

Compact Antenna Test Range

From 5 to 90 GHz

DESCRIPTION

Anteral's Compact Antenna Test Range Feeds (CATR) are complete 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.

They are designed to cover the frequency range of 5 to 90 GHz in several bands with 14 dBi nominal mid-band gain, typical VSWR of 1.25 and typical axial ratio below 1 dB.

Besides, custom values can be requested.

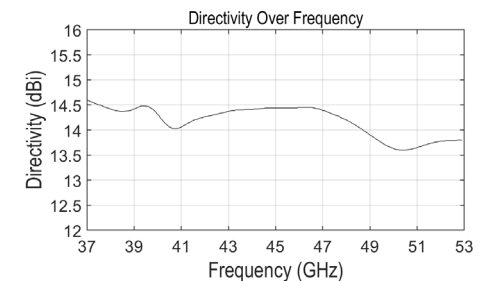
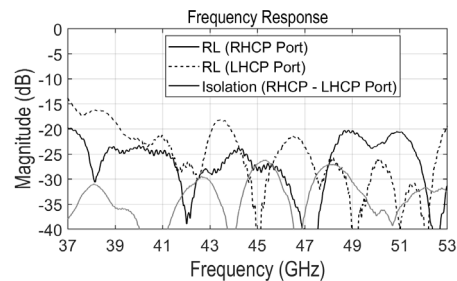
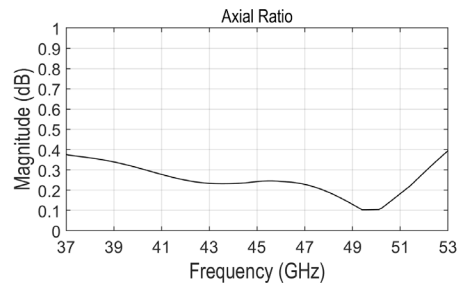
APPLICATIONS

These antennas are widely used for **measurement applications** like in anechoic chambers.

ELECTRICAL SPECIFICATIONS

Model	Frequency (GHz)	VSWR	Gain (dBi)	Polarization	Isolation (Linear/Circular)	Axial Ratio (dB)	XP (dB)	Input Ports
CATR-WR137	5.85 - 8.2	1.15	14	Linear or Circular	45/20	0.4	25	WR-137
CATR-WR112	7.05 - 10	1.15	14	Linear or Circular	45/20	0.4	25	WR-112
CATR-WR90	8.2 - 12.4	1.15	14	Linear or Circular	45/20	0.5	25	WR-90
CATR-WR75	10 - 15	1.15	14	Linear or Circular	45/20	0.5	25	WR-75
CATR-WR62	12.4 - 18	1.15	14	Linear or Circular	40/20	0.5	25	WR-62
CATR-WR51	15 - 22	1.15	14	Linear or Circular	40/20	0.5	25	WR-51
CATR-WR42	18 - 26.5	1.2	14	Linear or Circular	40/20	0.6	25	WR-42
CATR-SAT-KKA-01	17.3 - 31	1.25	14	Linear or Circular	40/20	0.8	25	(WR-42 & WR-28) or 2.92 mm
CATR-SAT-KKA-02	18 - 30	1.25	14	Linear or Circular	40/20	1	25	2.92 mm
CATR-WR34	22 - 33	1.2	14	Linear or Circular	40/20	0.7	25	WR-34
CATR-WR28	26.5 - 40	1.2	14	Linear or Circular	35/20	0.7	25	WR-28
CATR-WR22	33 - 50	1.25	14	Linear or Circular	35/20	0.8	25	WR-22
CATR-SAT-QV-01	37.5 - 52.4	1.3	14	Linear or Circular	35/20	0.5	25	1.85 mm
CATR-WR19	40 - 60	1.25	14	Linear	35/-	-	25	WR-19
CATR-WR15	50 - 75	1.25	14	Linear	35/-	-	25	WR-15
CATR-WR12	60 - 90	1.3	14	Linear	35/-	-	25	WR-12

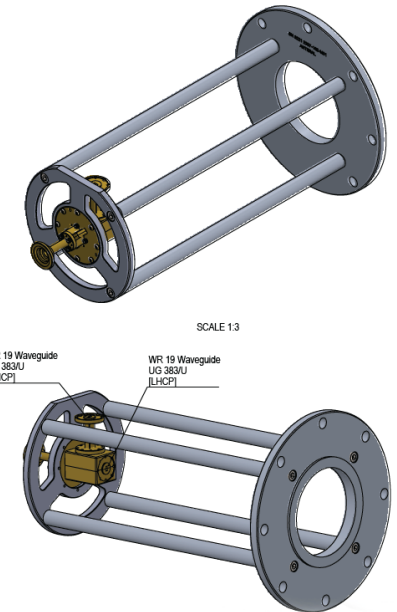
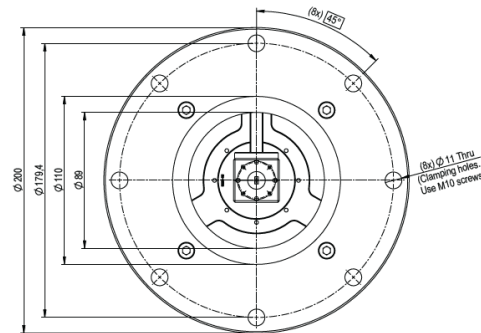
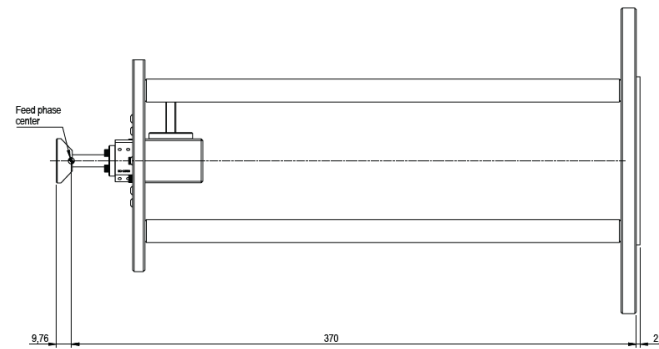
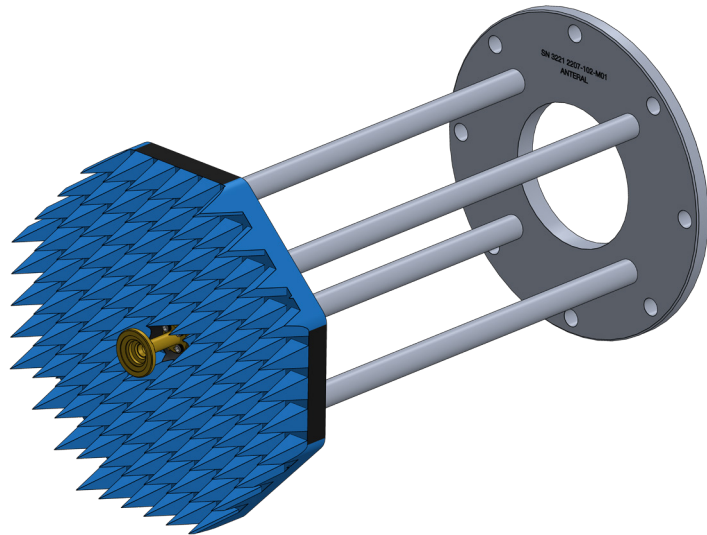
TYPICAL PERFORMANCE



MECHANICAL OUTLINE

Flange	Standard UG-xxx/U or UBR-xxx
Operating temperature	-40°C to +85°C
Absorbent material	Included
Material	Aluminum/Brass

This mechanical outline corresponds to CATR-SAT-QV-01. Rest of models are equivalent but will depend on client requirements in terms of size and clamping structure.



Additional notes

All data are simulated. Actual values could vary slightly. Typical performance corresponds to CATR-SAT-QV-01 measurements. The performance of all items is checked before delivery. Last version: 23/02/2023

