

Supplier Name: Shenzhen Kangyuanxin Communication Technology Co.,Ltd

SPECIFICATION APPROVAL SHEET

Product Name: Antenna

Model: FPC Antenna

Specifications / materials: AMP 6500-WIFI-ANT-V01-SC20-A/E


Brand: KYX

Package: Sealed plastic bag packaging, 200PCS per package, cartons

Product category: FPC

Material Code: 200207015310111

Product Description: AMP 6500_WIFI_FPC ANT -2.4G&5G -V01-No wires -SC20_A/E-KYX

Supplier signature	Customer signature
	

Supplier contact address: 6Th floor, 21 Guangqian Industrial Zone, Longzhu 3rd Road, Xili Town, Nanshan District, Shenzhen

Supplier business liaison / TEL / FAX: Liyucheng /075586238626/075586238957

Supplier Technical Support Contact /TEL: Qin Xinjian /075586238967

File Version Information

Category	Date	Version Number	Describe	Recognition	Remarks
Electronic	2018/12/6	V1.0	First Edition	Zhao xiaobo	

NEW POS TECHNOLOGY CO. LIMITED		Product Inspection Specification					Number: 2018120607		Edition: B	
							Date:		2018/12/6	
Material number		200207015310111	Process name	Incoming inspection	Standard	MIL-STD-105E appearance: II; function: S-2			Acceptance: CR: 0、MAJ: 0.25、MIN: 1.0	
Describe		AMP 6500_WIFI_FPC ANT -2.4G&5G -V01-No wires -SC20_A/E-KYX					Supplier		KYX	
Inspection items and standards						Graphic:				
Inspection items	Verify Contents		Test criteria		Tool	Frequency	Department	Judging		
								CR	MA	MI
Size	1	45.70	±0.2mm		CCD callipers visual	Submitted/approved	IQC	V		
	2	30.50	±0.2mm							
	3	19.70	±0.2mm							
	4	6.71	±0.2mm							
structure appearance	Structure		According to the structure; Back glue, off-type paper, line part, hole position and drawing are the same.		visual	Submitted/approved	IQC	V		
	Appearance		No damage, no dirt on the surface, no burrs on the edges							
	Welding disk		Gold plating, no damage, no oxidation.							
	Silk Seal		Clear and clear(no fall to see bottom bad)							
Function / Performance	Stand Bobby		≤3.0		View Recognition	Submitted/approved	IQC	V		
	Efficiency		/							
	Open and short circuit test		No open circuit between the two plates		multimeter					
Packaging / marking	Blending, mixing, short-fitting		Not allow		visual	Submitted/approved	IQC			V
	Moisture-Proof grade		/							
	Indicate		According to NEWPOS label requirements							
material quality	According to the material requirements of the "Product Recognition"									
Packaging specifications	According to the packing specifications of the Product Recognition Book									
RoHS&HF	Decision Standard Reference & Lt; Specification for Management of Hazardous Substances & amp; Gt; execution									
Store	-40℃~+85℃									
Remarks						Approve		Countersign		Formulate
						/		Fang zhaoyu		Zhao xiaobo



Matters needing attention

- 1: Unrevised matters are subject to specification requirements or product drawings(including preparation documents);
- 2: The transparent parts are executed according to the transparent parts test standard, and the flame retardant is based on ANSI/UL -94 V-0;
- 3: This specification is based on NEW POS sampling level: normal appearance test using MIL-STD-105E II, function and size using MIL-STD-105E S-2
- 4: The sample of the reference must be a qualified model, pay attention to the effective preservation period of the material;
- 5: The material meets the requirements for the control of hazardous substances.

Accessories:

number	Specification Name	Version	Date	Publish unit	Remarks
1	Antenna test report	/	2018/6/21	KYX	
2	Antenna Size Report	/	2018/9/13	KYX	
3	Drawing	RC	2018/9/13	KYX	
4	Packaging specifications	RA	2018/9/13	KYX	
5	Installation Operations Guide	/	2018/9/13	KYX	
6	Salt fog test, constant temperature humidity, cold and hot impact test report	/	2018/12/5	KYX	
7	RoHS certificate	/	/	SGS/CTI	

WIFI antenna test report

Company Number: HZR040-D Customer Number: AMP 6500-WIFI Test date: 2018.6.21

Reasons for testing: New projects Specification change Process change First confirmation

Test data	Test tool: ETS7*4*3 Dark room. .8960/E5515C	Test method: 1. Assembly the antenna to be tested on the prototype 2. Start the prototype on the test fixture in the dark room and establish a connection with the measuring instrument. 3. Test TRP and TIS with test software.
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单位: dBm		Channel	TRP		TIS	
			SC20_A	SC20_E	SC20_A	SC20_E
WIFI	2.4G	1	10.62	10.36	-67.59	-67.81
		7	11.05	10.95	-67.88	-67.66
		13	10.54	10.29	-67.61	-67.59
	5.8G	36	11.08	11.19	-65.83	-66.15
		60	11.25	11.28	-66.39	-66.34
		153	10.63	10.59	-66.44	-66.29

Electrical test findings	Meeting customer needs
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R&D Engineer: Qin Xinjian

WIFI antenna test report

Company Number: HZR040-D

Customer Number: AMP 6500-WIFI

Test date: 2018.6.21

Reasons for testing: New projects Specification change Process change First confirmation

Test data

Test tool:

ETS7*4*3 Dark room. .8960/E5515C

Test method: 1. Do a good job of testing and treatment, and assemble the antenna to be tested on the prototype.
2. The prototype is placed on the test fixture in the dark room and connected to the network.
3. Test antenna Gain with test software.

WiFi antenna

Unit: dBi		Gain
WIFI	2.4G	1.98
	5.8G	2.56

Electrical test findings

Meeting customer needs

R&D Engineer: Qin Xinjian

Antenna Size Report

File Number: GC-ESET-001

Company Number: HZR040-D Customer Number: AMP 6500-WIFI Test date: 2018-9-13

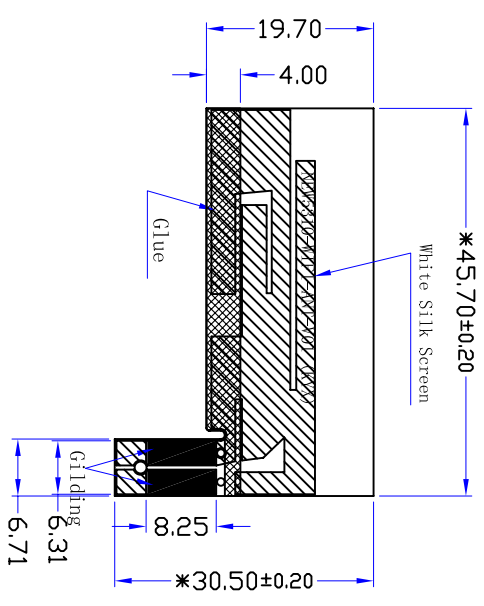
Reasons for testing: New projects Specification change Process change First confirmation

Divide antenna	specification	Test items		Sample 1	Sample 2	Sample 3
	0.42±0.05	Circuit board	thickness	0.426	0.427	0.425
	FPC (0.2FR4)		material	Electrolytic copper	Electrolytic copper	Electrolytic copper
	Appearance standard		appearance	No leakage of copper, shearing, oil, etc..	No leakage of copper, shearing, oil, etc..	No leakage of copper, shearing, oil, etc..
	Overall assembly					
	45.7±0.2	other	FPC length	45.72	45.71	45.73
	30.5±0.2		FPC width	30.54	30.53	30.51
			Line length			

Test conclusion	Structural assembly meets customer requirements	Structural confirmer: Yao changqing
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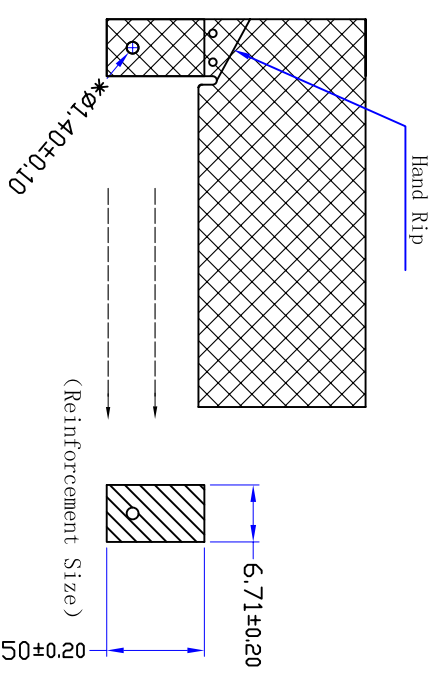
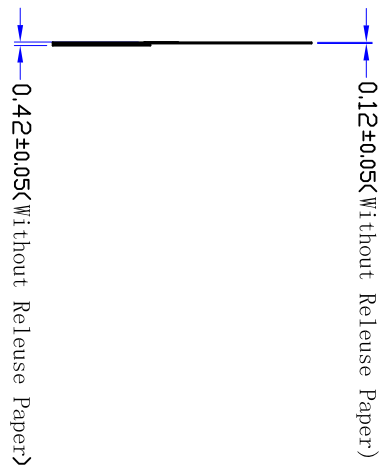
Final decision	instructions	
	conclusion	<input checked="" type="checkbox"/> accept <input type="checkbox"/> reject <input type="checkbox"/> Conditional acceptance Confirmation: Yao changqing

Version	Modifications	Modifier	Date
RA	First issue	Yao	18.06.29
RB	Antenna line modification	Yao	18.07.12
RC	Alteration of antenna lines and shapes	Yao	18.09.13

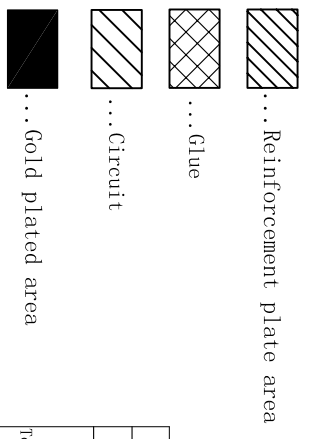


Front

- technical requirements
1. The substrate uses PI T = 1 MIL, copper foil thickness 0.5 oz(electrolytic copper);
 2. The surface of the copper berth is covered with black oil, and the oil must be uniform;
 3. Reinforcement board: FR4T = 0.2 MM
 4. Back glue 3M9471LE(3M300LSE);
 5. Gold plated area: Gold plated thickness of 0.03 UM or more, nickel plated thickness 3-8UM;
 6. Bring "; "; * "; "; "; Symbol size is the key size;
 7. Unspecified tolerances according to the general tolerances table;
 8. The material must meet the ROHS requirements.
 9. PE bag packaging shipped, a bag 200PCS.



Back



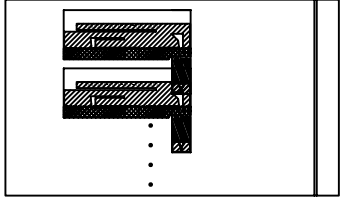
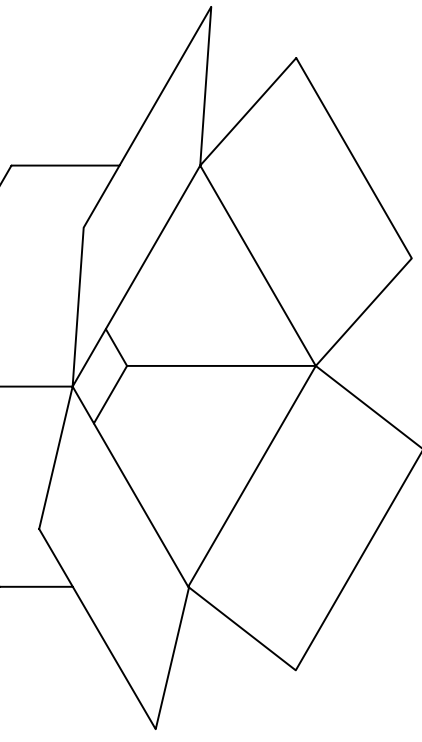
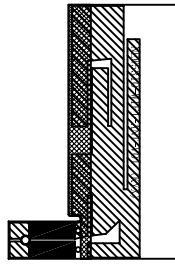
Tolerance Range		Approval	
0-10	±0.1		
10-20	±0.12	Design	Yao
20-40	±0.15	Audit	Qin
40以上	±0.2		

Kangyuan Organism Magnet Industry Co.,Ltd			
Product No.	Material	Customer No.	Version
HZR040-D	FPC	HZR040-D-01A	RC
Part Name	PN	Date	Unit: mm
AMP 6500 WFI	PN	2018-09-13	page1/1

KOYOX

Version	Modifications	Modifier	Date
RA	First issue	Yao	18.09.13

Packaging instructions:
 1. Each 200 antenna components are zipped into a bag and then packaged.



- Cardboard physical properties parameters:
1. Material: <UNK> type(BCB) K = K
 2. Break resistance: 11 ± 1 kgf/cm
 3. Side pressure: 5500 (N/m) ± 500
 4. Water content: 8 ± 2 %

				Kangyuan Organism Magnet Industry Co.,Ltd		KOYOX			
		Product No.	HZR040-D	Material	/				
		Customer No.	Yao	Version	PN				
		Design	Qin	Packaging diagram	PN				
		Audit		Date	2018-09-13				
		Approval							

Tolerance Range	0-10	±0.1	10-20	±0.12	20-40	±0.15	40以上	±0.2

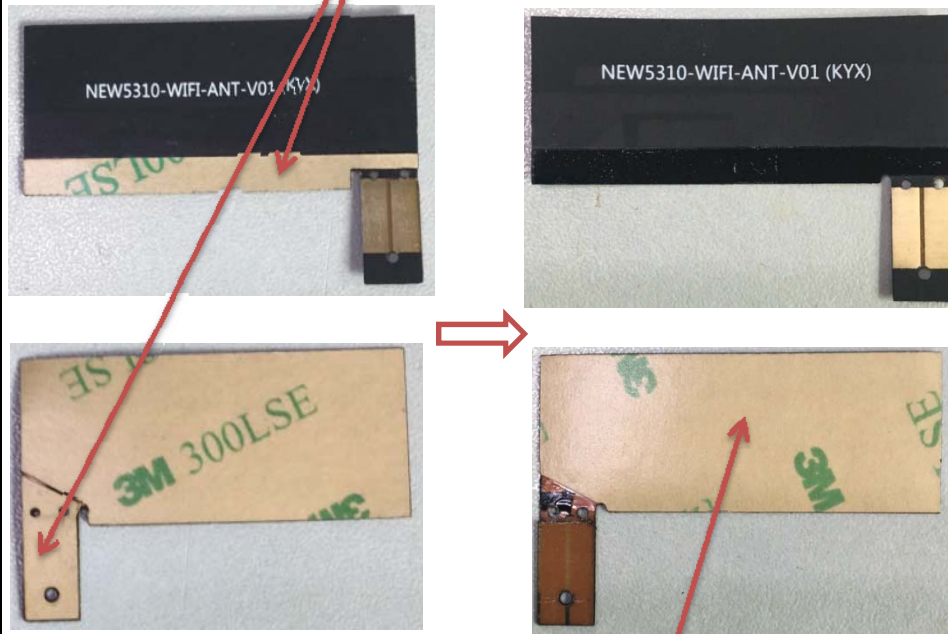
Guidelines for antenna installation operations

Company Number: HZR040-D

Customer Number: AMP 6500 WIFI

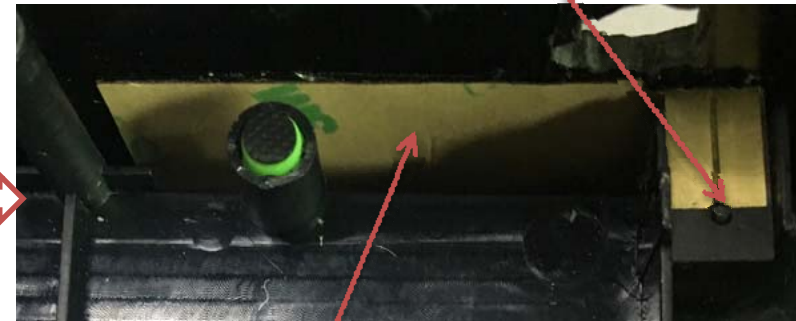
Date: 2018-09-13

Step 1: Tear off the back of the FPC(as shown below).



Special Note: Arrow Indicates Area Offform Paper Do not Tear Out.

Step 2: Paste the antenna FPC positioning hole with the shell positioning column.



The antenna FPC is inserted along the inside of the shell and then pressed the antenna with tweezers to make the antenna glue better to the shell.

Icon after antenna assembly



Antenna installation steps:

Step 1: Tear off the back of the FPC(pictured above).

Step 2: The antenna FPC positioning hole is pasted with the shell positioning column. (FPC inserts the inside of the shell and then presses the antenna with tweezers to make the antenna glue better to the shell.))
(Note: FPC is to be flat close to the surface of the shell, and there must be no undesirable phenomena such as edges or middle bulges).



Shenzhen Kangyuanxin Communication Technology Co., Ltd

Salt Fog Experimental Report

Customer	HZR	Type of electroplating	Gilding
trade name	AMP 6500 WIFI	Number of samples tested	15PCS
Test specifications	NSS Neutral Test	Criteria for testing	IPC-TM650
Solution value	5%NaCl	Temperature	40°C
Atmospheric pressure	1Mpa		
Spray mode	Continuity	Settlement number (h.80cm)	2ml
Composition	AASS	Material for goods	Antenna board
Spray start time.	2018-12-05-10:00	Test End Time	2018-12-06-10:00
Observation time	Observation		
2018-12-05-10:00	Check for no exceptions		
2018-12-06-10:00	24 hours of continuous spray		
Test:	Zhong haiping	Audit:	Deng faying
conclusion	Qualified	Approve	Zhang yanmin

Remarks: Commonly used salt mist test methods are: NSS neutral salt mist test: AASS acid salt mist test, CASSketonic acid acceleration test
 The AASS test is to add glacial acid adjustment PH = 3.03.3 to the NSS neutral salt fog test
 CASS test is to add 0.26 g / L copper chloride to NSS neutral salt mist test solution.

QR-QA-040A/0

Shenzhen Kangyuanxin Communication Technology Co., Ltd

Test Report on Constant Temperature, Cold and Hot Impact

Customer	HZR	Date	2018/12/5	Number	HZR040-D
Trade name	AMP 6500 WIFI	Number	15PCS	Test time	24H
Material	FPC	Supplier	BYK	Standard	MIL-SDT-202Method017IEC60749-25 JEDEC JESD22-A104-B IEC68-2-1MIL-STD-2168-85

Objective: To test the reliability of the product and the binding force, anti-oxidation and anti-corrosion ability of the coating.

Equipment Name: High and Low Temperature Test Box

Laboratory environment:

Temperature	45°C	Humidity	85%	Atmosphere	1Mpa
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Test parameters

Temperature	High temperature	70°C	Low temperature	Negative 40°C	Tolerance	1°C		
Time	constant temperature	High	60min	Warming	5min	Remarks		
		Low	60min	Cooling	5min			
Circulate	12 times		Other	Humidity	85%			
Check	separation	No	oxide	No	blistering	No	Ink shedding	No
Test	stripping	≥1.0kgf/cm ²	Wweld	ACC	Baige.	ACC	wear-resisting	ACC

The ACC was passed and NG was unqualified.

Test record:

Product Number	Product Test Results	Judging
1	Non-stratification, foaming, discoloration, degumming, upping, oxidation and appearance damage	Qualified
2		Qualified
3		Qualified
4		Qualified
5		Qualified
6		Qualified
7		Qualified
8		Qualified
9		Qualified
10		Qualified
11		Qualified
12		Qualified
13		Qualified
14		Qualified
15		Qualified

Tester.: Zhong haiping

Audit: Deng faying

Approve: Zhang yanmin