

Ku-Band Focusing Lens Horn Antenna

12.4 to 18 GHz, WR62

DESCRIPTION

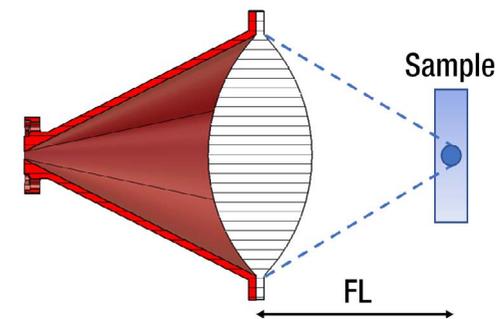
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a **double-convex high-density polyethylene (HDPE) lens** added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The FLHA-F-WR62 model operates at the Ku-band between 12.4 and 18 GHz with a focal length of 133 mm and a diameter beam focus of 23 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.

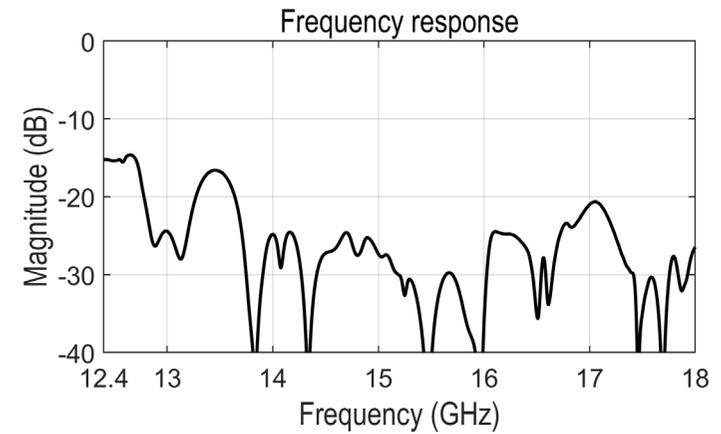
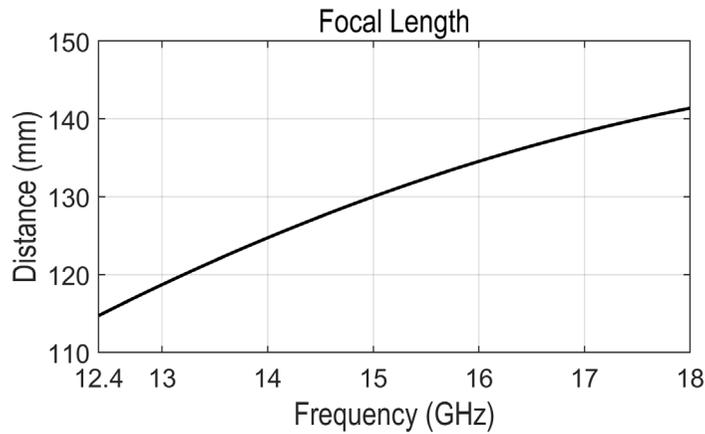
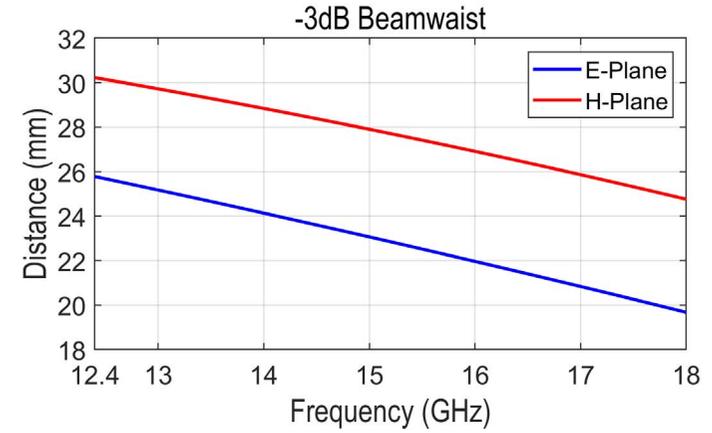
Anteral also offers their **Lens Horn Antennas** with plano-convex lenses to exhibit high gain (>30 dB) in a very compact size which makes them optimal for radar applications, communication links or meteorological systems among others.



ELECTRICAL SPECIFICATIONS

Parameter	Typical value
Frequency	12.4 - 18 GHz
Focal Length	133.75 mm *
3 dB Beamwaist, E-plane	23.33 mm *
3 dB Beamwaist, H-plane	30.07 mm *
S11	-18 dB

*at central frequency

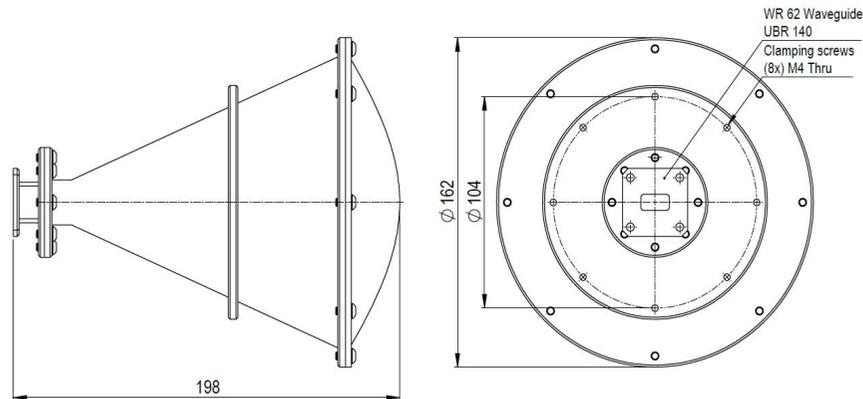


MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port*	WR-62 (15.799 mm x 7.899 mm)
Flange	UBR 140
Total length	198 mm
Total diameter	162 mm
Total weight	861 g
Horn Material	Aluminum
Lens Material	HDPE
External Color	Ruby Red

*The antenna includes a rectangular to circular waveguide transition (WR-62 to WC-89)

MECHANICAL OUTLINE



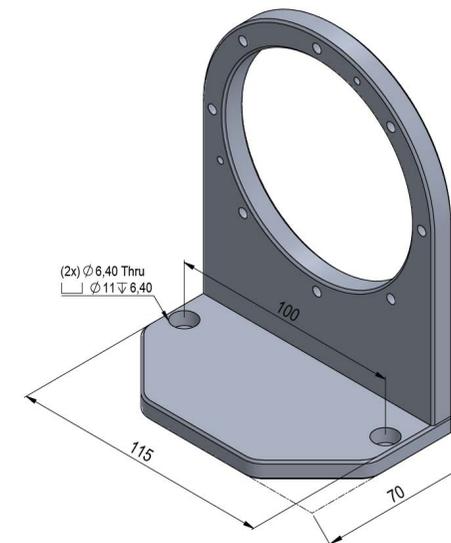
CLAMPING STRUCTURE

Anteral's Lens Horn Antennas are drilled with some threads for clamping purpose. See the mechanical outline.

Anteral also offers clamping structure for the LHA-F-WR62 with the following specifications.

Model	Material	Weight (g)
LHA-F-WR62-CLAMP	Aluminum	350

*The base is drilled with 4 through holes but any custom holes can be added.



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 delivery.

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