

Data Sheet

CUSTOMER: 研華 Advance

MODEL NAME: WISE-2410

CUSTOMER P/N: _____

AWAN P/N: ASE00-000000



No.888, Hua-Yuan Road,Zhang- Pu Town, Kun
-Shan City, Jiang -Su Prov.,P.R.C.

TEL : 86-512-5744-6168

FAX : 86-512-5744-9168

Http : //www.acon.com



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1. Description

1.1 Specifications

Antennas Type	Monopole Antenna for IOT application	
Antenna Material	FR4 表面黑漆 PAD 化金	
Size	Φ35.1*0.4T	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Holder Material	SABIC357U & TPU4065A	
Size	L:48.34*42*42mm	
Frequency	IOT	0.863~0.930GHz
VSWR	IOT	3.2:1
Max. input power	1W	

1.2 Antenna Picture

P/N: ASE00-000000



2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8720/8753 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

- A. IOT: 0.863~0.930GHz

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).

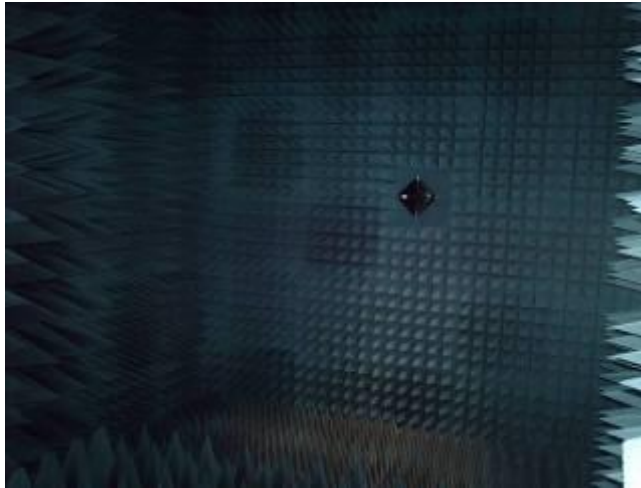


Figure.2

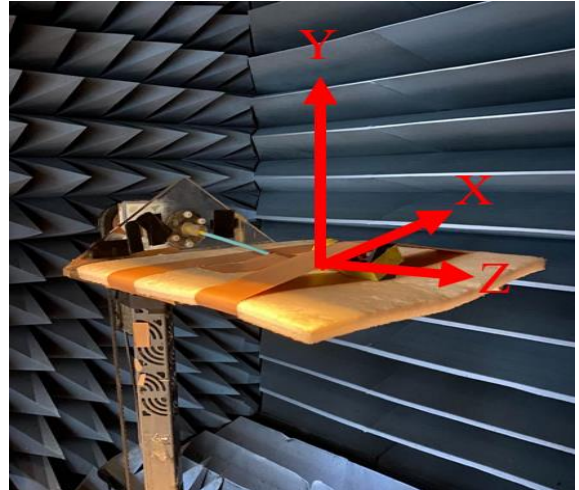


Figure.3



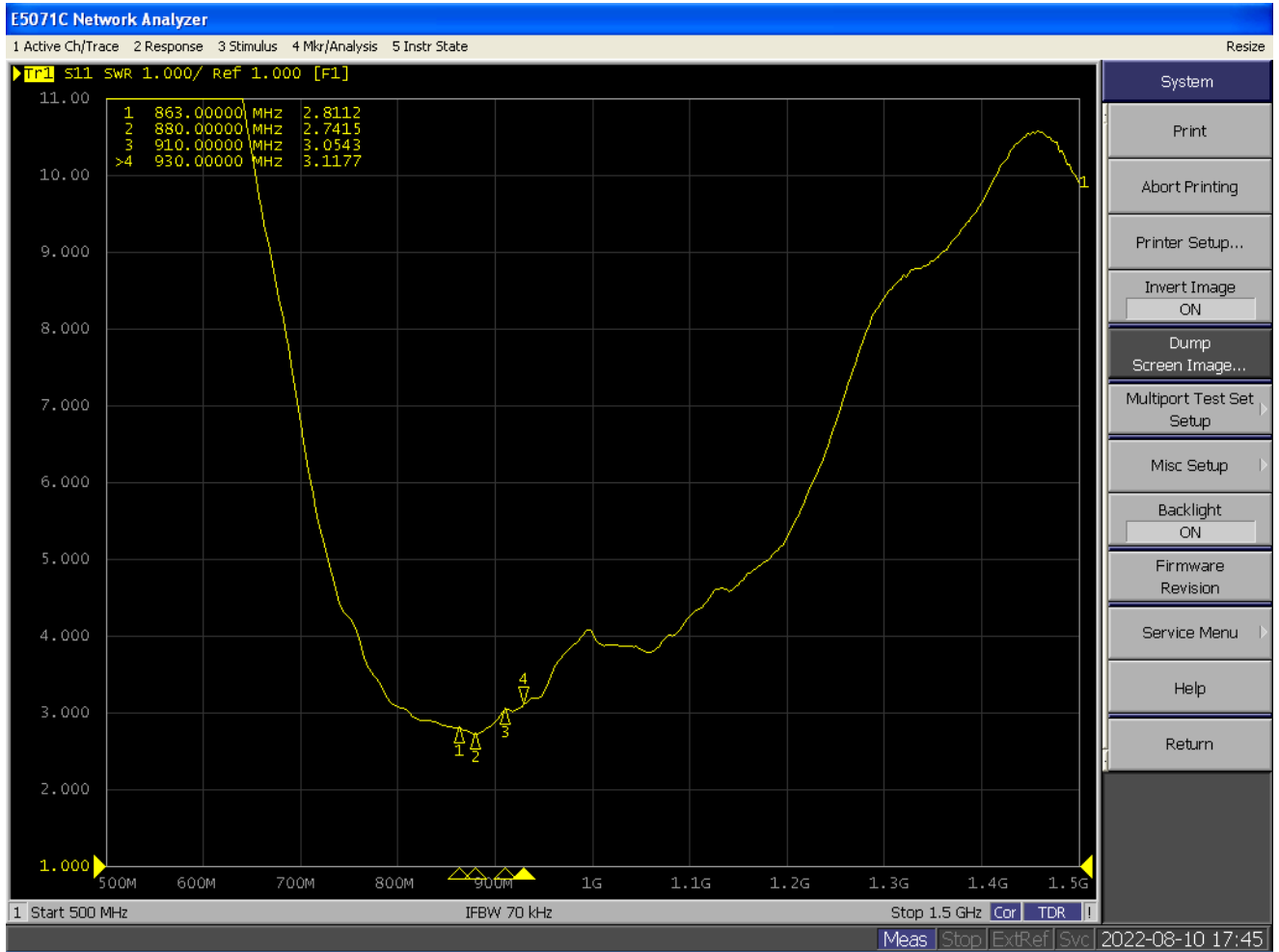
Figure.4



Figure.5

3. Performance Data

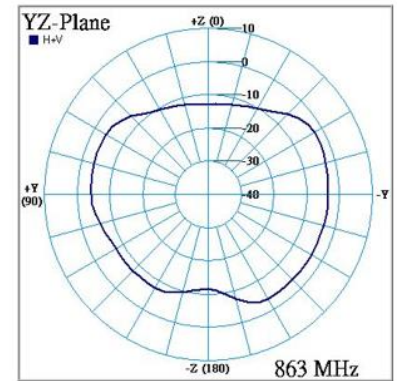
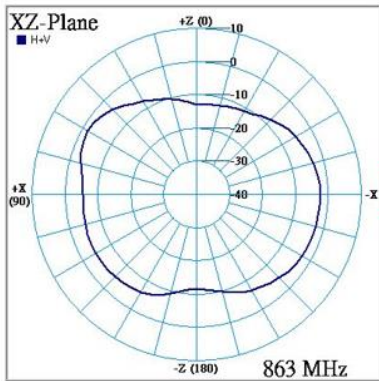
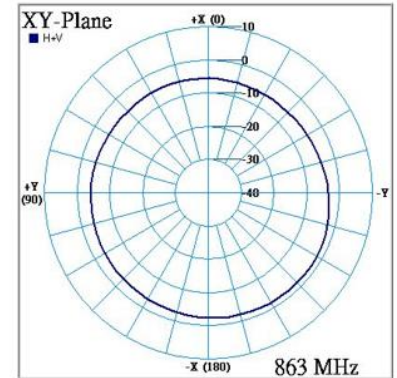
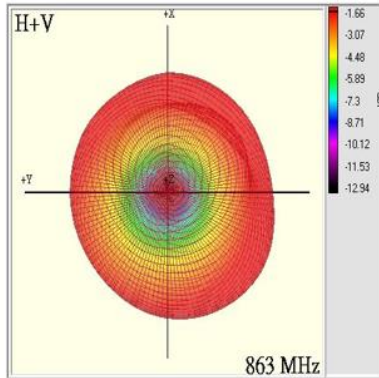
3.1 VSWR



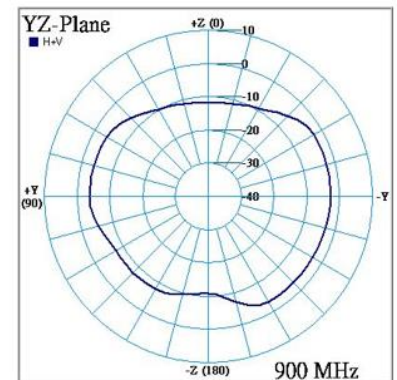
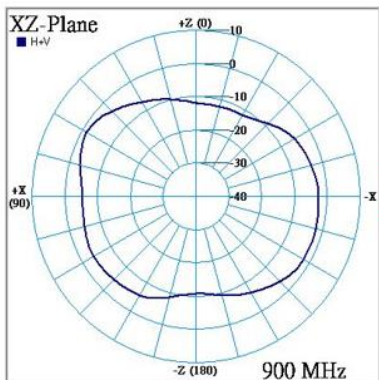
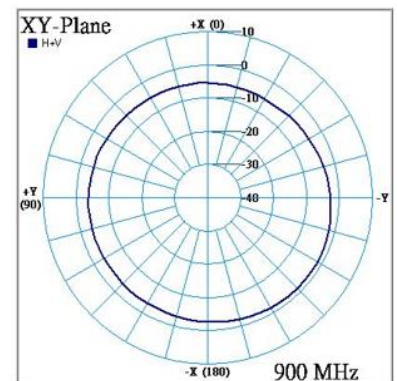
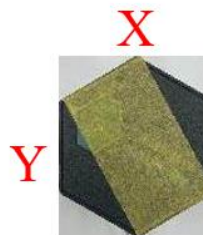
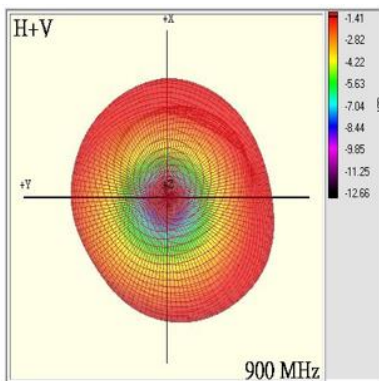
3.2 Radiation pattern & Gain

3.2.1 Antenna pattern

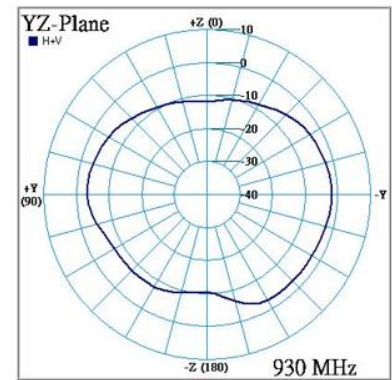
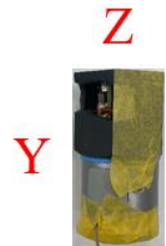
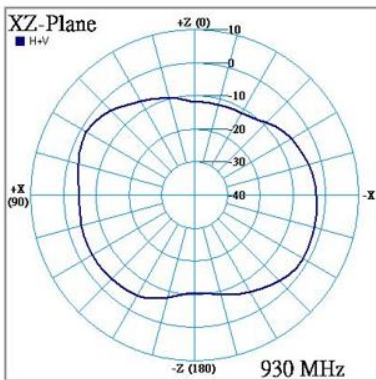
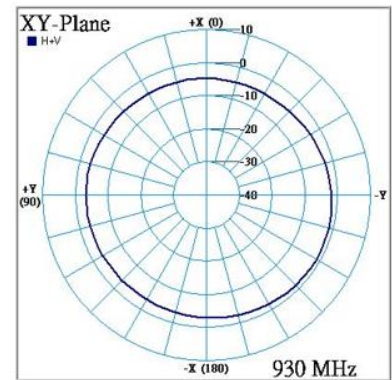
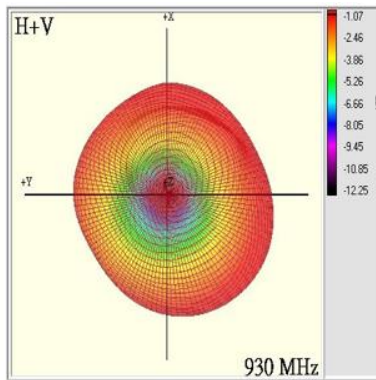
863MHz



900MHz



930MHz



Antenna Gain/Efficiency (IOT Antenna)

Freq. (MHz)	Average gain (dB)	Efficiency (%)	Peak gain (dBi)
860	-4.0	39.5	-1.2
863	-4.5	35.4	-1.7
868	-4.1	39.2	-1.1
870	-3.6	43.3	-0.7
880	-3.8	42.0	-0.8
890	-4.0	40.3	-1.0
900	-4.3	37.5	-1.4
910	-4.4	36.1	-1.5
915	-3.8	41.7	-0.9
920	-4.5	35.8	-1.5
925	-3.9	40.3	-0.9
930	-4.2	38.3	-1.1
860	-4.0	39.5	-1.2

4.Mechanical Specification

4.1 Assembly Drawing

Revision

Revision	Date	Change Notification	Notes
Rev.1	2022-08-10		