Anteral

LHA-F-WR19

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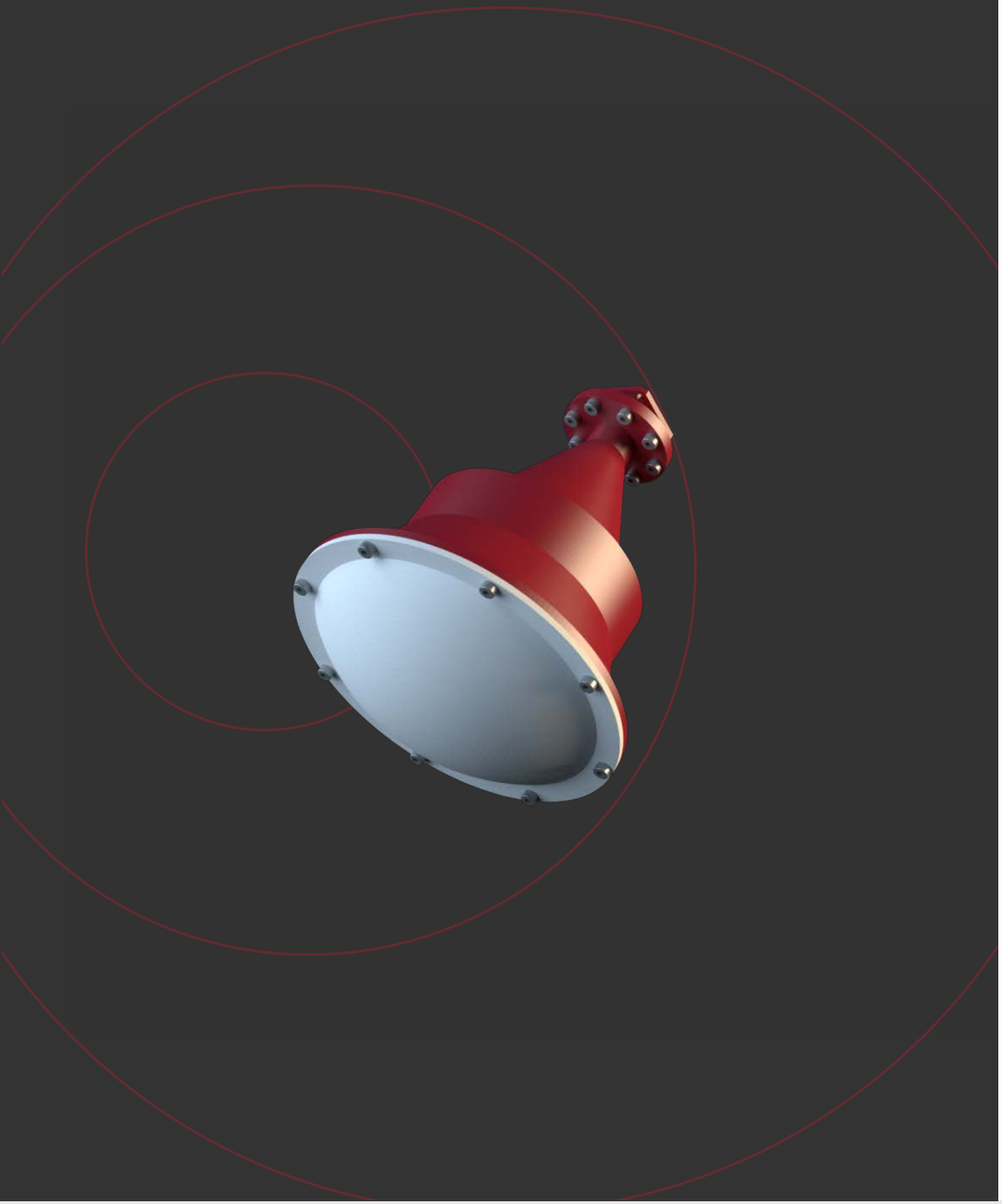


U-Band Focusing Lens Horn Antenna

40 to 60 GHz, WR19

DESCRIPTION

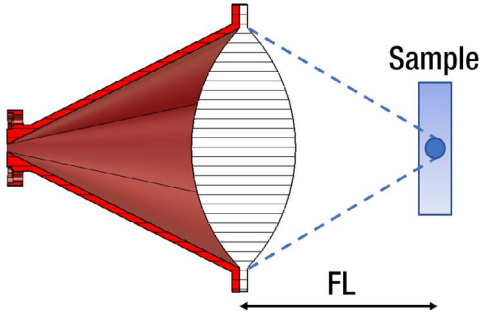
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a **double-convex** Teflon (PTFE) lens added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The FLHA-F-WR19 model operates at the U-band between 40 and 60 GHz with a focal length of 99.2 mm and a diameter beam focus of 9 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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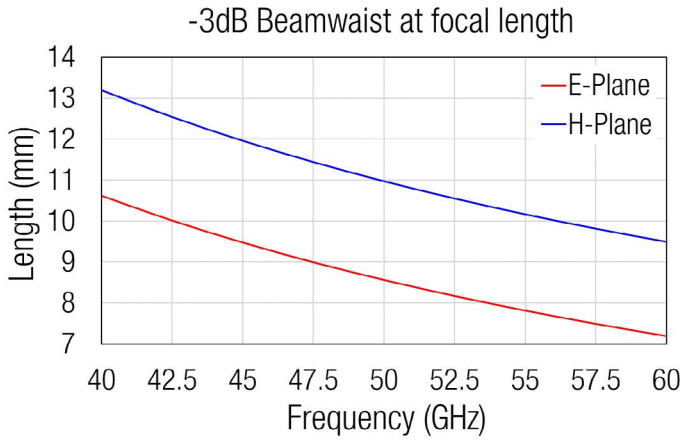
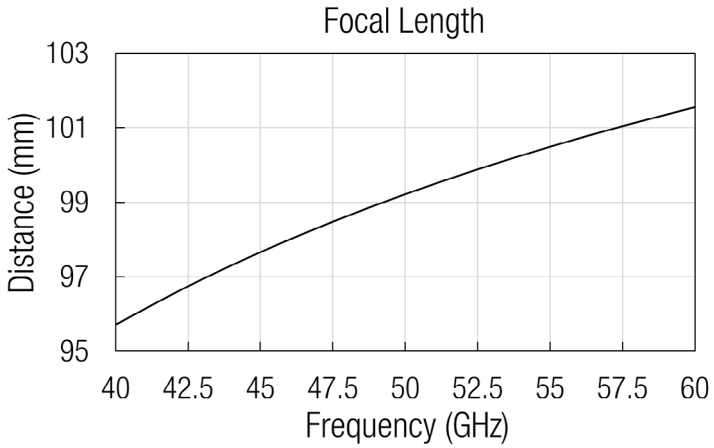
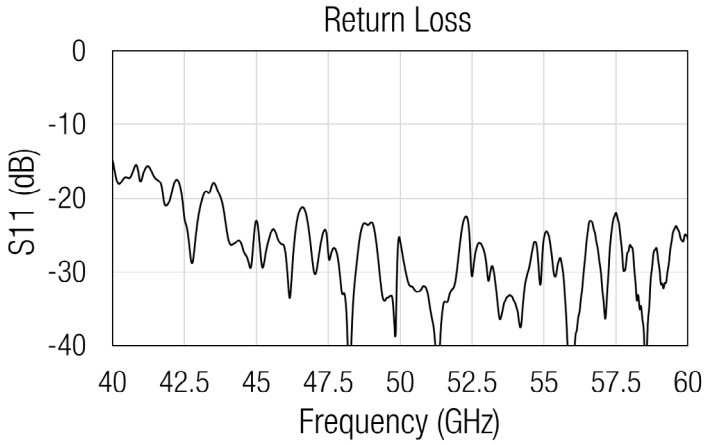
ELECTRICAL SPECIFICATIONS

Parameter	Typical value
Frequency	40 - 60 GHz
Focal Length	99.2 mm
3 dB Beamwaist, E-plane	8.6 mm
3 dB Beamwaist, H-plane	11.0 mm
S11	-18 dB







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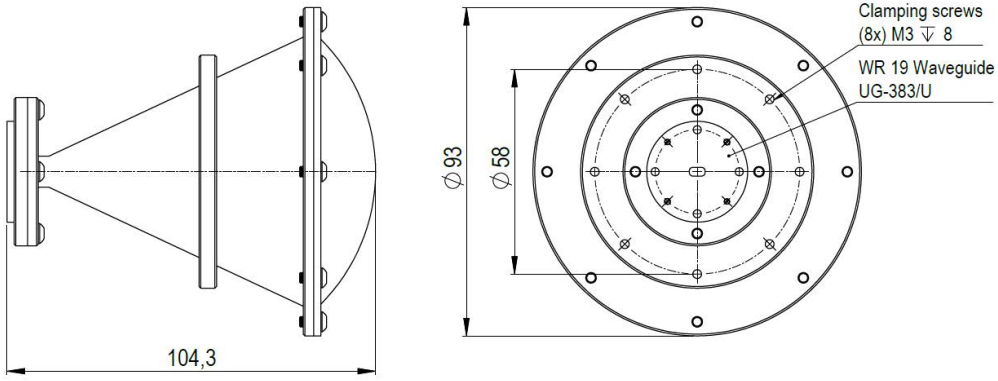
MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port*	WR-19 (4.775 mm x 2.388 mm)
Flange	UG-383/U
Total length	104.3 mm
Total diameter	93 mm
Total weight	320 g
Horn Material	Aluminum
Lens Material	PTFE
External Color	Ruby Red

**The antenna includes a rectangular to circular waveguide transition (WR-19 to WC-430)*

MECHANICAL OUTLINE

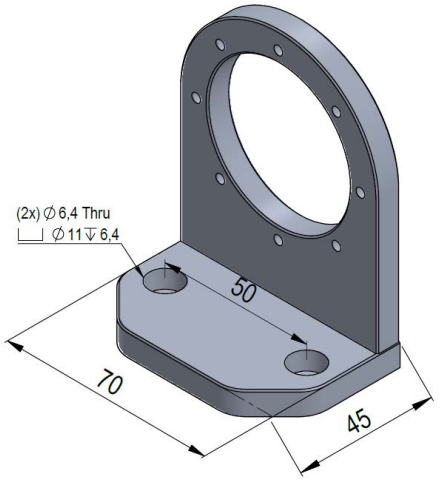


CLAMPING STRUCTURE

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-WR19 with the following specifications.

Model	Material	Weight (g)
LHA-F-WR19-CLAMP	*Aluminum*	125

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



Additional notes

Focal length and beamwaist data are simulated. Return loss data is measured from a sample. Actual values could vary slightly.
The return loss performance of all items is checked before delivery.

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