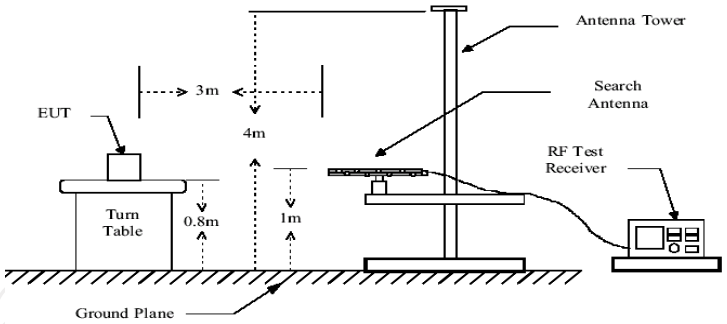
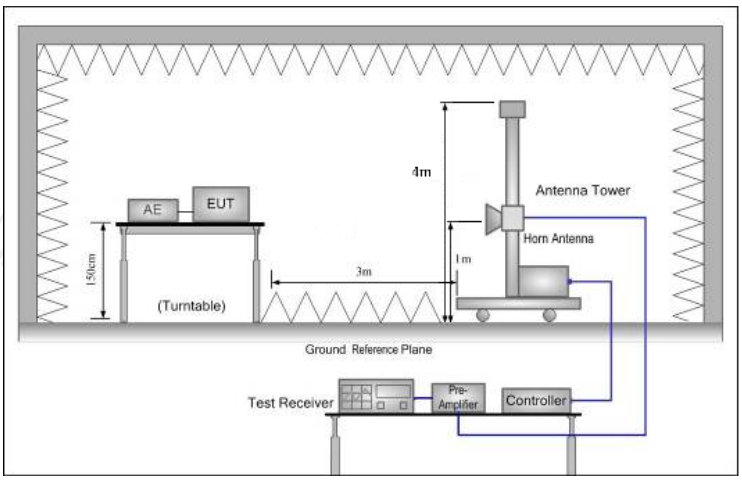


Above 1GHz



Test Mode:	Transmitting mode with modulation
Test Procedure:	1. The testing follows the guidelines in Spurious Radiated Emissions of ANSI C63.10:2013 Measurement Guidelines. 2. For the radiated emission test below 1GHz: The EUT was placed on a turntable with 0.8 meter above ground. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high PASS filter are used for the test in order to get better signal level. For the radiated emission test above 1GHz: Place the measurement antenna on a turntable with 1.5 meter above ground, which is 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. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Use the following spectrum analyzer settings: (1) Span shall wide enough to fully capture the emission being measured; (2) Set RBW=120 kHz for f < 1 GHz, RBW=1MHz for f>1GHz ; VBW≥RBW; Sweep = auto; Detector function = peak; Trace = max hold for peak (3) For average measurement: use duty cycle correction factor method per 15.35(c). Duty cycle = On time/100 milliseconds On time =N1*L1+N2*L2+...+Nn-1*LNn-1+Nn*Ln Where N1 is number of type 1 pulses, L1 is length of type 1 pulses, etc. Average Emission Level = Peak Emission Level + 20*log(Duty cycle) Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
Test results:	PASS

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6.11.2. Test Instruments

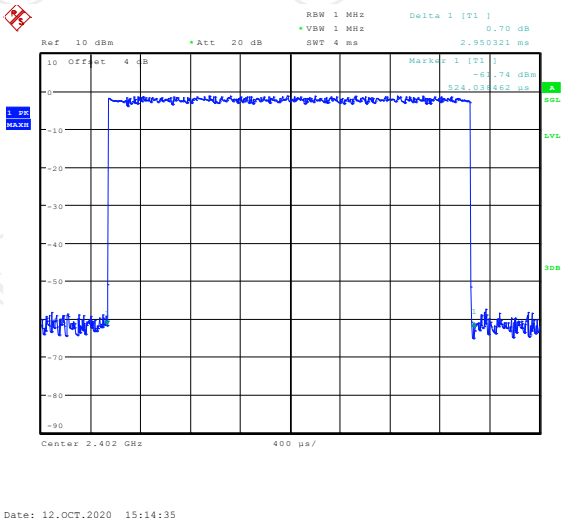
Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
Test Receiver	ROHDE&SCHWARZ	ESIB7	100197	Jul. 27, 2021
Spectrum Analyzer	ROHDE&SCHWARZ	FSQ40	200061	Sep. 11, 2021
Pre-amplifier	EM Electronics Corporation CO.,LTD	EM30265	07032613	Sep. 02, 2021
Pre-amplifier	HP	8447D	2727A05017	Sep. 02, 2021
Loop antenna	ZHINAN	ZN30900A	12024	Oct. 27, 2020
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 04, 2022
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 04, 2022
Horn Antenna	A-INFO	LB-180400-KF	J211020657	Sep. 04, 2022
Antenna Mast	Keleto	RE-AM	N/A	N/A
Line-4	RE-high-04	TCT	N/A	Sep. 02, 2021
Line-8	RE-01	TCT	N/A	Jul. 27, 2021
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

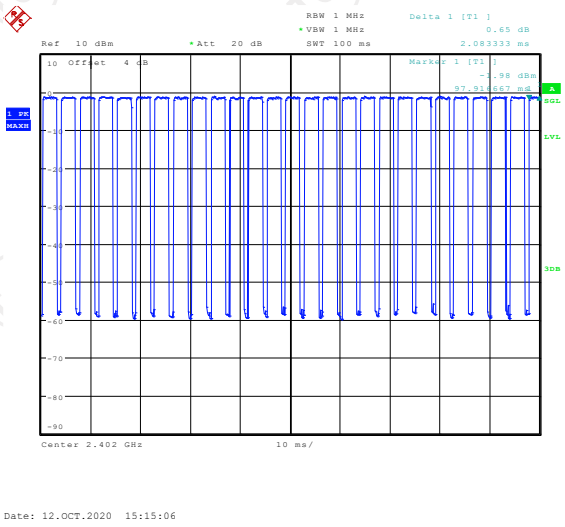
6.11.3. Test Data

Duty cycle correction factor for average measurement

3-DH5 on time (One Pulse) Plot on Channel 00



3-DH5 on time (Count Pulses) Plot on Channel 00



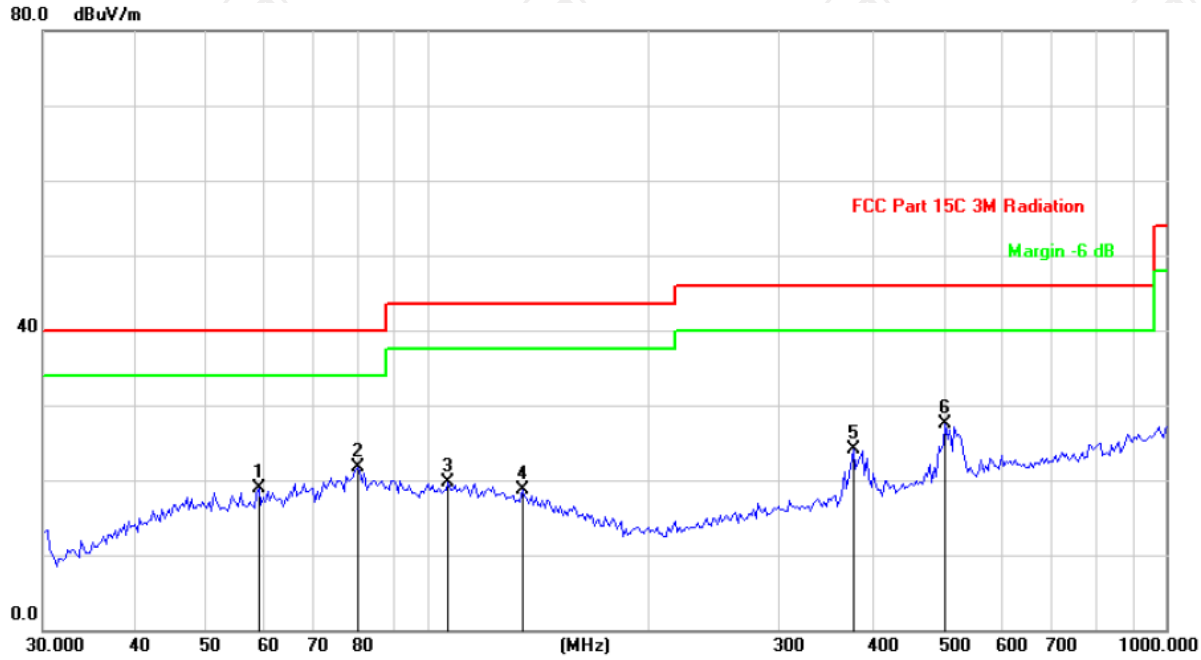
Note:

1. *Worst case Duty cycle = on time/100 milliseconds = (2.950*26+2.083)/100=0.7878*
2. *Worst case Duty cycle correction factor = 20*log (Duty cycle) = -2.07dB*
3. *3-DH5 has the highest duty cycle worst case and is reported.*
4. *The average levels were calculated from the peak level corrected with duty cycle correction factor (-2.07dB) derived from 20log (dwell time/100ms). This correction is only for signals that hop with the fundamental signal, such as band-edge and harmonic. Other spurious signals that are independent of the hopping signal would not use this correction.*

Please refer to following diagram for individual

Below 1GHz

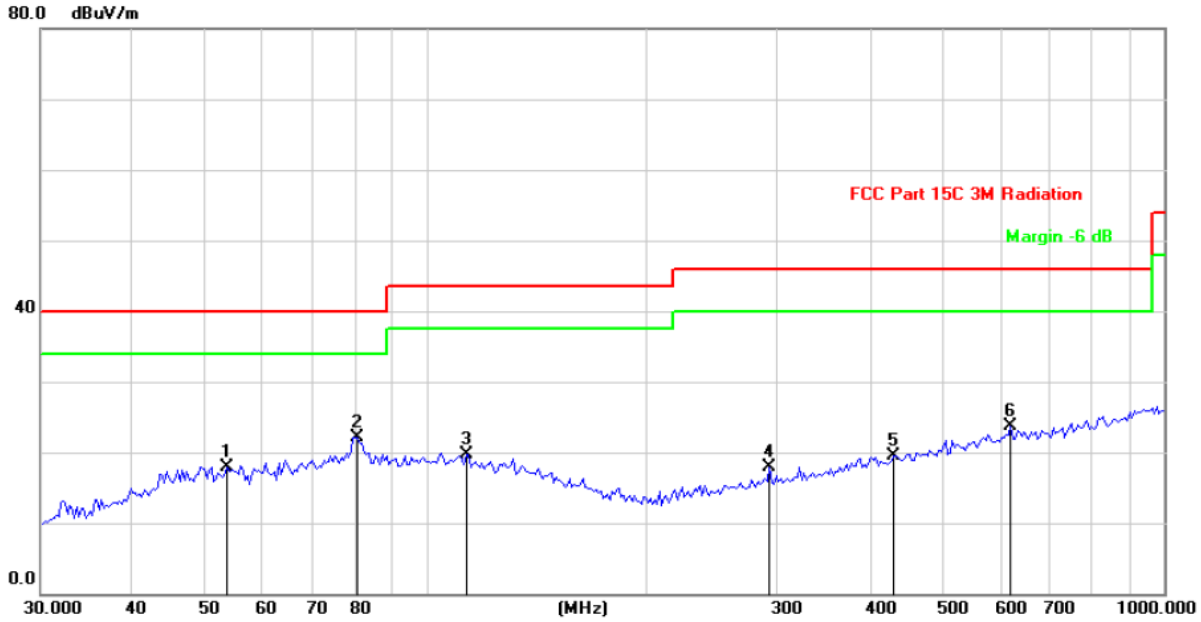
Horizontal:



Site
Limit: FCC Part 15C 3M Radiation
Polarization: *Horizontal*
Power: DC 3.7V
Temperature: 25
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		58.8979	31.08	-12.12	18.96	40.00	-21.04	peak
2	*	80.2383	38.24	-16.55	21.69	40.00	-18.31	peak
3		106.2812	28.21	-8.55	19.66	43.50	-23.84	peak
4		134.0194	34.40	-15.68	18.72	43.50	-24.78	peak
5		376.5227	33.34	-9.29	24.05	46.00	-21.95	peak
6		502.2473	34.80	-7.38	27.42	46.00	-18.58	peak

Vertical:



Site | Polarization: *Vertical* | Temperature: 25

Limit: FCC Part 15C 3M Radiation | Power: DC 3.7V | Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		53.7559	28.77	-10.90	17.87	40.00	-22.13	peak
2	*	80.8042	38.35	-16.20	22.15	40.00	-17.85	peak
3		113.2200	29.45	-9.73	19.72	43.50	-23.78	peak
4		292.3643	29.06	-11.17	17.89	46.00	-28.11	peak
5		430.3053	28.15	-8.57	19.58	46.00	-26.42	peak
6		620.1167	29.48	-5.71	23.77	46.00	-22.23	peak

Note: *1.The low frequency, which started from 9KHz~30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported*

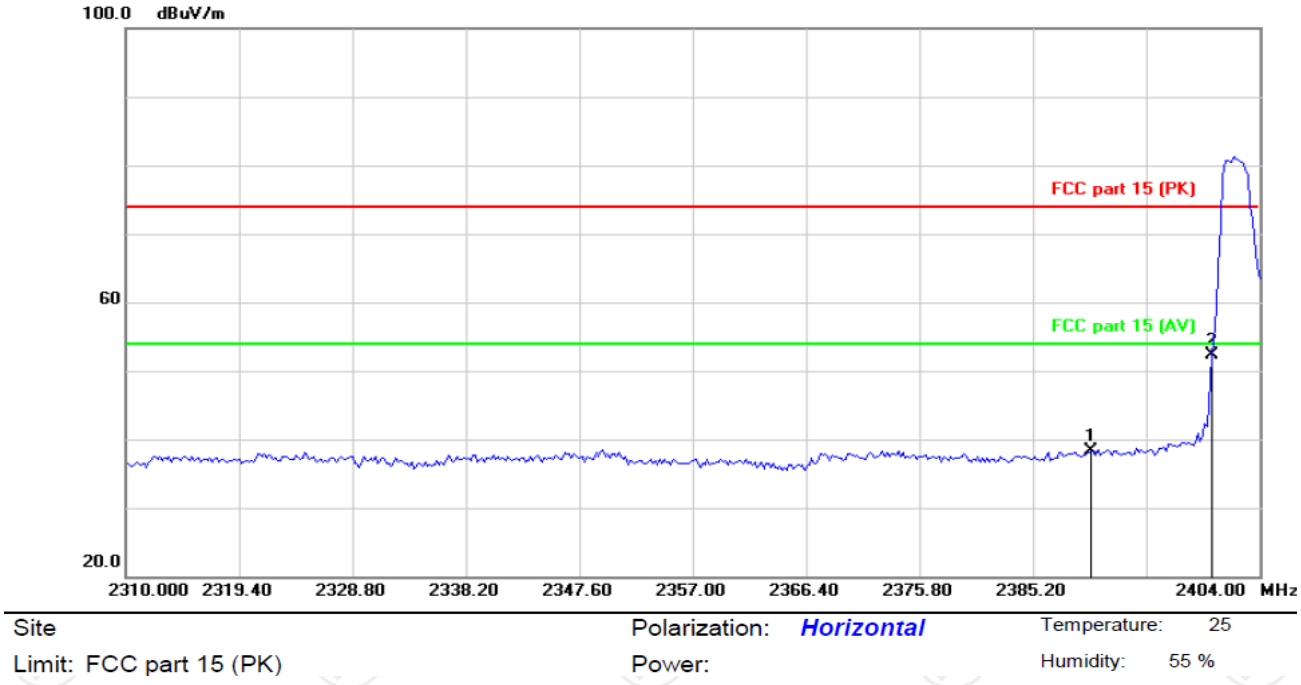
2. Measurements were conducted in all three channels (high, middle, low) and three modulation (GFSK, Pi/4 DQPSK, 8DPSK) and the worst case Mode (Lowest channel and 8DPSK) was submitted only.

3. Freq. = Emission frequency in MHz
Measurement (dBμV/m) = Reading level (dBμV) + Corr. Factor (dB)
Correction Factor= Antenna Factor + Cable loss – Pre-amplifier
Limit (dBμV/m) = Limit stated in standard
Margin (dB) = Measurement (dBμV/m) – Limits (dBμV/m)
Any value more than 10dB below limit have not been specifically reported
** is meaning the worst frequency has been tested in the test frequency range*

Test Result of Radiated Spurious at Band edges

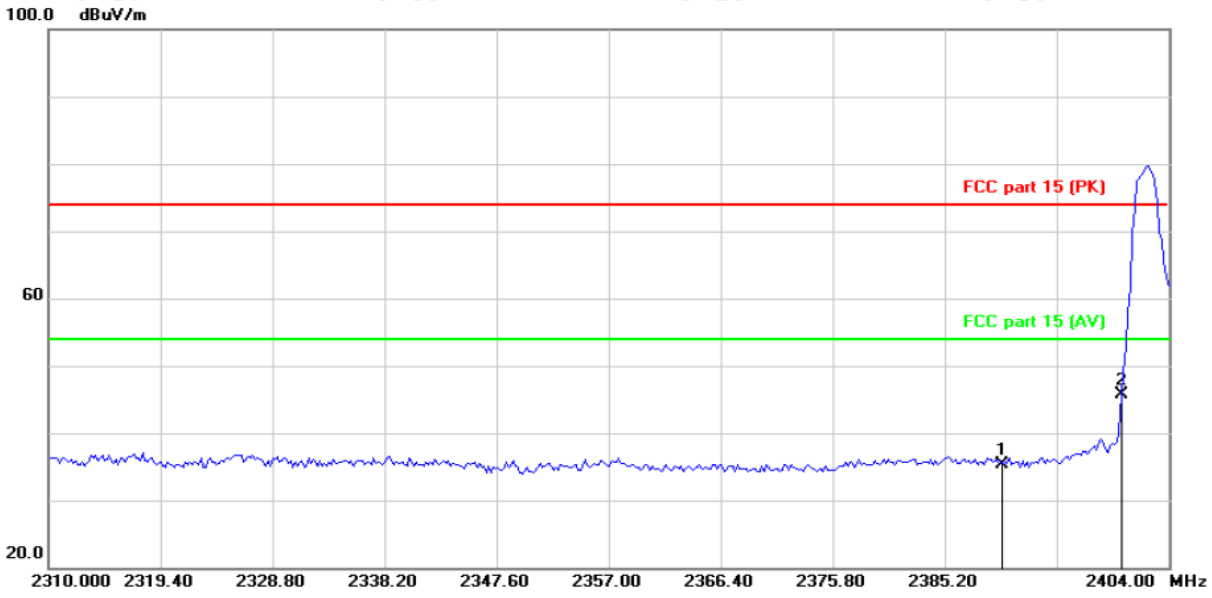
Lowest channel 2402:

Horizontal:



Site
Limit: FCC part 15 (PK)
Polarization: *Horizontal*
Power:
Temperature: 25
Humidity: 55 %

Vertical:

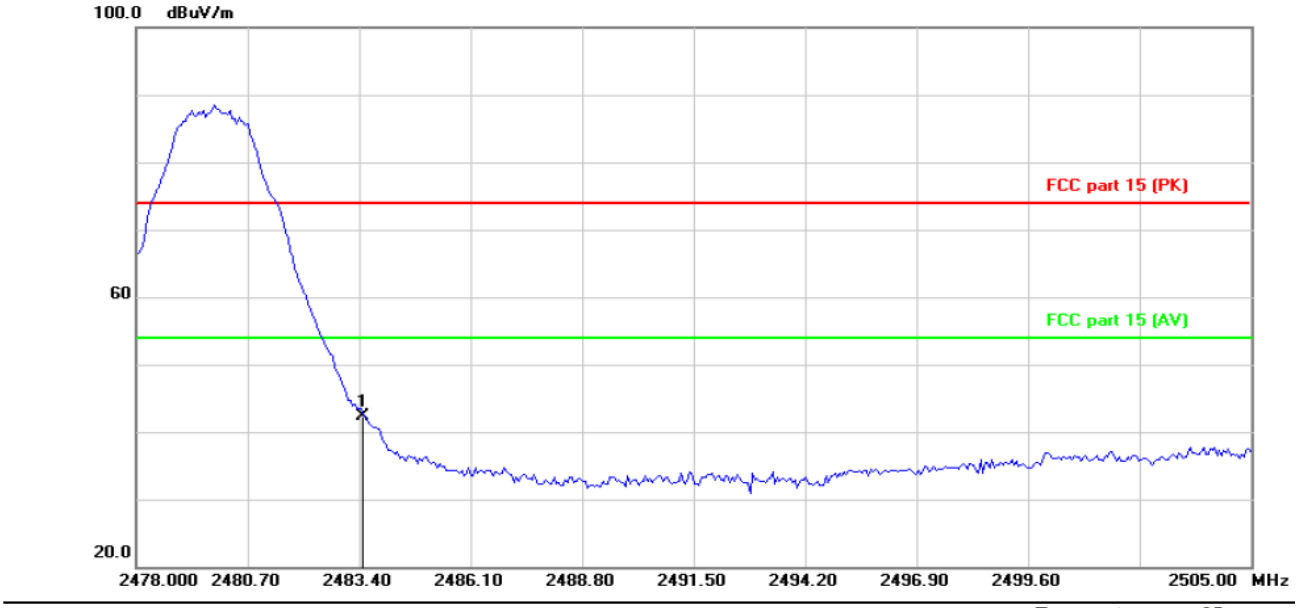


Site
Limit: FCC part 15 (PK)
Polarization: *Vertical*
Power:
Temperature: 25
Humidity: 55 %

Frequency (MHz)	Ant. Pol. H/V	Peak (dBμV/m)	Dutycycle factor (dB/m)	AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	PK Margin (dB)	AVG Margin (dB)
2390	H	38.27	-2.07	36.20	74	54	-35.73	-17.80
2390	V	35.39	-2.07	33.32	74	54	-38.61	-20.68
2400	H	52.30	-2.07	50.23	74	54	-21.70	-3.77
2400	V	45.69	-2.07	43.62	74	54	-28.31	-10.38

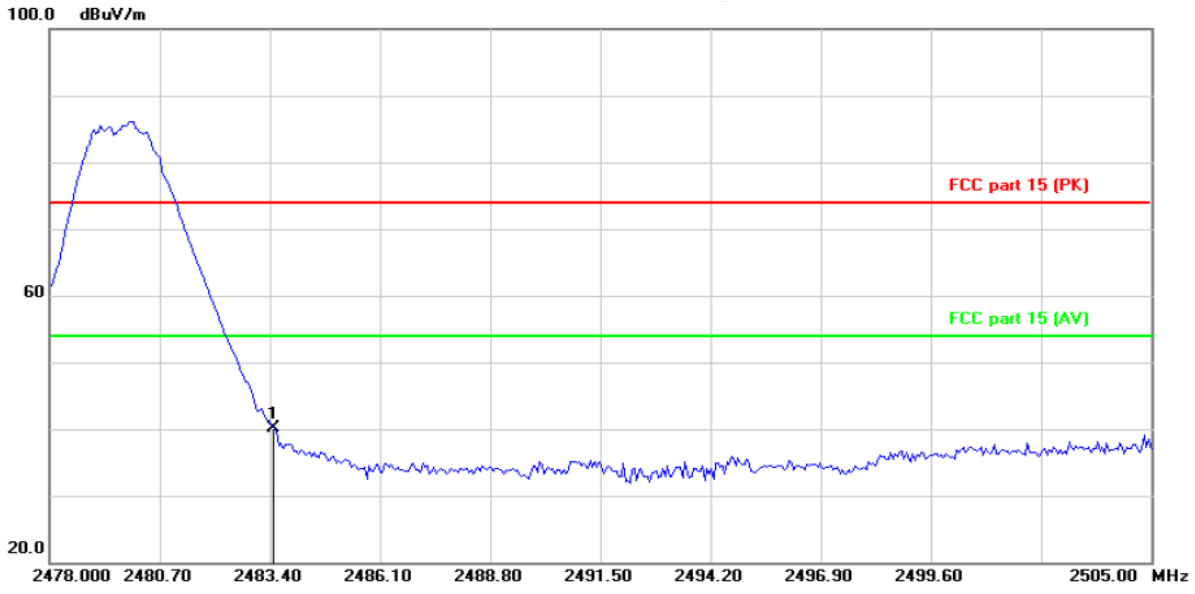
Highest channel 2480:

Horizontal:



Site
Limit: FCC part 15 (PK)
Polarization: *Horizontal*
Power:
Temperature: 25
Humidity: 55 %

Vertical:



Site
Limit: FCC part 15 (PK)
Polarization: *Vertical*
Power:
Temperature: 25
Humidity: 55 %

Frequency (MHz)	Ant. Pol. H/V	Peak (dBμV/m)	Dutycycle factor (dB/m)	AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	PK Margin (dB)	AVG Margin (dB)
2483.5	H	42.35	-2.07	40.28	74	54	-31.65	-13.72
2483.5	V	40.19	-2.07	38.12	74	54	-33.81	-15.88

Note: *Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.*

Above 1GHz

Modulation Type: *8DPSK*

Low channel: 2402 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4804	H	44.68	---	0.66	45.34	---	74	54	-8.66
7206	H	35.78	---	9.5	45.28	---	74	54	-8.72
---	H	---	---	---	---	---	---	---	---
4804	V	43.42	---	0.66	44.08	---	74	54	-9.92
7206	V	36.29	---	9.5	45.79	---	74	54	-8.21
---	V	---	---	---	---	---	---	---	---

Middle channel: 2441 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4882	H	46.21	---	0.99	47.20	---	74	54	-6.80
7323	H	37.25	---	9.87	47.12	---	74	54	-6.88
---	H	---	---	---	---	---	---	---	---
4882	V	45.56	---	0.99	46.55	---	74	54	-7.45
7323	V	37.01	---	9.87	46.88	---	74	54	-7.12
---	V	---	---	---	---	----	---	---	---

High channel: 2480 MHz

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level Peak (dBμV/m)	Emission Level AV (dBμV/m)	Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
4960	H	45.15	---	1.33	46.48	---	74	54	-7.52
7440	H	35.30	---	10.22	45.52	---	74	54	-8.48
---	H	---	---	---	---	---	---	---	---
4960	V	47.01	---	1.33	48.34	---	74	54	-5.66
7440	V	35.42	---	10.22	45.64	---	74	54	-8.36
---	V	---	---	---	---	---	---	---	---

Note:

1. *Emission Level=Peak Reading + Correction Factor; Correction Factor= Antenna Factor + Cable loss – Pre-amplifier*
2. *Margin (dB) = Emission Level (Peak) (dBμV/m)-Average limit (dBμV/m)*
3. *The emission levels of other frequencies are very lower than the limit and not show in test report.*
4. *Measurements were conducted from 1 GHz to the 10th harmonic of highest fundamental frequency.*
5. *Data of measurement shown "---"in the above table mean that the reading of emissions is attenuated more than 20 dB below the limits or the field strength is too small to be measured.*
6. *Measurements were conducted in all three modulation (GFSK, Pi/4 DQPSK, 8DPSK), and the worst case Mode (8DPSK) was submitted only.*
7. *All the restriction bands are compliance with the limit of 15.209.*

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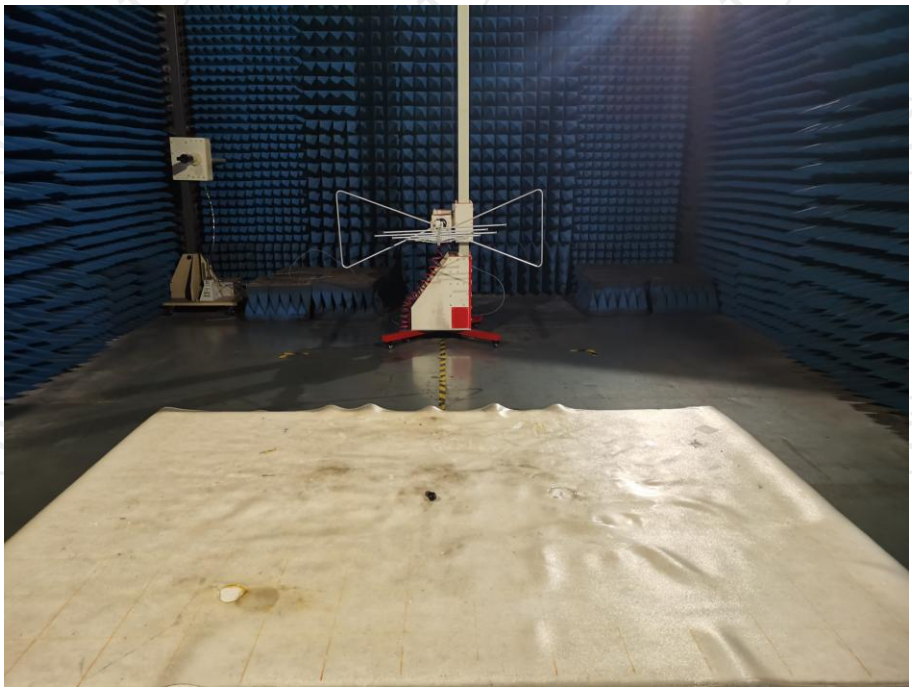
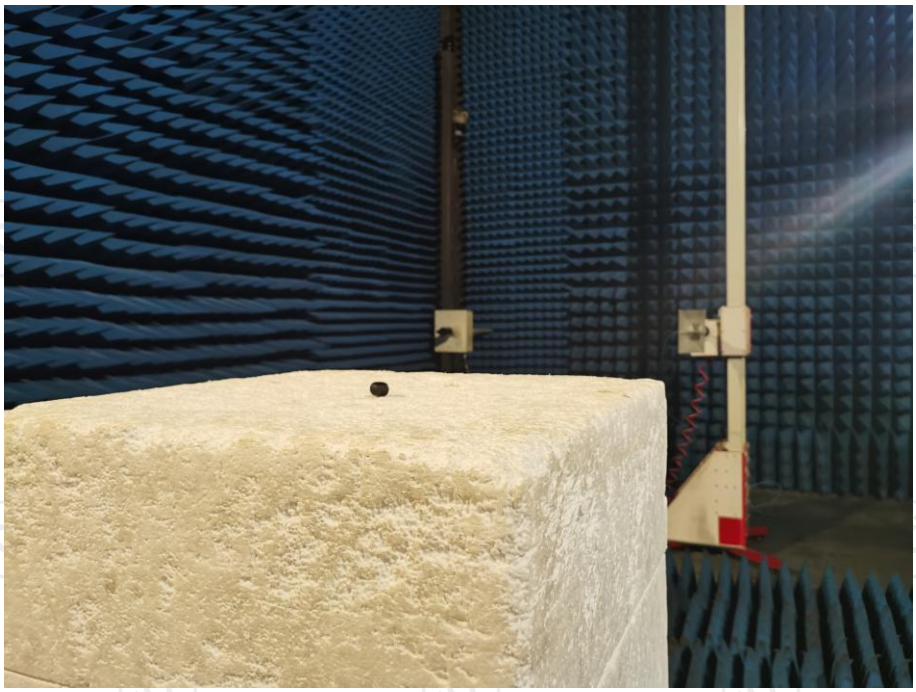
Appendix A: Photographs of Test Setup

Product: S-Nano-Ultra Portable True Wireless Earphones
Model: S-NANO
Radiated Emission





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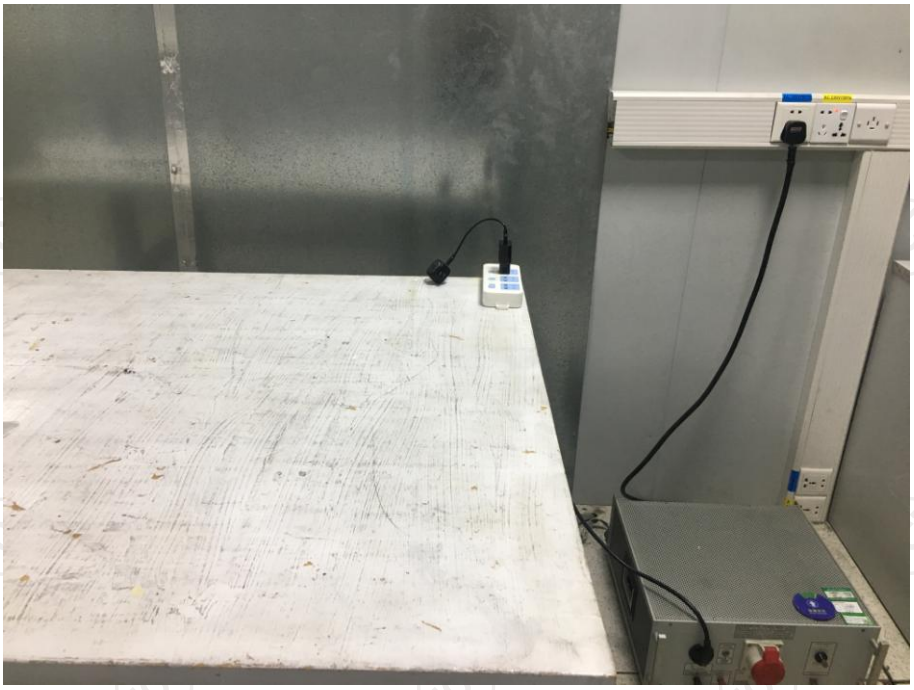
Conducted Emission



Appendix B: Photographs of EUT
Product: S-Nano-Ultra Portable True Wireless Earphones
Model: S-NANO
External Photos

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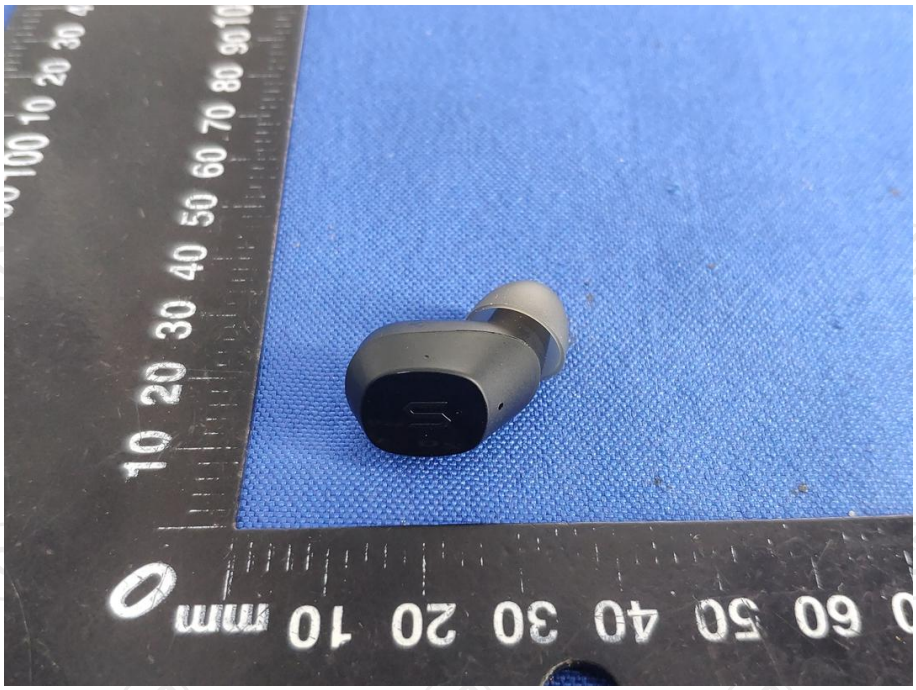

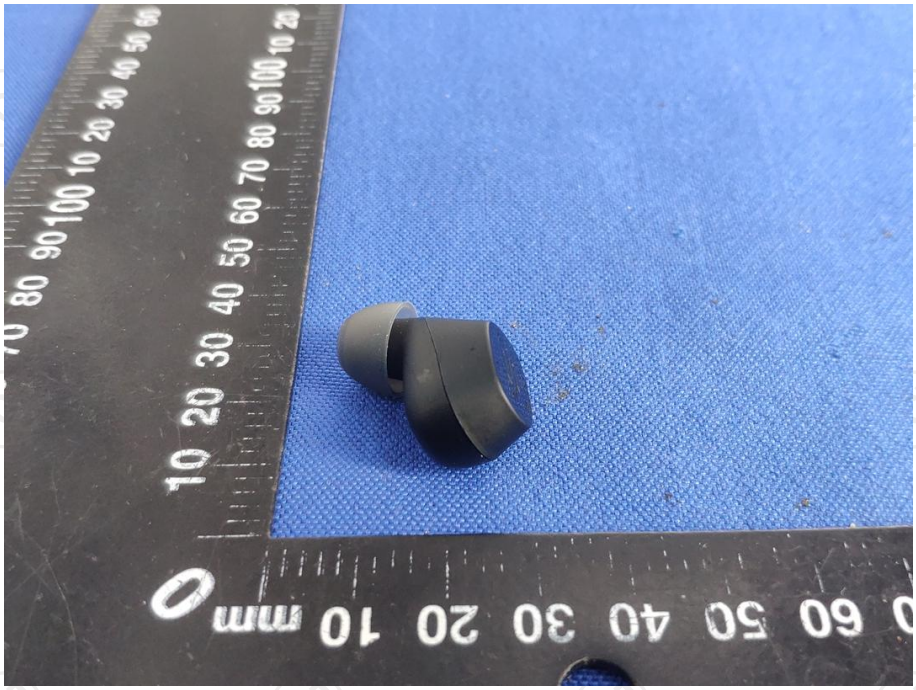

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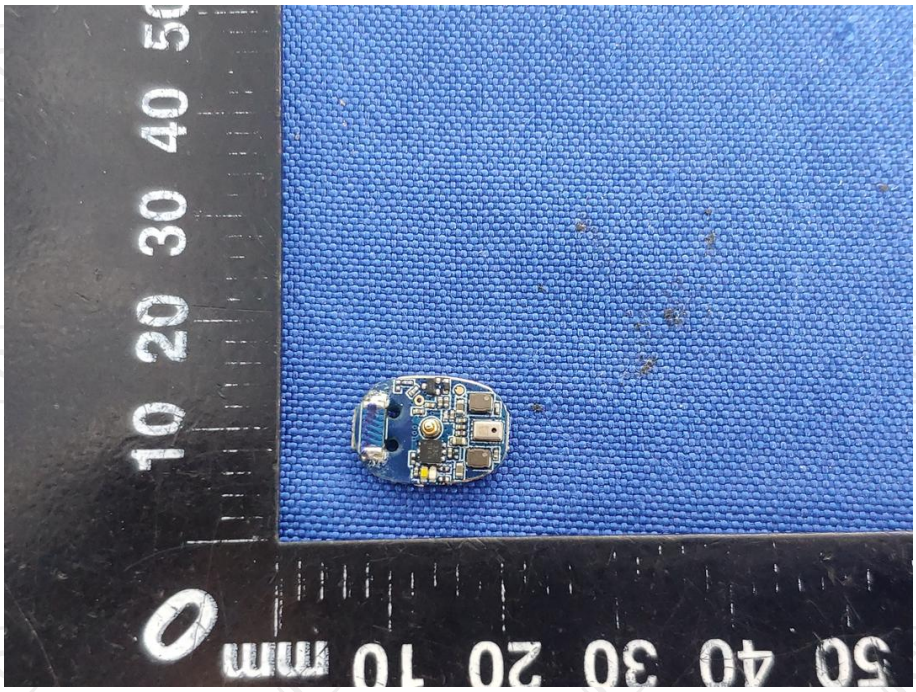
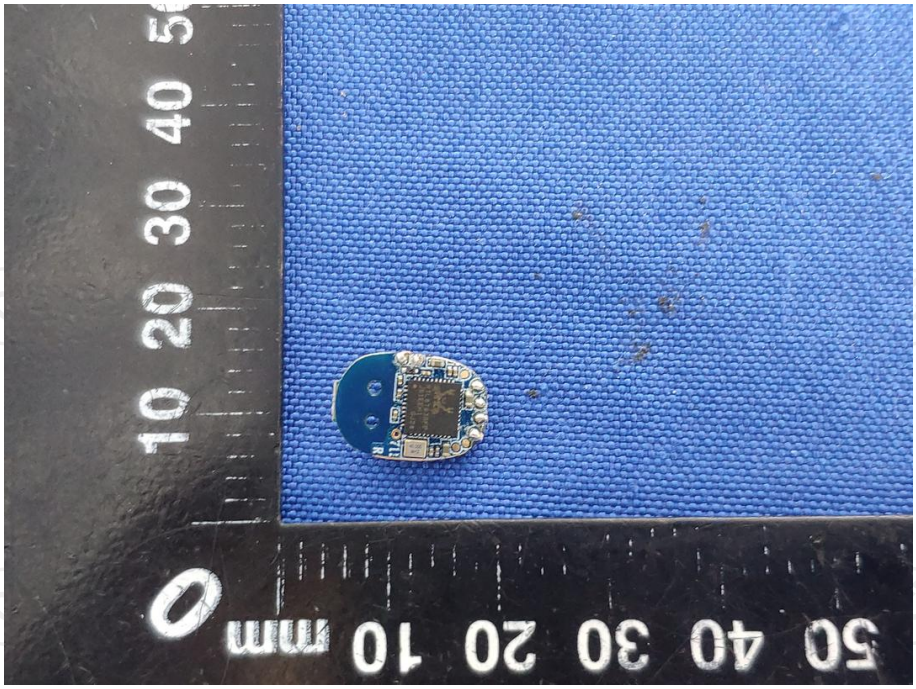
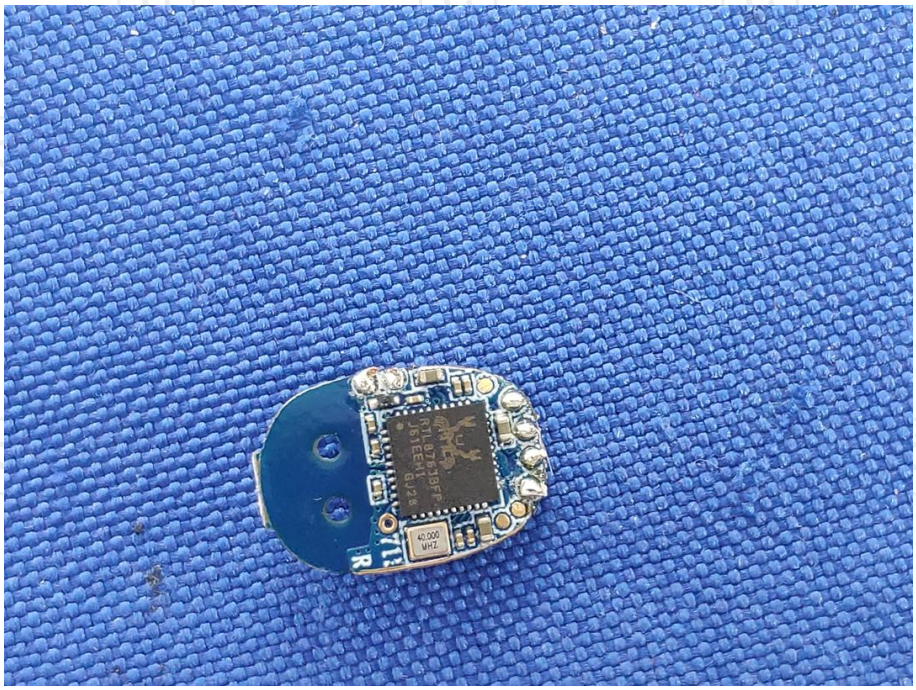
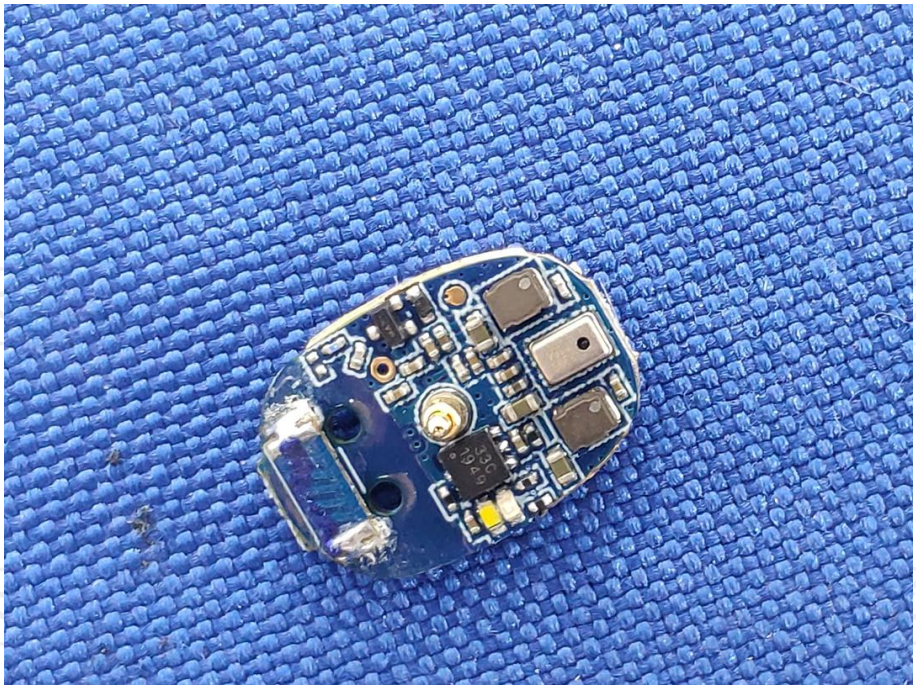
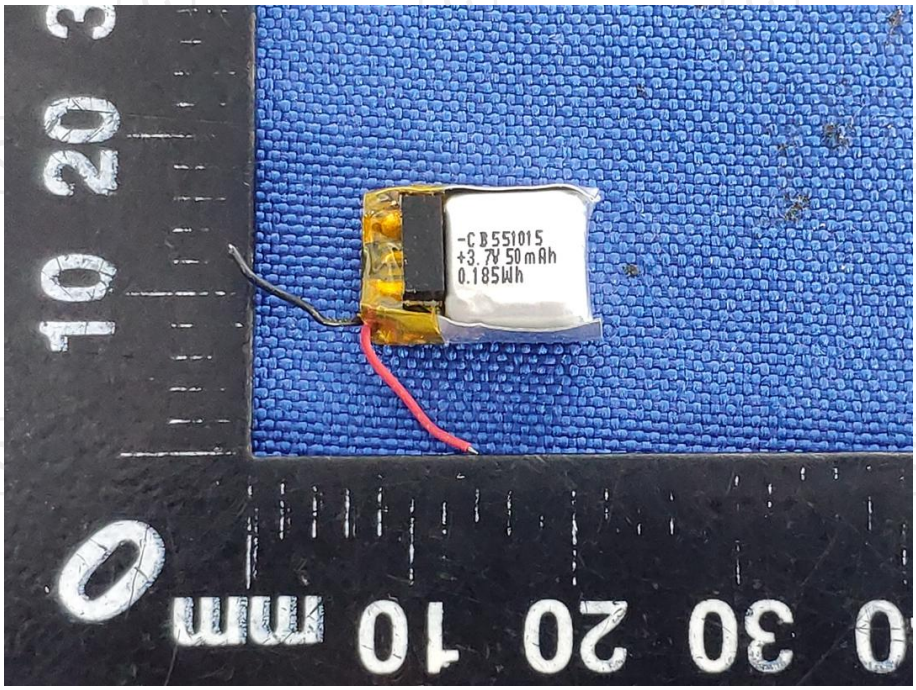
Product: S-Nano-Ultra Portable True Wireless Earphones
Model: S-NANO
Internal Photos




10 20 30 40 50
0 mm 10 20 30 40 50


40.000
MHZ





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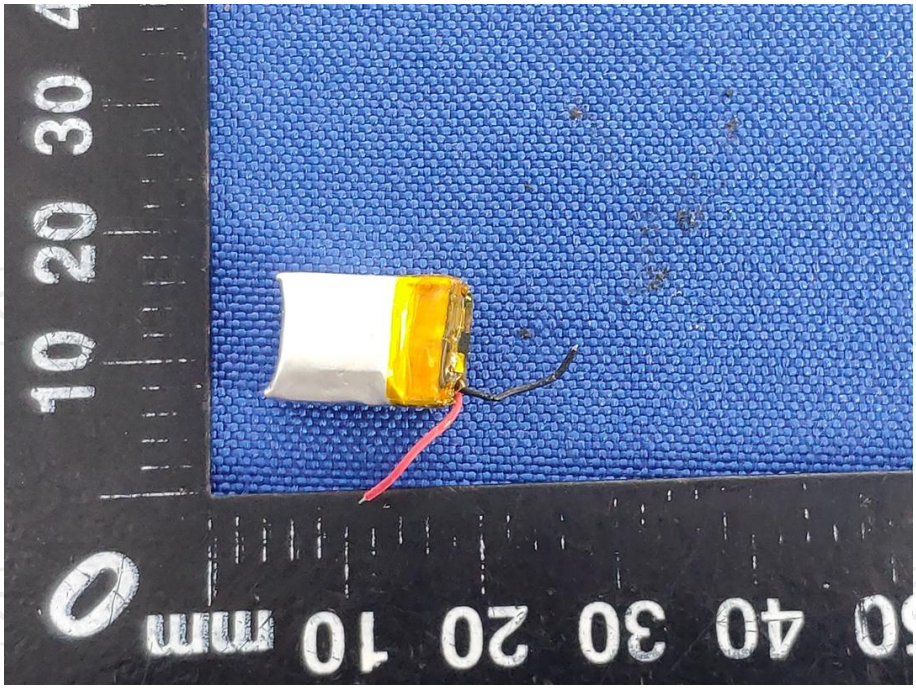

*****END OF REPORT*****

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