

K-Band Focusing Lens Horn Antenna

18 to 26.5 GHz, WR42

DESCRIPTION

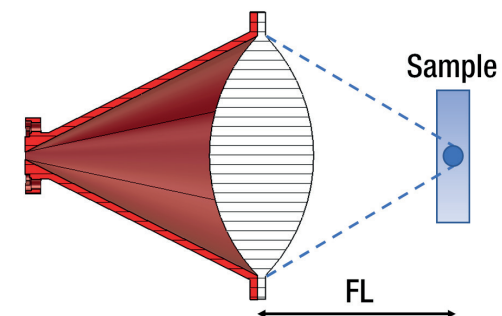
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a double-convex Teflon (PTFE) lens added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The FLHA-F-WR42 model operates at the K-band between 18 and 26.5 GHz with a focal length of 147.5 mm and a diameter beam focus of 18 mm.

APPLICATIONS

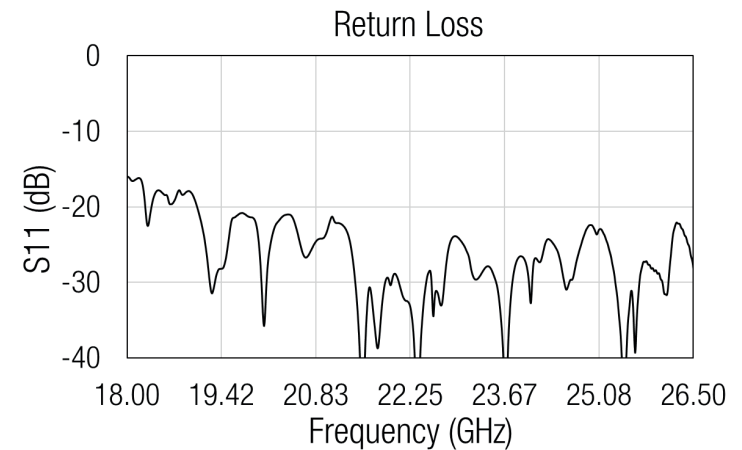
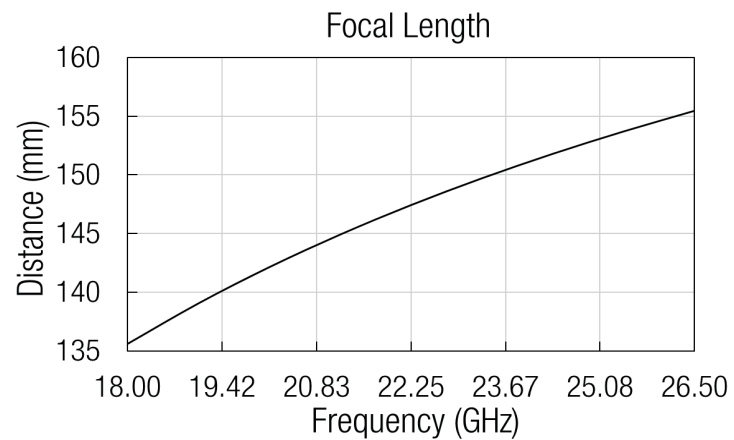
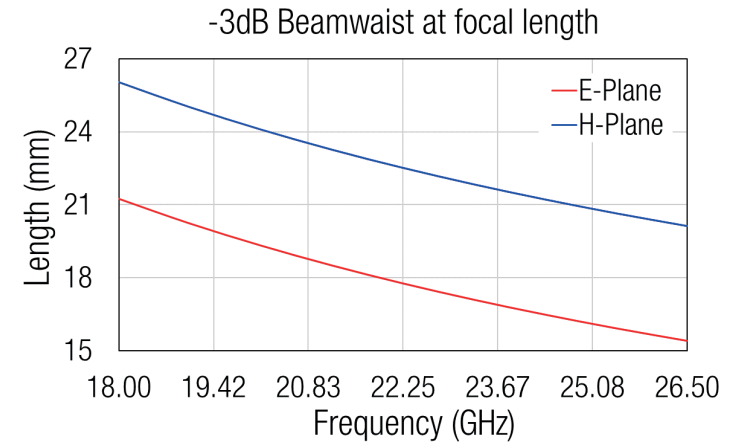
Focusing Lens Horn Antennas are especially useful when focusing beam is required with short focal distances. Therefore, these antennas are widely used in testing and material characterization.

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

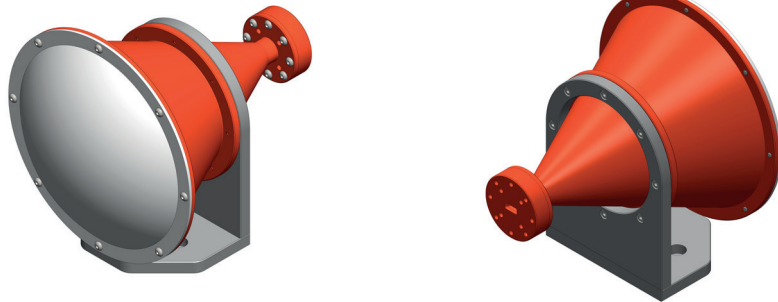
Parameter	Typical value
Frequency	18 - 26.5 GHz
Focal Length	147.5 mm
3 dB Beamwaist, E-plane	17.8 mm
3 dB Beamwaist, H-plane	22.5 mm
S11	-18 dB



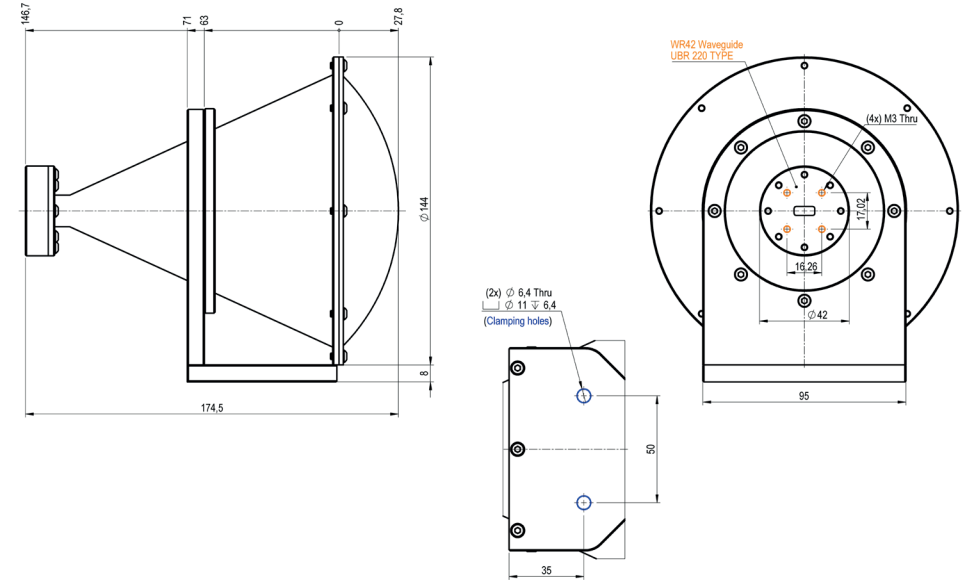
MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port*	WR-42 (10.668 mm x 4.318 mm)
Flange	UBR 220
Volume	144 x 152 x 174.5 mm
Total weight	1400 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-42 to WC-168)



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 delivery.

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