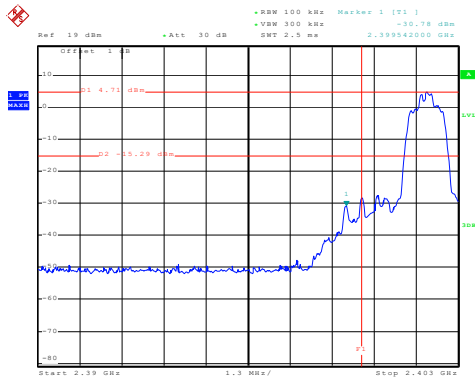


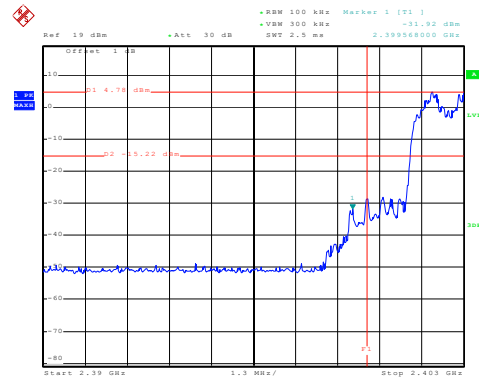
**Pi/4QPSK Mode:**

Test channel:	Lowest channel
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Date: 31.JUL.2019 18:44:45

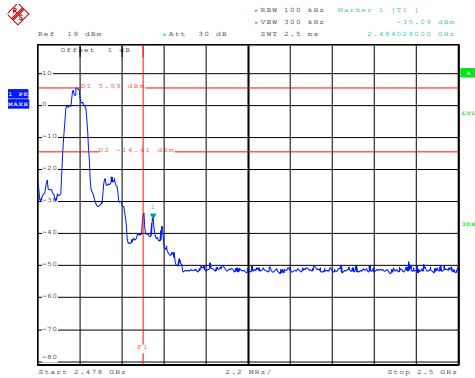
No-hopping mode



Date: 31.JUL.2019 19:06:03

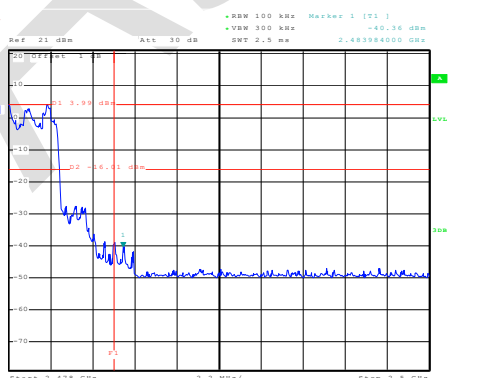
Hopping mode

Test channel:	Highest channel
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Date: 31.JUL.2019 18:46:30

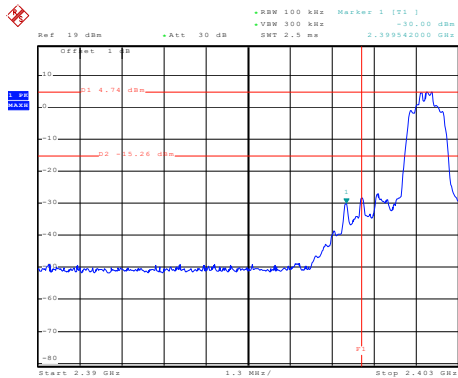
No-hopping mode



Hopping mode

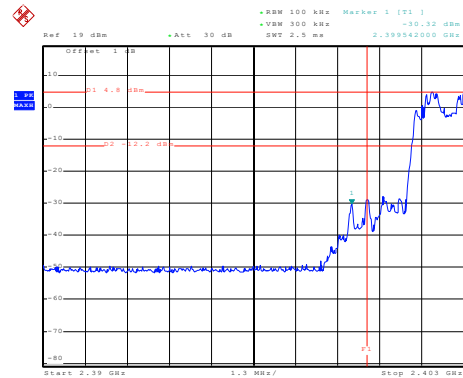
**8-DPSK Mode:**

Test channel:	Lowest channel
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Date: 31.MAR.2019 18:51:44

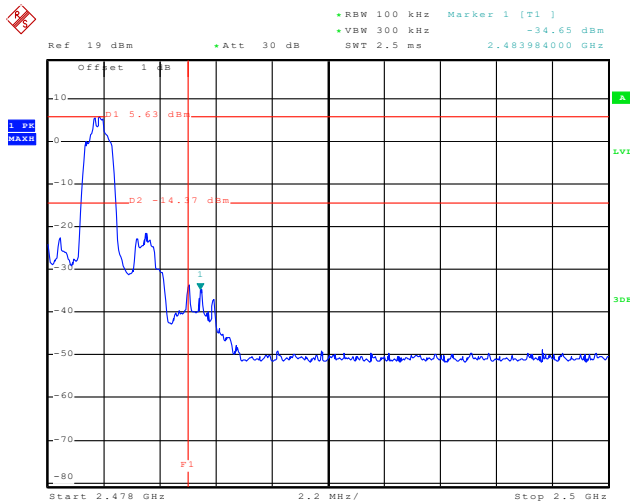
No-hopping mode



Date: 31.MAR.2019 19:03:17

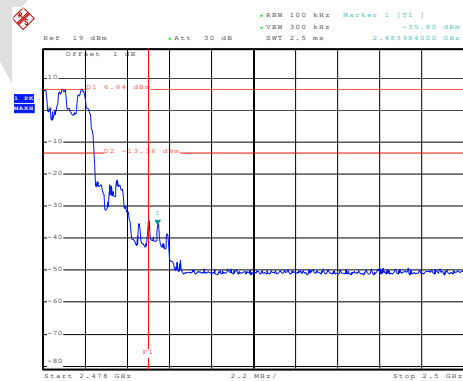
Hopping mode

Test channel:	Highest channel
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Date: 31.MAR.2019 18:48:30

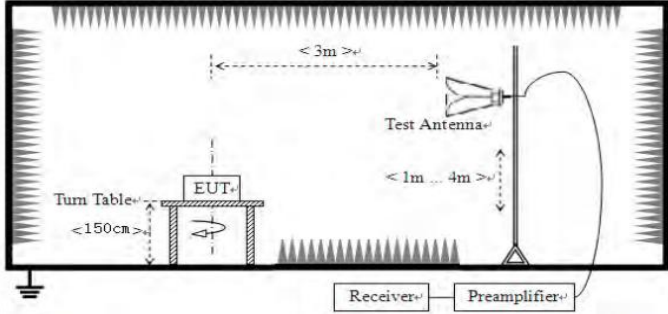
No-hopping mode



Date: 31.MAR.2019 19:00:25

Hopping mode

**7.9.2 Radiated Emission Method**

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	All restriction band have been tested, and 2310MHz to 2390MHz, 2483.5MHz to 2500MHz band is the worse case				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		Peak	1MHz	10Hz	Average Value
Limit:	Frequency		Limit (dBuV/m @3m)		Remark
	Above 1GHz		54.00		Average Value
			74.00		Peak Value
Test setup:					
Test Procedure:	<ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>3. 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.</li> <li>4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>6. 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.</li> </ol>				
Test Instruments:	Refer to section 6.0 for details				
Test mode:	Refer to section 5.2 for details				
Test results:	Pass				

**Remark:**

1. During the test, pre-scan the GFSK, Pi/4QPSK, 8-DPSK modulation, and found the 8-DPSK modulation which it is worse case.

Test channel:	Lowest
---------------	--------

**Peak value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	56.38	-14.56	41.82	74.00	-32.18	Horizontal
2390.00	58.64	-14.19	44.45	74.00	-29.55	Horizontal
2310.00	60.97	-14.85	46.12	74.00	-27.88	Vertical
2390.00	64.76	-14.52	50.24	74.00	-23.76	Vertical

**Average value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	43.48	-14.56	28.92	54.00	-25.08	Horizontal
2390.00	44.93	-14.19	30.74	54.00	-23.26	Horizontal
2310.00	43.03	-14.85	28.18	54.00	-25.82	Vertical
2390.00	46.23	-14.52	31.71	54.00	-22.29	Vertical

Test channel:	Highest
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**Peak value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	76.20	-13.66	62.54	74.00	-11.46	Horizontal
2500.00	58.07	-13.57	44.50	74.00	-29.50	Horizontal
2483.50	74.24	-14.05	60.19	74.00	-13.81	Vertical
2500.00	67.60	-13.97	53.63	74.00	-20.37	Vertical

**Average value:**

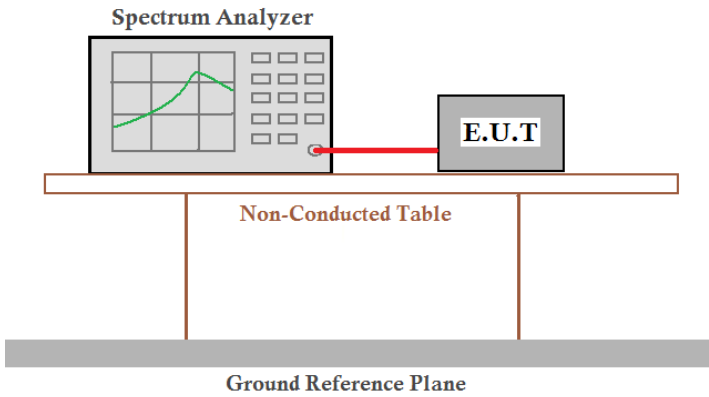
Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	57.68	-13.66	44.02	54.00	-9.98	Horizontal
2500.00	45.46	-13.57	31.89	54.00	-22.11	Horizontal
2483.50	57.30	-14.05	43.25	54.00	-10.75	Vertical
2500.00	52.59	-13.97	38.62	54.00	-15.38	Vertical

**Remark:**

1. Final Level = Receiver Read level + Correct factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. Correct factor = Antenna Factor + Cable Loss - Pre-amplifier Factor

## 7.10 Spurious Emission

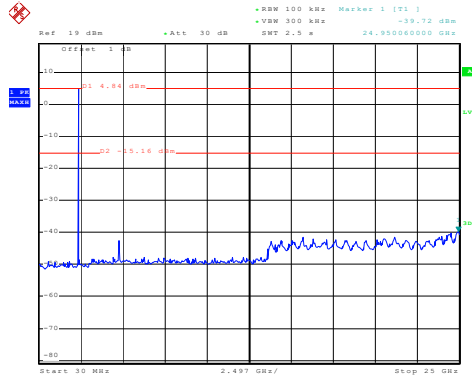
### 7.10.1 Conducted Emission Method

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

**Remark:**

During the test, pre-scan the GFSK, Pi/4QPSK, 8-DPSK modulation, and found the 8-DPSK modulation which it is worse case.

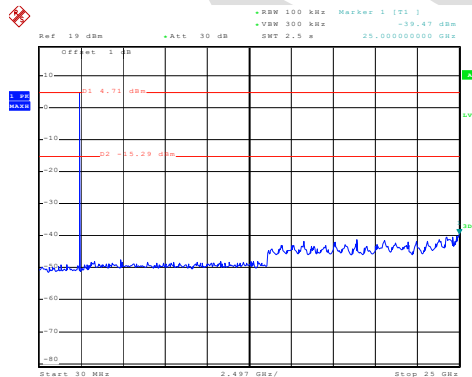
Test channel:	Lowest channel
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Date: 31.JUL.2019 18:36:43

30MHz~25GHz

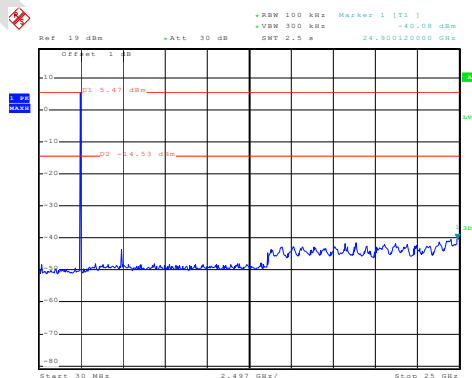
Test channel:	Middle channel
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Date: 31.JUL.2019 18:39:04

30MHz~25GHz

Test channel:	Highest channel
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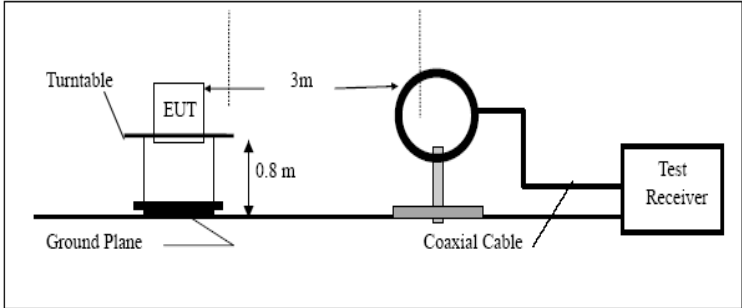
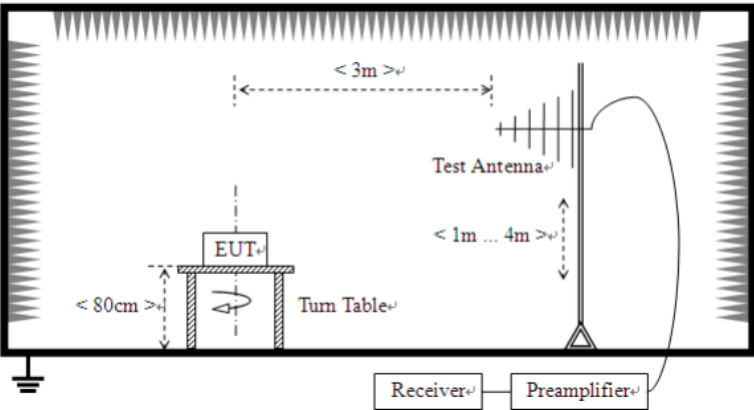
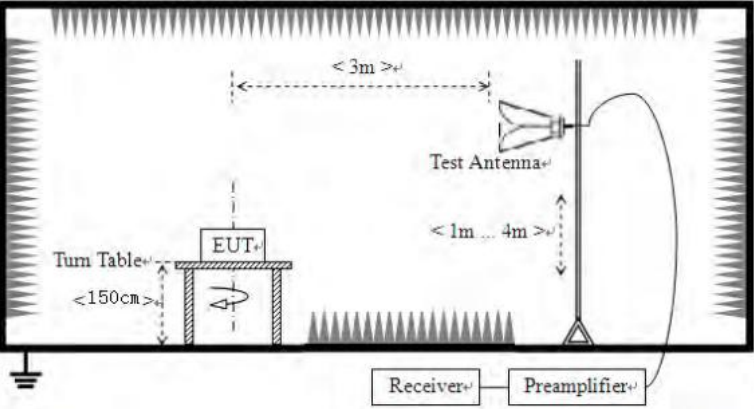


Date: 31.JUL.2019 18:42:00

30MHz~25GHz

**7.10.2 Radiated Emission Method**

Test Requirement:	FCC Part15 C Section 15.209				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 25GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9KHz-150KHz	Quasi-peak	200Hz	600Hz	Quasi-peak
	150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak
	Above 1GHz	Peak	1MHz	3MHz	Peak
Peak		1MHz	10Hz	Average	
Limit: (Spurious Emissions)	Frequency	Limit (uV/m)	Value	Measurement Distance	
	0.009MHz-0.490MHz	2400/F(KHz)	QP	300m	
	0.490MHz-1.705MHz	24000/F(KHz)	QP	30m	
	1.705MHz-30MHz	30	QP	30m	
	30MHz-88MHz	100	QP	3m	
	88MHz-216MHz	150	QP		
	216MHz-960MHz	200	QP		
	960MHz-1GHz	500	QP		
	Above 1GHz	500	Average		
		5000	Peak		
Limit: (band edge)	Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.				

<p>Test setup:</p>	<p>Below 30MHz</p>  <p>Below 1GHz</p>  <p>Above 1GHz</p> 
<p>Test Procedure:</p>	<ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table (0.8m for below 1G and 1.5m for above 1G) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> </ol>



	<ol style="list-style-type: none"> <li>3. 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.</li> <li>4. 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 rota table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>6. 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.</li> </ol>
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

**Measurement data:**

*Remark:*

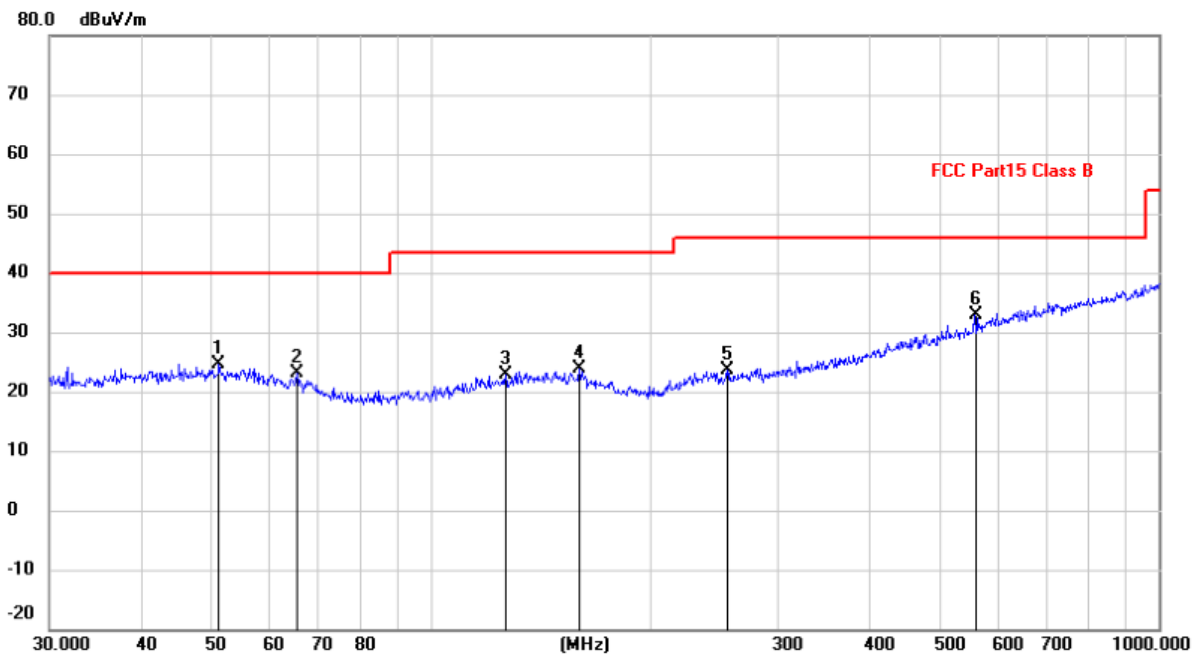
1. *During the test, pre-scan the GFSK, Pi/4QPSK, 8-DPSK modulation, and found the 8-DPSK modulation which it is worse case.*
2. *Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.*

■ **9 kHz ~ 30 MHz**

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

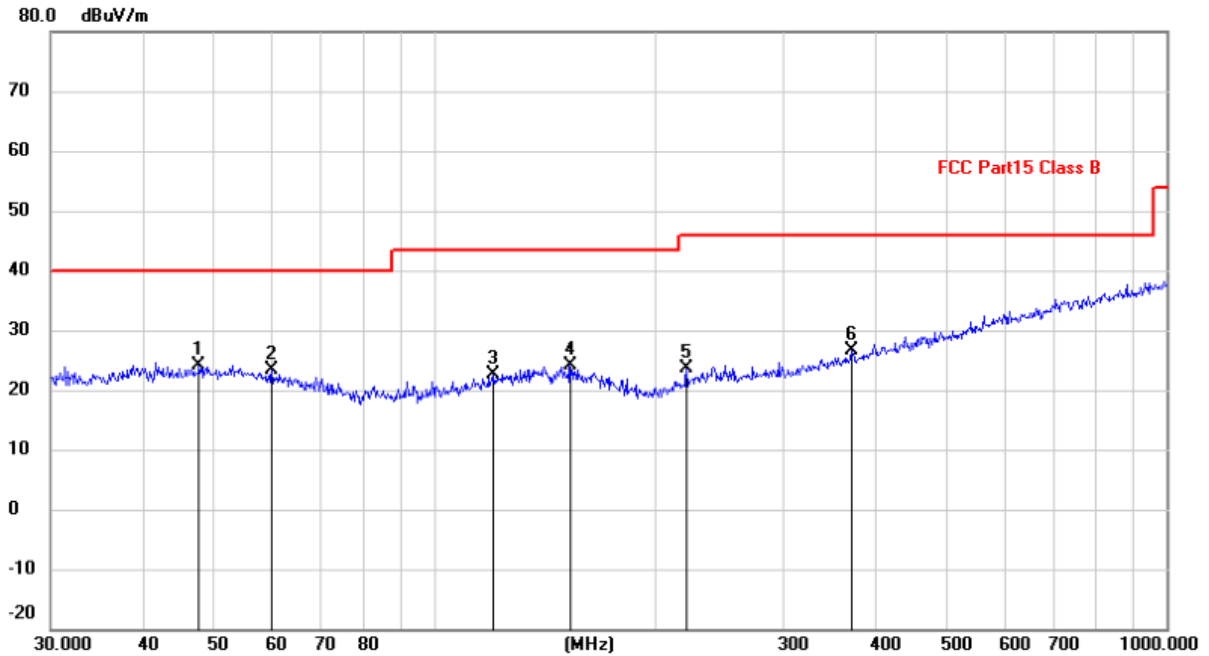
**Below 1GHz**

<b>EUT:</b>	True Wireless Earbuds	<b>Polarziation:</b>	Horizontal
<b>Model:</b>	BW-FYE5	<b>Power Source:</b>	AC120V/60Hz
<b>Mode:</b>	BT mode	<b>Test by:</b>	Eason
<b>Temp./Hum.(%H):</b>	26°C/60%RH		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		51.3005	10.82	13.84	24.66	40.00	-15.34	QP
2		65.5727	11.31	11.72	23.03	40.00	-16.97	QP
3		126.7723	10.22	12.60	22.82	43.50	-20.68	QP
4		160.3456	10.93	12.98	23.91	43.50	-19.59	QP
5		255.6231	10.88	12.68	23.56	46.00	-22.44	QP
6	*	558.7302	12.71	20.12	32.83	46.00	-13.17	QP

<b>EUT:</b>	True Wireless Earbuds	<b>Polarization:</b>	Vertical
<b>Model:</b>	BW-FYE5	<b>Power Source:</b>	AC120V/60Hz
<b>Mode:</b>	BT mode	<b>Test by:</b>	Eason
<b>Temp./Hum.(%RH):</b>	26°C/60%RH		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	47.8260	10.16	13.92	24.08	40.00	-15.92	QP
2		60.0691	10.35	12.92	23.27	40.00	-16.73	QP
3		120.6991	10.18	12.40	22.58	43.50	-20.92	QP
4		153.2004	11.17	13.03	24.20	43.50	-19.30	QP
5		221.3921	12.31	11.38	23.69	46.00	-22.31	QP
6		372.0045	10.89	15.68	26.57	46.00	-19.43	QP

**■ Above 1GHz**

Test channel:	Lowest
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**Peak value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	75.95	-7.43	68.52	74.00	-5.48	Vertical
7206.00	65.34	-2.42	62.92	74.00	-11.08	Vertical
9608.00	61.05	-2.38	58.67	74.00	-15.33	Vertical
12010.00	*			74.00		Vertical
14412.00	*			74.00		Vertical
4804.00	72.99	-7.43	65.56	74.00	-8.44	Horizontal
7206.00	66.12	-2.42	63.70	74.00	-10.30	Horizontal
9608.00	60.47	-2.38	58.09	74.00	-15.91	Horizontal
12010.00	*			74.00		Horizontal
14412.00	*			74.00		Horizontal

**Average value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	56.42	-7.43	48.99	54.00	-5.01	Vertical
7206.00	48.69	-2.42	46.27	54.00	-7.73	Vertical
9608.00	47.84	-2.38	45.46	54.00	-8.54	Vertical
12010.00	*			54.00		Vertical
14412.00	*			54.00		Vertical
4804.00	54.66	-7.43	47.23	54.00	-6.77	Horizontal
7206.00	49.03	-2.42	46.61	54.00	-7.39	Horizontal
9608.00	47.34	-2.38	44.96	54.00	-9.04	Horizontal
12010.00	*			54.00		Horizontal
14412.00	*			54.00		Horizontal

**Remark:**

1. *Final Level = Receiver Read level + Correct factor*
2. *Correct factor = Antenna Factor + Cable Loss – Pre-amplifier Factor*
3. *“\*”, means this data is the too weak instrument of signal is unable to test.*
4. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Test channel:	Middle
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**Peak value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4882.00	72.30	-7.49	64.81	74.00	-9.19	Vertical
7323.00	65.34	-2.40	62.94	74.00	-11.06	Vertical
9764.00	62.01	-2.38	59.63	74.00	-14.37	Vertical
12205.00	*			74.00		Vertical
14646.00	*			74.00		Vertical
4882.00	70.22	-7.49	62.73	74.00	-11.27	Horizontal
7323.00	64.33	-2.40	61.93	74.00	-12.07	Horizontal
9764.00	60.07	-2.38	57.69	74.00	-16.31	Horizontal
12205.00	*			74.00		Horizontal
14646.00	*			74.00		Horizontal

**Average value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4882.00	54.10	-7.49	46.61	54.00	-7.39	Vertical
7323.00	47.69	-2.40	45.29	54.00	-8.71	Vertical
9764.00	46.58	-2.38	44.20	54.00	-9.80	Vertical
12205.00	*			54.00		Vertical
14646.00	*			54.00		Vertical
4882.00	51.78	-7.49	44.29	54.00	-9.71	Horizontal
7323.00	48.13	-2.40	45.73	54.00	-8.27	Horizontal
9764.00	47.22	-2.38	44.84	54.00	-9.16	Horizontal
12205.00	*			54.00		Horizontal
14646.00	*			54.00		Horizontal

*Remark:*

1. *Final Level = Receiver Read level + Correct factor*
2. *Correct factor = Antenna Factor + Cable Loss – Preamplifier Factor*
3. *“\*”, means this data is too weak instrument of signal is unable to test.*
4. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Test channel:	Highest
---------------	---------

**Peak value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	67.61	-7.47	60.14	74.00	-13.86	Vertical
7440.00	65.45	-2.45	63.00	74.00	-11.00	Vertical
9920.00	59.36	-2.37	56.99	74.00	-17.01	Vertical
12400.00	*			74.00		Vertical
14880.00	*			74.00		Vertical
4960.00	69.62	-7.47	62.15	74.00	-11.85	Horizontal
7440.00	66.17	-2.45	63.72	74.00	-10.28	Horizontal
9920.00	60.48	-2.37	58.11	74.00	-15.89	Horizontal
12400.00	*			74.00		Horizontal
14880.00	*			74.00		Horizontal

**Average value:**

Frequency (MHz)	Read Level (dBuV)	Correct factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	51.05	-7.47	43.58	54.00	-10.42	Vertical
7440.00	48.81	-2.45	46.36	54.00	-7.64	Vertical
9920.00	46.63	-2.37	44.26	54.00	-9.74	Vertical
12400.00	*			54.00		Vertical
14880.00	*			54.00		Vertical
4960.00	51.37	-7.47	43.90	54.00	-10.10	Horizontal
7440.00	47.02	-2.45	44.57	54.00	-9.43	Horizontal
9920.00	45.28	-2.37	42.91	54.00	-11.09	Horizontal
12400.00	*			54.00		Horizontal
14880.00	*			54.00		Horizontal

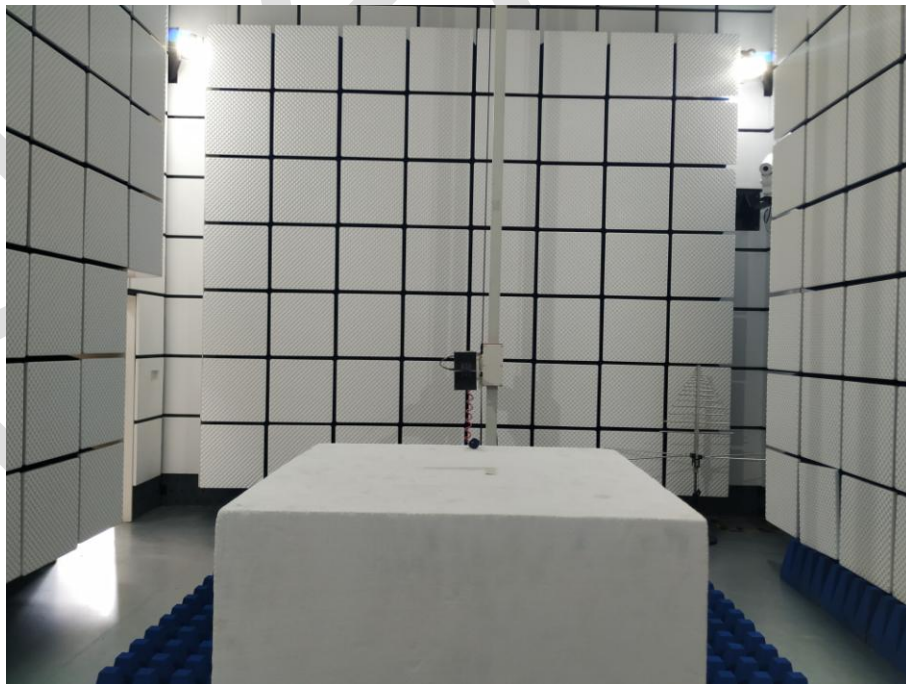
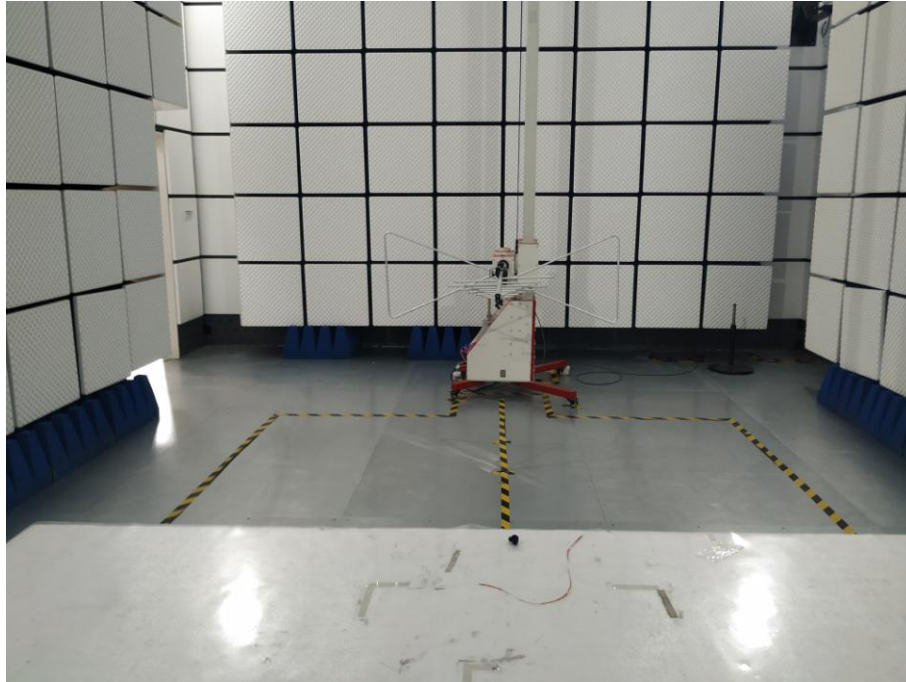
*Remark:*

1. Final Level = Receiver Read level + Correct factor
2. Correct factor = Antenna Factor + Cable Loss – Preamplifier Factor
3. “\*”, means this data is the too weak instrument of signal is unable to test.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.



## 8 Test Setup Photo

Radiated Emission



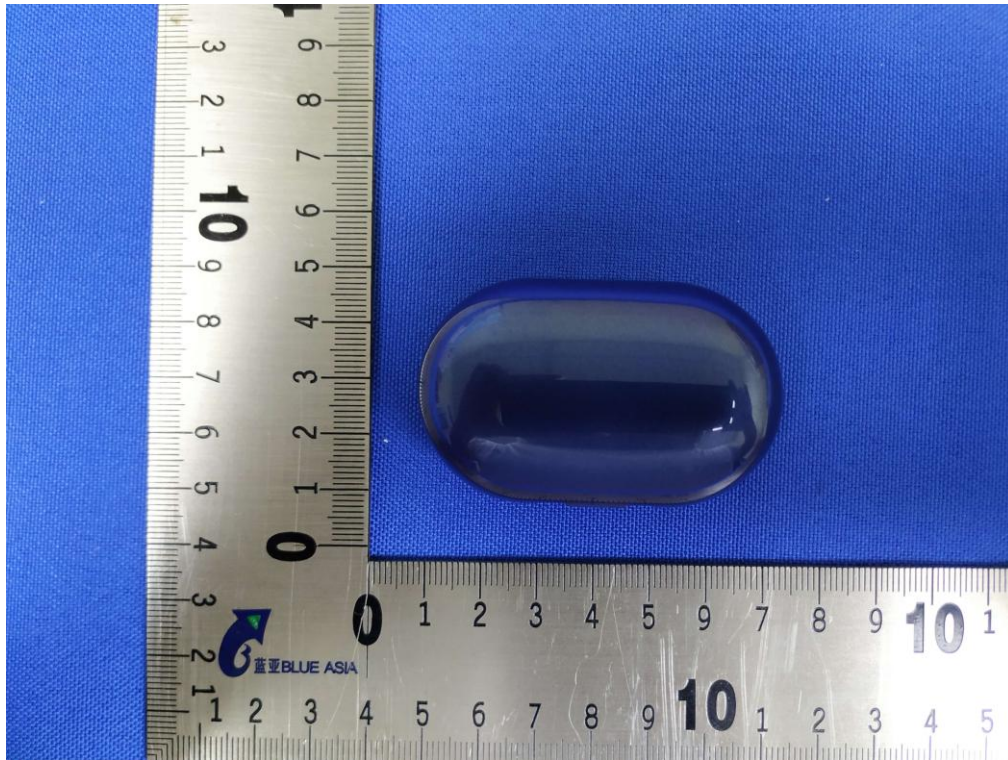
Conducted Emission



BlueAsia



## 9 EUT Constructional Details



Qianhai BlueAsia of Technical Services(Shenzhen) Co., Ltd.

IOT Test Centre of BlueAsia,

No. 448 Bulong Road, Bantian Street, Longgang District, Shenzhen, China

Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673

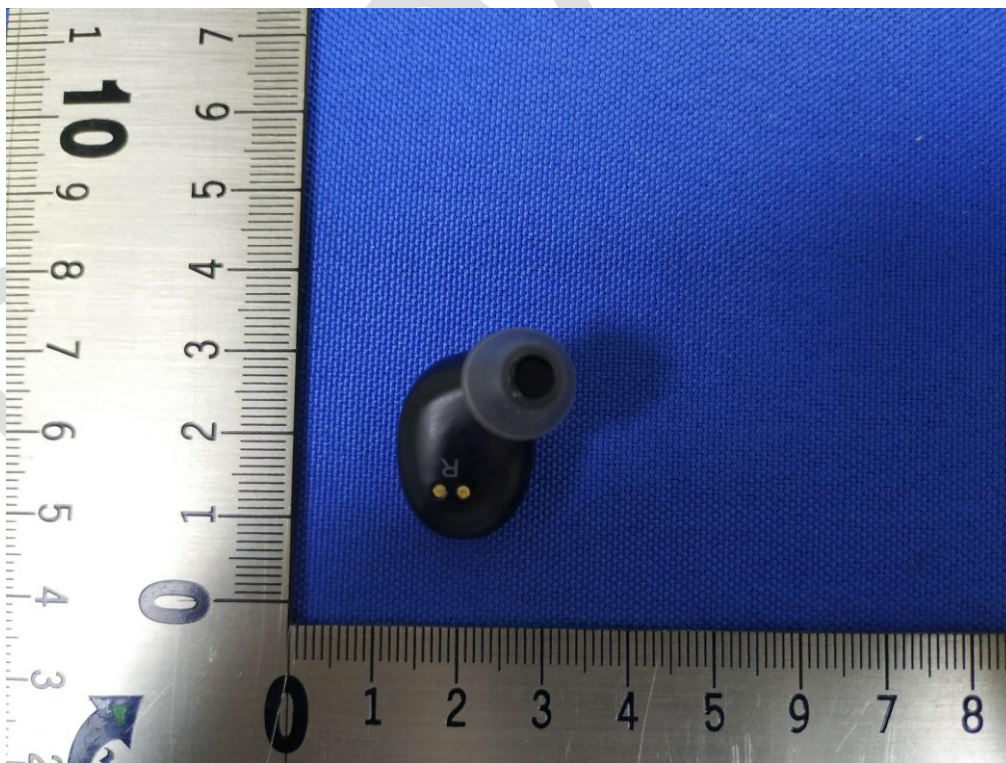
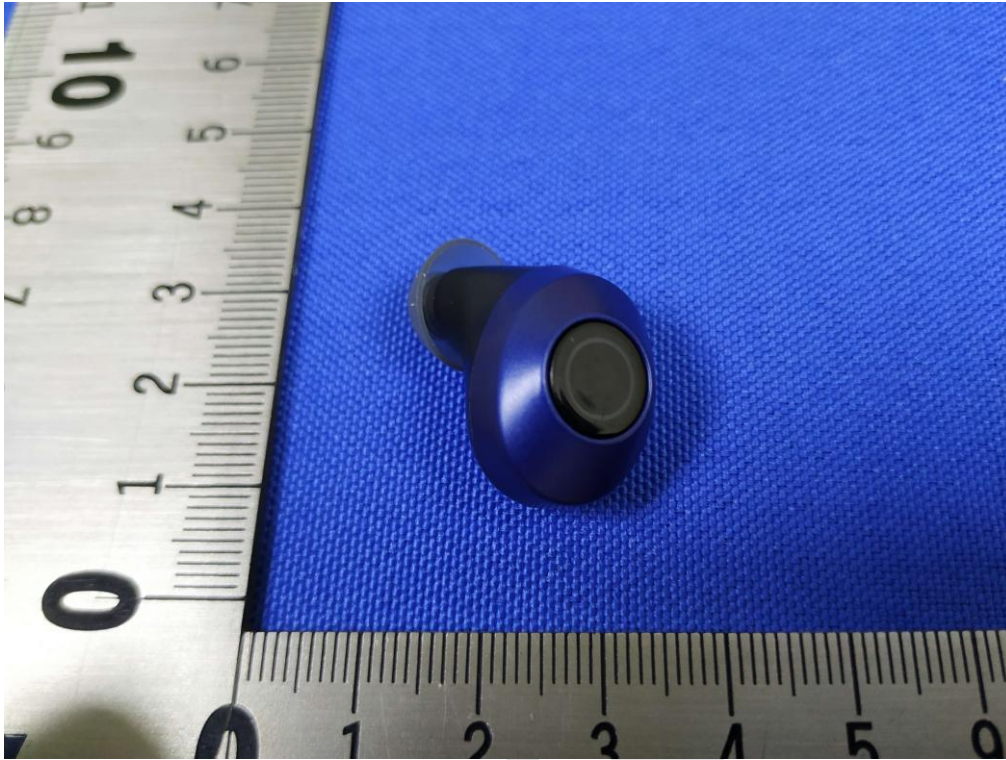


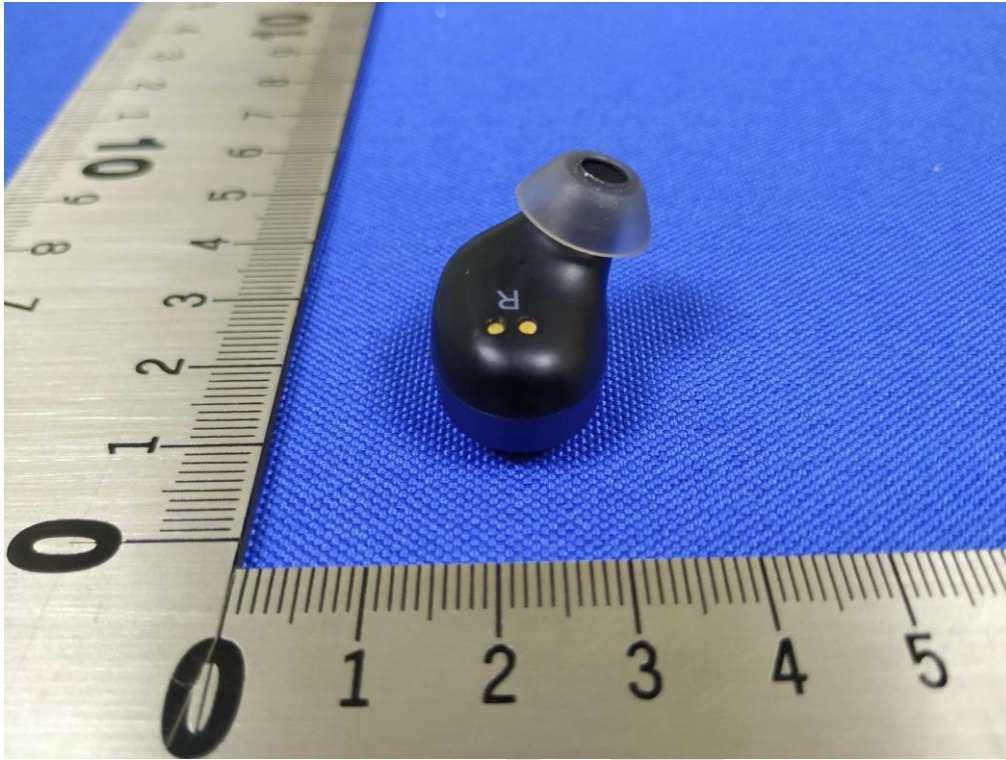




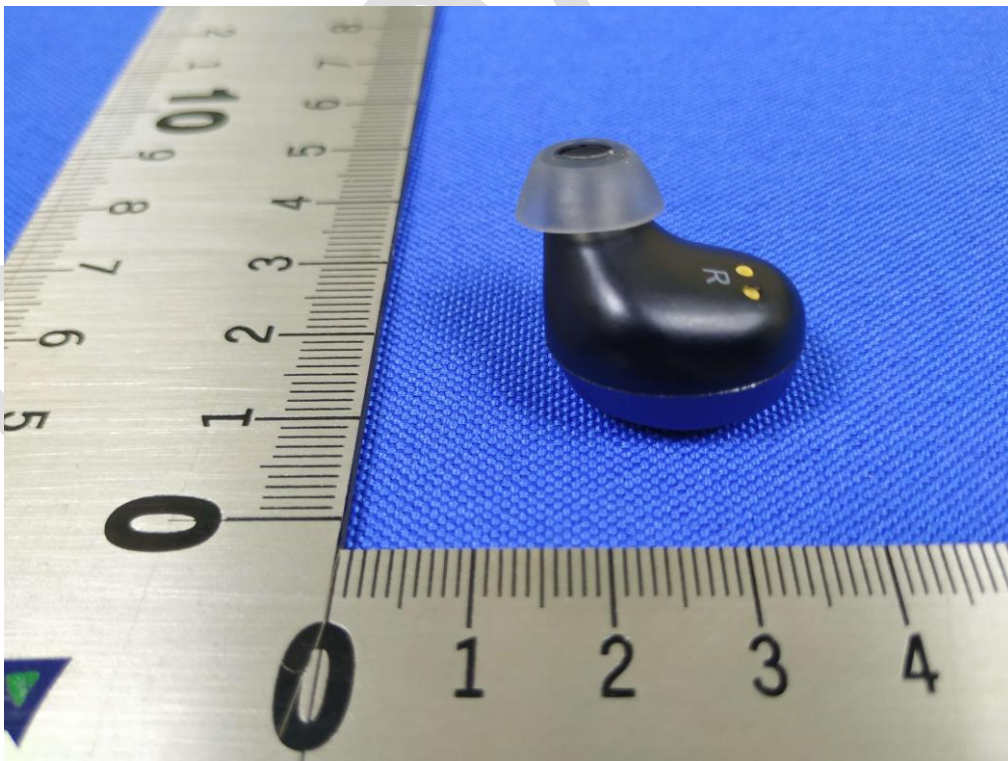
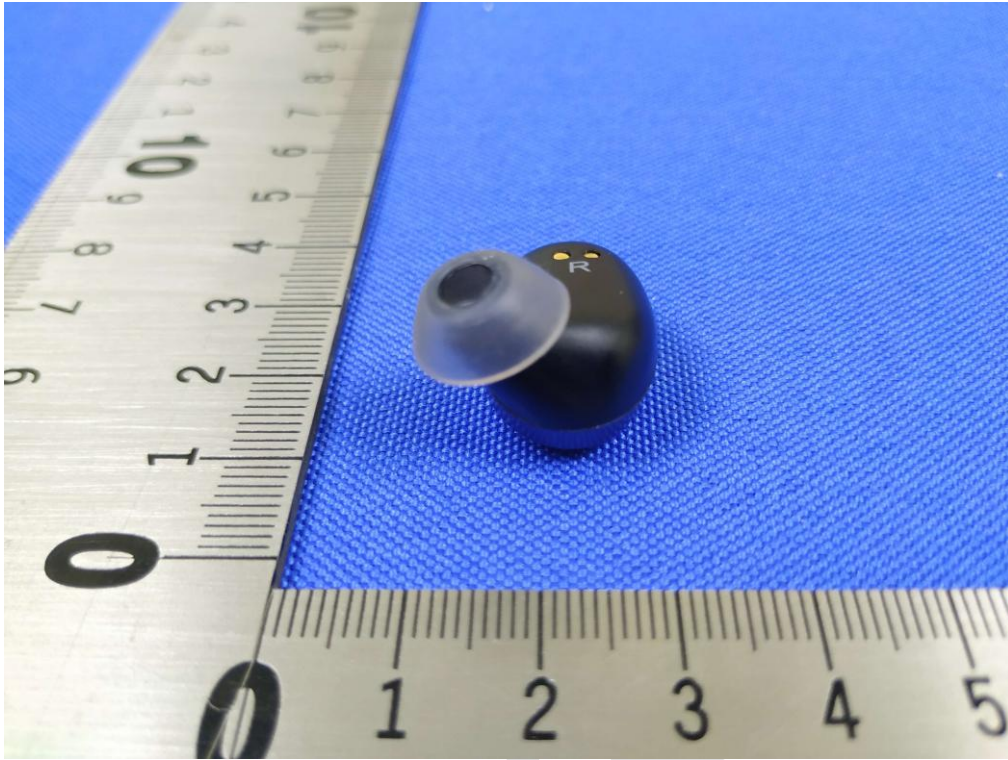


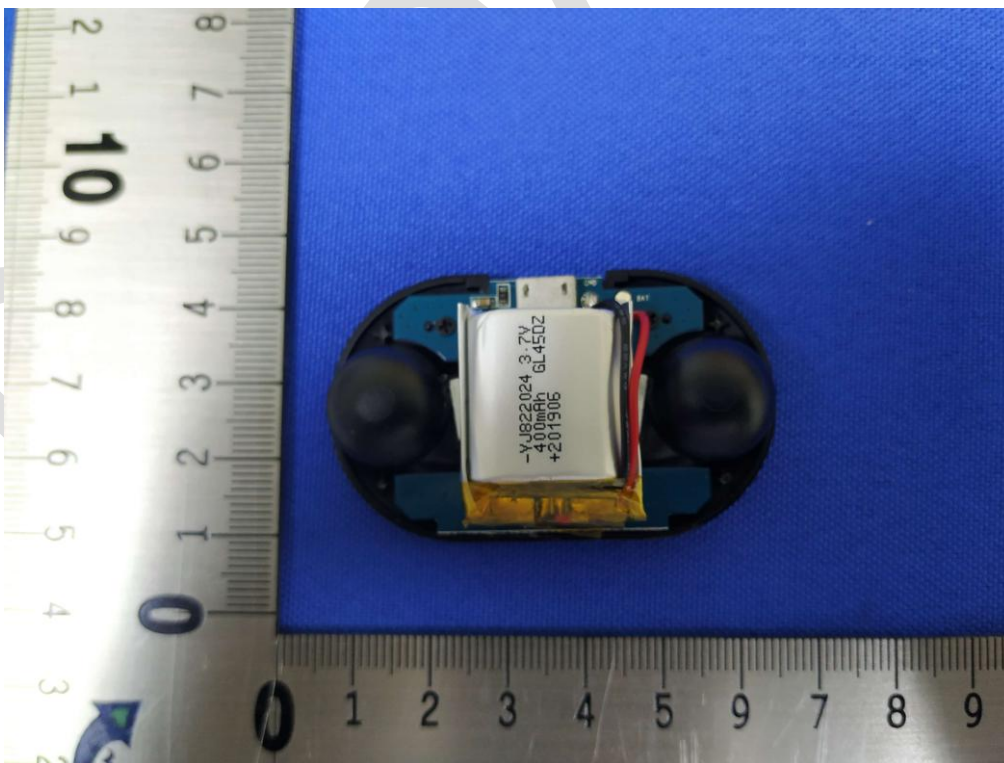




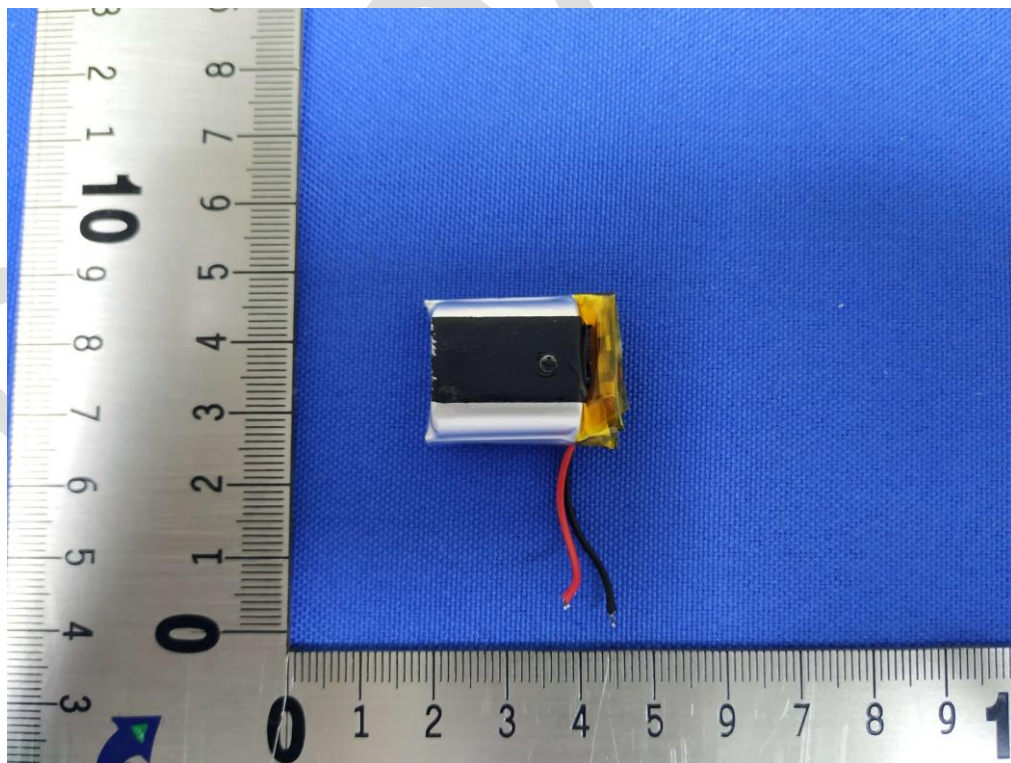
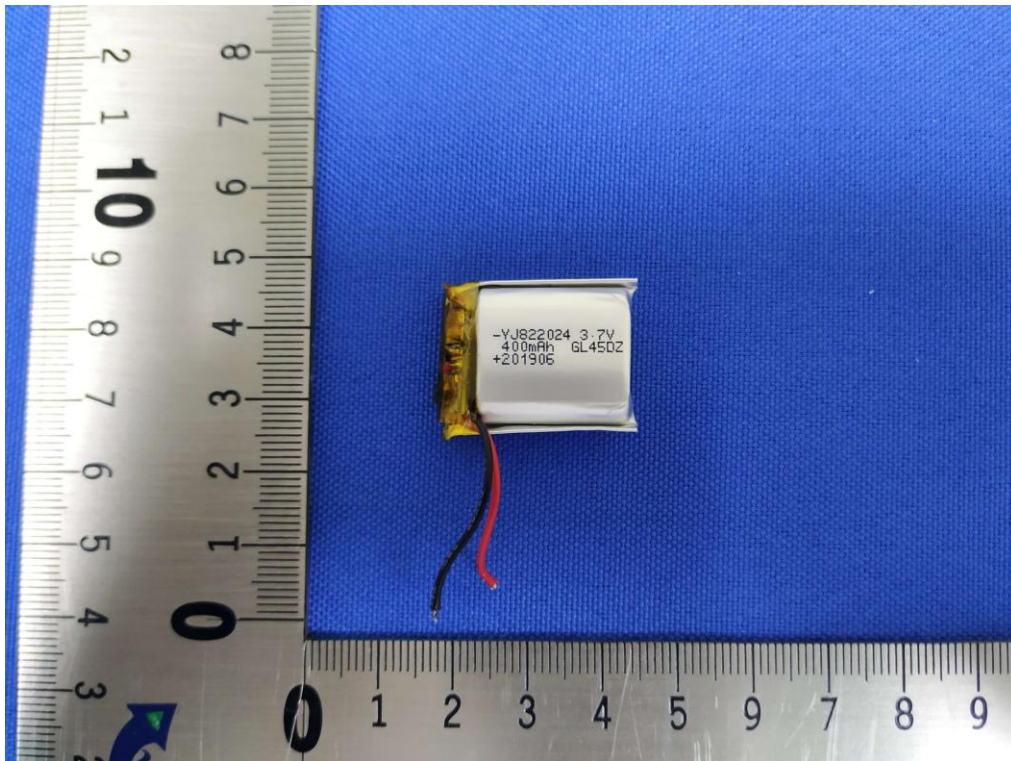


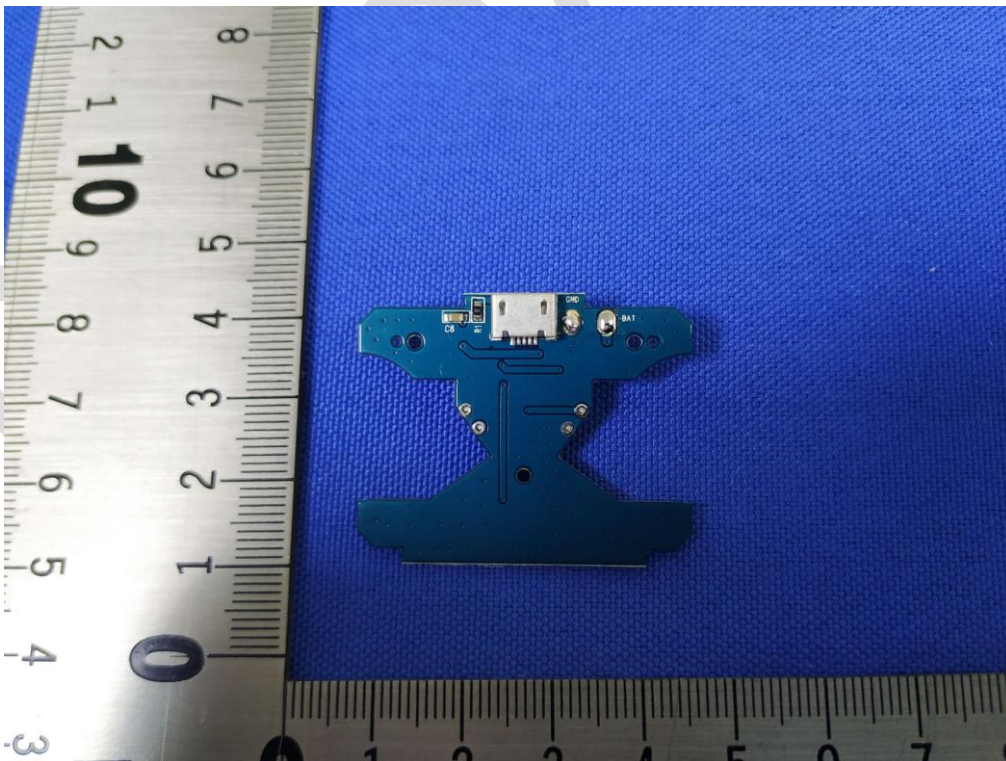
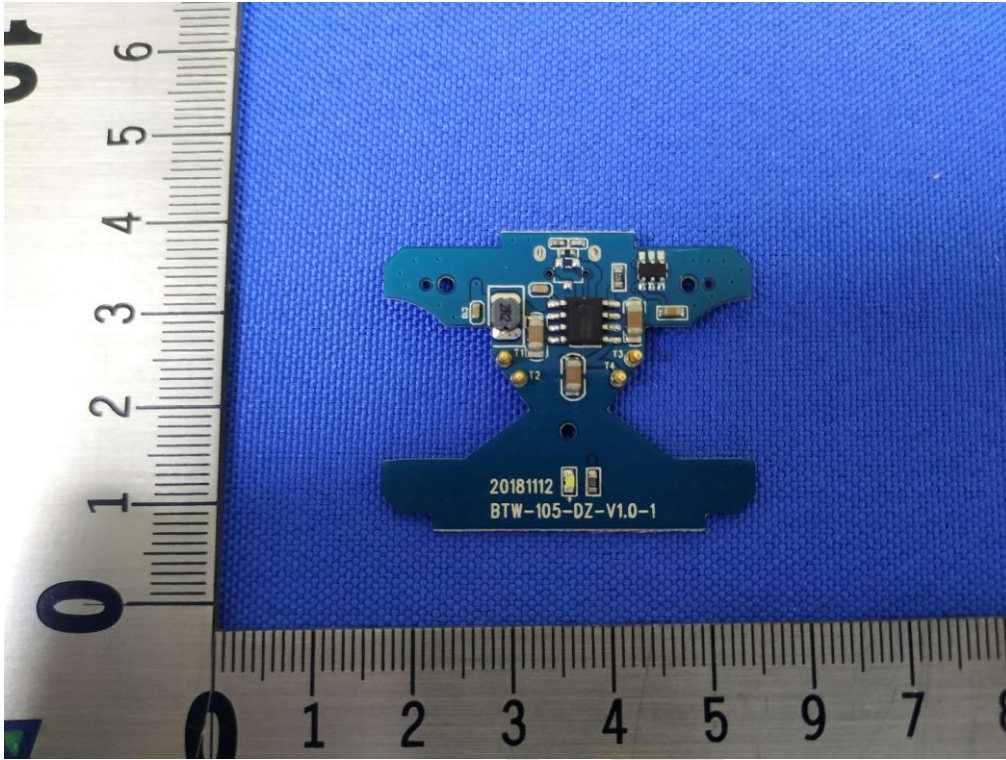




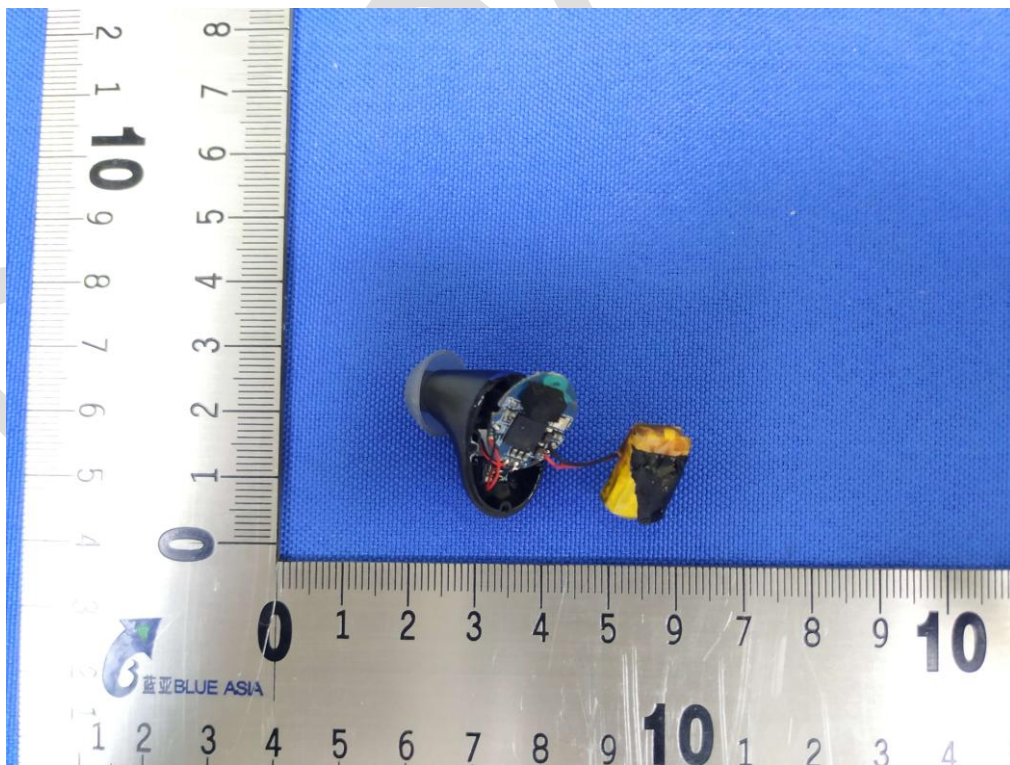
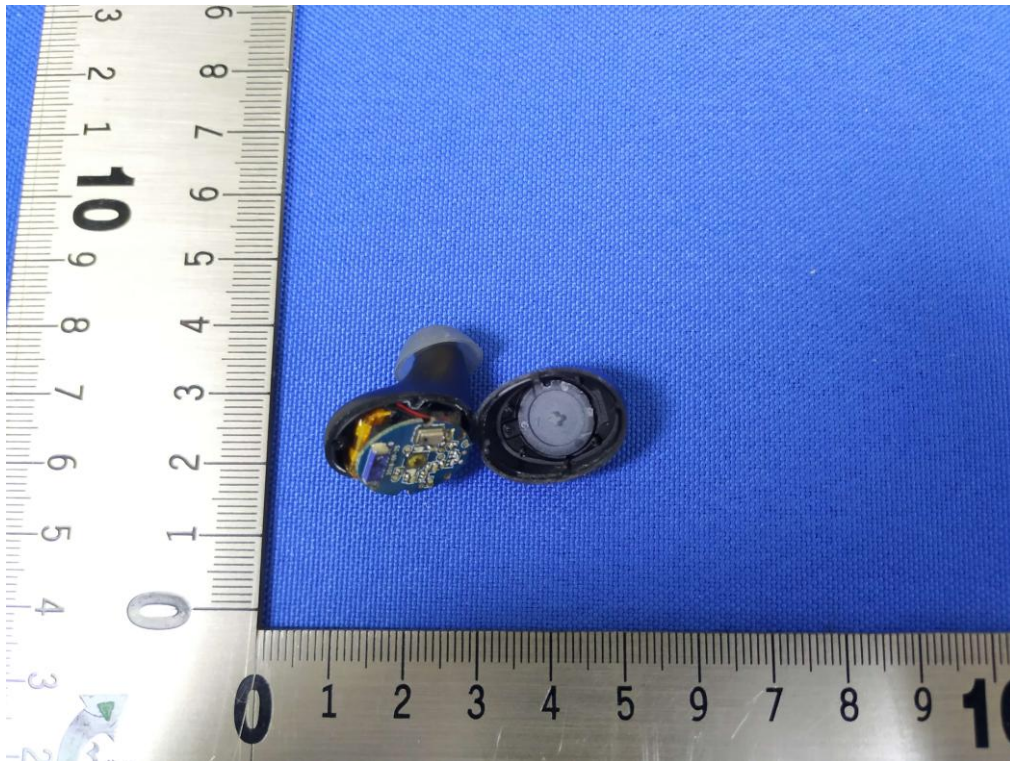




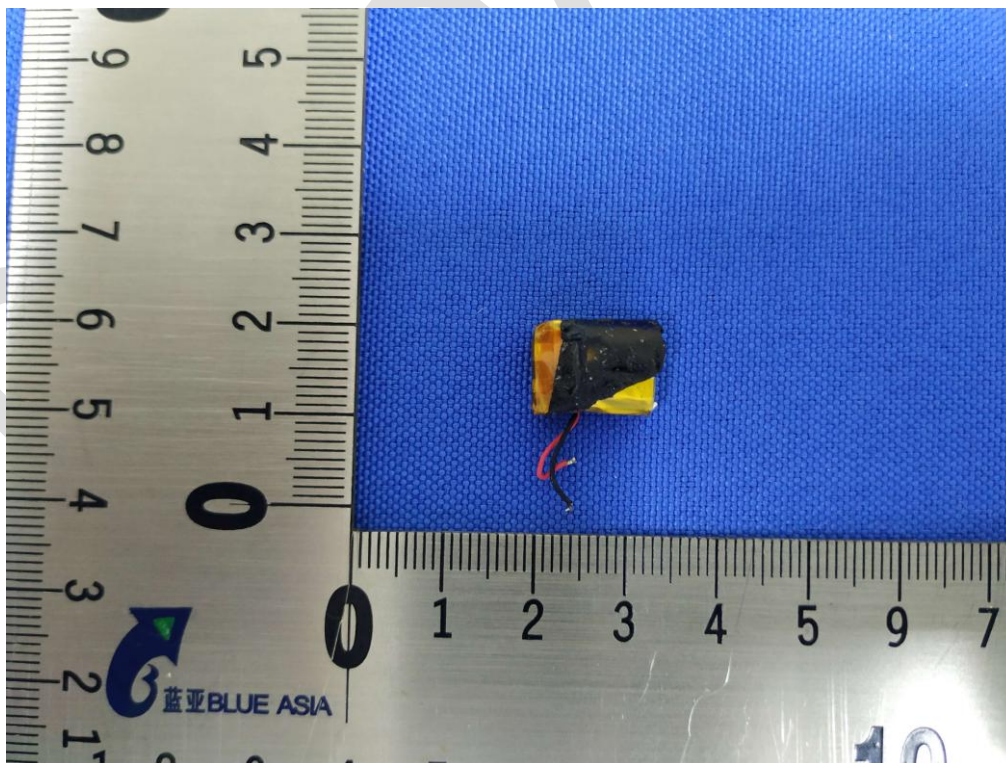
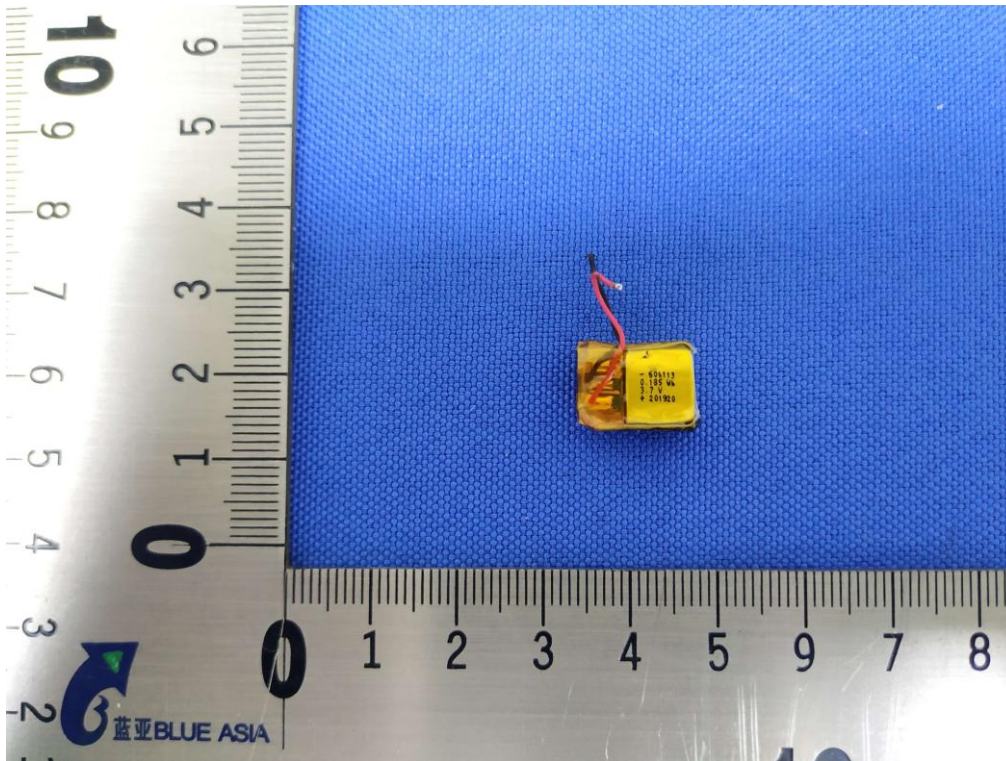


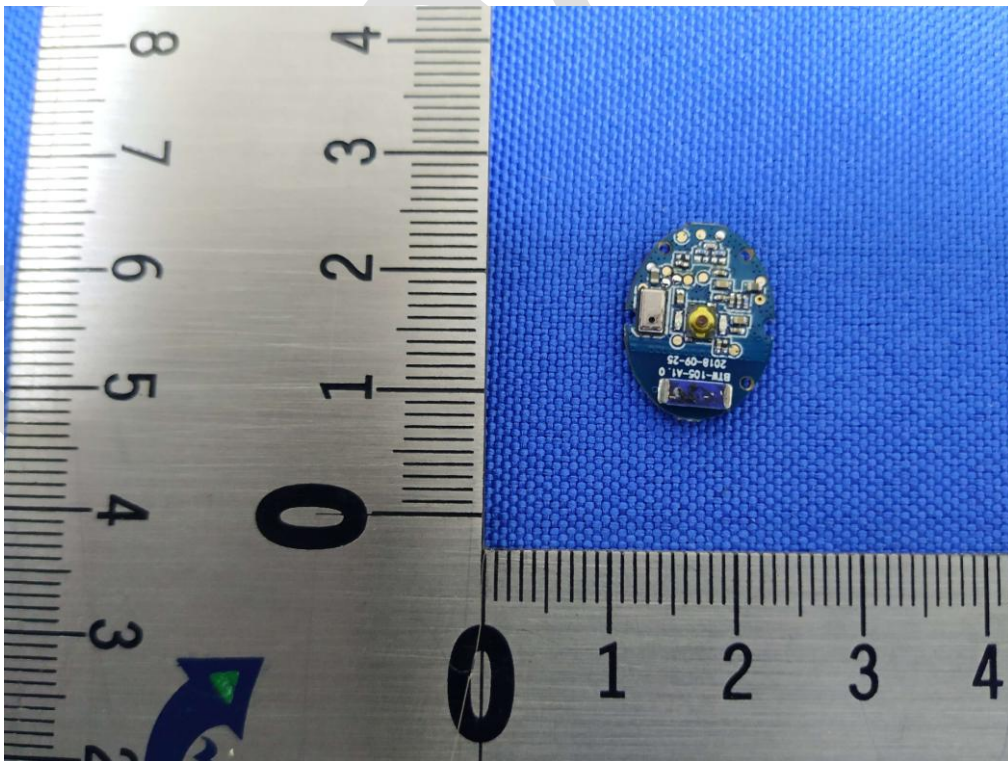
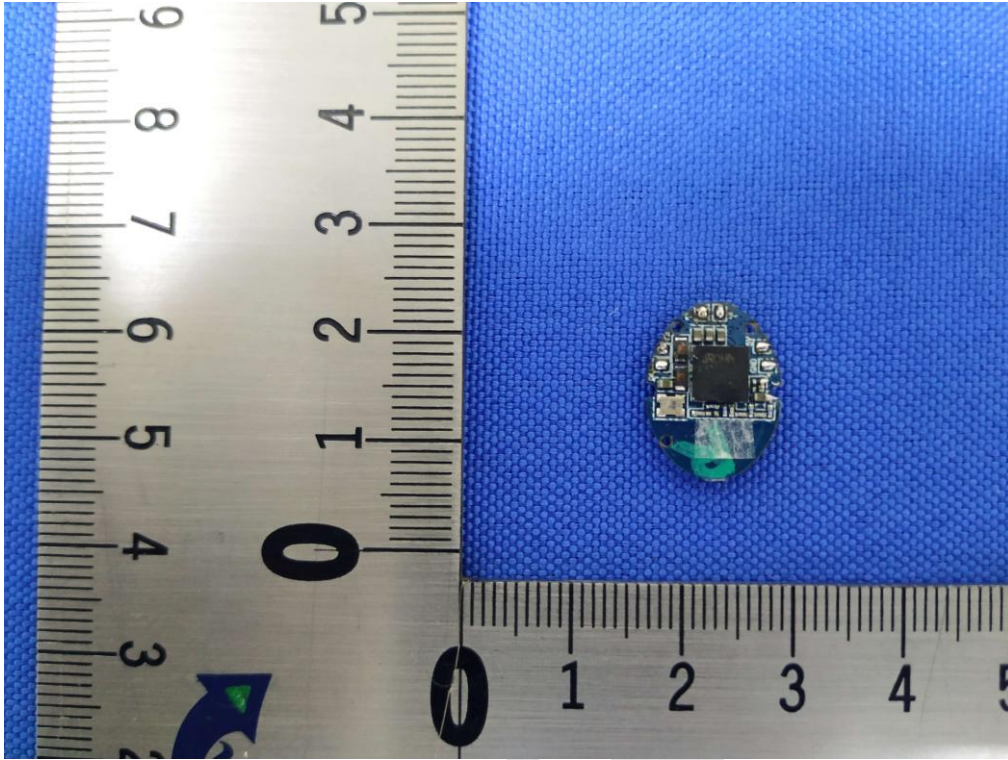














\*\*\* End of Report \*\*\*

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