CW-ZH-0020

4G/GPS Combined Antenna

Key Features

Frequency: 824-960/1710-2700MHz&1560-1610MHz

SMA Male Connector

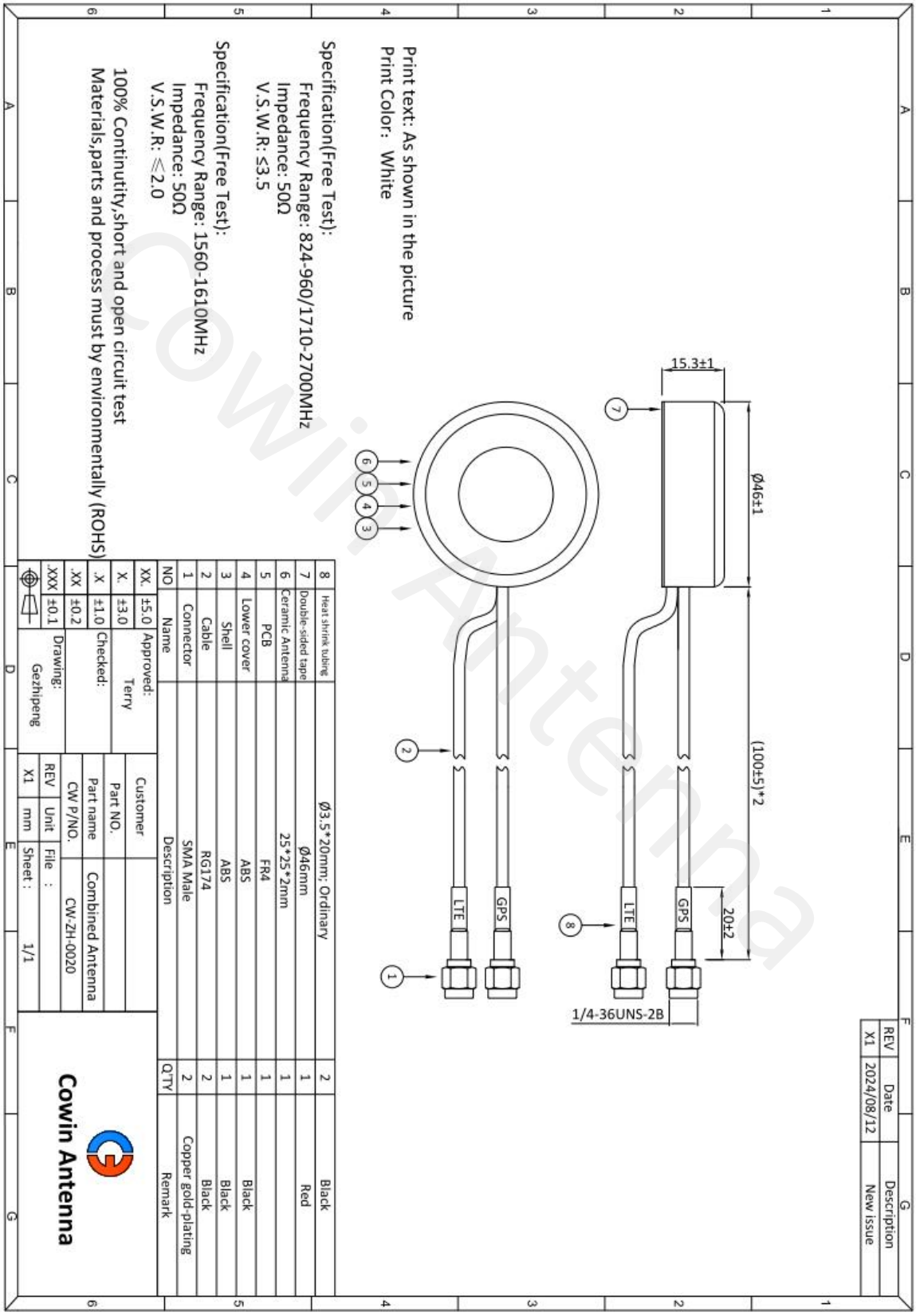
Dimensions: 46*16mm

1. Antenna Electrical Characteristics

	4G
Band (MHz)	
Frequency (MHz)	824-960/1710-2700
VSWR	≤3.5
Efficiency (%)	61.56/58.48
Peak Gain (dBi)	4.35/3.98
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10
Connector Type	SMA Male
	GPS（Active Antenna）
Band (MHz)	
Frequency (MHz)	1560-1610
VSWR	≤2.0
Efficiency (%)	21.1
Peak Gain (dBi)	2.48
	LNA Specification
Gain(dbi)	28
NF(db)	2.59
Impendance (Ohm)	50
Polarisation	RHCP
Max. Input Power (W)	2.5-5
Connector Type	SMA Male

2. Material and environmental characteristics

	4G
External Structure	ABS
Inner Structure	PCB
Cable Type	RG174
Connector Type	SMA Male
Dimensions (mm)	46*16
Antenna Color	Black
Operation Temperature(°)	-40 to +80
Storage Temperature(°)	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS
	GPS（Active Antenna）
External Structure	ABS
Inner Structure	Ceramic antenna
Cable Type	RG174
Connector Type	SMA Male
Dimensions (mm)	46*16
Antenna Color	Black
Operation Temperature	-40 to +80
Storage Temperature	-40 to +80
Antenna Storage life(year)	10
Substance Compliance	ROHS



4. Antenna test parameters

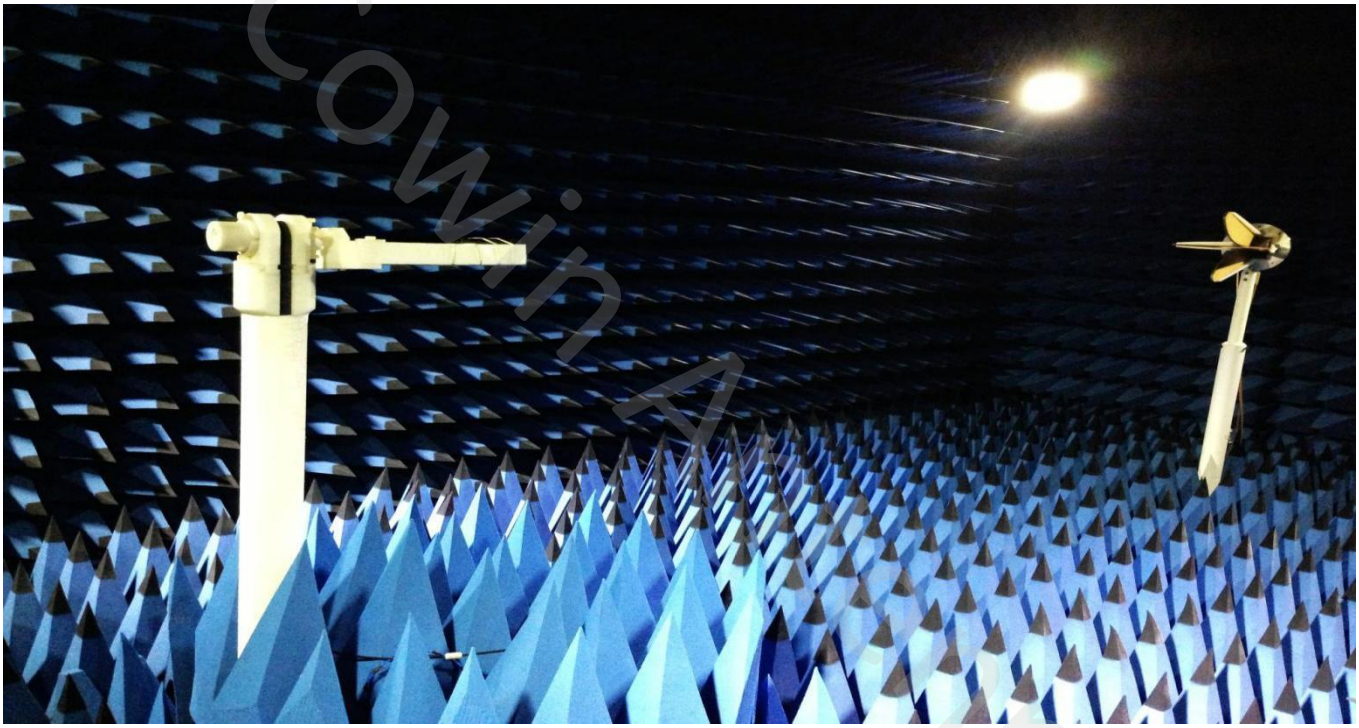
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

Measured in Certified 3D Anechoic Chamber

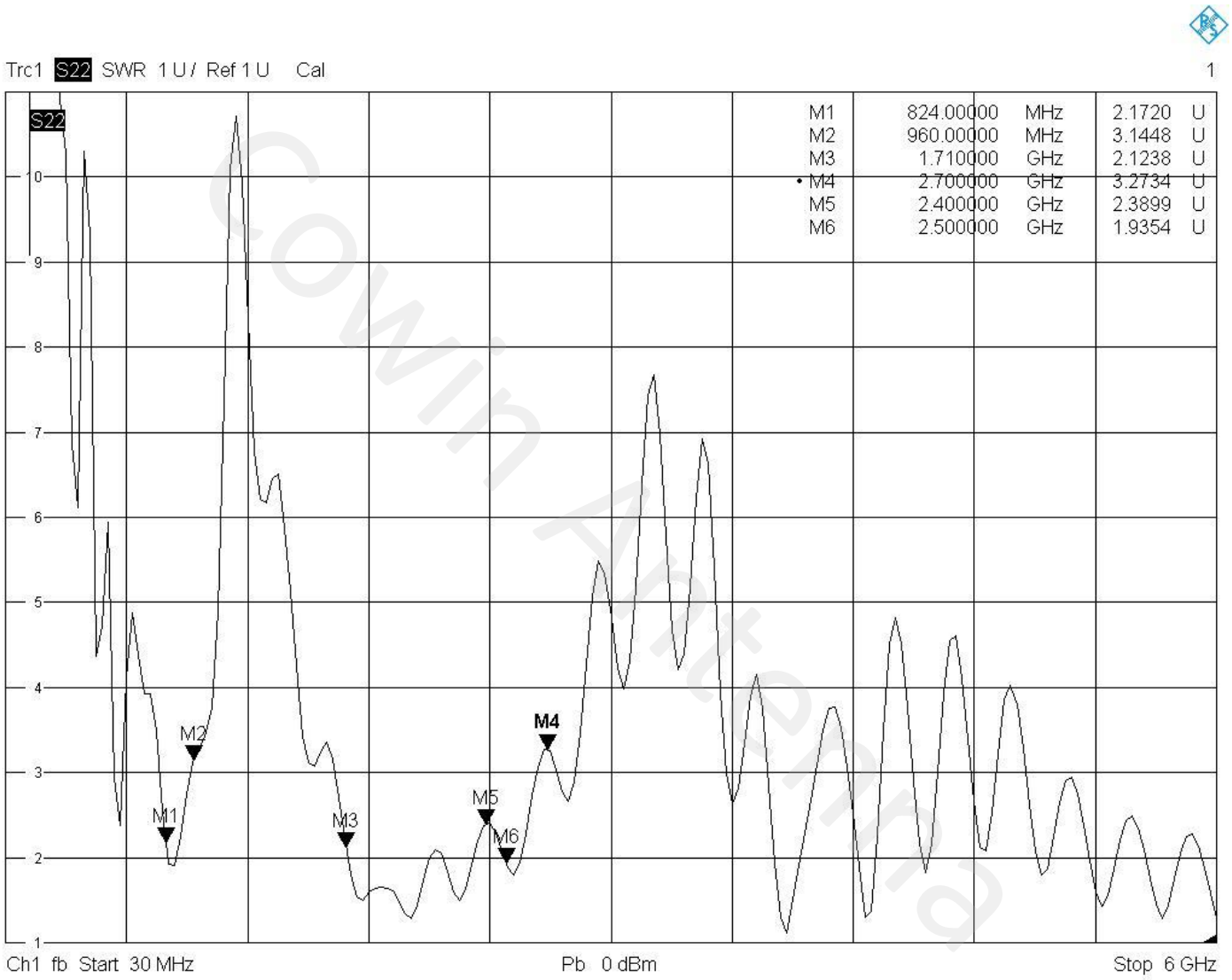
The network analyzer is Agilent 5071c

The comprehensive tester is Agilent cmv500

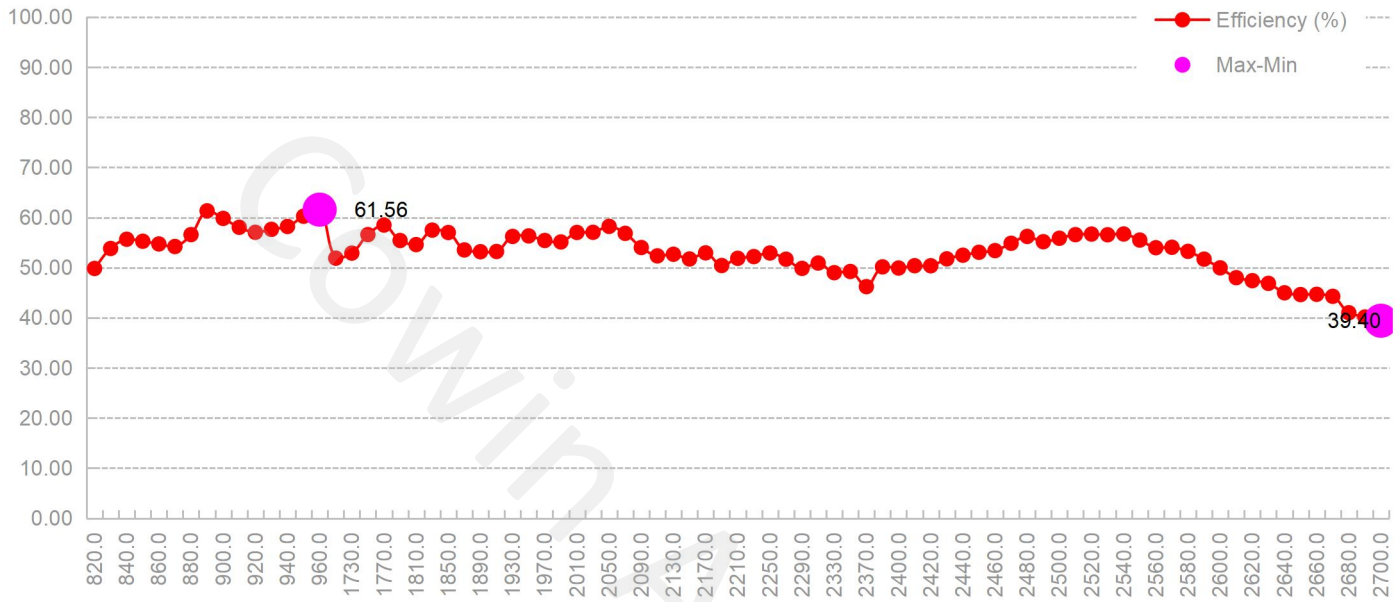


4.1 4G

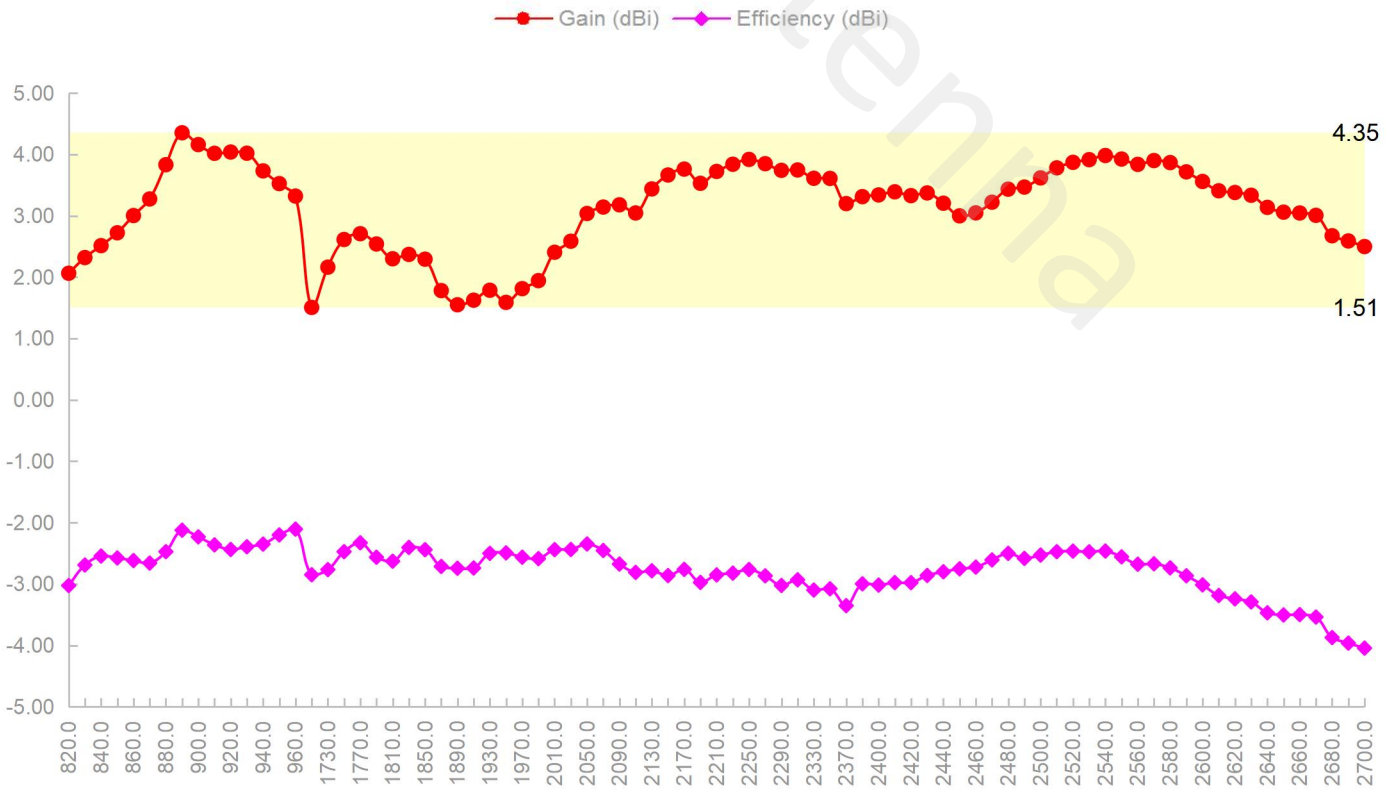
4.1.1 VSWR



4.1.2 Efficiency



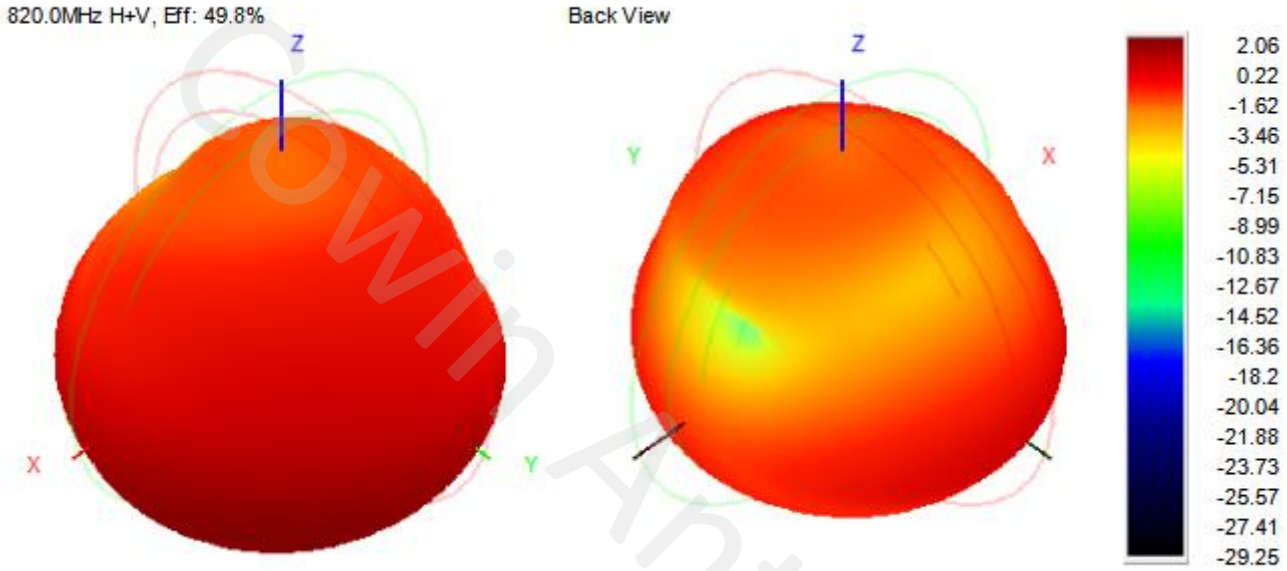
4.1.3 Peak gain

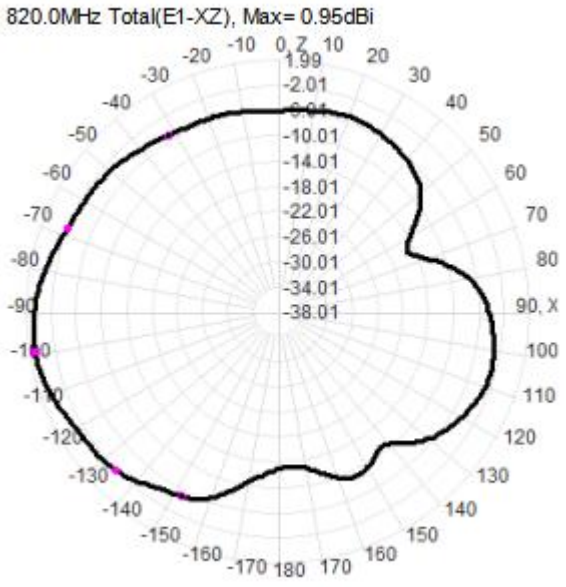


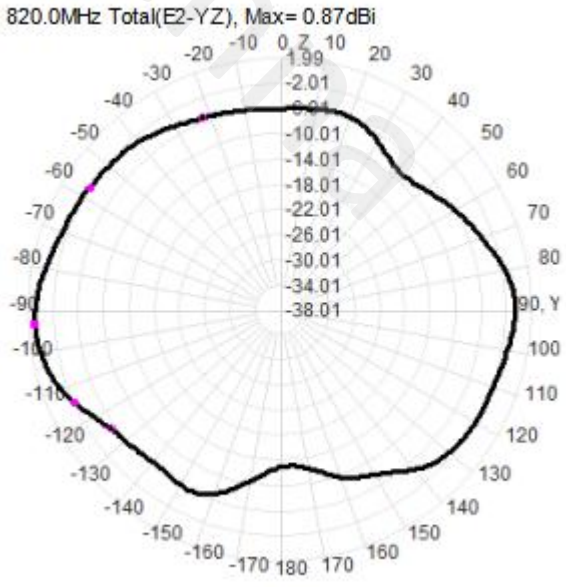
4.1.4 Data summary

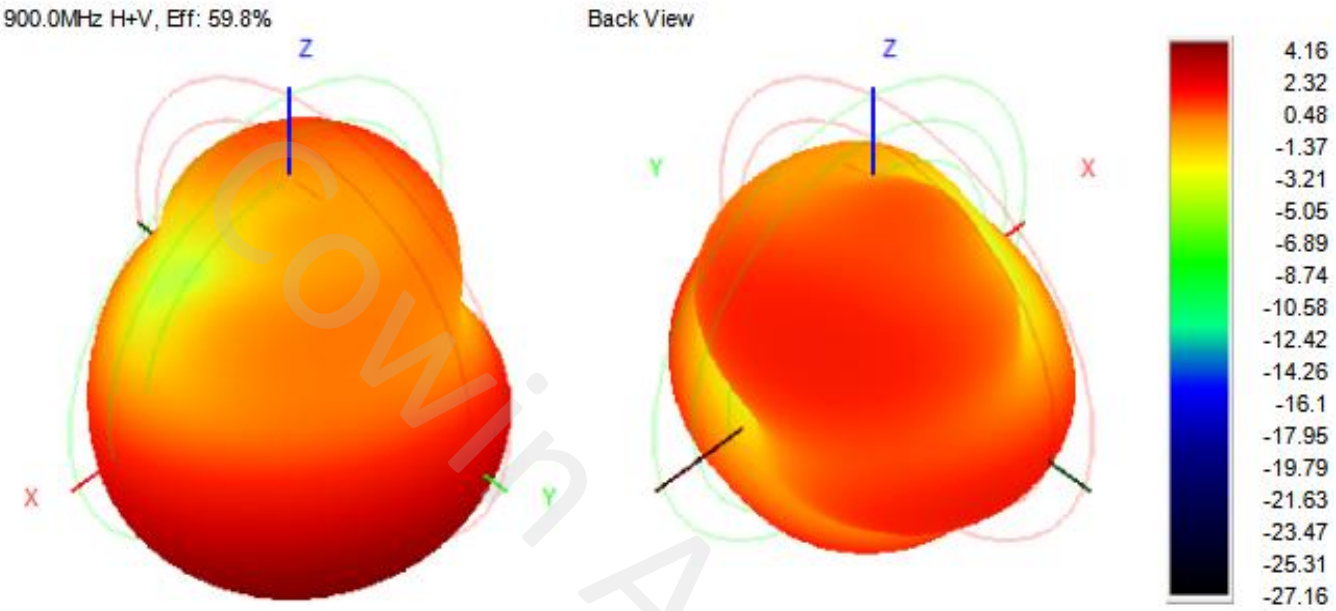
Frequency (MHz)	Gain (dBi)	Efficiency (%)
820.0	2.06	49.83
850.0	2.72	55.26
880.0	3.83	56.58
910.0	4.02	58.04
940.0	3.73	58.20
960.0	3.32	61.56
1710.0	1.51	51.88
1750.0	2.61	56.58
1790.0	2.54	55.40
1830.0	2.37	57.47
1870.0	1.78	53.52
1910.0	1.62	53.21
1950.0	1.59	56.32
1990.0	1.94	55.12
2030.0	2.59	57.04
2070.0	3.14	56.83
2110.0	3.05	52.34
2150.0	3.66	51.72
2190.0	3.53	50.41
2230.0	3.84	52.19
2270.0	3.85	51.67
2310.0	3.75	50.90
2350.0	3.61	49.23
2390.0	3.31	50.15
2430.0	3.37	51.75
2470.0	3.22	54.85
2510.0	3.78	56.57
2550.0	3.92	55.49
2590.0	3.72	51.69
2630.0	3.33	46.85
2670.0	3.01	44.27
2690.0	2.59	40.14
2700.0	2.50	39.40

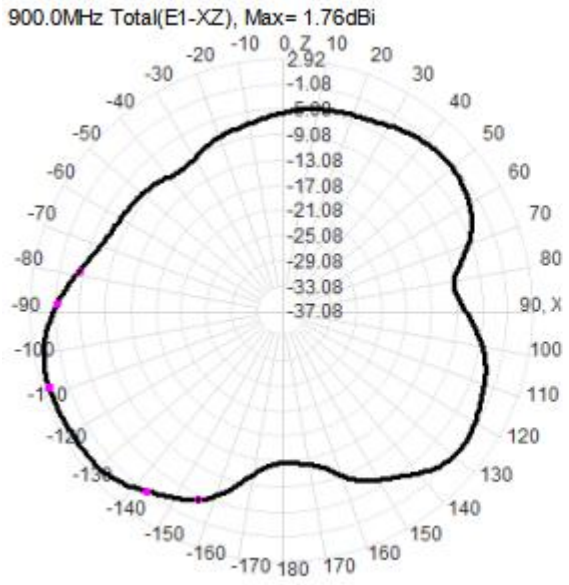
4.1.5 3D&2D Radiation Patterns

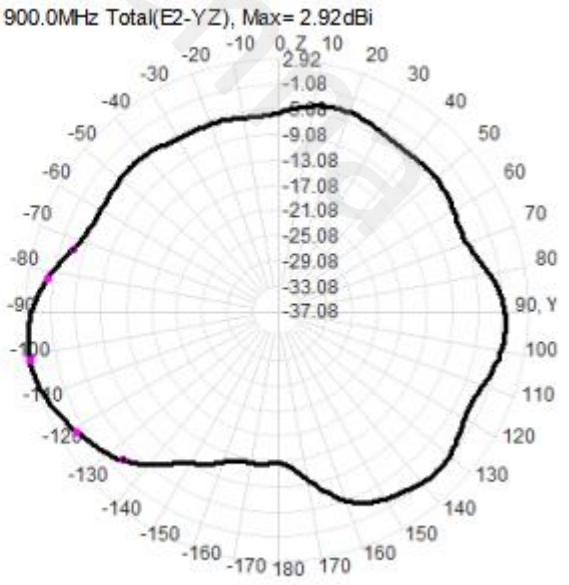


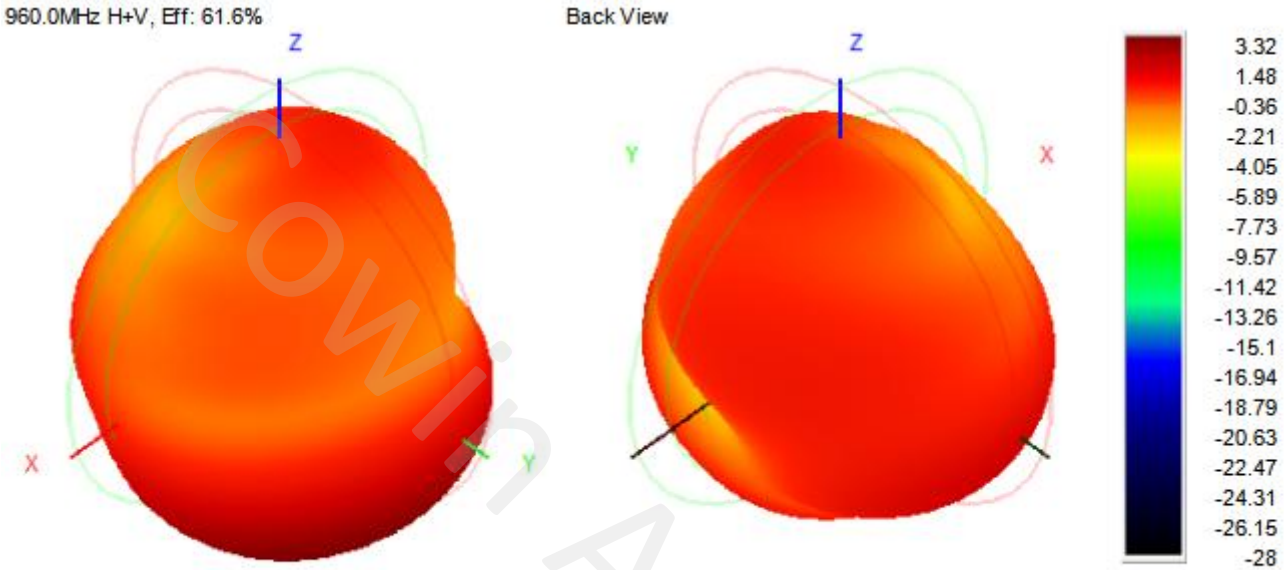


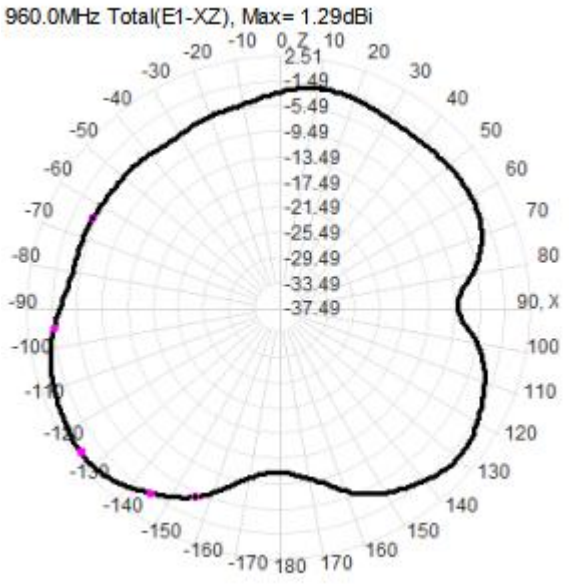


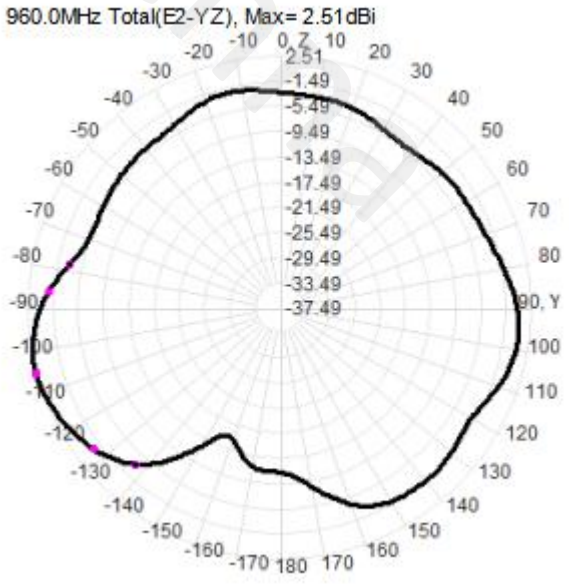


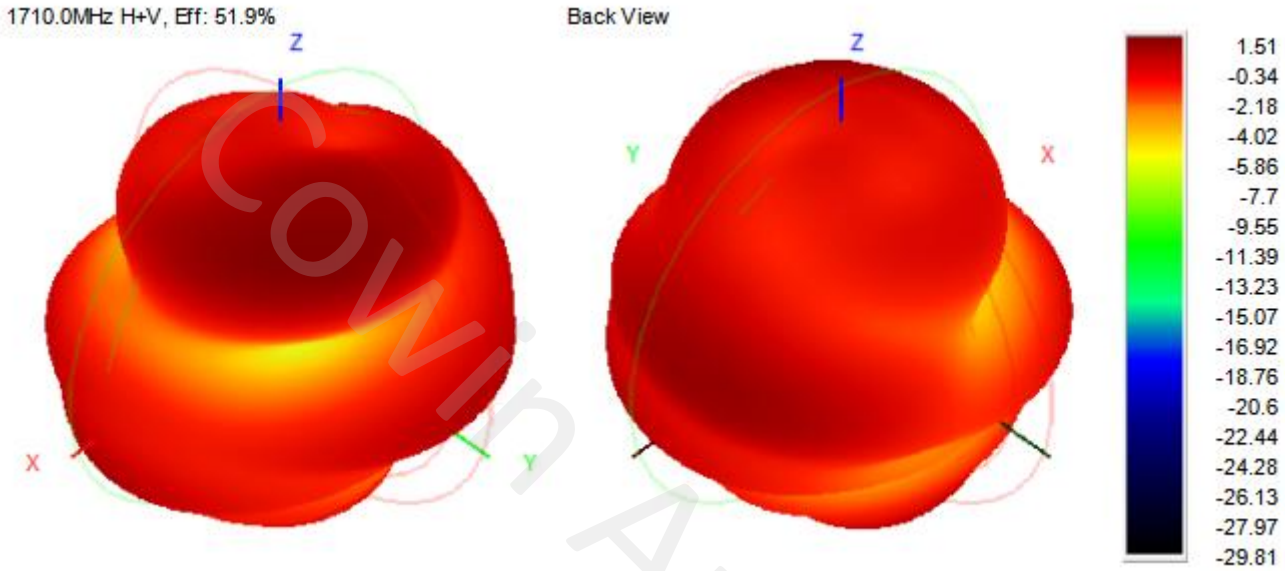


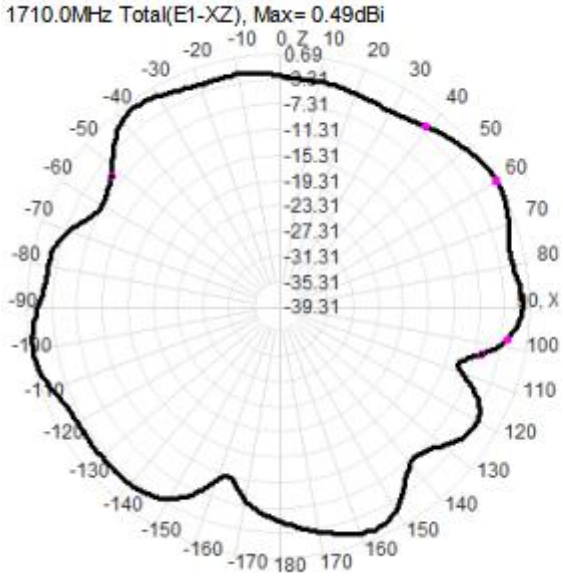


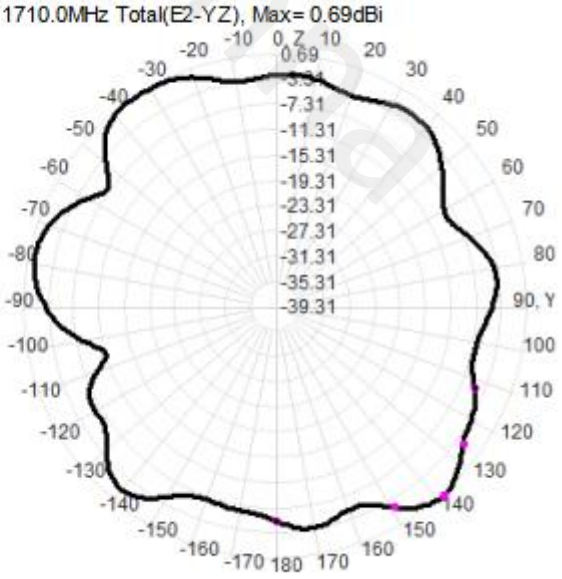


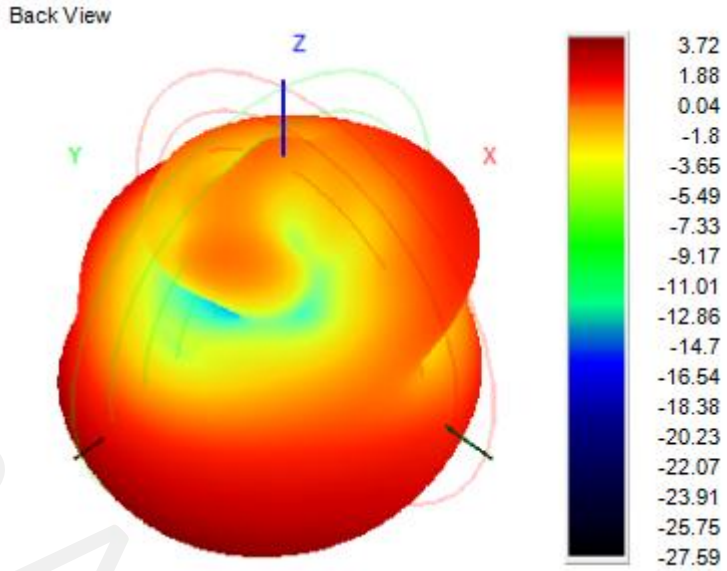


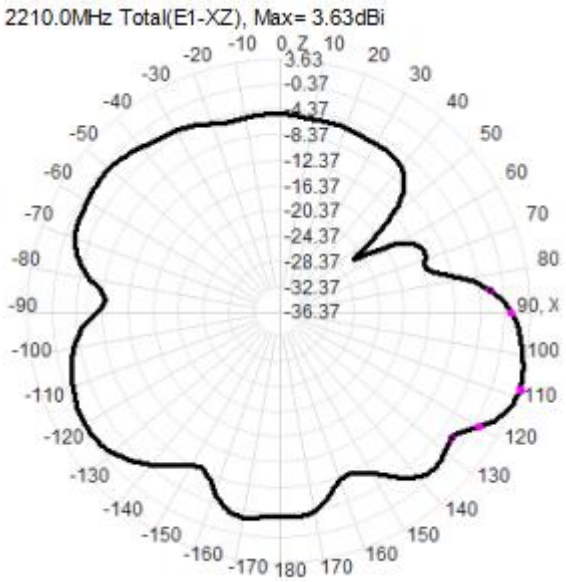


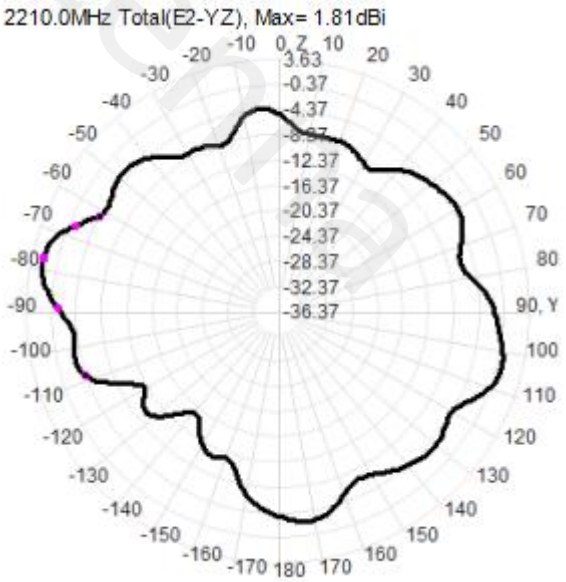


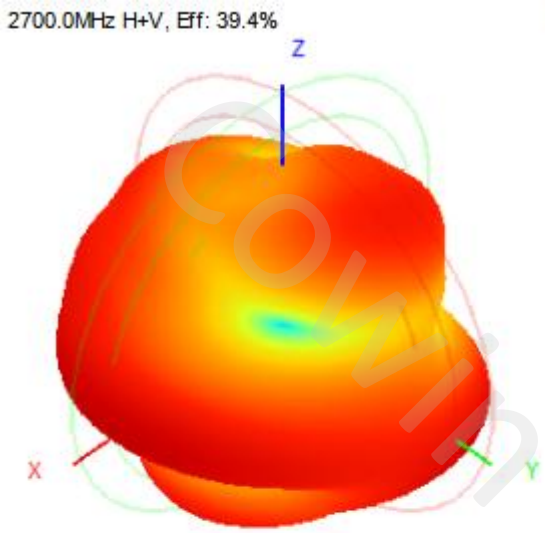


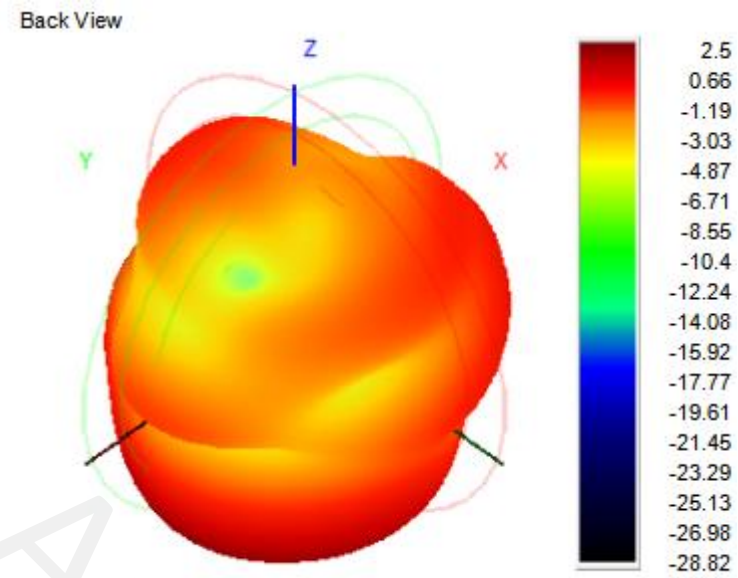


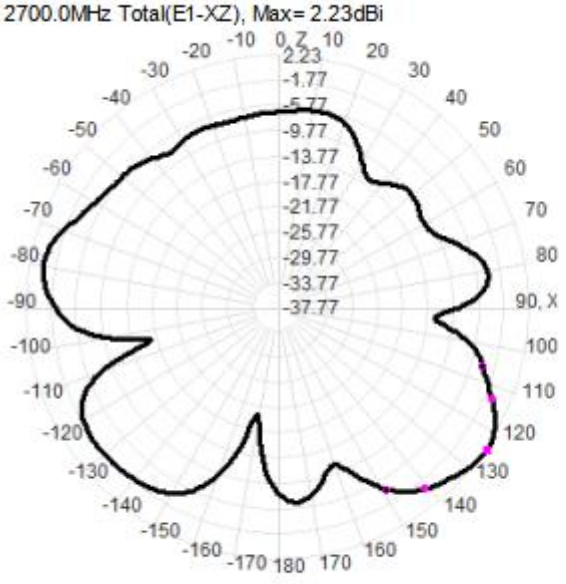


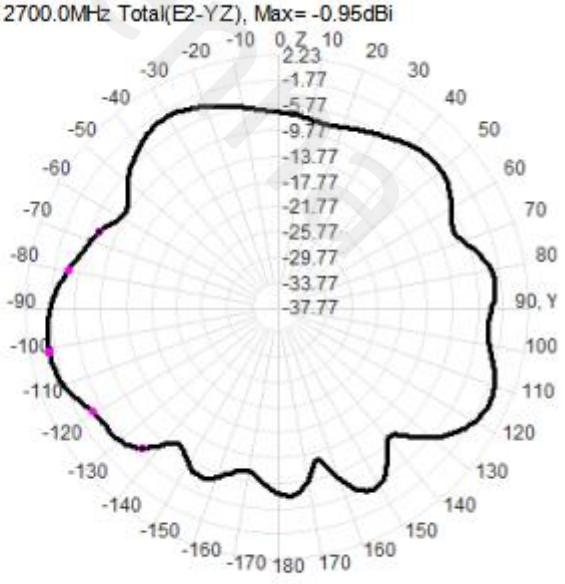






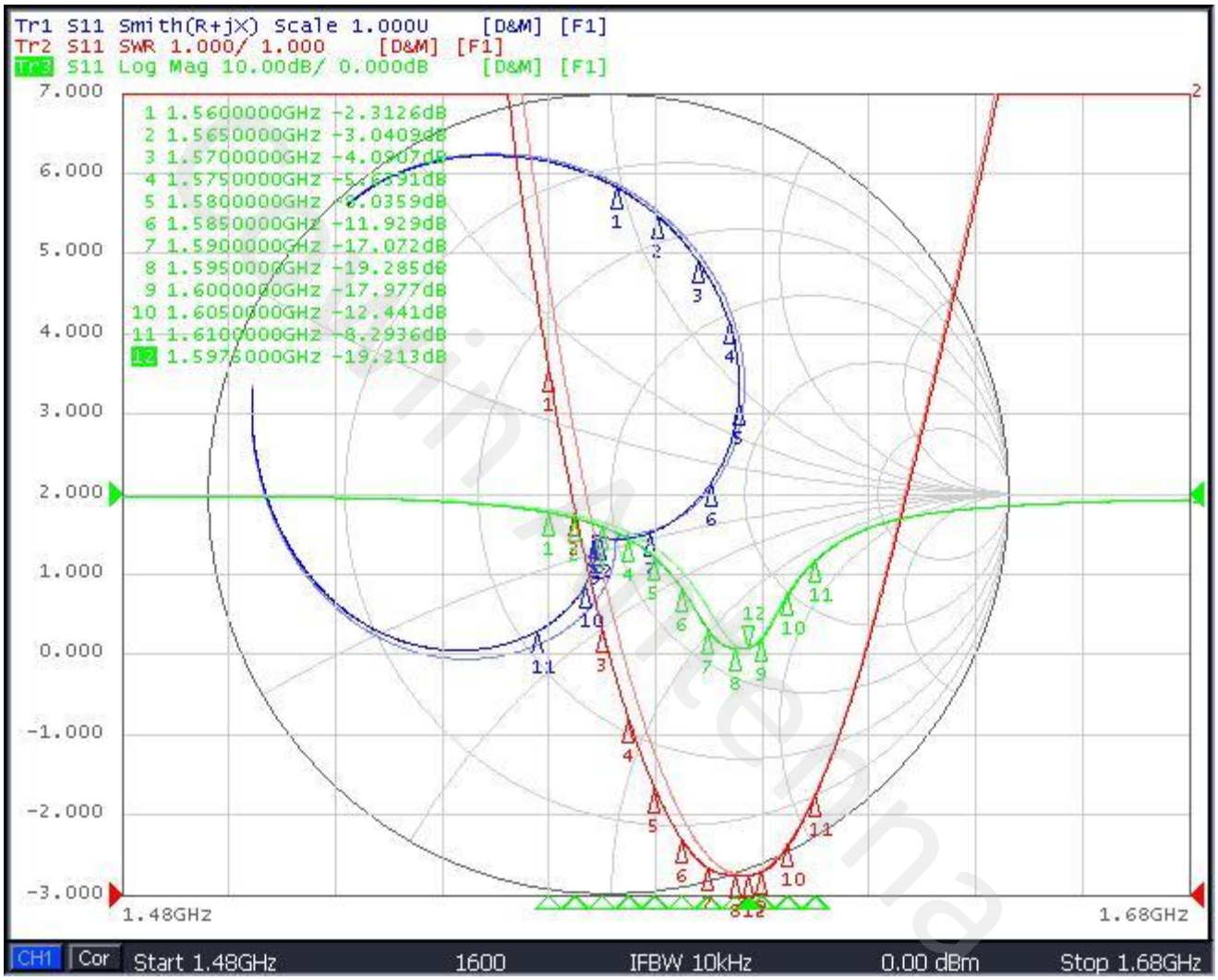






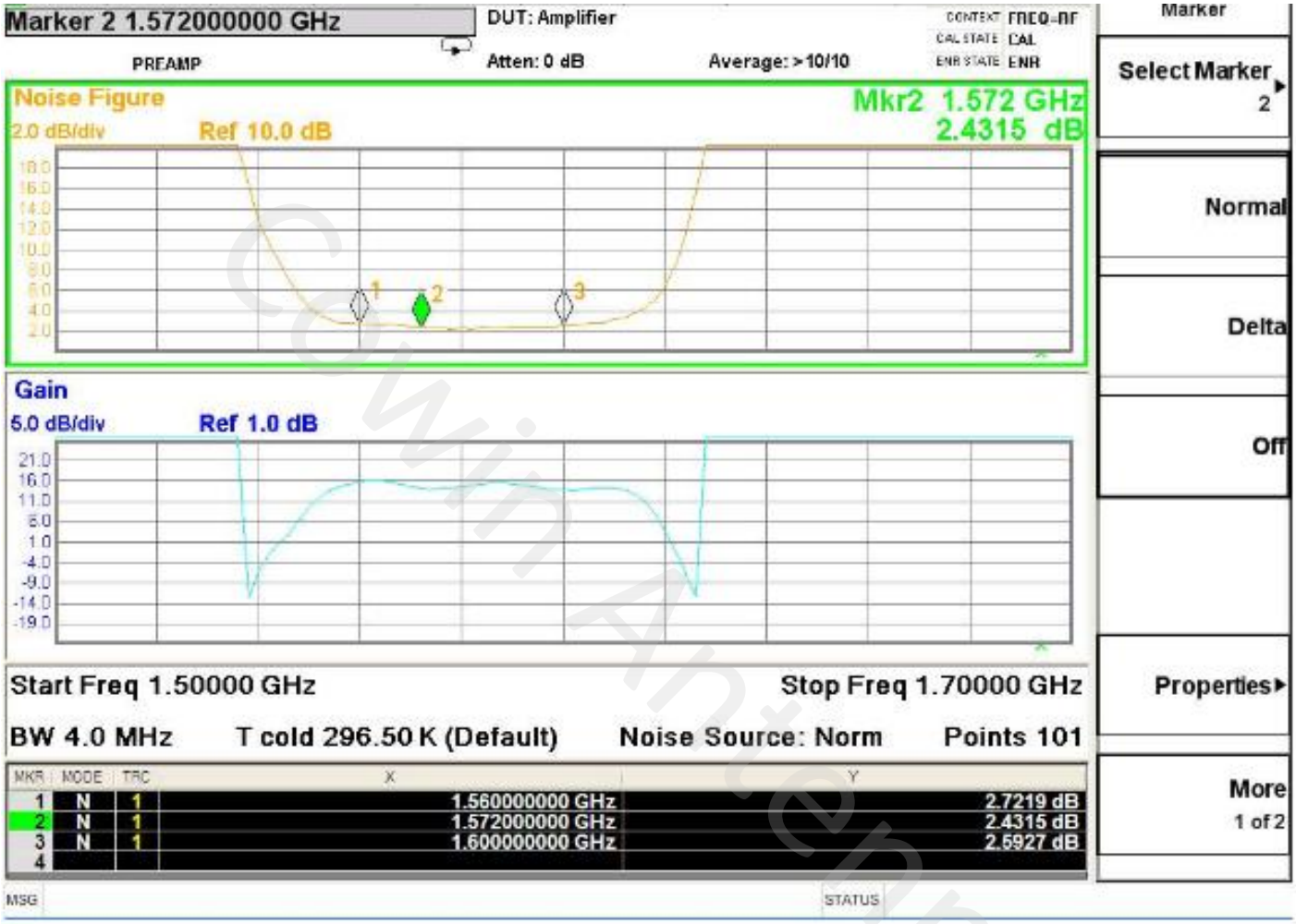
4.2 GPS（Active Antenna）

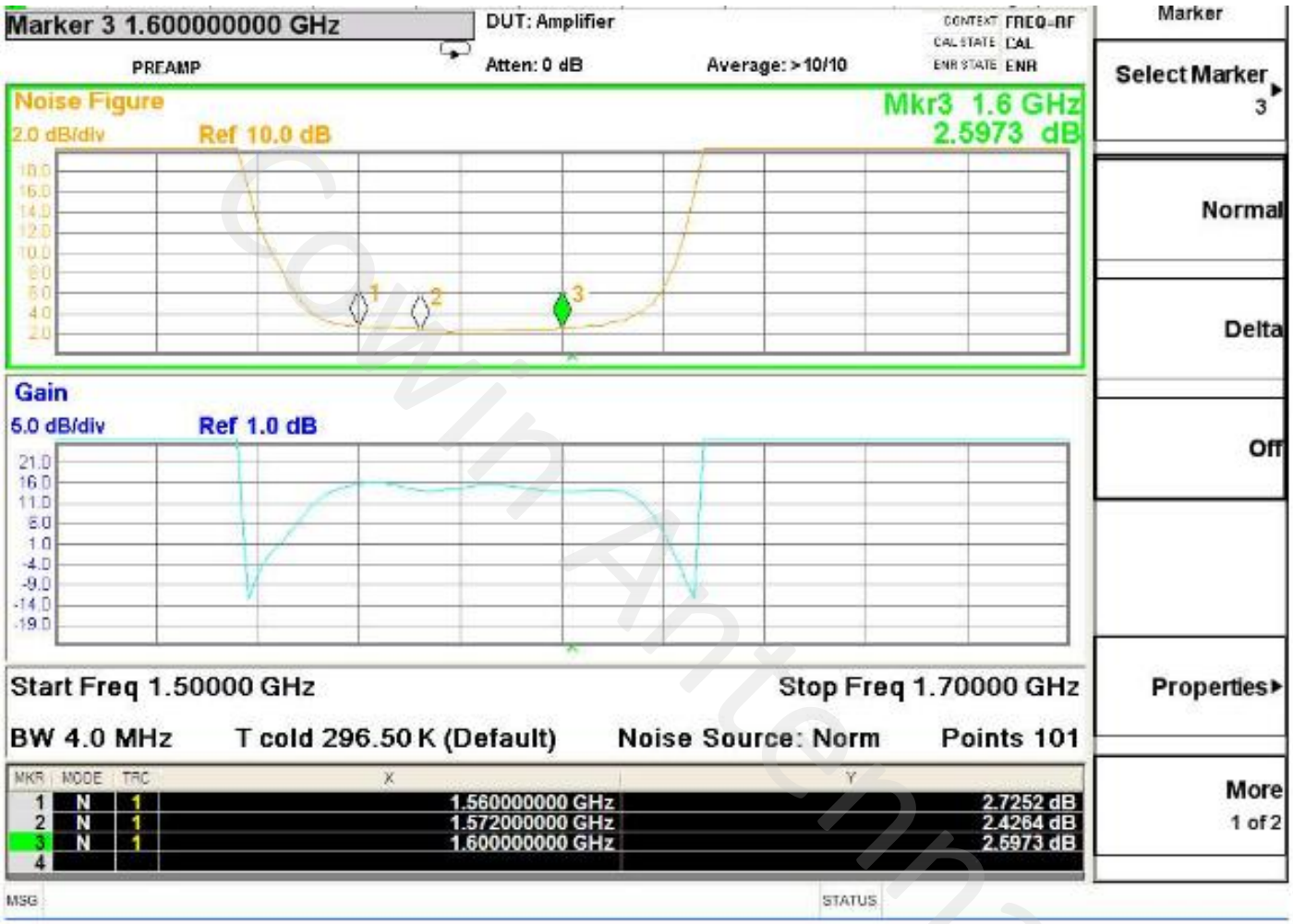
4.2.1 VSWR



4.2.2 LNA Gain (dBi)

4.2.3 Noise figure @ 3.0V





4.2.4 Search GPS signal test(Place outside the window)