深圳市有盛电器有限公司
SHENZHEN YOUSHENG DIAN QI CO.,LTD
Address:Building B6, 6th Floor, South Side, Xiufeng Industrial Zone, Buji Town, Longgang District, Shenzhen City, China

Antenna specifications

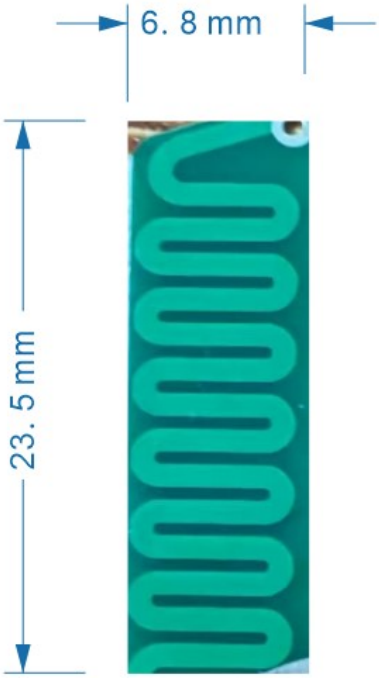
Product Name: PCB Antenna

1.1 Specifications

天线型号 Antennas Model	433BZ
频率范围 Frequenc Range(MHZ)	433MHz
阻抗 Impendence(Ω)	50Ω
电压驻波比 V.S.W.R	＜1.8
增益 Gain （dBi）	2.0dBi
功率容量 Power Capacity (w)	50
天线尺寸 Dimension (mm)	23.5*6.8
辐射体 Radiator	铜
工作电压 DC Voltage (V)	None
接口形式/Connector Type:	None
天线颜色 Color	铜盖绿油 Copper inside and green outside
重量 Weight (g)	None
工作温度 Operating Temperature(℃)	-40~80
储存温度 Storage Temperature(℃)	-20~85

1.2 AntennaPictute

1.3 Antennasizediagram



2. Electrical Specification

2.1 Test Equipment

A. VSWR and input impedance: Agilent 8753/E5071 Network Analyzer

B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).

Figure. 1

2.2.3 Radiation pattern and Gain

A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).

B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).

C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

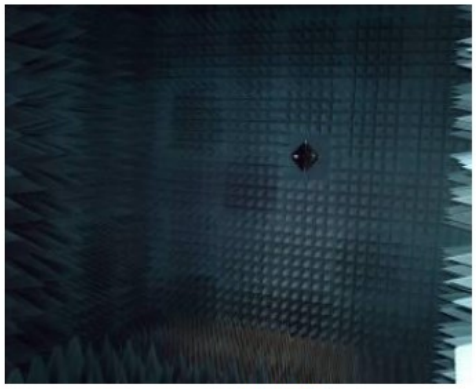


Figure.2

Figure.3

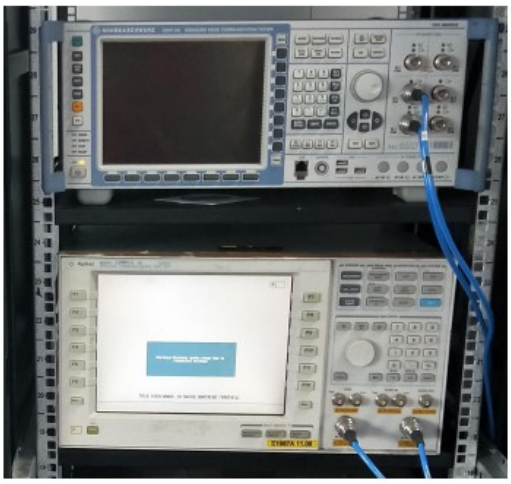


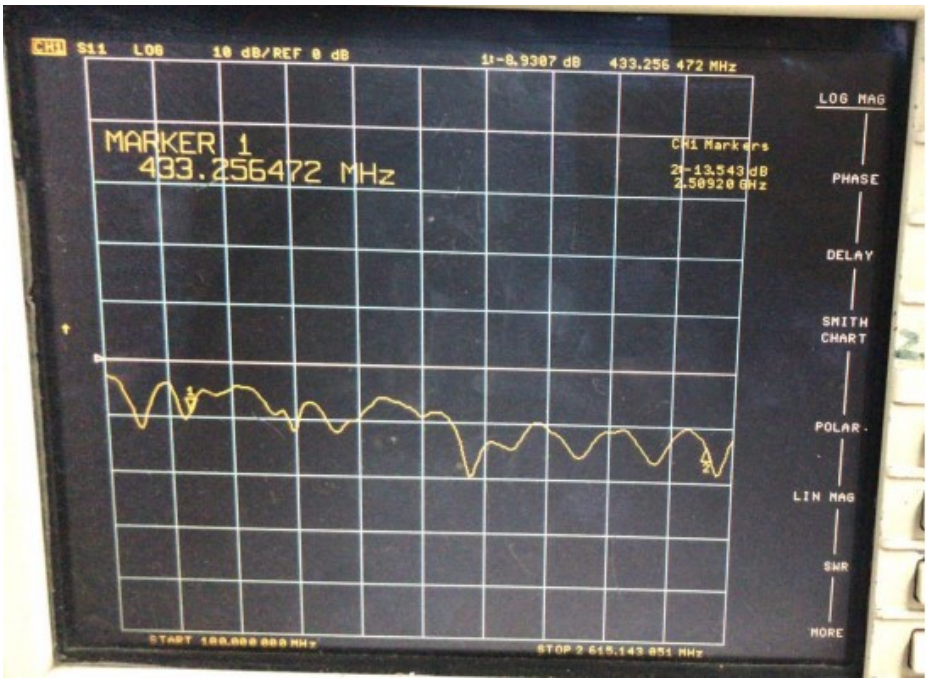
Figure.4

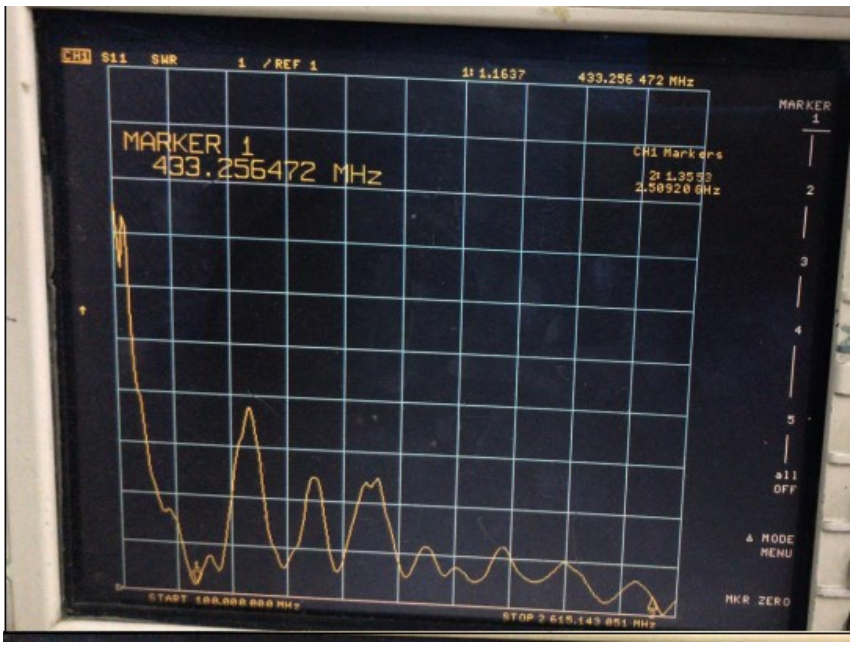
Figure.5

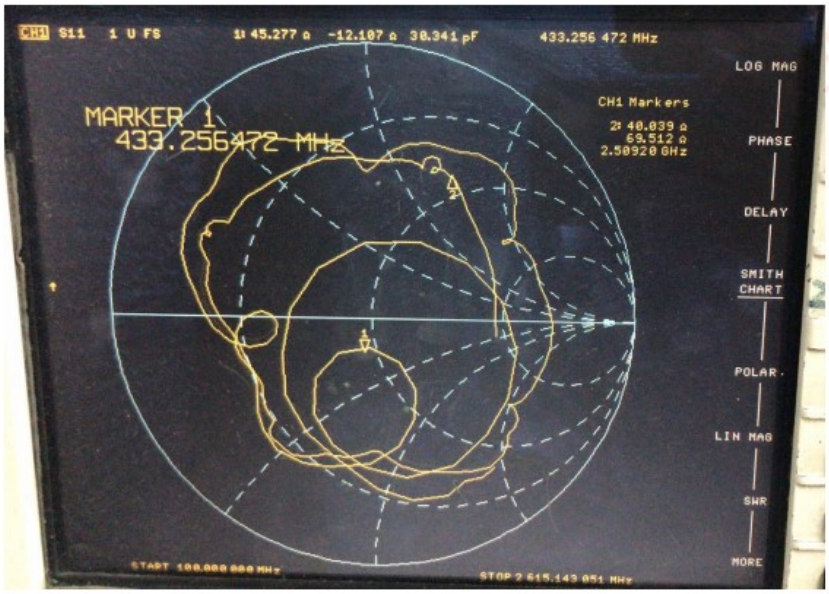
3.Performance Data

3.1 Passive data

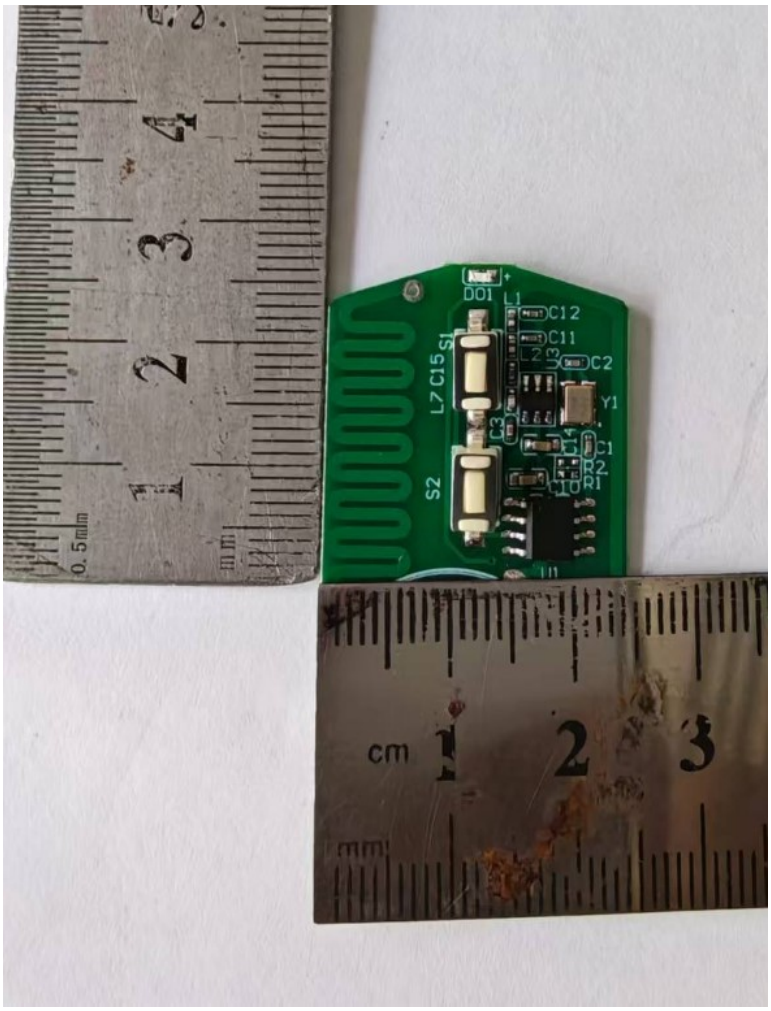
VSWR / Return Loss / Smith Chart




CH1 S11 SWR 1 /REF 1
1: 1.1637
433.256 472 MHz
MARKER 1
433.256472 MHz
CH1 Markers
2: 1.3553
2.50920 GHz
MARKER
1
2
3
4
5
all
OFF
MODE
MENU
MKR ZERO
START 100.000 000 MHz
STOP 2 615.143 051 MHz


CH1 S11 1 U FS
1: 45.277 Ω -12.107 Ω 38.341 pF
433.256 472 MHz
MARKER 1
433.256472 MHz
CH1 Markers
2: 40.039 Ω
69.512 Ω
2.50920 GHz
LOG MAG
PHASE
DELAY
SMITH
CHART
POLAR
LIN MAG
SWR
MORE
START 100.000 000 MHz
STOP 2 615.143 051 MHz

4.Physical measurement diagram of the antenna



We, Shenzhen Yousheng Electric Appliance Co., LTD, states that All measurements were performed radiated and therefore additional antenna gain documentation is not required.