

Development project number: Y201801190627

day Period: 2018.01.19

edition Book: A0

Letter of Recognition

Customer Name: Baolun ElectronicsDebugging model: wireless unit (transponder)Boan Tong Part No. : AG-041433-1444Specification Description: 5G Built-in Antenna (FPC
36.5×9.4) - Grey 1.13 Wire - Terminal, L=115mm Factory

Signature:

Writing	Review	Approval
Qiu Cuiping	Zou Lingfeng	Jiang Jianhong

Customer

Acknowledgment

Signature:

Inspection	Review	Approval

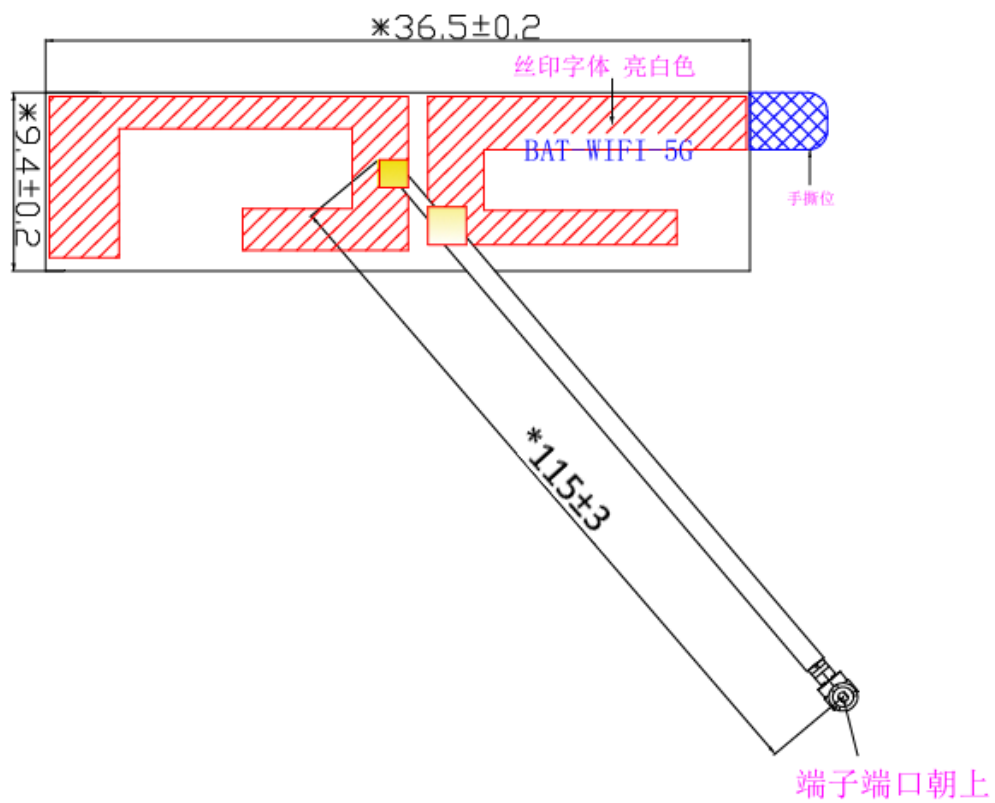
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3、产品图面

单位: mm

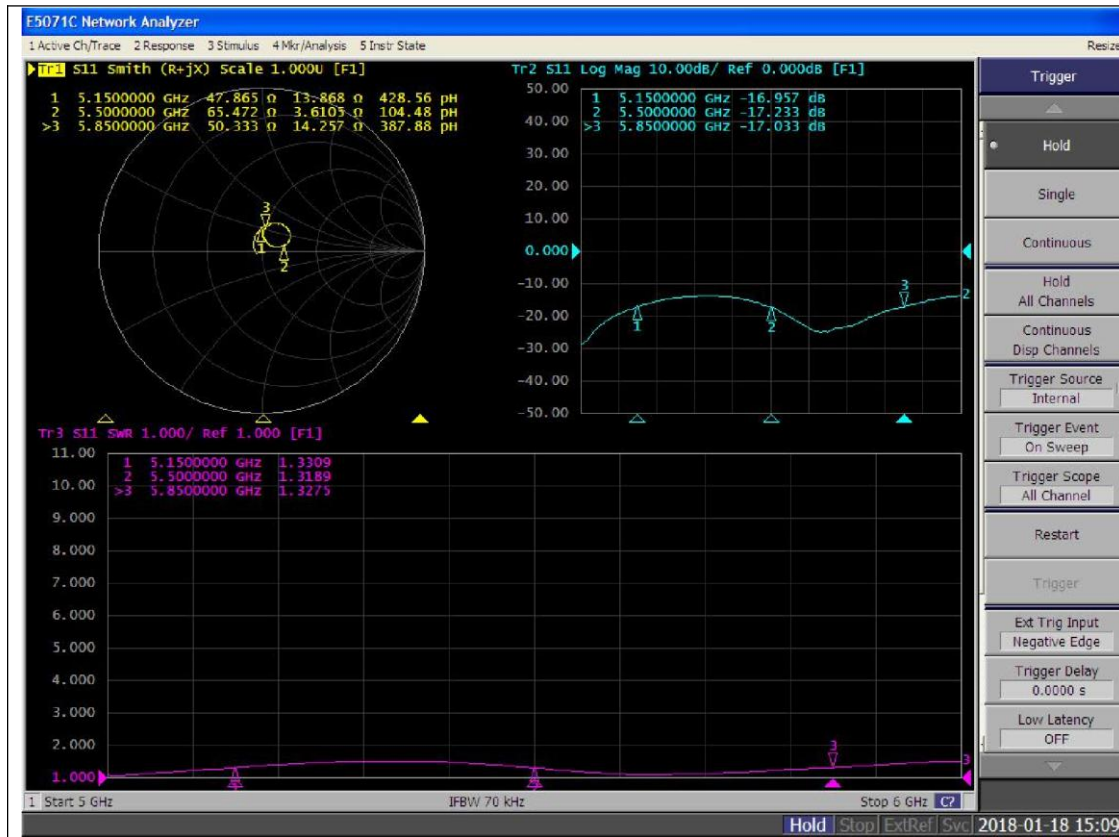


4、Performance parameters

Electrical parameters	
Frequency range	5150-5850MHz
Input impedance	50Ω
Stop the wave	Control the project sealing sample
Maximum gain	6.23dBi
Power capacity	<10w
Polarization mode	Line polarization
Radiation direction	Omnidirectional
Connector model	terminals
Mechanical parameters	
Line length	90±3mm
Sustainment	1KG
Coaxial cable	Grey 1.13 line
Salt spray test	24H
Environmental parameters	
Operating temperature	-20℃~40℃

5、Electrical performance test report

S11 Parameter



Frequency	5150MHz	5500MHz	5850MHz
Stop the wave	1.33	1.31	1.32
Echo loss	-16.9	-17.2	-17.0

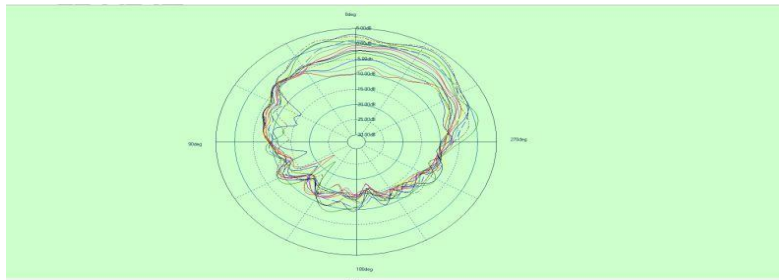
Gain & Efficiency

Pattern (

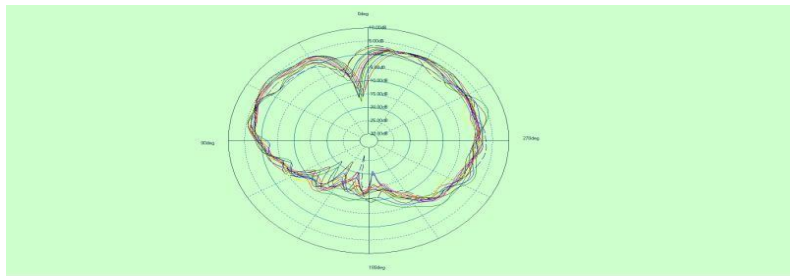
Frequency/MHz	5150	5200	5250	5300	5350	5400	5450	5500	5550	5600	5650
gain/dBi	5.89	6.03	6.23	6.04	5.79	5.63	5.27	4.79	4.47	4.48	4.72
Efficiency/%	64%	64%	64%	65%	67%	67%	67%	66%	65%	69%	72%

Frequency/MHz	5700	5750	5800	5850
gain/dBi	4.74	4.68	4.58	4.54
Efficiency/%	71%	72%	71%	70%

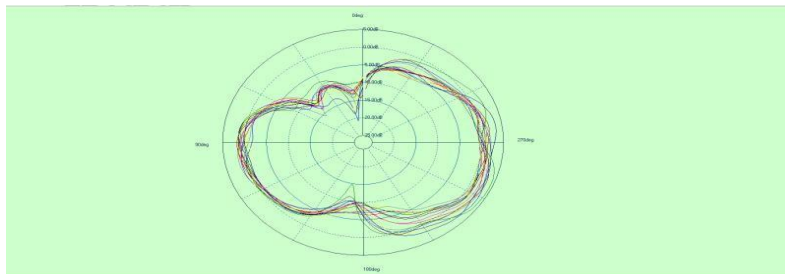
E1



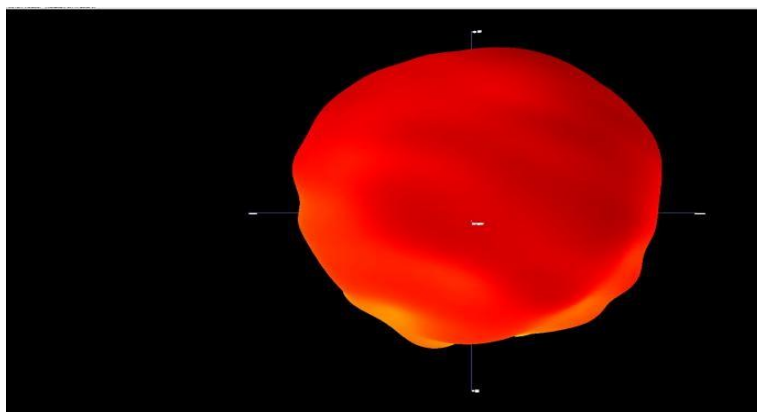
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H



3D



Test: Liu Hua

Review: Jiang Hongying

6. 2. Constant temperature and humidity test

Trial/Trial Project	Constant temperature and humidity test	Inspection ticket number
Product Name/Specification	5G built-in antenna (FPC 36.5×9.4) - gray 1.13 wire - terminal, L=90mm	Test quantity: 5PCS
Submission date: 2018-01-17		Completion date: 2018-01-18
Testing/Inspection Equipment: 1. Programmable constant temperature and humidity experimental chamber 2. 8753ES Network Analyzer		
Test/Inspection Conditions: 1. Test at room temperature 25° C and humidity 65% 2. +80° 85~90%RH 2 hours a cycle, a total of 24 hours;		
The results of the trial		
Judgment criteria: 1、The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc.; non-metallic parts should not be discolored, cracked, deformed, degummed and other defects; 2、Electrical test meets standard requirements: Voltage VSWR test qualified		

Inspection items	Before the constant temperature and humidity test	After constant temperature and humidity test	Defect description	Judgment result
Appearance	The appearance is free of discoloration, cracking, deformation, and degumming	The appearance is free of discoloration, cracking, deformation, and degumming	None	Qualified
Electrical performance	The antenna voltage VSWR test is qualified	The antenna voltage VSWR test is qualified	None	Qualified

Test/Inspection Determination: ☒ Qualified ☐ Not qualified
☐ No judgment

Test: Liu Hua Review: Jiang Hongying

6. 3. High and low temperature cold and heat shock

Trial/Trial Project	High and low temperature cold and heat shock		Inspection ticket number	
Product Name/Specification	5G built-in antenna (FPC 36.5×9.4) - gray 1.13 wire - terminal, L=90mm		Test quantity: 5PCS	
Submission date: 2018-01-17			Completion date: 2018-01-18	
Testing/Inspection Equipment: 1. High and low temperature alternating damp and hot box 2. 8753ES Network Analyzer				
Test/Inspection Conditions: -40° C (2H) --- 80° C (2H) interval for 6 cycles for a total of 24 hours				
The results of the trial				
Judgment criteria: 1、 The metal surface coating should be free of peeling, cracks, wrinkles, separation, etc.; non-metallic parts should not be discolored, cracked, deformed, degummed and other defects; 2、 Electrical test meets standards: Voltage VSWR test is qualified.				
Inspection items	Before the high and low temperature cold and heat shock test	After the high and low temperature cold and heat shock test	Defect description	Judgment result
Appearance	The appearance is free of	The appearance is free of discoloration, cracking, deformation, and degumming	None	Qualified

	discoloration, cracking, deformation, and degumming			
Electrical performance	The antenna voltage VSWR test is qualified	The antenna voltage VSWR test is qualified	None	Qualified
Test/Inspection Determination: ☒ Qualified ☐ Not qualified ☐ No judgment				
Test: Liu Hua Review: Jiang Hongying				

6. 4. Salt spray test

Trial/Trial Project	Salt spray test	Inspection ticket number
Product Name/Specification	5G built-in antenna (FPC 36.5×9.4) - gray 1.13 wire-terminal, L=90mm	Test quantity: 5PCS
Submission date: 2018-01-17		Completion date: 2018-01-18
Testing/Inspection Equipment: 1. HL-60-SS salt spray tester		
Test/Inspection Conditions: 1. The temperature in the salt spray box is 35±2° C; The temperature of the laboratory is 22~30° C 2. The salt spray sedimentation rate is 1-2ML/h per 80cm area after 24 hours of spraying, the sodium chloride concentration is 50±10g/L, and the PH value is 6.5/7.2		

Test/Inspection Results: Qualified

Sample number	Evaluation level	Defect description
1	Qualified	
2	Qualified	
3	Qualified	
4	Qualified	
5	Qualified	

Test/Inspection Determination: ☒ Qualified ☐ Not qualified
☐ No judgment

Test: Liu Hua

Review: Jiang Hongying

7、Material composition and hazardous substance table

Items	Specifications	Material	RoHS Inspection Results (PPM)						ICP detection number	Detection time
			Cd	Pb	Hg	Cr+6	PBB	PBDE		
1	1.13 line	FEP	ND	ND	ND	ND	ND	ND	CANEC1712895204	17.07.11
		Tinned copper wire	ND	11	ND	ND	ND	ND	SHAEC1703484003	17.03.06
2	FPC	FPC flexible circuit board	ND	ND	/	/	/	/	SZXE1700786303	17.08.09
3	terminals	FEP	ND	ND	ND	ND	ND	ND	CANEC1712895204	17.07.11
		Tinned copper wire	ND	11	ND	ND	ND	ND	SHAEC1703484003	17.03.06
		FEP	ND	ND	ND	ND	ND	ND	CANEC1712895204	17.07.11

Product packaging specifications
PACKING CRITERION

Part No. : AG-041433-1444
Specifications: 5G built-in antenna (FPC 36.5×9.4) - gray 1.13 wire - terminal, L=90mm

一、Label requirements

Inner label Length 10cm Width about 6cm

Demand	*****		
Supplier	Zhongsan Boantong Communication Technology Co., Ltd		
Purchase order number	*****		
Material code	*****		
Product name and specificatio n	***** *	Inspector	**
Quantity/unit	*****	Date of manufactur e	*****. **
Note:	*****		

Outer label: Length 10cm, width about 6cm

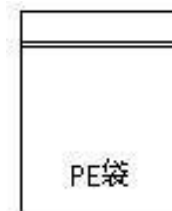
Demand	*****		
Supplier	Zhongsan Boantong Communication Technology Co., Ltd		
Purchase order number	*****		
Material code	*****		
Product name and specificatio n	***** *	Inspector	**
Quantity/unit	*****	Date of manufactur e	*****. **
Note:	*****		

二、Packing requirements operation description:

1. Inner Packing:

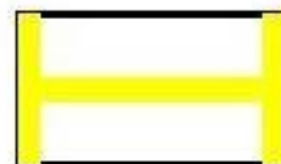
products 50 PCS/sachets,

200 PCS/big bag

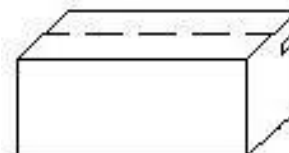


2. Outer packaging:

Quantity according to actual packing/ PCS one carton



纸箱



Notes:

- Whether to add partitions and pearl cotton;
- Label attachment, such as ROHS, etc.;