TCT 通测检测 TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	2AVYW-REMOTE
Test Report No..... :	TCT240402E904
Date of issue..... :	Apr. 15, 2024
Testing laboratory ..... :	SHENZHEN TONGCE TESTING LAB
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China
Applicant's name..... :	TOPDON TECHNOLOGY Co., Ltd.
Address..... :	Unit 2005 20/F, Qianhai Shimao Tower, Qianhai Shenzhen-Hong kong Cooperation Zone, Shenzhen 518052, China
Manufacturer's name ... :	TOPDON TECHNOLOGY Co., Ltd.
Address..... :	Unit 2005 20/F, Qianhai Shimao Tower, Qianhai Shenzhen-Hong kong Cooperation Zone, Shenzhen 518052, China
Standard(s) ..... :	FCC CFR Title 47 Part 15 Subpart E Section 15.407 KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Test item description ..... :	Smart Automotive Diagnostic System
Trade Mark ..... :	TOPDON
Model/Type reference..... :	Phoenix XLink
Rating(s)..... :	Adapter Information: MODEL: PSYB0502500 INPUT: AC 100-240V, 50/60Hz, 0.6A Max OUTPUT: DC 5.0V, 2.5A, 12.5W Rechargeable Li-ion Battery DC 3.8V
Date of receipt of test item ..... :	Apr. 02, 2024
Date (s) of performance of test..... :	Apr. 02, 2024 ~ Apr. 15, 2024
Tested by (+signature) ... :	Aaron Mo
Check by (+signature).... :	Beryl Zhao
Approved by (+signature):	Tomsin

General disclaimer:

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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

1. General Product Information

1.1. EUT description

Test item description .....:	Smart Automotive Diagnostic System
Model/Type reference.....:	Phoenix XLink
Sample Number.....:	TCT240402E903-0101
Operation Frequency.....:	Band 1: 5150 MHz -5250 MHz Band 3: 5725 MHz -5850 MHz
Channel Bandwidth.....:	802.11a: 20MHz 802.11n: 20MHz, 40MHz 802.11ac: 20MHz, 40MHz, 80MHz
Modulation Technology .....:	Orthogonal Frequency Division Multiplexing(OFDM)
Modulation Type.....:	256QAM, 64QAM, 16QAM, BPSK, QPSK
Antenna Type.....:	Internal Antenna
Antenna Gain.....:	1dBi
Rating(s).....:	Adapter Information: MODEL: PSYB0502500 INPUT: AC 100-240V, 50/60Hz, 0.6A Max OUTPUT: DC 5.0V, 2.5A, 12.5W Rechargeable Li-ion Battery DC 3.8V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

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1.3. Test Frequency

Band 1

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180	38	5190	42	5210
40	5200	46	5230		
48	5240				

Band 3

20MHz		40MHz		80MHz	
Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745	151	5755	155	5775
157	5785	159	5795		
165	5825				

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

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2. Test Result Summary

Requirement	CFR 47 Section	Result
Antenna requirement	§15.203	PASS
AC Power Line Conducted Emission	§15.207	PASS
Maximum Conducted Output Power	§15.407(a)	PASS
6dB Emission Bandwidth	§15.407(e)	PASS
26dB Emission Bandwidth& 99% Occupied Bandwidth	§15.407(a)	PASS
Power Spectral Density	§15.407(a)	PASS
Restricted Bands around fundamental frequency	§15.407(b)	PASS
Radiated Emission	§15.407(b)	PASS
Frequency Stability	§15.407(g)	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

5.For the band 5.15-5.25GHz, EUT meet the requirements of 15.407(a)(ii).

6. Those test results (Conducted Emission, Maximum Conducted Output Power, 6dB Emission Bandwidth, 26dB Emission Bandwidth&99% Occupied Bandwidth, Power Spectral Density, Band edge, Frequency Stability) was based on FCC ID: 2AVYW-REMOTE; Change shell material of EUT.

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3. General Information

3.1. Test environment and mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	56 % RH
Atmospheric Pressure:	1010 mbar
Test Mode:	
Engineering mode:	Keep the EUT in continuous transmitting by select channel and modulations
The sample was placed 0.8m/1.5m for blow/above 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.	

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.	
Mode	Data rate
802.11a	6 Mbps
802.11n(HT20)	6.5 Mbps
802.11n(HT40)	13.5 Mbps
802.11ac(VHT20)	6.5 Mbps
802.11ac(VHT40)	13.5 Mbps
802.11ac(VHT80)	29.3 Mbps

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3.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

3. For conducted measurements (Output Power, Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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4. Facilities and Accreditations

4.1. Facilities

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

- FCC - Registration No.: 645098

  SHENZHEN TONGCE TESTING LAB

  Designation Number: CN1205

  The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

  SHENZHEN TONGCE TESTING LAB

  CAB identifier: CN0031

  The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

4.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4.3. Measurement Uncertainty

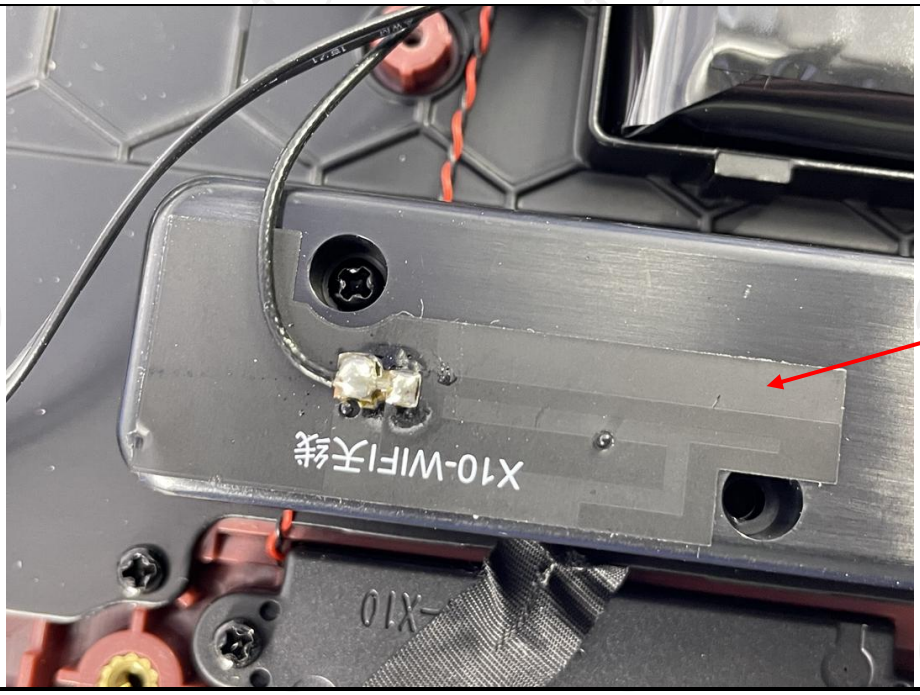
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	± 3.10 dB
2	RF power, conducted	± 0.12 dB
3	Spurious emissions, conducted	± 0.11 dB
4	All emissions, radiated(<1 GHz)	± 4.56 dB
5	All emissions, radiated(1 GHz - 18 GHz)	± 4.22 dB
6	All emissions, radiated(18 GHz- 40 GHz)	± 4.36 dB

5. Test Results and Measurement Data

5.1. 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.	
E.U.T Antenna:	
The WIFI antenna is internal antenna which permanently attached, and the best case gain of the antenna is 1dBi.	



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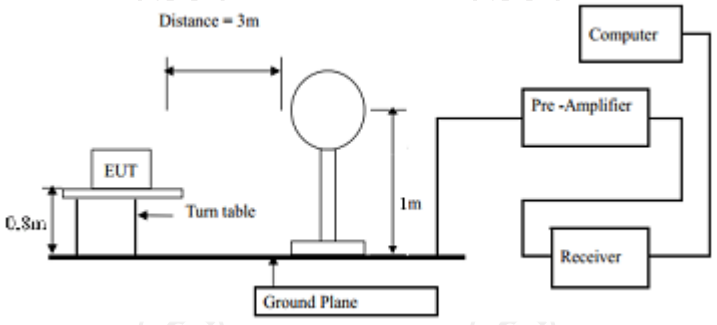
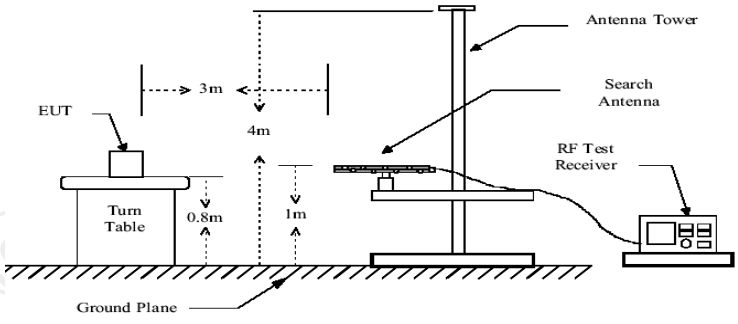
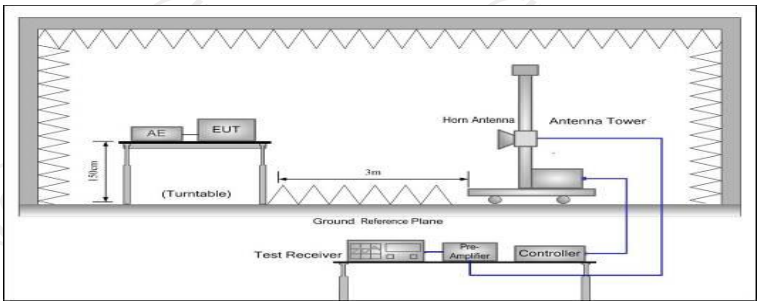
5.2. Unwanted Emission

5.2.1. Test Specification

<table>
<tr><td>Test Requirement:</td><td>FCC CFR47 Part 15 Section 15.407 & 15.209 & 15.205</td></tr>
<tr><td>Test Method:</td><td>KDB 789033 D02 v02r01</td></tr>
<tr><td>Frequency Range:</td><td>9kHz to 40GHz</td></tr>
<tr><td>Measurement Distance:</td><td>3 m</td></tr>
<tr><td>Antenna Polarization:</td><td>Horizontal & Vertical</td></tr>
<tr><td>Operation mode:</td><td>Transmitting mode with modulation</td></tr>
<tr><td>Receiver Setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>9kHz- 150kHz</td><td>Quasi-peak</td><td>200Hz</td><td>1kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>150kHz-30MHz</td><td>Quasi-peak</td><td>9kHz</td><td>30kHz</td><td>Quasi-peak Value</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:</td><td>Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,
<table>
<tr><td>Frequency</td><td>Field Strength (microvolts/meter)</td><td>Measurement Distance (meters)</td></tr>
<tr><td>0.009-0.490</td><td>2400/F(KHz)</td><td>300</td></tr>
<tr><td>0.490-1.705</td><td>24000/F(KHz)</td><td>30</td></tr>
<tr><td>1.705-30</td><td>30</td><td>30</td></tr>
<tr><td>30-88</td><td>100</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>3</td></tr>
</table>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Detector</td></tr>
<tr><td rowspan="2">Above 1G</td><td>74.0</td><td>Peak</td></tr>
<tr><td>54.0</td><td>Average</td></tr>
</table>
</td></tr>
<tr><td>Test setup:</td><td>For radiated emissions below 30MHz


30MHz to 1GHz</td></tr>
</table>

<table>
<tr><td></td><td> 

Above 1GHz

</td></tr>
<tr><td>Test Procedure:</td><td>1. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter camber. The table was rotated 360 degrees todetermine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower.
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 thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatablewas turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasi-peak or average method as specified andthen reported in a data sheet.</td></tr>
<tr><td>Test results:</td><td>PASS</td></tr>
</table>

5.2.2. Test Instruments

Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
EMI Test Receiver	R&S	ESIB7	100197	Jun. 29, 2024
Spectrum Analyzer	R&S	FSQ40	200061	Jun. 29, 2024
Spectrum Analyzer	Agilent	N9020A	MY49100619	Jan. 31, 2025
Pre-amplifier	SKET	LNPA_0118G-45	SK2021012102	Jan. 31, 2025
Pre-amplifier	SKET	LNPA_1840G-50	SK202109203500	Jun. 27, 2024
Pre-amplifier	HP	8447D	2727A05017	Jul. 02, 2024
Loop antenna	Schwarzbeck	FMZB1519B	00191	Jul. 01, 2024
Broadband Antenna	Schwarzbeck	VULB9163	340	Jul. 01, 2024
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Jul. 01, 2024
Horn Antenna	Schwarzbeck	BBHA 9170	00956	Feb. 02, 2025
Coaxial cable	SKET	RC-18G-N-M	/	Jan. 31, 2025
Coaxial cable	SKET	RC_40G-K-M	/	Jan. 31, 2025
Antenna Mast	Keleto	CC-A-4M	/	/
EMI Test Software	Shurple Technology	EZ-EMC	/	/

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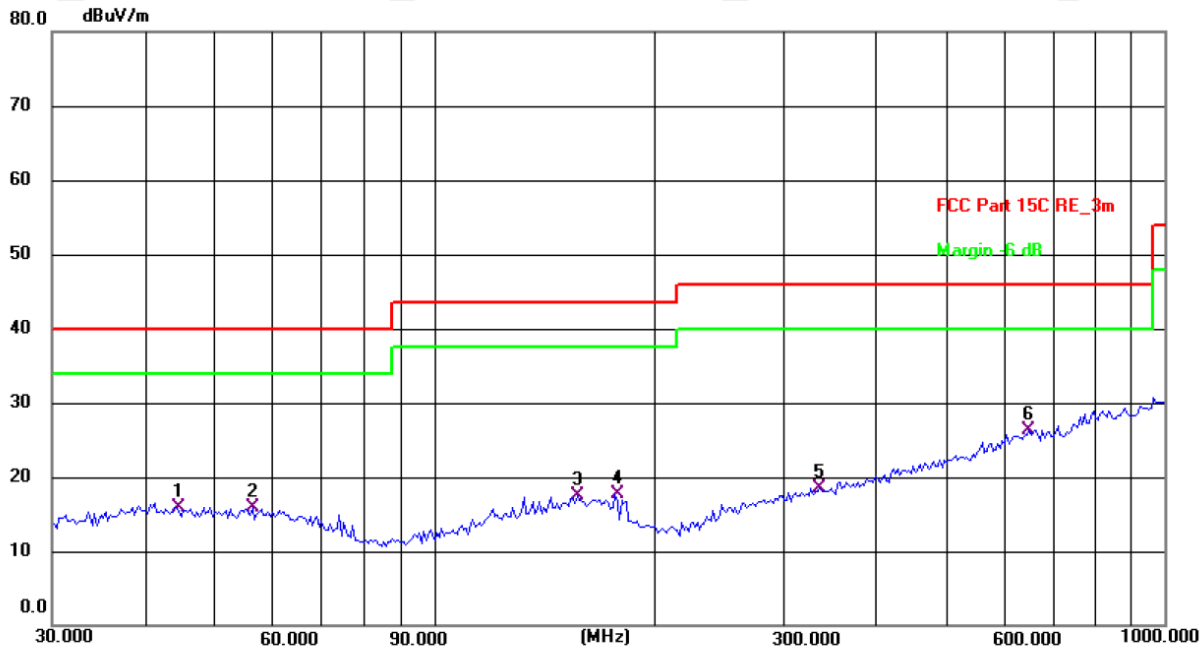
5.2.3. Test Data

Please refer to following diagram for individual

Below 1GHz

Horizontal:

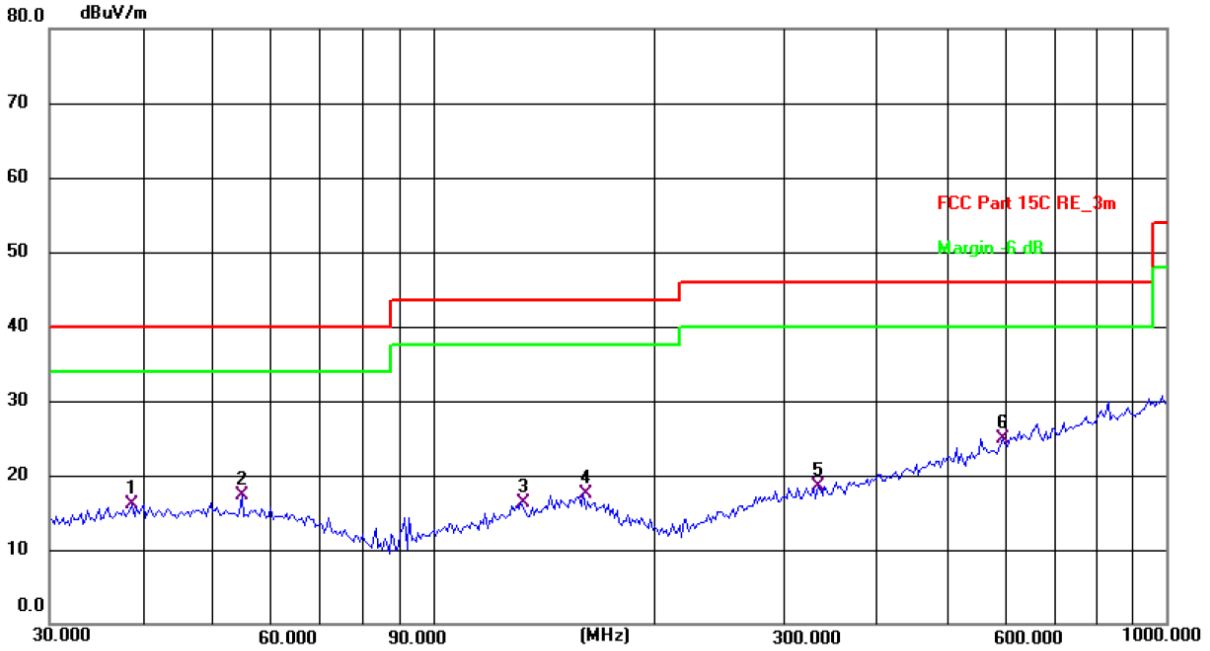


Site: 3m Anechoic Chamber Polarization: ***Horizontal*** Temperature: 25.3(C) Humidity: 45 %

Limit: FCC Part 15C RE_3m Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	44.4308	28.53	-12.57	15.96	40.00	-24.04	QP	P	
2	56.3947	28.81	-12.85	15.96	40.00	-24.04	QP	P	
3	157.0072	28.50	-11.02	17.48	43.50	-26.02	QP	P	
4	176.8878	30.26	-12.49	17.77	43.50	-25.73	QP	P	
5	337.2155	27.89	-9.46	18.43	46.00	-27.57	QP	P	
6 *	651.9415	29.53	-3.26	26.27	46.00	-19.73	QP	P	

Vertical:



Site: 3m Anechoic Chamber Polarization: *Vertical* Temperature: 25.3(C) Humidity: 45 %

Limit: FCC Part 15C RE_3m Power: AC 120 V/60 Hz

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	38.8877	28.58	-12.44	16.14	40.00	-23.86	QP	P	
2	54.8348	30.16	-12.95	17.21	40.00	-22.79	QP	P	
3	131.7574	28.58	-12.37	16.21	43.50	-27.29	QP	P	
4	160.3456	28.53	-11.09	17.44	43.50	-26.06	QP	P	
5	334.8586	28.03	-9.50	18.53	46.00	-27.47	QP	P	
6 *	599.3211	29.23	-4.26	24.97	46.00	-21.03	QP	P	

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 all modulation (802.11a, 802.11n(HT20), 802.11n(HT40), 802.11ac(VHT20), 802.11ac(VHT40), 802.11ac(VHT80), and the worst case Mode (Highest channel and 802.11ac(VHT40)) was submitted only.

3.Measurement (dBμV) = Reading level + Correction Factor , correction Factor= Antenna Factor + Cable loss – Pre-amplifier.

Modulation Type: Band 1									
11a CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	38.22	---	8.02	46.24	---	74	54	-7.76
15540	H	40.10	---	9.87	49.97	---	74	54	-4.03
---	H	---	---	---	---	---	---	---	---
10360	V	38.03	---	8.02	46.05	---	74	54	-7.95
15540	V	39.63	---	9.87	49.50	---	74	54	-4.50
---	V	---	---	---	---	---	---	---	---
11a CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	40.95	---	7.97	48.92	---	74	54	-5.08
15600	H	38.47	---	9.83	48.30	---	74	54	-5.70
---	H	---	---	---	---	---	---	---	---
10400	V	40.28	---	7.97	48.25	---	74	54	-5.75
15600	V	39.35	---	9.83	49.18	---	74	54	-4.82
---	V	---	---	---	---	---	---	---	---
11a CH48: 5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	39.41	---	7.97	47.38	---	74	54	-6.62
15720	H	39.12	---	9.83	48.95	---	74	54	-5.05
---	H	---	---	---	---	---	---	---	---
10480	V	40.03	---	7.97	48.00	---	74	54	-6.00
15720	V	37.25	---	9.83	47.08	---	74	54	-6.92
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	40.74	---	8.02	48.76	---	74	54	-5.24
15540	H	38.95	---	9.87	48.82	---	74	54	-5.18
---	H	---	---	---	---	---	---	---	---
10360	V	40.02	---	8.02	48.04	---	74	54	-5.96
15540	V	37.58	---	9.87	47.45	---	74	54	-6.55
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	38.65	---	7.97	46.62	---	74	54	-7.38
15600	H	39.43	---	9.83	49.26	---	74	54	-4.74
---	H	---	---	---	---	---	---	---	---
10400	V	40.35	---	7.97	48.32	---	74	54	-5.68
15600	V	38.89	---	9.83	48.72	---	74	54	-5.28
---	V	---	---	---	---	---	---	---	---
11n(HT20) CH48: 5240MHz									

Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	38.21	---	7.97	46.18	---	74	54	-7.82
15720	H	37.03	---	9.83	46.86	---	74	54	-7.14
---	H	---	---	---	---	---	---	---	---
10480	V	39.18	---	7.97	47.15	---	74	54	-6.85
15720	V	38.59	---	9.83	48.42	---	74	54	-5.58
---	V	---	---	---	---	---	---	---	---

11n(HT40)CH38: 5190MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10380	H	40.42	---	7.75	48.17	---	74	54	-5.83
15570	H	38.88	---	9.87	48.75	---	74	54	-5.25
---	H	---	---	---	---	---	---	---	---
10380	V	40.71	---	7.75	48.46	---	74	54	-5.54
15570	V	38.30	---	9.87	48.17	---	74	54	-5.83
---	V	---	---	---	---	---	---	---	---
11n(HT40)CH46: 5230MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10460	H	41.87	---	7.97	49.84	---	74	54	-4.16
15690	H	38.65	---	9.83	48.48	---	74	54	-5.52
---	H	---	---	---	---	---	---	---	---
10460	V	41.34	---	7.97	49.31	---	74	54	-4.69
15690	V	38.12	---	9.83	47.95	---	74	54	-6.05
---	V	---	---	---	---	----	---	---	---
11ac(VHT20) CH36: 5180MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10360	H	40.01	---	8.02	48.03	---	74	54	-5.97
15540	H	38.23	---	9.87	48.10	---	74	54	-5.90
---	H	---	---	---	---	---	---	---	---
10360	V	38.97	---	8.02	46.99	---	74	54	-7.01
15540	V	39.52	---	9.87	49.39	---	74	54	-4.61
---	V	---	---	---	---	---	---	---	---
11ac(VHT20) CH40: 5200MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10400	H	40.14	---	7.97	48.11	---	74	54	-5.89
15600	H	38.36	---	9.83	48.19	---	74	54	-5.81
---	H	---	---	---	---	---	---	---	---
10400	V	39.78	---	7.97	47.75	---	74	54	-6.25
15600	V	38.99	---	9.83	48.82	---	74	54	-5.18
---	V	---	---	---	---	---	---	---	---

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11ac(VHT20) CH48: 5240MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10480	H	39.12	---	7.97	47.09	---	74	54	-6.91
15720	H	38.88	---	9.83	48.71	---	74	54	-5.29
---	H	---	---	---	---	---	---	---	---
10480	V	39.71	---	7.97	47.68	---	74	54	-6.32
15720	V	38.66	---	9.83	48.49	---	74	54	-5.51
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH38: 5190MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10380	H	41.01	---	7.75	48.76	---	74	54	-5.24
15570	H	38.32	---	9.87	48.19	---	74	54	-5.81
---	H	---	---	---	---	---	---	---	---
10380	V	39.82	---	7.75	47.57	---	74	54	-6.43
15570	V	39.19	---	9.87	49.06	---	74	54	-4.94
---	V	---	---	---	---	---	---	---	---
11ac(VHT40) CH46: 5230MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10460	H	39.20	---	7.97	47.17	---	74	54	-6.83
15690	H	39.37	---	9.83	49.20	---	74	54	-4.80
---	H	---	---	---	---	---	---	---	---
10460	V	40.21	---	7.97	48.18	---	74	54	-5.82
15690	V	37.82	---	9.83	47.65	---	74	54	-6.35
---	V	---	---	---	---	----	---	---	---
11ac(VHT80) CH42:5210									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
10420	H	40.35	---	7.96	48.31	---	74	54	-5.69
15630	H	38.41	---	9.84	48.25	---	74	54	-5.75
	H	---	---	---	---	---	---	---	---
10420	V	40.87	---	7.96	48.83	---	74	54	-5.17
15630	V	38.09	---	9.84	47.93	---	74	54	-6.07
	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. The highest test frequency is 40GHz.*
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.*

Modulation Type: Band 3									
11a(HT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBuV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
					Peak (dBµV/m)	AV (dBµV/m)			
11490	H	39.38	---	8.09	47.47	---	74	54	-6.53
17235	H	37.66	---	9.67	47.33	---	74	54	-6.67
---	H	---	---	---	---	---	---	---	---
11490	V	41.10	---	8.09	49.19	---	74	54	-4.81
17235	V	37.55	---	9.67	47.22	---	74	54	-6.78
---	V	---	---	---	---	---	---	---	---

11a(HT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
					Peak (dBµV/m)	AV (dBµV/m)			
11570	H	40.48	---	8.10	48.58	---	74	54	-5.42
17355	H	37.30	---	9.65	46.95	---	74	54	-7.05
---	H	---	---	---	---	---	---	---	---
11570	V	38.99	---	8.10	47.09	---	74	54	-6.91
17355	V	36.58	---	9.65	46.23	---	74	54	-7.77
---	V	---	---	---	---	---	---	---	---

11a(HT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
					Peak (dBµV/m)	AV (dBµV/m)			
11650	H	39.64	---	8.12	47.76	---	74	54	-6.24
17475	H	38.20	---	9.62	47.82	---	74	54	-6.18
---	H	---	---	---	---	---	---	---	---
11650	V	40.60	---	8.12	48.72	---	74	54	-5.28
17475	V	37.89	---	9.62	47.51	---	74	54	-6.49
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBµV)	AV reading (dBµV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBµV/m)	AV limit (dBµV/m)	Margin (dB)
					Peak (dBµV/m)	AV (dBµV/m)			
11490	H	40.44	---	8.09	48.53	---	74	54	-5.47
17235	H	37.80	---	9.67	47.47	---	74	54	-6.53
---	H	---	---	---	---	---	---	---	---
11490	V	39.92	---	8.09	48.01	---	74	54	-5.99
17235	V	37.43	---	9.67	47.10	---	74	54	-6.90
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	40.88	---	8.10	48.98	---	74	54	-5.02
17355	H	37.02	---	9.65	46.67	---	74	54	-7.33
---	H	---	---	---	---	---	---	---	---
11570	V	39.63	---	8.10	47.73	---	74	54	-6.27
17355	V	35.99	---	9.65	45.64	---	74	54	-8.36
---	V	---	---	---	---	---	---	---	---

11n(HT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	39.44	---	8.12	47.56	---	74	54	-6.44
17475	H	37.12	---	9.62	46.74	---	74	54	-7.26
---	H	---	---	---	---	---	---	---	---
11650	V	40.32	---	8.12	48.44	---	74	54	-5.56
17475	V	37.01	---	9.62	46.63	---	74	54	-7.37
---	V	---	---	---	---	---	---	---	---

11n(HT40) CH151: 5755MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11510	H	41.94	---	8.09	50.03	---	74	54	-3.97
17265	H	38.25	---	9.67	47.92	---	74	54	-6.08
---	H	---	---	---	---	---	---	---	---
11510	V	41.10	---	8.09	49.19	---	74	54	-4.81
17265	V	37.77	---	9.67	47.44	---	74	54	-6.56
---	V	---	---	---	---	---	---	---	---

11n(HT40) CH159: 5795MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11590	H	40.46	---	8.10	48.56	---	74	54	-5.44
17385	H	37.98	---	9.65	47.63	---	74	54	-6.37
---	H	---	---	---	---	---	---	---	---
11590	V	40.19	---	8.10	48.29	---	74	54	-5.71
17385	V	36.75	---	9.65	46.40	---	74	54	-7.60
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) CH149: 5745MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11490	H	40.11	---	8.09	48.20	---	74	54	-5.80
17235	H	38.95	---	9.67	48.62	---	74	54	-5.38
---	H	---	---	---	---	---	---	---	---
11490	V	40.44	---	8.09	48.53	---	74	54	-5.47
17235	V	37.07	---	9.67	46.74	---	74	54	-7.26
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) CH157: 5785MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11570	H	39.43	---	8.10	47.53	---	74	54	-6.47
17355	H	37.02	---	9.65	46.67	---	74	54	-7.33
---	H	---	---	---	---	---	---	---	---
11570	V	38.92	---	8.10	47.02	---	74	54	-6.98
17355	V	35.51	---	9.65	45.16	---	74	54	-8.84
---	V	---	---	---	---	---	---	---	---

11ac(VHT20) CH165: 5825MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11650	H	40.53	---	8.12	48.65	---	74	54	-5.35
17475	H	37.79	---	9.62	47.41	---	74	54	-6.59
---	H	---	---	---	---	---	---	---	---
11650	V	40.20	---	8.12	48.32	---	74	54	-5.68
17475	V	35.58	---	9.62	45.20	---	74	54	-8.80
---	V	---	---	---	---	---	---	---	---

11ac(VHT40) CH151: 5755MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11510	H	39.40	---	8.09	47.49	---	74	54	-6.51
17265	H	37.99	---	9.67	47.66	---	74	54	-6.34
---	H	---	---	---	---	---	---	---	---
11510	V	40.95	---	8.09	49.04	---	74	54	-4.96
17265	V	38.63	---	9.67	48.3	---	74	54	-5.7
---	V	---	---	---	---	---	---	---	---

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11ac(VHT40) CH159: 5795MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11590	H	39.14	---	8.10	47.24	---	74	54	-6.76
17385	H	36.19	---	9.65	45.84	---	74	54	-8.16
---	H	---	---	---	---	---	---	---	---
11590	V	40.81	---	8.10	48.91	---	74	54	-5.09
17385	V	38.83	---	9.65	48.48	---	74	54	-5.52
---	V	---	---	---	---	---	---	---	---

11ac(VHT80) CH155: 5775MHz									
Frequency (MHz)	Ant. Pol. H/V	Peak reading (dBμV)	AV reading (dBμV)	Correction Factor (dB/m)	Emission Level		Peak limit (dBμV/m)	AV limit (dBμV/m)	Margin (dB)
					Peak (dBμV/m)	AV (dBμV/m)			
11550	H	40.07	---	8.09	48.16	---	74	54	-5.84
17325	H	35.58	---	9.66	45.24	---	74	54	-8.76
---	H	---	---	---	---	---	---	---	---
11550	V	41.40	---	8.09	49.49	---	74	54	-4.51
17325	V	37.68	---	9.66	47.34	---	74	54	-6.66
---	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. The highest test frequency is 40GHz.*
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.*

Appendix B: Photographs of Test Setup

Refer to the test report No. TCT240402E903

Appendix C: Photographs of EUT

Refer to the test report No. TCT240402E903

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

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