

CW-WZ-0137

433MHz External Antenna

Key Features

Frequency: 433MHz

Connector Type: SMA Male Connector

CableType: RG178

Dimensions: 108*8 mm



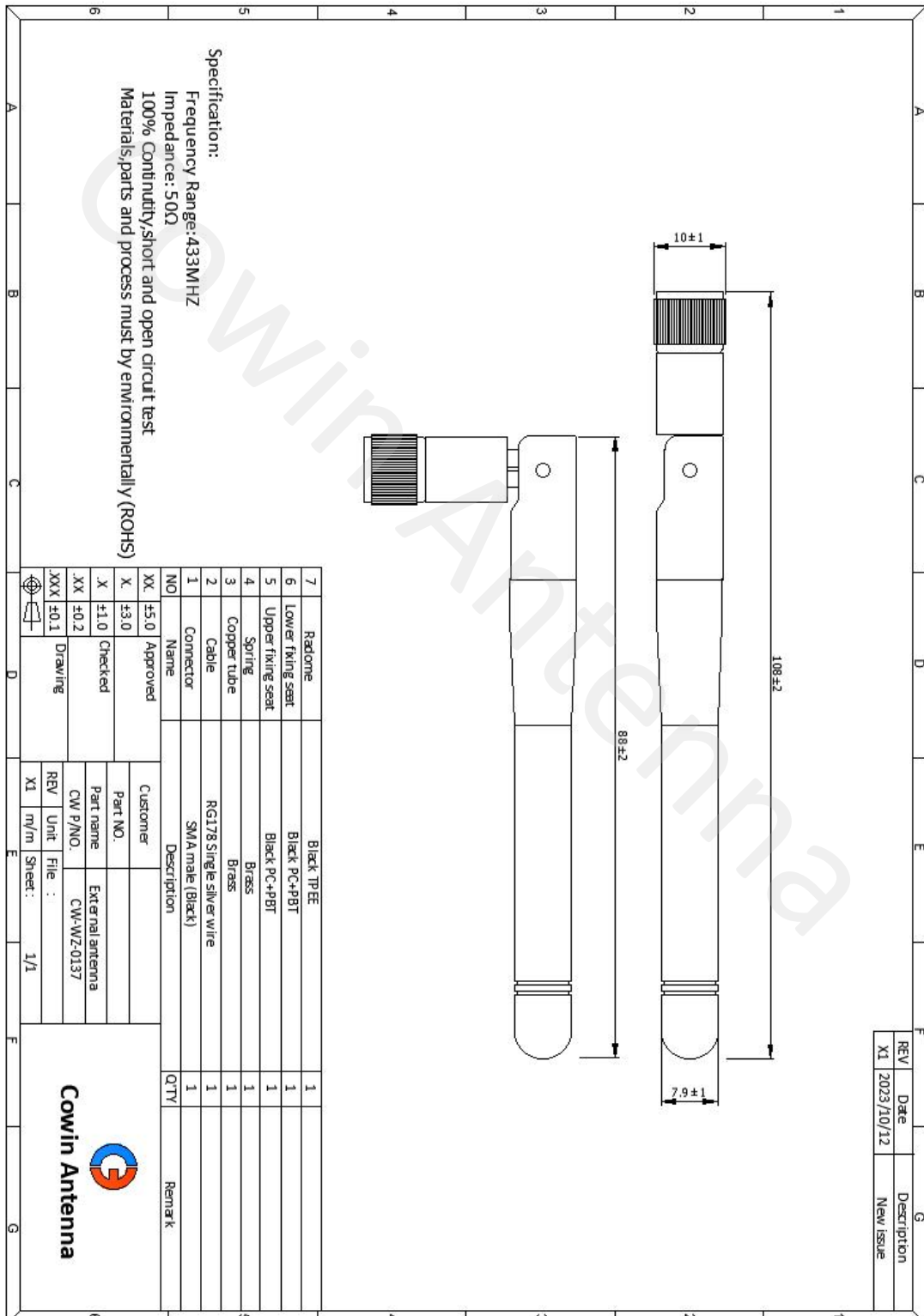
1. Antenna Electrical Characteristics

Band (MHz)	
Frequency (MHz)	433MHz
VSWR	<3
Efficiency (%)	27.95
Peak Gain (dBi)	-1.57
Impedance (Ohm)	50
Polarisation	Vertical
Max. Input Power (W)	10

2. Material and environmental characteristics

Inner structure	Spring
External Structure	PC+PBT/TPEE
Cable Type	RG178
Connector Type	SMA Male
Dimensions (mm)	108*8
Antenna color	Black
Operation Temperature	-40°C to +80°C
Storage Temperature	-40°C to +80°C
Antenna Storage life(year)	10
Substance Compliance	ROHS

3. Antenna drawing



4. Antenna test parameters

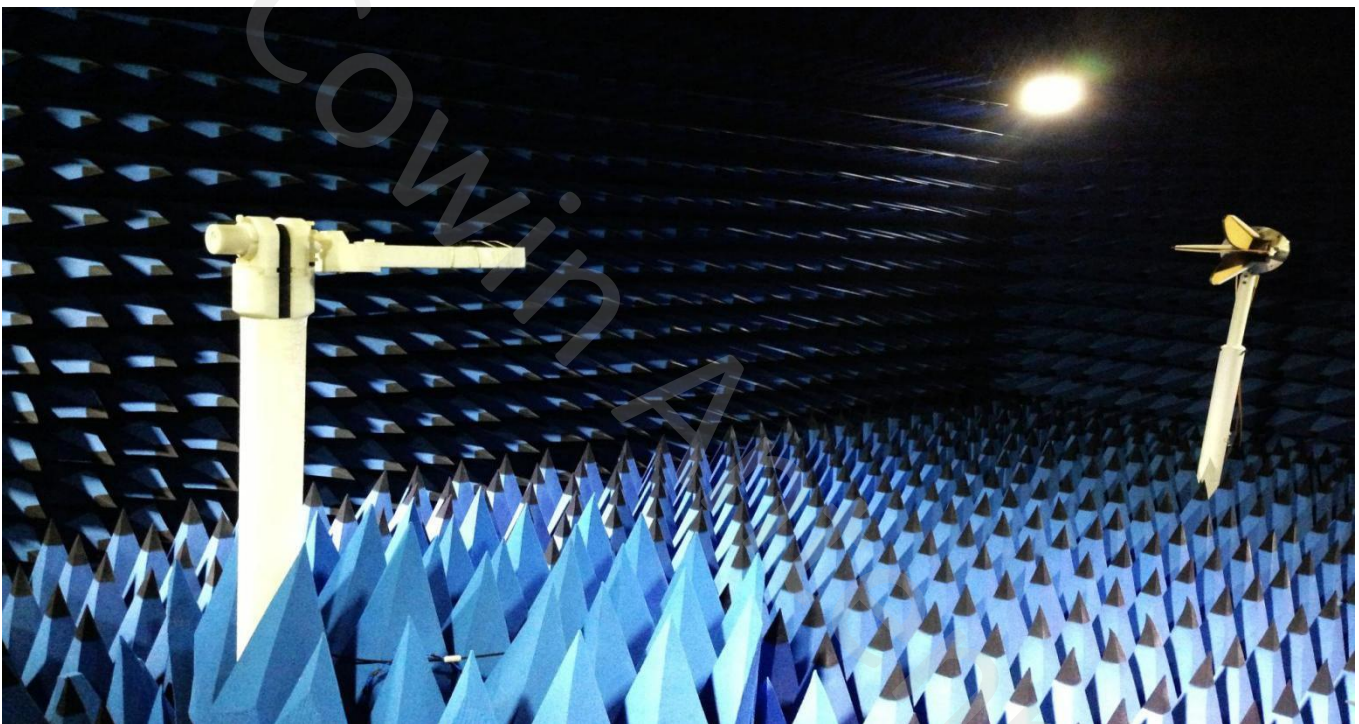
Antenna Measurement Conditions:

Mounted on Ground Plane of 280 x 80 mm

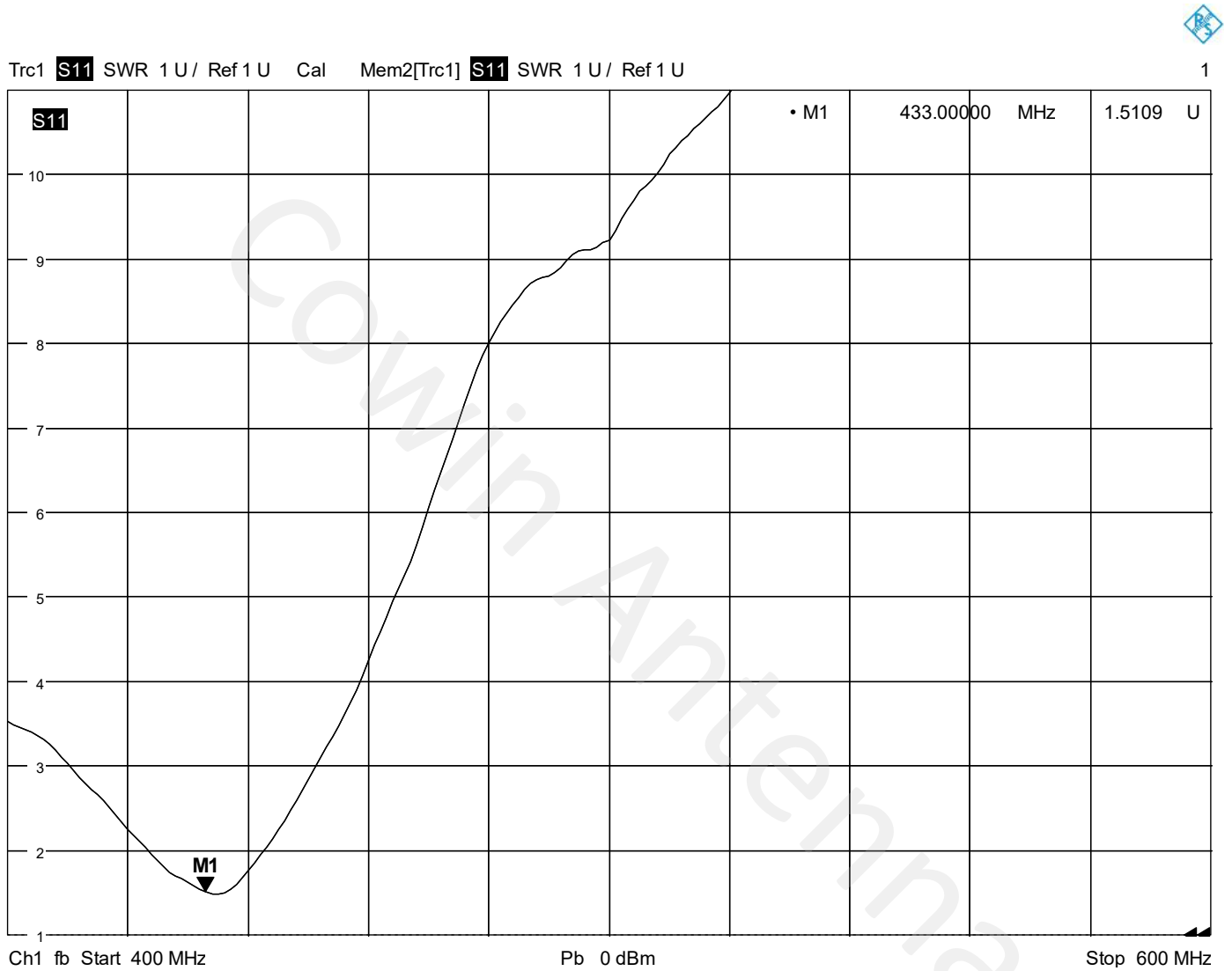
Measured in Certified 3D Anechoic Chamber

The network analyzer is Agilent 5071c

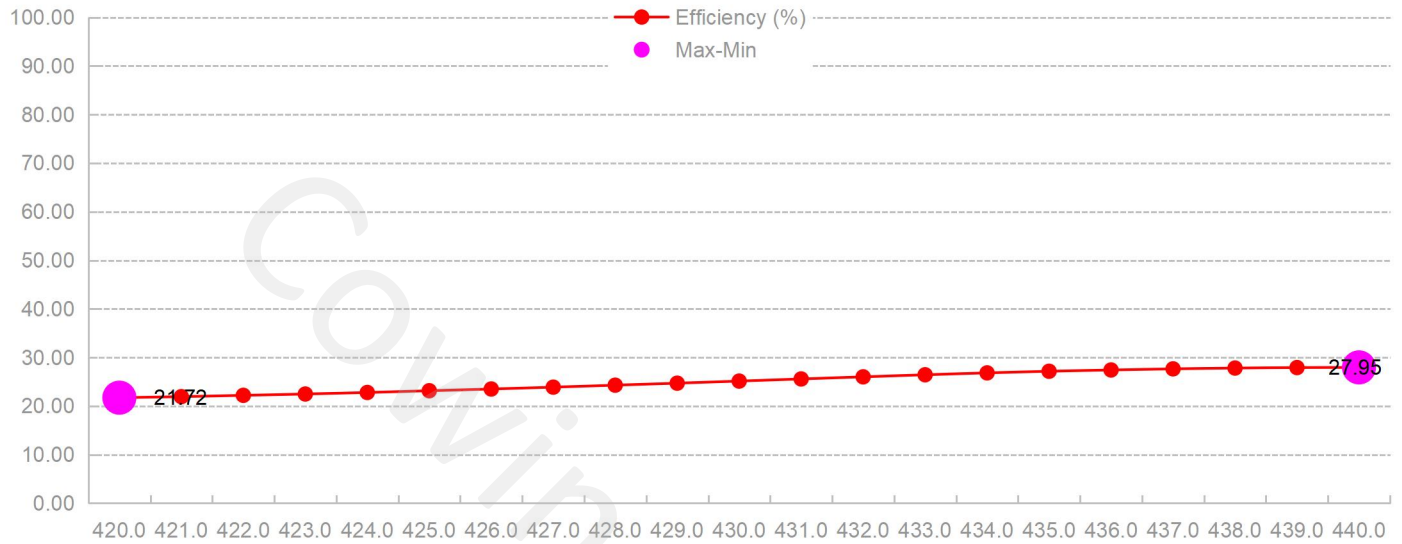
The comprehensive tester is Agilent cmv500



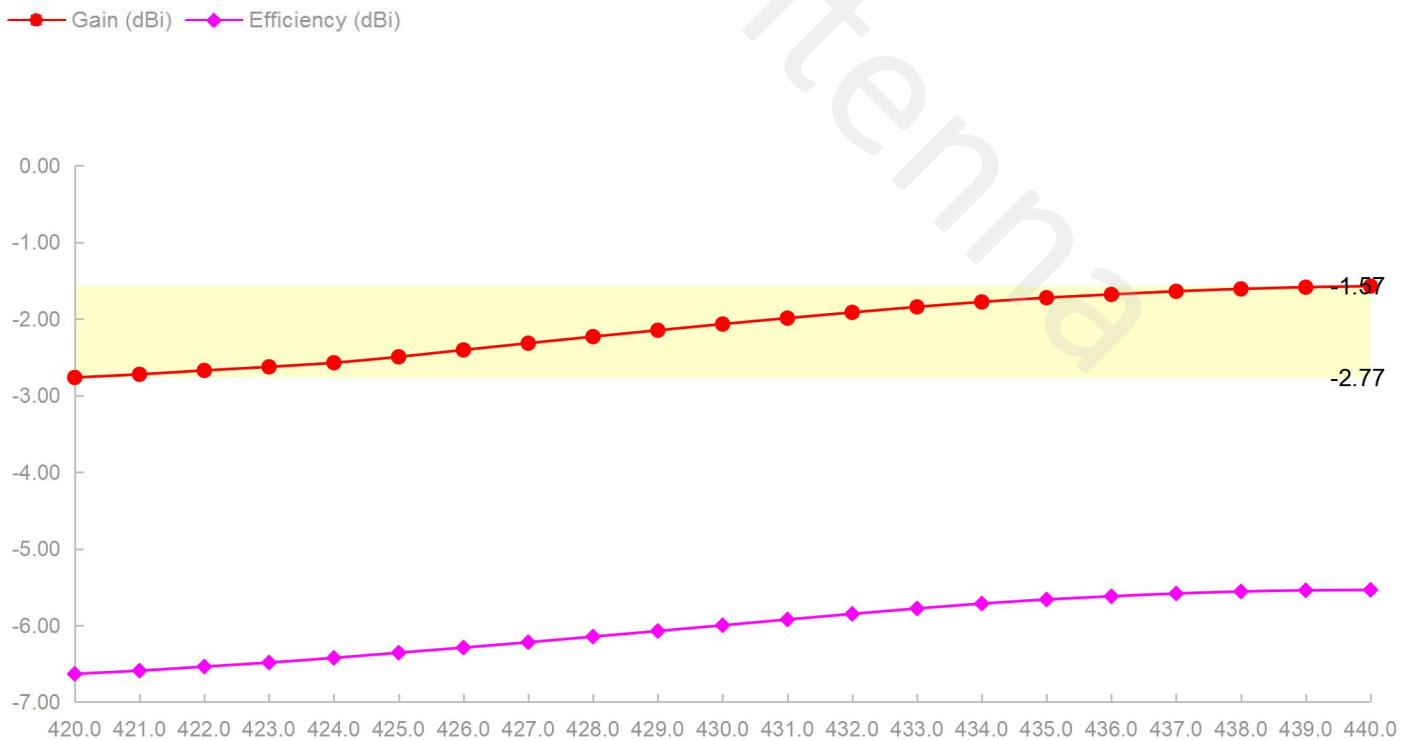
4.1 VSWR



4.2 Efficiency



4.3 Peak gain

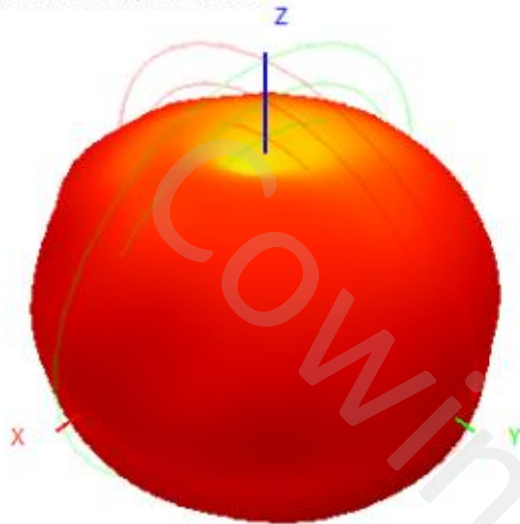


4.4 Data summary

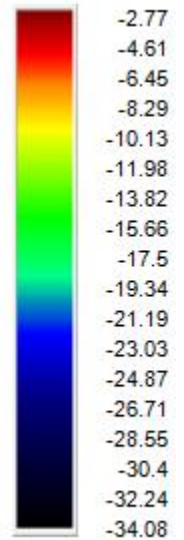
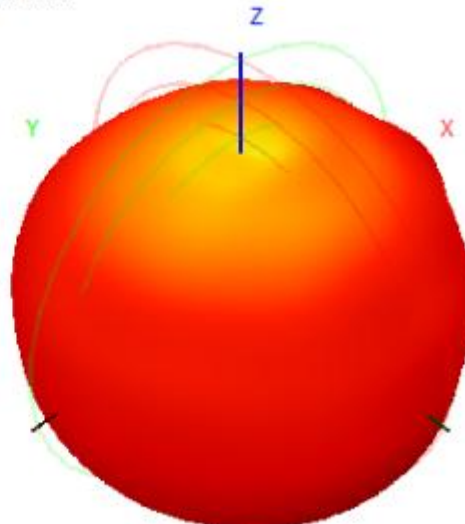
Frequency (MHz)	Gain (dBi)	Efficiency (%)
420.0	-2.77	21.72
421.0	-2.72	21.93
422.0	-2.67	22.20
423.0	-2.63	22.47
424.0	-2.57	22.79
425.0	-2.50	23.15
426.0	-2.41	23.51
427.0	-2.32	23.88
428.0	-2.23	24.29
429.0	-2.15	24.70
430.0	-2.07	25.13
431.0	-1.99	25.57
432.0	-1.92	26.01
433.0	-1.84	26.43
434.0	-1.78	26.82
435.0	-1.72	27.16
436.0	-1.68	27.42
437.0	-1.64	27.65
438.0	-1.61	27.82
439.0	-1.59	27.92
440.0	-1.57	27.95

4.5 3D&2D Radiation Patterns

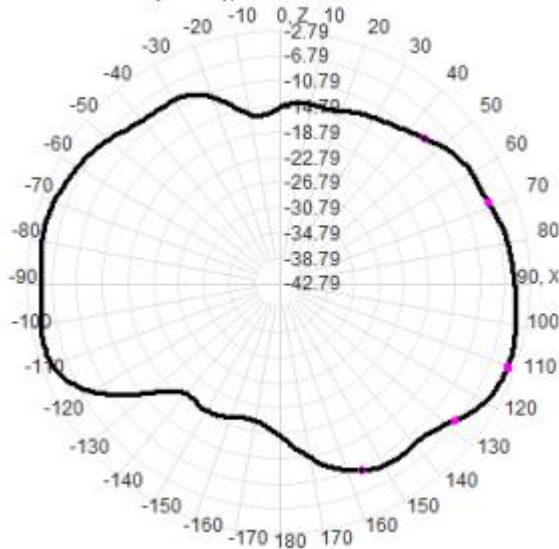
420.0MHz H+V, Eff: 21.7%



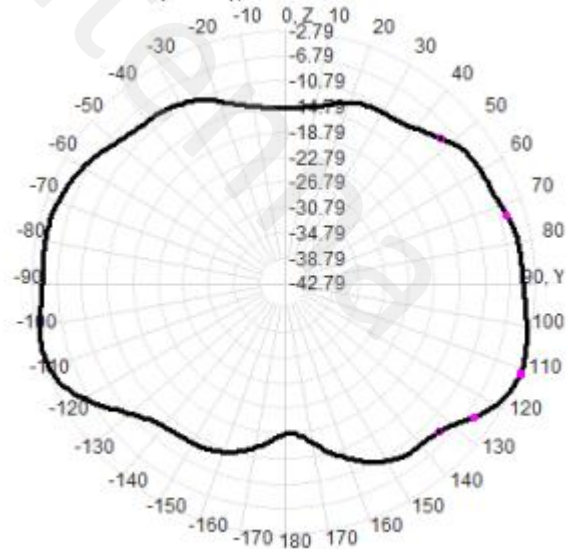
Back View



420.0MHz Total(E1-XZ), Max=-4.22dBi

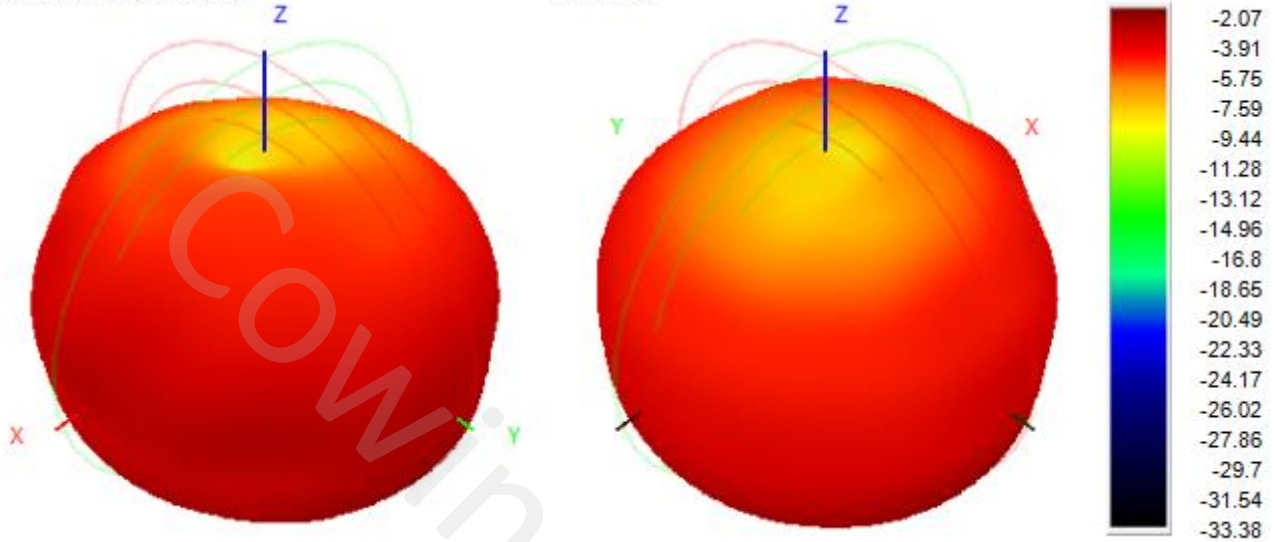


420.0MHz Total(E2-YZ), Max=-2.79dBi



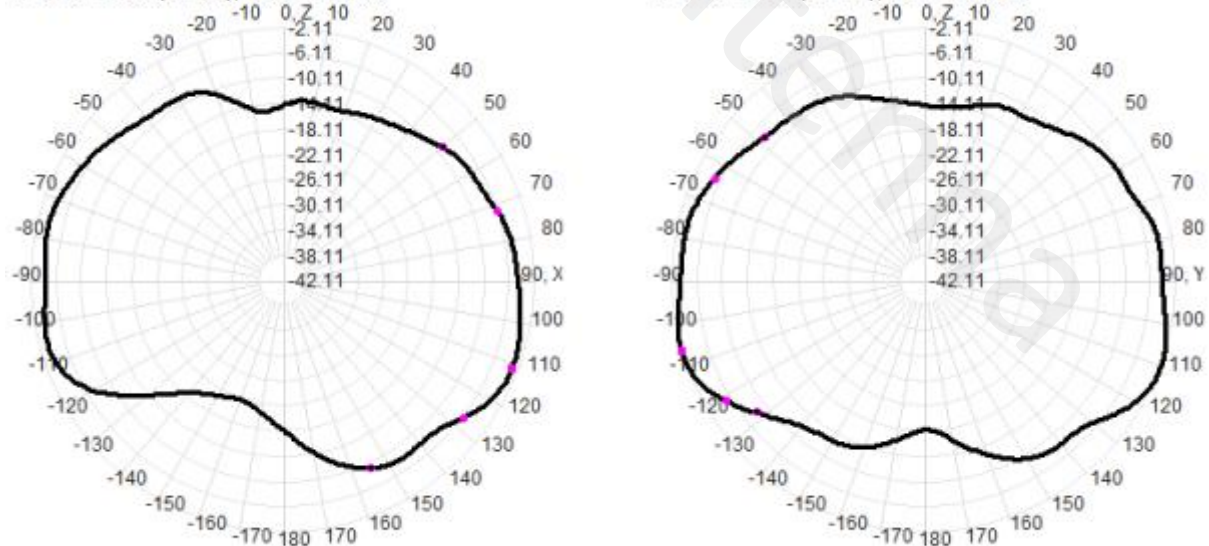
430.0MHz H+V, Eff: 25.1%

Back View



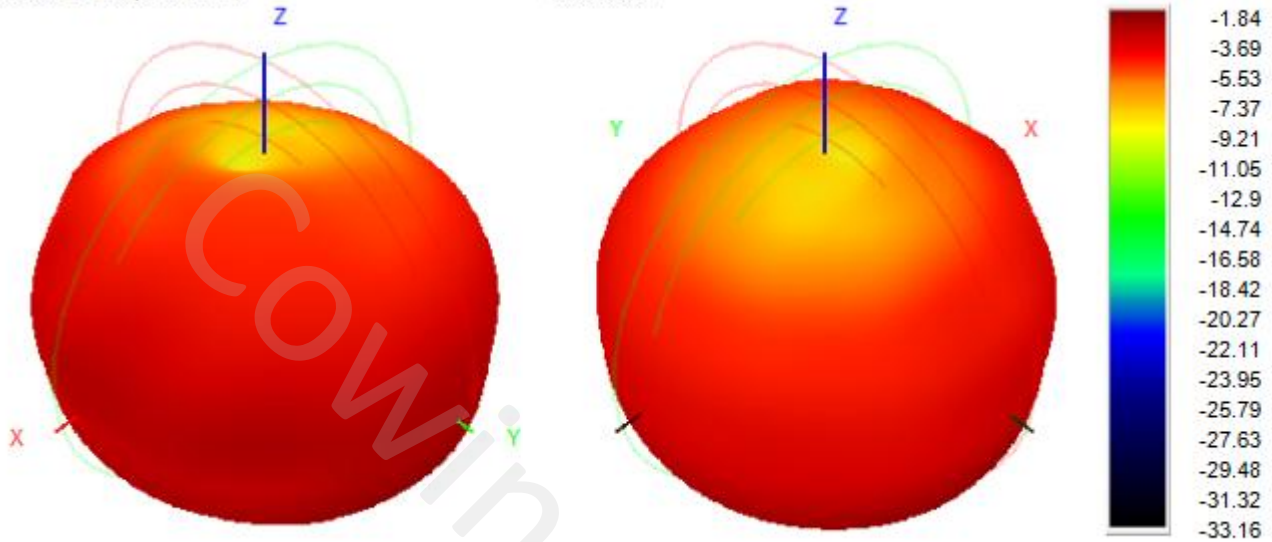
430.0MHz Total(E1-XZ), Max=-3.27dBi

430.0MHz Total(E2-YZ), Max=-2.11dBi



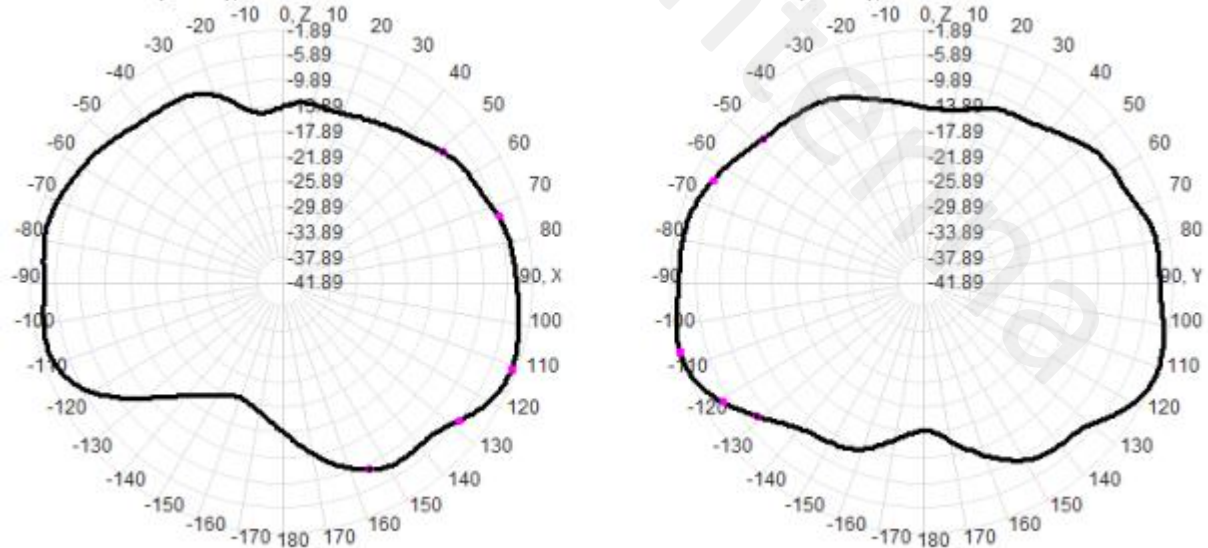
433.0MHz H+V, Eff: 26.4%

Back View

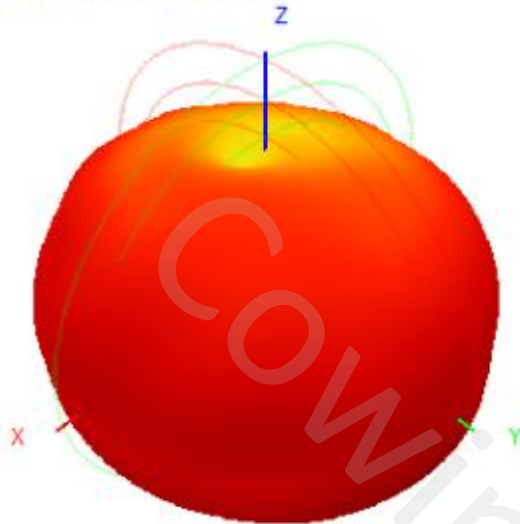


433.0MHz Total(E1-XZ), Max= -3.02dBi

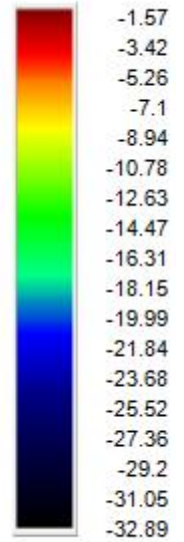
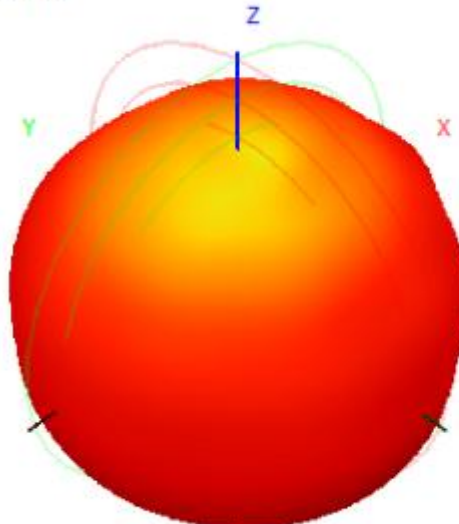
433.0MHz Total(E2-YZ), Max= -1.89dBi



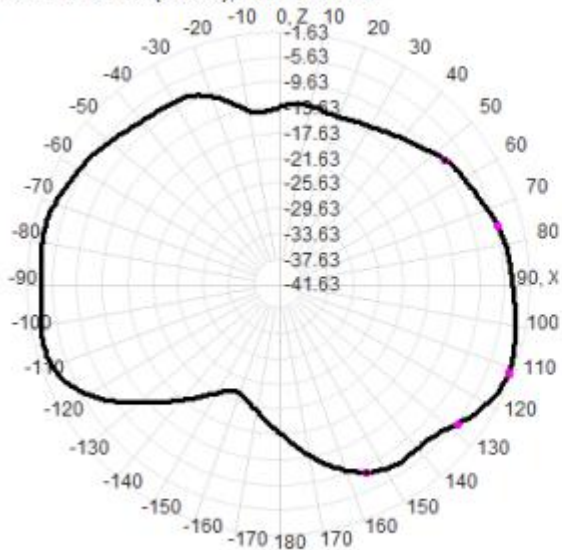
440.0MHz H+V, Eff: 28.0%



Back View



440.0MHz Total(E1-XZ), Max= -2.69dBi



440.0MHz Total(E2-YZ), Max= -1.63dBi

