Weihai Dayu electronics co., ltd		Product specification acknowledgement			
File number		version number	V1.0	number of pages	

SPECIFICATION FOR APPROVAL

Product name:	
Product model:	
Product specifications:	EM1510W
DaewooNo.:	G7TXIPEX432000
Supplier item number:	BH-324-265-A1
Date:	2022. 04.22

Supplier's signature		
draw up	check	approve
Wang Dan	Xue Liu	Qiaotianjiang

Daewoo Seal	
Information experiment center	Material technology section

Address:

HTTP: **E-MAIL:**

TEL: **FAX:**

mark	change the date	Change people	Change number	"WARKS remarks
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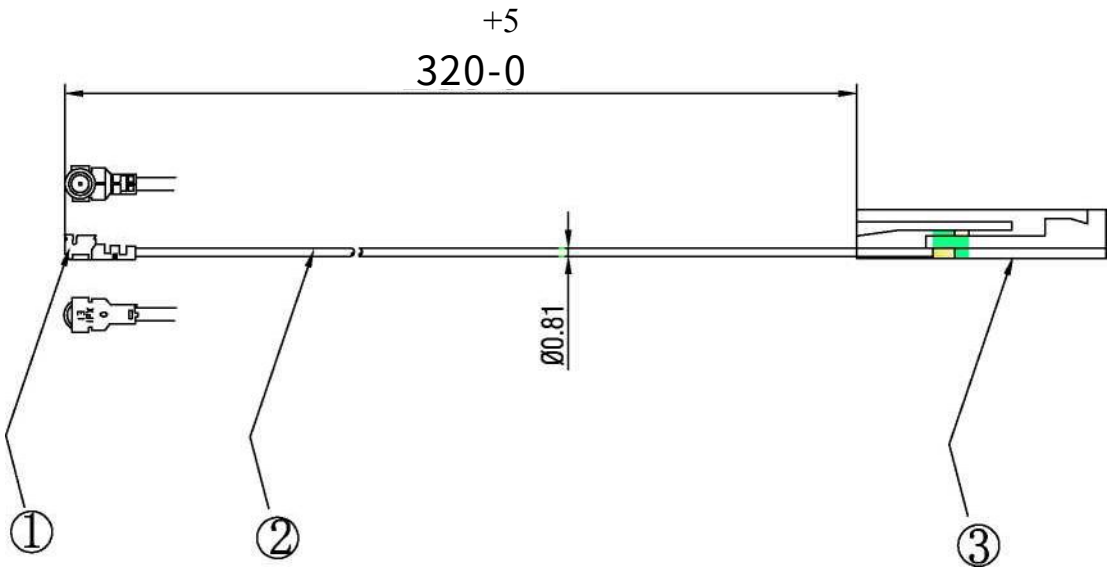
Product name Product Type	WIFI antenna
Model Type	XZYRJ-34. 8*6.5*0. 3-IPEX4
Length	See the figure on the right.
Max Diameter	6. 8mm
Min diameter	Φ0. 81 + 0. 1mm
Connector	IPEX
Lighting protection	DC grounding
Frequency Range	2.4/5.8GHz
Input Impedance	50Ω
Impulse standing wave ratio VSWR	2.0MAX
Temperature	-40 °C +90 °C



⑧		
⑦		
⑥		
⑤		
④		
③	Antenna sheet	White 34. 8*6. 5*0. 3 with adhesive tape
②	wire rod	RF 0. 81 black line 336+5mm
①	connector	IPEX4 generation line end

TITLE	WIFI built-in antenna	MATERIAL	
MODEL example model		HARDNESS	
CUSTOMER N0.	G7TXIPEX420000	WEIGHT	
DWG No.	BH-324-263-A1	SURFACE TREATMENT	
FLOW			

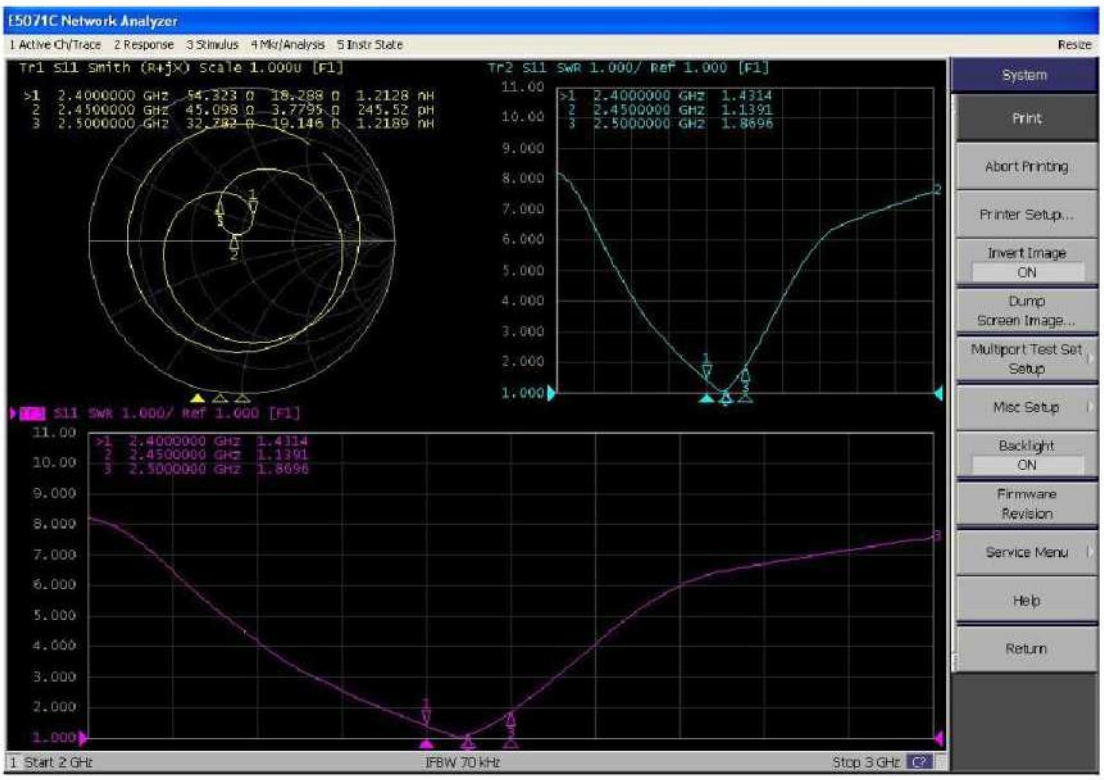
Shenzhen beihuan electronic technology co., ltd

Performance parameter

Electrical parameters	
Frequency range	2400~2500MHz
Input impedance	50Ω
Standing-wave ratio	Test pattern
Increase	/
Capacity	<10w
Polarization mode	Linear polarization
Radiation direction	Omnidirection
Connector model	4 generation terminal
Type of antenna	Metal WIFI antenna
Gain	2.5dBi
Mechanical parameters	
See line length	320^{+5}_{-0}mm
Maintain	1kg
Plugging	/
Coaxial line	Black RFO. 81 line
Salt spray test	24H
environmental parameter	
Working temperature	-40°C~+90°C

Electrical performance test report

S11 Parameter



Passive efficiency test data

frequenc	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Efficiency	50.58%	51.02%	52.10%	53. 43%	54.54%	56. 62%	56. 22%	54.45%	53. 21%	52.14%	51.89%

Reliability test report

Maintain

Test/test items	Maintain	Inspection number
Product name/specification	Antenna slice (34. 8*6. 5*0.3)- black RF0.81 line-4th generation terminal, See line length 320MM.	Test quantity: 5PCS
Date of submission: April 22, 2022		Completion date: April 22, 2022
Test/inspection equipment: 1. Pull the tester.		
Test/inspection conditions: 1. Temperature: 18-25C 2. Humidity ≤70%RH		

Test/inspection result: Qualifiede.

Project / Condition	Maintaining force between terminal and cable ≥1kg				
Test times	one	2	three	four	five
Test result	1.02	1. 15	1.2	1. 1	1. 16
Remarks:					
Test/inspection judgment: ■ Qualifiede ☐ Un qualifiede ☐ Don't judge					

Constant temperature and humidity test

Test/test items	Constant temperature and humidity test	Inspection number
Product name/specification	Antenna slice (34. 8*6. 5*0.3)- black RF0.81 line-4th generation terminal, See line length 320MM.	Test quantity: 5PCS
Date of submission: April 22, 2022		Completion date: April 22, 2022

Test/inspection equipment:

1. Programmable constant temperature and humidity experiment box
2. 8753ES Network analyzer

Test/inspection conditions:

1. Test at constant temperature of 125400 一 30°C for 12H
2. +65° 65~70% RH Test for 12H, A total of 24 hours;

test result

Criteria:

1. The metal surface coating shall be free from peeling, cracking, wrinkling, separation, etc. Non-metallic parts should not be discolored; cracked; deformed and degummed.
2. Electrical test meets the standard requirements: voltage standing wave ratio test is qualified.

Inspection item	Before constant temperature and humidity test	After constant temperature and humidity test	Description of defects	Judgment result
Exterior	No discoloration, cracking, deformation and egum.	No discoloration, cracking, deformation and degumming.	Without	Qualified
Electrical property	The antenna VSWR test is qualified.	Antenna VSWR test grid	Without	Qualified

Test/inspection judgment: ■Qualifiede □ Un qualifiede □Don't judge

High and low temperature cold and heat shock

Test/test items	High and low temperature cold and heat shock	Inspection number
Product name/specification	Antenna slice (34. 8*6. 5*0.3)- black RF0.81 line-4th generation terminal, See line length 320MM.	Test quantity: 5PCS
Date of submission: April 22, 2022		Completion date: April 22, 2022
Test/inspection equipment: 1. High and low temperature alternating damp-heat box 2. 8753ES network analyzer		
Test/inspection conditions: -40℃ (2h)---Interval80℃ (2h), 6 cycles for 24 hours.		

test result

Criteria:
1. The metal surface coating shall be free from peeling, cracking, wrinkling, separation, etc. Non-metallic parts should not be discolored; cracked; deformed and degummed.
2. The electrical test meets the standard: the voltage standing wave ratio test is qualified.

Inspection item	Before high and low temperature cold and heat shock test	After high and low temperature cold and heat shock test	Description of defects	Judgment result
Exterior	No discoloration, cracking, deformation and degumming.	No discoloration, cracking, deformation and degumming.	without	Qualified
Electrical property	Antenna VSWR test grid	Antenna VSWR test grid	without	Qualified
Test/inspection judgment: ■Qualifiede □Un qualifiede □Don't judge				

Salt spray test

Test/test items	Salt spray test	Inspection number
Product name/specification	Antenna slice (34. 8*6. 5*0.3)- black RF0.81 line-4th generation terminal, See line length 320MM.	Test quantity: 5PCS
Date of submission: April 22, 2022		Completion date: April 22, 2022

Test/inspection equipment:

1. HL-60-SS salt spray tester

Test/inspection conditions:

1. The temperature in the salt box is 35±2°C; The laboratory temperature is 22~30 ℃.
2. The settling speed of salt spray after 24H spraying is per 80cm area 1 -2ML/h sodium chloride concentration is 50±10g/L, And the PH value is 6. 5/7. 2.

Test/inspection result: acceptable.

Sample number	Opinion rating	Description of defects
One	qualified	
Two	qualified	
Three	qualified	
Four	qualified	
Five	qualified	

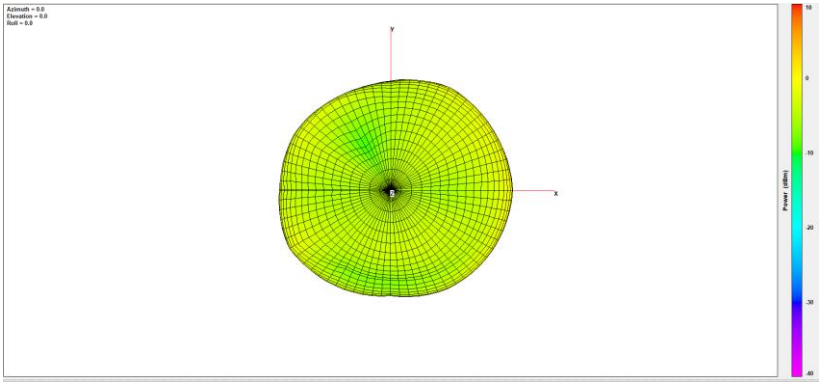
Test/inspection judgment:	■Qualifiede	□ Un qualifiede	□Don't judge

Gain and Efficiency

Frequency	Gain (dBi)	Efficiency (%)
2400 MHz	2.08	25
2450 MHz	2.26	27
2500 MHz	2.50	30

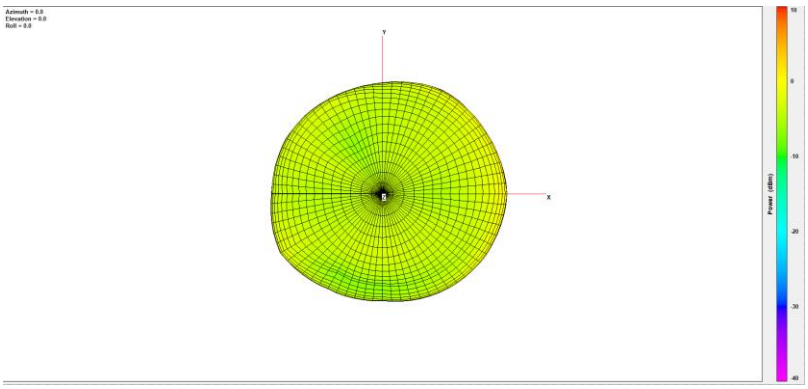
2400-2500MHz radiation characteristic

2400 MHz



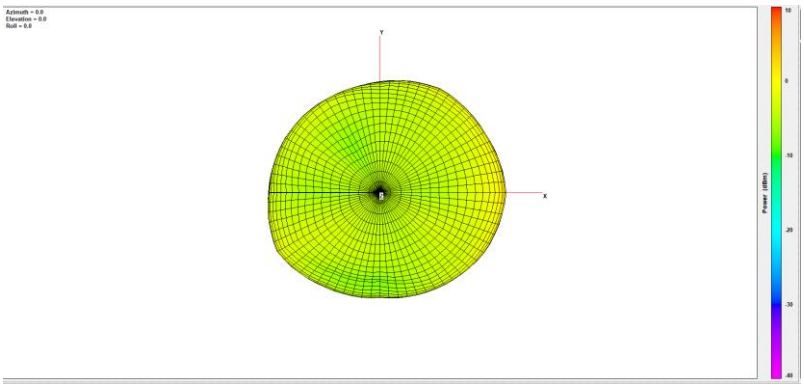
Center Frequency	**2400 MHz**
Three-dimensional (dBi) peak	**2.08**

2450 MHz



Center Frequency	**2450 MHz**
Three-dimensional (dBi) peak	**2.26**

2500 MHz



Center Frequency	**2500 MHz**
Three-dimensional (dBi) peak	**2.50**