

Sample Acknowledgment Letter

Document Version Number: A3

	client	Contract manufacturer	Material Supplier
Partner Name:	Anker	Xiechuang	Youbi
project name:	T8180	T8180	T8180
Material Number:	32002000290	400105520	UB01C100P1D5788A
Material Description:	2.4/5.8 PCB built-in antenna (L = 87 mm); 1.13 mm black wire + terminal (ANT0)		
Acknowledgement Date:	2026-08-18	Acknowledgement Letter Version:	V2

Supplier Confirmation

research and development	Quality

Ankerapproval

Zhixin R&D Zhixin MD/HW/ID Certification	Zhixin SQE

Approval Note: 1. This Acknowledgment Letter shall be prepared in at least five copies; one copy shall be retained by Anker R&D and SQE, one copy by the material manufacturer, and one copy by the contract manufacturer.

Keep two copies at the factory;

2. For Anker products, the owner's signature must bear the full English name of the company.

3. First, distribute the electronic version to the relevant Anker R&D and SQE teams for confirmation; once approved, send the hard-copy version for signature and approval.

Acknowledgement

APPROVAL SHEET

CUSTOMER NAME: Anker

Product Name:

2.4/5.8 GHz PCB Built-in Antenna (L=87 mm) – 1.13 mm Black Cable + Terminal
(ANT0)

CUSTOMER P/N: 32002000290

Youbi P/N: UB01C100P1D5788A REV: C

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:	Zhijun.zhu	
DATE:	2026/8/18	



Dongguan Youbi Electronics Co.,LTD

catalogue

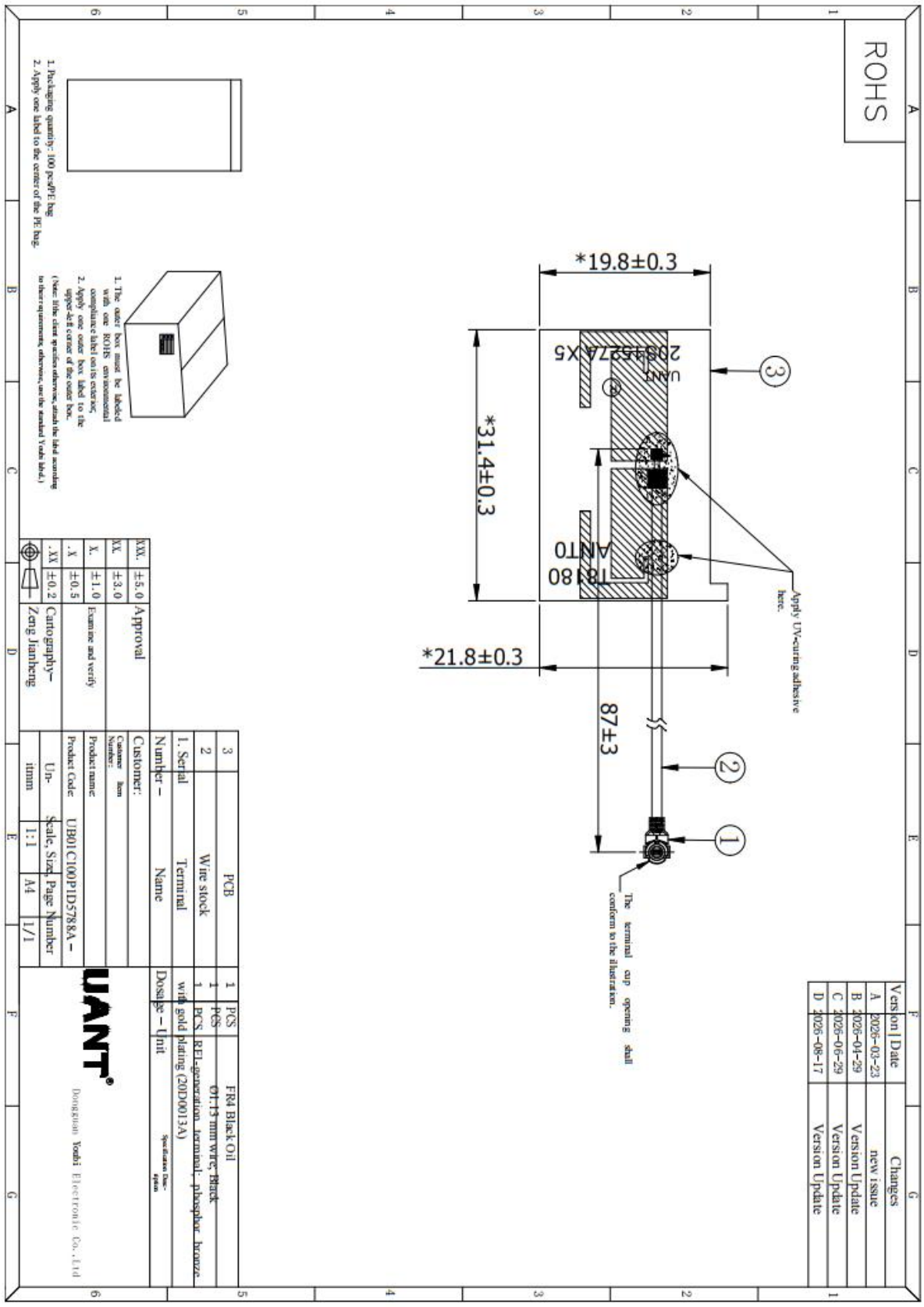
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1. Revision History

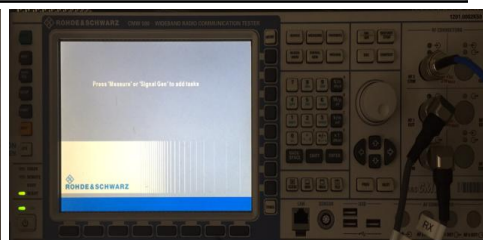
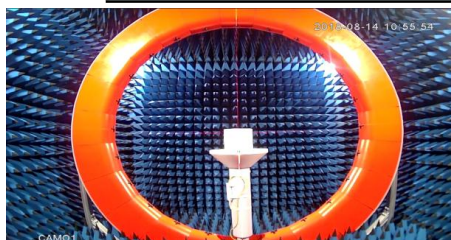
Version	Content Revision	Issued by	Date
A	Original version	lina	2026-4-29
B	Version update	lina	2026-6-29
C	Data update	lina	2026-8-18

2、Product 2D Drawings



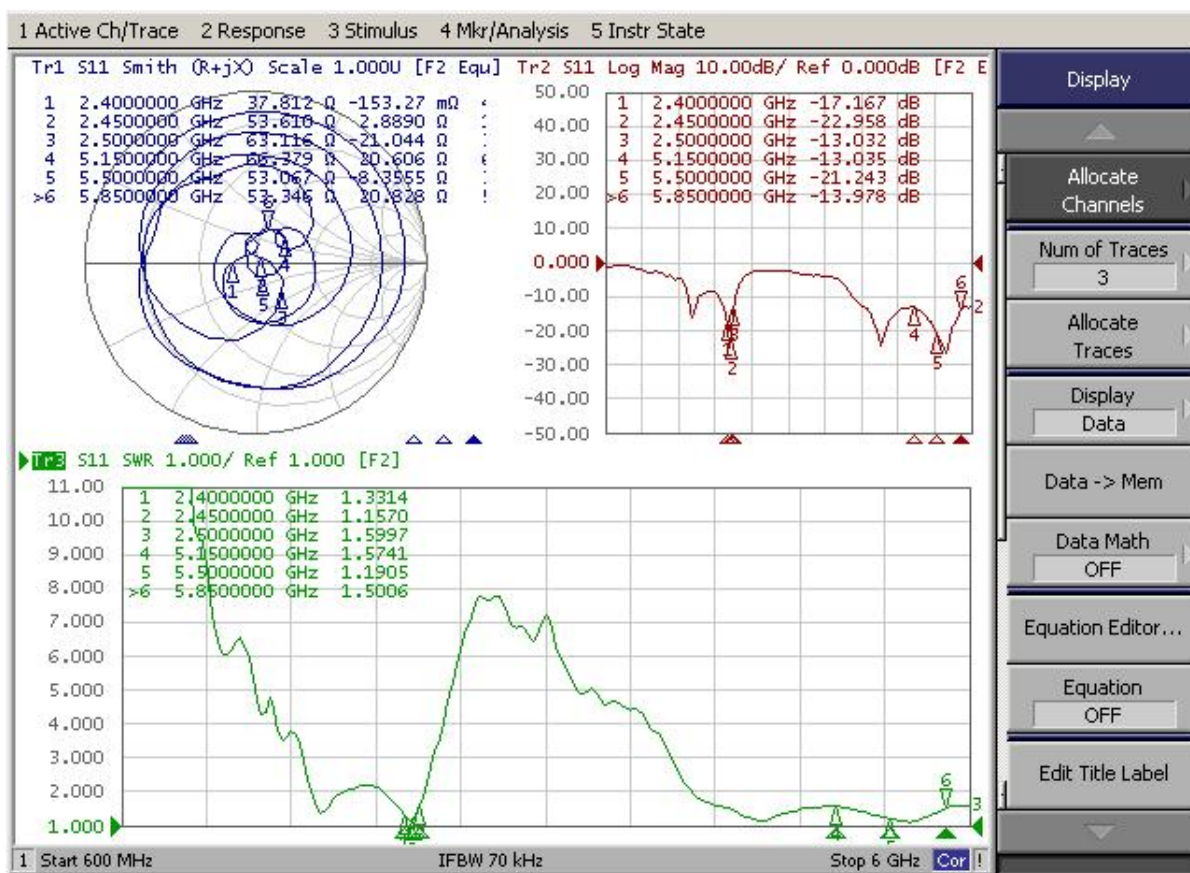
3.、 Test equipment

	Test items	Test equipment
S Parameter	1.Return Loss 2.VSWR	Network analyzer (Agilent E5071B)
The whole machine of Passive parameters	1.Frequency 2.Gain 3.Radiation Pattern	1.3D microwave darkroom (5m*5m*4m) 2.Network analyzer (Agilent E5071B)
The whole machine of Active parameters	1.TRP 2.TIS	1.3D microwave darkroom (5m*5m*5m) 2.Comprehensive test instrument (CMW500)



4. Antenna Network Sub-figure (Antenna S11)

Frequency(MHz)	Return Loss(dB)	VSWR
2400	-17.16	1.33
2450	-22.95	1.15
2500	-13.03	1.59
5150	-13.03	1.57
5550	-21.24	1.19
5850	-13.97	1.50



* Voltage Standing Wave Ratio(VSWR)

Return Loss(RL)

$$RL=20*\log_{10}[(VSWR+1)/(VSWR-1)]$$

5. Antenna Efficiency & Gain

2.4G

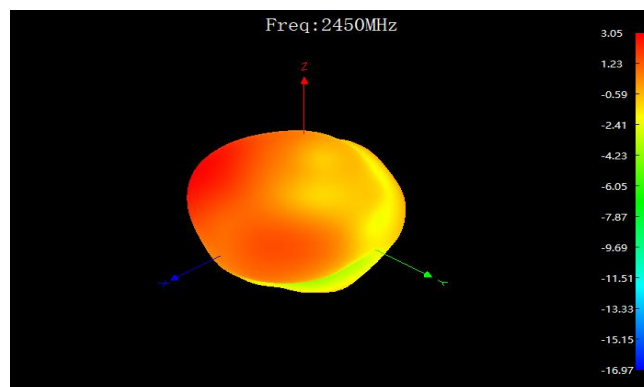
Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-1.85	65.31	2.70
2410	-1.88	64.86	2.80
2420	-1.94	63.97	2.73
2430	-1.99	63.24	2.72
2440	-1.88	64.86	3.0
2450	-1.9	64.57	3.3
2460	-1.92	64.27	3.14
2470	-2.05	62.37	3.08
2480	-2.14	61.09	3.02
2490	-2.47	56.62	2.80
2500	-2.31	58.15	3.0

5.8G

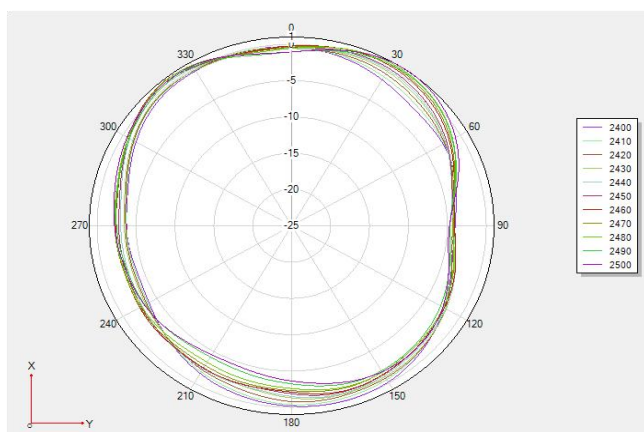
Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
5150	-1.28	74.47	3.02
5200	-1.19	76.03	3.2
5250	-1.54	70.15	2.14
5300	-2.07	62.09	2.13
5350	-1.8	66.07	2.20
5400	-1.63	68.71	2.12
5450	-1.28	74.47	3.02
5500	-1.46	71.45	3.21
5550	-1.54	70.15	3.3
5600	-1.59	69.34	3.01
5650	-1.75	66.83	3.10
5700	-2.28	59.16	2.9
5750	-1.52	70.47	2.97
5800	-1.7	67.61	3.02
5850	-2.07	62.09	3.11

6. Antenna 2D/3D Radiation Pattern

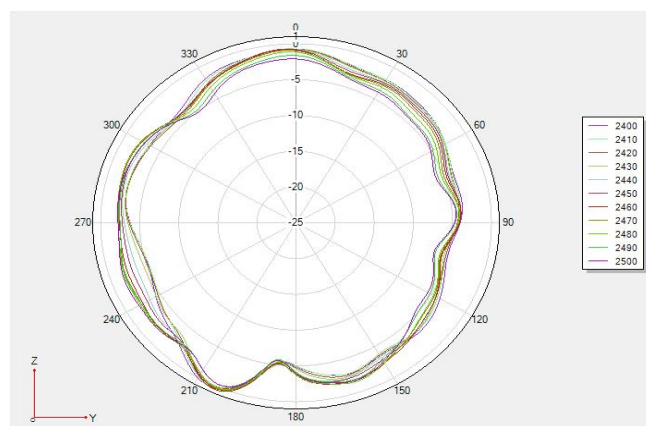
2.4G



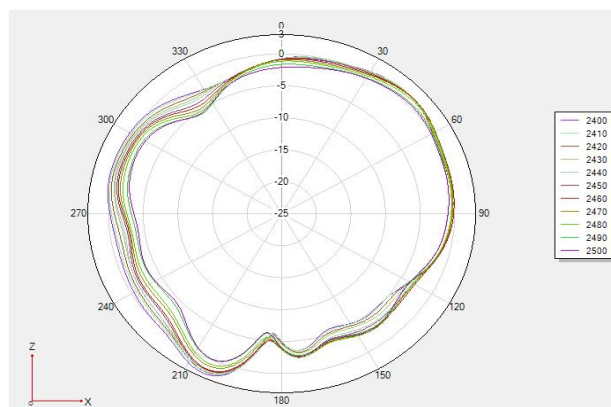
2450MHZ



Phi 0 2D

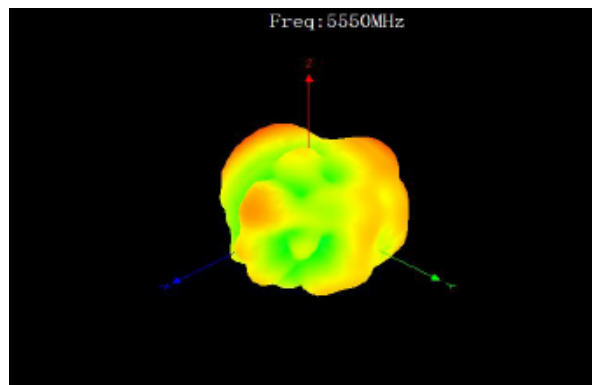


Phi 90 2D

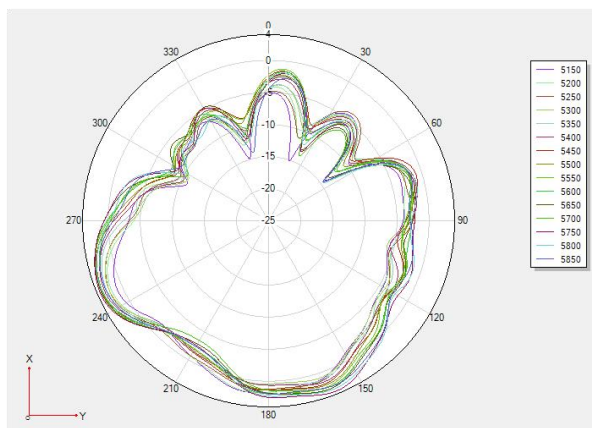


Theta 90 2D

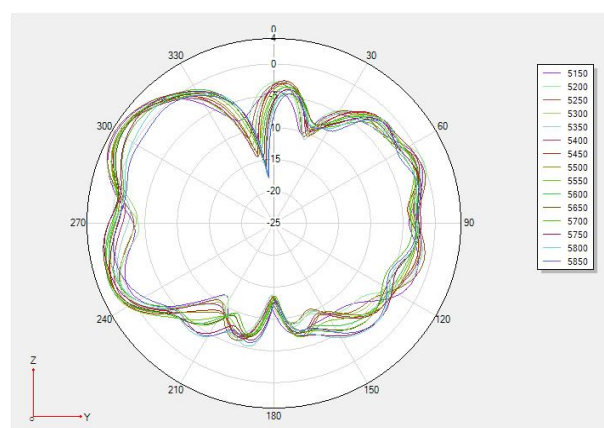
5.8G



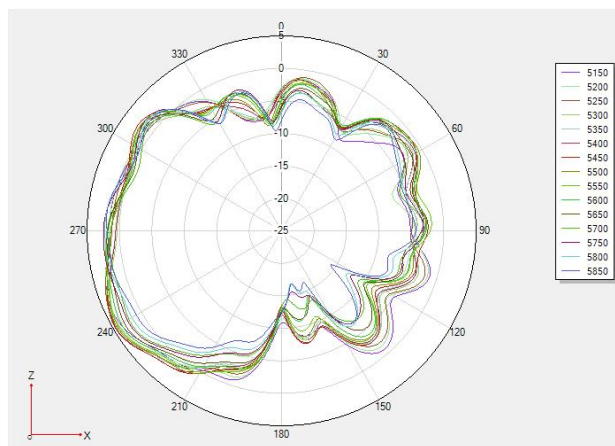
5500MHZ



Phi 0 2D



Phi 90 2D



Theta 90 2D

7. Full Size Test Report

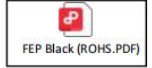
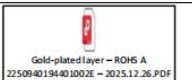
Full Dimensional Inspection Report									
customer name	Anker			drawing number	A1				
project name	Built-in antenna			data unit	mm				
Part Code/Material Number	UB01C100P1D5788A			examination date	2026.08.05				
order number	dimensional requirement	survey tools	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	judge	Customer Review Opinion
1	31.4±0.3	callipers	31.43	31.45	31.46	31.43	31.42	OK	
2	87±3	steel rule	87.50	87.55	87.40	87.45	87.40	OK	
3	19.8±0.3	callipers	19.83	19.82	19.85	19.85	19.85	OK	
Approved by: Li Shufei; Reviewed by: Li Yongxiang; Inspector: Zhou Jianming Approved by: Li Shufei; Reviewed by: Li Yongxiang; Inspector: Zhou Jianming Approved by: Li Shufei; Reviewed by: Li Yongxiang; Inspector: Zhou Jianming									

8. CPK Test Report

CPKreport															
Process Capability Index Report															
Customer name	Anker			Project stage	Mass production			Report number	2026080502			Auditor	Li Shufei		
Project name	T8180			Drawing number	A1			Inspection Personnel	Zhou Jianming			Date	2026.08.05		
Component Name/Process Section	UB01C100P1D5788A			Data unit	mm			Testing Date	2026.08.05			Page number	1		
Dimensional Code	1	2	3												
Dimensional Standards	87	31.4	19.8												
Upper deviation	3	0.3	0.9												
Lower deviation	-3	-0.3	-0.3												
USL	90	31.7	20.7												
LSL	84	31.1	19.5												
Survey tools	OMM	OMM	OMM												
1	87.5	31.45	19.85												
2	87.53	31.46	19.85												
3	87.5	31.45	19.83												
4	87.45	31.43	19.83												
5	86.56	31.35	19.74												
6	87.35	31.43	19.85												
7	87.45	31.45	19.84												
8	87.40	31.43	19.86												
9	87.50	31.44	19.83												
10	87.46	31.43	19.84												
MAX.	87.530	31.460	19.860												
MIN.	86.560	31.350	19.740												
AVG	87.370	31.432	19.832												
STDEV	0.290	0.031	0.034												
Range	0.970	0.110	0.120												
Ca	12.33%	10.67%	44.67%												
Cp	3.45	3.24	5.89												
Cpk	3.03	2.90	3.26												
Result (Grade)	A+	A+	A+												
Product percent of pass	0.00%	0.00%	0.00%												
A+	Cpk>1.67			Process capability is sufficiently adequate; maintain as is.											
A	1.33< Cpk ≤			The process capability is fully utilized; it can be upgraded to Level A+.											
B	1.0 < Cpk ≤			The process capability is acceptable; therefore, process improvement measures should be implemented to reduce output variability and enhance quality.											
C	0.67< Cpk ≤1			Insufficient process capability requires a comprehensive review and the implementation of corrective measures; if necessary, production may be halted.											
D	Cpk ≤ 0.67			Due to severe process capability deficiencies, production was immediately halted; the root causes were investigated and corrective actions were implemented to carry out comprehensive process improvements.											

9. RoHS Report

Environmental report checklist Environmental Impact Assessment Checklist

Client:	Anker	Fabrication	ZZJ	Production Date	2026.08.05
P / N	UB01C100P1D5788A	Proofreading	HTF	Proofreading Date	2026.08.05
Part name	2.4/5.8 PCB built-in antenna (L = 100 mm)	Affirm	QXH	Confirmation Date	2026.08.05
Material Name	Component Name	Test Report Number	Test Date	Testing Institution	Test Report Attachment
PCB	Base material	SHAEC26020074017	2026-7-9	SGS	
Wire stock	FEP	A2260280297401001E	2026.04.13	CTI	
Terminal	Base material	CANEC24029407215	2025.11.13	SGS	
	Cladding material	A2250940194401002E	2025.12.24	CTI	

10.Reliability Report



Saline Spray Test Report

Supplier/Client Name	Anker	Duration of test	2026.8/5 08: 00/8/7 08: 00
Product Name & Specifications	PCB built-in antenna	Comprehensive Assessment	OK
Part Code/Material Number	UB01C100P1D5788A	Edition	A

Experimental Objective:

☐ New Product Development Testing ☐ Design Change Test
☐ Mass Production Tracking Test ☒ Other special requirements testing
☐ Feedstock/Process/Finished Product Inspection

Device name: Saline Spray Machine

Test Specification: Temperature 10-35 °C

Average salt solution volume collected: 500 ml/hr

Saline solution concentration: 5±1 %

Proving time: 48 Hrs

Number of tests: 2 PCS

Up

● Indicates the test temperature. The solid line represents the test temperature, and the dashed line represents the ambient temperature.

▲ Remove the test sample, wash and dry it, then let it stand for 1 hour.

Sample	Visual inspection	Electrical Testing	Judge
1	No rusting or oxidation	2400-2500/5150-5850MHz PASS	OK
2	No rusting or oxidation	2400-2500/5150-5850MHz PASS	OK
3	No rusting or oxidation	2400-2500/5150-5850MHz PASS	OK
4			
5			