

QV-Band Compact Antenna Test Range (CATR)

37.5 - 52.4 GHz, Q/V-Bands, 0.5 dB Axial Ratio

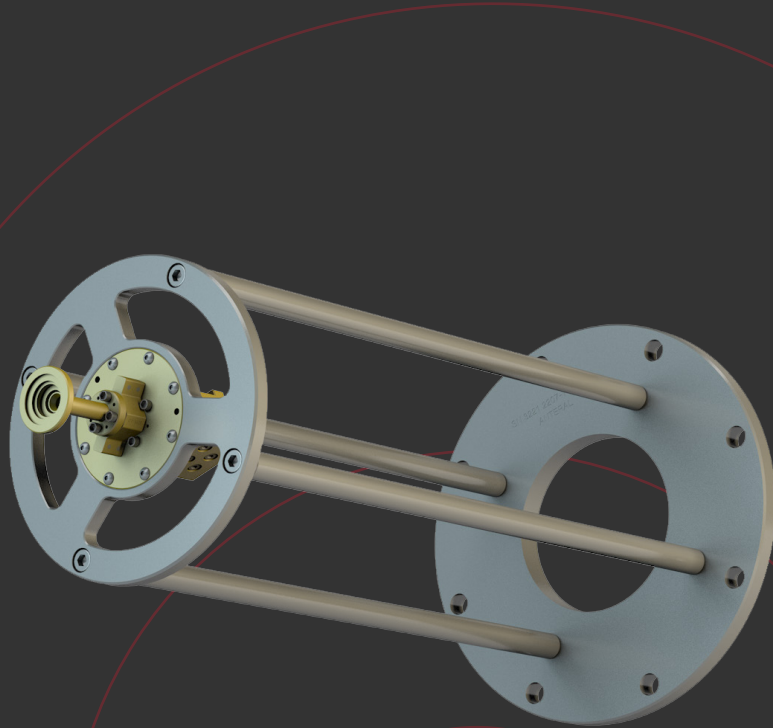
DESCRIPTION

Anteral's Compact Antenna Test Range Feeds (CATR) are systems composed of antenna, polarizer (in case of circular polarization), orthomode transducer and diplexers (in case of four-port configuration). They present low VSWR, high cross-polarization (XP) cancellation and low axial ratio.

CATR systems are completely custom, choosing between linear or circular polarization and two-port or four-port configuration. Moreover, the mechanical design can be adapted to the client requirements in terms of clamping structure.

APPLICATIONS

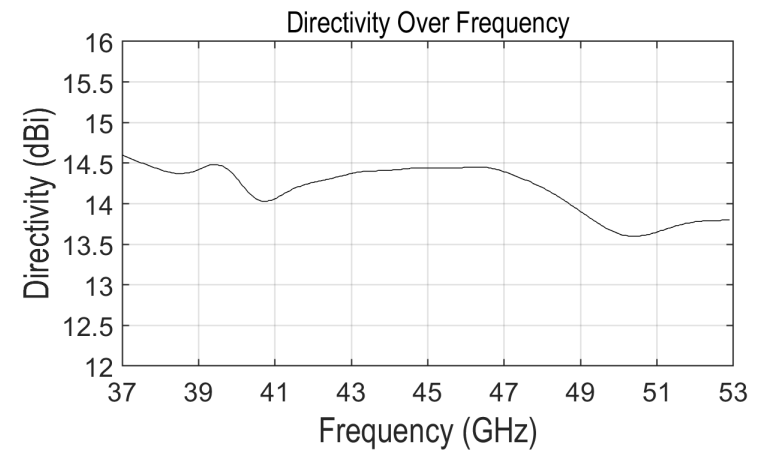
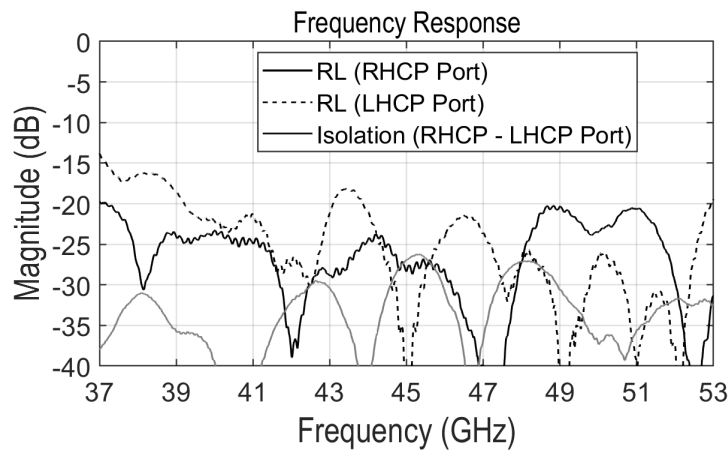
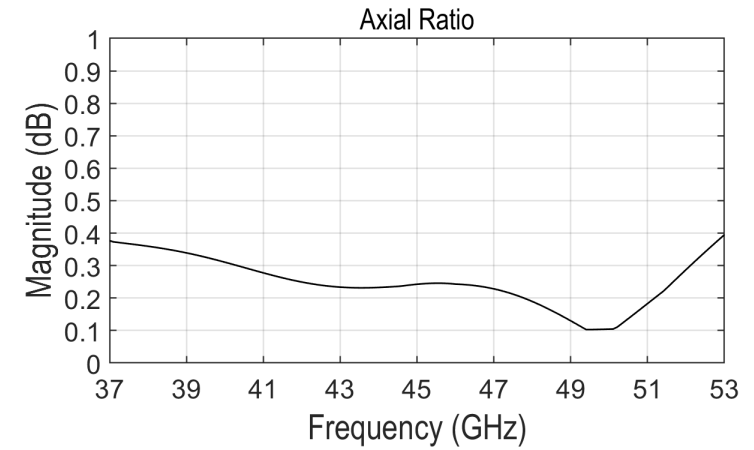
These systems are specially designed for **measurement applications** like testing in anechoic chambers.

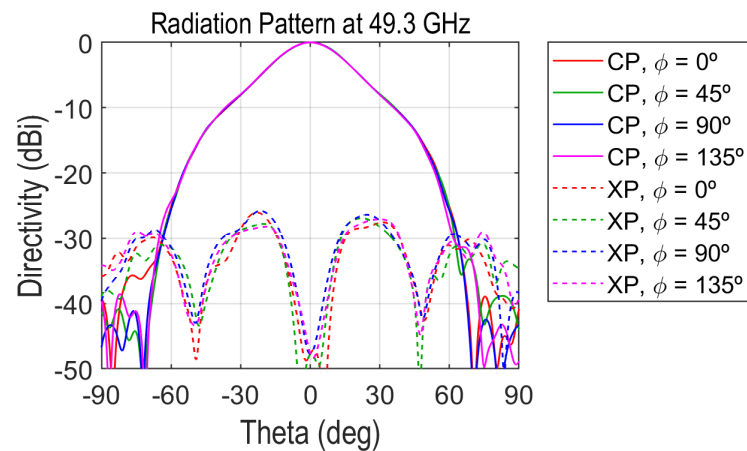
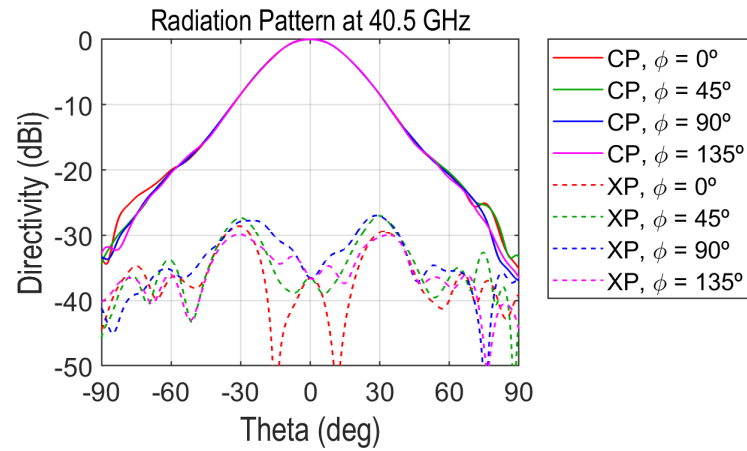


ELECTRICAL SPECIFICATIONS

Parameter	Typical value
Frequency band	37.5 - 52.4 GHz *
Return Loss	17 dB
Isolation between ports	27 dB
Insertion Loss	0.5 dB
Axial Ratio	0.5 dB
Directivity	14.5 dBi
HPBW	32°
XP (9° < X < 9°)	> 27 dB

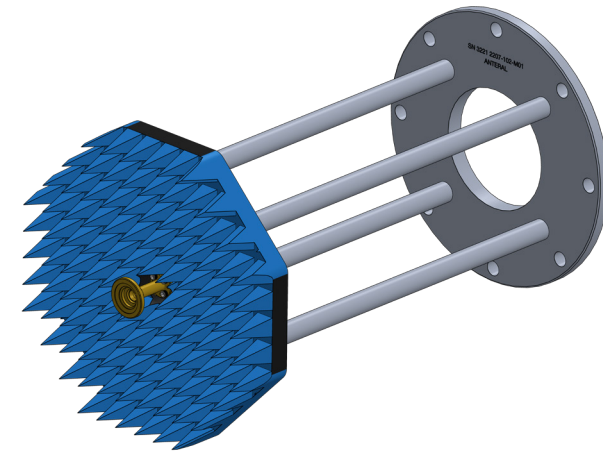
* Optimized for working between 37.5 - 42.5 GHz and 47.2 - 52.4 GHz





MECHANICAL SPECIFICATIONS

Parameter	Description
RHCP Port	WR-19 (4.775 mm x 2.387 mm)
RHCP Flange	UG-383/U
LHCP Port	WR-19 (4.775 mm x 2.387 mm)
LHCP Flange	UG-383/U
Size	200 x 200 x 380 mm
Mass	2000 g
Material	Aluminum/Brass

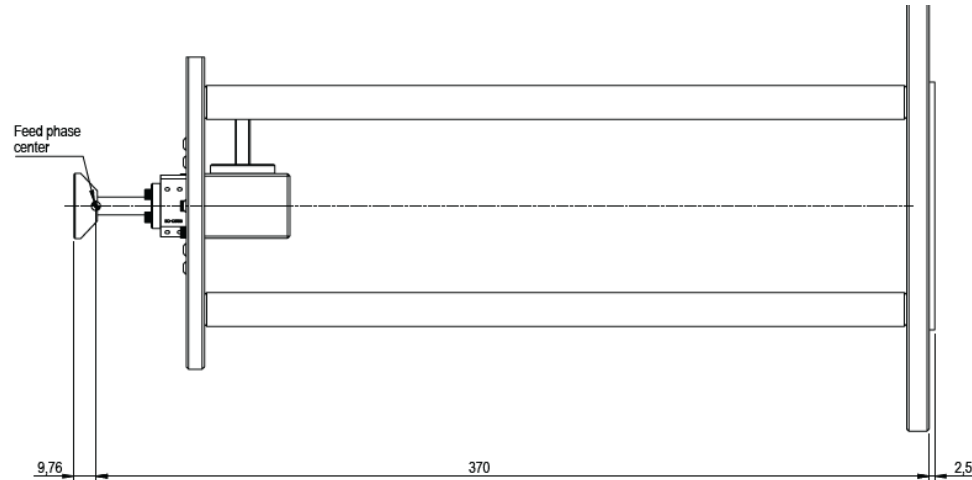


Additional notes

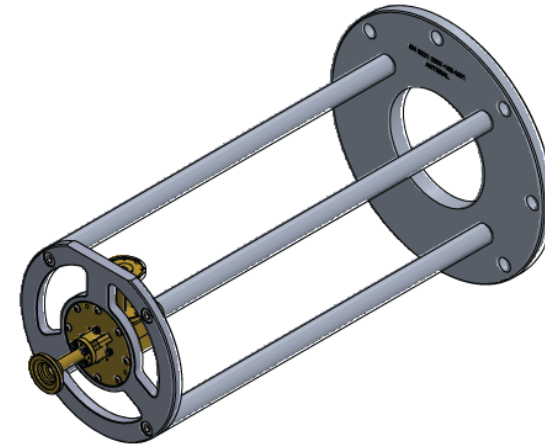
All values are typical measured data, but they could vary slightly.
The complete system is checked before delivery to fulfill specifications.

Last version: 23/01/2023

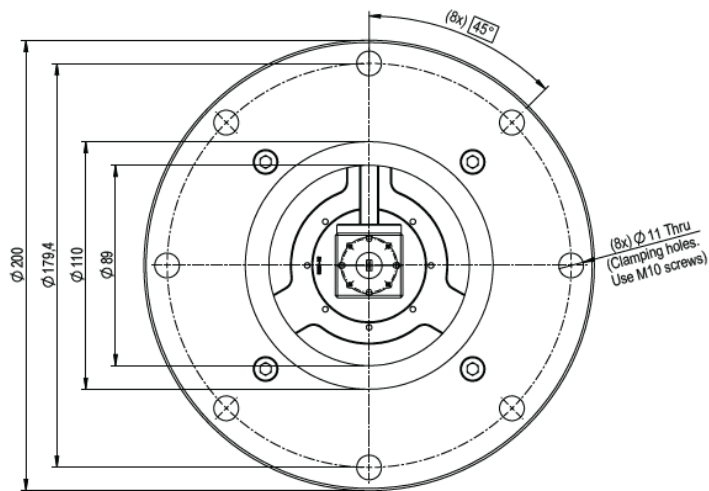
MECHANICAL OUTLINE



A



SCALE 1:3



WR 19 Waveguide
UG 383/U
[RHCP]

WR 19 Waveguide
UG 383/U
[LHCP]

