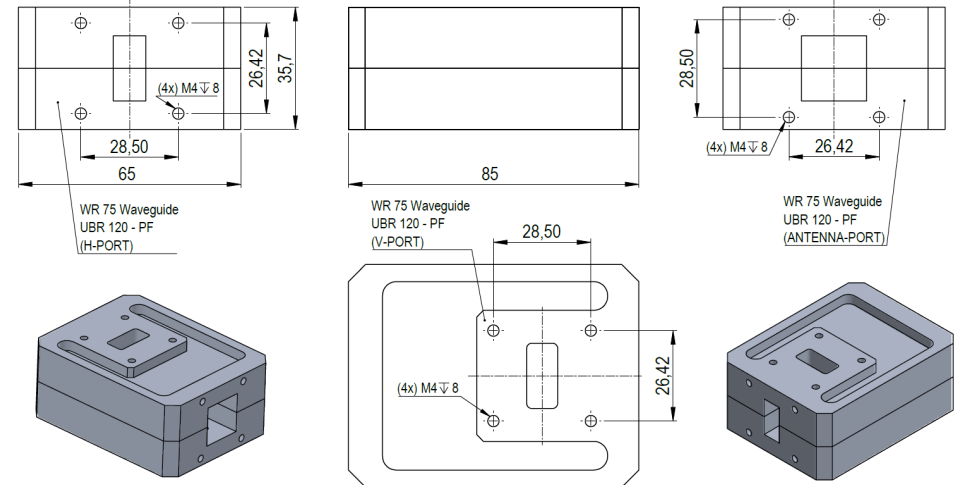
| Parameter                        | Minimum | Typical | Maximum |
|----------------------------------|---------|---------|---------|
| Frequency                        | 10 GHz  |         | 15 GHz  |
| Isolation (H to V Port)          |         | 35 dB   |         |
| Insertion Loss (A to H Port)     |         | 0.25 dB |         |
| Insertion Loss (A to V Port)     |         | 0.25 dB |         |
| Cross-Polarization (A to H Port) |         | 35 dB   |         |
| Cross-Polarization (A to H Port) |         | 35 dB   |         |
| Return Loss (H Port)             |         | 25 dB   |         |
| Return Loss (V Port)             |         | 25 dB   |         |
| Return Loss (A Port, H Pol)      |         | 25 dB   |         |
| Return Loss (A Port, V Pol)      |         | 25 dB   |         |



### MECHANICAL SPECIFICATIONS

| Parameter       | Description                 |
|-----------------|-----------------------------|
| Antenna Port    | 19.05 mm x 19.05 mm         |
| Antenna Flange  | UBR 120 -PF                 |
| H and V Ports   | WR-75 (19.05 mm x 9.525 mm) |
| H and V Flanges | UBR 120 -PF                 |
| Size            | 65 x 35.7 x 85 mm           |
| Weight          | 355 g                       |
| Material        | Aluminum                    |
| Finish          | Bare aluminum               |

### MECHANICAL OUTLINE



### Additional notes

The return loss, isolation, and XP data are simulated. Actual values have been checked experimentally but they could vary slightly.

The frequency performance of all items is checked before delivery to fulfill specifications.