

Probecom Compact Antenna Test Range

CATR products.

Probecom's CATR team has been long time committing to developments of electromagnetic radiation and scattering measurement techniques. We have solved the problem of high precision reflector panel manufacturing, installation and measurement of electrical performance testing etc. Now we have our CATR methods and software. We handle complete CATR technology system and have the capacity to produce our owned large CATR, this fill the domestic blank. We now have a completely independent intellectual property rights in design, optimization, system integration and manufacturing of CATR.

CATR test systems' compositions and technical indicators.

Antenna CATR test system consists of microwave shield darkroom, CATR antenna system, feed system, feed turntable system, antenna test pedestal (bracket) system, microwave signal source, microwave measurement receiver (spectrum analyzer or vector network analyzer), data collection system, data processing and display output equipment, Schematic diagram as shown in fig 1-3.

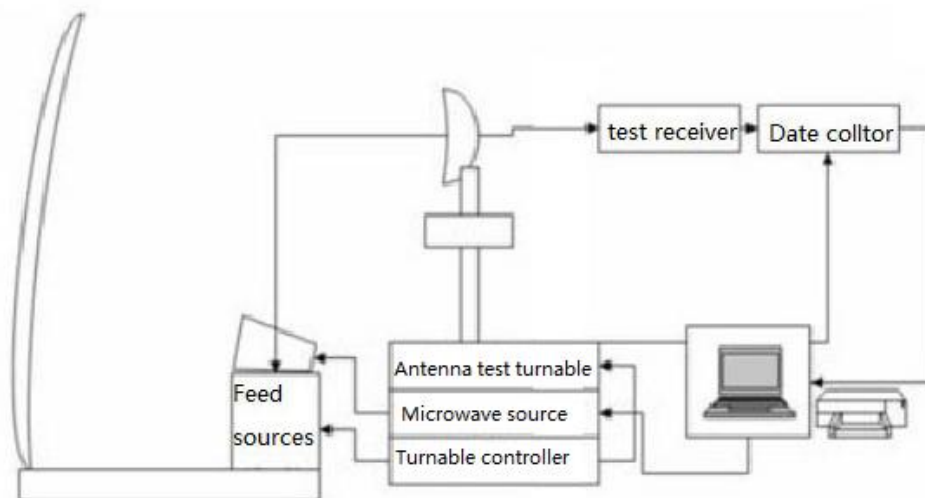


Fig 1 CATR TEST SYSTEM

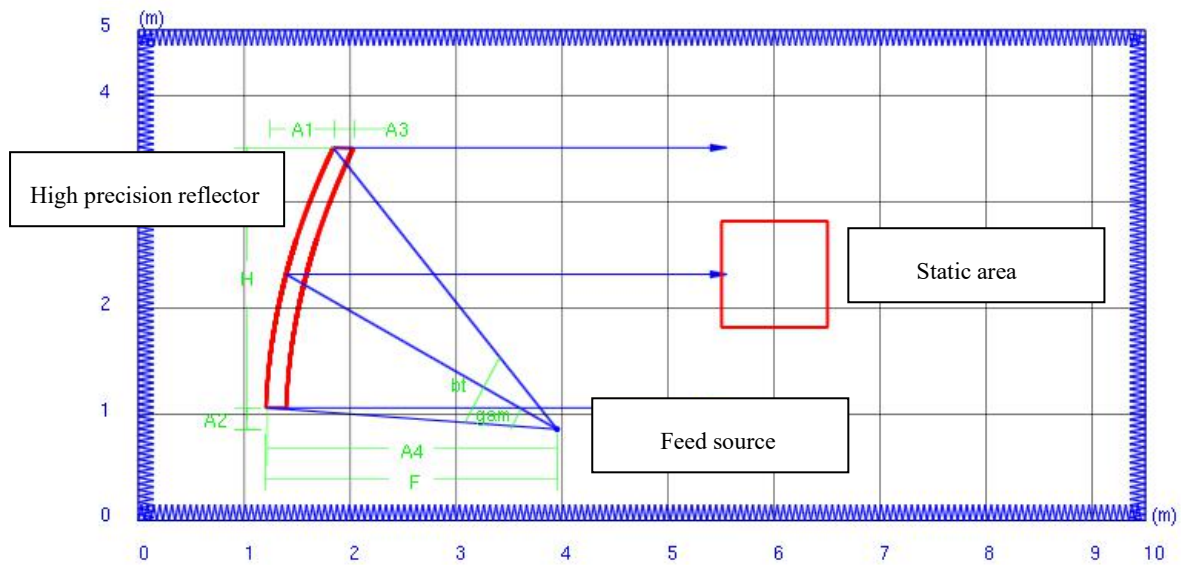


Fig 2 Darkroom

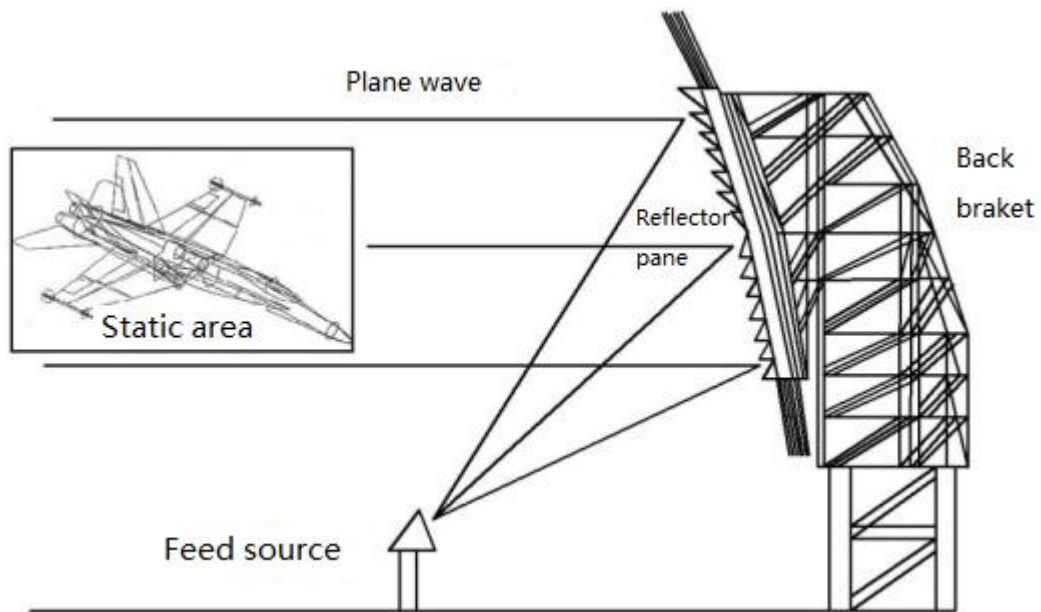


Fig 3 CATR antenna side view

CATR main typical technical indicators:

- a. Work frequency range 1~40GHz.
- b. Polarization mode: horizontal polarization, vertical polarization.
- c. Static area typical technical performance:

Amplitude taper: $< 1\text{dB}$;

Amplitude fluctuation: $< \pm 0.5\text{dB}$;

Phase fluctuation: $< 10^\circ$ (1~18GHz) , $< 20^\circ$ (18~40GHz) ;

Cross Polarization : $< -45\text{dB}$.

Pure area typical performance curve.

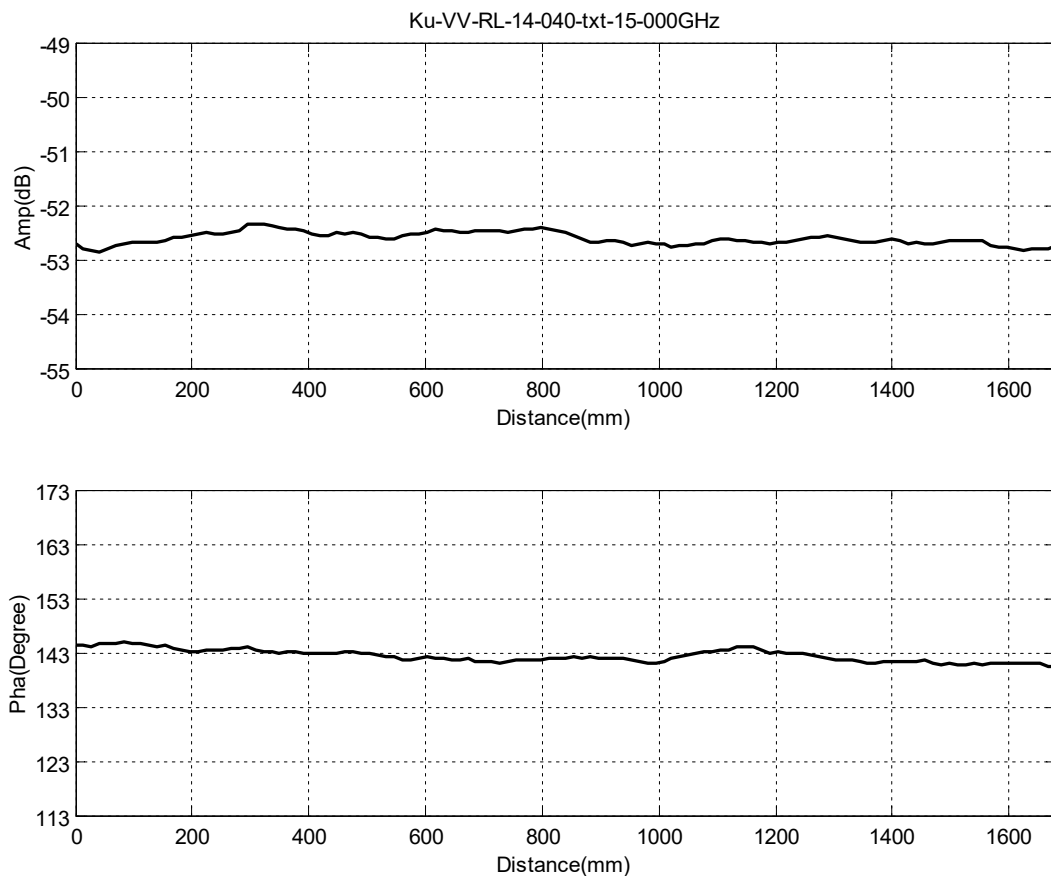


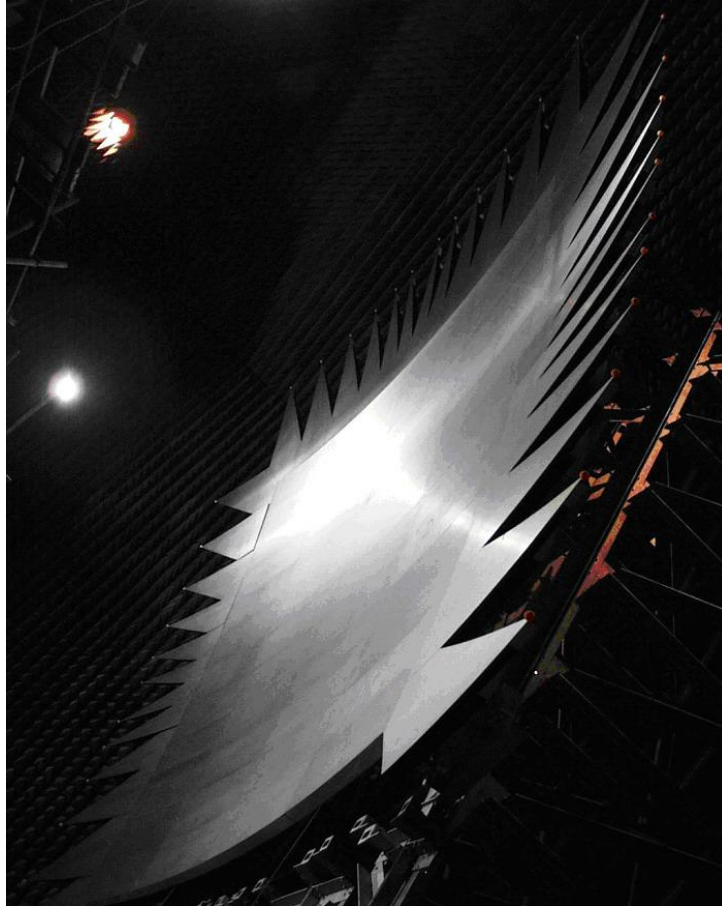
Fig 4 Amplitude distribution of D2015 CTAR pure area

(Polarization VV, Frequency 15GHz, Horizontal line RL)

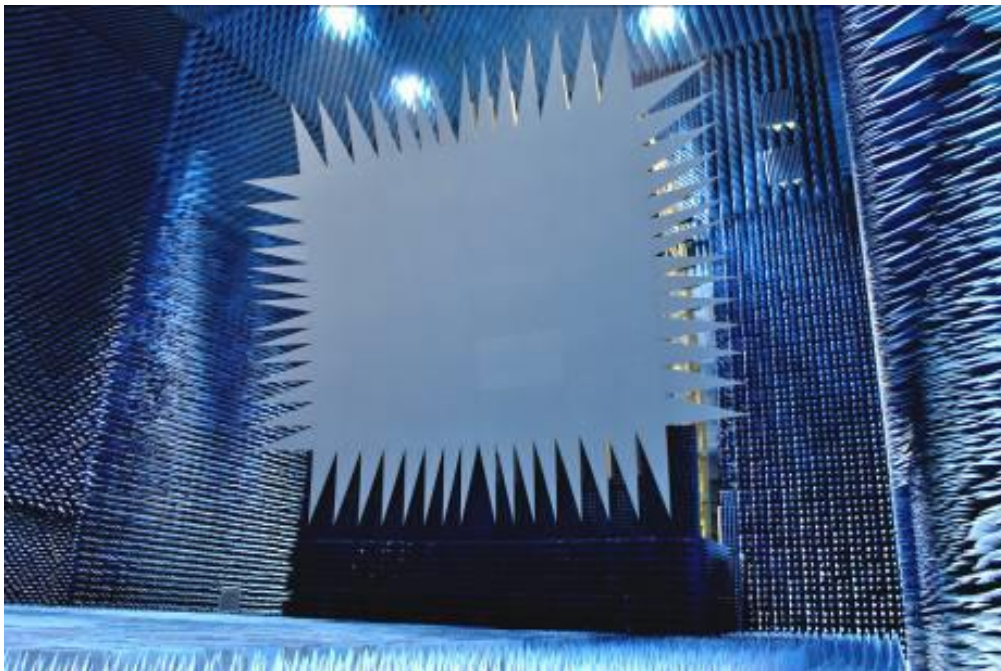
CATR offer an important measure way for the RCS measurement and antenna test of many scientific research units, such as aviation, aerospace, weapons, electronics and navy. In particular, the D2120 with 15m x 8m static area, is currently the world's largest CATR test field, with indicators on top of the world's technical level .

Model:

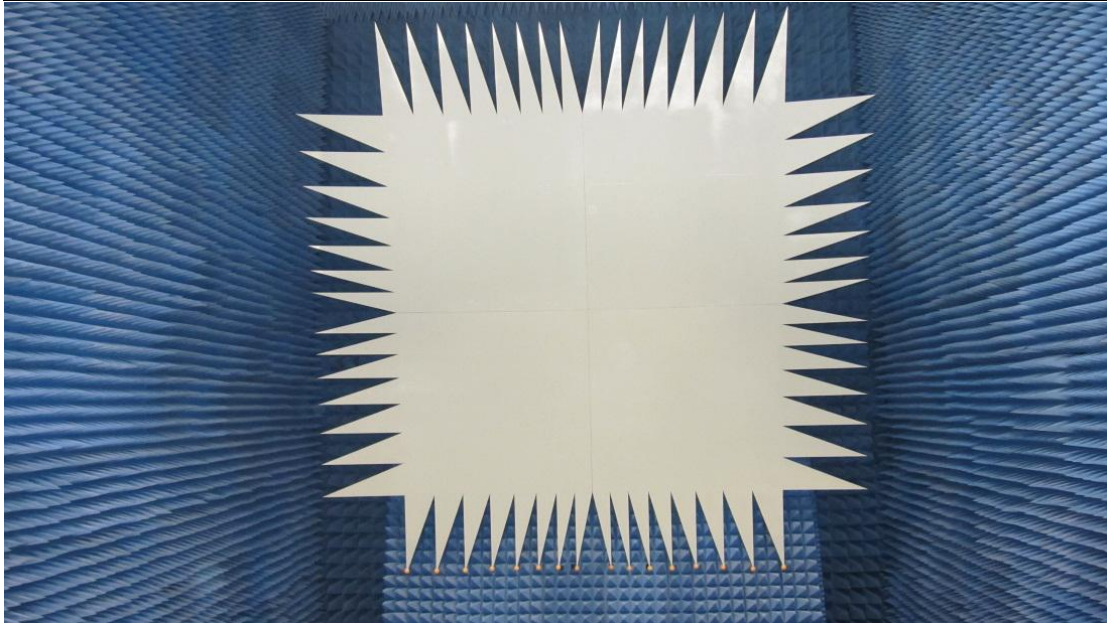
Serial	Model	Static area(M)	Frequency (GHz)	Reflector surface style
1	C2050	5	0.5~40	Double column
2	D2040	4	1~40	Single
3	D2020	2	2~110	Single
4	C2015	1.5	4~110	Double column
5	C2008	0.8	8~40	compensation
6	D2025	2.5	2~300	Single
7	D2012	1.2	8~40	column
8	D2010	1	3~40	Single
9	D2003	0.3	8~18	Single
10	D2060	6	0.5~66	Single
11	D2025	2.5	2~40	Single
12	D2015	1.5	8~40	Single
13	D2020	2	1~40	Single
14	D2060M	6	0.5~66	Single
15	D2120	12	0.5~40	Single
16	D2055	5.5	0.5~40	Single



D2040, Static area 4M, Frequency 1-40 GHz

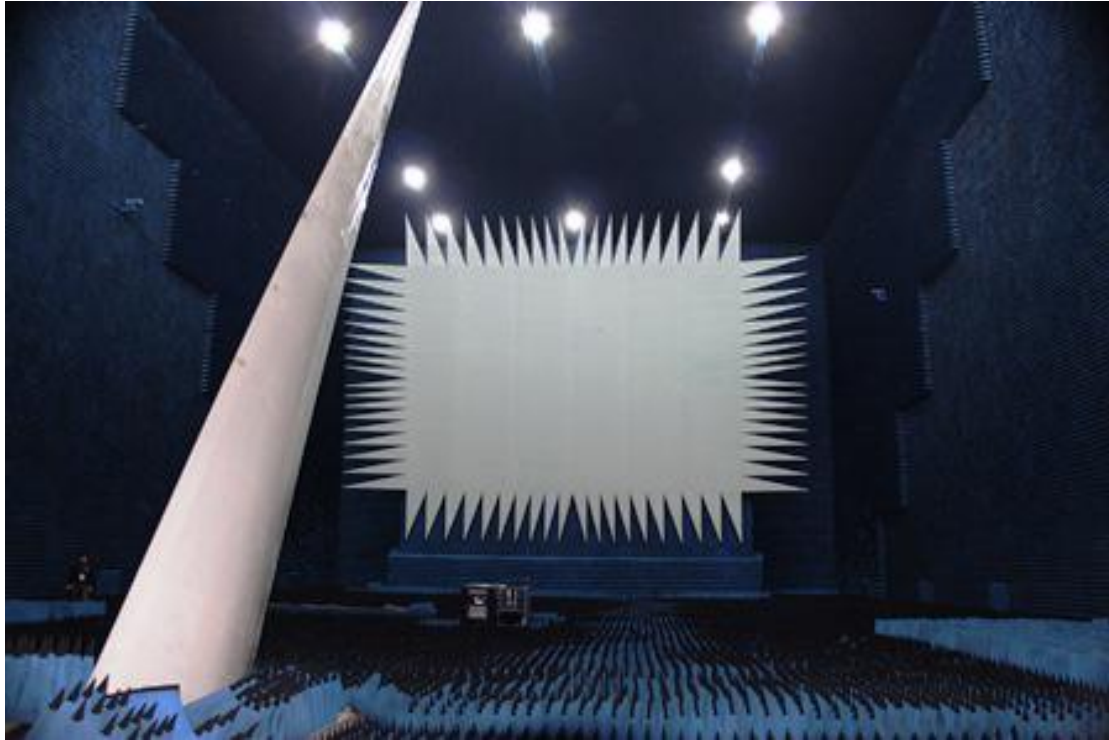


D2060, Static area 6M, Frequency 0.55-66 GHz



D2015, Static area 1.5M, Frequency 8-40 GHz





D2120 Static area 12M, Frequency 0.5-40 GHz



C2050 Static area 5M, Frequency 0.5-40 GHz