

# Global United Technology Services Co., Ltd.

Report No.: GTSL202102000033F01

# **TEST REPORT**

Shenzhen Pentasmart Technology Co., Ltd **Applicant:** 

4th Floor, No.2 Building, Youya Industrial Zone, **Address of Applicant:** 

Pinghu Street, Longgang District, Shenzhen.

Shenzhen Pentasmart Technology Co., Ltd Manufacturer:

4th Floor, No.2 Building, Youya Industrial Zone, Address of

Pinghu Street, Longgang District, Shenzhen. Manufacturer:

**Equipment Under Test (EUT)** 

**Product Name:** Neck Massager

Model No.: uNeck-310

N/A Trade Mark:

FCC ID: 2AYXR-UNECK310

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart C Section 15.231

Date of sample receipt: Jan. 28, 2021

Date of Test: Jan. 28, 2021 - Feb. 24, 2021

Date of report issued: Feb. 24, 2021

Test Result: PASS \*

In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo **Laboratory Manager** 

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.



# 2 Version

Version No.	Date	Description
00	Feb. 24, 2021	Original

Prepared By:	Smelly	Date:	Feb. 24, 2021	
	Project Engineer			
Check By:	Dot insorpla	Date:	Feb. 24, 2021	
	Reviewer			



# 3 Contents

			Page
1	COVI	ER PAGE	1
2	VER	SION	2
_	V LIX	OION	
3	CON	ITENTS	3
4	TES	T SUMMARY	4
	4.1	MEASUREMENT UNCERTAINTY	
5	GEN	IERAL INFORMATION	5
	5.1	GENERAL DESCRIPTION OF EUT	5
	5.2	TEST MODE	
	5.3	DESCRIPTION OF SUPPORT UNITS	
	5.4	DEVIATION FROM STANDARDS	
	5.5	ABNORMALITIES FROM STANDARD CONDITIONS	
	5.6	TEST FACILITY	
	5.7	TEST LOCATION	
	5.8	ADDITIONAL INSTRUCTIONS	6
6	TES	T INSTRUMENTS LIST	7
7	TES	T RESULTS AND MEASUREMENT DATA	9
	7.1	ANTENNA REQUIREMENT	
	7.1 7.2	CONDUCTED EMISSIONS	
	7.2	RADIATED EMISSION METHOD	_
	7.3.1		
	7.4	20DB Occupy Bandwidth	
	7.5	CALCULATION OF AVERAGE FACTOR	
	7.6	DWELL TIME	
8		T SETUP PHOTO	
9	EUT	CONSTRUCTIONAL DETAILS	25



# 4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	N/A
Fundamental &Radiated Spurious Emission Measurement	15.209,15.231b	Pass
Occupy Bandwidth	15.231c	Pass
Dwell time	15.231a	Pass

Pass: The EUT complies with the essential requirements in the standard.

Remark: Test according to ANSI C63.10:2013.

# 4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes	
Radiated Emission	30MHz-200MHz	3.8039dB	(1)	
Radiated Emission	200MHz-1GHz	3.9679dB	(1)	
Radiated Emission	1GHz-18GHz	4.29dB	(1)	
Radiated Emission	18GHz-40GHz	3.30dB	(1)	
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	3.44dB	N/A	

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.



#### 5 General Information

# 5.1 General Description of EUT

Product Name:	Neck Massager
Model No.:	uNeck-310
Hardware Version:	HV01
Software Version:	SV01
Test sample(s) ID:	GTSL202102000033-1
Sample(s) Status	Engineered sample
Operation Frequency:	433.92MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	PCB antenna
Antenna gain:	-0.5dBi(declare by applicant)
Power supply:	DC 3V from battery

#### 5.2 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: (1) New battery is used	during the test.

#### Pre-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Υ	Z		
Field Strength(dBuV/m)	75.38	74.59	75.21		

#### **Final Test Mode:**

According to ANSI C63.10 standards, the test results are both the "worst case" and "worst setup":

X axis (see the test setup photo)

#### 5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
/	/	/	/

## 5.4 Deviation from Standards

None.

# 5.5 Abnormalities from Standard Conditions

None



#### 5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### FCC —Registration No.: 381383

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383.

#### • IC —Registration No.: 9079A

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A

#### • NVLAP (LAB CODE:600179-0)

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0d by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

#### 5.7 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480 Fax: 0755-27798960

#### 5.8 Additional Instructions

Test Software	Special test command provided by manufacturer
Power level setup	Default



# 6 Test Instruments list

Rad	Radiated Emission:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 25 2020	June. 24 2021
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 25 2020	June. 24 2021
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 25 2020	June. 24 2021
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 25 2020	June. 24 2021
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 25 2020	June. 24 2021
9	Coaxial Cable	GTS	N/A	GTS211	June. 25 2020	June. 24 2021
10	Coaxial cable	GTS	N/A	GTS210	June. 25 2020	June. 24 2021
11	Coaxial Cable	GTS	N/A	GTS212	June. 25 2020	June. 24 2021
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 25 2020	June. 24 2021
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 25 2020	June. 24 2021
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 25 2020	June. 24 2021
15	Band filter	Amindeon	82346	GTS219	June. 25 2020	June. 24 2021
16	Power Meter	Anritsu	ML2495A	GTS540	June. 25 2020	June. 24 2021
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 25 2020	June. 24 2021
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 25 2020	June. 24 2021
19	Splitter	Agilent	11636B	GTS237	June. 25 2020	June. 24 2021
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 25 2020	June. 24 2021
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 18 2020	Oct. 17 2021
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 18 2020	Oct. 17 2021
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 18 2020	Oct. 17 2021
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 25 2020	June. 24 2021



Con	Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.15 2019	May.14 2022
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 25 2020	June. 24 2021
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June. 25 2020	June. 24 2021
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 25 2020	June. 24 2021
8	Absorbing clamp	Elektronik- Feinmechanik	MDS21	GTS229	June. 25 2020	June. 24 2021
9	ISN	SCHWARZBECK	NTFM 8158	GTD565	June. 25 2020	June. 24 2021

RF C	onducted Test:					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 25 2020	June. 24 2021
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 25 2020	June. 24 2021
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 25 2020	June. 24 2021
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 25 2020	June. 24 2021
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 25 2020	June. 24 2021
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 25 2020	June. 24 2021
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 25 2020	June. 24 2021

Gene	ral used equipment:					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 25 2020	June. 24 2021
2	Barometer	ChangChun	DYM3	GTS255	June. 25 2020	June. 24 2021



#### 7 Test results and Measurement Data

# 7.1 Antenna requirement

Standard requirement: FCC Part15 C Section 15.203

#### 15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### 15.231 requirement:

For intentional device, according to 15.203:an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

#### **EUT Antenna:**

The antenna is PCB antenna, the best case gain of the antenna is -0.5dBi, reference to the appendix II for details



# 7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207						
Test Method:	ANSI C63.10:2013						
Test Frequency Range:	150KHz to 30MHz						
Class / Severity:	Class B						
Receiver setup:	RBW=9KHz, VBW=30KHz, S	ween time-auto					
Limit:	TABVI-OTT 12, VBVV-OOTT 12, O	Limit (dBuV)					
	Frequency range (MHz)	Quasi-peak	Average				
	0.15-0.5	66 to 56*	56 to 46*				
	0.5-5	56	46				
	5-30	60	50				
	* Decreases with the logarithr	n of the frequency.					
Test setup:	Reference Plane						
	AUX Equipment  Test table/Insulation plane  Remark E.U.T  Test table/Insulation plane  Remark E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m	/   <u></u>	ower				
Test procedure:	<ol> <li>The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs).</li> <li>Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.</li> </ol>						
Test Instruments:	Refer to section 6.0 for details						
Test mode:	Refer to section 5.2 for details						
Test environment:	Temp.: 25 °C Humid.: 52% Press.: 1012mbar						
Test voltage:	/						
Test results:	N/A						



#### 7.3 Radiated Emission Method

7.3	Radiated Emission Wethod						
	Test Requirement:	FCC Part15 C S	FCC Part15 C Section 15.209				
	Test Method:	ANSI C63.10:20	013				
	Test Frequency Range:	9kHz to 25GHz					
	Test site:	Measurement Distance: 3m					
	Receiver setup:	Frequency	Detector	RBW	VBW	Remark	
		9kHz- 150kHz Quasi-pea		200Hz	300Hz	Quasi-peak Value	
		150kHz- 30MHz	Quasi-peak	9kHz	10kHz	Quasi-peak Value	
		30MHz- 1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value	
		Above 1GHz	Peak	1MHz	3MHz	Peak Value	
			Peak	1MHz	10Hz	Average Value	
	Limit: (Field strength of the fundamental signal)	Fundamental Frequency (MHz)	Fu	eld Strength of ndamental icrovolts/meter	·)	Field Strength of Spurious Emissions (microvolts/meter)	
		40.66 - 40.70 2,250 70 - 130 1,250 130 - 174 1,250 to 3,750 ** 174 - 260 3,750 260 - 470 3,750 to 12,500 ** Above 470 12,500 ** linear interpolations			225 125 125 to 375 ** 375 375 to 1,250 ** 1,250		
	Limit:	Freque		Limit (u	V/m)	Remark	
	(Spurious Emissions)	0.009MHz-0	_	2400/F(kHz		Quasi-peak Value	
	(Opunous Emissions)	0.490MHz-1	.705MHz	24000/F(kH	z) @30m	Quasi-peak Value	
		1.705MHz-	30.0MHz	30 @3		Quasi-peak Value	
		30MHz-8		100 @		Quasi-peak Value	
		88MHz-2	-	150 @		Quasi-peak Value	
		216MHz-9 960MHz-		200 @3m		Quasi-peak Value	
		900101112-	ПОПД	500 @3m 500 @3m		Quasi-peak Value Average Value	
		Above 1	GHz	5000 @		Peak Value	
	Test setup:	For radiated e	missions fron	n 9kHz to 3	0MHz		
		Tum Table < 80cm > For radiated e	EUT-	Receive			



Report No.: GTSL202102000033F01 Test Antenna < 1m ... 4m > EUT Turn Table. Turn Tables < 80cm Receiver# Preamplifier. For radiated emissions above 1GHz < 3m > Test Antenna+ < 1m ... 4m > EUT-Turn Tables <150cm Receiver+ Preamplifier-1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz Test Procedure: and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna 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. 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. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 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. Test Instruments: Refer to section 6.0 for details Test mode: Refer to section 5.2 for details Test environment: Temp.: 25 °C Humid.: 52% Press.: 1012mbar DC 3V Test voltage: Test results: Pass



#### Measurement data:

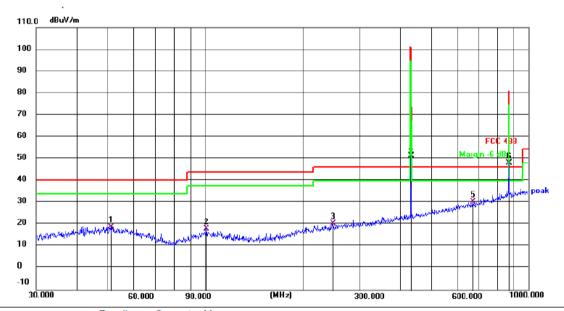
# 7.3.1 Spurious emissions

#### ■ Below 30MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o), the test result no need to reported.

#### ■ Below 1GHz

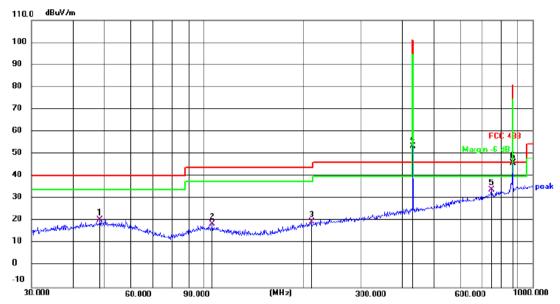
#### Horizontal:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margir	n	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector	Comment
1		51.1209	32.91	-14.01	18.90	40.00	21.10	QP	
2		100.9339	33.91	-15.96	17.95	43.50	25.55	QP	
3		247.6819	34.20	-13.78	20.42	46.00	25.58	QP	
4	*	433.9200	60.59	-9.12	51.47	100.80	49.33	peak	
5		672.8444	34.60	-4.11	30.49	46.00	15.51	QP	
6	Χ	867.8400	46.90	-0.79	47.69	80.80	33.11	peak	



#### Vertical:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margir	n		
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector	Comment	
1		48.5015	34.54	-14.05	20.49	40.00	19.51	QP		
2		106.3850	35.06	-16.50	18.56	43.50	24.94	QP		
3	:	212.2693	34.79	-15.10	19.69	43.50	23.81	QP		
4	*	433.9200	62.62	-9.12	53.50	100.80	47.30	peak		
5		750.1082	36.64	-2.74	33.90	46.00	12.10	QP		
6	ļ (	867.8400	46.73	-0.79	45.94	80.80	34.86	peak		



# For average Emission

Frequency MHz	Peak Measurement Level dBuV/m	Duty cycle factor	Average Level dBuV/m	Limit AV	Margin	Polarizatio n
433.92	53.50	-0.18	53.32	80.8	-27.48	Vertical
867.84	45.94	-0.18	45.76	60.8	-15.04	Vertical

Notes: 1. Average emission Level = Peak Level + Duty cycle factor 2.Duty cycle level please see clause 7.5.

Frequency MHz	Peak Measurement Level dBuV/m	Duty cycle factor	Average Level dBuV/m	Limit AV	Margin	Polarizatio n
433.92	51.47	-0.18	51.29	80.8	-29.51	Horizontal
867.84	47.69	-0.18	47.51	60.8	-13.29	Horizontal

Notes: 1. Average emission Level = Peak Level + Duty cycle factor 2.Duty cycle level please see clause 7.5.



#### Above 1GHz

Frequency	Peak	Duty	Average	Li	mit	Margi	n dB	
MHz	Level dBuV/m	cycle factor	Level dBuV/m	PK	AV	PK	AV	Polarization
1301.42	48.35	-0.18	48.17	80.8	60.8	-32.63	-12.63	Vertical
1735.56	45.24	-0.18	45.06	80.8	60.8	-35.74	-15.74	Vertical
2169.15	47.14	-0.18	46.96	80.8	60.8	-33.84	-13.84	Vertical
2603.33	49.22	-0.18	49.04	80.8	60.8	-31.76	-11.76	Vertical
3037.18	48.35	-0.18	48.17	80.8	60.8	-32.63	-12.63	Vertical
3471.29	46.27	-0.18	46.09	80.8	60.8	-34.71	-14.71	Vertical
1301.63	49.48	-0.18	49.3	80.8	60.8	-31.5	-11.5	Horizontal
1735.47	47.74	-0.18	47.56	80.8	60.8	-33.24	-13.24	Horizontal
2169.68	49.26	-0.18	49.08	80.8	60.8	-31.72	-11.72	Horizontal
2603.47	48.55	-0.18	48.37	80.8	60.8	-32.43	-12.43	Horizontal
3037.36	46.36	-0.18	46.18	80.8	60.8	-34.62	-14.62	Horizontal
3471.43	46.48	-0.18	46.3	80.8	60.8	-34.5	-14.5	Horizontal

Notes: 1.Average emission Level = Peak Level + Duty cycle factor

- 2. Duty cycle level please see clause 7.5.
- 3. Pulse Desensitization Correction Factor

Pulse Width (PW) = 10.7ms

2/PW = 2/10.7ms = 0.19kHz

RBW (100 kHz) > 2/PW (0.028 kHz)

Therefore PDCF is not needed

4. Other harmonics emissions are lower than 20dB below the allowable limit.



# 7.4 20dB Occupy Bandwidth

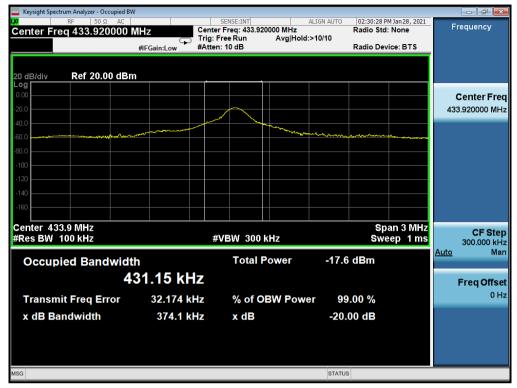
Test Requirement:	FCC Part15 C Section 15.231			
Test Method:	ANSI C63.10:2013			
Limit:	According to FCC 15.231(c) requirement:			
	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating between 70 MHz to 900 MHz. Those devices operating above 900 MHz, the emission spurious shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.			
	B.W (20dBc) Limit = 0.25% * f(MHz) = 0.25% * 433.92MHz = 1.0843MHz			
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane			
Test Instruments:	Refer to section 6.0 for details			
Test mode:	Refer to section 5.2 for details			
Test results:	Pass			

#### **Measurement Data**

Test channel	20dB bandwidth(kHz)	Limit(kHz)	Result
Lowest	374.1	1084.3	Pass



Test plot as follows:



Lowest channel



#### 7.5 CALCULATION OF AVERAGE FACTOR

The output field strengths of specification in accordance with the FCC rules specify measurements with an average detector. During the test, a spectrum analyzer incorporating a peak detector was used. Therefore, a reduction factor can be applied to the resultant peak signal level and compared to the limit for measurement instrumentation incorporating an average detector.

The duty cycle is measured in 100 ms or the repetition cycle period, whichever is a shorter time frame. The duty cycle is measured by placing the spectrum analyzer to set zero span at 100kHz resolution bandwidth.

Averaging factor in dB =20log (duty cycle)

The duration of one cycle = 81.20ms

The duty cycle is simply the on-time divided the duration of one cycle

Duty Cycle = (1.725ms\*26+2.775ms\*14)/85.00

=83.7ms / 85.00ms

=0.98

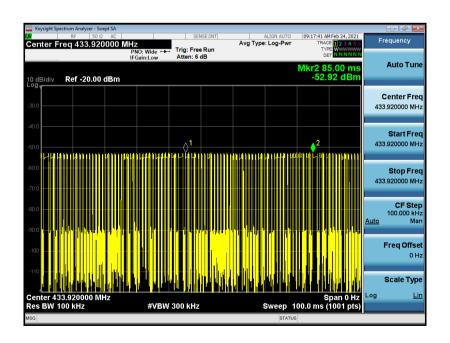
Therefore, the averaging factor is found by 20log0.98=-0.18dB

Test plot as follows:

Note: During the 100ms, the amount of pulse and on-time of pulse are the same for every pulse train.

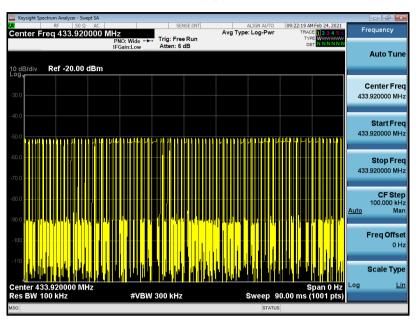
#### **Measurement Data**

#### Cycle

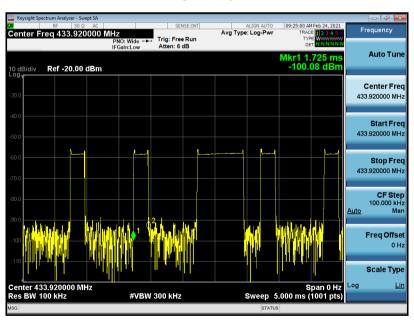




#### Pulse

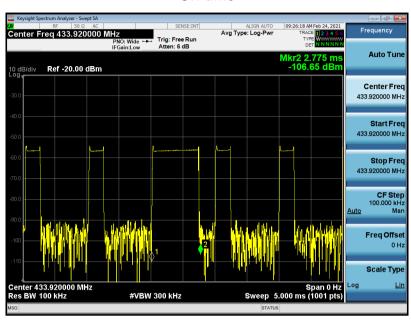


#### On-time





# On-time





#### 7.6 DWELL TIME

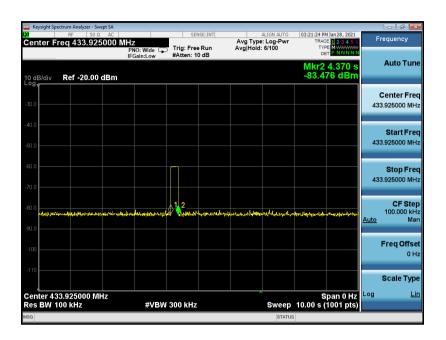
Test Requirement:	FCC Part15 C Section 15.231				
Test Method:	ANSI C63.10:2013				
Limit:	According to FCC 15.231(a) requirement:				
	A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.				
Test setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table				
	Ground Reference Plane				
Test Instruments:	Refer to section 6.0 for details				
Test mode:	Test Procedure				
	a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.				
	b) Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.				
	c) Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.				
d) Measure the highest amplitude appearing on spectral disas a reference level. Plot the graph with marking the highest edge frequency.					
	e) Repeat above procedures until all measured frequencies were complete.				
Test results:	Pass				

#### **Measurement Data**

Dwell time (second)	Limit (second)	Result
4.370s	<5s	Pass

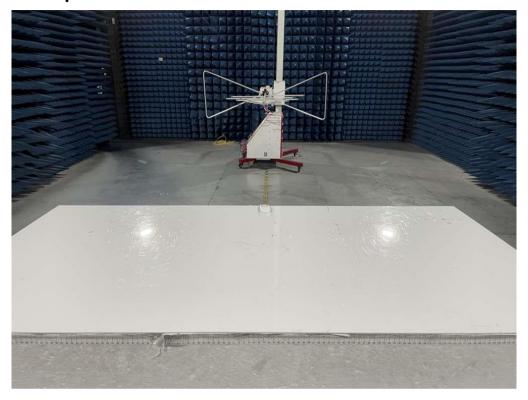


# Test plot as follows:





# 8 Test Setup Photo





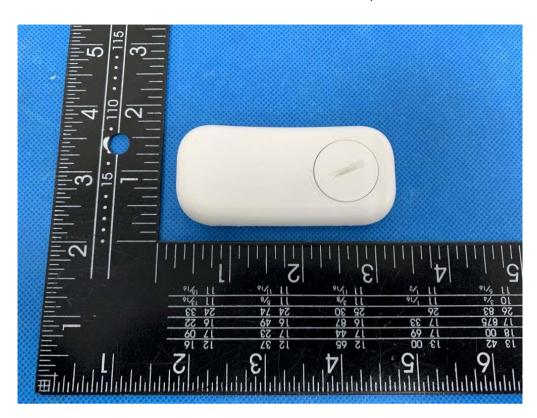


# 9 EUT Constructional Details



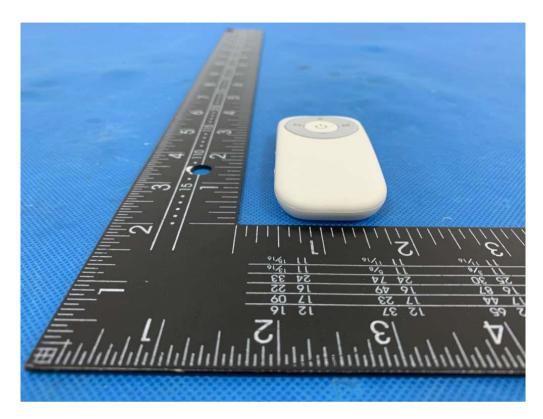








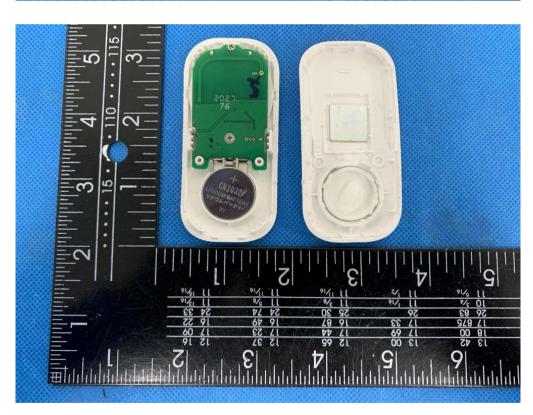






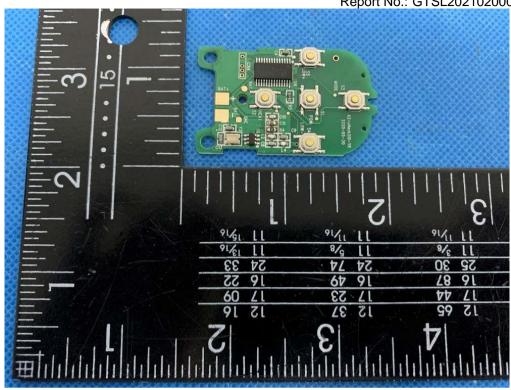


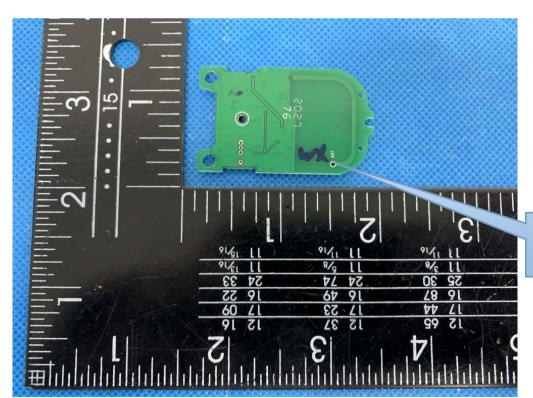




# **GTS**

Report No.: GTSL202102000033F01

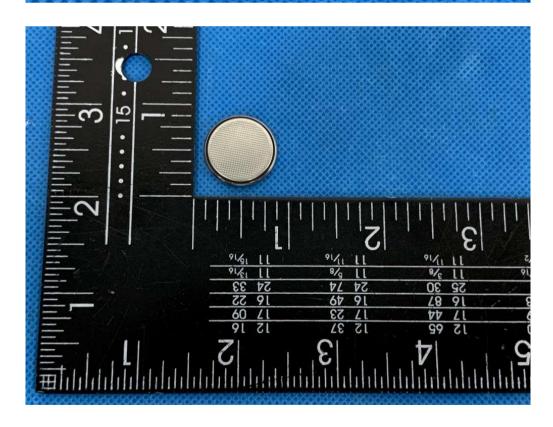




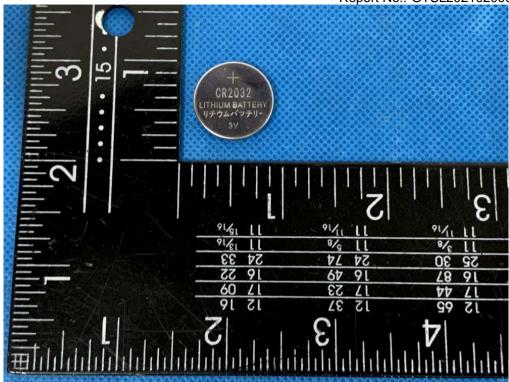
Antenna location











-----End-----