

Dual Linear Polarized Scalar Feed Horn Antenna

8.2 - 12.4 GHz, WR90, 15 dBi Directivity

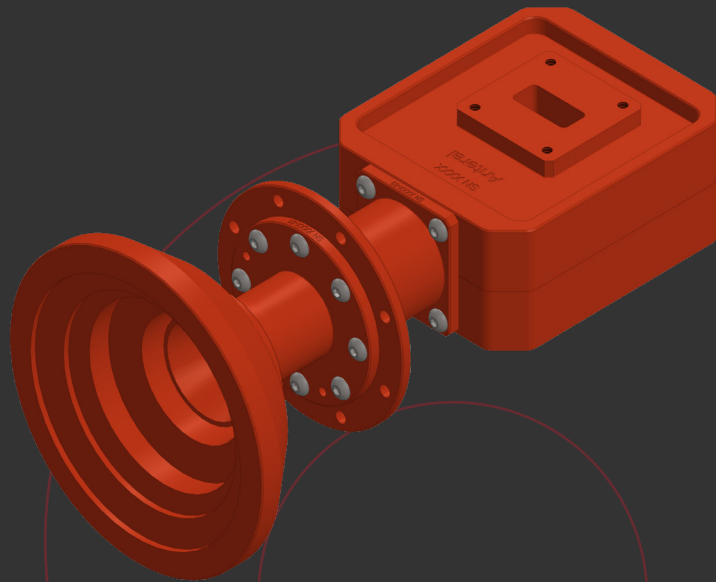
DESCRIPTION

Anteral's Dual Linear Polarized Scalar Feed Horn Antennas (DLPSFHA) integrate an orthomode transducer (OMT) with high isolation and cross-polarization cancellation and a broad band scalar feed horn antenna that provides high gain, low VSWR and low side-lobes, with minimum size.

Antennas operate from 8 to 110 GHz across 12 band, delivering 15 dBi nominal mid-band directivity. The OMT supports either horizontal or vertical polarization with more than 35 dB cross-polarization rejection and 40 dB isolation, and is configured with two waveguide ports for horizontal and vertical signals. Custom frequency bands and gain values are available, and Anteral also offers SFHAs with linear or circular polarization.

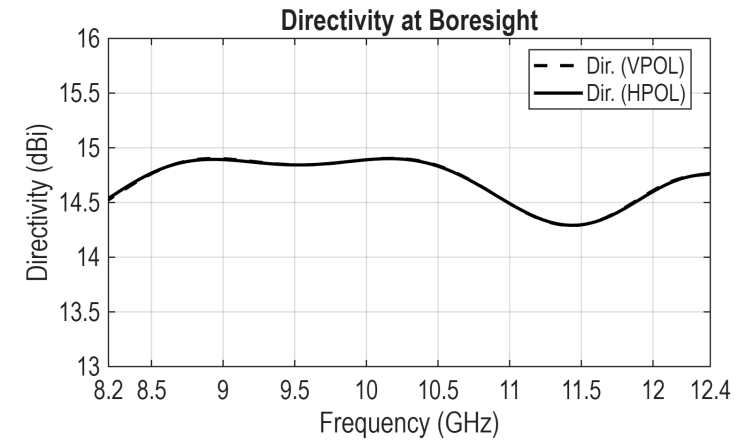
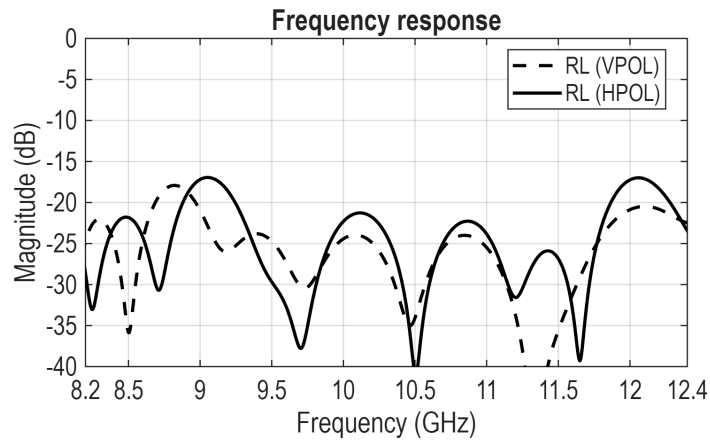
APPLICATIONS

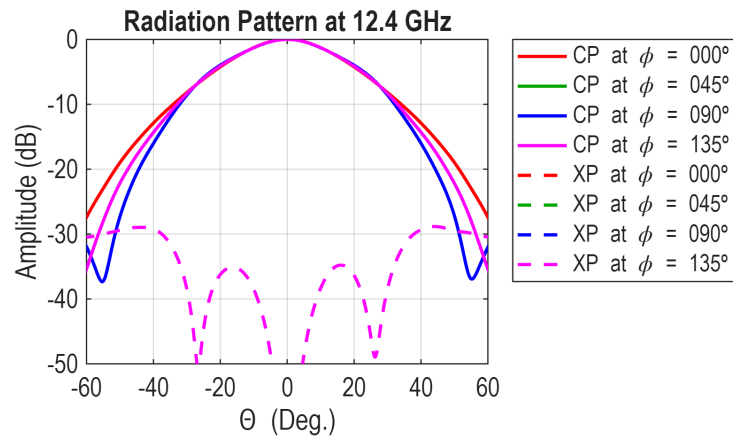
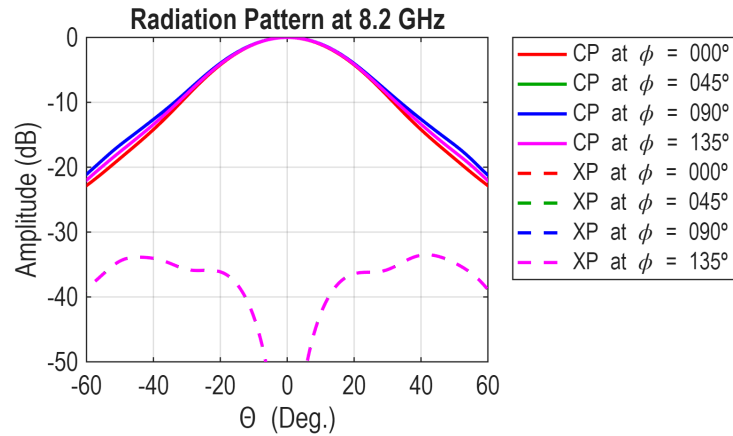
Dual Polarized Scalar Feed Horn Antennas are especially useful when high isolation and high cross polarization is required. They are widely used in 5G systems, radar applications, communication, and antenna ranges, among others.



ELECTRICAL SPECIFICATIONS

Parameter	Typical values
Frequency band	8.2 - 12.4 GHz
Return Loss	20 dB
Isolation	40 dB
Insertion Loss	0.5 dB
Crosspolar level	35 dB
Half Power Beam Width	32 °
Directivity	15 dBi





MECHANICAL SPECIFICATIONS

Parameter	Description
Vertical Port	WR-90 (22.86 mm x 10.16 mm)
Vertical Flange	UBR-100
Horizontal Port	WR-90 (22.86 mm x 10.86 mm)
Horizontal Flange	UBR-100
Size	218 x 109 x 109 mm
Weight	1100 g
Horn Material	Aluminum
Lens Material	HDPE
External color	Ruby Red
Surface treatment for antenna	Surtec 650
Surface treatment for bracket	Black anodized

Additional notes

All values are typical and simulated. Actual values could vary slightly. The return loss and the isolation of all items are checked before delivery to fulfill specifications.

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MECHANICAL OUTLINE

