



Specification For Approval

Customer: HuaQin

Model Name: NB8322T

AWAN P/N: AYP8P-100783

Customer P/N: _____

Customer Approval
R&D Manager

AWAN Approved				
R&D Manager /	Mechanical Manager /	QA Manager /	Project Engineer/	Product Manager/



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1.Description-----	1
1.1 Specifications-----	1
1.2 Antenna Pictures-----	1
2. Electrical Specification-----	2
2.1 Test Equipment-----	2
2.2 Test Setup-----	2
2.2.1 Frequency Range-----	2
2.2.2 VSWR Test-----	2
2.2.3 Radiation Pattern & Gain Test-----	3
3. Performance Data-----	4
3.1 Antenna S11 Parameter -----	4
3.2 Antenna Efficiency-----	5
3.3 Antenna Radiation pattern & Gain-----	6~8
4.Mechanical Specification-----	9
4.1 Assembly Drawing-----	10

1. Description

1.1 Specifications

Antennas Type	PIFA	
Cable Type	OD 1.13RF Cable	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WLAN-MAIN	2.40Ghz~2.50 Ghz 5.15Ghz~5.85 Ghz 5.925Ghz~7.125 Ghz
VSWR	WLAN-MAIN	2.0 Max
Cable length	WLAN-MAIN	310mm, MAIN

1.2 Antenna Pictures



WIFI Antenna P/N: AYP8P-100783

2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8720/5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

- A. WLAN 2.40~2.5 Ghz 5.15~5.85 Ghz 5.925~7.125 Ghz

2.2.2 VSWR

Step 1: The VSWR of the antenna is measured via Agilent 8753/5071 Network Analyzer (see figure. 1).



Figure. 1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 600MHz 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).

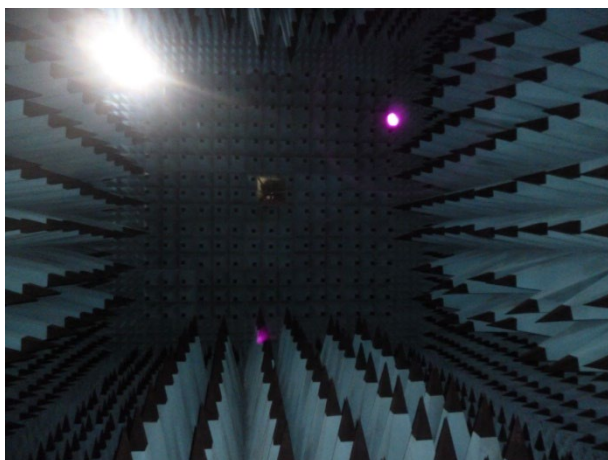


Figure. 2

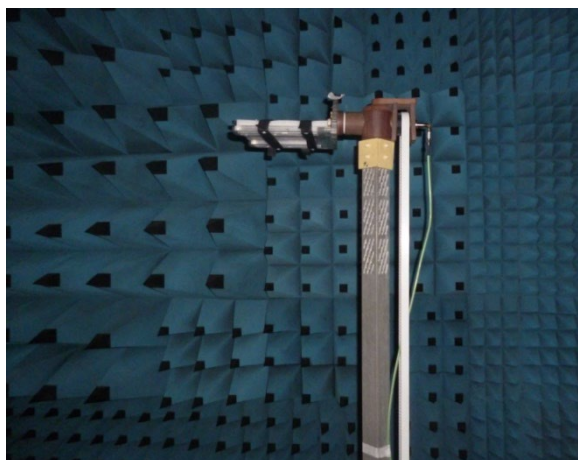


Figure. 3

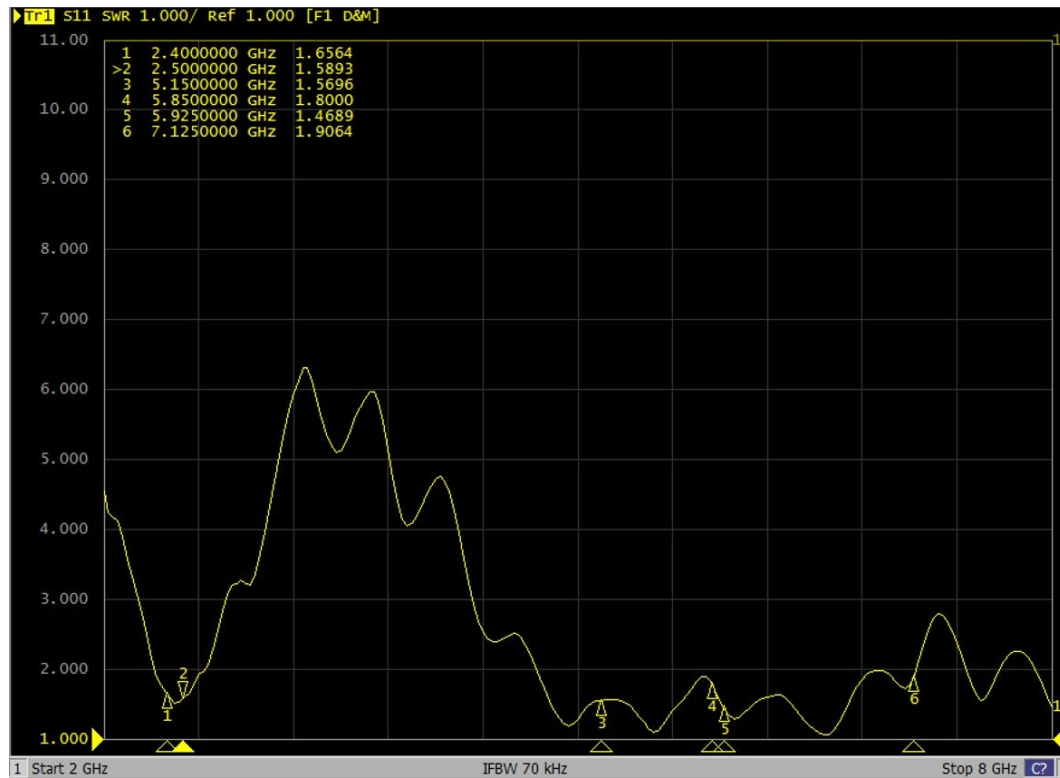


Figure. 4

3. Performance Data

3.1 S11 Parameter

WALN MAIN Antenna



3.2 Antenna Efficiency

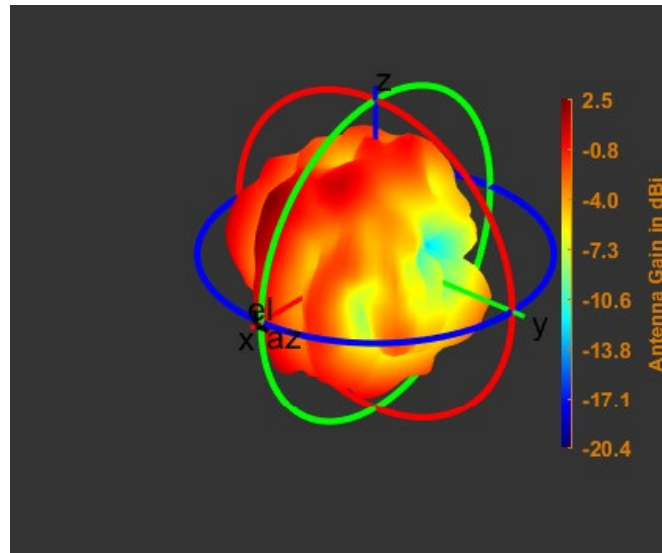


Antenna Efficiency Table:

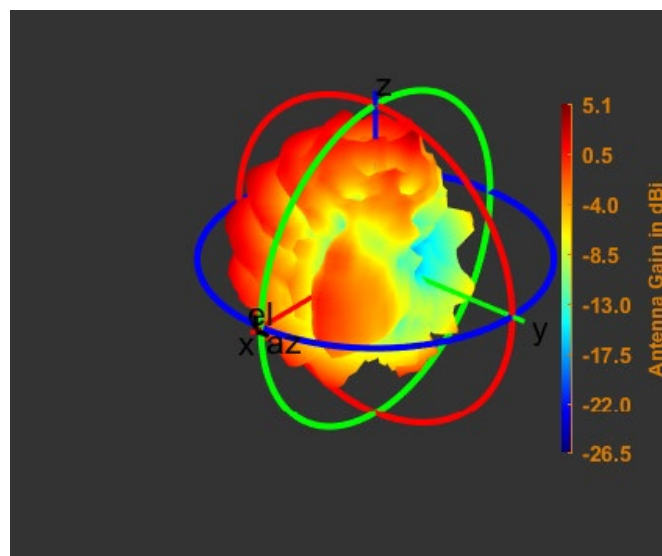
Main Antenna			
Frequency (MHz)	Efficiency (dB)	Efficiency (%)	pake gain (dB)
2412	-3.87	41.02	1.54
2437	-3.33	46.45	1.31
2462	-3.59	43.75	1.76
5160	-3.74	42.27	2.29
5250	-3.70	42.66	2.07
5320	-3.90	40.74	1.72
5470	-3.75	42.17	1.73
5600	-3.73	42.36	2.34
5725	-3.93	40.46	2.26
5785	-3.91	40.64	2.05
5850	-3.89	40.83	1.64

Main Antenna			
Frequency (MHz)	Efficiency (dB)	Efficiency (%)	pake gain (dB)
5925	-3.81	41.59	2.12
6085	-4.08	39.08	2.29
6125	-3.85	41.21	2.36
6225	-4.25	37.58	2.30
6325	-4.55	35.08	2.44
6425	-4.29	37.24	2.05
6565	-4.52	35.32	2.41
6625	-4.97	31.84	2.57
6725	-4.52	35.32	2.42
6885	-4.47	35.73	2.54
6925	-4.69	33.96	2.18
7000	-4.80	33.11	2.04
7125	-4.73	33.65	2.78

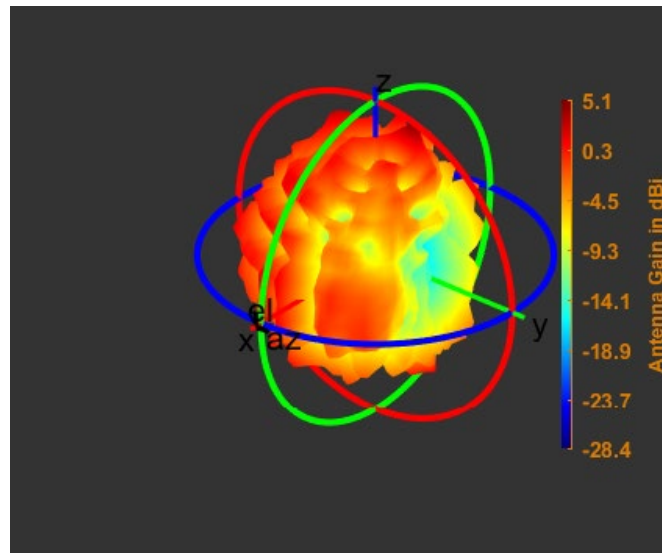
3.3 Antenna Radiation pattern & Gain 2412 MHz



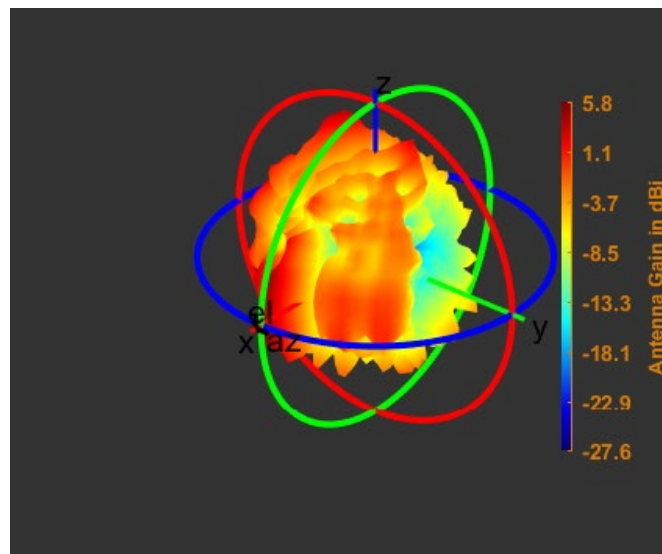
5160MHz



5925MHz



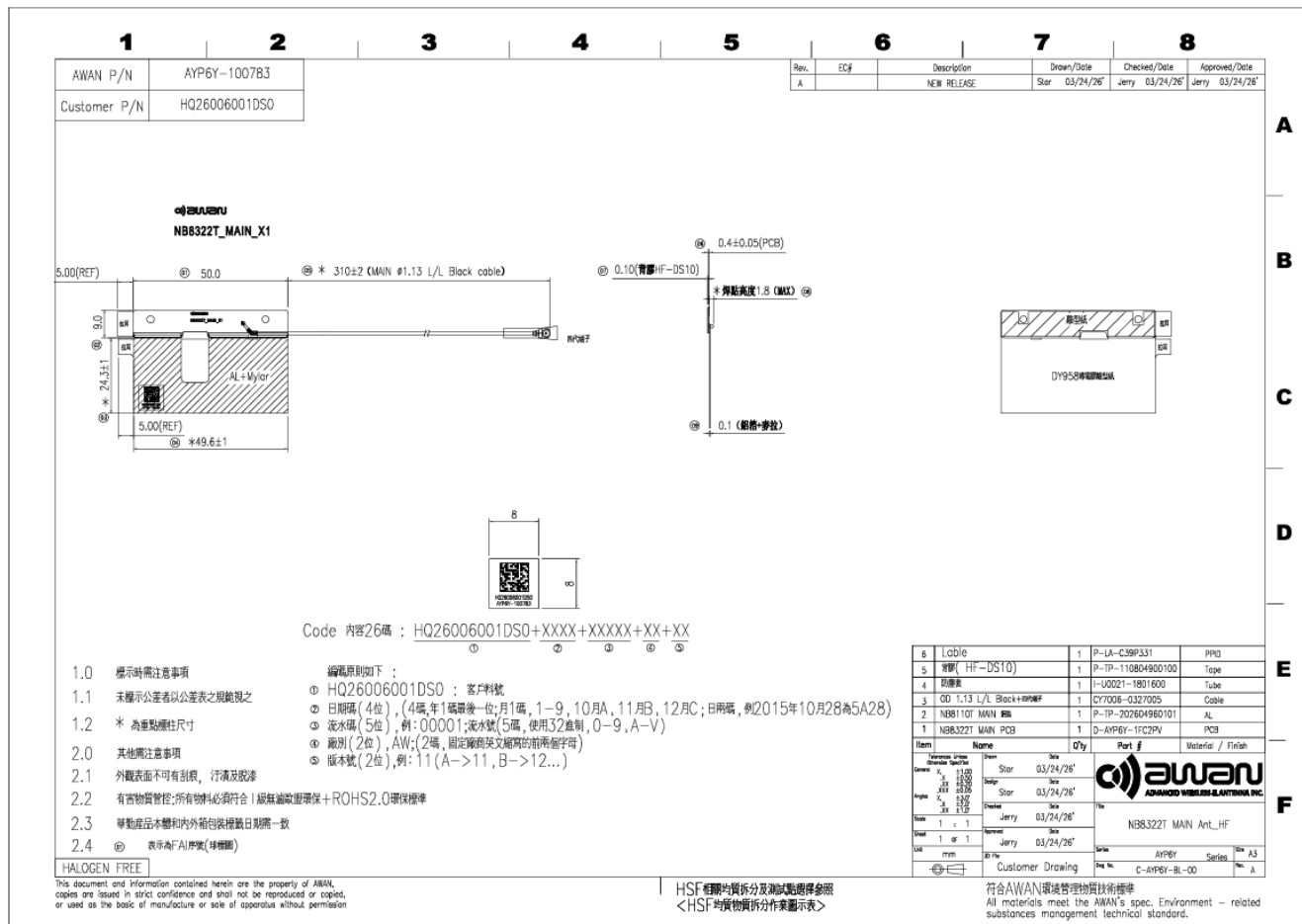
7125 MHz



4.Mechanical Specification

4.1 Assembly Drawing

WALN MAIN Antenna



Revision

Revision	Date	Change Notification	Notes
Rev.0	2026-03-26		