

# D-Band Focusing Lens Horn Antenna

## 110 to 170 GHz, WR06

### DESCRIPTION

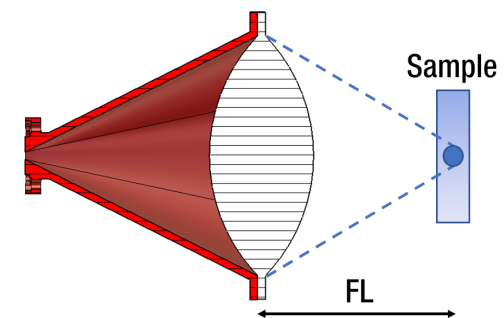
Anteral's Focusing Lens Horn Antennas are conical horn antennas with a **double-convex** Teflon (PTFE) lens added in the aperture, in order to apply phase correction and achieve superior focusing performance with minimum size.

The LHA-F-WR06 model operates at the D-band between 110 and 170 GHz with a focal length of 80 mm and a diameter beam focus of 4.5 mm.

### APPLICATIONS

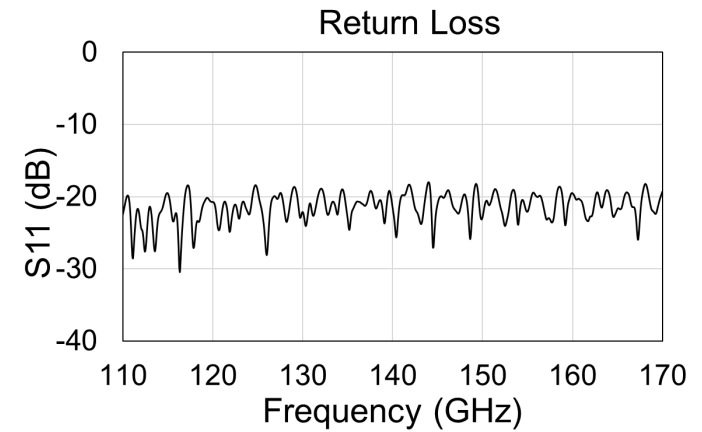
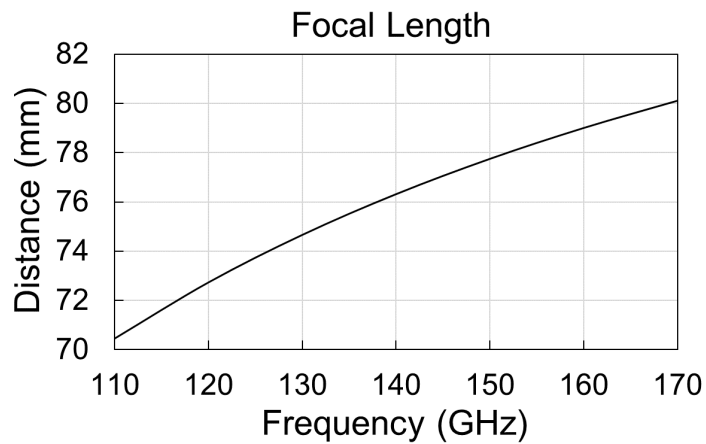
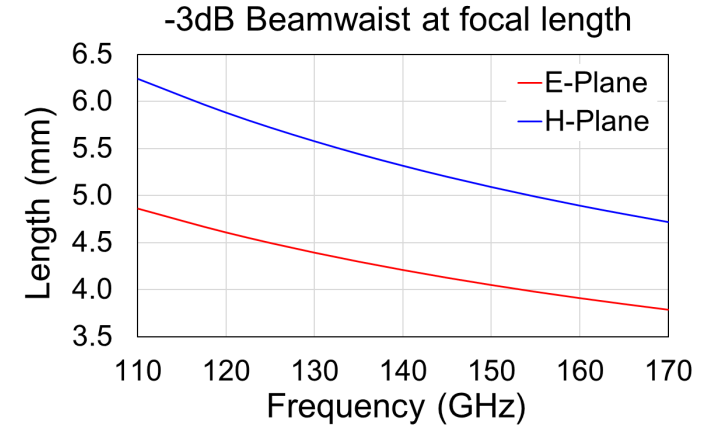
Focusing Lens Horn Antennas are especially useful when focusing beam is required with short focal distances. Therefore, these antennas are widely used in testing and material characterization.

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

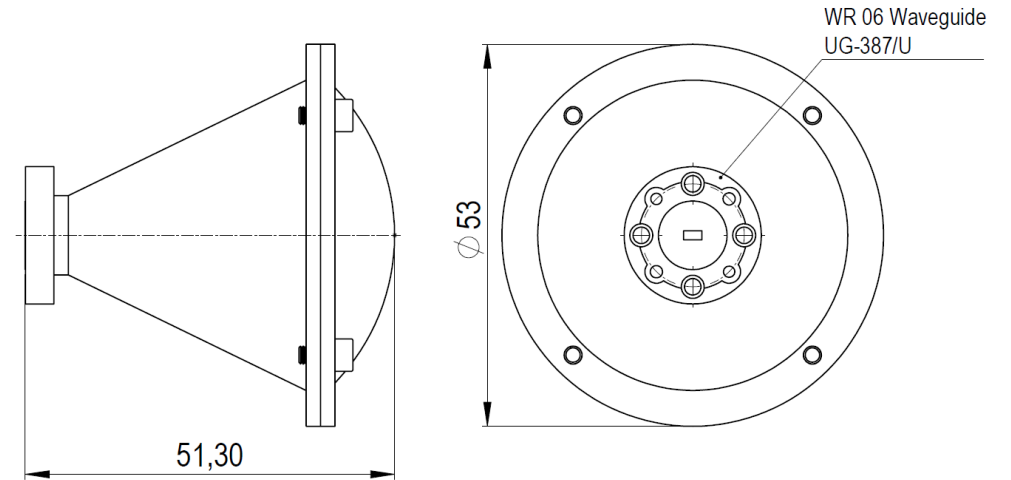
Parameter	Minimum	Typical	Maximum
Frequency	110 GHz	140 GHz	170 GHz
Focal Length	70.5 mm	79.3 mm	80.1 mm
3 dB Beamwaist, E-plane		4.2 mm	
3 dB Beamwaist, H-plane		5.3 mm	
S11		-20 dB	-15 dB



### MECHANICAL SPECIFICATIONS

Parameter	Description
Antenna Port	WR-6.5 (1.651 mm x 0.8255 mm)
Flange	UG-387/U
Total length	51.3 mm
Total diameter	53 mm
Total weight	70 g
Horn Material	Aluminum
Lens Material	PTFE
External Color	Ruby Red

### 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.