



# **RF Test Report**

Applicant : MobileHelp, LLC

Product Type : Tablet Base Station

Trade Name : MobileHelp

Model Number : DC-TBS2-01

Test Specification : FCC 47 CFR PART 15 SUBPART C

ANSI C63.10:2013

Receive Date : Oct. 24, 2018

Test Period : May 09 ~ Jun. 23, 2019

Issue Date : Jun. 25, 2019

# Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade District,
Taoyuan City 33465, Taiwan (R.O.C.)

Tel: +886-3-2710188 / Fax: +886-3-2710190

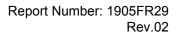
Taiwan Accreditation Foundation accreditation number: 1330

Test Firm MRA designation number: TW0010





**Note:** This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.





**Revision History** 

Rev.	Issue Date	Revisions	Revised By
00	May 21, 2019	Initial Issue.	Nina Lin
01	Jun. 05, 2019	Page 6 Revised Applicant address.	Nina Lin
02	Jun. 25, 2019	Page 30 ~ 33 Added Simultaneous Transmitting.	Nina Lin



Report Number: 1905FR29

Rev.02

# Verification of Compliance

Issued Date: Jun. 25, 2019

Applicant : MobileHelp, LLC

Product Type : Tablet Base Station

Trade Name : MobileHelp

Model Number : DC-TBS2-01

FCC ID : PXT-DC-TBS2-01

EUT Rated Voltage : DC 5 V, 2000 mA

Test Voltage : 120 Vac / 60 Hz

Applicable Standard : FCC 47 CFR PART 15 SUBPART C

ANSI C63.10:2013

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.

No. 140-1, Changan Street, Bade District,

Taoyuan City 33465, Taiwan (R.O.C.)

Tel: +886-3-2710188 / Fax: +886-3-2710190

Taiwan Accreditation Foundation accreditation number: 1330

http://www.atl-lab.com.tw/e-index.htm

A Test Lab Techno Corp. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by A Test Lab Techno Corp. based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Approved By : /

(Manager)

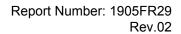
(Fly Lu)

Reviewed By

(Testing Engineer)

(Fric Ou Yang)

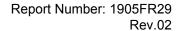
1330





# **TABLE OF CONTENTS**

1	Gen	eral Information	5
	1.1.	Summary of Test Result	5
	1.2.	Measurement Uncertainty	5
2	EUT	Description	6
3	Test	Methodology	7
	3.1.	Mode of Operation	7
	3.2.	EUT Test Step	7
	3.3.	Configuration of Test System Details	8
	3.4.	Test Instruments	9
	3.5.	Test Site Environment	. 10
4	Mea	surement Procedure	. 11
	4.1.	AC Power Line Conducted Emission Measurement	. 11
	4.2.	Radiated Emission Measurement	. 13
	4.3.	Duration of transmission	. 17
	4.4.	20 dB Bandwidth	. 18
	4.5.	Antenna Requirement	. 19
5	Test	Results	. 20
	Anne	ex A. Conducted Emission	. 20
	Anne	ex B. Conducted Test Results	. 22
	Anne	ex C. Radiated Emission Measurement	24





# 1 General Information

# 1.1. Summary of Test Result

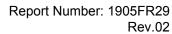
Standard	Item	Results	Remark
15.207(a)	Conducted Emissions Voltage	PASS	
15.231(e)	Radiated Emission Limits	PASS	
15.231	Duration of transmission	PASS	
15.231(c)	15.231(c) 20 dB Bandwidth		
15.203 Antenna Requirement		PASS	

The test results of this report relate only to the tested sample(s) identified in this report.

Standard	Description
CFR47, Part 15, Subpart C	Intentional Radiators
ANSI C63. 10: 2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

# 1.2. Measurement Uncertainty

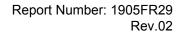
Test Item	Frequency Range	Uncertainty
Conducted Emission	9 kHz ~ 150 kHz	2.7
Conducted Emission	150 kHz ~ 30 MHz	2.7
	9 kHz ~ 30 MHz	1.7
	30 MHz ~ 1000 MHz	5.7
Radiated Emission	1000 MHz ~ 18000 MHz	5.5
	18000 MHz ~ 26500 MHz	4.8
	26500 MHz ~ 40000 MHz	4.8
RF Bandwidth	4.96 %	





# 2 **EUT Description**

Applicant	MobileHelp, LLC 5050 Conference Way N, Suite 125, Boca Raton, Florida 33431, United States	
Manufacturer	Daviscomms (S) Pte Ltd Blk 70 Ubi Crescent #01-07, Ubi Techpark, Singapore 408570, Singapore	
Product	Tablet Base Station	
Trade Name	MobileHelp	
Model Number	DC-TBS2-01	
FCC ID	PXT-DC-TBS2-01	
Frequency Range	433.92 MHz	
Modulation Type	ASK	
Number of Channels	1 Channel	
Antenna Type	FLEX Antenna	
Antenna Max. Gain	1.26 dBi	
Operate Temp. Range	+5 ~ +45 °C	





3 Test Methodology

# 3.1. Mode of Operation

The following test mode(s) were scanned during the preliminary test:

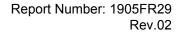
Pre-Test Mode	Pre-Test Mode
Mode 1: Transmit Mode	Mode 1: Transmit Mode
Mode 2: Continuous TX Mode	Mode 2: Continuous TX

ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation.

# 3.2. EUT Test Step

1.	Setup the EUT shown on "Configuration of Test System Details".		
2.	Turn on the power of all equipment.		
3.	The EUT will start to operate function.		

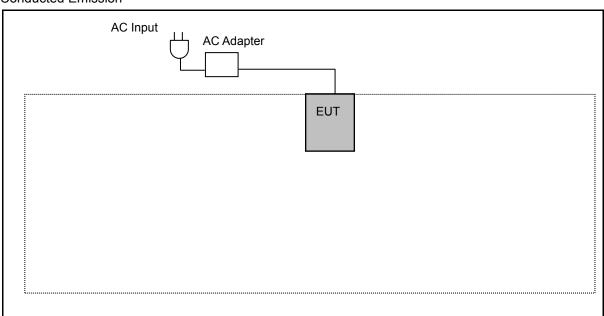
Measurement Software					
No.	Description	Software	Version		
1	Conducted Emission	EZ EMC	1.1.4.3		
2	Radiated Emission	EZ EMC	1.1.4.4		



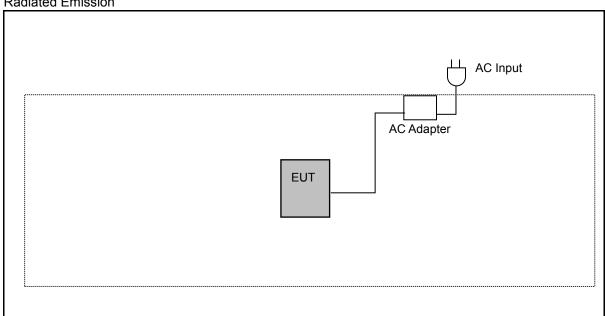


#### **Configuration of Test System Details** 3.3.

# Conducted Emission



# Radiated Emission



	Devices Description						
Product Manufacturer Model Number Serial Number Power Co					Power Cord		
(1)							



Report Number: 1905FR29

Rev.02

# 3.4. Test Instruments

For Conducted Emission Test Period: May 09, 2019

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period		
Test Receiver	R&S	ESCI	100367	05/21/2018	1 year		
LISN	R&S	ENV216	101040	04/03/2019	1 year		
LISN	R&S	ENV216	101041	03/28/2019	1 year		
RF Cable	Woken	00100D1380194M	TE-02-03	05/17/2018	1 year		

For Radiated Emissions

Test Period: May 16 ~ Jun. 23, 2019

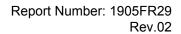
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer (10 Hz~44 GHz)	Keysight	N9010A	MY52221312	01/14/2019	1 year
Pre Amplifier (1~26.5 GHz)	Agilent	8449B	3008A02237	10/16/2018	1 year
Pre Amplifier (100 kHz~1.3 GHz)	Agilent	8447D	2944A11119	01/14/2019	1 year
Broadband Antenna	Schwarzbeck	VULB9168	416	10/19/2018	1 year
Horn Antenna (1~18 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	08/23/2018	1 year
Horn Antenna (18~40 GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	08/07/2018	1 year
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	03/29/2019	1 year
RF Cable	EMCI	EMC104-N-N-6000	TE01-1	02/20/2019	1 year
Microwave Cable	EMCI	EMC104-SM-SM-13000	170814	10/30/2018	1 year
Microwave Cable	EMCI	EMC102-KM-KM-14000	151001	02/20/2019	1 year

For Conducted

Test Period: May 09, 2019

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer (20 Hz~26.5 GHz)	Agilent	N9020A	US47520902	09/25/2018	1 year
Microwave Cable	EMCI	EMC102-SM-SM1500	001	11/21/2018	1 year
Temperature & Humidity Chamber	· I IAICHY		980729	04/16/2018	1 year
Test Site	ATL	TE05	TE05	N.C.R.	

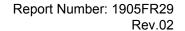
Note: N.C.R. = No Calibration Request.





3.5. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	990





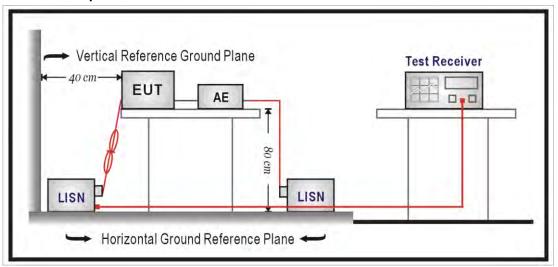
# 4 Measurement Procedure

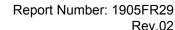
# 4.1. AC Power Line Conducted Emission Measurement

# ■ Limit

Frequency (MHz)	Quasi-peak	Average		
0.15 - 0.5	66 to 56	56 to 46		
0.50 - 5.0	56	46		
5.0 - 30.0	60	50		

# ■ Test Setup







#### ■ Test Procedure

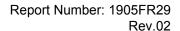
The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50  $\Omega$ // 50 uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50  $\Omega$ // 50 uH coupling impedance with 50 ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40 cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80 cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12 mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150 kHz to 30 MHz then quasi-peak and average measurement was unnecessary.

The AMN shall be placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8 m from the AMN. If the mains power cable is longer than 1 m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4 m. All of interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1 m. All 50  $\Omega$  ports of the LISN shall be resistively terminated into 50  $\Omega$  loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored..





# 4.2. Radiated Emission Measurement

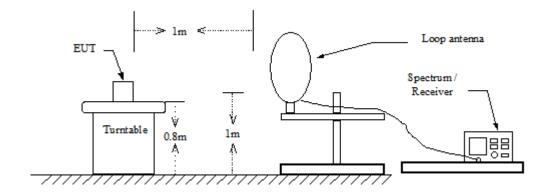
# ■ Limit

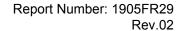
According to §15.231 (e) Intentional radiators may operate at a periodic rate exceeding that specified in paragraph (a) of this section and may be employed for any type of operation, including operation prohibited in paragraph (a) of this section, provided the intentional radiator complies with the provisions of paragraphs (b) through (d) of this section, except the field strength table in paragraph (b) of this section is replaced by the following: Linear interpolations.

Fundamental frequency (MHz)	Field strength of fundamental (microvolts/meter)	Field strength of spurious emission (microvolts/meter)
40.66-40.70	1,000	100
70-130	500	50
130-174	500 to 1,500 <sup>1</sup>	50 to 150 <sup>1</sup>
174-260	1,500	150
260-470	1,500 to 5,000 <sup>1</sup>	150 to 500 <sup>1</sup>
Above 470	5,000	500

# ■ Setup

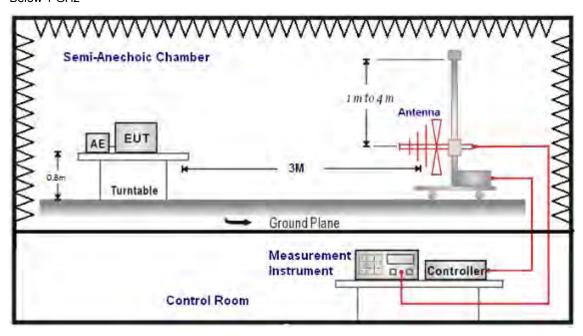
9 kHz ~ 30 MHz



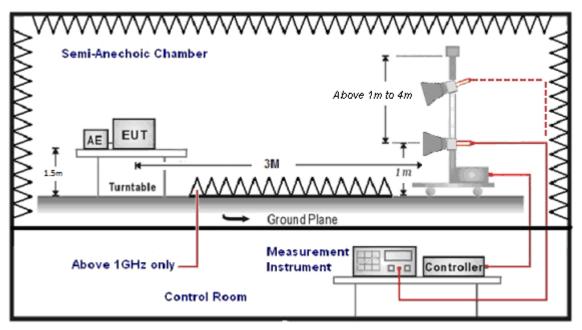


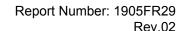


Below 1 GHz



Above 1 GHz







#### **■** Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle >98 % / 1/T for average measurements when Duty cycle <98 %. A nonconductive material surrounded the EUT to supporting the EUT for standing on tree orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20 dB/decade).

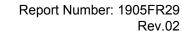
For testing above 1 GHz, the emission level of the EUT in peak mode was 20 dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts pre meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro colts per meter (dBuV/m).





The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

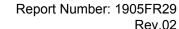
P.S Amplitude is auto calculate in spectrum analyzer.

(2) Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

- (a) For fundamental frequency: Transmitter Output < +30 dBm
- (b) For spurious frequency: Spurious emission limits = fundamental emission limit /10

Data of measurement within this frequency range without mark in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.



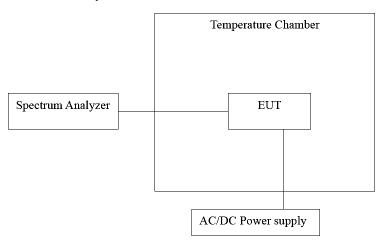


# 4.3. Duration of transmission

### ■ Limit

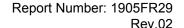
In addition, devices operated under the provisions of this paragraph shall be provided with a means for automatically limiting operation so that the duration of each transmission shall not be greater than one second and the silent period between transmissions shall be at least 30 times the duration of the transmission but in no case less than 10 seconds.

### ■ Test Setup



#### **■** Test Procedure

- 1. Place the EUT on the table and set it in the transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the environment into appropriate environment.
- 4. Set the spectrum analyzer as RBW=100 kHz, VBW = RBW, Span = 0 Hz, Sweep = 350 S.
- 5. Mark the peak frequency and measure the frequency tolerance using frequency counter function.
- 6. Repeat until all the results are investigated.



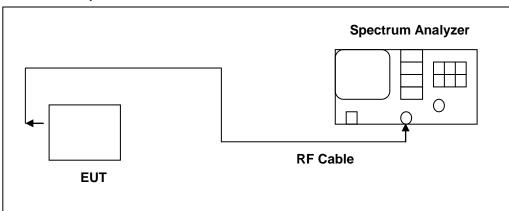


### 4.4. 20 dB Bandwidth

### ■ Limit

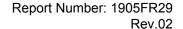
According to §15.231 (c) The bandwidth of the emission shall be no wider than 0.25 % of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5 % of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.

### ■ Test Setup



### ■ Test Procedure

- 1. Place the EUT on the table and set it in the transmitting mode.
- 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
- 3. Set the environment into appropriate environment.
- 4. Set the spectrum analyzer as RBW = 1 % to 5 % of the OBW, VBW = 3 X RBW.
- 5. Mark the peak frequency and measure the frequency tolerance using frequency counter function.
- 6. Repeat until all the results are investigated.





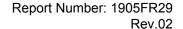
# 4.5. Antenna Requirement

# ■ Require

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. 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.

### ■ Antenna Connector Construction

See section 2 – antenna information.





5 Test Results

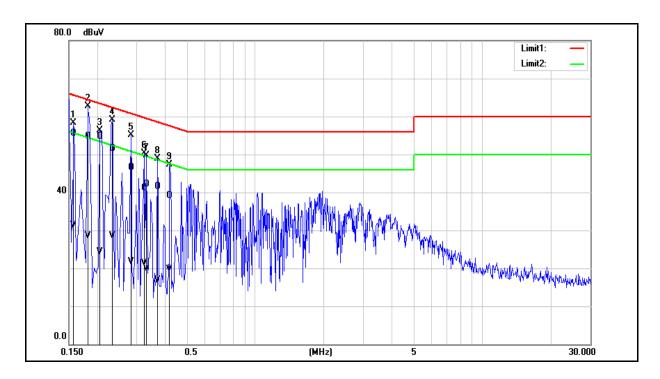
# **Annex A. Conducted Emission**

 Standard:
 FCC Part 15.231
 Line:
 L1

 Test item:
 Conducted Emission
 Power:
 AC 120 V/60 Hz

 Mode:
 Mode 1
 Temp.(°C)/Hum.(%RH):
 26(°C)/60 %RH

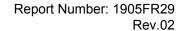
 Description:
 Temp.(°C)/Hum.(%RH):
 26(°C)/60 %RH



No.	Frequency	QP reading	AVG reading	Correction factor	QP result	AVG result	QP limit	AVG limit	QP margin	AVG margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1580	45.83	21.69	9.64	55.47	31.33	65.57	55.57	-10.10	-24.24	Pass
2	0.1820	45.03	18.94	9.63	54.66	28.57	64.39	54.39	-9.73	-25.82	Pass
3	0.2060	45.05	14.70	9.63	54.68	24.33	63.37	53.37	-8.69	-29.04	Pass
4	0.2340	41.88	18.87	9.63	51.51	28.50	62.31	52.31	-10.80	-23.81	Pass
5	0.2820	36.91	12.03	9.63	46.54	21.66	60.76	50.76	-14.22	-29.10	Pass
6	0.3220	31.49	11.69	9.63	41.12	21.32	59.66	49.66	-18.54	-28.34	Pass
7	0.3300	32.47	10.32	9.63	42.10	19.95	59.45	49.45	-17.35	-29.50	Pass
8	0.3700	31.86	7.30	9.64	41.50	16.94	58.50	48.50	-17.00	-31.56	Pass
9	0.4180	29.44	9.97	9.64	39.08	19.61	57.49	47.49	-18.41	-27.88	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).



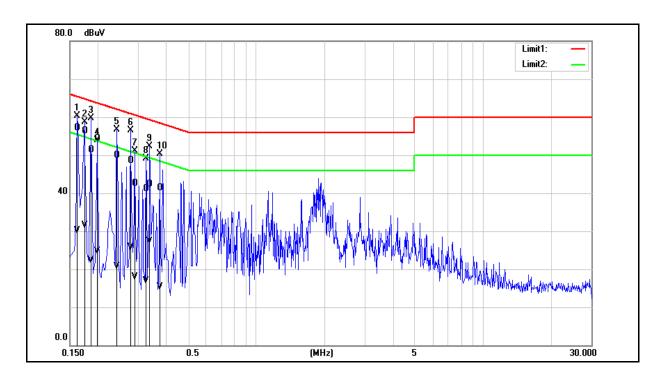


 Standard:
 FCC Part 15.231
 Line:
 N

 Test item:
 Conducted Emission
 Power:
 AC 120 V/60 Hz

 Mode:
 Mode 1
 Temp.(°C)/Hum.(%RH):
 26(°C)/60 %RH

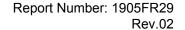
 Description:
 Temp. (°C)/Hum.(%RH):
 26(°C)/60 %RH



No.	Frequency	QP	AVG	Correction	QP	AVG	QP	AVG	QP	AVG	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1620	47.46	20.41	9.67	57.13	30.08	65.36	55.36	-8.23	-25.28	Pass
2	0.1740	46.73	21.83	9.67	56.40	31.50	64.77	54.77	-8.37	-23.27	Pass
3	0.1860	41.55	12.60	9.66	51.21	22.26	64.21	54.21	-13.00	-31.95	Pass
4	0.1980	44.60	14.98	9.66	54.26	24.64	63.69	53.69	-9.43	-29.05	Pass
5	0.2420	40.33	11.10	9.66	49.99	20.76	62.03	52.03	-12.04	-31.27	Pass
6	0.2780	38.91	16.06	9.66	48.57	25.72	60.88	50.88	-12.31	-25.16	Pass
7	0.2900	32.80	8.15	9.66	42.46	17.81	60.52	50.52	-18.06	-32.71	Pass
8	0.3260	31.43	7.26	9.66	41.09	16.92	59.55	49.55	-18.46	-32.63	Pass
9	0.3380	32.63	17.61	9.66	42.29	27.27	59.25	49.25	-16.96	-21.98	Pass
10	0.3740	31.73	5.73	9.67	41.40	15.40	58.41	48.41	-17.01	-33.01	Pass

Note: 1. Result (dBuV) = Correction factor (dB) + Reading(dBuV).

2. Correction factor (dB) = Cable loss (dB) + L.I.S.N. factor (dB).





# **Annex B. Conducted Test Results**

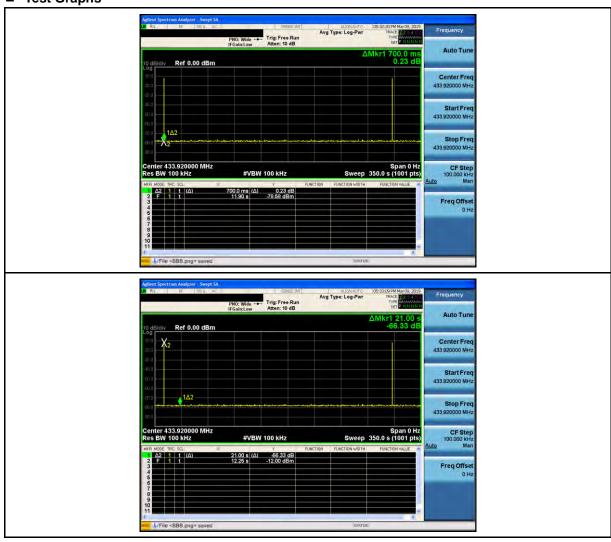
# **Duration of transmission**

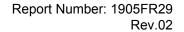
Test Mode	Mode 2						
Frequency	Duratio	n Time	Silent Time				
(MHz)	Results	Limit	Results	Limit			
, ,	(ms)	(s)	(ms)	(s)			
433.92	700	≦1	Pass	≥10 or 30 * Duration Time			

Note:1. Duration time=total sum tx on time is 700 ms(700 ms)

2. Silent Time Limit (s) = 30 \* Duration Time (ms) = <math>30 \* 700 (ms) = 21 (s)

# ■ Test Graphs



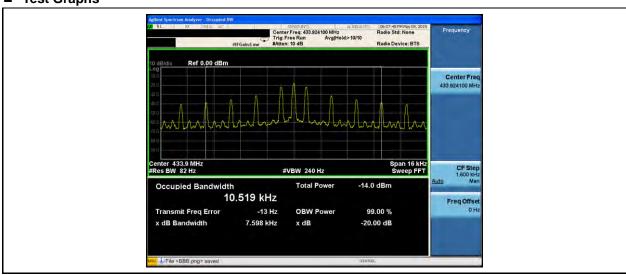


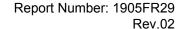


20 dB Bandwidth

Test Mode	Mode 2		
Frequency (MHz)	20 dB Bandwidth (kHz)	Limit (KHz)	Result
433.92	7.598	1084.8	Pass

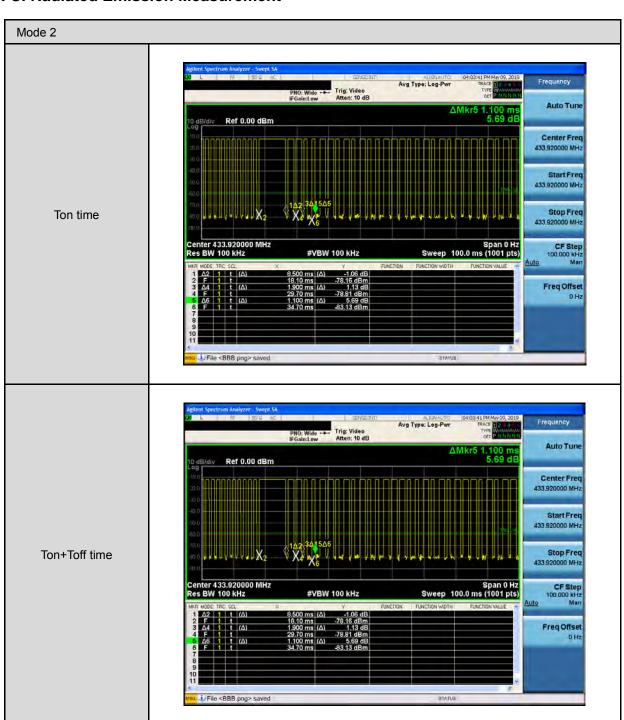
# ■ Test Graphs







# **Annex C. Radiated Emission Measurement**



 $DutyCycle = Ton/Ton + off = (8.5 \ ms*1 + 1.9 \ ms*17 + 1.1 \ ms*23)/100 \ ms = 66.1 \ ms/100 \ ms = 0.661$ 

Duty Cycle Factor =20log (Duty Cycle)=20log(0.661)=- 3.5960dB

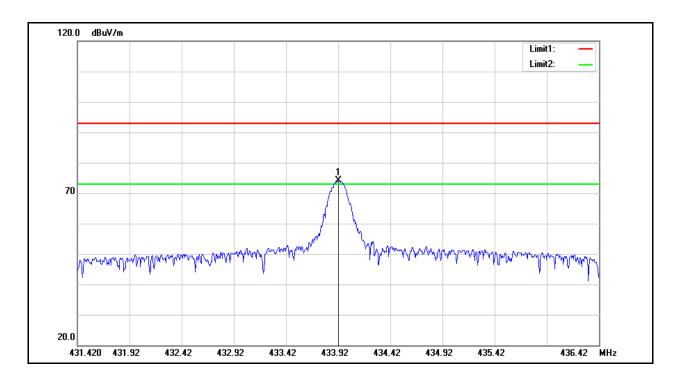


Report Number: 1905FR29

Rev.02

#### **Fundamental**

Standard:	FCC Part 15.231	Test Distance:	3 m
Test Mode:	Mode 2	Power:	AC 120 V/60 Hz
Ant.Polar.:	Horizontal	Temp.(°ℂ)/Hum.(%RH):	26(°ℂ)/60 %RH



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	433.925	75.42	-1.38	74.04	92.87	-18.83	peak

Note:1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 74.04=-1.38+75.42.

2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

No.	Frequency	Peak Result	Duty Factor	AVG Result	AVG Limit	Margin	Remark
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	433.925	74.04	-3.60	70.44	72.87	-2.43	AVG

DutyCycle = Ton/Ton + off = (8.5 ms\*1 + 1.9 ms\*17 + 1.1 ms\*23)/100 ms = 66.1 ms/100 ms = 0.661

Duty Cycle Factor =20log (Duty Cycle)=20log(0.661)=- 3.5960dB

Note: AVG Result (dBuV/m) =Peak Result (dBuV/m) + Duty Factor (dB)

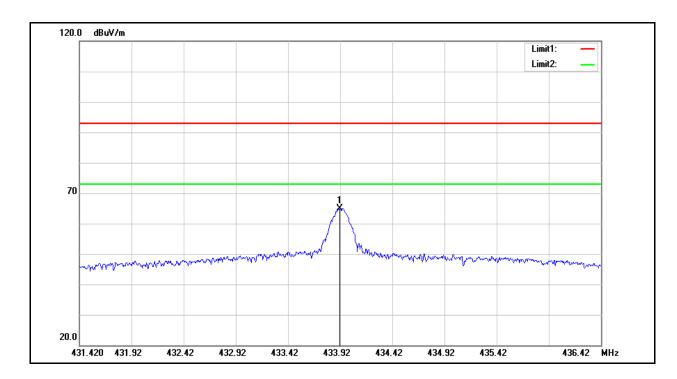


Report Number: 1905FR29

Rev.02

Standard: FCC Part 15.231 Test Distance: 3 m

Test Mode: Mode 2 Power: AC 120 V/60 Hz Ant.Polar.: Vertical Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	433.915	66.34	-1.38	64.96	92.87	-27.91	peak

Note:1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 64.96=-1.38+66.34.

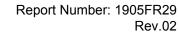
2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) – Pre-Amplifier gain (dB).

No	<b>)</b> .	Frequency	Peak Result	Duty Factor	AVG Result	AVG Limit	Margin	Remark
		(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1		433.915	64.96	-3.60	61.36	72.87	-11.51	AVG

DutyCycle = Ton/Ton + off = (8.5 ms\*1 + 1.9 ms\*17 + 1.1 ms\*23)/100 ms = 66.1 ms/100 ms = 0.661

Duty Cycle Factor =20log (Duty Cycle)=20log(0.661)=- 3.5960dB

Note: AVG Result (dBuV/m) =Peak Result (dBuV/m) + Duty Factor (dB)





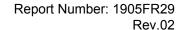
Below 1 GHz

DEIOW 1 GHZ										
Standard:	FCC	Part 15.231		Test Distance	ce:	3 m				
Test Mode:	Mode	e 1		Power:	AC 120 V/60 Hz					
		Temp.(°ℂ)/Hum.(%RH):				26(°C)/60 %RH				
Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark	Ant.Polar.			
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)		H/V			
216.2400	32.67	-7.64	25.03	46.00	-20.97	QP	Н			
229.8200	33.04	-7.26	25.78	46.00	-20.22	QP	Н			
250.1900	32.66	-6.14	26.52	46.00	-19.48	QP	Н			
404.4200	28.13	-2.14	25.99	46.00	-20.01	QP	Н			
576.1100	27.07	1.40	28.47	46.00	-17.53	QP	Н			
795.3300	26.77	5.72	32.49	46.00	-13.51	QP	Н			
159.9800	29.54	-5.70	23.84	43.50	-19.66	QP	V			
245.3400	28.12	-6.27	21.85	46.00	-24.15	QP	V			
370.4700	27.50	-2.82	24.68	46.00	-21.32	QP	V			
514.0300	27.80	-0.08	27.72	46.00	-18.28	QP	V			
632.3700	27.14	2.60	29.74	46.00	-16.26	QP	V			
788.5400	27.80	5.62	33.42	46.00	-12.58	QP	V			

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 25.03=-7.64+32.67.

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.



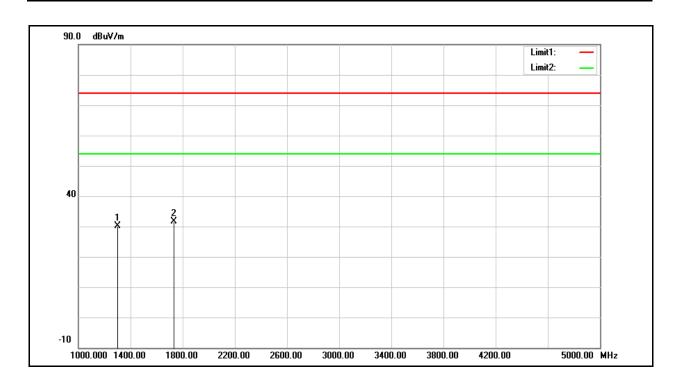


**Above 1 GHz** 

Standard: FCC Part 15.231 Test Distance: 3 m

Test Mode: Mode 2 Power: AC 120 V/60 Hz

Ant.Polar.: Horizontal Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH

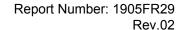


No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1301.760	35.44	-5.40	30.04	74.00	-43.96	peak
2	1735.680	35.17	-3.55	31.62	74.00	-42.38	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 30.04=-5.40+35.44.

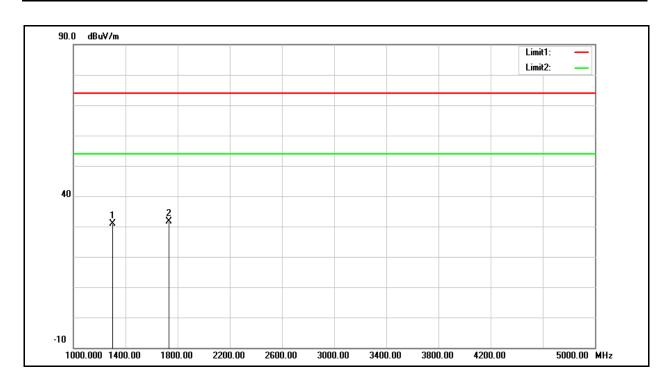
- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.





Test Mode: Mode 2 Power: AC 120 V/60 Hz

Ant.Polar.: Vertical Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH

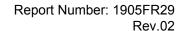


No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1301.760	36.31	-5.40	30.91	74.00	-43.09	peak
2	1735.680	35.28	-3.55	31.73	74.00	-42.27	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

Example: 30.91=-5.40+36.31.

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.

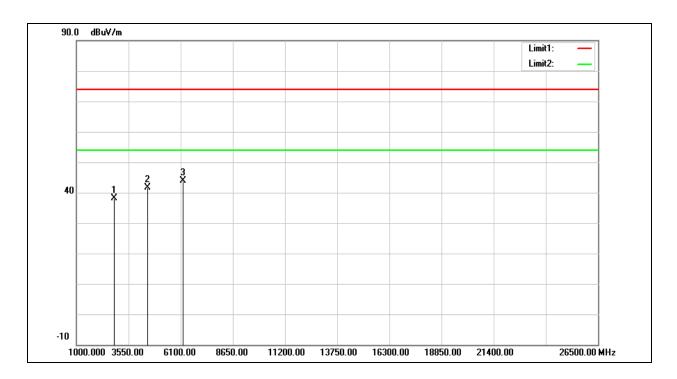




Frequency: WLAN 2.4G + BT + 433.92 MHz Power: AC 110 V/60 Hz

Mode: Simultaneous Transmitting Temp.(°ℂ)/Hum.(%RH): 26(°ℂ)/60 %RH

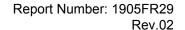
Ant.Polar.: Horizontal



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2853.000	37.64	0.48	38.12	74.00	-35.88	peak
2	4485.000	36.66	4.90	41.56	74.00	-32.44	peak
3	6219.000	34.93	9.07	44.00	74.00	-30.00	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- $2. \quad Correction \ factor \ (dB/m) = Antenna \ Factor \ (dB/m) \ + \ Cable \ loss \ (dB) \ \ Pre-Amplifier \ gain \ (dB).$
- 3. When peak results are less than average limit, so not need to evaluate the average.
- 4. The result of simultaneously is shows the tablet contains a WLAN/BT module (FCC ID: PXT-201706SC20A).

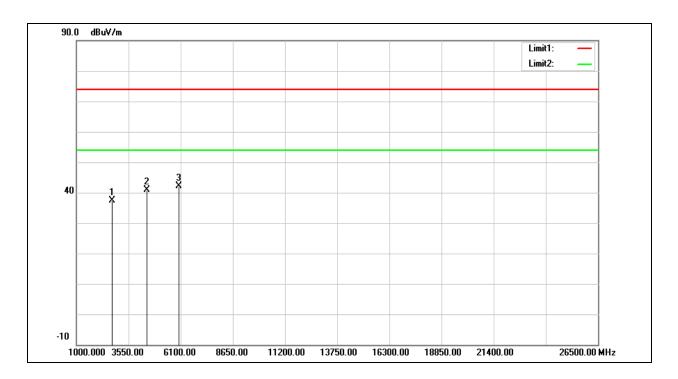




Frequency: WLAN 2.4G + BT + 433.92 MHz Power: AC 110 V/60 Hz

Mode: Simultaneous Transmitting Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH

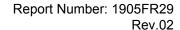
Ant.Polar.: Vertical



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2751.000	37.30	0.15	37.45	74.00	-36.55	peak
2	4434.000	36.14	4.73	40.87	74.00	-33.13	peak
3	6015.000	33.80	8.21	42.01	74.00	-31.99	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.
- 4. The result of simultaneously is shows the tablet contains a WLAN/BT module (FCC ID: PXT-201706SC20A).

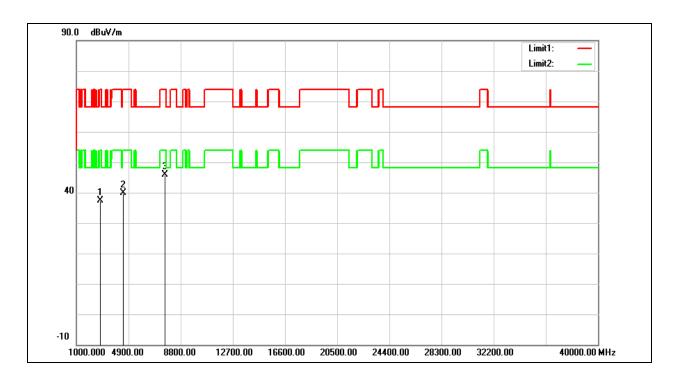




Frequency: WLAN 5G + BT + 433.92 MHz Power: AC 110 V/60 Hz

Mode: Simultaneous Transmitting Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH

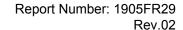
Ant.Polar.: Horizontal



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2802.000	37.06	0.31	37.37	74.00	-36.63	peak
2	4519.000	34.85	5.00	39.85	74.00	-34.15	peak
3	7647.000	32.86	13.08	45.94	74.00	-28.06	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.
- 4. The result of simultaneously is shows the tablet contains a WLAN/BT module (FCC ID: PXT-201706SC20A).





Frequency: WLAN 5G + BT + 433.92 MHz Power: AC 110 V/60 Hz

Mode: Simultaneous Transmitting Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60 %RH

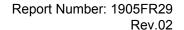
Ant.Polar.: Vertical



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2751.000	38.60	0.15	38.75	74.00	-35.25	peak
2	4230.000	35.51	4.00	39.51	74.00	-34.49	peak
3	7562.000	34.50	12.79	47.29	74.00	-26.71	peak

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average..
- 4. The result of simultaneously is shows the tablet contains a WLAN/BT module (FCC ID: PXT-201706SC20A).



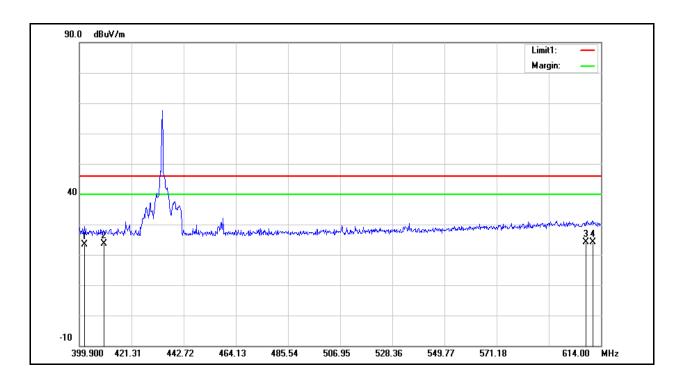


**Band Edge** 

Standard: FCC Part 15.231 Test Distance: 3 m

Test Mode: Mode 2 Power: AC 120 V/60 Hz

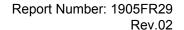
Ant.Polar.: Horizontal Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60  $^{\circ}$ RH



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	402.0410	25.67	-2.20	23.47	46.00	-22.53	QP
2	410.0000	25.55	-2.00	23.55	46.00	-22.45	QP
3	608.0000	21.85	2.29	24.14	46.00	-21.86	QP
4	610.5742	21.76	2.32	24.08	46.00	-21.92	QP

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.





Test Mode: Mode 2 Power: AC 120 V/60 Hz Ant.Polar.: Vertical Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ RH): 26( $^{\circ}$ C)/60  $^{\circ}$ RH



No.	Frequency	Reading	Correct Factor	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	408.6780	25.81	-2.04	23.77	46.00	-22.23	QP
2	410.0000	25.65	-2.00	23.65	46.00	-22.35	QP
3	608.0000	21.77	2.29	24.06	46.00	-21.94	QP
4	608.8615	21.89	2.30	24.19	46.00	-21.81	QP

Note: 1. Result (dBuV/m) = Correction factor (dB/m) + Reading(dBuV).

- 2. Correction factor (dB/m) = Antenna Factor (dB/m) + Cable loss (dB) Pre-Amplifier gain (dB).
- 3. When peak results are less than average limit, so not need to evaluate the average.