

☒ New rules updated



Technical Specifications

Product Name: Built-in antenna

Model No.: Built-in antenna \HYWF-PIFA-200mm\ Neutral \ROH

Item No.: 1244824

Fabricated	Audit	approve	date
Zong Zhixiang	Wang Haitao	Chen Hao	2022-11-25

Qingdao Hisense Electric Co., Ltd

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Material
code

1244824

Built-in antenna \HYWF-PIFA-200mm\ neutral \ROH

version

Pages

V1.01

2

CHANGE HISTORY VERSION RECORD

Change Version, Change Content, Changed Person, Date

V1.00 Initial Production: Wang Xiao2020-07-09

V1.01 Change the welding method of the welding joint, update the engineering drawing2022-11-25

1	2	3	4	5	6	7	8
				标记	处数	更改内容	签名 日期

Technical drawing details:
 - Top view dimensions: ④ 0.25±0.03, ⑤ 34.00±0.10, ① 37.00±0.15, ③ 200.0±5.0
 - Side view dimensions: ② 10.00±0.10, ⑥ 25.50±0.10, ⑦ 4.00±0.10, ⑧ 6.50±0.50
 - Cross-section labels: a (wireless connection point), b (core wire connection point), c (hand tear position), d (core wire connection point)
 - Note: 端子接口朝下 (Terminal interface facing down)

技术要求:

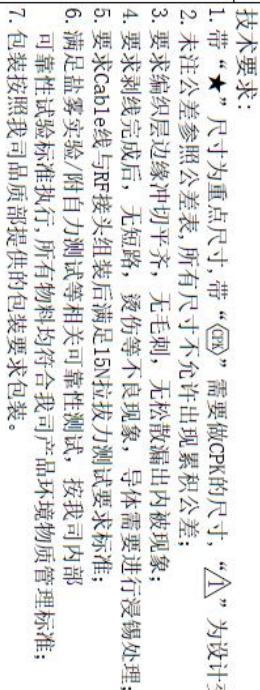
1. 带“★”尺寸为重点尺寸,带“☞”需要做CPK的尺寸,“△”设计变更。

2. 要求焊点光滑无凸刺,无虚焊,堆锡,短路等现象。

3. 图面尺寸用以检验外形功能和装配,未标注尺寸均以电子档为准。

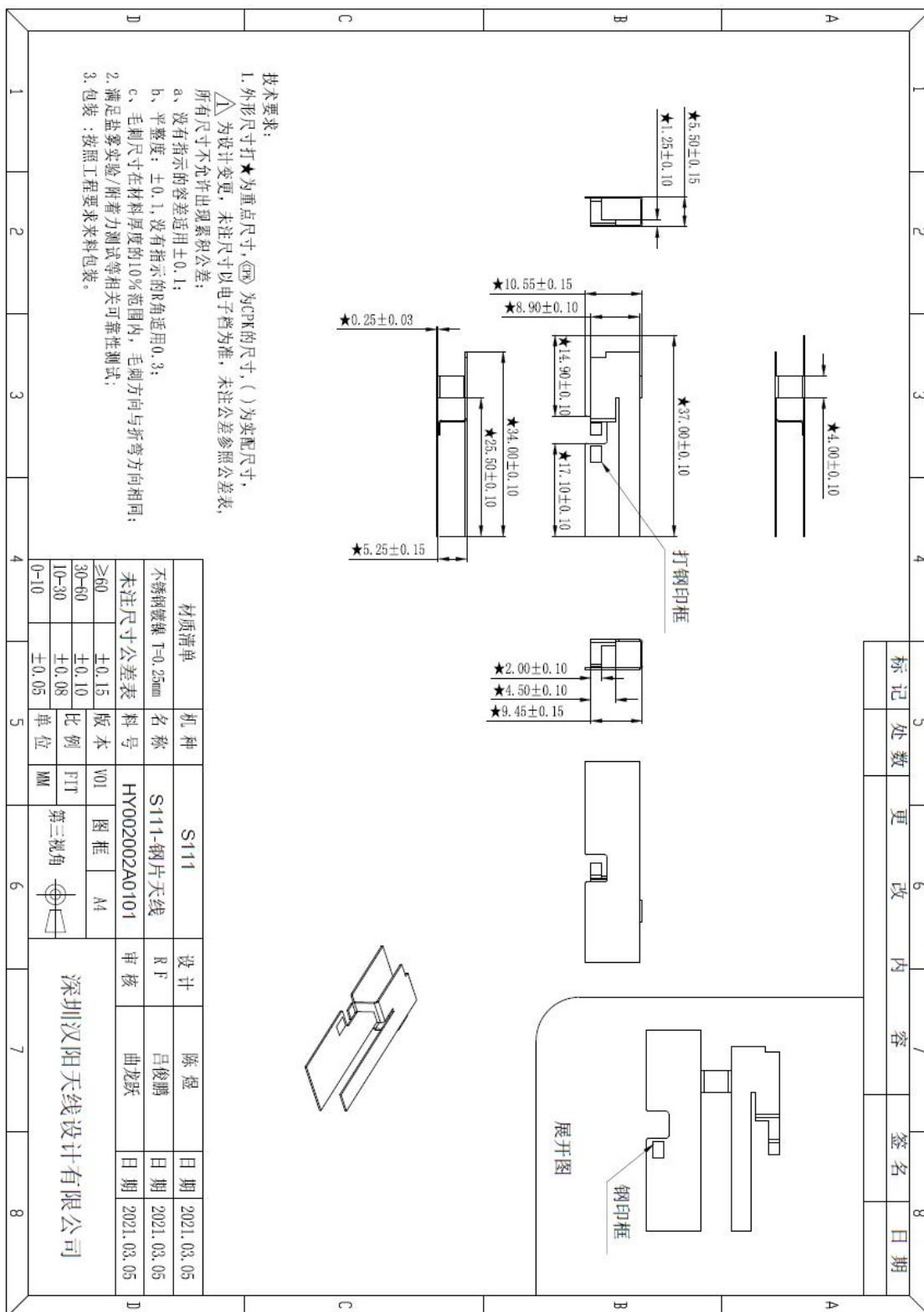
4. 满足我司48小时盐雾测试要求,符合ROHS要求。

机种		S111-200		设计	陈煜	日期	2021.03.20
d	中间支撑泡棉	HY002002A0104	黑色 EVA 泡棉	名称	S111-200-WIFI 天线组件	设计	吕俊鹏
b	底部压紧泡棉	HY002002A0103	黑色 EVA 泡棉	料号	HY002002A03	审核	曲龙跃
b	同轴线	HY002002A0302	L 1.3mm 黑色线+国产1代端子	版本	V01	图框	A4
a	铜片天线	HY002002A0101	不锈钢 SUS304 镀镍, T=0.25mm	比例	1:1	图例	第三角
序号	名称	料号	描述	用量	单位	深圳汉阳天线设计有限公司	
1		2	3	4	5	6	7



更改:		材质	端子型号	线径	线损	颜色
要求		科信成 IPEX 1代	φ 1.13mm	双锡线	黑色	
宋泊尺寸公差表	机种	S111-200		设计	陈煜	日期
≥200	±2.00	名称	同轴线	R F	吕俊鹏	日期
100-200	±1.00	料号	HY002002A0302	审核	曲龙跃	日期
30-100	±0.50	版本	V01	 深圳汉阳天线设计有限公司		
10-30	±0.30	比例	FIT			
0-10	±0.20	单位	MM			
第三视角						

Catalogue: Key Structural Specifications and Drawings;



2.Requirements for performance index parameters

2.1 Key Performance Indicator Requirements

Serial number	item specifications	
1	Band 2400-2500MHz/ 5150-5850 MHz	
2	Directional omnidirectional antenna	
3	Input impedance: 50 Ohm Nominal	
4	Return loss: -15dB(Max)2.4-2.5G; -15dB(Max)5.15G-5.85G	
5	VSWR 2	
6	Polarization mode: linear polarization	
7	Gain: 3.72dBi(Max)2.4G~2.5G ; Horizontal plane gain with 4.07dBi(Max) 5.15G-5.85G cable test	
8	Efficiency 40%.	
9	3.15dB/M 2.4-2.5G ; 3.15dB/m wire loss 5.15G-5.85G	

2.2 Test data

Serial number	test items: 2.4G~2.5G, 5.15G~5.85G	
1	Input impedance: 50 Ohm Nominal	
2	Return loss -14dBi -14dBi	
3	VSWR $\leq 1.5 \leq 1.5$	
4	Average gain 2.60 2.45	
5	Average efficiency 56% 48%.	
6	Wire loss 3.15dB/m 3.15dB/m	

Qingdao Hisense Electric Co., Ltd	The item code	1244824
	Built-in antenna \HYWF-PIFA-200mm\ neutral \ROH	version V1.01
		Pages 7

2.3 Environmental and reliability index requirements		
Remarks on the specifications of the serial number items		
1	The working temperature is -20°C~+85°C	
2	Working humidity requirements	
3	Storage temperature requirement: -30°C~+85°C	
4	Storage humidity requirements	
5	Tensile test tensile force 25N> Φ 1.13>9.8N, the cable does not break, the clamp is fixed at the root of the antenna, and one end pulls the cable	
6.	The number of plugging and unplugging times requires salt water concentration: 5%; Test temperature: 35°C; 7. There is no abnormality and rust in the appearance of the salt spray test, and the temperature of the pressure barrel is 47 °C; Test time: 48 hours	
8	High temperature resistance	
9	Low temperature resistance	
10	Temperature Cycling	
11	Alternating damp heat\meets EU ROHS and REACH directives, full	
12	Environmental protection requirements meet China' s ROHS directives and meet the requirements of lead-free plating	

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Number of pages of the version

V1.01 8

3.Dimensional test report

The name of the customer	Hisense	Product name	Built-in antenna	quantity	5SET
Product Material	Nickel-plated stainless steel SUS304	Material color	argent	date	2021/01/15

Product Type: ☒ New ☐ Alteration of the model ☐ Mass production ☐ other
Prototypes

Prototypes		the model		Measured dimensions			decide	remark
NO	Engineering drawings	require dimensions					OK/NG	
		1	2	3	4	5		
1	37.00±0.15	37.11	37.14	37.13	37.14	37.11	OK	
2	10.00±0.15	10.09	10.10	10.09	10.12	10.11	OK	
3	34.00±0.10	34.08	34.09	34.09	34.10	34.10	OK	
4	4.00±0.10	4.08	4.09	4.09	4.10	4.09	OK	
5	25.50±0.10	25.50	25.52 25.51	25.52 25.51			OK	
6	0.25±0.03	0.25	0.26 0.25 0.25	0.24			OK	
7								
8								

Appearance: OK

Performance: Passable

Total Decision: ok

☐ OK

☐ NG Audit: Zhang

Approved: Tang

Aijun

Qiao

Made: Jiang Huan

Remark:

Form Number: HY-QR-QA-016 Version: A1

5.3 Packaging schematic diagram

包装 (Packing)

客户料号:		产品名称:	-WIFI天线
产品规格:	/	包装材料:	纸箱+PE袋
包装数量:	20pcs/袋	包装方式:	胶圈捆绑封口袋包装
装箱数量:	1000PCS		

图1: 单pcs状态



图2: 整捆包装方式



图3: 每包包装视图



图4: 外箱标签



备注: 每捆20PCS产品、每袋20PCS、每箱装货50袋, 数量1000pcs, 纸箱上下各放一张泡棉用于保护产品。线长130mm与线长160mm两款包装方式相同。
PE袋规格: 150mm*200mm (每袋要贴标签)
纸箱规格: 350mm*350mm*250mm

拟制: 覃继西

审核: 杜海忠

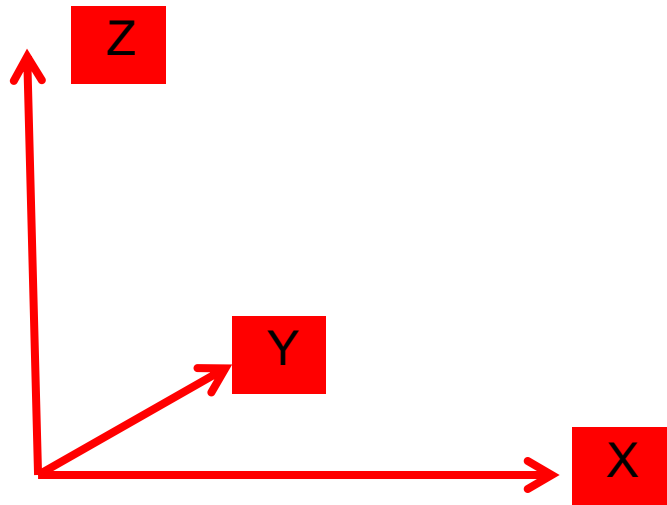
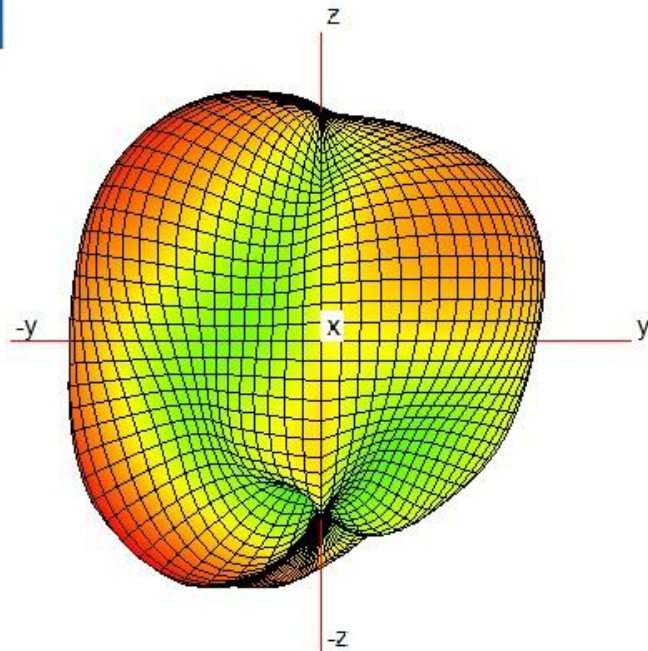
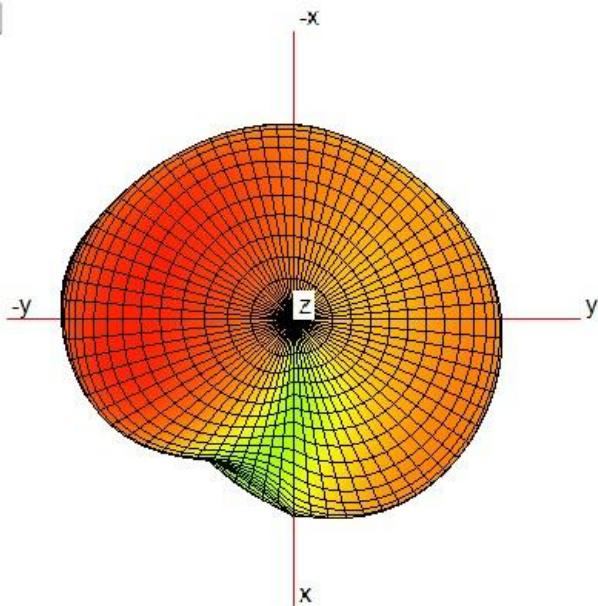
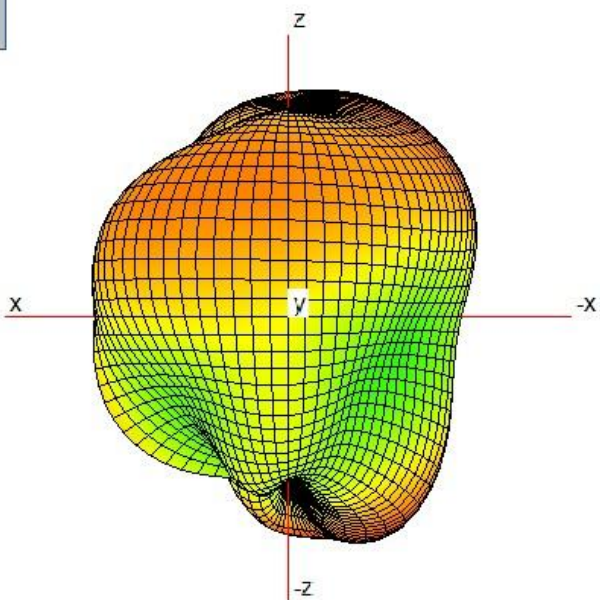
6.Environmental protection requirements

The raw materials and packaging materials used in the parts must meet the requirements of Hisense Q/RSAG J15.002 chemical substance restrictions.



WIFI

2.4G





WIFI

5G

