

■ New rules updated



Technical Specifications

Product Name: Built-in antenna

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

Item No.: _____

Preparation	Audit	Ratification	Date
Wang Xiao	Chen Hao	Chen	Hao2020-07-06

Hisense Video Technology Co., Ltd

Hisense Video Technology Co., Ltd

The item
code

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

version

Pages

V1.00

1

directory

serial number	project	page number
	Change your resume	2
1	Drawings	3~4
2	Requirements for performance metrics	5
3	Dimensional test report	6
4	Physical Properties/Structural Parameters	7
5	Packing specifications	8
6	Environmental requirements	8

Qingdao Hisense Electric Co., Ltd

The item code

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

version

Pages

V1.00

2

[illegible]

Hisense Video Technology Co., Ltd	The item code	
Built-in antenna \HYWF-PIFA-200mm\ neutral \ROH	version	Pages
	V1.00	3

The item code

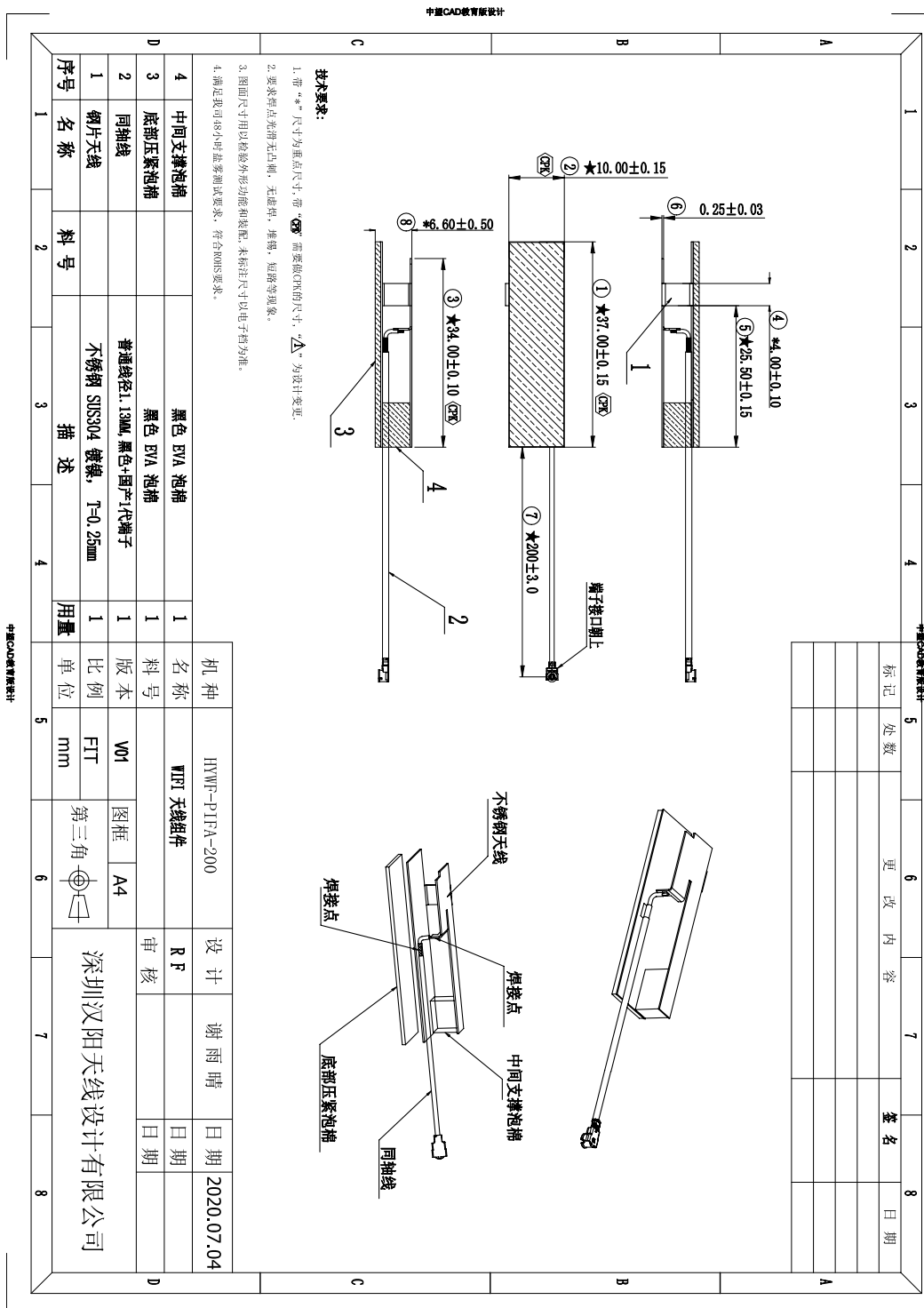
Built-in antenna \HYWF-PIFA-200mm\ neutral \ROH

version

Pages

V1.003

Drawings



Hisense Video Technology Co., Ltd

**The item
code**

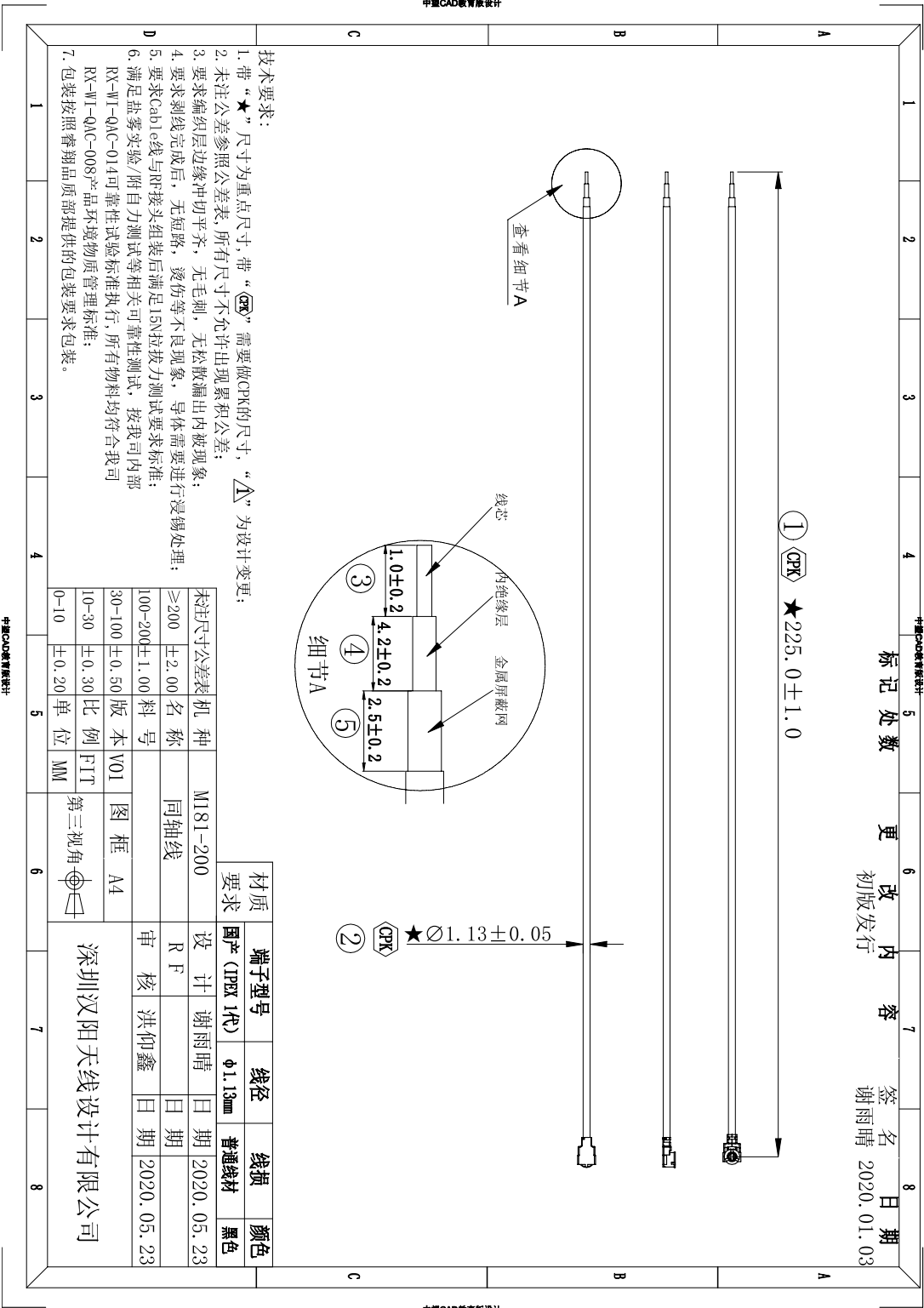
Pages

4

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

version

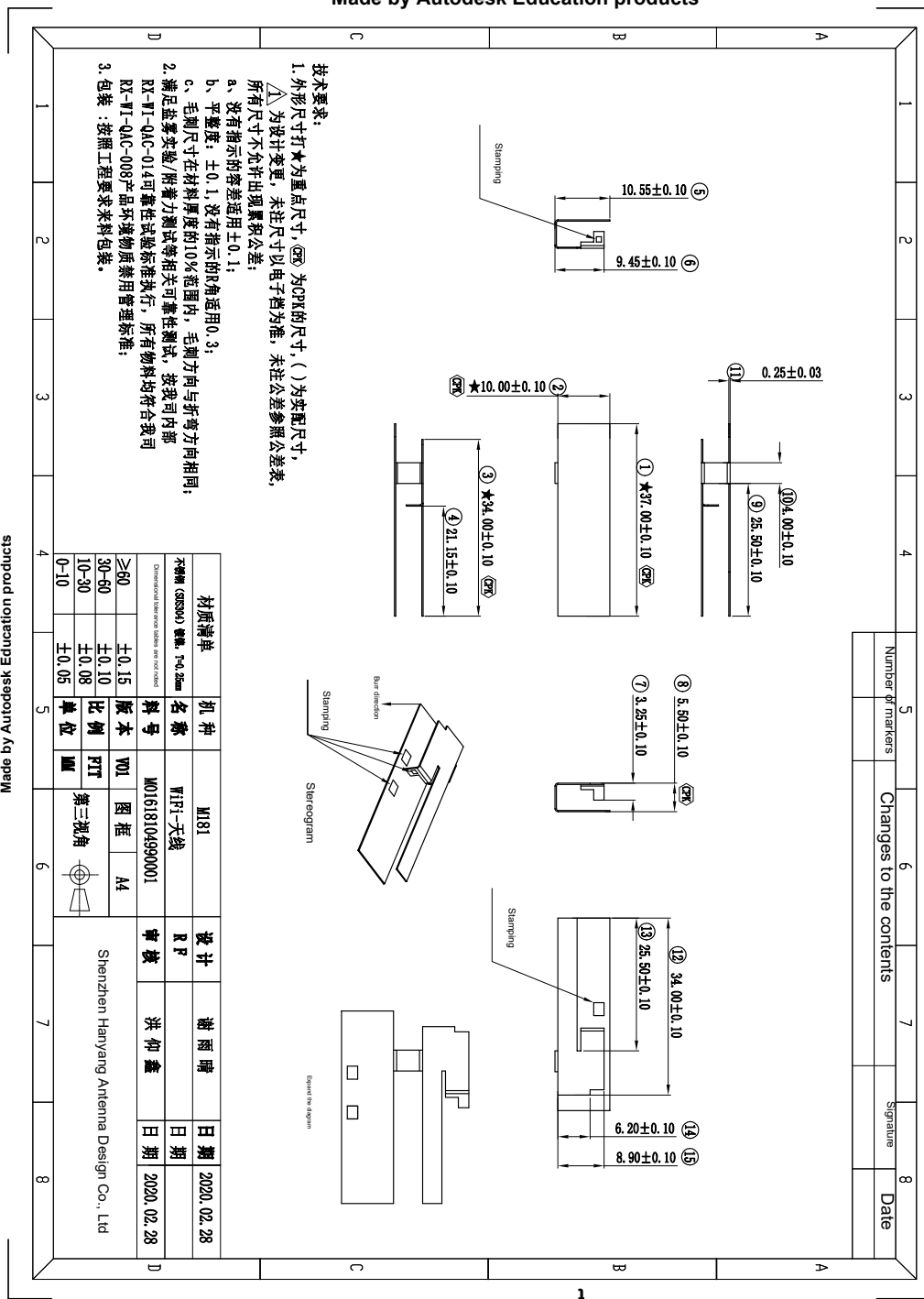
V1.00



Hisense Test Technology Co., Ltd	The item code	
\HYWF-PIFA-200mm\ \ROH built-in antenna neutral	Number of version pages	
	V1.00 5	

Catalogue: Key Structural Specifications and Drawings;

Made by Autodesk Education products



Made by Autodesk Education products

Hisense Video Technology Co., Ltd

The item code

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

Number of version pages

V1.00 6

2.Requirements for performance metrics

2.1 Key Performance Indicator Requirements

serial number	project	specification	
1	Band	2400-2500MHz/ 5150-5850 MHz/5950~7200MHz	
2	directionality	Omnidirectional antennas	
3	Enter impedance	50 Ohm Nominal	
4	Return loss	-15dB(Max)2.4-2.5G ; -15dB(Max)5.15G-5.85G; -13dB(Max)5.95~7.2G	
5	VSWR	2	
6	Polarization method	Linear polarization	
7	gain	0.61(Max)2.4G~2.5GHz ; 1.98(Max)5.15G-5.85GHz 1.35(Max)5.95~7.2GHz	Horizontal plane gain with cable test
8	efficiency	2.4G~2.5G 40% 5.15G-5.85G 40% 5.95~7.2G 30%	
9	Wire loss	3.15dB/M 2.4-2.5G ; 3.15dB/M 5.15G-5.85G	

2.2 Test data

serial number	Test items	5.15G~5.24G	2.4G~2.5G .85G	5.95~7.2G
1	Enter impedance	50 Ohm Nominal		50 Ohm Nominal
2	Return loss	-14dBi	-14dBi	-13dBi
3	VSWR	$\leq 2 \leq 2$		≤ 2
4	Average gain	0.45 0.2		-1.2
5	Average efficiency	47% 45%		31%
6	Wire loss	3.15dB/M	3.15dB/M	3.15dB/M

The details are as follows:

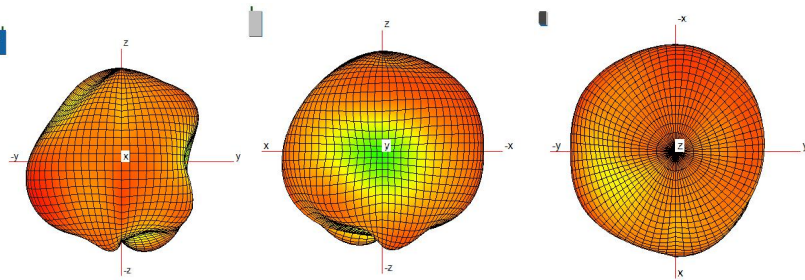
2400	-3.7	42.68	0.4
2410	-3.63	43.3	0.61
2420	-3.86	41.07	0.5
2430	-3.76	42.09	0.41
2440	-3.38	45.88	0.41
2450	-3.22	47.62	0.43

2460	-3.03	49.8	0.32
2470	-2.86	51.74	0.42
2480	-2.75	53.06	0.48
5140	-2.39	57.66	1.98
5160	-2.51	56.07	1.95
5180	-2.85	51.89	1.75
5200	-2.84	52	1.71
5220	-2.81	52.42	1.82
5240	-3.33	46.4	1.27
5260	-2.93	50.96	1.64
5280	-3.29	46.84	1.33
5300	-3.31	46.62	1.32
5320	-3.17	48.15	1.53
5340	-3.96	40.14	0.74
5360	-3.55	44.17	1.26
5380	-3.88	40.93	1.31
5400	-3.97	40.12	1.38
5420	-3.7	42.7	1.6
5440	-3.74	42.24	1.25
5460	-3.98	39.97	1.07
5480	-3.87	41.03	1.37
5500	-4.08	39.07	1.16
5520	-3.7	42.62	0.24
5540	-3.33	46.47	0.66
5560	-3.39	45.79	-0.02
5580	-3.49	44.75	0.2
5600	-3.77	41.93	0.17
5620	-3.83	41.38	-0.07
5640	-3.85	41.18	0.33
5660	-3.72	42.45	0.36
5680	-4.07	39.16	0.38
5700	-3.91	40.64	0.42
5720	-3.82	41.45	-0.06
5740	-3.67	43	0.35
5760	-3.55	44.18	0.19
5780	-3.67	42.99	-0.4
5800	-3.93	40.48	-0.15
5820	-3.99	39.89	-1.1
5840	-4.01	39.76	-0.98
5860	-4.12	38.77	-1.06
5880	-3.85	41.25	-1.46
5900	-3.94	40.35	-1.04
5920	-4.01	39.68	-1.13
5940	-4.06	39.24	-1.29

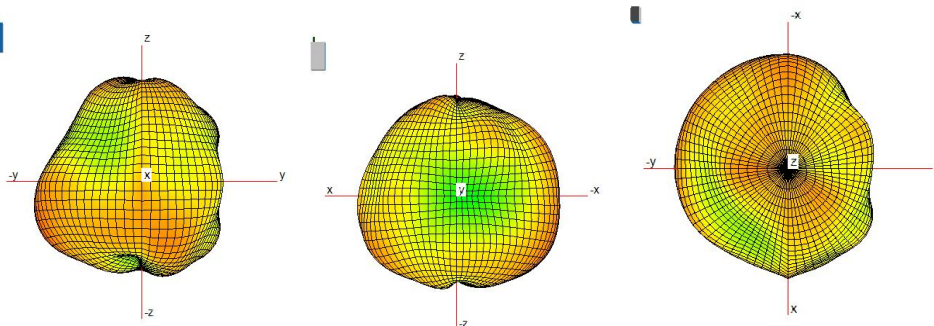
5960	-4.28	37.31	-1.21
5980	-4.25	37.56	-1.31
6000	-4.22	37.81	-1.08
6020	-4.24	37.7	-1.09
6040	-4.44	35.94	-1.11
6060	-4.53	35.22	-1
6080	-4.54	35.14	-0.89
6100	-5.18	30.37	0.9
6120	-4.92	32.18	1.05
6140	-4.88	32.51	1.04
6160	-4.61	34.6	1.14
6180	-4.56	34.98	1.35
6200	-4.45	35.92	1.32
6220	-4.77	33.35	-0.24
6240	-5.16	30.51	-0.59
6260	-5.21	30.1	-0.87
6280	-5.17	30.39	-0.71
6300	-5.14	30.59	-0.71
6320	-5.16	30.47	-0.67
6340	-5.87	25.86	-1.13
6360	-6.05	24.82	-1.12
6380	-5.93	25.55	-0.9
6400	-6.05	24.85	-1.11
6420	-5.93	25.5	-0.93
6440	-5.89	25.79	-1.01
6460	-6.01	25.04	-1.01
6480	-6.39	22.95	-1.36
6500	-6.5	22.37	-1.41
6520	-6.64	21.67	-1.53
6540	-6.83	20.74	-1.7
6560	-6.72	21.3	-1.6
6580	-6.43	22.77	-1.93
6600	-6.59	21.94	-1.91
6620	-6.22	23.85	-1.68
6640	-6.6	21.89	-1.75
6660	-6.61	21.81	-1.44
6680	-6.66	21.6	-1.36
6700	-6.68	21.48	-1.27
6720	-6.17	24.16	-0.64
6740	-6.44	22.69	-0.93
6760	-6.46	22.61	-1.01
6780	-6.17	24.15	-0.93
6800	-6.54	22.19	-1.56
6820	-6.04	24.9	-1.32

6840	-6.32	23.34	-1.81
6860	-6.31	23.38	-2.02
6880	-6.05	24.83	-1.95
6900	-6.91	20.37	-2.85
6920	-6.71	21.35	-2.52
6940	-6.51	22.34	-2.23
6960	-6.86	20.59	-2.54
6980	-6.39	22.97	-2.07
7000	-6.59	21.91	-2.27
7020	-6.51	22.31	-2.15
7040	-6.06	24.77	-1.57
7060	-6.15	24.28	-1.43
7080	-5.96	25.33	-1.08
7100	-5.61	27.48	-0.66
7120	-5.74	26.69	-0.73
7140	-5.57	27.72	-0.57
7160	-5.45	28.49	-0.58
7180	-5.51	28.09	-0.71
7200	-5.15	30.52	-0.49

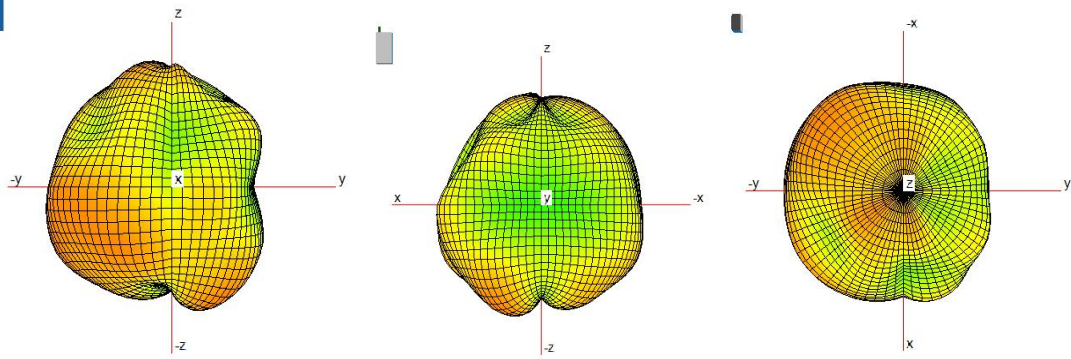
2.4~2.5G pattern



5.1G~5.8G pattern



5.9G~7.2G pattern



Hisense Video Technology Co., Ltd

The item code

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

version

Pages

V1.00

7

2.3 Environmental and reliability index requirements

serial number	project	Specifications:	remark
1	Operating temperature requirements	-20°C~+85°C	
2	Operating humidity requirements		
3	Storage temperature requirements	-30°C~+85°C	
4	Storage humidity requirements		
5	Tensile test	The tensile force is 25N> Φ 1.13>9.8N, and the cable does not break	The clamp is fixed at the root of the antenna and the cable is pulled at one end
6	Plugging and unplugging requirements		
7	Salt spray test	There is no abnormality and rust in appearance	Brine concentration: 5%; Test temperature: 35°C; Pressure drum temperature: 47°C; Test time: 48 hours
8	High temperature resistance	\	
9	Resistant to low temperatures	\	
10	Temperature cycling	\	
11	Alternating damp heat	\	
12	Environmental requirements	It meets the EU ROHS and REACH directives, meets the Chinese ROHS directives, and meets the lead-free requirements of plating	

Hisense Video Technology Co., Ltd

The item code

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

version

Pages

V1.00

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	black			date	2020/07/02	
Product type: ☒ new models ☐ modified models ☐ mass production ☐ others								
NO	Engineering drawings require dimensions	Measured dimensions					decide	remark
		1	2	3	4	5	OK/NG	
1	37.00±0.15	37.04	37.03	37.09	37.09	37.07	OK	
2	10.00±0.15	10.07	10.06	10.06	10.07	10.07	OK	
3	34.00±0.10	34.02	34.03	34.01	34.00	34.2	OK	
4	4.00±0.10	4.02	4.02	4.04	4.03	4.05	OK	
5	25.50±0.10	25.55	25.53	25.55	25.54	25.51	OK	
6	0.30±0.03	0.29	0.28	0.28	0.29	0.30	OK	
7								
8								
Appearance: OK								
Performance: Passable								
Total Decision: ok ☐ OK ☐ NG								
Approved: Qin Zhike Review: Li Zhifeng Made: Kang Fengyu								
Remark:								

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

Hisense Video Technology Co., Ltd

The item code

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

version

Pages

V1.00

8

4. Physical properties, structural parameters

serial number	project	specification	remark
1	Antenna material	Nickel-plated stainless steel SUS304,	
2	Cable Specifications	thickness 0.3mm ϕ 1.13*225mm coaxial	black
3	Terminal Specifications	cable IPEX Compatible OD1.13RF	
4	Installation	pastin / welding fireproof EVA 3M 9495	
5	Support foam	8.0* 3.5mm T=5.0mm Foam Glue 3M	
6	Fix the foam	RP45 36.8*9.8*1.1mm (Inner Diameter	Black (double-sided
7	Heat shrink tubing	1.5*10mm) Wall thickness 0.18mm	adhesive), gray
			(double-sided adhesive),
			black

5.Packing specifications

5.1 Packaging materials

The name of the item	Part	Dosage	unit	specification	craft	remark
WiFi antenna assembly	Material 1	1	set	/	WiFi antenna+ support foam+ Coaxial cable ϕ 1.13*225mm+ Fix the foam glue	ROHS (Direct Out goods)
WiFi antennas	SUS304	1	pcs	T=0.3mm	Nickel	ROHS (Assembly & Shipment)
Support foam	Fireproof EVA 3M 9495	1	pcs	8.0*3.5mm T=5.0mm Black	(Double-sided adhesive) UL 94	
Fix the foam	Foam glue 3M RP45	1	pcs	36.8*9.8*1.1mm	Black UL-746C without tear-off ears	
Coaxial wires	Double tin	1	pcs	Φ 1.13*225mm with (1st generation) RF terminal	black	

5.2 Packaging Requirements

Each bundle of 20pcs products, each bag of 20pcs, each box of 50 bags, the number of 1000pcs, the top and bottom of the carton are placed with a piece of foam for protection

The two packaging methods are the same as the line length of 130mm and the line length of 160mm.

PE bag specification: 150mm*200mm (each bag should be labeled).

Carton size: 350mm*250mm

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.