

Ka-Band Focusing Lens Horn Antenna

26.5 to 40 GHz, WR28

DESCRIPTION

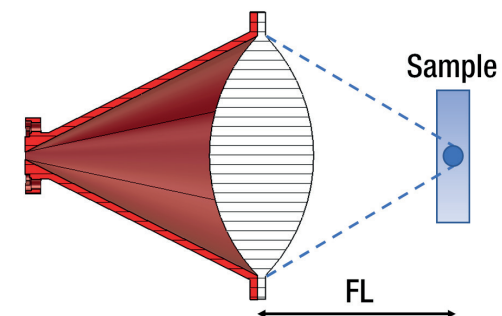
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a double-convex Teflon (PTFE) lens added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The FLHA-F-WR28 model operates at the Ka-band between 26.5 and 40 GHz with a focal length of 146.2 mm and a diameter beam focus of 13 mm.

APPLICATIONS

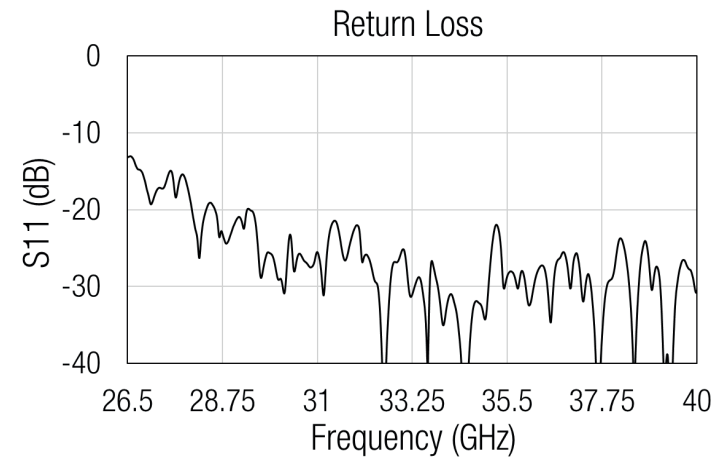
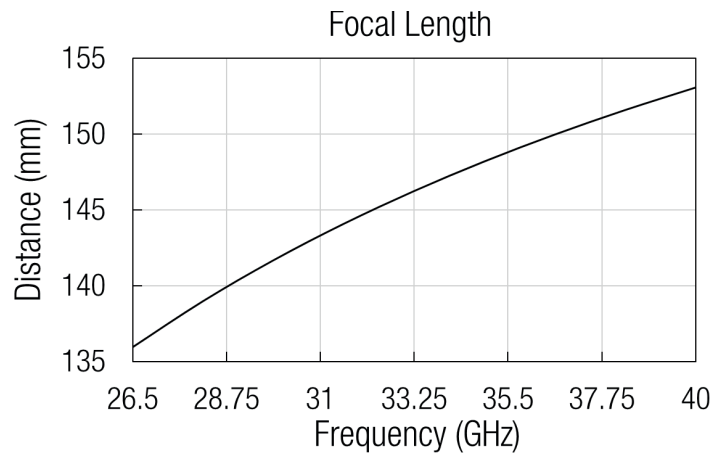
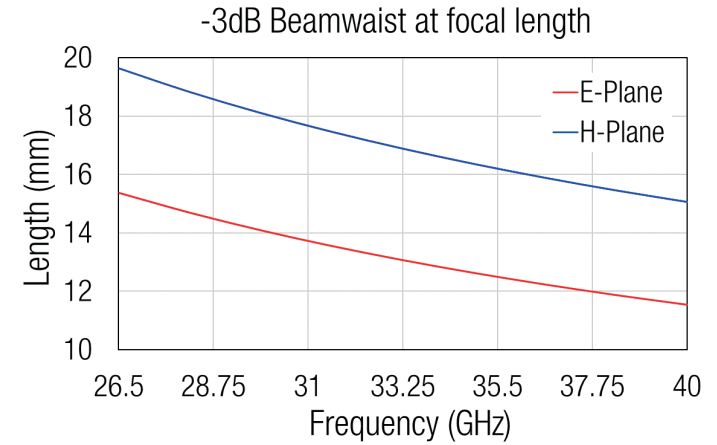
Focusing Lens Horn Antennas are especially useful when focusing beam is required with short focal distances. Therefore, these antennas are widely used in testing and material characterization.

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	26.5 - 40 GHz
Focal Length	146.2 mm
3 dB Beamwaist, E-plane	13.1 mm
3 dB Beamwaist, H-plane	16.9 mm
S11	-18 dB

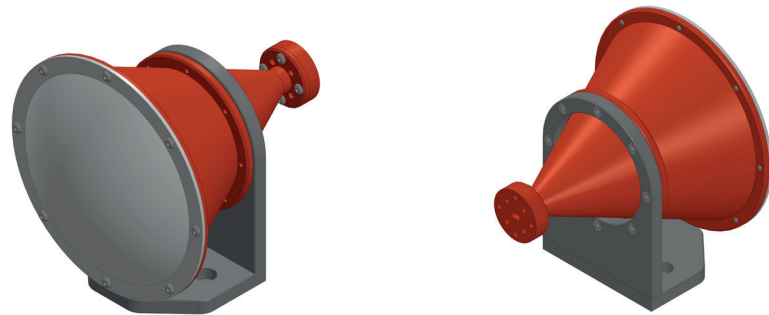
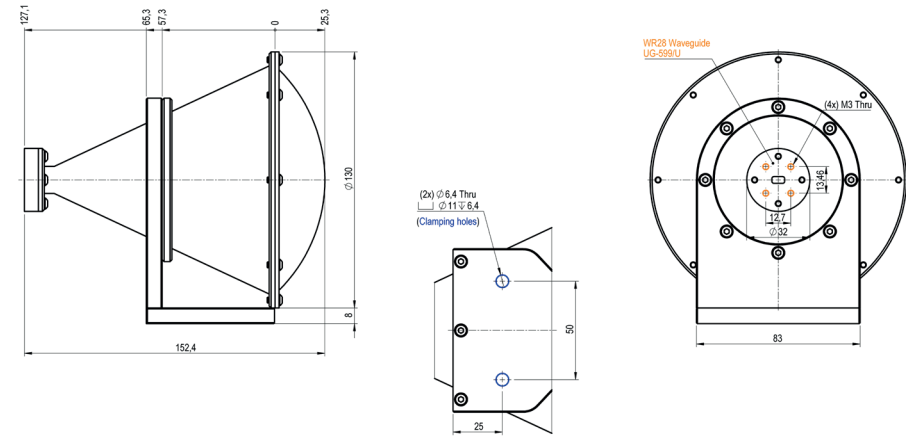


MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port*	WR-28 (7.112 mm x 3.556 mm)
Flange	UG-599/U
Volume	130 x 138 x 152.4 mm
Total weight	1100 g
Horn Material	Aluminum
Lens Material	PTFE
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-28 to WC-290)

MECHANICAL OUTLINE



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. Last version: 07/05/2026

