



Report No.:	TW2210021E
Applicant:	ABN SYSTEMS INTERNATIONAL S.A.
Product:	Combo Dongle
Model No.:	ST-SKB811+ST-800, TLL491171
Trademark:	N/A
Test Standards:	FCC Part 15.249
Test result:	It is herewith confirmed and found to comply with the requirements set up by ANSI C63.10 & FCC Part 15 Subpart C, Paragraph 15.249 regulations for the evaluation of electromagnetic compatibility
Approved By	
Termy Tong	
Terry Tang	_
Manager	

Dated:

October 20, 2022

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

## SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



## **Special Statement**:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAS. This approval result is accepted by MRA of APLAC.

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

## CNAS-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAS-CL01 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2017 General Requirements) for the Competence of testing Laboratories.

## FCC-Registration No.: 744189

The 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 our files. Registration No.: 744189.

## Industry Canada (IC) — Registration No.: 5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

## A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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#### 1.0 General Details

1.1 Test Lab Details

SHENZHEN TIMEWAY TESTING LABORATORIES. Name: Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China Telephone: (755) 83448688 Fax: (755) 83442996 Site on File with the Federal Communications Commission - United Sates Registration Number: 744189 For 3m Anechoic Chamber 1.2 Applicant Details ABN SYSTEMS INTERNATIONAL S.A. Applicant: Address: Str. Marinarilor, nr. 31, Sector 1 Bucuresti, Romania Telephone: --Fax: \_\_\_

1.3 Description of EUT

Product:	Combo Dongle
Manufacturer:	Star Technology Industrial Co., Ltd.
Address:	Room 2102, Block 1st, Yi Luan Building, Xixiang Road 230, BaoAn District,
	Shenzhen, China
Trademark:	N/A
Model Number:	ST-SKB811+ST-800
Additional Model Name	TLL491171
Rating:	DC5.0V (Hosted from USB Port)
Modulation Type:	GFSK
<b>Operation Frequency:</b>	2402-2480MHz
Channel Number:	40
Channel Separation:	2MHz
Hardware Version:	V1.0
Software Version:	7508
Serial No.:	TL71D
Antenna Designation	PCB antenna with gain -2.36dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 2 Samples

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1.5 Test Duration 2022-10-09 to 2022-10-20

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB Radiated Emissions below 1GHz Uncertainty =4.7dB Radiated Emissions above 1GHz Uncertainty =6.0dB Conducted Power Uncertainty =6.0dB Occupied Channel Bandwidth Uncertainty =5% Conducted Emissions Uncertainty =3.6dB Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

Andy - Xing

The sample tested by

Print Name: Andy Xing

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2022-07-15	2023-07-14
LISN	R&S	EZH3-Z5	100294	2022-07-18	2023-07-17
LISN	R&S	EZH3-Z5	100253	2022-07-18	2023-07-17
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2022-07-18	2023-07-17
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17
Spectrum	R&S	FSIQ26	100292	2022-07-15	2023-07-14
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2024-07-17
Power meter	Anritsu	ML2487A	6K00003613	2022-07-18	2023-07-17
Power sensor	Anritsu	MA2491A	32263	2022-07-18	2023-07-17
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25
EMI Test Receiver	RS	ESVB	826156/011	2022-07-15	2023-07-14
EMI Test Receiver	RS	ESCS 30	834115/006	2022-07-15	2023-07-14
Spectrum	HP/Agilent	E4407B	MY50441392	2022-07-15	2023-07-14
Spectrum	RS	FSP	1164.4391.38	2022-07-15	2023-07-14
RF Cable	Zhengdi	ZT26-NJ-NJ-8M/FA		2022-07-15	2023-07-14
RF Cable	Zhengdi	7m		2022-07-15	2023-07-14
Pre-Amplifier	Schwarebeck	BBV9743	#218	2022-07-15	2023-07-14
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2022-07-15	2023-07-14
LISN	SCHAFFNER	NNB42	00012	2022-08-18	2023-07-17

#### 2.2 Automation Test Software

For Conducted Emission Test

Name	Version	
EZ-EMC	Ver.EMC-CON 3A1.1	

#### For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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adopt any other remedies which may be appropriate.



#### **3.0** Technical Details

#### 3.1 Summary of test results

The EUT has been tested according to the following specifications:			
Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph 15.207	Conducted Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(a) & 15.249(b) Limit	Field Strength of Fundamental	Pass	Complies
FCC Part 15, Paragraph 15.209	Radiated Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.249(d) Limit	Band Edge Test	Pass	Complies

#### 3.2 Test Standards

FCC Part 15 Subpart C, Paragraph 15.249 , ANSI C63.4 :2014 and ANSI C63.10 :2013

#### 4.0 EUT Modification

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES

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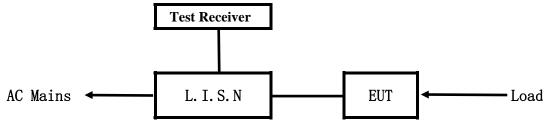
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#### 5. Power Line Conducted Emission Test

5.1 Schematics of the test



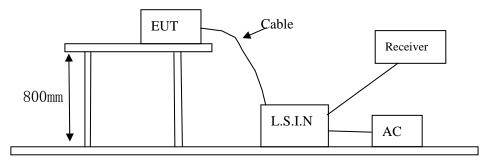
EUT: Equipment Under Test

5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum from 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10 –2013.

Test Voltage: 120V~, 60Hz

Block diagram of Test setup



5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below. 40 channels are provided to the EUT

Device	Manufacturer	Model	FCC ID
Combo Donalo	Stor Technology Industrial Co. 1 td	ST-SKB811+ST-800,	2A74I-TLL4
Combo Dongle	Star Technology Industrial Co., Ltd.	TLL491171	91171D

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B. Internal Device

2.				
	Device	Manufacturer	Model	FCC ID/DOC
	N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
PC	DELL	P54G	

5.4 EUT Operating Condition Operating condition is according to ANSI C63.10-2013

A Setup the EUT and simulators as shown on follow

B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (dB µ V)				
(MHz)	Quasi-peak Level	Average Level			
$0.15~\sim~0.50$	66.0~56.0*	56.0~46.0*			
$0.50~\sim~5.00$	56.0	46.0			
$5.00 \sim 30.00$	60.0	50.0			

Notes: 1. \*Decreasing linearly with logarithm of frequency.

2. The tighter limit shall apply at the transition frequencies

#### 5.6 Test Results:

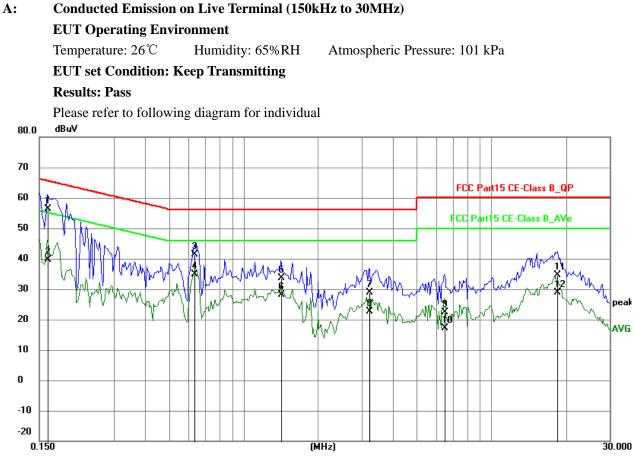
Pass

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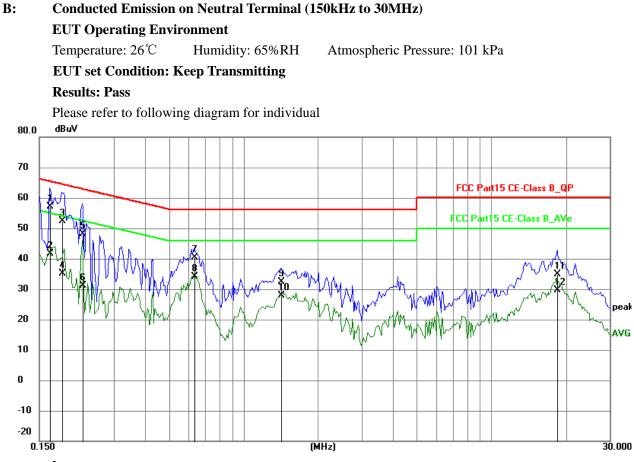


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1617	46.67	9.78	56.45	65.38	-8.93	QP	Ρ
2	0.1617	29.75	9.78	39.53	55.38	-15.85	AVG	Ρ
3	0.6336	31.50	9.78	41.28	56.00	-14.72	QP	Ρ
4	0.6336	25.02	9.78	34.80	46.00	-11.20	AVG	Ρ
5	1.4136	23.91	9.79	33.70	56.00	-22.30	QP	Ρ
6	1.4136	18.31	9.79	28.10	46.00	-17.90	AVG	Ρ
7	3.2223	18.93	9.85	28.78	56.00	-27.22	QP	Ρ
8	3.2223	12.70	9.85	22.55	46.00	-23.45	AVG	Ρ
9	6.4671	12.36	9.99	22.35	60.00	-37.65	QP	Р
10	6.4671	7.18	9.99	17.17	50.00	-32.83	AVG	Ρ
11	18.4908	24.01	10.59	34.60	60.00	-25.40	QP	Ρ
12	18.4908	18.39	10.59	28.98	50.00	-21.02	AVG	Ρ

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No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1655	47.29	9.77	57.06	65.18	-8.12	QP	Р
2	0.1655	31.89	9.77	41.66	55.18	-13.52	AVG	Р
3	0.1850	42.63	9.76	52.39	64.26	-11.87	QP	Р
4	0.1850	25.28	9.76	35.04	54.26	-19.22	AVG	Р
5	0.2241	38.33	9.75	48.08	62.67	-14.59	QP	Р
6	0.2241	21.41	9.75	31.16	52.67	-21.51	AVG	Р
7	0.6336	30.72	9.78	40.50	56.00	-15.50	QP	Р
8	0.6336	24.41	9.78	34.19	46.00	-11.81	AVG	Р
9	1.4175	22.67	9.79	32.46	56.00	-23.54	QP	Р
10	1.4175	18.07	9.79	27.86	46.00	-18.14	AVG	Р
11	18.4556	24.27	10.59	34.86	60.00	-25.14	QP	Ρ
12	18.4556	19.04	10.59	29.63	50.00	-20.37	AVG	Ρ

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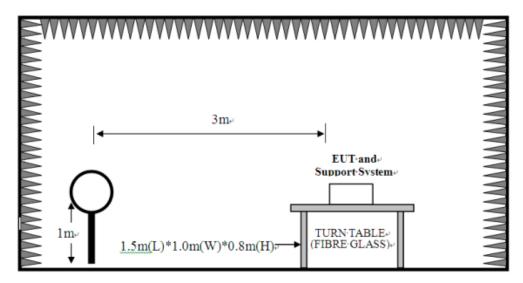


#### 6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 kHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz (Note: for Fundamental frequency radiated emission measurement, RBW=3MHz, VBW=10MHz). Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) The antenna polarization: Vertical polarization and Horizontal polarization.

#### Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz



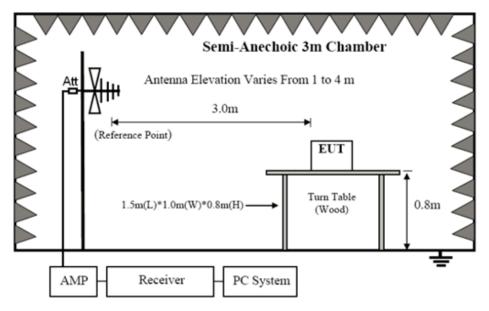
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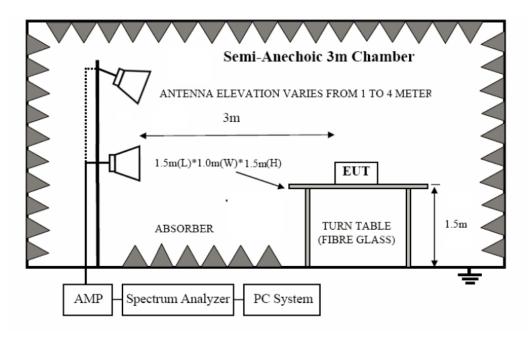
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For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



6.2 Configuration of The EUT Same as section 5.3 of this report

#### 6.3 EUT Operating Condition

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Same as section 5.4 of this report.

#### 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

### A FCC Part 15 Subpart C Paragraph 15.249(a) Limit

Fundamental Frequency	Field Stre	ength of Fundame	ntal (3m)	Field S	trength of Harmo	nics (3m)
(MHz)	mV/m	dBuV/m		uV/m	//m dBuV/m	
2400-2483.5	50	94 (Average)	114 (Peak)	500	54 (Average)	74 (Peak)

Note: 1. RF Field Strength  $(dBuV) = 20 \log RF$  Voltage (uV)

2.Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

3. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

#### B. Frequencies in restricted band are complied to limit on Paragraph 15.209.

-	=	
Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
0.009-0.490	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-80	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

te: 1. RF Voltage (dBuV) =  $20 \log \text{RF Voltage (uV)}$ 

2. In the Above Table, the tighter limit applies at the band edges.

3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.

5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.

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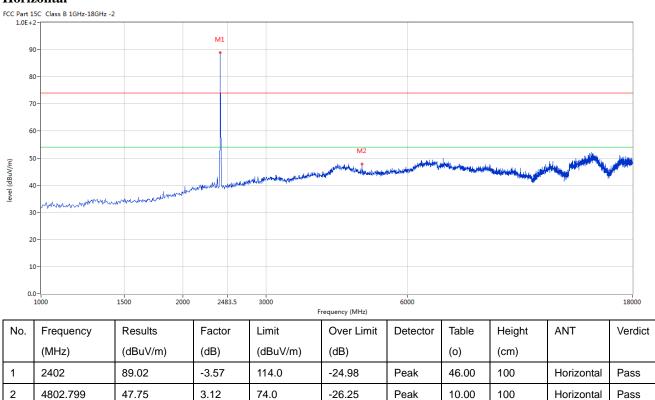
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# 6.5 Test resultA Fundamental & Harmonics Radiated Emission Data

Please refer to the following test plots for details: Low Channel-2402MHz

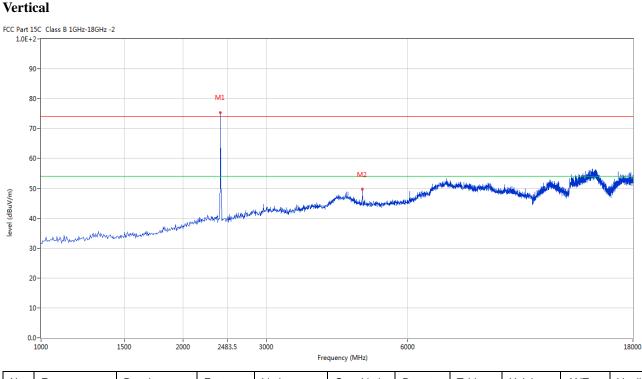
#### Horizontal



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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2402	75.33	-3.57	114.0	-38.67	Peak	191.00	100	Vertical	Pass
2	4802.799	49.75	3.12	74.0	-24.25	Peak	152.00	100	Vertical	Pass

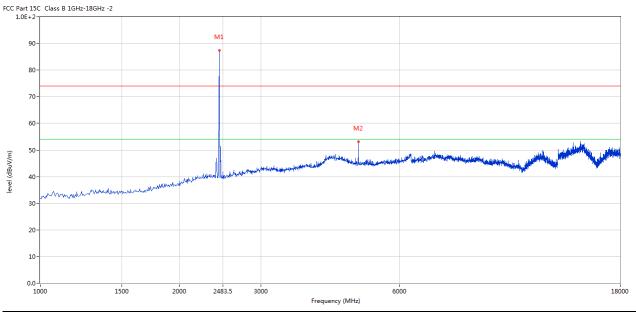
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### Please refer to the following test plots for details: Middle Channel-2440MHz

#### Horizontal

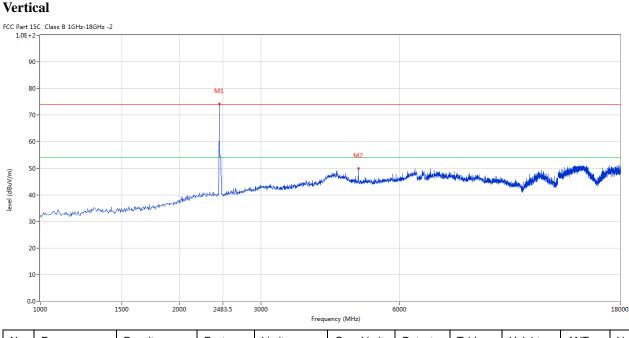


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440	87.34	-3.57	114.0	-26.66	Peak	60.00	100	Horizontal	Pass
2	4883.529	53.16	3.20	74.0	-20.84	Peak	330.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2440	74.22	-3.57	114.0	-39.78	Peak	271.00	100	Vertical	Pass
2	4879.280	49.93	3.20	74.0	-23.07	Peak	150.00	100	Vertical	Pass

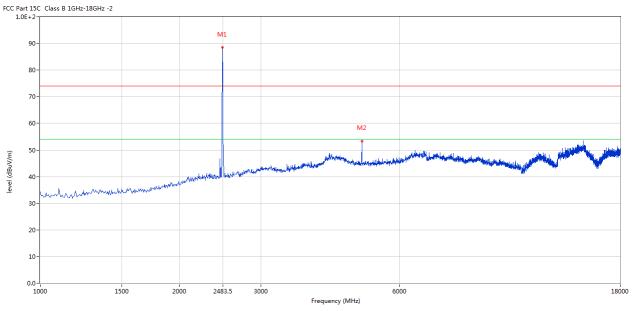
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#### Please refer to the following test plots for details: High Channel-2480MHz

#### Horizontal

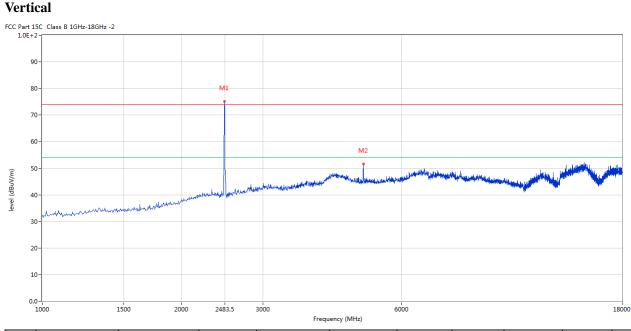


No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	88.47	-3.57	114.0	-25.53	Peak	344.00	100	Horizontal	Pass
2	4968.508	53.33	3.38	74.0	-20.67	Peak	360.00	100	Horizontal	Pass

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No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2480	75.17	-3.57	114.0	-38.83	Peak	298.00	100	Vertical	Pass

Note: (2) Emission Level = Reading Level + Antenna Factor + Cable Loss-Amplifier

(3)Margin=Emission-Limits

- (4)According to section 15.35(b), the peak limit is 20dB higher than the average limit
- (5) For test purpose, keep EUT continuous transmitting
- (5)For emission above 18GHz and Below 30MHz, It is only the floor noise. No necessary to take down.
- (6) the measured PK value less than the AV limit.

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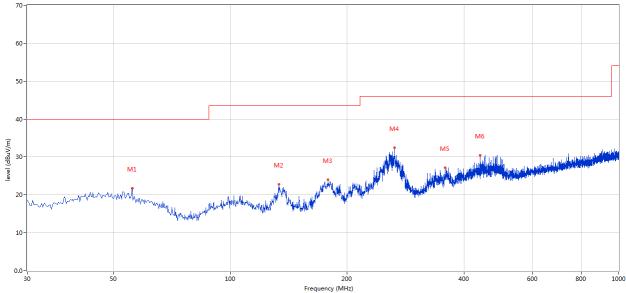
## B. General Radiated Emission Data Radiated Emission In Horizontal (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### Results: Pass

Please refer to following diagram for individual

FCC\_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	55.941	21.74	-12.00	40.0	-18.26	Peak	21.00	200	Horizontal	Pass
2	133.279	22.80	-16.99	43.5	-20.70	Peak	294.00	200	Horizontal	Pass
3	178.615	23.99	-15.43	43.5	-19.51	Peak	1.00	200	Horizontal	Pass
4	264.439	32.46	-11.82	46.0	-13.54	Peak	74.00	100	Horizontal	Pass
5	356.808	27.15	-9.50	46.0	-18.85	Peak	235.00	100	Horizontal	Pass
6	439.480	30.46	-8.05	46.0	-15.54	Peak	266.00	200	Horizontal	Pass

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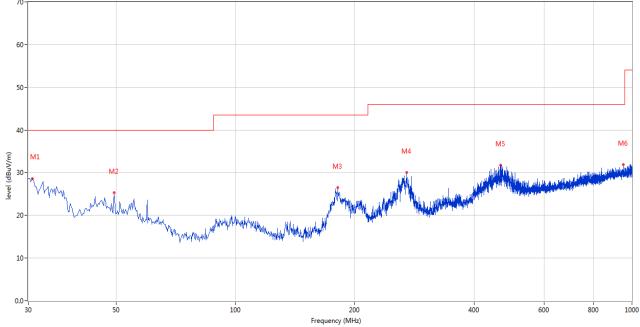
#### Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: Keep Tx transmitting

#### **Results:** Pass

Please refer to following diagram for individual

FCC\_FCC Part 15B Class B 30MHz-1GHz



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	30.727	28.57	-14.51	40.0	-11.43	Peak	0.00	200	Vertical	Pass
2	49.395	25.32	-11.28	40.0	-14.68	Peak	139.00	100	Vertical	Pass
3	181.040	26.54	-15.15	43.5	-16.96	Peak	22.00	100	Vertical	Pass
4	270.015	30.10	-11.75	46.0	-15.90	Peak	23.00	200	Vertical	Pass
5	466.148	31.83	-7.74	46.0	-14.17	Peak	0.00	200	Vertical	Pass
6	949.815	31.96	-1.52	46.0	-14.04	Peak	360.00	200	Vertical	Pass

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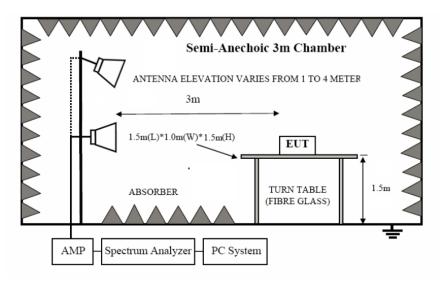


#### 7. Band Edge

#### 7.1 Test Method and test Procedure:

- The EUT was tested according to ANSI C63.10–2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) Set Spectrum as RBW=1MHz, VBW=3MHz and Peak detector used for PK value. RBW=1MHz, VBW=10Hz and Peak detector used for AV value.
- (3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (4) The antenna polarization: Vertical polarization and Horizontal polarization.

#### 7.2 Radiated Test Setup



For the actual test configuration, please refer to the related items - Photos of Testing

#### 7.3 Configuration of The EUT

Same as section 5.3 of this report

### 7.4 EUT Operating Condition

Same as section 5.4 of this report.

#### 7.5 Band Edge Limit

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.

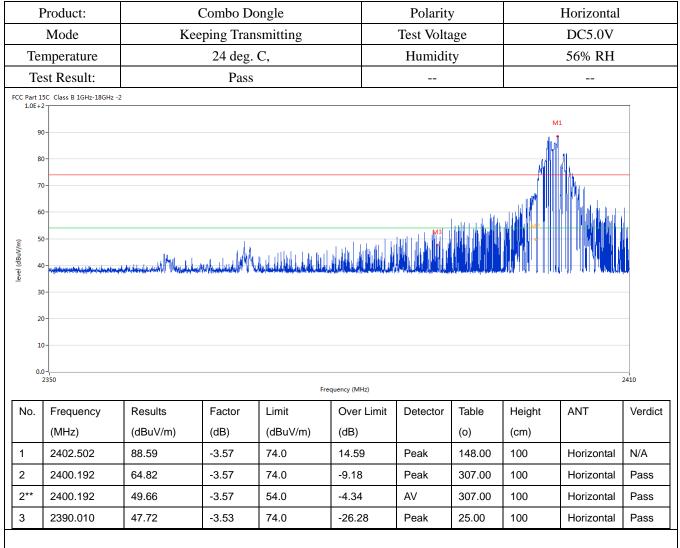
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#### 7.6 Test Result



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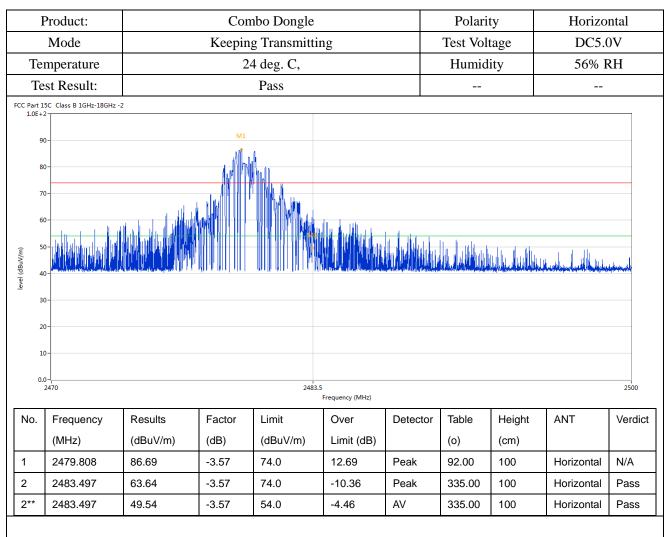
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	Product:		Combo l		Detector		Vertical				
	Mode	Keeping Transmitting				Test Voltage		DC5.0V			
Te	emperature		24 deg. C, Pass				ity	56% RH			
Te	est Result:										
CC Part : 1.0E+	15C Class B 1GHz-18GHz	-2					I				
1.004	72										
ē	90-										
8	80-							M1	L		
7	70-										
e	60-							, MI			
									11 Y I.		
	50							M			
(m/vuo	50-						ort.				
evel (dbuV/m)	40-					I <mark>/13</mark>					
level (abuv/m		anardes, stadted at the States, States, states are	esiteratura un heritado fond	างกระบริษณฑระการสารสรรรมส์รุ่งรอ		13					
level (dbuv/m	40-	a-andre destrict all statistics	eestiven and a state box	างจะเรียว่าน ๆ ค.ศ. 14 มีสาราม มีชิ้งส		413 1					
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	40- 30-	e-andre destated at the distribution of the second	eessioning managed box	างาระประวัตร (ค.ศ.1946) -		hall and the					
Inveil (dpnn/m 2	40 - 90 - 20 -	e-verden blakklater	unitering and a state of the st			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				2410	
Inveil (dpnn/m 2	40 - 30 - 20 - 10 -	e-onder Holdelater liter hiereriere	eesti van in state boe		equency (MHz)					2410	
Inveil (dpnn/m 2	40 - 30 - 20 - 10 -	Results	Factor			Detector	Table	Height	ANT	1	
Level (dbuv/) Evel (dbuv/) t	40	Results (dBuV/m)	Factor (dB)	Fr	equency (MHz)	Γ	Table (o)	Height (cm)	ANT	1	
Level (dbuv/) Evel (dbuv/) t	40- 30- 20- 10- 2350 Frequency			Fr	equency (MHz)	Γ		-	ANT	2410 Verdic	
u/(ngp) 2 2 1 0 No.	40- 30- 20- 10- 2350 Frequency (MHz)	(dBuV/m)	(dB)	Fr Limit (dBuV/m)	equency (MHz) Over Limit (dB)	Detector	(0)	(cm)		Verdic	

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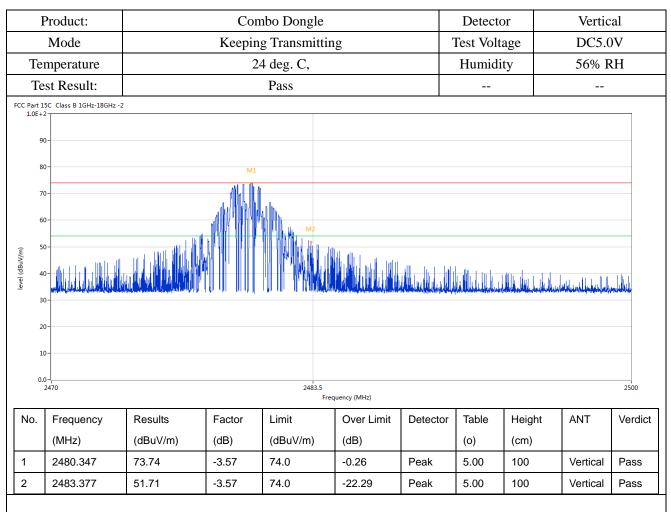




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Note: 1. The PK emission level less than the AV limit. No necessary to record the AV emission level.

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#### 8.0 Antenna Requirement

#### **Applicable Standard**

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 shall be considered sufficient to comply with the provisions of this section.

This product has a PCB antenna. The antenna gain is -2.36dBi Max. It fulfills the requirement of this section. Test Result: Pass

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Product:	Combo Dongle				Test Mode:		Keep transmitting				
Mode	Keeping Transmitting 24 deg. C,				Test Voltage Humidity		DC5.0V				
Temperature							56% RH				
Test Result:		Pass			Detector			Η	РК		
OdB Bandwidth	/	2.164MHz									
Ref Lvl	Delta i		46 dB		BW BW	100 ki 300 ki		RF Att	PF Att 20		
10 dBm	:	2.164328	66 MHz	S	WT 5 ms					dBm	
10						▼1	[T1]	-2			A
0				2		<b>▲</b> 1	[T1]	2.1643	0.46 32866	db MHz	
-10						▼2	[T1]			dBm	
-20			- we		٦			2.4020	4509	GHz	
1MAX	Pm 1	h	η Γ			$\sim$	$\int_{1}^{1}$				1м
-30							<u> </u>	$\sim$			
-40	and a start								m	~~~~	
-50										~~	
-60											
-70											
-80											
-90											
Center 2.402	GHZ		500	kHz/				Sr	an 5	MHz	

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Product:	Con	Combo Dongle					Keep transmitting			
Mode	Keepin	Keeping Transmitting				DC5.0V				
Temperature	2	24 deg. C, Pass 2.188MHz				56% RH				
Test Result:							РК			
20dB Bandwidth	2.									
Ref Lvl	Delta 1		82 dB	RBW VBW	100 kH 300 kH	Iz	7 Att	20 dB		
10 dBm	2	2.188376	75 MHz	SWT	5 ms	s Ur	nit	dBm	L	
10					▼1	[T1]	-29 2.43895	.96 dBm 291 GHz	A	
0				2		[T1]	C 2.18837	.82 dB 675 MHz		
-10			$\bigwedge$			[T1]	2.44005	.52 dBm 511 GHz		
-20		$\sim$	/	\		1			1MA	
-30-D1 -29.	53 dBm	, , , , , , , , , , , , , , , , , , ,				the way	di dan .			
-40								4 Maria		
-50										
-60										
-70										
-80										
-90 Center 2	.44 GHz		500	kHz/			Spa	ın 5 MHz		
Date: 14	4.OCT.2022 13	:45:19								

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Combo Dongle				Test Mode:		Keep transmitting			
Keeping Transmitting 24 deg. C,				Test Voltage Humidity		DC5.0V 56% RH			
2.									
Delta 1		28 dB	RBW VBW			F Att	20 dB		
2	2.214428	86 MHz	SWT	5 ms	s U	nit	dBm	L	
				<b>v</b> 1	[T1]	-29 2.47893	.72 dBm 287 GHz	A	
		2		<b>▲</b> 1	[T1]	0 2.21442	.28 dB 886 MHz		
				▼ <sub>2</sub>	<u>[T1]</u>	-9 2.48004	. <u>21 dBm</u> 509 GHz		
	مىسى م	/	<u> </u>		<u> </u>			1MA	
21 dBm	V <sup>-</sup>								
					/ر				
~~~									
48 GHz		500 k	Hz/			Spa	n 5 MHz		
	Keepin 2. 2. Delta 1 2 2 2 2 2 3 4 4 3 4 4 5 4 4 5 4 5 4 5 4 5 4 5 4 5	Keeping Transmit 24 deg. C, Pass 2.214MHz Delta 1 [T1] 0. 2.214428	Keeping Transmitting     24 deg. C,     Pass     2.214MHz     Delta 1 [T1]     0.28 dB     2.21442886 MHz	Keeping Transmitting   Teles     24 deg. C,   1     Pass   2.214MHz     Delta 1 [T1]   RBW     0.28 dB   VBW     2.21442886 MHz   SWT	Keeping Transmitting   Test Voltage     24 deg. C,   Humidity     Pass   Detector     2.214MHz      Delta 1 [T1]   RBW   100 kF     0.28 dB   VBW   300 kF     2.21442886 MHz   SWT   5 ms     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system     Image: Switch of the system   Image: Switch of the system   Image: Switch of the system	Keeping Transmitting   Test Voltage     24 deg. C,   Humidity     Pass   Detector     2.214MHz      Delta 1 [T1]   RBW   100 kHz     0.28 dB   VEW   300 kHz     2.21442886 MHz   SWT   5 ms   U     1   [T1]   **   **     2.21442886 MHz   SWT   5 ms   U     1   [T1]   **   **     2.21442886 MHz   SWT   5 ms   U     1   [T1]   **   **   **     2   **   **   **   **     2   **   **   **   **     2   **   **   **   **     2   **   **   **   **     1   **   **   **   **     2   **   **   **   **     1   **   **   **   **     2   **   **   **   **     1   **   **   **   **	Keeping Transmitting Test Voltage DC   24 deg. C, Humidity 56%   Pass Detector H   2.214MHz  Image: Constraint of the second secon	Keeping Transmitting     Test Voltage     DC5.0V       24 deg. C,     Humidity     56% RH       Pass     Detector     PK       2.214MHz         Delta 1 [T1]     RBW     100 kHz     RF Att     20 dB       0.28 dB     VBW     300 kHz     RF Att     20 dB       2.21442886 MHz     SWT     5 ms     Unit     dBm       2.21442886 MHz     SWT     5 ms     Unit     dBm       2.47893287 GHz      -2     -2     -2       2.47893287 GHz       -2     -2     -2       2.21442886 MHz     SWT     5 ms     Unit     dBm     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2     -2	

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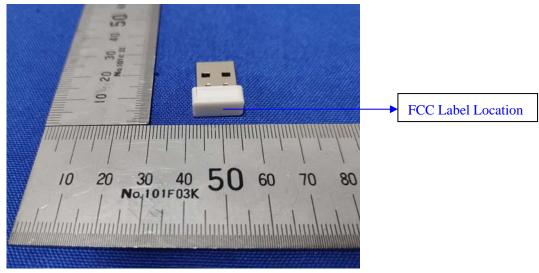
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#### 10.0 FCC ID Label

#### FCC ID: 2A74I-TLL491171D

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

#### Mark Location:



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#### 11.0 Photo of testing

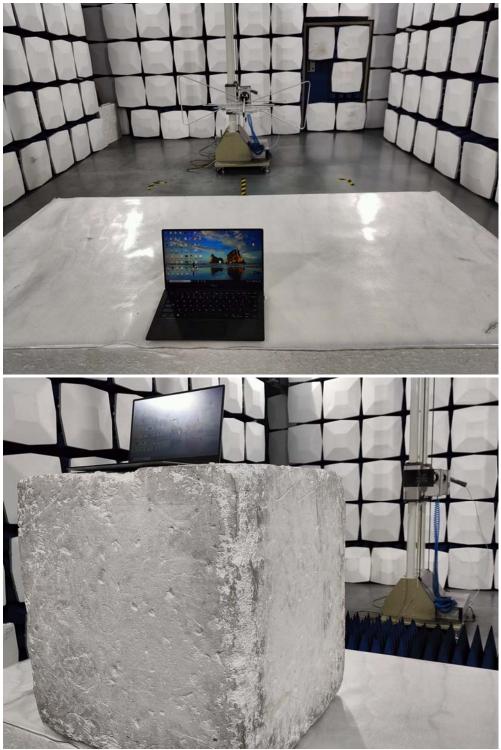
11.1 Conducted test View--



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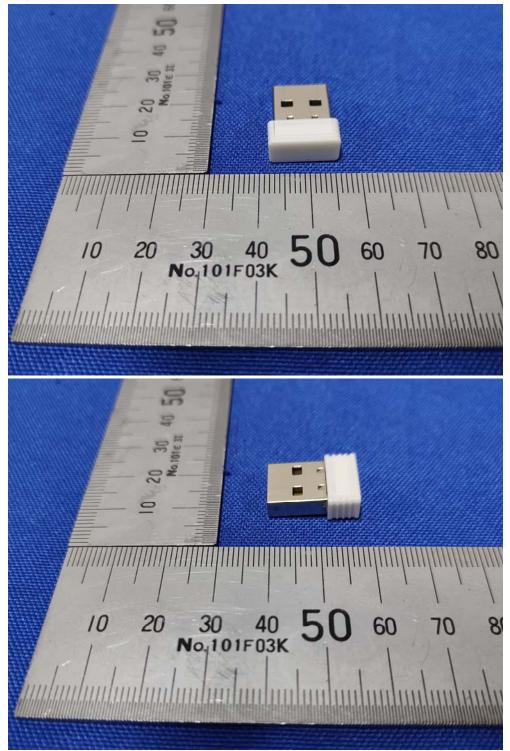
Radiated emission test view



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11.2 Photographs – EUT

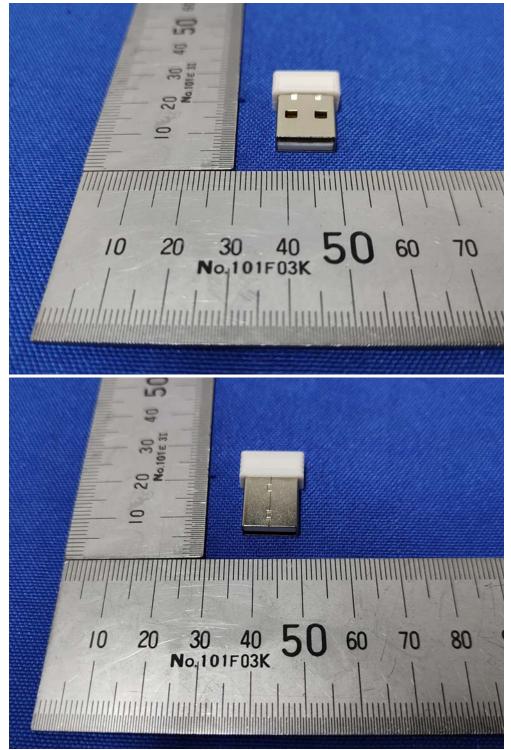


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Photographs – EUT

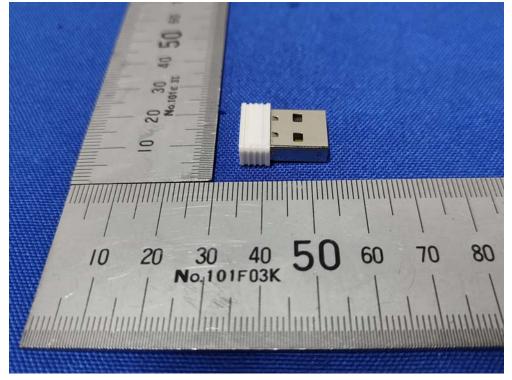


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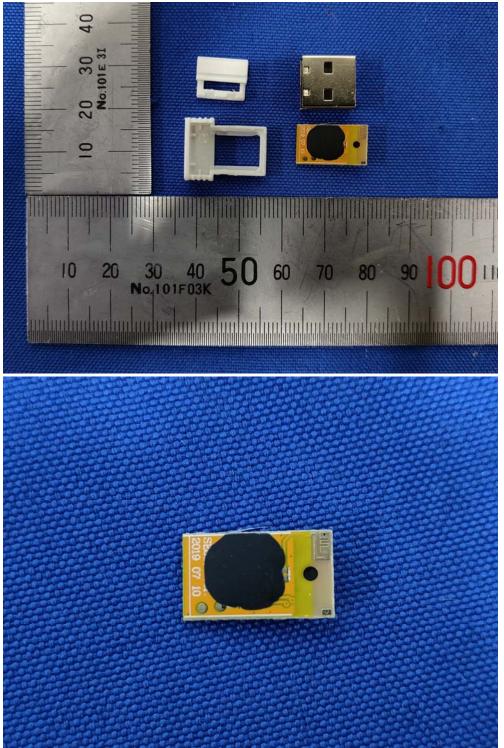
Photographs-EUT



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Photographs - EUT

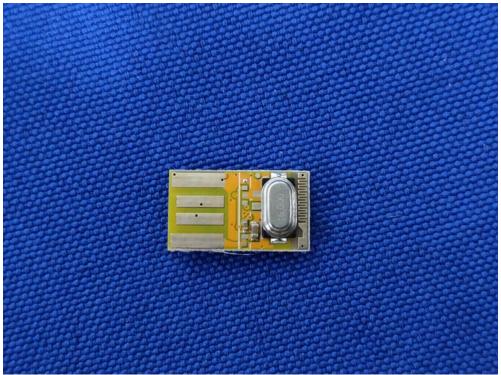


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---End of the Report--

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