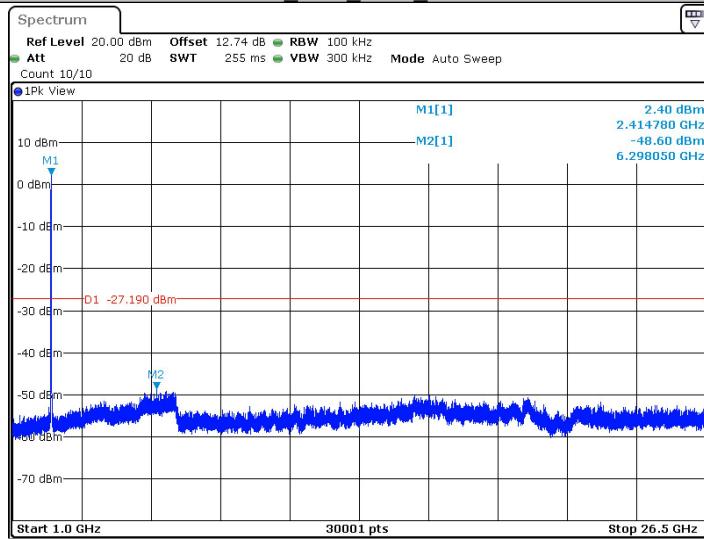
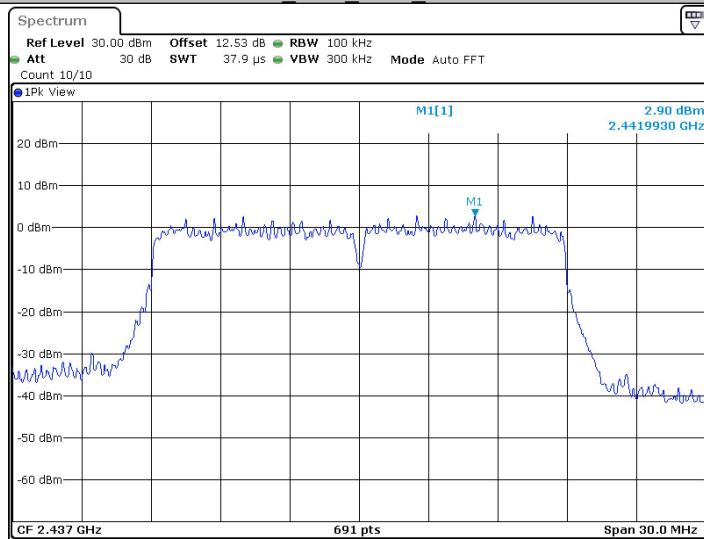


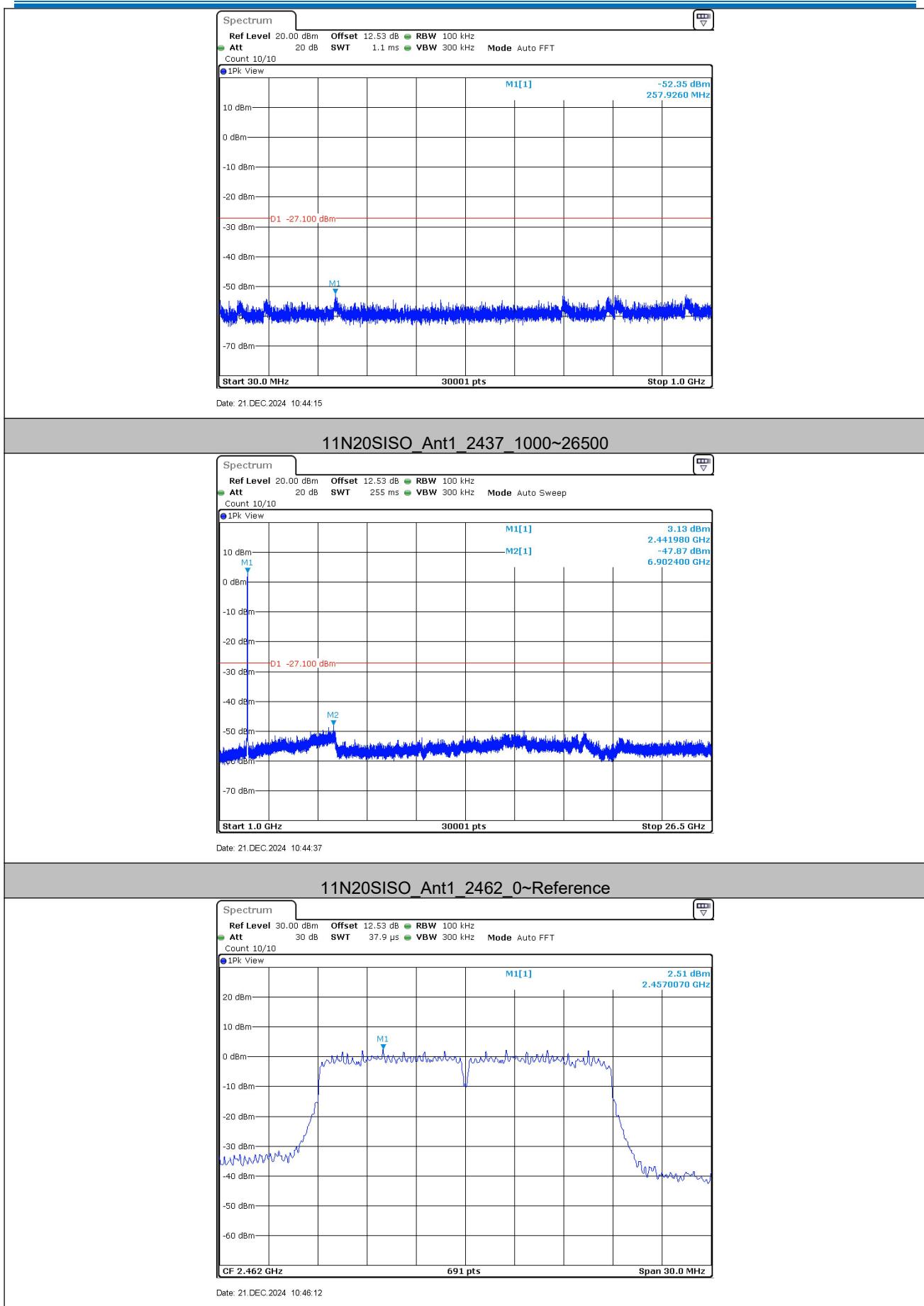
11N20SISO_Ant1_2412_1000~26500


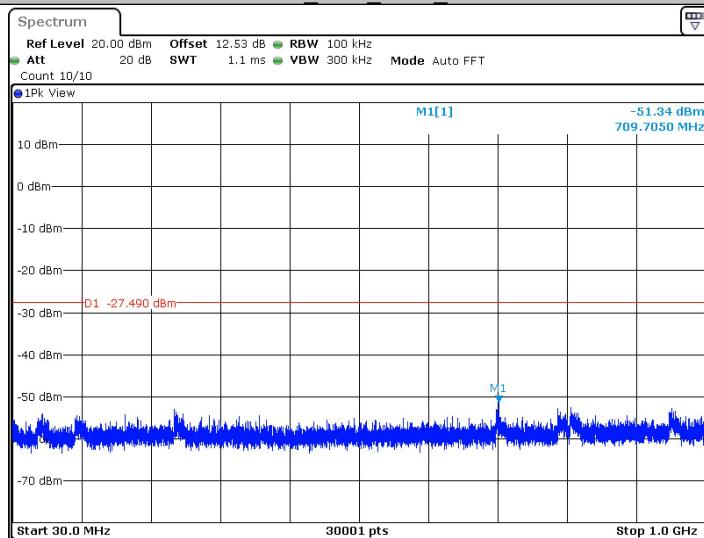
Date: 21.DEC.2024 10:42:21

11N20SISO_Ant1_2437_0~Reference


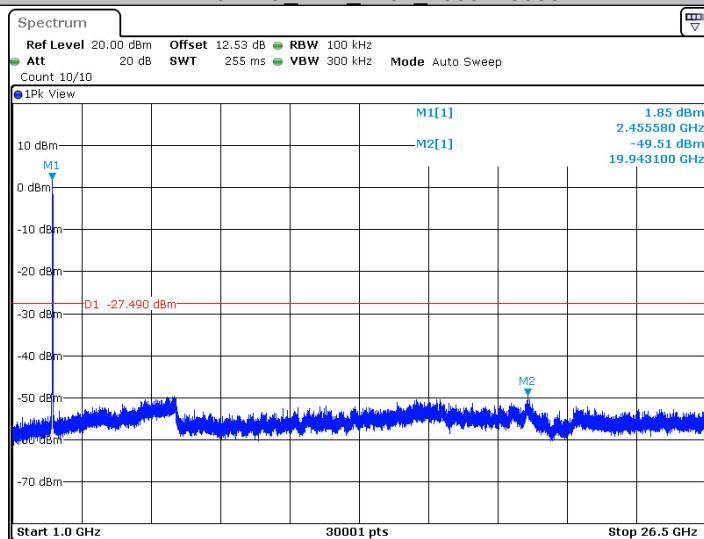
Date: 21.DEC.2024 10:44:07

11N20SISO_Ant1_2437_30~1000



11N20SISO_Ant1_2462_30~1000


Date: 21.DEC.2024 10:46:21

11N20SISO_Ant1_2462_1000~26500


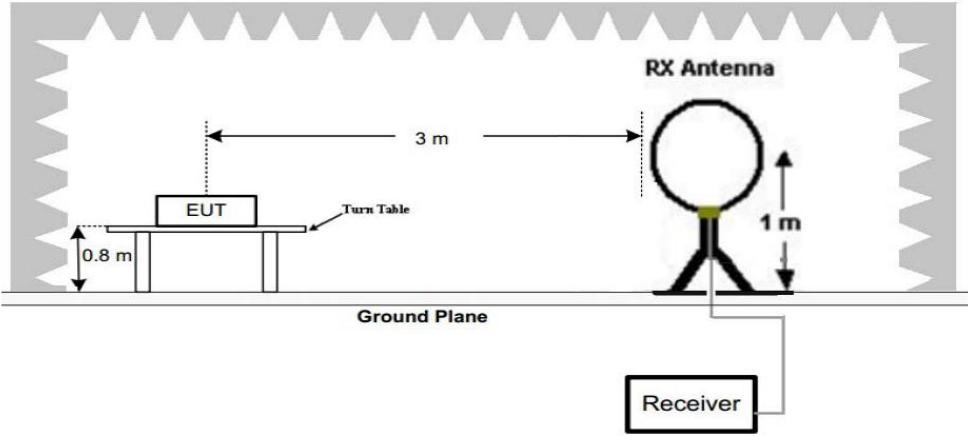
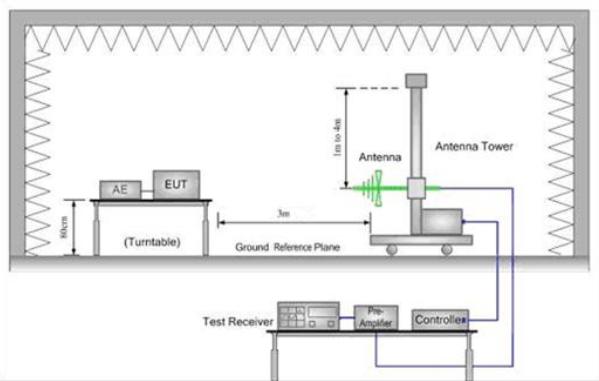
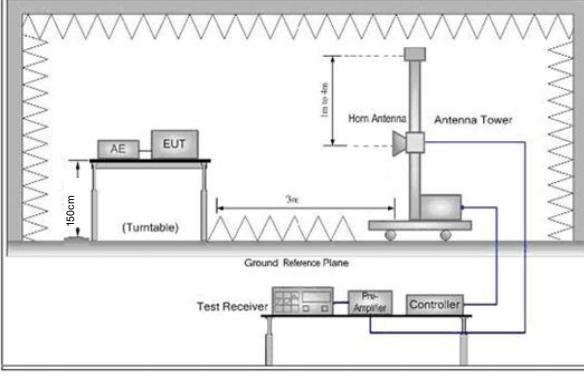
Date: 21.DEC.2024 10:46:43

Remark:

Pretest 9kHz to 25GHz, find the highest point when testing, so only the worst data were shown in the test report. Per FCC Part 15.33 (a) and 15.31 (o) ,The amplitude of spurious emissions from intentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this part.

5.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205				
Test Method:	ANSI C63.10 2013				
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
		Peak	1MHz	10Hz	Average
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
	1.705MHz-30MHz	30	-	-	30
	30MHz-88MHz	100	40.0	Quasi-peak	3
	88MHz-216MHz	150	43.5	Quasi-peak	3
	216MHz-960MHz	200	46.0	Quasi-peak	3
	960MHz-1GHz	500	54.0	Quasi-peak	3
	Above 1GHz	500	54.0	Average	3
Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.					

Test Setup:		
		Figure 1. Below 30MHz
		Figure 2. 30MHz to 1GHz
Test Procedure:	<p>a. 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>Note: For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.</p> <p>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p>	

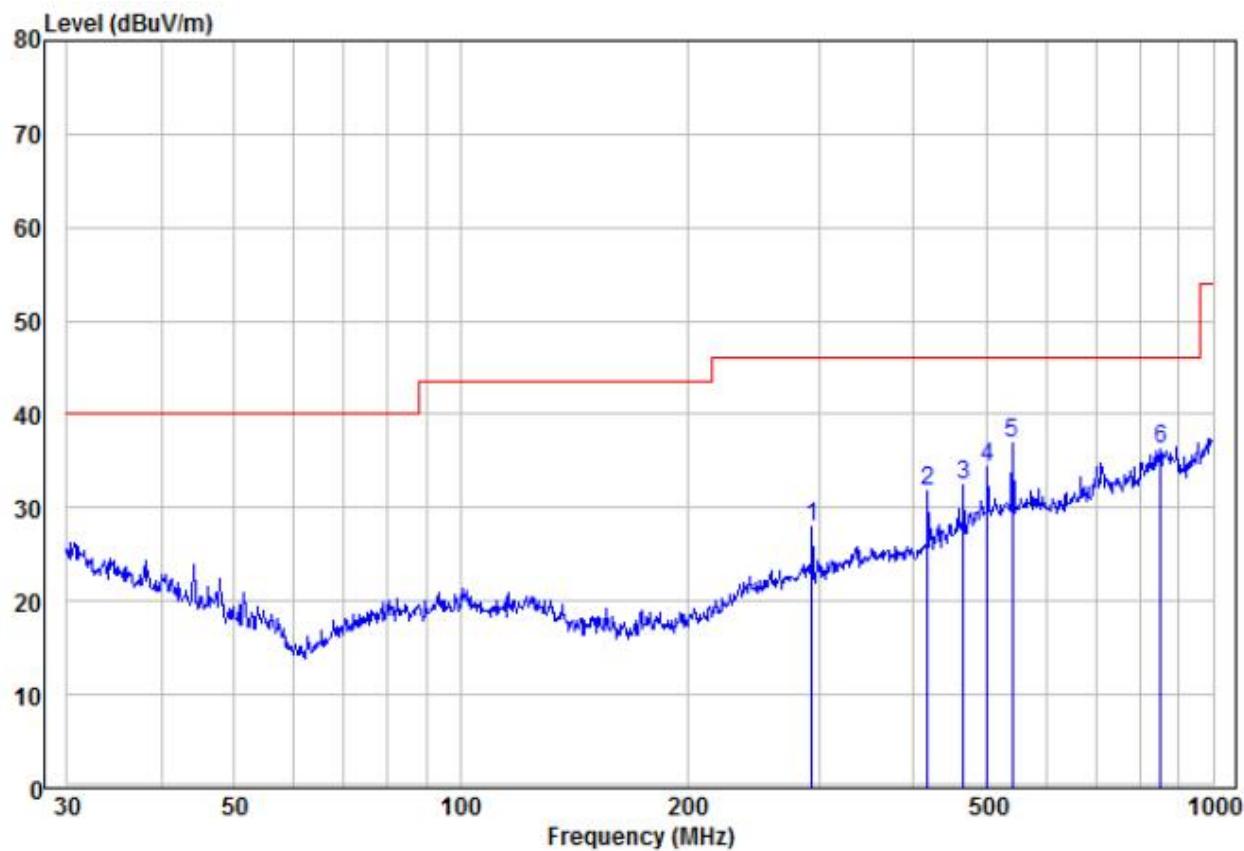
	<p>d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</p> <p>g. Test the EUT in the lowest channel, the middle channel, the Highest channel.</p> <p>h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case .</p> <p>i. Repeat above procedures until all frequencies measured was complete.</p>
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.
Final Test Mode:	Only the worst case is recorded in the report.
Test Results:	Pass

5.8.1 Radiated emission below 1GHz

AS011Z-0501500UU

30MHz~1GHz

Vertical



Freq	Read			Limit	Over	APOS	TPos			
	Freq	Level	Factor					Pol/Phase		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB			cm	deg
1	293.08	13.52	14.34	27.86	46.00	-18.14	Peak	VERTICAL	100	229
2	417.64	14.92	16.78	31.70	46.00	-14.30	Peak	VERTICAL	100	171
3	465.60	13.90	18.54	32.44	46.00	-13.56	Peak	VERTICAL	100	6
4	501.18	14.39	20.03	34.42	46.00	-11.58	Peak	VERTICAL	100	41
5 pp	541.37	16.80	20.14	36.94	46.00	-9.06	Peak	VERTICAL	100	84
6	851.04	10.39	25.95	36.34	46.00	-9.66	Peak	VERTICAL	100	9

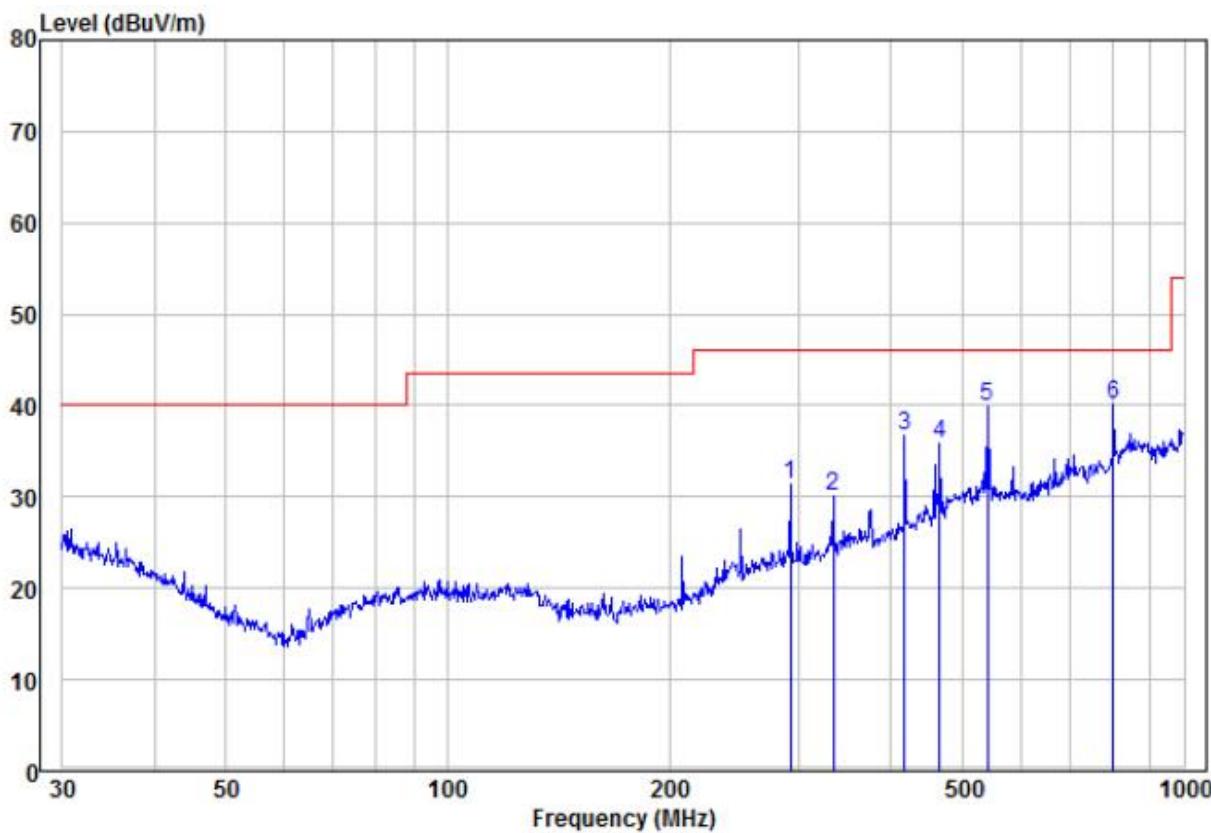
Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

Horizontal


Freq	Read		Limit	Over	APos	TPos				
	Freq	Level	Factor	Line	Limit	Remark	Pol/Phase			
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	deg	
1	292.06	17.09	14.30	31.39	46.00	-14.61	Peak	HORIZONTAL	100	42
2	333.69	14.69	15.45	30.14	46.00	-15.86	Peak	HORIZONTAL	100	269
3	417.64	19.90	16.78	36.68	46.00	-9.32	Peak	HORIZONTAL	100	210
4	465.60	17.26	18.54	35.80	46.00	-10.20	Peak	HORIZONTAL	100	241
5	541.37	19.73	20.14	39.87	46.00	-6.13	Peak	HORIZONTAL	100	348
6 pp	801.79	15.83	24.34	40.17	46.00	-5.83	Peak	HORIZONTAL	100	295

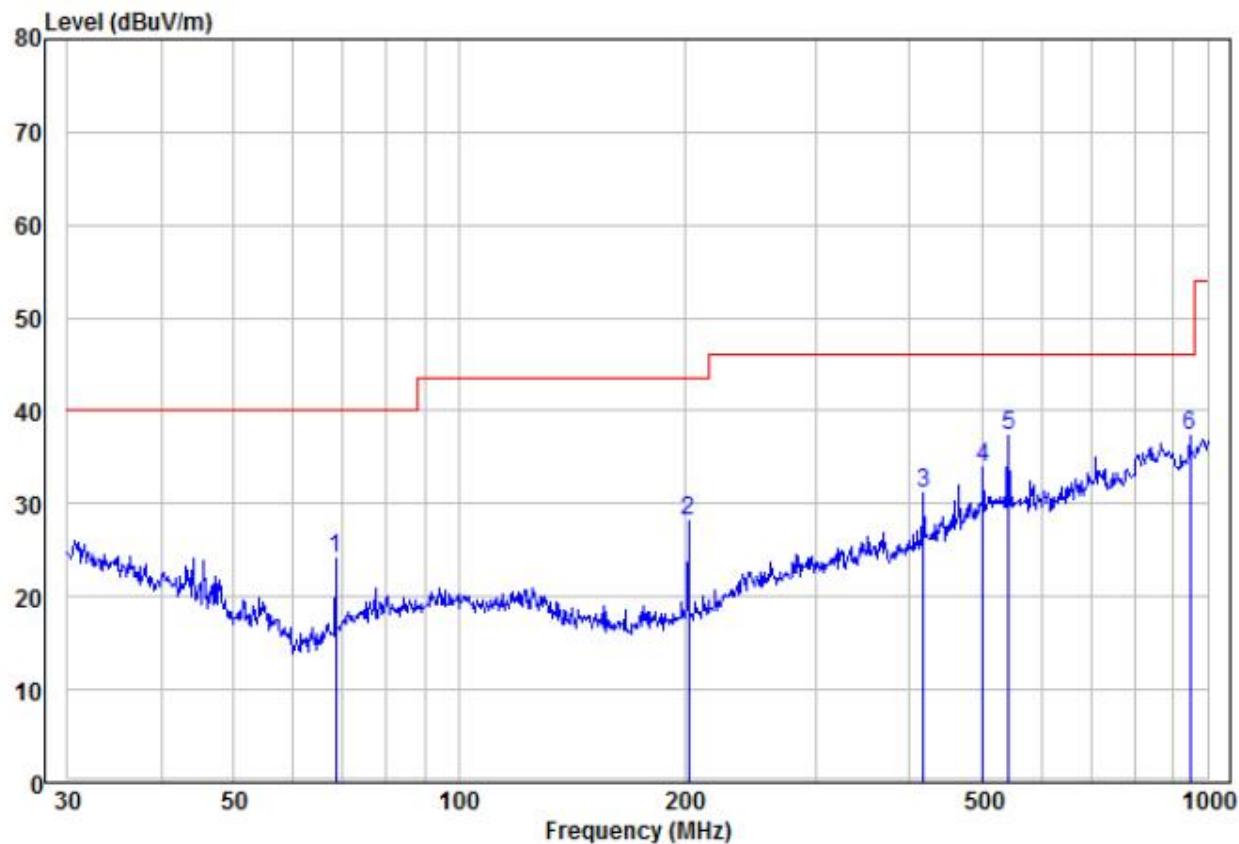
Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

RY019A050150UU
30MHz~1GHz
Vertical


Freq	Read Level		Factor	Level	Limit Line	Over Limit	Remark	Pol/Phase	APOS	TPos
	MHz	dBuV		dB/m	dBuV/m	dBuV/m	dB			
1	68.39	16.22	7.90	24.12	40.00	-15.88	Peak	VERTICAL	100	205
2	202.81	18.75	9.32	28.07	43.50	-15.43	Peak	VERTICAL	100	189
3	417.64	14.47	16.78	31.25	46.00	-14.75	Peak	VERTICAL	100	212
4	501.18	13.95	20.03	33.98	46.00	-12.02	Peak	VERTICAL	100	260
5 pp	543.27	17.14	20.14	37.28	46.00	-8.72	Peak	VERTICAL	100	252
6	948.76	11.65	25.61	37.26	46.00	-8.74	Peak	VERTICAL	100	316

Remark:

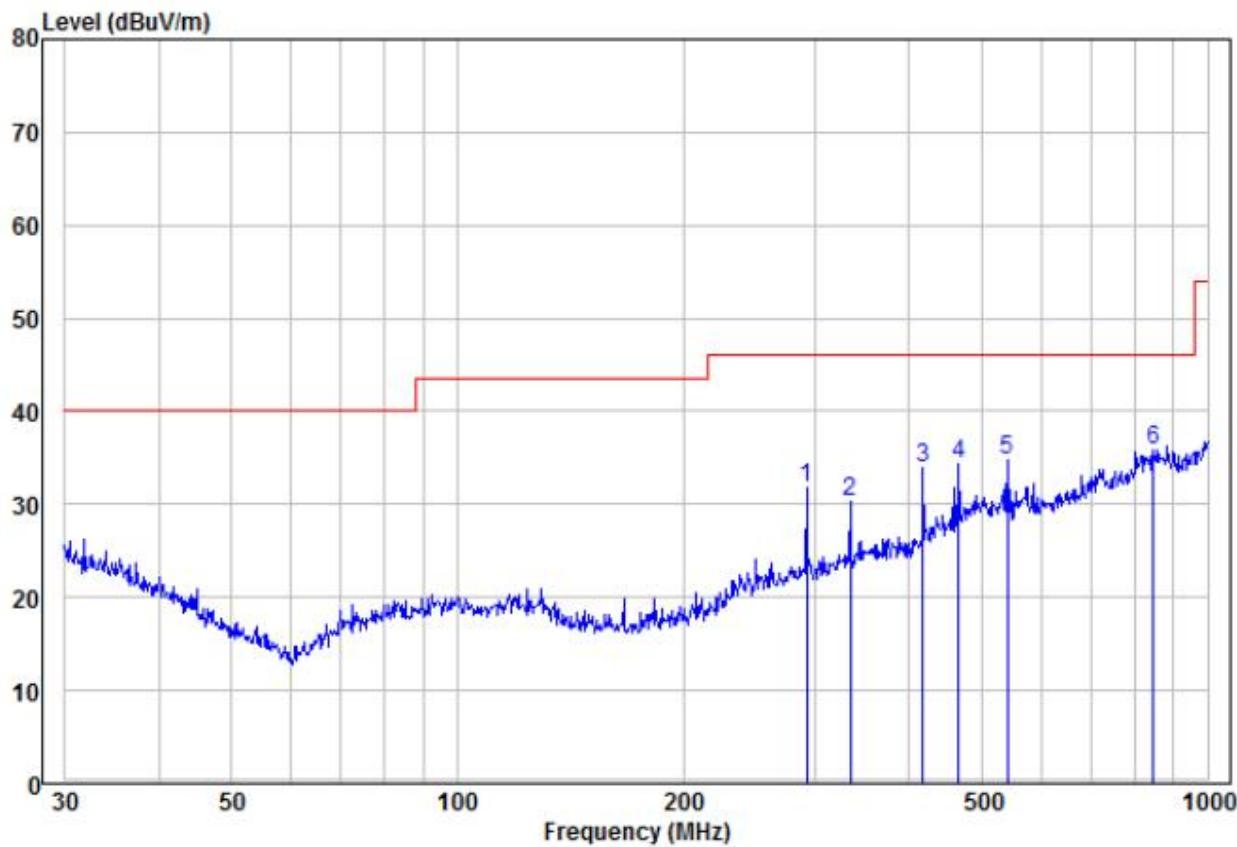
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

Horizontal



Freq	Read			Limit Line	Over Limit	Remark	Pol/Phase	APOS	TPos	
	Freq	Level	Factor							
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB		cm	deg	
1	292.06	17.49	14.30	31.79	46.00	-14.21	Peak	HORIZONTAL	100	185
2	333.69	14.92	15.45	30.37	46.00	-15.63	Peak	HORIZONTAL	100	299
3	417.64	17.22	16.78	34.00	46.00	-12.00	Peak	HORIZONTAL	100	249
4	465.60	15.73	18.54	34.27	46.00	-11.73	Peak	HORIZONTAL	100	205
5	541.37	14.69	20.14	34.83	46.00	-11.17	Peak	HORIZONTAL	100	161
6 pp	848.06	9.84	25.96	35.80	46.00	-10.20	Peak	HORIZONTAL	100	124

Remark:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Factor= Antenna Factor + Cable Factor – Preamplifier Factor,

Level = Read Level + Factor,

Over Limit=Level-Limit Line.

5.8.2 Transmitter emission above 1GHz

Test mode:		802.11b(1Mbps)		Test channel:		Lowest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
4824.000	52.74	-4.26	48.48	74	-25.52	peak	H	1.5	222
4824.000	37.45	-4.26	33.19	54	-20.81	AVG	H	1.5	220
7236.000	50.96	1.18	52.14	74	-21.86	peak	H	1.5	31
7236.000	37.30	1.18	38.48	54	-15.52	AVG	H	1.5	266
4824.000	56.24	-4.26	51.98	74	-22.02	peak	V	1.5	265
4824.000	39.84	-4.26	35.58	54	-18.42	AVG	V	1.5	316
7236.000	51.18	1.18	52.36	74	-21.64	peak	V	1.5	4
7236.000	36.51	1.18	37.69	54	-16.31	AVG	V	1.5	256

Test mode:		802.11b(1Mbps)		Test channel:		Middle			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector or Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
4874.000	51.88	-4.12	47.76	74	-26.24	peak	H	1.5	130
4874.000	37.10	-4.12	32.98	54	-21.02	AVG	H	1.5	49
7311.000	49.39	1.46	50.85	74	-23.15	peak	H	1.5	14
7311.000	35.71	1.46	37.17	54	-16.83	AVG	H	1.5	159
4874.000	53.59	-4.12	49.47	74	-24.53	peak	V	1.5	292
4874.000	37.21	-4.12	33.09	54	-20.91	AVG	V	1.5	154
7311.000	49.07	1.46	50.53	74	-23.47	peak	V	1.5	171
7311.000	36.81	1.46	38.27	54	-15.73	AVG	V	1.5	179

Test mode:		802.11b(1Mbps)		Test channel:		Highest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor	Emission Level (dB μ V/m)	Limits	Over	Detect or Type	Ant. Pol. H/V	Antenna Height (m)	Table Angle (Degree)
		(dB)	(dB μ V/m)	(dB μ V/m)	(dB)				
4924.000	53.19	-4.03	49.16	74	-24.84	peak	H	1.5	72
4924.000	38.39	-4.03	34.36	54	-19.64	AVG	H	1.5	313
7386.000	50.95	1.66	52.61	74	-21.39	peak	H	1.5	118
7386.000	37.71	1.66	39.37	54	-14.63	AVG	H	1.5	67
4924.000	54.57	-4.03	50.54	74	-23.46	peak	V	1.5	139
4924.000	38.37	-4.03	34.34	54	-19.66	AVG	V	1.5	278
7386.000	49.27	1.66	50.93	74	-23.07	peak	V	1.5	69
7386.000	36.24	1.66	37.90	54	-16.10	AVG	V	1.5	9

Remark:

- 1) The 1Mbps of rate of 802.11b is the worst case.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$
- 3) Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

Test mode:		802.11g(6Mbps)		Test channel:		Lowest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor (dB)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Over (dB)	Detect or Type	Ant. Pol.	Antenna Height (m)	Table Angle (Degree)
							H/V		
4824.000	53.90	-4.26	49.64	74	-24.36	peak	H	1.5	270
4824.000	37.21	-4.26	32.95	54	-21.05	AVG	H	1.5	143
7236.000	51.54	1.18	52.72	74	-21.28	peak	H	1.5	72
7236.000	38.94	1.18	40.12	54	-13.88	AVG	H	1.5	12
4824.000	55.24	-4.26	50.98	74	-23.02	peak	V	1.5	187
4824.000	38.15	-4.26	33.89	54	-20.11	AVG	V	1.5	115
7236.000	51.92	1.18	53.10	74	-20.90	peak	V	1.5	51
7236.000	35.71	1.18	36.89	54	-17.11	AVG	V	1.5	27

Test mode:		802.11g(6Mbps)		Test channel:		Middle			
Frequency (MHz)	Meter Reading (dB μ V)	Factor (dB)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Over (dB)	Detect or Type	Ant. Pol.	Antenna Height (m)	Table Angle (Degree)
							H/V		
4874.000	51.99	-4.12	47.87	74	-26.13	peak	H	1.5	123
4874.000	36.27	-4.12	32.15	54	-21.85	AVG	H	1.5	179
7311.000	48.26	1.46	49.72	74	-24.28	peak	H	1.5	63
7311.000	36.79	1.46	38.25	54	-15.75	AVG	H	1.5	76
4874.000	52.87	-4.12	48.75	74	-25.25	peak	V	1.5	347
4874.000	36.09	-4.12	31.97	54	-22.03	AVG	V	1.5	23
7311.000	48.75	1.46	50.21	74	-23.79	peak	V	1.5	347
7311.000	35.13	1.46	36.59	54	-17.41	AVG	V	1.5	222

Test mode:		802.11g(6Mbps)		Test channel:		Highest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor	Emission Level (dB μ V/m)	Limits	Over	Detect or Type	Ant. Pol. H/V	Antenna Height (m)	Table Angle (Degree)
		(dB)	(dB μ V/m)	(dB μ V/m)	(dB)				
4924.000	51.94	-4.03	47.91	74	-26.09	peak	H	1.5	85
4924.000	38.18	-4.03	34.15	54	-19.85	AVG	H	1.5	253
7386.000	49.47	1.66	51.13	74	-22.87	peak	H	1.5	82
7386.000	36.88	1.66	38.54	54	-15.46	AVG	H	1.5	88
4924.000	53.84	-4.03	49.81	74	-24.19	peak	V	1.5	235
4924.000	37.15	-4.03	33.12	54	-20.88	AVG	V	1.5	208
7386.000	50.60	1.66	52.26	74	-21.74	peak	V	1.5	300
7386.000	36.93	1.66	38.59	54	-15.41	AVG	V	1.5	69

Remark:

- 1) The 6Mbps of rate of 802.11g is the worst case.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$
- 3) Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

Test mode:		802.11n20(6.5Mbps)		Test channel:		Lowest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
4824.000	53.84	-4.26	49.58	74	-24.42	peak	H	1.5	28
4824.000	36.80	-4.26	32.54	54	-21.46	AVG	H	1.5	130
7236.000	51.15	1.18	52.33	74	-21.67	peak	H	1.5	342
7236.000	38.63	1.18	39.81	54	-14.19	AVG	H	1.5	148
4824.000	55.06	-4.26	50.80	74	-23.20	peak	V	1.5	283
4824.000	39.95	-4.26	35.69	54	-18.31	AVG	V	1.5	230
7236.000	50.84	1.18	52.02	74	-21.98	peak	V	1.5	293
7236.000	36.16	1.18	37.34	54	-16.66	AVG	V	1.5	236

Test mode:		802.11n20(6.5Mbps)		Test channel:		Middle			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
4874.000	51.40	-4.12	47.28	74	-26.72	peak	H	1.5	317
4874.000	37.81	-4.12	33.69	54	-20.31	AVG	H	1.5	274
7311.000	49.37	1.46	50.83	74	-23.17	peak	H	1.5	23
7311.000	35.45	1.46	36.91	54	-17.09	AVG	H	1.5	305
4874.000	53.20	-4.12	49.08	74	-24.92	peak	V	1.5	32
4874.000	36.23	-4.12	32.11	54	-21.89	AVG	V	1.5	302
7311.000	50.09	1.46	51.55	74	-22.45	peak	V	1.5	250
7311.000	36.66	1.46	38.12	54	-15.88	AVG	V	1.5	290

Test mode:		802.11n20(6.5Mbps)		Test channel:		Highest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor	Emission Level (dB μ V/m)	Limits	Over	Detect or Type	Ant. Pol.	Antenna Height (m)	Table Angle (Degree)
		(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
4924.000	52.72	-4.03	48.69	74	-25.31	peak	H	1.5	216
4924.000	38.32	-4.03	34.29	54	-19.71	AVG	H	1.5	46
7386.000	50.45	1.66	52.11	74	-21.89	peak	H	1.5	217
7386.000	37.79	1.66	39.45	54	-14.55	AVG	H	1.5	143
4924.000	53.61	-4.03	49.58	74	-24.42	peak	V	1.5	231
4924.000	37.53	-4.03	33.50	54	-20.50	AVG	V	1.5	327
7386.000	51.09	1.66	52.75	74	-21.25	peak	V	1.5	251
7386.000	36.56	1.66	38.22	54	-15.78	AVG	V	1.5	87

Remark:

- 1) The MCS0 of rate of 802.11n20 is the worst case.
- 2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Preamplifier Factor}$$
- 3) Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

5.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205		
Test Method:	ANSI C63.10 2013		
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)		
Limit:	Frequency	Limit (dBuV/m @3m)	Remark
	30MHz-88MHz	40.0	Quasi-peak Value
	88MHz-216MHz	43.5	Quasi-peak Value
	216MHz-960MHz	46.0	Quasi-peak Value
	960MHz-1GHz	54.0	Quasi-peak Value
	Above 1GHz	54.0	Average Value
		74.0	Peak Value
Test Setup:			

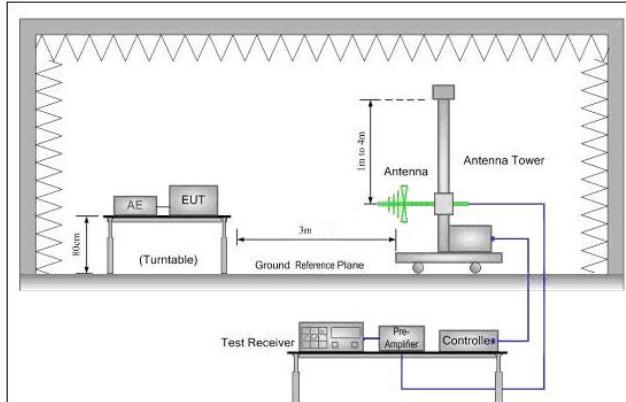


Figure 1. 30MHz to 1GHz

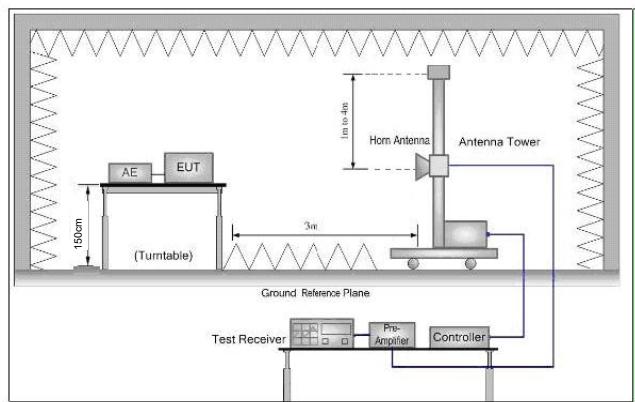


Figure 2. Above 1 GHz

Test Procedure:	<p>a. 1) Below 1G: The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>2) Above 1G: The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>Note: For the radiated emission test above 1GHz:</p> <p>Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.</p> <p>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.</p>
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	<p>d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel</p> <p>g. Test the EUT in the lowest channel, the middle channel, the Highest channel.</p> <p>h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case .</p> <p>i. Repeat above procedures until all frequencies measured was complete.</p>
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates. Transmitting mode.
Final Test Mode:	Pretest the EUT at Transmitting mode, found the Transmitting mode which it is worse case. Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6.5Mbps of rate is the worst case of 802.11n(HT20). Only the worst case is recorded in the report.
Test Results:	Pass

Test data:

Worse case mode:		802.11b(1Mbps)		Test channel:		Lowest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2390.000	58.60	-9.2	49.40	74	-24.60	peak	H	1.5	5
2390.000	44.17	-9.2	34.97	54	-19.03	AVG	H	1.5	98
2400.000	60.14	-9.39	50.75	74	-23.25	peak	H	1.5	121
2400.000	46.81	-9.39	37.42	54	-16.58	AVG	H	1.5	107
2390.000	58.64	-9.2	49.44	74	-24.56	peak	V	1.5	213
2390.000	44.53	-9.2	35.33	54	-18.67	AVG	V	1.5	114
2400.000	60.05	-9.39	50.66	74	-23.34	peak	V	1.5	131
2400.000	46.79	-9.39	37.40	54	-16.60	AVG	V	1.5	57

Worse case mode:		802.11b(1Mbps)		Test channel:		Highest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2483.500	57.70	-9.29	48.41	74	-25.59	peak	H	1.5	219
2483.500	44.30	-9.29	35.01	54	-18.99	AVG	H	1.5	241
2483.500	57.78	-9.29	48.49	74	-25.51	peak	V	1.5	292
2483.500	46.03	-9.29	36.74	54	-17.26	AVG	V	1.5	265

Worse case mode:		802.11g(6Mbps)		Test channel:		Lowest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2390.000	58.28	-9.2	49.08	74	-24.92	peak	H	1.5	302
2390.000	44.75	-9.2	35.55	54	-18.45	AVG	H	1.5	145
2400.000	59.93	-9.39	50.54	74	-23.46	peak	H	1.5	80
2400.000	46.50	-9.39	37.11	54	-16.89	AVG	H	1.5	171
2390.000	58.91	-9.2	49.71	74	-24.29	peak	V	1.5	279
2390.000	44.43	-9.2	35.23	54	-18.77	AVG	V	1.5	195
2400.000	60.06	-9.39	50.67	74	-23.33	peak	V	1.5	105
2400.000	46.34	-9.39	36.95	54	-17.05	AVG	V	1.5	55

Worse case mode:		802.11g(6Mbps)		Test channel:		Highest			
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.	Antenna Height	Table Angle
(MHz)	(dB μ V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2483.500	57.93	-9.29	48.64	74	-25.36	peak	H	1.5	61
2483.500	43.94	-9.29	34.65	54	-19.35	AVG	H	1.5	311
2483.500	57.68	-9.29	48.39	74	-25.61	peak	V	1.5	257
2483.500	46.08	-9.29	36.79	54	-17.21	AVG	V	1.5	40

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		Lowest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor	Emission Level (dB μ V/m)	Limits	Over	Detector Type	Ant. Pol.	Antenna Height (m)	Table Angle (Degree)
		(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2390.000	59.21	-9.2	50.01	74	-23.99	peak	H	1.5	260
2390.000	44.74	-9.2	35.54	54	-18.46	AVG	H	1.5	320
2400.000	60.07	-9.39	50.68	74	-23.32	peak	H	1.5	317
2400.000	46.36	-9.39	36.97	54	-17.03	AVG	H	1.5	233
2390.000	58.39	-9.2	49.19	74	-24.81	peak	V	1.5	129
2390.000	44.49	-9.2	35.29	54	-18.71	AVG	V	1.5	259
2400.000	59.25	-9.39	49.86	74	-24.14	peak	V	1.5	240
2400.000	46.41	-9.39	37.02	54	-16.98	AVG	V	1.5	131

Worse case mode:		802.11n(HT20)(6.5Mbps)		Test channel:		Highest			
Frequency (MHz)	Meter Reading (dB μ V)	Factor	Emission Level (dB μ V/m)	Limits	Over	Detector Type	Ant. Pol.	Antenna Height (m)	Table Angle (Degree)
		(dB)	(dB μ V/m)	(dB μ V/m)	(dB)		H/V	(m)	(Degree)
2483.500	58.34	-9.29	49.05	74	-24.95	peak	H	1.5	162
2483.500	43.63	-9.29	34.34	54	-19.66	AVG	H	1.5	315
2483.500	58.18	-9.29	48.89	74	-25.11	peak	V	1.5	347
2483.500	45.54	-9.29	36.25	54	-17.75	AVG	V	1.5	315

Note:

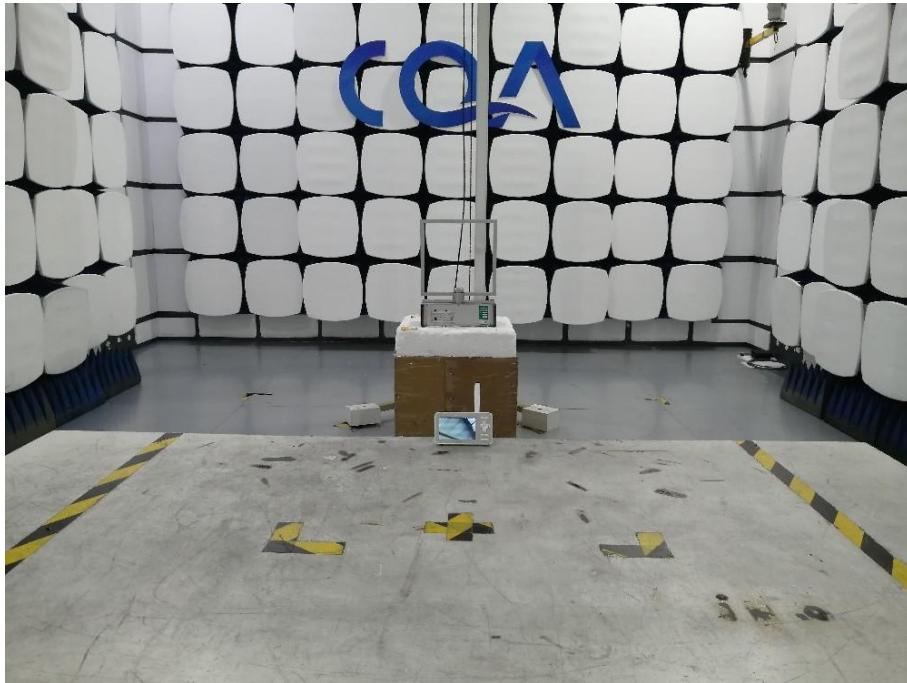
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

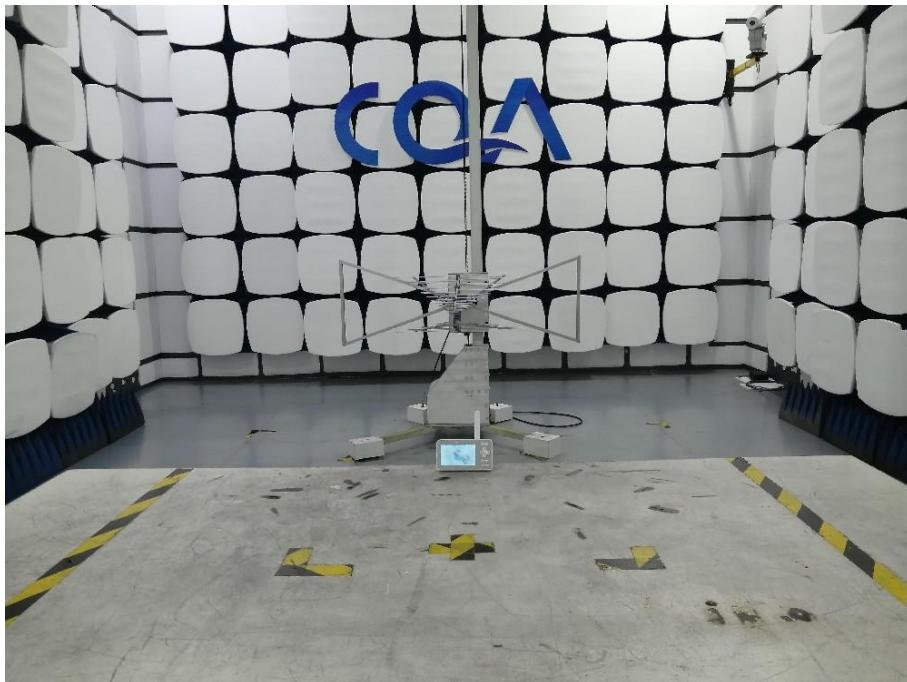
6 Photographs - EUT Test Setup

6.1 Radiated Spurious Emission

9kHz~30MHz:



30MHz~1GHz:



Above 1GHz:



6.2 Conducted Emission

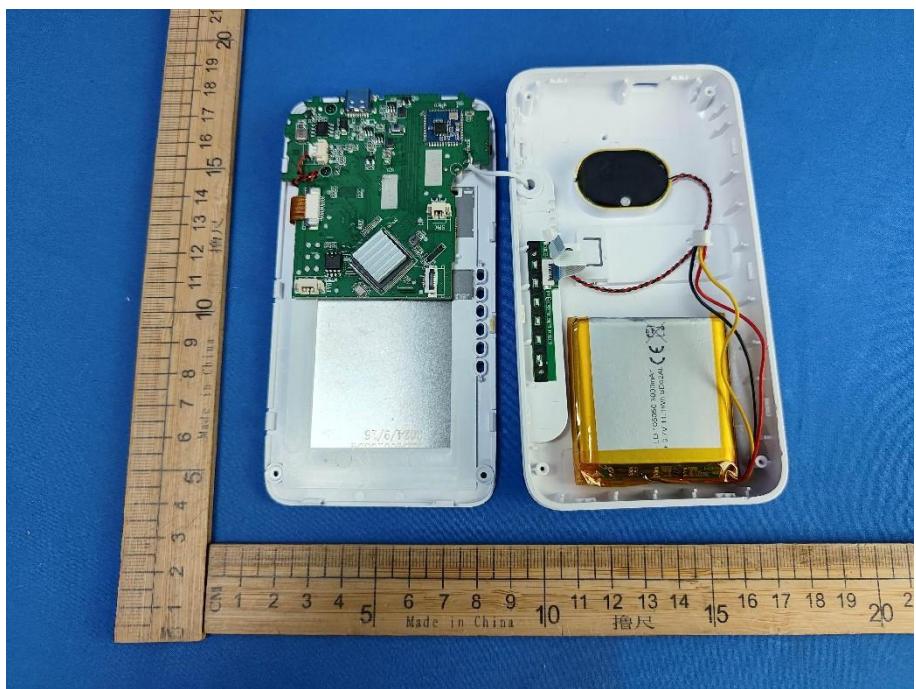


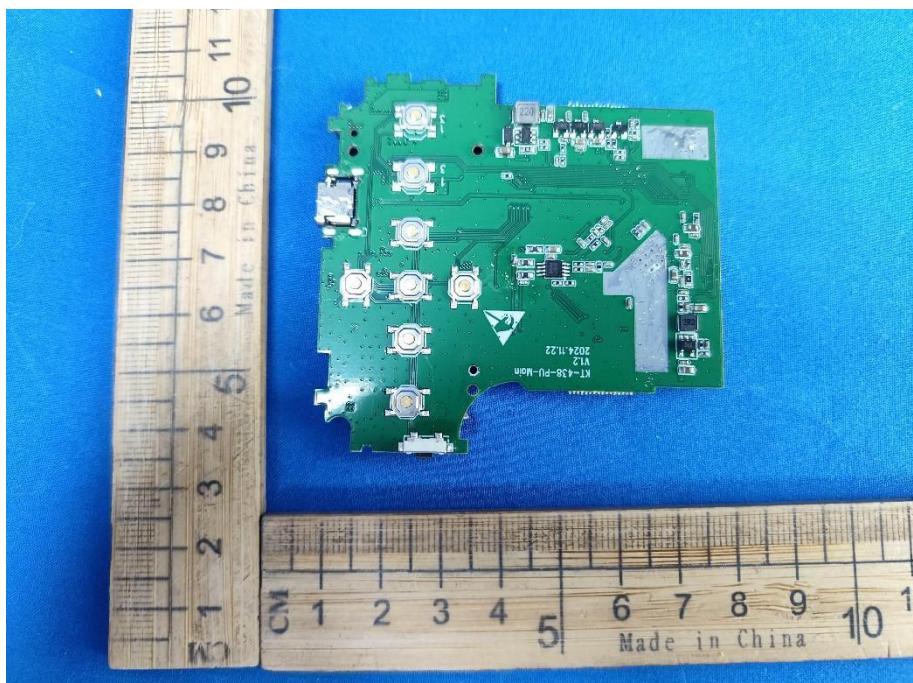
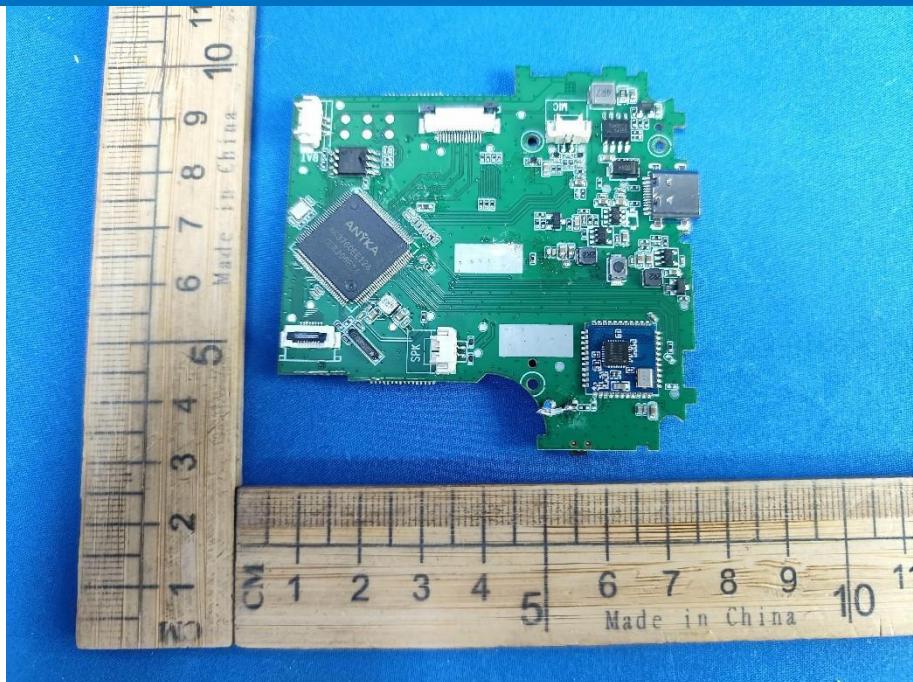
7 Photographs - EUT Constructional Details

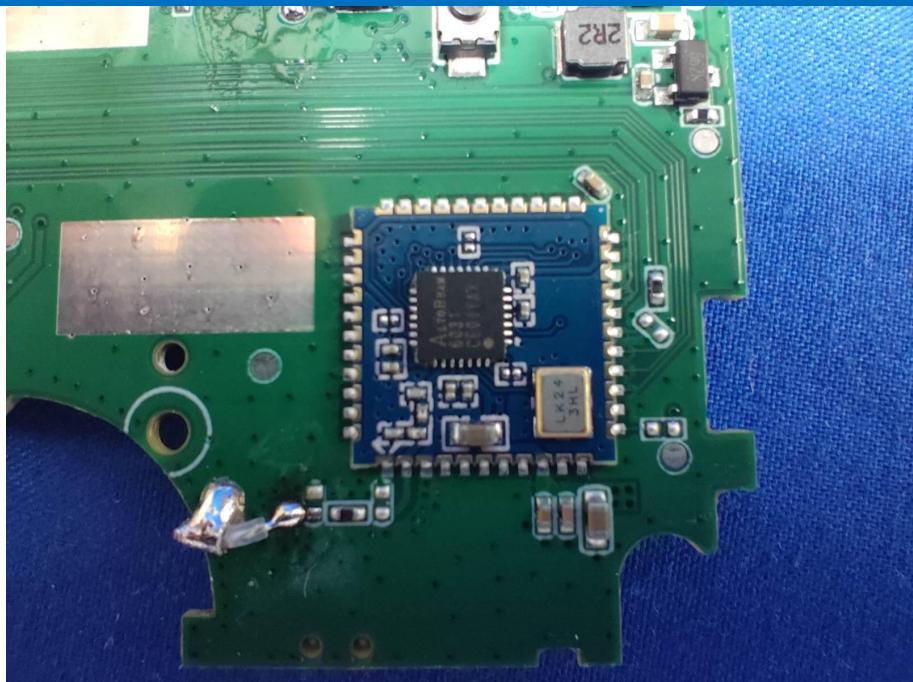


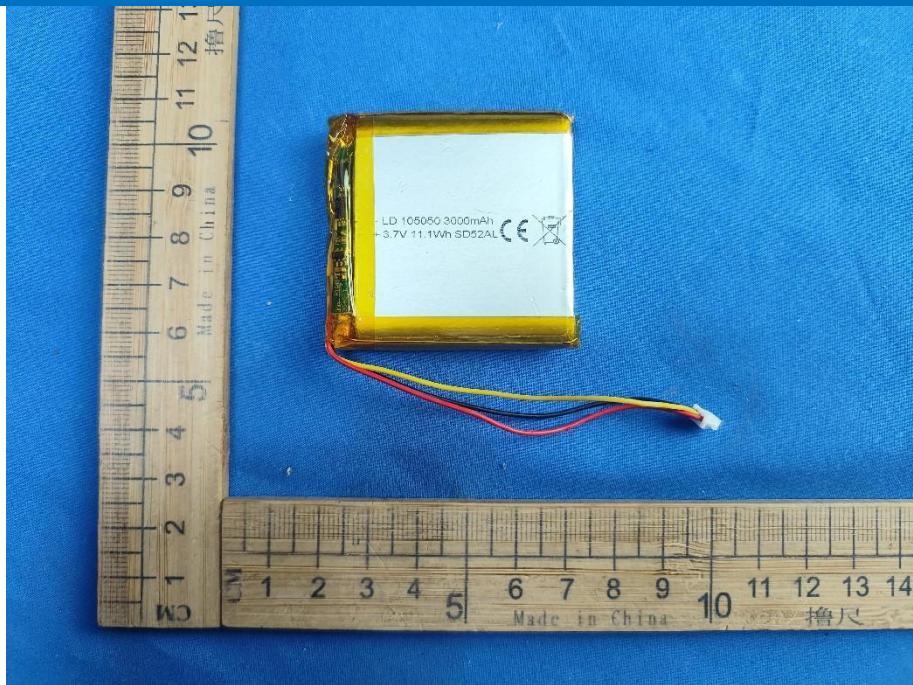














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