Anteral

LHA-F-WR90

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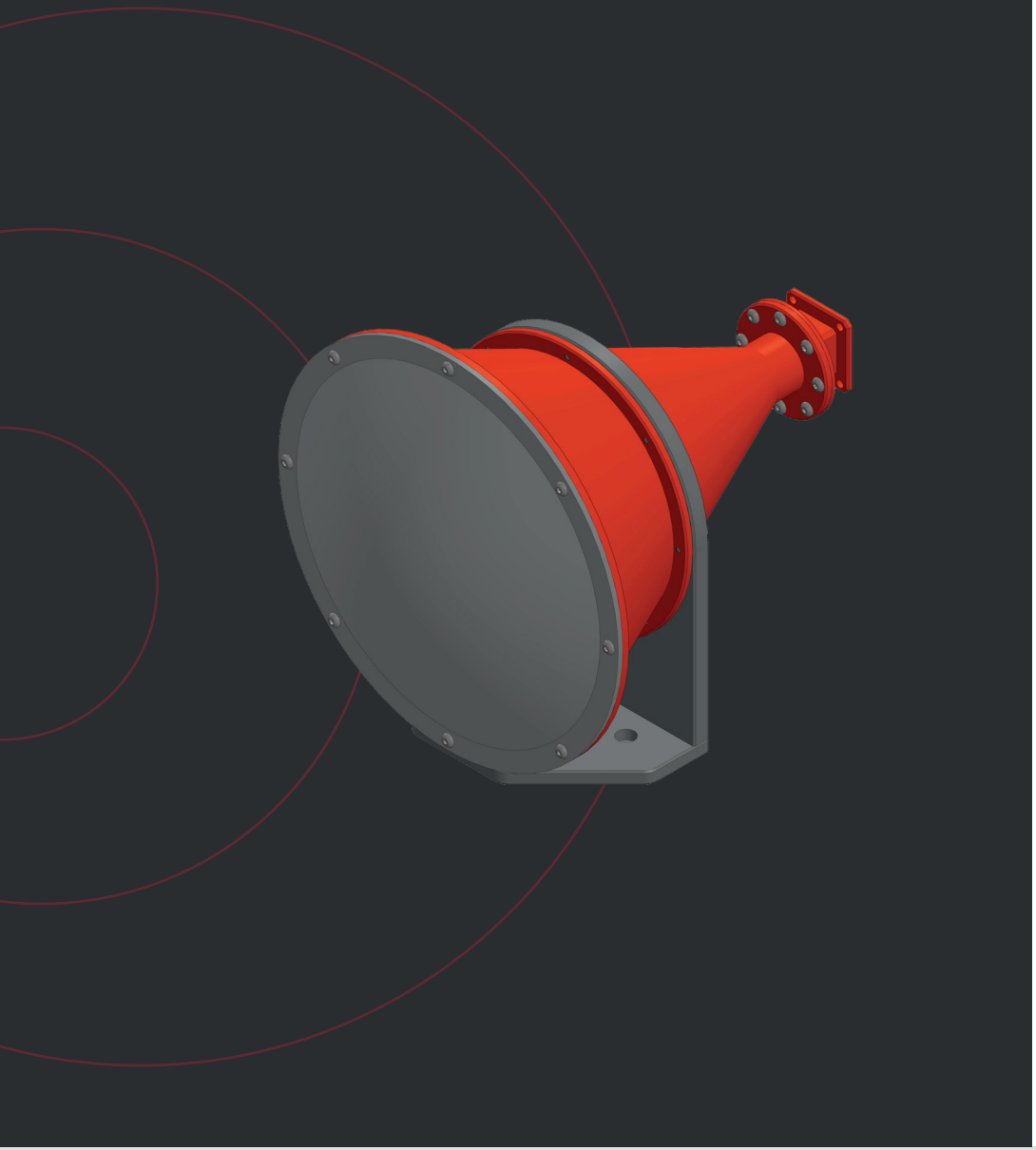


X-Band Focusing Lens Horn Antenna

8.2 to 12.4 GHz, WR90

DESCRIPTION

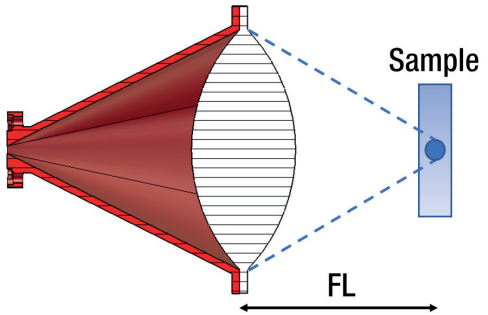
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a **double-convex high-density polyethylene (HDPE) lens** added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The FLHA-F-WR90 model operates at the X-band between 8.2 and 12.4 GHz with a focal length of 181 mm and a diameter beam focus of 34 mm.

APPLICATIONS

Focusing Lens Horn Antennas are especially useful when focusing beam is required with short focal distances. Therefore, these antennas are widely used in testing and material characterization.

Anteral also offers their Lens Horn Antennas with plano-convex lenses to exhibit high gain (>30 dB) in a very compact size which makes them optimal for radar applications, communication links or meteorological systems among others.



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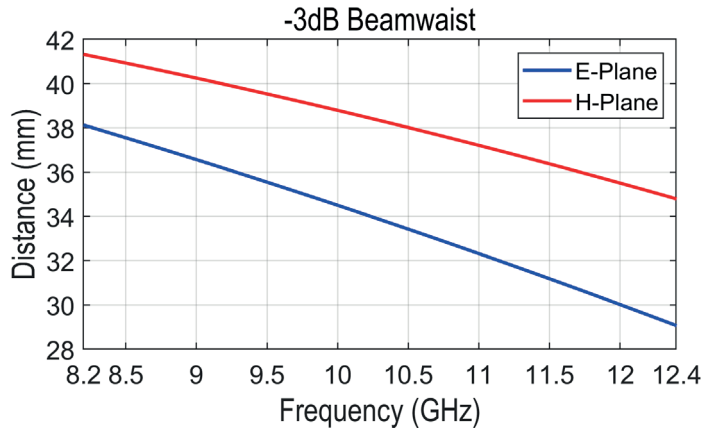
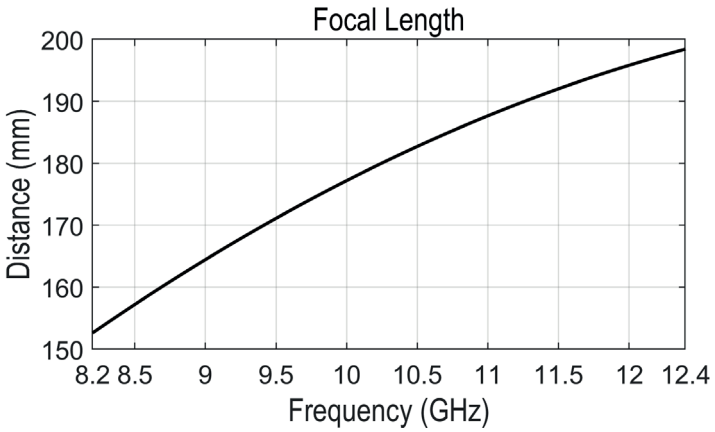
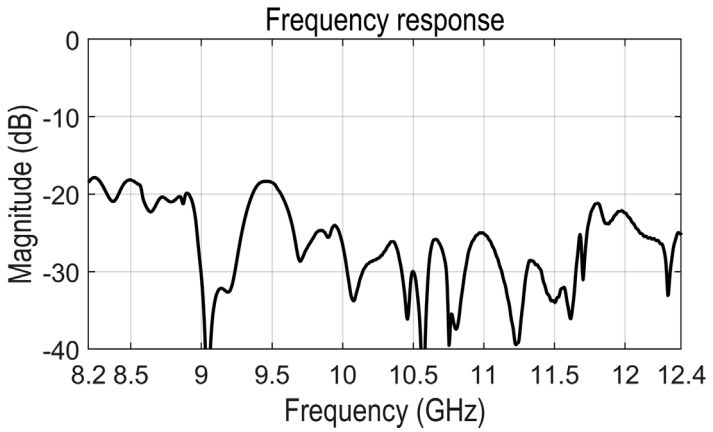
ELECTRICAL SPECIFICATIONS

Parameter	Typical value
Frequency	8.2 - 12.4 GHz
Focal Length	181 mm
3 dB Beamwaist, E-plane	34.40 mm
3 dB Beamwaist, H-plane	38.68 mm
S11	-18 dB







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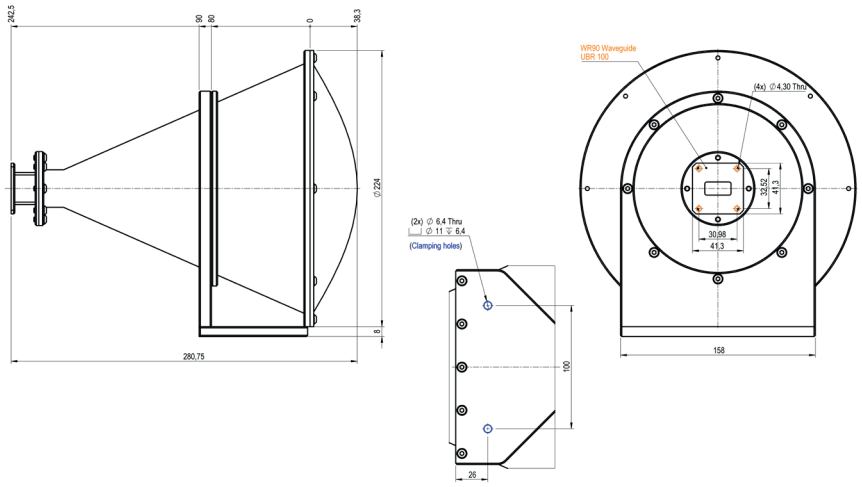
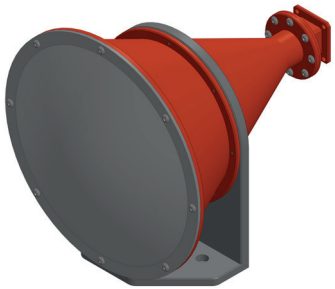
MECHANICAL SPECIFICATIONS

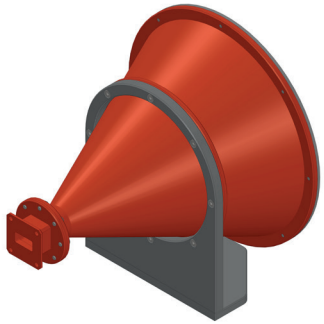
Parameter	Description
Antenna Port*	WR-90 (22.860 mm x 10.160 mm)
Flange	UBR 100
Volume	224 x 232 x 281 mm
Total weight	2600 g
Horn Material	Aluminum
Lens Material	HDPE
External Color	Ruby Red
Surface treatment for antenna	Surtec 650
Surface treatment for bracket	Black anodized

**The antenna includes a rectangular to circular waveguide transition (WR-90 to WC-89)*

MECHANICAL OUTLINE







Additional notes

Focal length, beamwaist and return loss data are simulated. Actual values could vary slightly.
The return loss performance of all items is checked before delivevry.

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