

☒ New regulations

☐ Update

Technical Specifications

Product Name: Built-in antenna

Product model: built-in antenna \HYWF-PIFA-550mm \neutral
\ROH

Item No.: 1244783

Ficus	Audit	Approved	Date
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Built-in Antenna \HYWF-PIFA-550mm \Neutral \ROH	Version	Number of pages
	V1.01	1

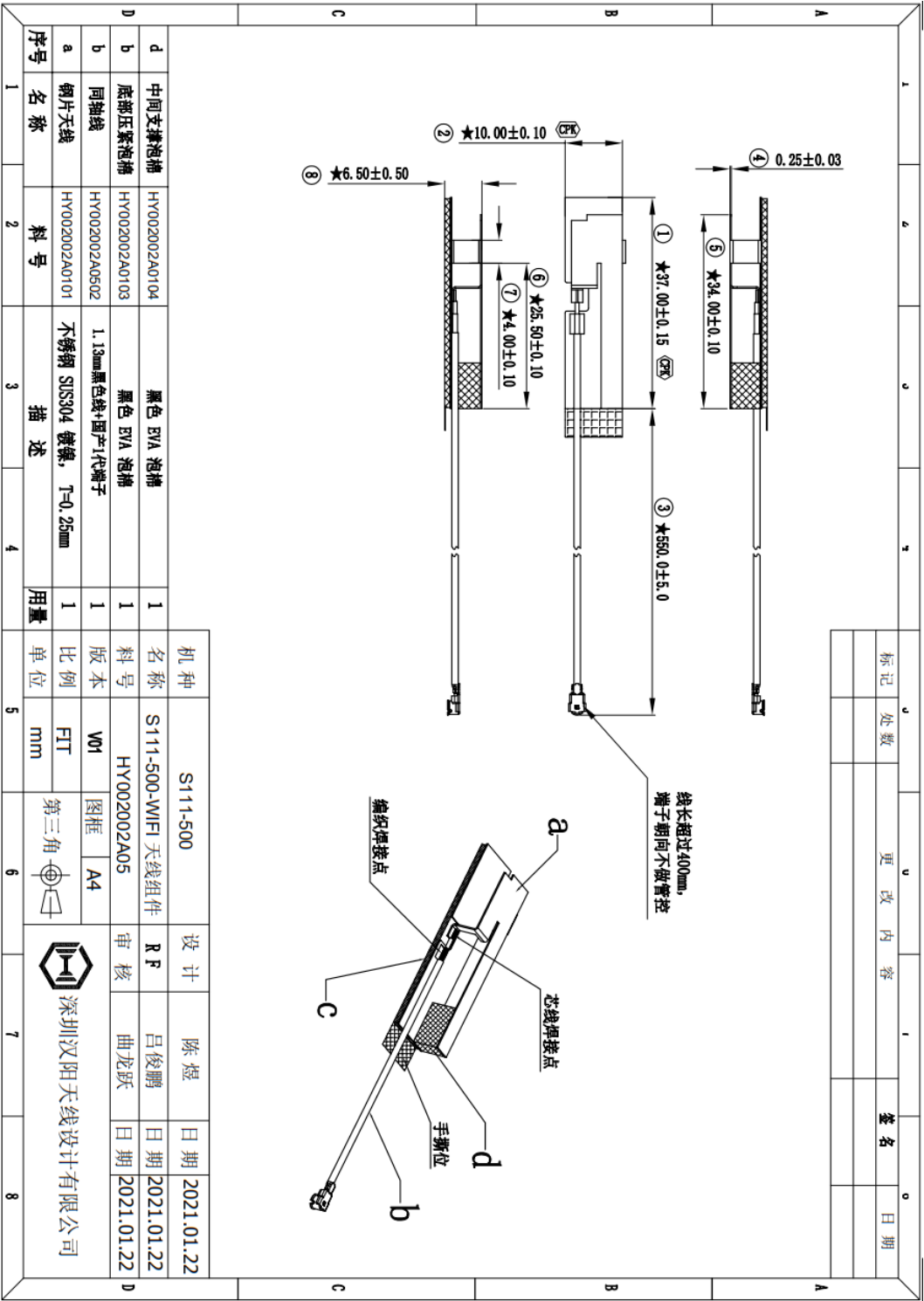
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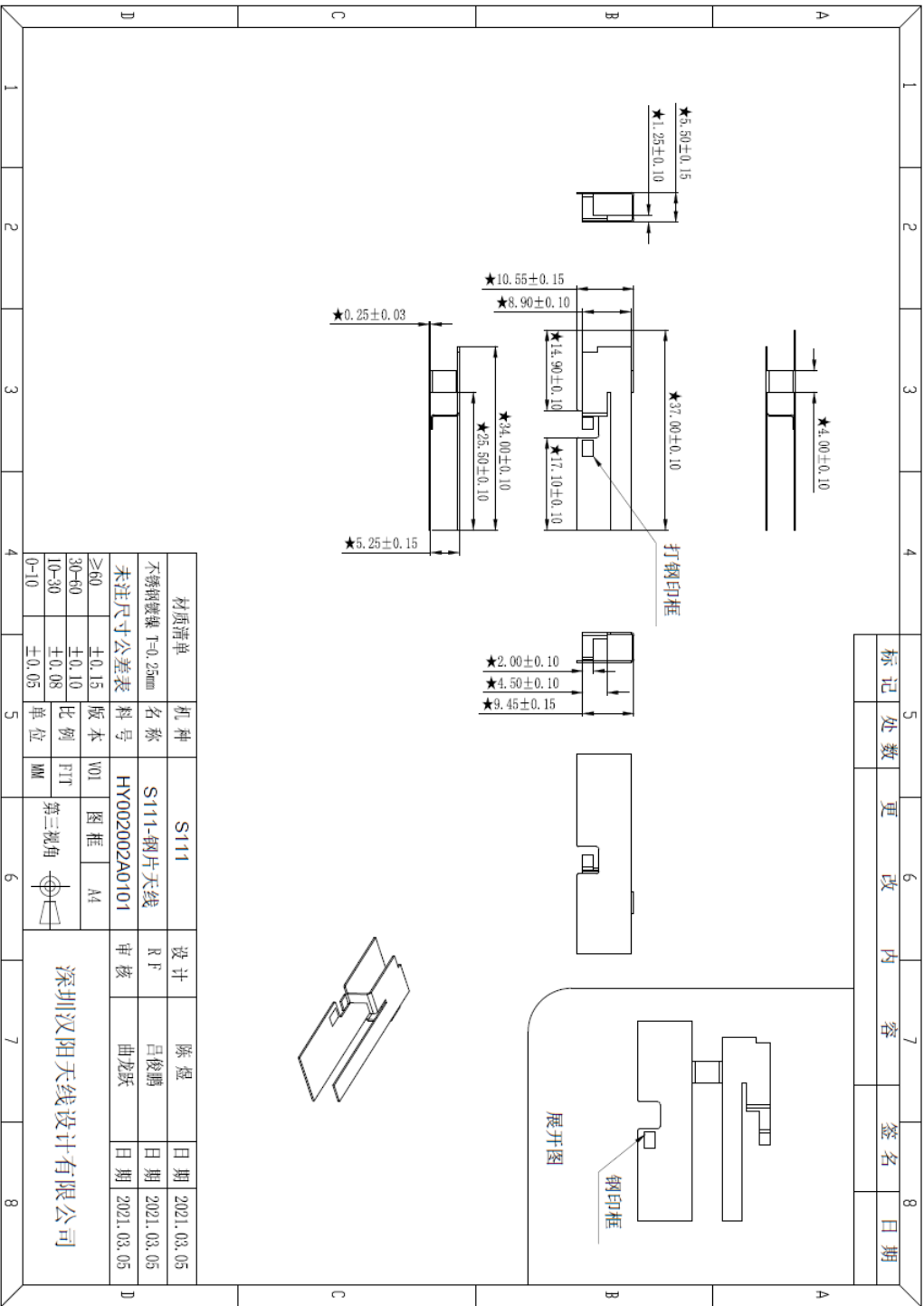
Serial Number	Project	Page
	Change resume	2
1	Engineering drawing	3 to 4
2	Performance index parameter requirements	5
3	Dimensional Test Report	6
4	Physical characteristics/structural parameters	7
5	Packing specification	8
6	Environmental requirements	8

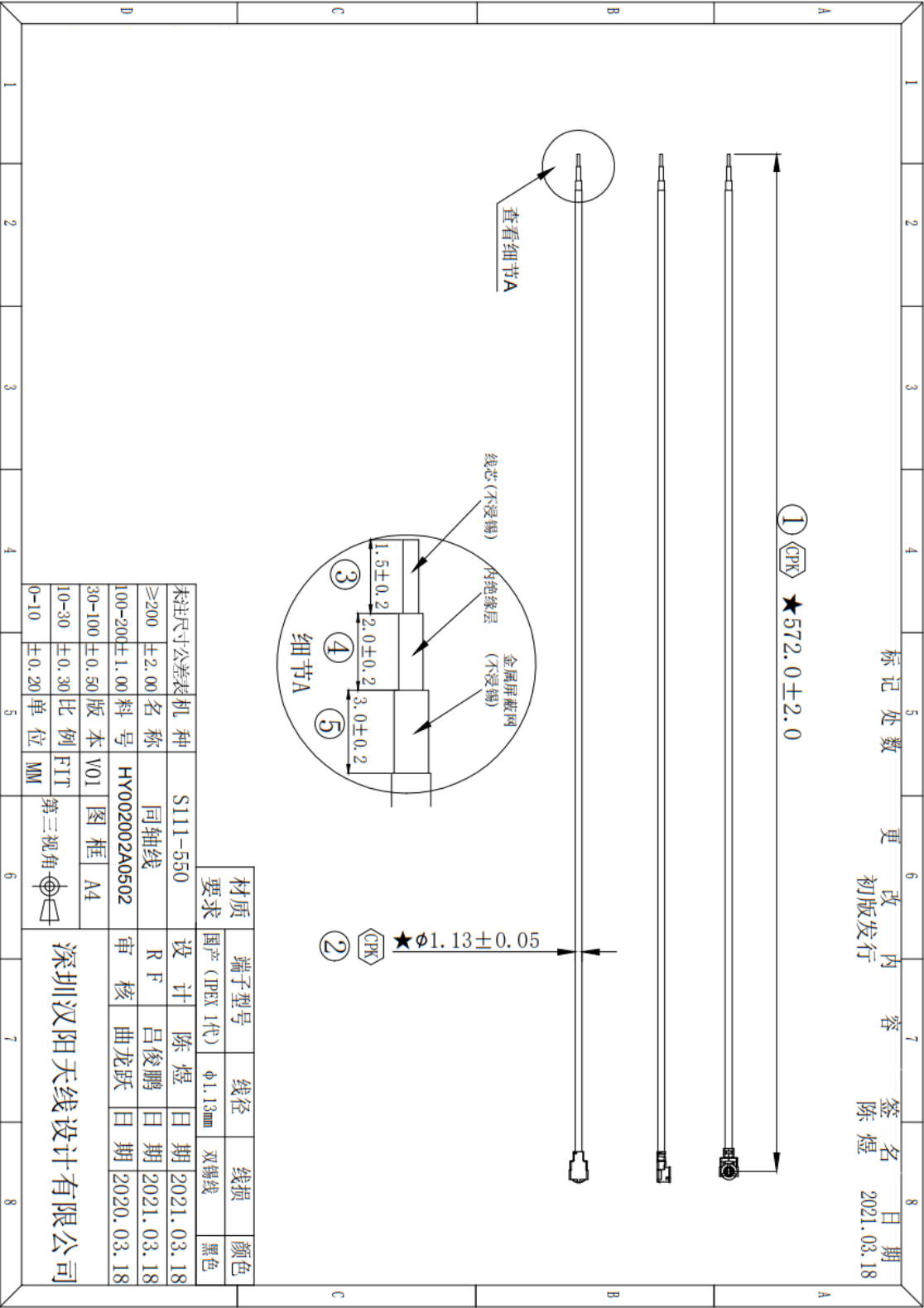
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Built-in Antenna \HYWF-PIFA-550mm \Neutral \ROH	Item Code	1244783
	Version	Number of pages
	V1.01	4

Engineering drawing







2. Performance index parameter requirements

2.1 Key Performance Indicator Requirements

Serial Number	Project	Specifications	
1	frequency band	2.4GHZ/5.2GHZ/5.8GHZ	
2	Directionality	omnidirectional antenna	
3	input impedance	50Ohm 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	2.10(Max)2.4G~2.5G ; 2.10(Max)5.15G-5.35G 5.70G-5.90G	Level gain, with cable test
8	Efficiency	$\geq 40\%$	
9	wire loss	$\leq 3.15\text{dB/M}$ 2.4-2.5G ; $\leq 3.15\text{dB/M}$ 5.15G-5.85G	

2.2 test data

Serial Number	Test Item	2.4G ~ 2.5G	5.15G ~ 5.85G
1	input impedance	50Ohm Nominal	
2	return loss	$\geq -14\text{dBi}$	$\geq -14\text{dBi}$
3	VSWR	≤ 1.5	≤ 1.5
4	Average gain	2.10	1.45
5	average efficiency	46%	40%
6	wire loss	$\leq 3.15\text{dB/M}$	$\leq 3.15\text{dB/M}$

3. RF Performance –WIFI Antenna

3.1 Active test data

Item	Standard	Band	Channel	Frequency	TRP	TIS
1	WIFI (AP)	WIFI_B (11M)	1	2412	13.9	-64.33
2	WIFI (AP)	WIFI_B (11M)	6	2437	13.96	-64.32
3	WIFI (AP)	WIFI_B (11M)	11	2462	12.09	-64.01
1	WIFI (AP)	WIFI_A (54M)	149	5745	10.94	-67.2
2	WIFI (AP)	WIFI_A (54M)	157	5785	8.82	-66.03
3	WIFI (AP)	WIFI_A (54M)	165	5825	11.66	-68.04

3.2 Passive parameters

Freq. (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	0.58	0.66	1.1	1.42	1.77	2.10	1.72	1.28	0.72	1.19	1.73

Freq. (MHz)	5150	5175	5200	5225	5250	5275	5300	5325	5350
Gain (dBi)	1.44	1.86	1.98	1.76	1.55	1.64	1.88	2.10	1.56

Freq. (MHz)	5720	5740	5760	5780	5800	5820	5840	5860	5880
Gain (dBi)	1.65	1.39	1.95	1.72	2.10	1.26	1.48	1.91	1.32

3.3 S Parameter

Frequency (MHz)	2400	2450	2480	5180	5320	5725	5875
Return Loss (dB)	-13.2	-20.6	-13.9	-10.36	-13.13	-17.5	-17.1
VSWR	1.53	1.27	1.6	1.89	1.6	1.28	1.33



3.4 Antenna 3D Radiation Pattern (Unit:dbi)

