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WIFI Antenna Test Report

Project name: JY3000-6H118 (PTZ S3)

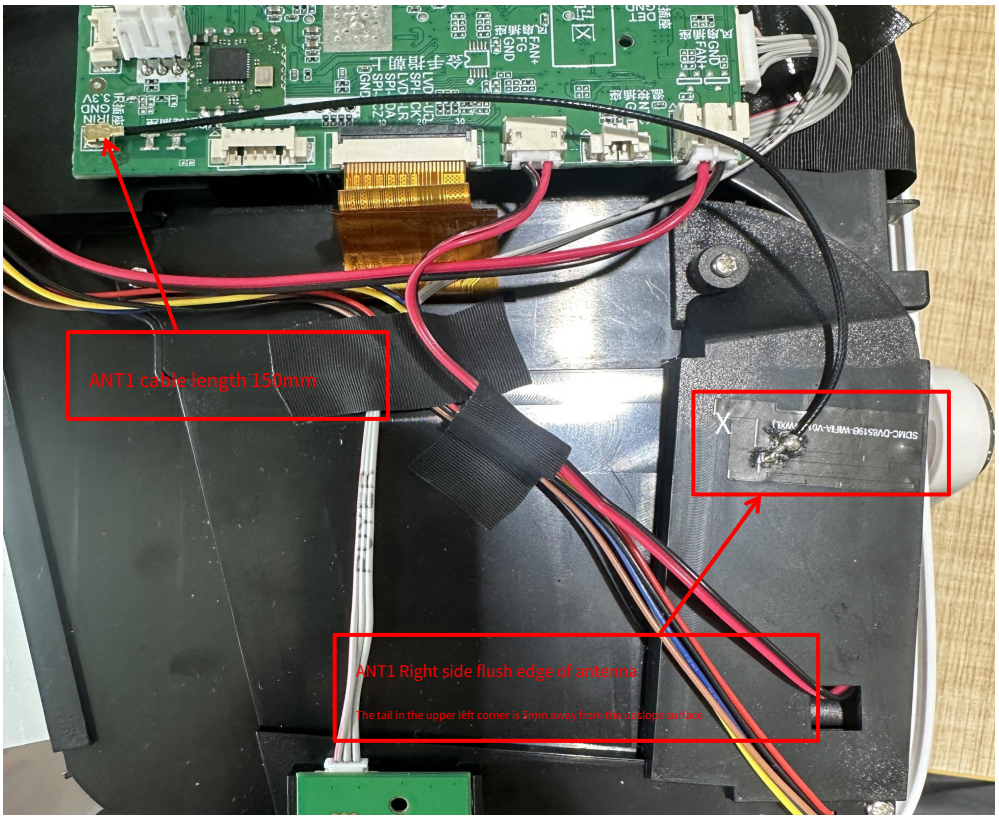
mold **Group: 8731 Single Antenna**

kind **Type: WIFI 2.4G & 5G**

Approved by Joyar		
Author/Date	Rechecked by/Date	Approved by/Date
刘杨		

深圳市江元科技(集团)有限公司 智显事业部 受控文件章

1. Antenna length and position



2. TRP&TIS

TRP: Total Radiated Power TIS:
Total Isotropic Sensitivity

Test mode	802.11b 11Mbps BW 20M			802.11a 54Mbps BW 20M		
BAND	2.4G			5G		
CHANNEL	1	6	11	36	100	165
TRP(dBm)	13.05	13	13.68	14.48	14.31	13.32
CHANNEL	1	6	11	36	100	165
TIS(dBm)	- 81.39	- 80.36	- 80.12	- 72.31	- 72.62	- 73.98

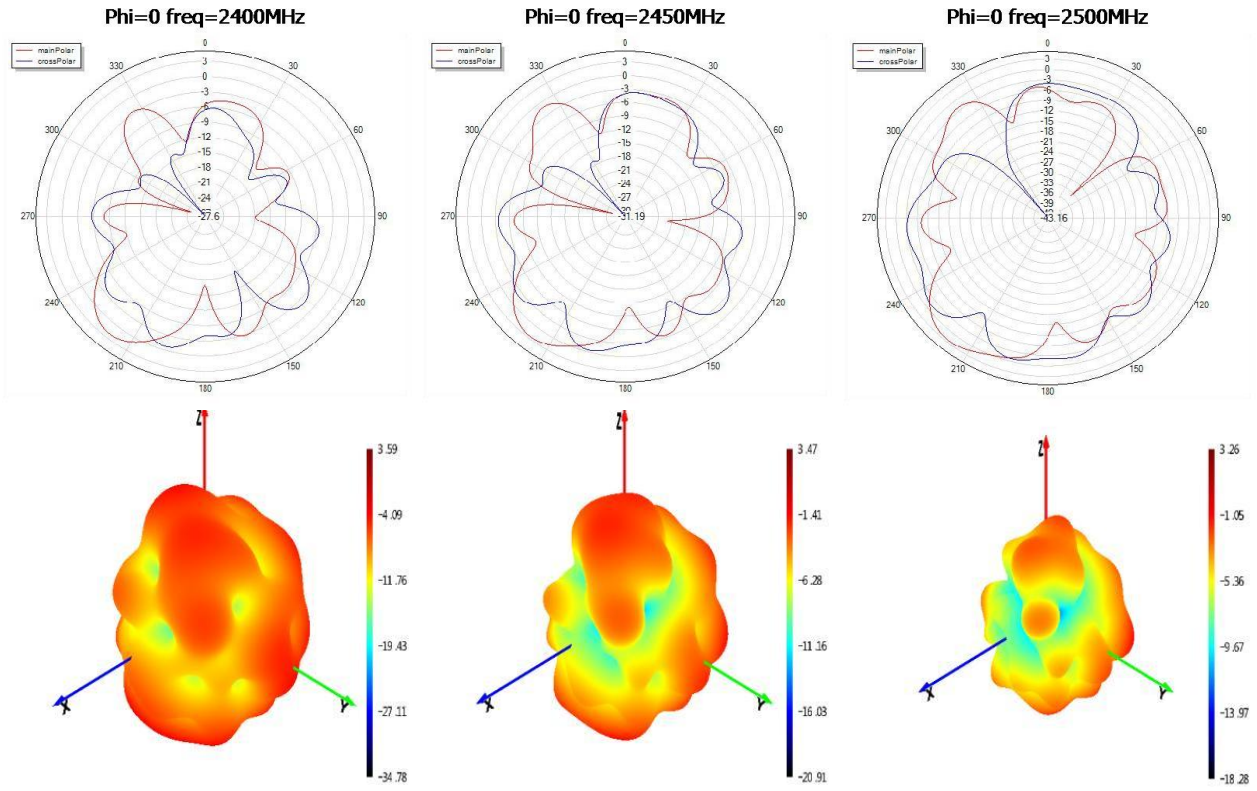
3. No chance of efficiency

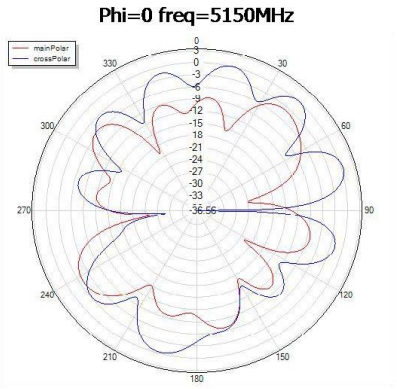
Gain & Efficiency Gain and efficiency						
frequency Frequency (MHz)	gain Gain(dBi)	mingain Minimum gain (dBi)	CO Gain Main polarization maximum gain (dBi)	CP Gain Cross polarization maximum Gain(dBi)	efficiency Efficiency(dB)	efficiency efficiency(%)
2400	3.59	- 34.78	3.59	0.47	- 4.15	38.43
2410	3.43	- 37.91	2.33	0.61	- 4.03	39.54
2420	3.83	- 44.47	2.81	0.73	- 3.52	44.5
2430	3.08	- 31.46	2.15	0.77	- 3.63	43.32
2440	3.42	- 26.07	2.51	1.03	- 3.4	45.74
2450	3.47	- 20.91	3.47	1.65	- 3.06	49.4
2460	3.02	- 18.54	2.24	1.34	- 3.52	44.47
2470	3.1	- 18.06	2.28	1.74	- 3.19	47.95
2480	3.56	- 17.53	2.77	2.11	- 2.9	51.29
2490	3.49	- 19.01	2.67	1.72	- 3.09	49.14
2500	3.26	- 18.28	3.26	1.59	- 3.24	47.39

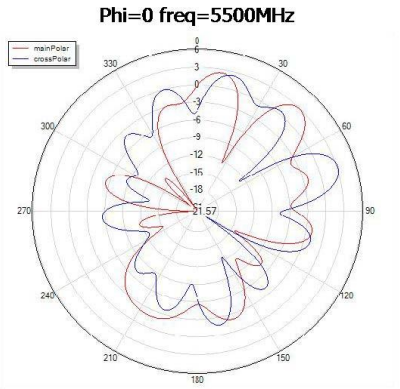
Gain & Efficiency Gain and efficiency						
frequency Frequency (MHz)	gain Gain(dBi)	mingain Minimum gain (dBi)	CO Gain Main polarization maximum gain (dBi)	CP Gain Cross polarization maximum Gain(dBi)	efficiency Efficiency(dB)	efficiency efficiency(%)
5150	4.24	- 31.44	2.52	2.19	- 2.66	54.21
5200	3.48	- 29.12	2.48	1.68	- 2.75	53.12
5250	3.97	- 35.35	3.26	2.3	- 2.58	55.21
5300	4.3	- 31.47	3.35	2.15	- 3.08	49.2
5350	4.35	- 28.81	3.65	2.64	- 3.4	45.66

5400	5.31	- 29.62	3.67	2.98	- 3.51	44.54
5450	6.31	- 34.31	4.12	2.96	- 3.24	47.47
5500	7.03	- 24.36	4.41	4.15	- 3.21	47.78
5550	6.38	- 28.33	4.43	2.74	- 3.53	44.34
5600	5.86	- 25.58	4.49	1.83	- 3.79	41.82
5650	6.29	- 25.67	5.31	3.05	- 2.91	51.2
5700	5.99	- 21.12	5.31	3.33	- 2.77	52.83
5750	6.47	- 24.49	5.89	3.54	- 2.78	52.77
5800	5.66	- 24.15	5.06	3.49	- 3.17	48.23
5850	5.6	- 20.94	5.01	2.63	- 3.39	45.78

4. 2D3D Direction Map




Phi=0 freq=5150MHz
mainPolar
crossPolar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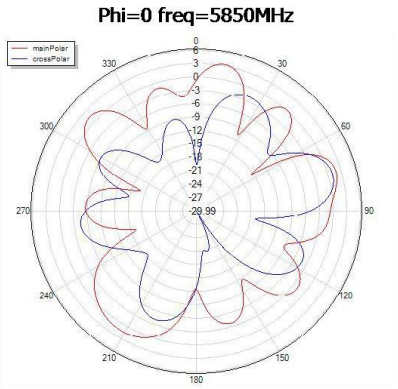
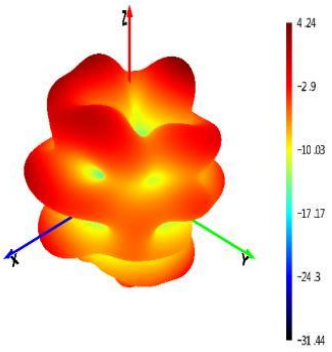
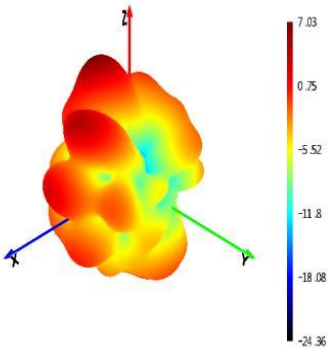
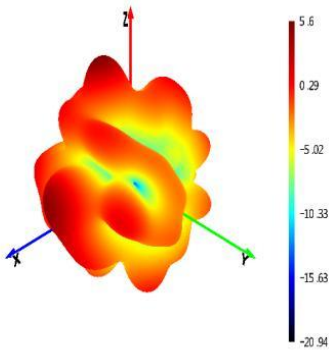
mainPolar
crossPolar


Phi=0 freq=5850MHz
mainPolar
crossPolar

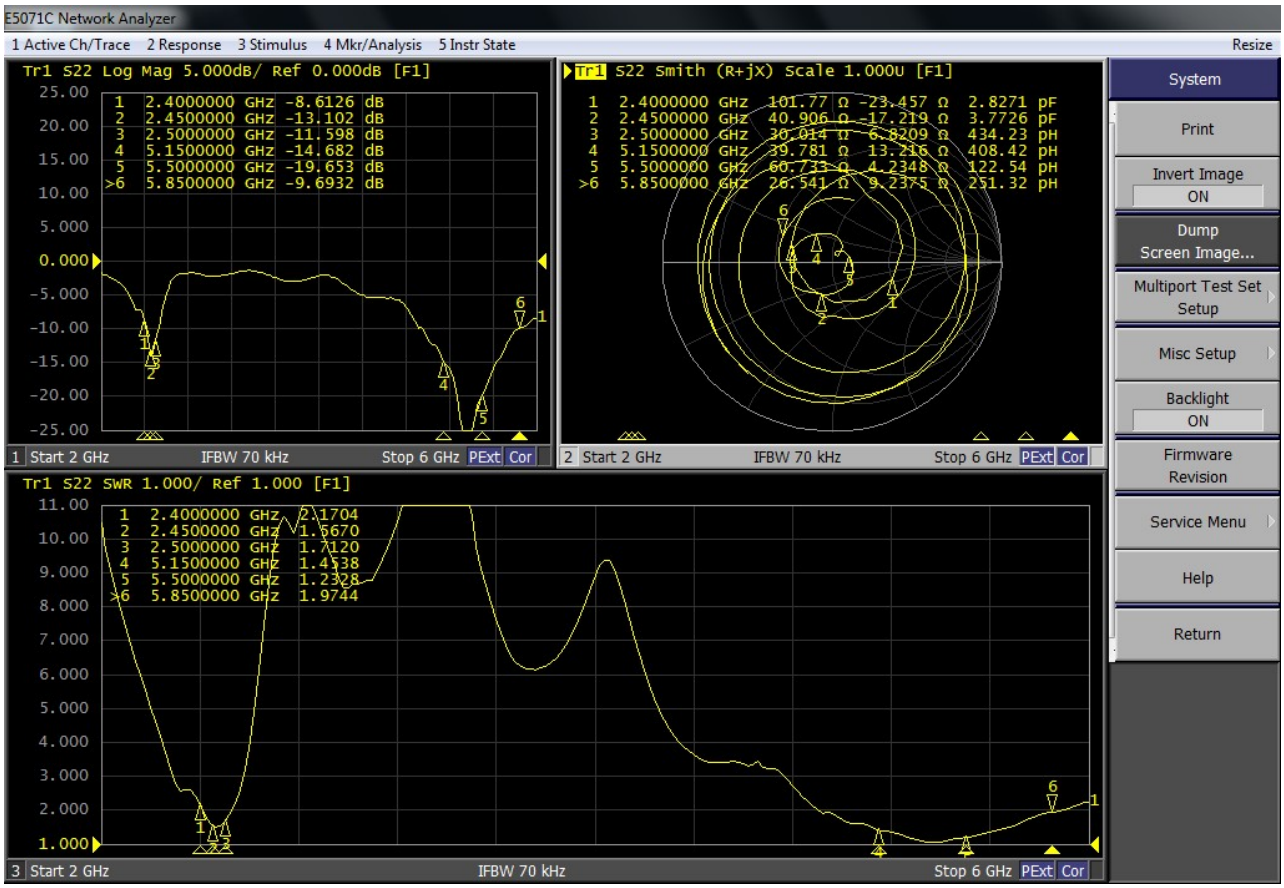

4.24
-2.9
-10.03
-17.17
-24.3
-31.44


7.03
0.75
-5.52
-11.8
-18.08
-24.36


5.6
0.29
-5.02
-10.33
-15.63
-20.94

4. Antenna passive parameters:

1.VSWR Diagram:



5. Product Features

1. Choose high-quality FPC and RF cables with low self-attenuation;

2. Stable performance and long service life;

3. The standing wave is good within the frequency band.

Shenzhen Everything Connected Communications Co., Ltd. / Everything Connected Communications Xiangyang Co., Ltd. Address:

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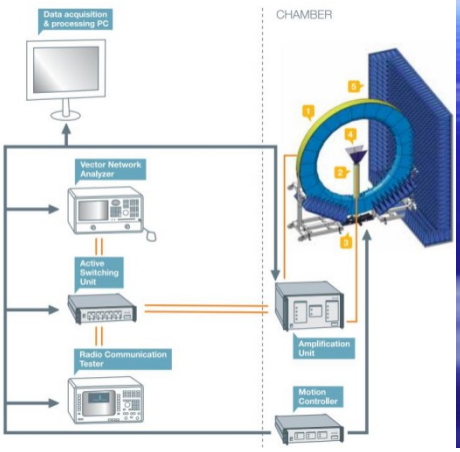
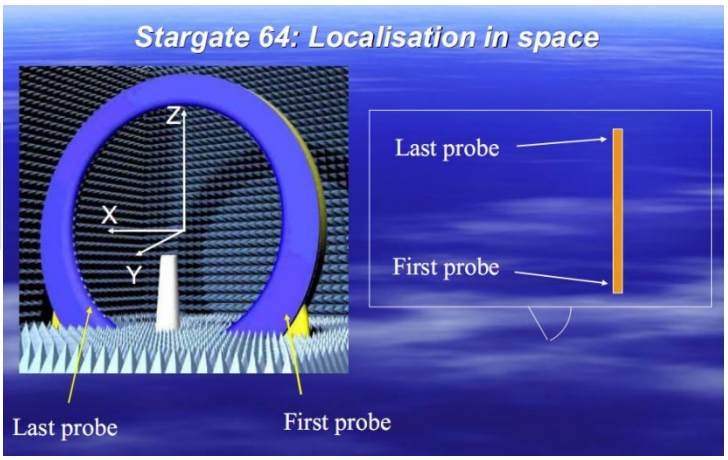
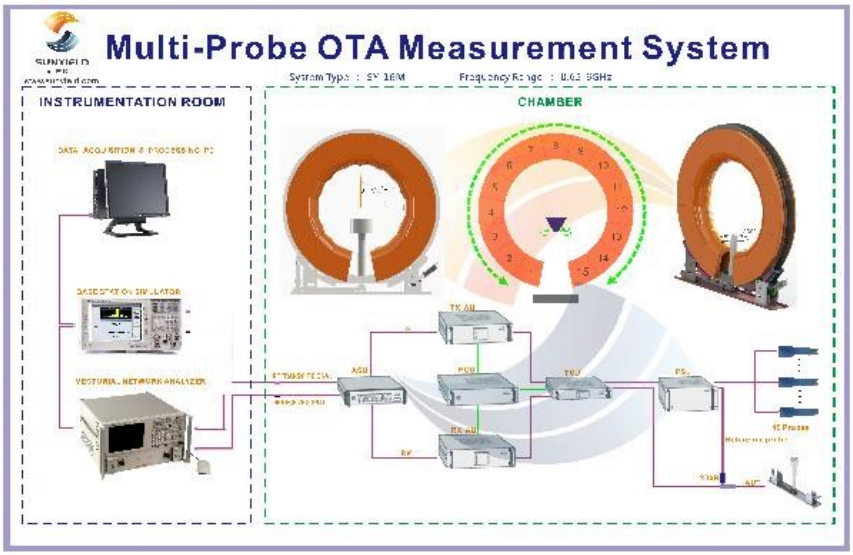
Address: Northwest Hubei Renewable Resources Trading Center, Gucheng County, Xiangyang City, Hubei Province

cell phone:136 6268 4409 Website:www.wwxltx.cn

3. Antenna Test Environment



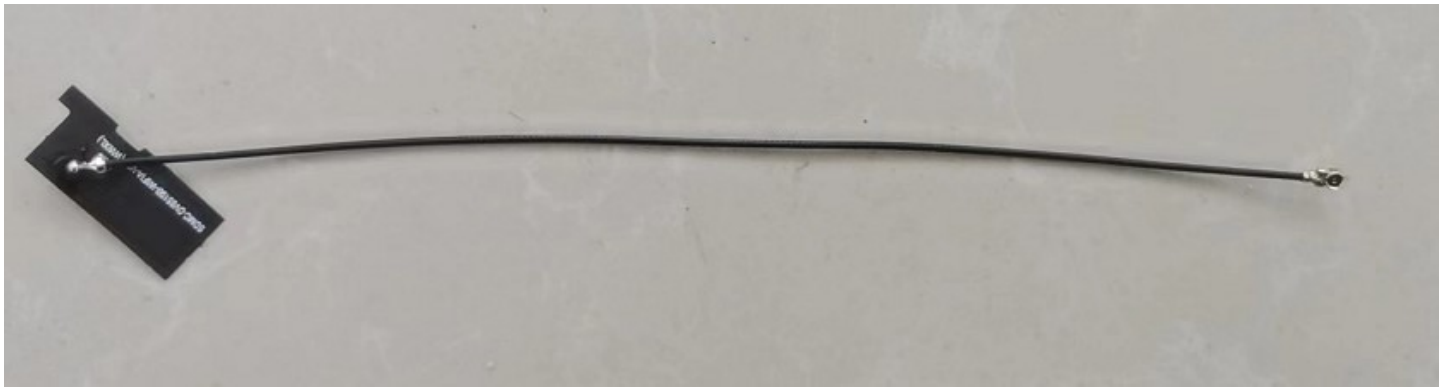




Test system:	SY-16MAntenna Measurement System
Test environment:	temperaturetwenty two°C±3°C, humidity50%±15%
Test equipment:	Agilent 5071C Agilent 8960Comprehensive tester Agilent CMW500 4GComprehensive tester

Antenna Specifications

1. Product finished product picture



2. Product test parameters

Product NameName	Internal antenna (WWXL6009002)	modelModelType	
Electrical parametersELECTRICAL SPECTFICATIONS		Mechanical parametersMECHANICAL SPECTFICATIONS	
Frequency rangeFrenquencyRange 2400-2500/5150-5850MHz		sizeDimensions	27.5*12*0.2
Input ImpedanceImpedance	50Ω	Connector ModelConnector	IPEX
VSWRVSWR	≤3.5	Line length linelength	1.13black150±3mm
GainGain	0.79/5.68dBi	Operating temperatureWorkingTemperature	- 45°C - +85°C
PolarizationPolarization	Linear polarization	Storage temperatureLimit Temperature	- 45°C - +85°C
Radiation directionRadiation	Omnidirectional		

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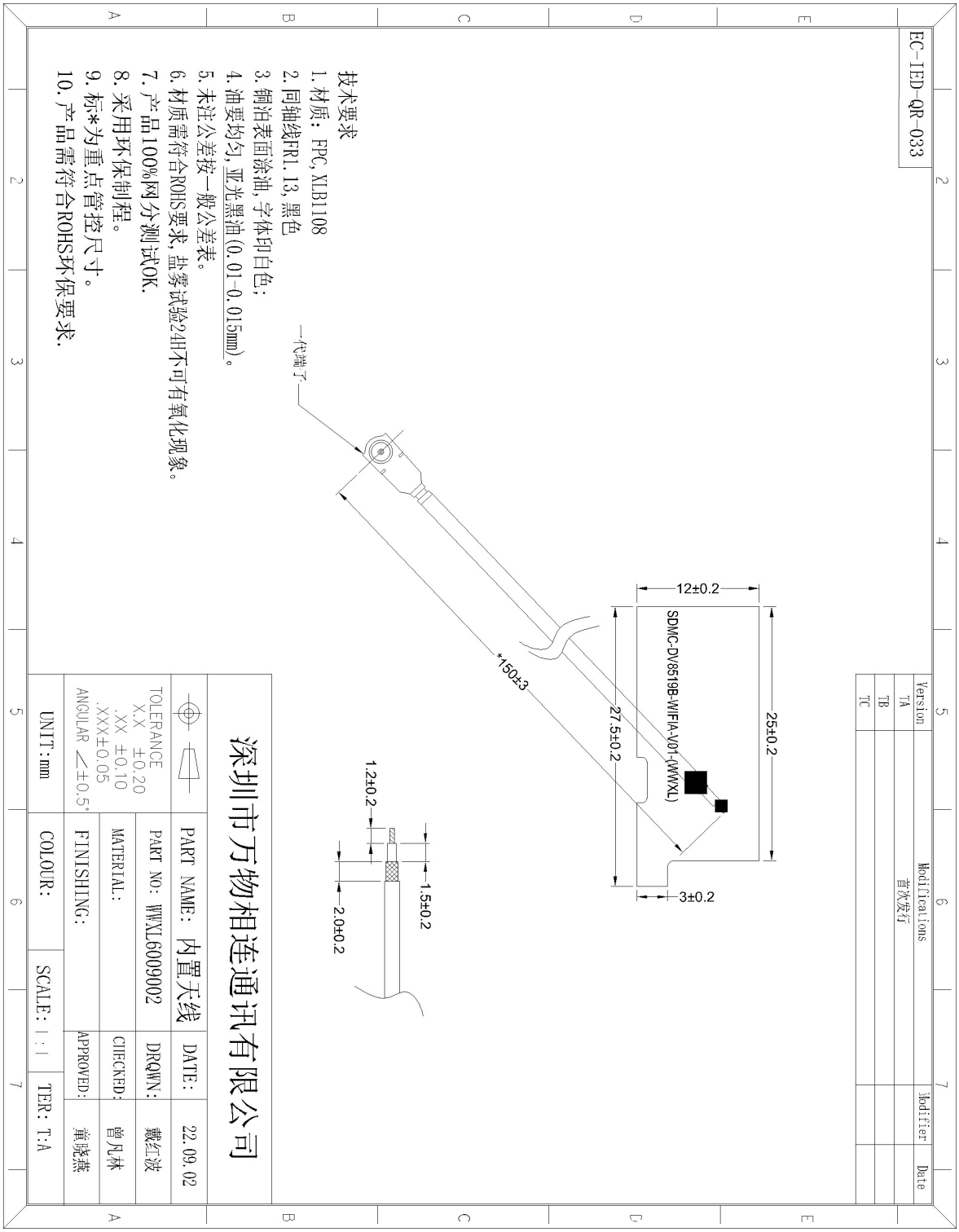
6. Product structure diagram