

KC.IA.00455

Antenna Specification

1. Application:

This application shall apply for antenna unit which shall be used such as automotive, conventional communications, smart home, etc..

1. Electrical Specification:

Those specifications were specially defined for customer's model, and all characteristics were measured under the model's handset testing jig .

2-1. Frequency Band:

Frequency Band	MHz
GPS/WIFI2.4/5.8G/BT	1176/1575.42/2400-2500/5150-5850

Model for ant WIFI/BT/GPS: MAXIMUS5.0-A

Model for ant WIFI: MAXIMUS5.0-B

2-2. Impedance

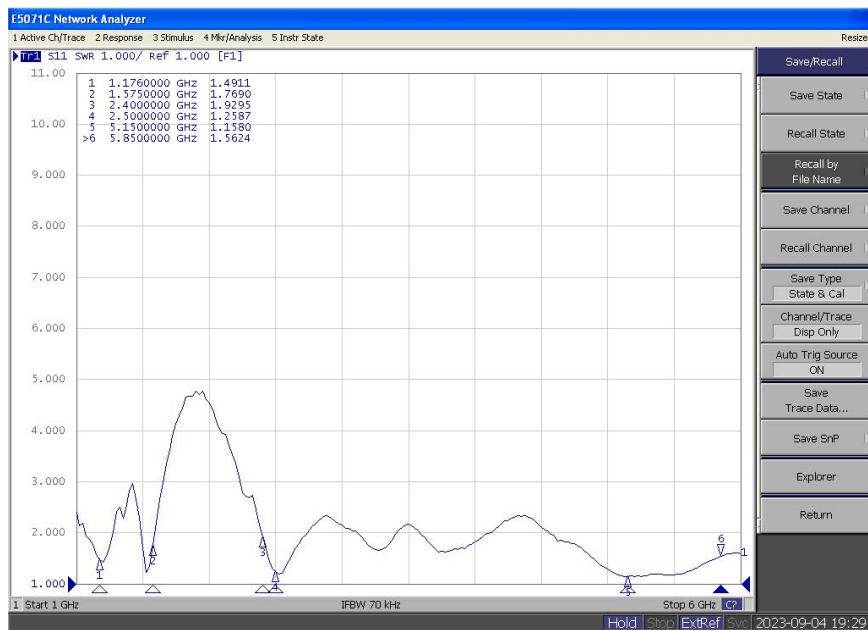
50 ohm nominal

2-3. VSWR

2-3-1.Measurement frequency points and VSWR value (WIFI/BTGPS)

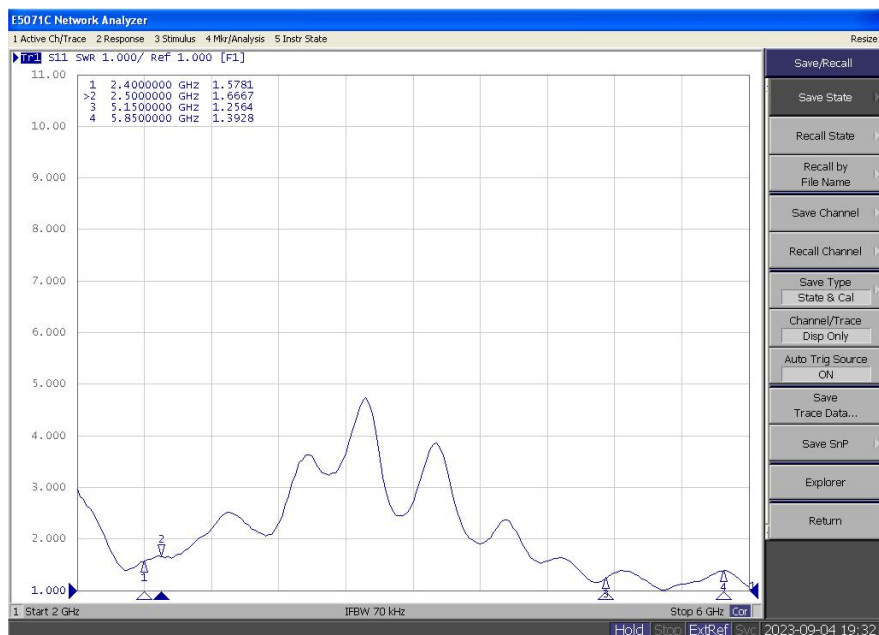
Frequency Band(MHz)	1176	1575.42	2400	2500	5150	5850
2-3-3. Typical Value:	1.49	1.76	1.92	1.25	1.15	1.56

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2-3-1.Measurement frequency points and VSWR value (WIFI)

Frequency Band(MHz)	2400	2500	5150	5850
2-3-3. Typical Value:	1.57	1.66	1.25	1.39



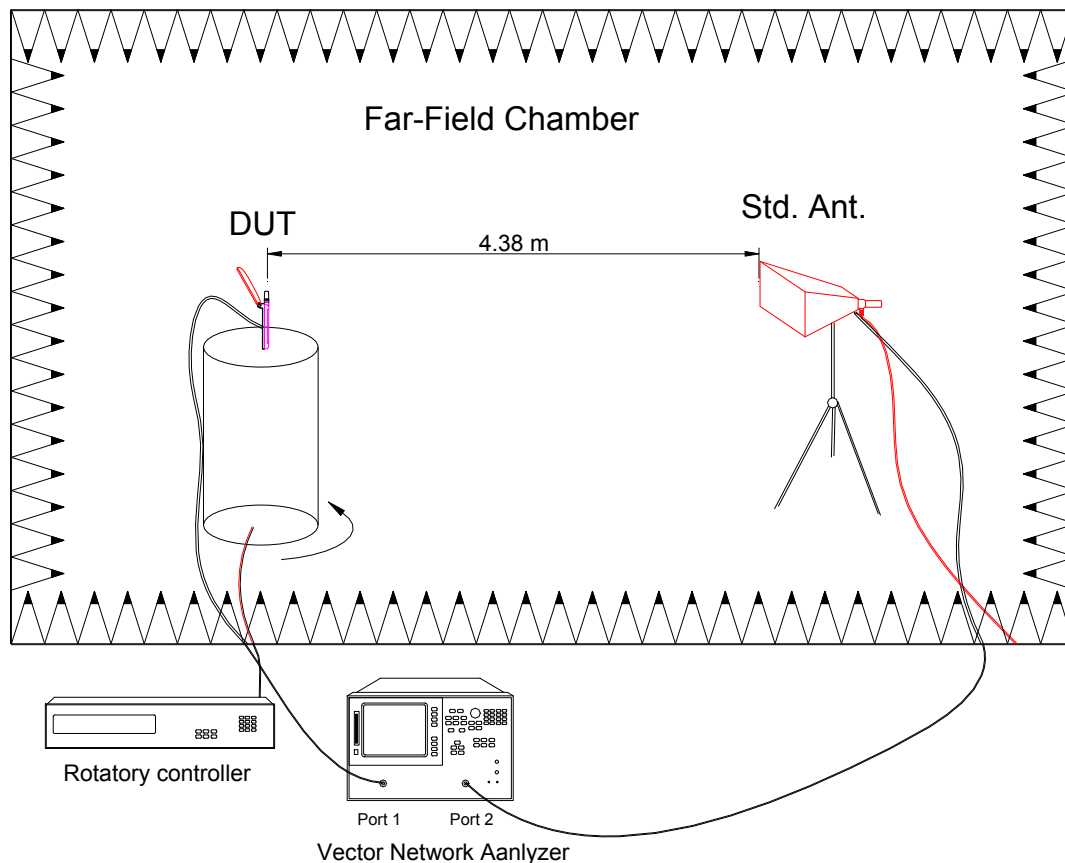
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2-4. Efficiency and Gain

4-5.1 Measure method

1. Using a low loss coaxial cable to link a standard handset jig
2. Fixed this handset jig on chamber's rotator plane
3. Linking jig into network analyzer port and using a probing horn antenna to collect data.
4. Using another standard gain horn antenna to calibrated those data

4-5.2 Chamber definition



1. An anechoic chamber (7mx4mx3m) which satisfied far-field condition was applied to avoid multi-path effect
2. The quiet room region is 40cmx40cmx40cm at the center of rotator
3. The distance between DUT and standard antenna is 4.38 m
4. Probing antenna (9120D horn antenna) and standard gain horn antenna (BBHA9120 LPF 700MHz ~6GHz)

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2-4-1 Efficiency and Gain (WIFI/BT/GPS)

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	1.27	45.08	5360	2.87	43.65
2410	1.15	46.22	5390	2.74	41.78
2420	1.01	48.11	5420	1.86	48.37
2430	1.12	46.73	5450	2.12	49.54
2440	1.14	46.81	5480	2.58	49.9
2450	1.17	45.4	5510	2.03	48.28
2460	1.21	46.9	5540	1.92	47.33
2470	1.1	47.76	5570	2.1	48.37
2480	1.01	49.45	5600	1.37	44.12
2490	1.51	44.27	5630	0.69	43.81
2500	0.45	41.85	5660	0.82	44.28
			5690	1	43.34
5150	3.17	48.53	5720	1.64	47.33
5210	3.2	46.67	5750	1.27	46.64
5240	3.38	47.53	5780	1.58	47.33
5270	3.23	44.46	5810	1.33	46.14
5300	3.62	46.13	5840	0.98	48.64
5330	2.84	43.55			

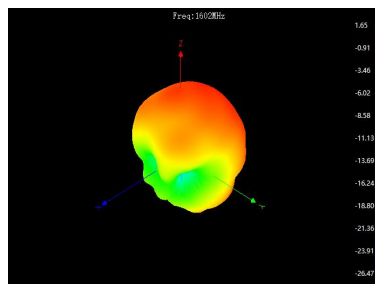
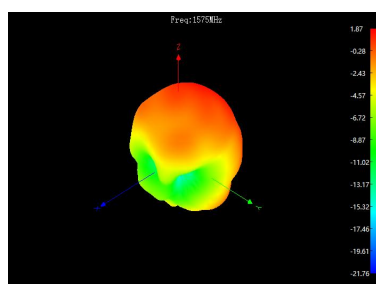
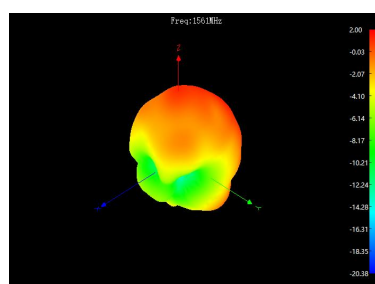
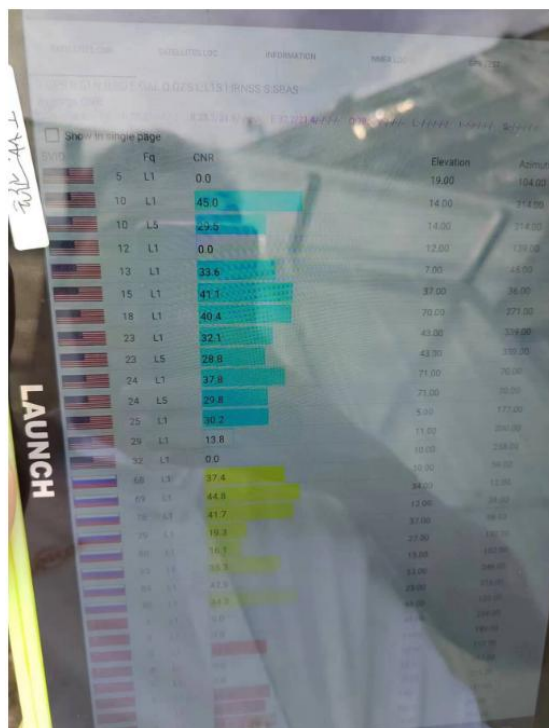
Frequency/Mhz	MaxGain/dBi	Efficiency / %
1170	0.66	43.65
1175	0.67	47.65
1180	0.78	47.55
1560	2.12	49.43
1561	2	49.32
1562	1.88	49.32

Frequency/Mhz	MaxGain/dBi	Efficiency / %
1574	1.84	50.23
1575	1.87	49.89
1576	1.86	49.77
1601	1.54	57.02
1602	1.65	57.68
1603	1.75	58.34

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GNSS 场外测试:

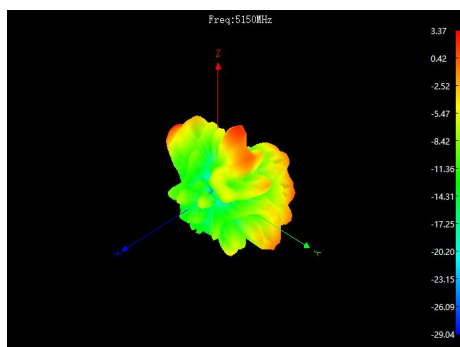
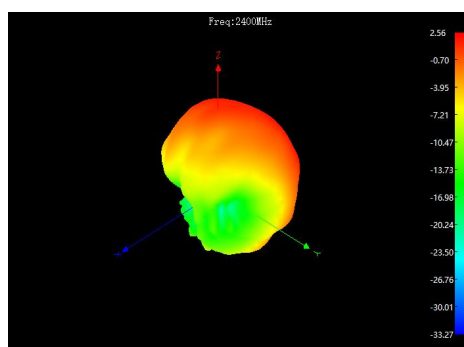
测试时间:	2023-9-04
测试地点:	五楼顶
天气情况:	晴朗
冷启动定位:	28 秒
热启动定位:	2秒
搜星总数:	28
最高CN值:	45



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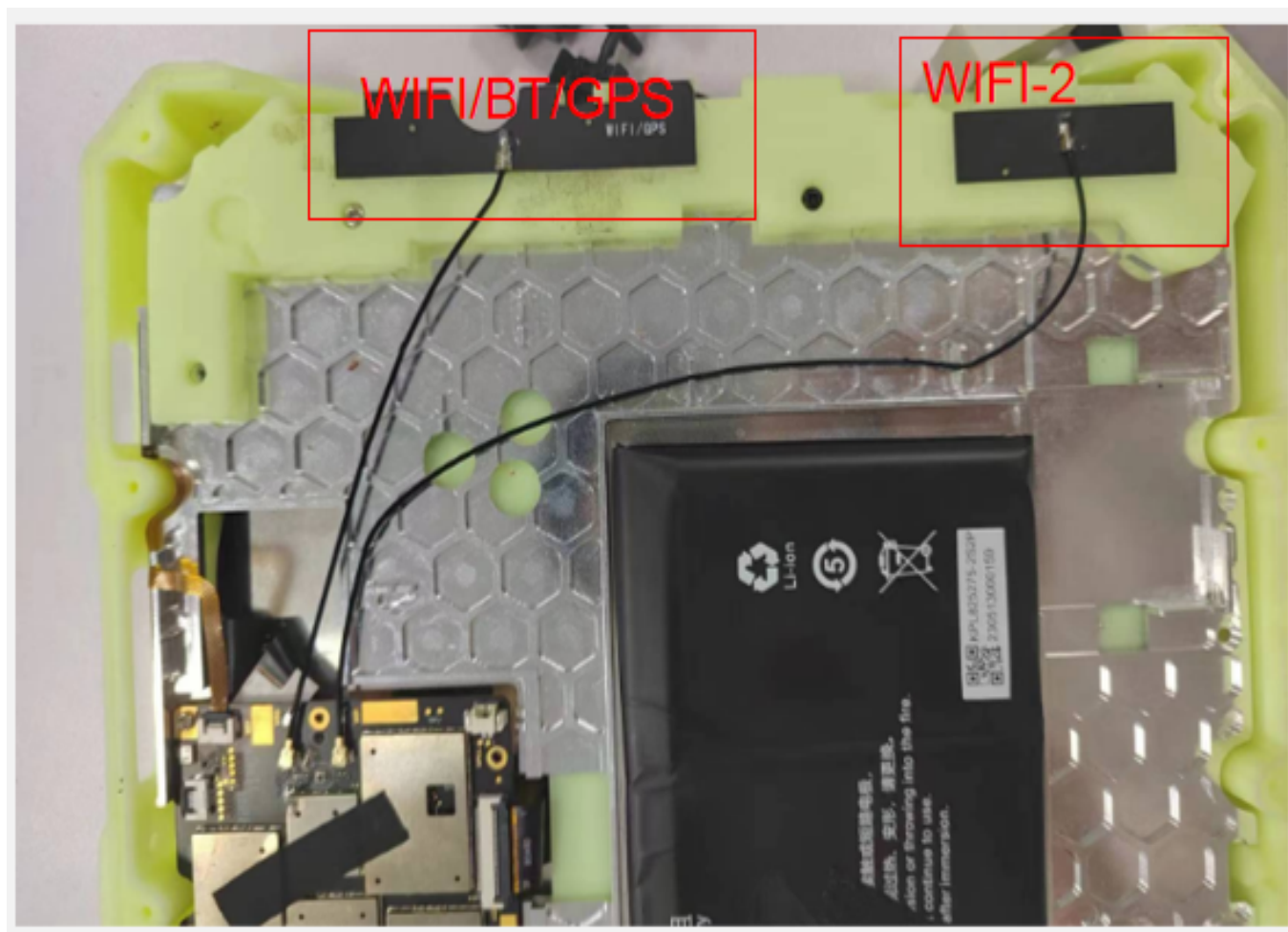
Efficiency and Gain (WIFI)

Frequency/Mhz	MaxGain/dBi	Efficiency / %	Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.56	47.53	5330	2.44	42.59
2410	2.86	47.97	5360	2.7	43.66
2420	3.1	51.17	5390	2.69	42.86
2430	3.03	48.31	5420	2.19	41.53
2440	2.69	45.39	5450	2.56	42.39
2450	2.37	44.46	5480	2.73	42.75
2460	2.01	43.45	5510	2.83	43.17
2470	2.2	44.16	5540	3.01	43.28
2480	1.77	43.95	5570	3.45	43.93
2490	2.45	47.86	5600	2.98	41.93
2500	2.15	45.81	5630	2.74	42.54
			5660	2.74	42.49
5150	3.37	42.49	5690	2.64	41.78
5180	3.26	43.5	5720	3.12	43.99
5210	3.18	43.33	5750	2.42	41.73
5240	3.17	43.71	5780	2.22	41.38
5270	2.62	42.23	5810	1.79	40.65
5300	3.08	43.55	5840	1.73	42.44



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Test scenario and antenna locatio

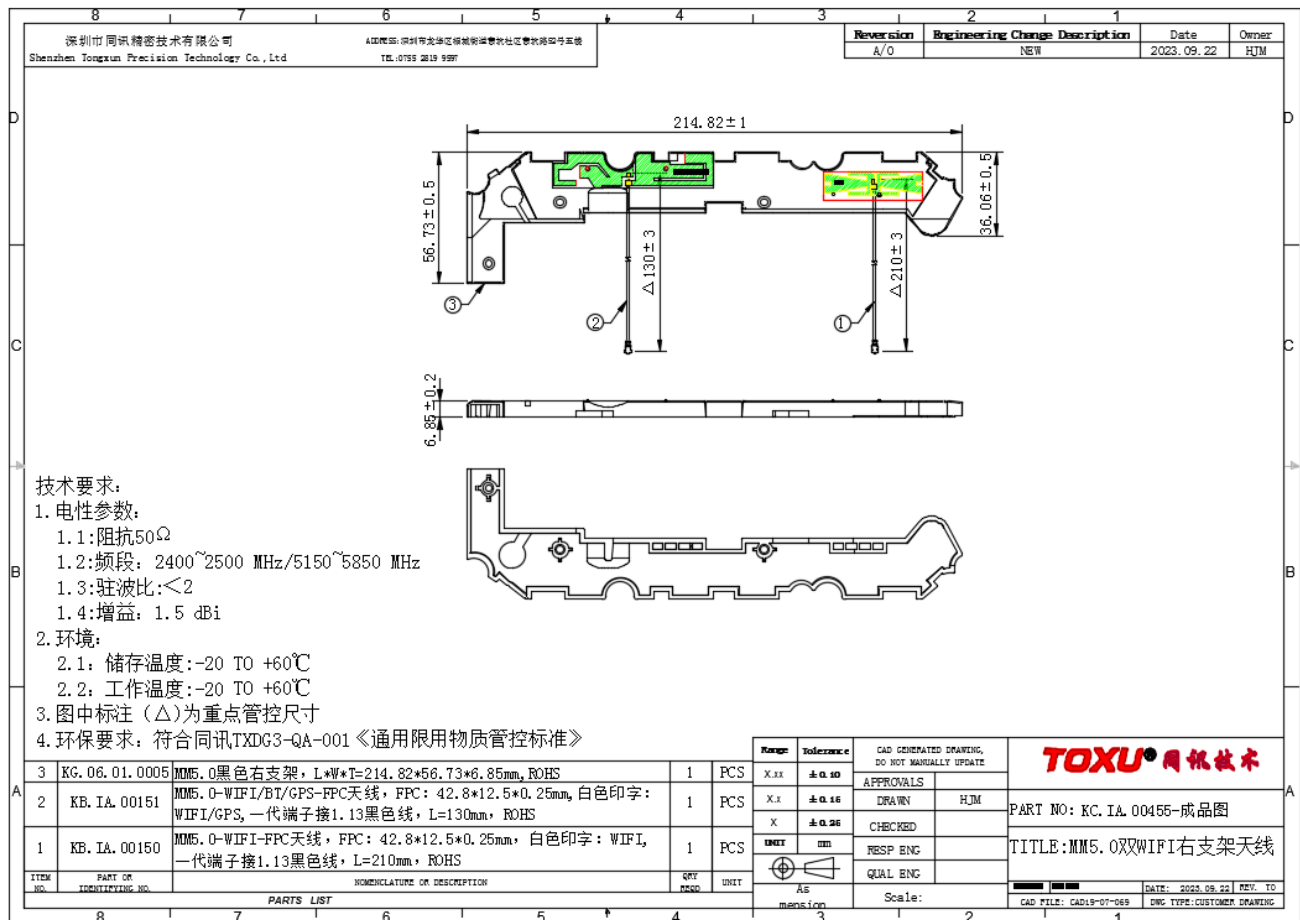


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3. Mechanical Specification:

3-1. Mechanical Configuration (Unit: mm)

The appearance of the antenna is according to drawing



3-2. Connector appearance:

IPEX

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4. 包装规格:

产品料号: **xxx**产品型号: **xxx**

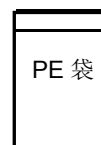
一、标签要求:

需方	xxx		
供方	xxxxxx		
物料编码	xx		
产品型号	xx		
数量/单	xxx PCS	出厂日期	x 年 x 月 x 日
备注/其他			

二、装箱要求:

作业说明:

1. 内包装:

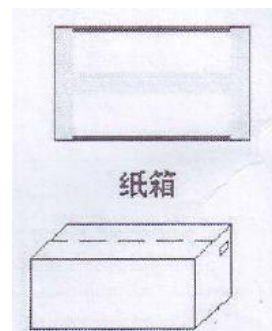
产品 **XXpcs** 一袋, 放入小 **PE** 袋;

2. 外包装:

XxPCS 一箱;

3. 注意事项:

- a. 是否要增设隔板、珍珠棉;
- b. 标签的帖附, 如 **ROHS** 等;



UNLESS OTHER SPECIFIED TOLERANCES ON :
 $X=\pm$ $X.X=\pm$ $X.XX=\pm$
 ANGLES $=\pm$ HOLEDIA $=\pm$

TOXU
同讯技术

TOXU TECHNOLOGY CO., LTD.

SCALE :

UNIT : mm

DRAWN BY: LI

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DESIGNED BY: De wen

APPROVED BY: YS

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