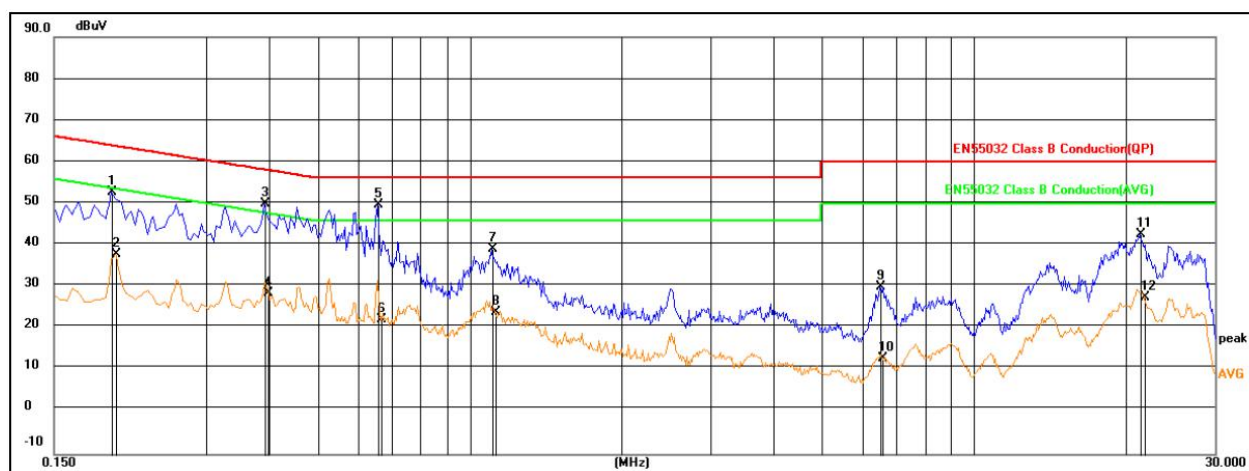


Appendix A for Emission and Immunity test results
Product Name: AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter
Test Model: WE3000S
Additional Model No.: WE3000, WE3500, WE3600, WE4000, WE3700, WE3800, WE3900

A.1 Line Conducted Emission

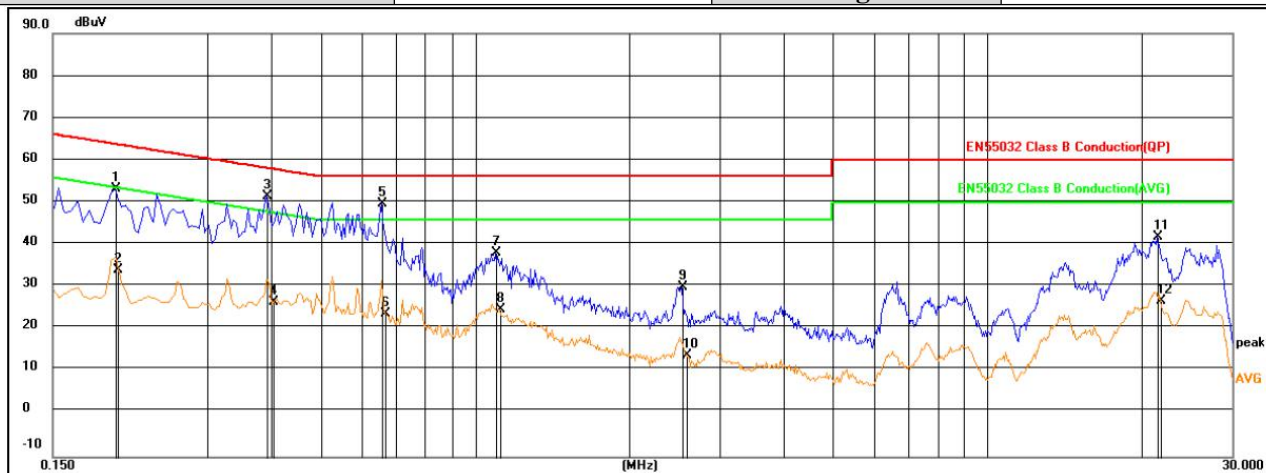
***Note: For pre-scan, the worst case is TM1, and the test data was shown as follow:

Test Model	WE3000S	Test Mode	TM1
Environmental Conditions	23.3℃, 53.7% RH	Test Engineer	Jay Li
Pol.	Line	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1949	33.73	19.17	52.90	63.83	-10.93	QP
2	0.1995	18.76	19.18	37.94	53.63	-15.69	AVG
3	0.3930	30.85	19.31	50.16	58.00	-7.84	QP
4	0.3997	9.48	19.31	28.79	47.86	-19.07	AVG
5	0.6585	30.48	19.25	49.73	56.00	-6.27	QP
6	0.6683	3.11	19.25	22.36	46.00	-23.64	AVG
7	1.1085	20.01	19.28	39.29	56.00	-16.71	QP
8	1.1265	4.82	19.28	24.10	46.00	-21.90	AVG
9	6.5130	10.63	19.56	30.19	60.00	-29.81	QP
10	6.5895	-6.48	19.56	13.08	50.00	-36.92	AVG
11	21.2820	22.35	20.30	42.65	60.00	-17.35	QP
12	21.7275	7.26	20.28	27.54	50.00	-22.46	AVG

Test Model	WE3000S	Test Mode	TM1
Environmental Conditions	23.3°C, 53.7% RH	Test Engineer	Jay Li
Pol.	Neutral	Test Voltage	AC 230V/50Hz

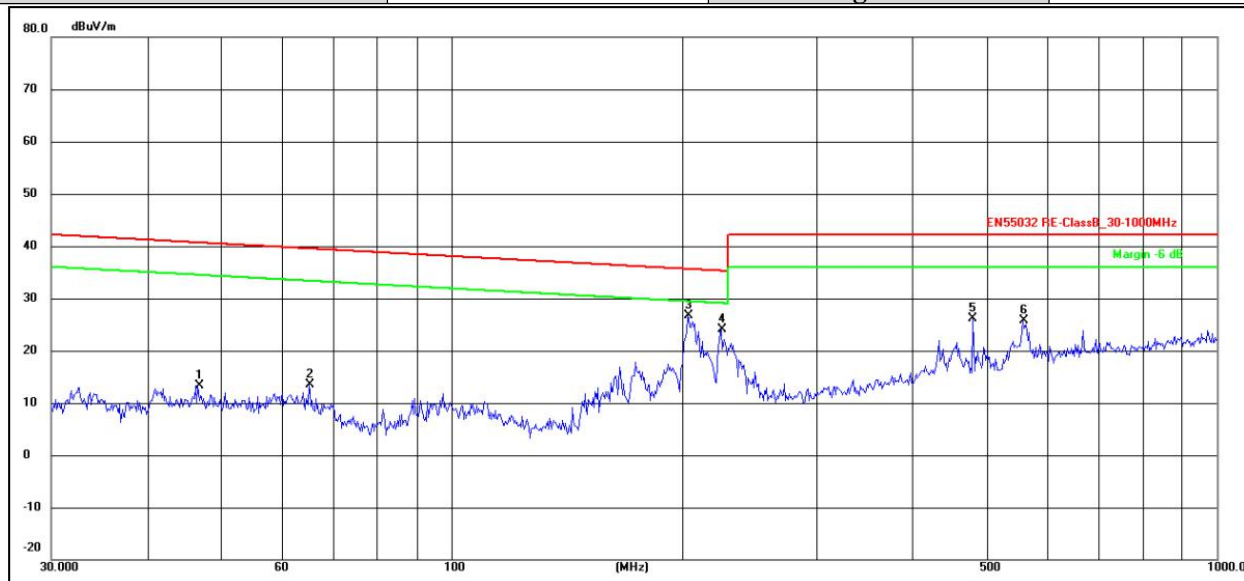


No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1995	34.24	19.18	53.42	63.63	-10.21	QP
2	0.2017	14.98	19.18	34.16	53.54	-19.38	AVG
3	0.3930	32.30	19.31	51.61	58.00	-6.39	QP
4	0.4040	7.37	19.32	26.69	47.77	-21.08	AVG
5	0.6585	30.47	19.25	49.72	56.00	-6.28	QP
6	0.6683	4.57	19.25	23.82	46.00	-22.18	AVG
7	1.0995	19.02	19.27	38.29	56.00	-17.71	QP
8	1.1174	5.60	19.28	24.88	46.00	-21.12	AVG
9	2.5350	10.71	19.45	30.16	56.00	-25.84	QP
10	2.5889	-5.44	19.45	14.01	46.00	-31.99	AVG
11	21.4215	21.61	20.29	41.90	60.00	-18.10	QP
12	21.7770	6.66	20.29	26.95	50.00	-23.05	AVG

Note: For conducted emission and radiated emission test, a power supply of 230VAC and 120VAC was used for testing respectively, and only recorded the worst case of 230VAC.

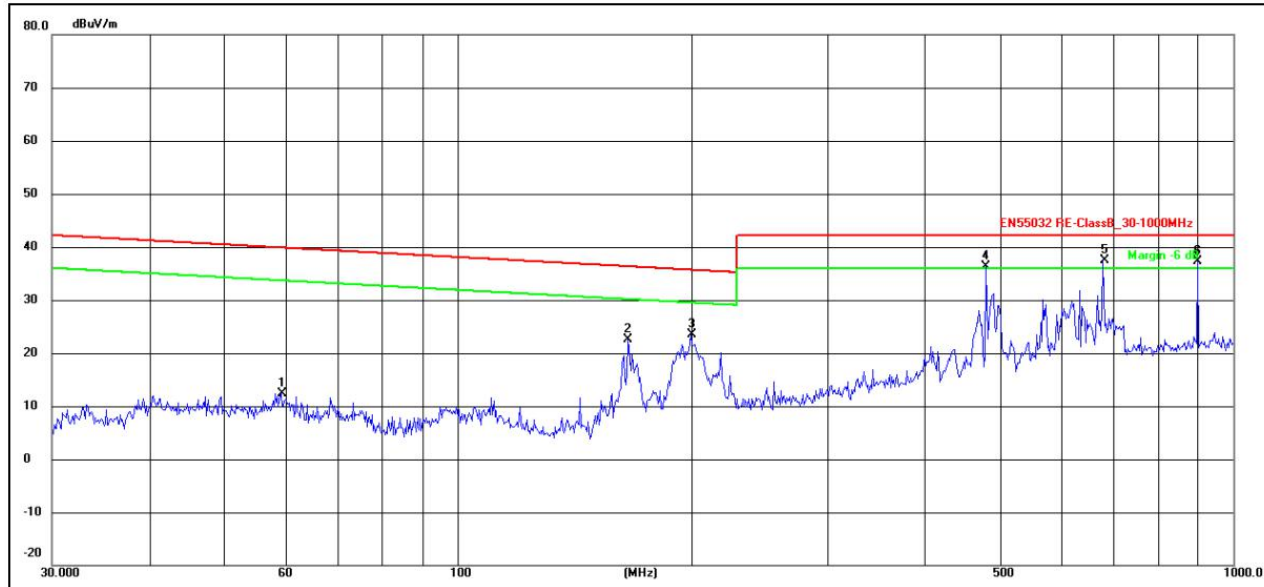
A.2 Radiated Disturbance

Test Model	WE3000S	Test Mode	TM1
Environmental Conditions	24.6°C, 54.1% RH	Test Engineer	Jay Li
Pol.	Vertical	Detector Function	Quasi-peak
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	46.6664	28.41	-15.11	13.30	40.48	-27.18	QP
2	65.1145	31.87	-18.33	13.54	39.34	-25.80	QP
3 *	203.5228	43.71	-17.09	26.62	35.42	-8.80	QP
4	225.3080	40.40	-16.39	24.01	35.07	-11.06	QP
5	480.5276	37.33	-11.23	26.10	42.00	-15.90	QP
6	558.7302	35.10	-9.41	25.69	42.00	-16.31	QP

Test Model	WE3000S	Test Mode	TM1
Environmental Conditions	24.6°C, 54.1% RH	Test Engineer	Jay Li
Pol.	Horizontal	Detector Function	Quasi-peak
Distance	3m	Test Voltage	AC 230V/50Hz



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	59.2325	29.07	-16.68	12.39	39.66	-27.27	QP
2	166.0680	42.68	-20.21	22.47	36.12	-13.65	QP
3	199.9856	40.63	-17.20	23.43	35.48	-12.05	QP
4 !	480.5276	47.54	-11.23	36.31	42.00	-5.69	QP
5 *	679.9600	45.12	-7.58	37.54	42.00	-4.46	QP
6 !	900.1474	43.08	-5.77	37.31	42.00	-4.69	QP

Test Mode: TM1 (Above 1GHz)	Tested by: Jay Li
Test Voltage: AC 230V/50Hz	Test Distance: 3m
Detector Function: Peak + AV	Test Results: Passed

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
1123.36	49.49	1.14	50.63	70.00	-19.37	Peak	Horizontal
1123.36	30.86	1.14	32.00	50.00	-18.00	Average	Horizontal
1558.41	48.96	2.67	51.63	70.00	-18.37	Peak	Horizontal
1558.41	28.47	2.67	31.14	50.00	-18.86	Average	Horizontal
2918.21	46.54	5.75	52.29	70.00	-17.71	Peak	Horizontal
2918.21	26.54	5.75	32.29	50.00	-17.71	Average	Horizontal
3734.37	58.30	1.83	60.13	74.00	-13.87	Peak	Horizontal
3734.37	30.70	1.83	32.53	54.00	-21.47	Average	Horizontal
4598.66	56.96	3.17	60.13	74.00	-13.87	Peak	Horizontal
4598.66	35.01	3.17	38.18	54.00	-15.82	Average	Horizontal
5980.43	53.57	6.13	59.70	74.00	-14.30	Peak	Horizontal
5980.43	32.68	6.13	38.81	54.00	-15.19	Average	Horizontal

Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
1123.76	49.59	1.14	50.73	70.00	-19.27	Peak	Vertical
1123.76	31.43	1.14	32.57	50.00	-17.43	Average	Vertical
1558.89	48.95	2.67	51.62	70.00	-18.38	Peak	Vertical
1558.89	28.45	2.67	31.12	50.00	-18.88	Average	Vertical
2919.44	46.52	5.75	52.27	70.00	-17.73	Peak	Vertical
2919.44	26.77	5.75	32.52	50.00	-17.48	Average	Vertical
3733.01	58.39	1.83	60.22	74.00	-13.78	Peak	Vertical
3733.01	30.42	1.83	32.25	54.00	-21.75	Average	Vertical
4597.60	57.35	3.17	60.52	74.00	-13.48	Peak	Vertical
4597.60	34.95	3.17	38.12	54.00	-15.88	Average	Vertical
5982.27	53.52	6.13	59.65	74.00	-14.35	Peak	Vertical
5982.27	32.52	6.13	38.65	54.00	-15.35	Average	Vertical

Note:

1. Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.
2. Measurements above show only up to 6 maximum emissions noted.
3. Data of measurement within this frequency range shown "--" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. Factor = Antenna Factor + Cable Loss + Amplifier Factor
Emission Level = Reading level + Factor
Margin = Emission Level - Limit

A.3 Harmonic Current Emissions

Because power of EUT less than 75W, According standard EN 61000-3-2, Harmonic current unnecessary to test.

A.4 Voltage Fluctuation and Flicker

Test Model	WE3000S	Test Engineer	Jay Li
Environmental Conditions	22.7°C, 53.4% RH	Test Voltage	AC 230V/50Hz
Type of Test: Flickermeter Test - Table Power Analyzer: Voltech PM6000 SN: 200006700523 Firmware Version: v1.21.07RC2 Channel(s): 1. SN: 090015502053, 28 Adjusted Date: 22 JUN 2011. 2. SN:None Adjusted Date:None 3. SN:None Adjusted Date:None 4. SN:None Adjusted Date:None 5. SN:None Adjusted Date:None 6. SN:None Adjusted Date:None Shunt(s): 1. SN: 091024301916, 4 Adjusted Date: 23 JUN 2011. 2. SN:None Adjusted Date:None 3. SN:None Adjusted Date:None 4. SN:None Adjusted Date:None 5. SN:None Adjusted Date:None 6. SN:None Adjusted Date:None AC Source: Mains / Manual Source			
Overall Result:	Notes:		
PASS	Measurement method - Voltage		

	Pst	dc (%)	dmax (%)	d(t) > 3.3%(ms)
Limit	1.000	3.300	4.000	500
Reading 1	0.089	0.006	0.096	0

A.5 RF Electromagnetic Field (80 MHz - 6000 MHz)

Test Model	WE3000S	Test Engineer	Jay Li
Environmental Conditions	23.1℃, 53.5% RH	Test Voltage	AC 230V/50Hz

TM1-TM4 Test Result:

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
	Horizontal	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
Idle	Vertical	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
	Horizontal	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass

TM5 Test Result:

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
	Horizontal	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
Idle	Vertical	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass
	Horizontal	80-6000 1800 2600 3500 5000	3	CT, CR	Front, Right, Left, Back	Pass

A.6 Electrostatic Discharge

Electrostatic Discharge Test Results			
Standard	☐ IEC 61000-4-2 ☒ EN 61000-4-2		
Applicant	Shenzhen Cudy Technology Co., Ltd.		
EUT	AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter	Temperature	23.5℃
M/N	WE3000S	Humidity	53.7%
Criterion	B	Pressure	1021mbar
Test Mode	TM1-TM5	Test Engineer	Jay Li
TEST RESULT OF TM1-TM4			
Test Voltage	Coupling	Observation	Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge	TT, TR	Pass
±2KV, ±4kV, ±8kV	Air Discharge	TT, TR	Pass
±2KV, ±4kV	Indirect Discharge HCP	TT, TR	Pass
±2KV, ±4kV	Indirect Discharge VCP	TT, TR	Pass
TEST RESULT OF TM5			
Test Voltage	Coupling		Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge		Pass
±2KV, ±4kV, ±8kV	Air Discharge		Pass
±2KV, ±4kV	Indirect Discharge HCP		Pass
±2KV, ±4kV	Indirect Discharge VCP		Pass
Note: The EUT performance complied with performance criteria for TT&TR Function and there is no any degradation of performance and function.			

A.7 Electrical Fast Transient Immunity

Electrical Fast Transient/Burst Test Results			
Standard	☐ IEC 61000-4-4 ☒ EN 61000-4-4		
Applicant	Shenzhen Cudy Technology Co., Ltd.		
EUT	AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter	Temperature	23.1℃
M/N	WE3000S	Humidity	53.4%
Test Mode	TM1-TM5	Criterion	B
Test Engineer	Jay Li		

TEST RESULT OF TM1-TM4				
Line	Test Voltage	Polarity	Observation	Result (Pass/Fail)
L	1KV	+/-	TT, TR	Pass
N	1KV	+/-	TT, TR	Pass
L-N	1KV	+/-	TT, TR	Pass
TEST RESULT OF TM5				
Line	Test Voltage	Polarity	Result (Pass/Fail)	
L	1KV	+/-	Pass	
N	1KV	+/-	Pass	
L-N	1KV	+/-	Pass	

A.8 RF Common Mode

Injected Currents Susceptibility Test Results			
Standard	☐ IEC 61000-4-6 ☒ EN 61000-4-6		
Applicant	Shenzhen Cudy Technology Co., Ltd.		
EUT	AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter	Temperature	23.6℃
M/N	WE3000S	Humidity	53.7%
Test Mode	TM1-TM5	Criterion	A
Test Engineer	Jay Li		

TEST RESULT OF TM1-TM4

Frequency Range (MHz)	Strength (Unmodulated)	Injected Position	Observation	Result (Pass/Fail)
0.15 ~ 80	3V	AC Mains	CT, CR	Pass

TEST RESULT OF TM5

Frequency Range (MHz)	Strength (Unmodulated)	Injected Position	Result (Pass/Fail)
0.15 ~ 80	3V	AC Mains	Pass

Remark:

1. Modulation Signal: 1kHz 80% AM

2. Measurement Equipment :

Simulator: CIT-10 (FRANKONIA)

CDN : ☒ CDN-M2 (FRANKONIA)☐ CDN-M3 (FRANKONIA)

A.9 Surges, Line to Line and Line to Ground

Surge Immunity Test Result			
Standard	☐ IEC 61000-4-5 ☒ EN 61000-4-5		
Applicant	Shenzhen Cudy Technology Co., Ltd.		
EUT	AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter	Temperature	22.7°C
M/N	WE3000S	Humidity	53.6%
Test Mode	TM1-TM5	Criterion	B
Test Engineer	Jay Li		

TEST RESULT OF TM1-TM4						
Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)	Observation	Result (Pass/Fail)
L-N	+	0°, 90°, 180°, 270°	5	1.0	TT, TR	Pass
	-	0°, 90°, 180°, 270°	5	1.0	TT, TR	Pass
TEST RESULT OF TM5						
Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)		Result (Pass/Fail)
L-N	+	0°, 90°, 180°, 270°	5	1.0		Pass
	-	0°, 90°, 180°, 270°	5	1.0		Pass

A.10 Voltage Dips/Interruptions Immunity Test

Voltage Dips And Interruptions Test Results			
Standard	☐ IEC 61000-4-11 ☒ EN 61000-4-11		
Applicant	Shenzhen Cudy Technology Co., Ltd.		
EUT	AX3000 Wi-Fi 6 Bluetooth 5.0 PCIe Adapter	Temperature	23.3℃
M/N	WE3000S	Humidity	53.8%
Test Mode	TM1-TM5	Criterion	B&C
Test Engineer	Jay Li		

TEST RESULT OF TM1-TM4				
Test Level % U _T	Voltage Dips & Short Interruptions % U _T	Duration (in periods)	Observation	Result (Pass/Fail)
0	100	0.5P	TT, TR	Pass
0	100	1P	TT, TR	Pass
70	30	25P	TT, TR	Pass
0	100	250P	TT, TR	Pass
TEST RESULT OF TM5				
Test Level % U _T	Voltage Dips & Short Interruptions % U _T	Duration (in periods)	Result (Pass/Fail)	
0	100	0.5P	Pass	
0	100	1P	Pass	
70	30	25P	Pass	
0	100	250P	Pass	