FCC REPORT

Report No: CCISE181212801

(Bluetooth)

Applicant: General Procurement Inc

Address of Applicant: 800 E Dyer Road, Santa Ana California 92705 United States

Equipment Under Test (EUT)

Product Name: 7 INCH WIFI TABLET

Model No.: HT0705W08A

Trade mark: HYUNDAI

FCC ID: 2AIOHHT0705W08

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: 28 Dec., 2018

Date of Test: 28 Dec., 2018 to 21 Jan., 2019

Date of report issued: 22 Jan., 2019

Test Result: PASS *

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

Authorized Signature:



Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

Version No.	Date	Description
00	22 Jan., 2019	Original

Tested by: Zora Lee Date: 22 Jan., 2019

Test Engineer

Reviewed by: Date: 22 Jan., 2019

Project Engineer



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4 Test Summary

Test Items	Section in CFR 47	Result
Antenna Requirement	15.203 & 15.247 (c)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(1)	Pass
20dB Occupied Bandwidth	15.247 (a)(1)	Pass
Carrier Frequencies Separation	15.247 (a)(1)	Pass
Hopping Channel Number	15.247 (a)(1)(iii)	Pass
Dwell Time	15.247 (a)(1)(iii)	Pass
Spurious Emission	15.205 & 15.209	Pass
Band Edge	15.247(d)	Pass

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

N/A: Not Applicable.





5 General Information

5.1 Client Information

Applicant:	General Procurement Inc
Address:	800 E Dyer Road , Santa Ana California 92705 United States
Manufacturer:	XIAMEN CANDOUR CO., LTD.
Address:	19th Floor, Jianfa International Building, 1699 Huandao East Road, Siming District, Xiamen China

5.2 General Description of E.U.T.

OLE Control Decomption	00
Product Name:	7 INCH WIFI TABLET
Model No.:	HT0705W08A
Operation Frequency:	2402MHz~2480MHz
Transfer rate:	1/2/3 Mbits/s
Number of channel:	79
Modulation type:	GFSK, π/4-DQPSK, 8DPSK
Modulation technology:	FHSS
Antenna Type:	Internal Antenna
Antenna gain:	5.07 dBi
Power supply:	Rechargeable Li-ion Battery DC3.7V-2400mAh
AC adapter:	Model: JML-0500150Z-LW Input: AC100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 1500mA
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operation Frequency each of channel for GFSK, π/4-DQPSK, 8DPSK							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
2	2404MHz	22	2424MHz	42	2444MHz	62	2464MHz
3	2405MHz	23	2425MHz	43	2445MHz	63	2465MHz
4	2406MHz	24	2426MHz	44	2446MHz	64	2466MHz
5	2407MHz	25	2427MHz	45	2447MHz	65	2467MHz
15	2417MHz	35	2437MHz	55	2457MHz	75	2477MHz
16	2418MHz	36	2438MHz	56	2458MHz	76	2478MHz
17	2419MHz	37	2439MHz	57	2459MHz	77	2479MHz
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	2421MHz	39	2441MHz	59	2461MHz		
Remark: Cl	Remark: Channel 0, 39 &78 selected for GFSK, π/4-DQPSK and 8DPSK.						

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5.3 Test environment and test mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test Modes:	
Non-hopping mode:	Keep the EUT in continuous transmitting mode with worst case data rate.
Hopping mode:	Keep the EUT in hopping mode.
Remark	GFSK (1 Mbps) is the worst case mode.

The sample was placed 0.8m (below 1GHz)/1.5m (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 with a fresh battery, 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.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±2.22 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.28 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)

5.6 Laboratory Facility

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

FCC - Registration No.: 727551

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

IC - Registration No.: 10106A-1

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366





5.8 Test Instruments list

Radiated Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020	
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	03-16-2018	03-15-2019	
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-16-2018	03-15-2019	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-16-2018	03-15-2019	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019	
EMI Test Software	AUDIX	E3	Version: 6.110919b		b	
Pre-amplifier	HP	8447D	2944A09358	03-07-2018	03-06-2019	
Pre-amplifier	CD	PAP-1G18	11804	03-07-2018	03-06-2019	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-07-2018	03-06-2019	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-07-2018	03-06-2019	
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2018	03-06-2019	
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2018	03-06-2019	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2018	03-06-2019	
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A	
Test Software	MWRFTEST	MTS8200	Version: 2.0.0.0			

Conducted Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	03-07-2018	03-06-2019
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-07-2018	03-06-2019
LISN	CHASE	MN2050D	1447	03-19-2018	03-18-2019
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2018	07-20-2019
Cable	HP	10503A	N/A	03-07-2018	03-06-2019
EMI Test Software	AUDIX	E3	\	ersion: 6.110919	b



6 Test results and measurement data

6.1 Antenna Requirement

Standard requirement:

FCC Part 15 C Section 15.203 & 247(b)

15.203 requirement:

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

15.247(b) (4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

E.U.T Antenna:

The Bluetooth antenna is an Internal antenna which permanently attached, and the best case gain of the antenna is 5.07 dBi.





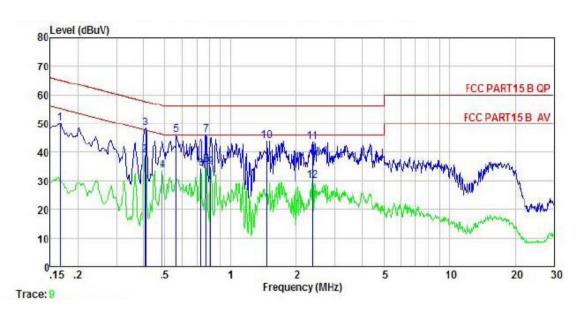
6.2 Conducted Emissions

Test Requirement:	FCC Part 15 C Section 15.207			
Test Method:	ANSI C63.10:2013			
Test Frequency Range:	150 kHz to 30 MHz			
Class / Severity:	Class B			
Receiver setup:	RBW=9 kHz, VBW=30 k	Hz, Sweep time=auto		
Limit:	Frequency range	Limit (dBuV)	
	(MHz)	Quasi-peak	Average	
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	5-30	60	50	
	* Decreases with the log	arithm of the frequency.		
Test setup:	Reference			
	AUX Filter AC power Equipment E.U.T Remark E.U.T Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m			
Test procedure:	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 500hm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 500hm/50uH coupling impedance with 500hm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement. 			
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Hopping mode			
Test results:	Pass			
	•			



Measurement Data:

Product name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test by:	Zora	Test mode:	BT Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



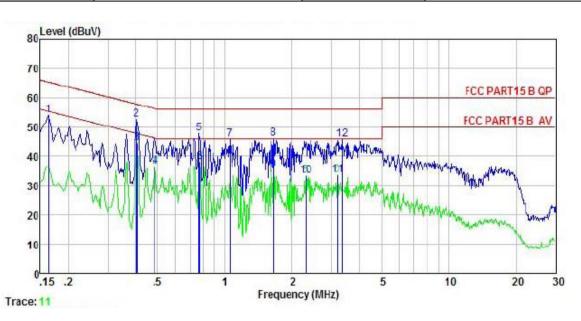
	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	₫₿u₹		<u>ab</u>	—dBu⊽	dBu₹	<u>ab</u>	
1 2	0.166 0.406	39.33 28.17	0.17 0.12	10.77 10.72	50.27 39.01		-14. 89 -8. 72	QP Average
2	0.410	37.56	0.12	10.72	48.40	57.64	-9.24	QP
4 5 6	0.486 0.561	22.66 35.29	0.12 0.12	10.76	33.54 46.17	46, 23 56, 00		Average
6	0.731	23.27	0.13	10.78	34.18		-11.82	Average
7	0.771	35.20	0.13	10.80	46.13	56, 00		
8	0.771	24.82	0.13	10.80	35.75	46.00	-10.25	Average
8	0.809	23.80	0.13	10.81	34.74	46.00	-11.26	Average
10	1.464	33.00	0.14	10.92	44.06	56.00	-11.94	QP
11	2.358	32.71	0.15	10.94	43.80	56,00	-12.20	QP
12	2.358	18.96	0.15	10.94	30.05			Average

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



Product name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test by:	Zora	Test mode:	BT Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
-	MHz	₫BuŸ	Œ	<u>d</u> B	√dBu∀	dBu∀	<u>ab</u>	
1	0.162	42.21	0.97	10.77	53.95	65.34	-11.39	QP
2	0.402	40.80	0.97	10.72	52.49	57.81	-5.32	QP
3	0.406	32.90	0.97	10.72	44.59	47.73	-3.14	Average
4 5 6 7 8 9	0.486	24.93	0.97	10.76	36.66	46.23	-9.57	Average
5	0.767	36.01	0.97	10.80	47.78	56,00	-8.22	QP
6	0.771	26.32	0.97	10.80	38.09	46.00	-7.91	Average
7	1.049	33.99	0.97	10.88	45.84	56.00	-10.16	QP
8	1.654	34.03	0.98	10.94	45.95	56.00	-10.05	QP
9	1.654	23.44	0.98	10.94	35.36	46.00	-10.64	Average
10	2.297	21.50	0.98	10.95	33.43	46.00	-12.57	Average
11	3.190	21.65	0.99	10.91	33.55	46.00	-12.45	Average
12	3.328	33.95	0.99	10.91	45.85		-10.15	

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



6.3 Conducted Output Power

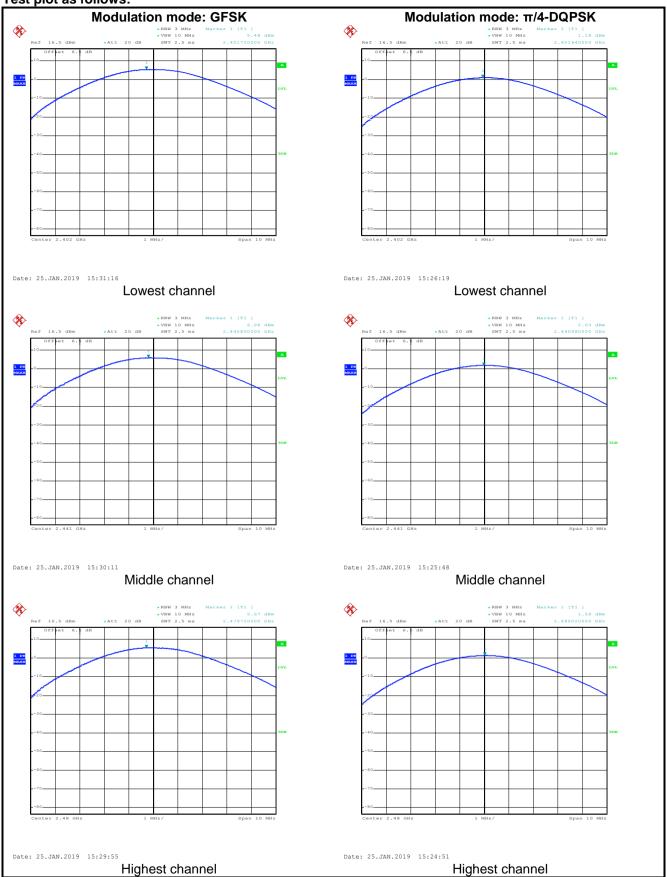
Test Requirement:	FCC Part 15 C Section 15.247 (b)(1)			
Test Method:	ANSI C63.10:2013 and KDB 558074			
Receiver setup:	RBW=1MHz, VBW=3MHz, Detector=Peak (If 20dB BW ≤1 MHz) RBW=3MHz, VBW=10MHz, Detector=Peak (If 20dB BW > 1 MHz and < 3MHz)			
Limit:	For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Non-hopping mode			
Test results:	Pass			

Measurement Data:

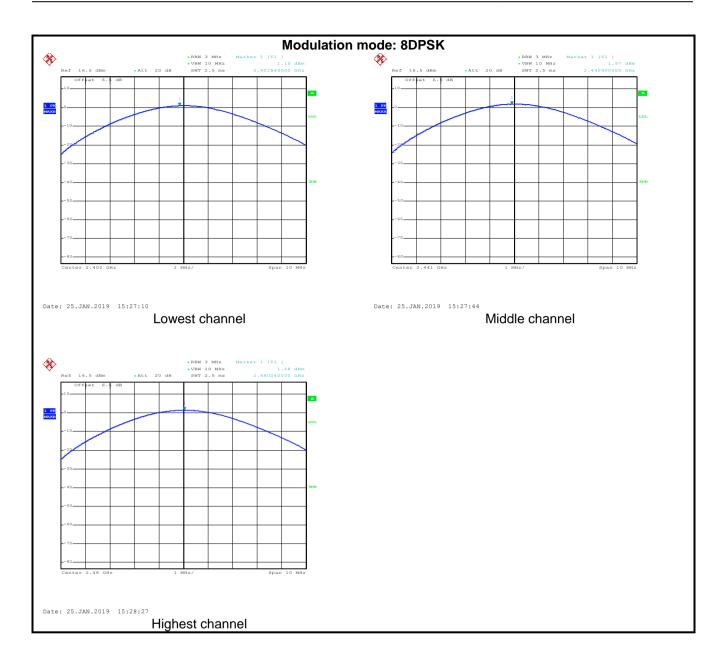
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
	GFSK mo	de				
Lowest channel	5.48	30.00	Pass			
Middle channel	6.06	30.00	Pass			
Highest channel	5.67	30.00	Pass			
	π/4-DQPSK i	mode				
Lowest channel	1.18	21.00	Pass			
Middle channel	2.03	21.00	Pass			
Highest channel	1.58	21.00	Pass			
	8DPSK mo	ode				
Lowest channel	1.15	21.00	Pass			
Middle channel	1.97	21.00	Pass			
Highest channel	1.58	21.00	Pass			



Test plot as follows:









6.4 20dB Occupy Bandwidth

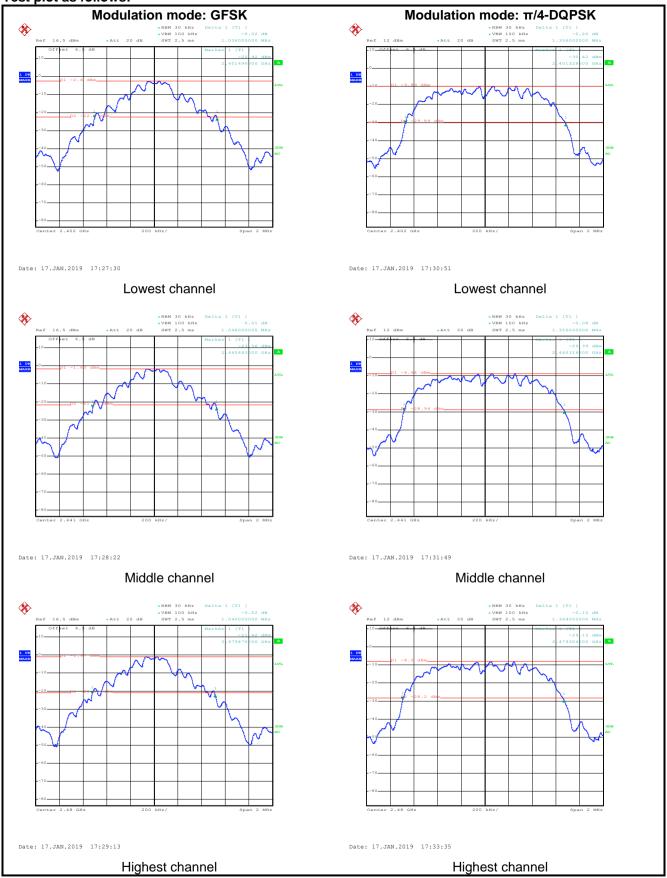
Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and KDB 558074		
Receiver setup:	RBW=30 kHz, VBW=100 kHz, detector=Peak		
Limit:	NA		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Non-hopping mode		
Test results:	Pass		

Measurement Data:

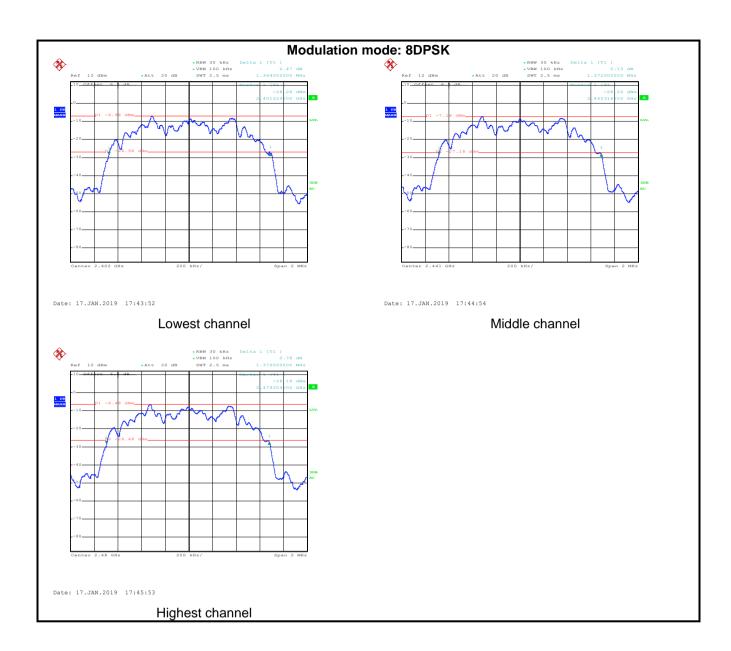
Toot channel		20dB Occupy Bandwidth (kHz)		
Test channel	GFSK	π/4-DQPSK	8DPSK	
Lowest	1036	1356	1364	
Middle	1048	1356	1372	
Highest	1040	1364	1376	



Test plot as follows:









6.5 Carrier Frequencies Separation

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and KDB 558074		
Receiver setup:	RBW=100 kHz, VBW=300 kHz, detector=Peak		
Limit:	a) 0.025MHz or the 20dB bandwidth (whichever is greater)b) 0.025MHz or two-thirds of the 20dB bandwidth (whichever is greater)		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Hopping mode		
Test results:	Pass		



Measurement Data:

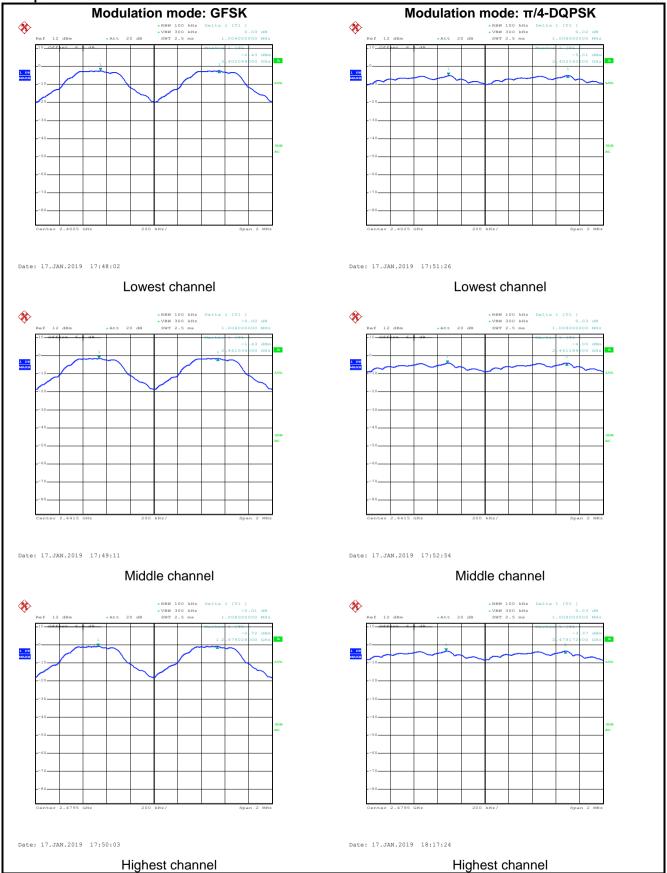
Test channel	Carrier Frequencies Separation (kHz)	Limit (kHz)	Result			
	GFSK					
Lowest	1004	690.67	Pass			
Middle	1004	690.67	Pass			
Highest	1008	690.67	Pass			
	π/4-DQPSK mode					
Lowest	1008	904.00	Pass			
Middle	1008	904.00	Pass			
Highest	1008	904.00	Pass			
	8DPSK mode					
Lowest	1004	909.33	Pass			
Middle	1004	909.33	Pass			
Highest	1004	909.33	Pass			

Note: According to section 6.4

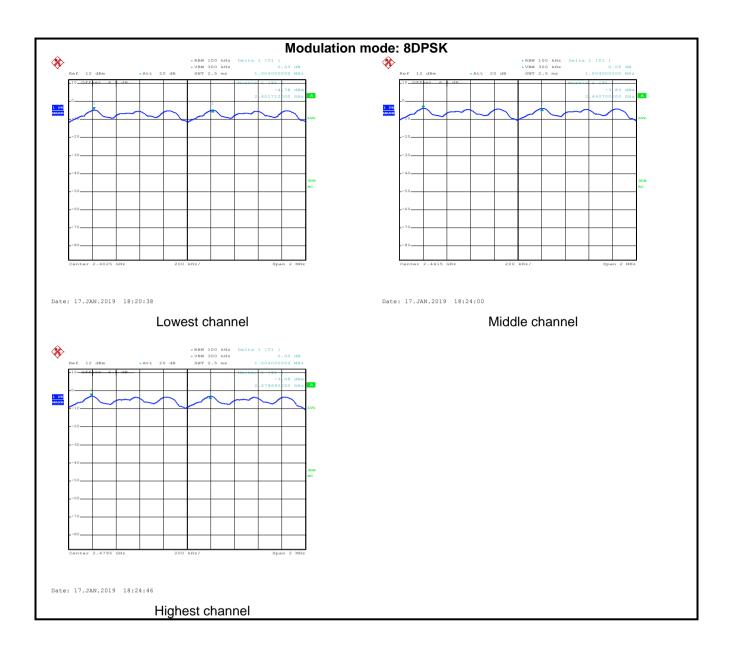
Mode	20dB bandwidth (kHz) (worse case)	Limit (kHz) (Carrier Frequencies Separation)
GFSK	1036	691
π/4-DQPSK	1356	904.00
8DPSK	1364	909.33



Test plot as follows:









6.6 Hopping Channel Number

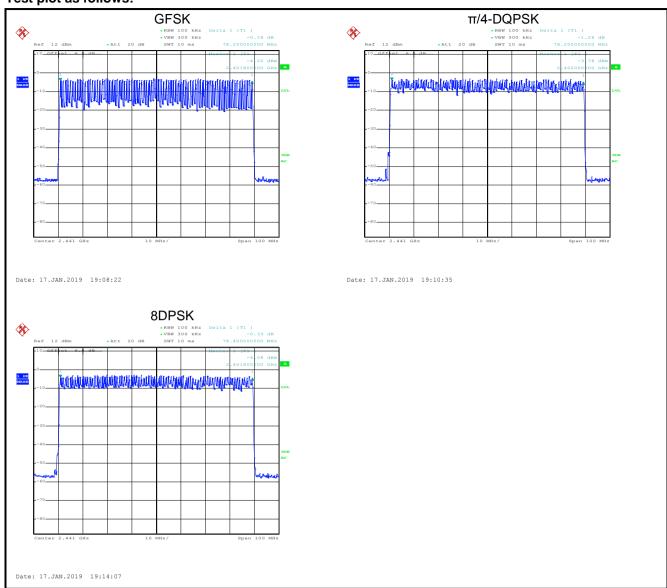
Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)		
Test Method:	ANSI C63.10:2013 and KDB 558074		
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Frequency range=2400MHz-2483.5MHz, Detector=Peak		
Limit:	15 channels		
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Hopping mode		
Test results:	Pass		

Measurement Data:

Mode	Hopping channel numbers	Limit	Result
GFSK, π/4-DQPSK, 8DPSK	79	15	Pass



Test plot as follows:





6.7 Dwell Time

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)				
Test Method:	ANSI C63.10:2013 and KDB 558074				
Receiver setup:	RBW=1 MHz, VBW=1 MHz, Span=0 Hz, Detector=Peak				
Limit:	0.4 Second				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Instruments:	Refer to section 5.8 for details				
Test mode:	Hopping mode				
Test results:	Pass				

Measurement Data (Worse case):

Mode	Packet	Dwell time (second)	Limit (second)	Result	
	DH1	0.12800			
GFSK	DH3	0.26688	0.4	Pass	
	DH5	0.31232			
	2-DH1	0.13056			
π/4-DQPSK	2-DH3	0.26784	0.4	Pass	
	2-DH5	0.31317			
	3-DH1	0.13056			
8DPSK	3-DH3	0.26784	0.4	Pass	
	3-DH5	0.31317			

Note:

The test period = 0.4 Second/Channel x 79 Channel = 31.6 s

Calculation Formula: Dwell time = Ton time per hop * Hopping numbers * Period

For example:

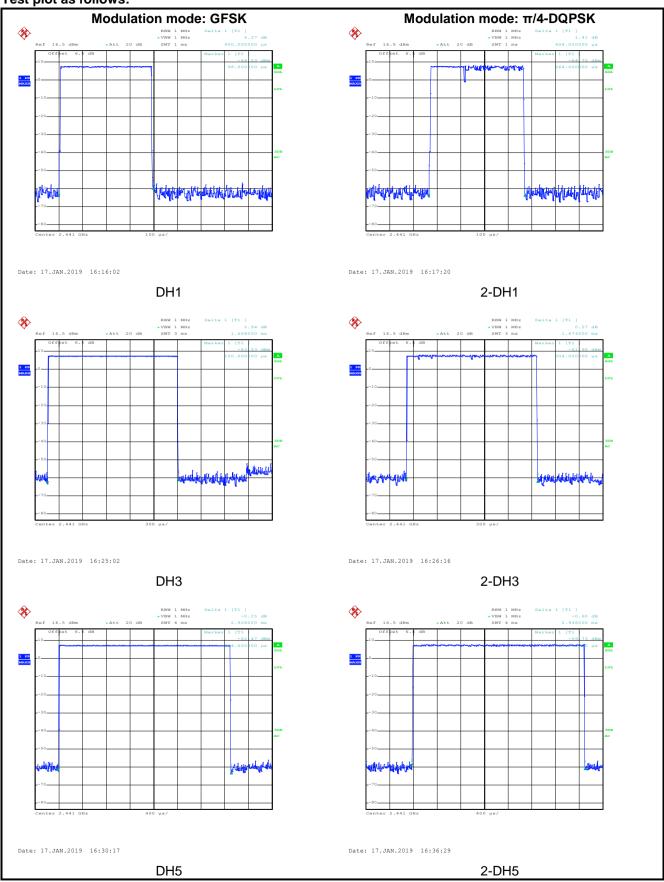
DH1 time slot=0.400*(1600/ (2*79)) * 31.6=128.00ms

DH3 time slot=1.668*(1600/ (4*79)) * 31.6=266.88ms

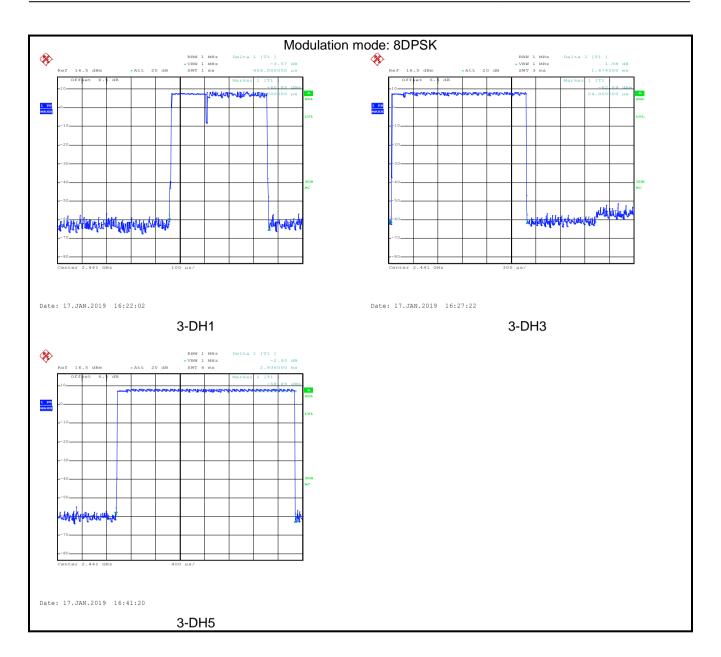
DH5 time slot=2.928*(1600/ (6*79)) * 31.6=312.32ms



Test plot as follows:









6.8 Pseudorandom Frequency Hopping Sequence

Test Requirement: FCC Part 15 C Section 15.247 (a)(1) requirement:

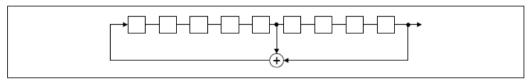
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively. Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

EUT Pseudorandom Frequency Hopping Sequence

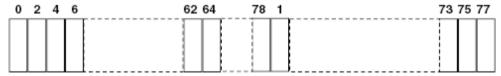
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence: 29-1 = 511 bits
- · Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.



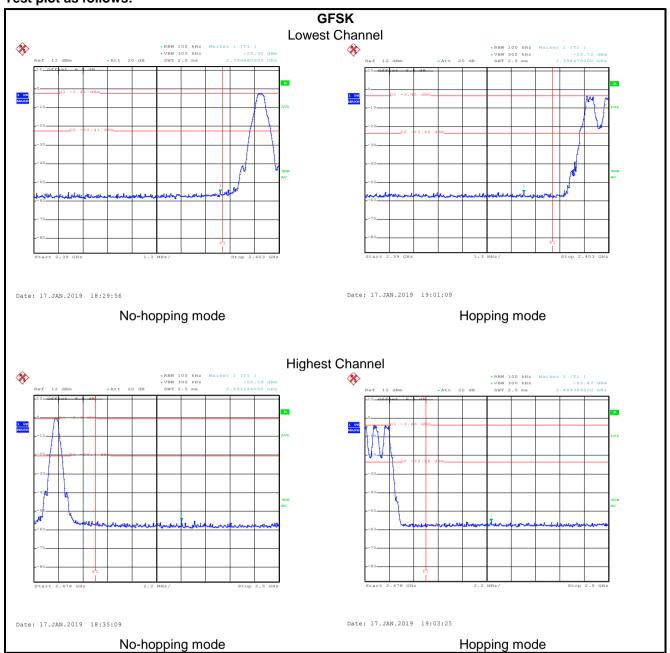
6.9 Band Edge

6.9.1 Conducted Emission Method

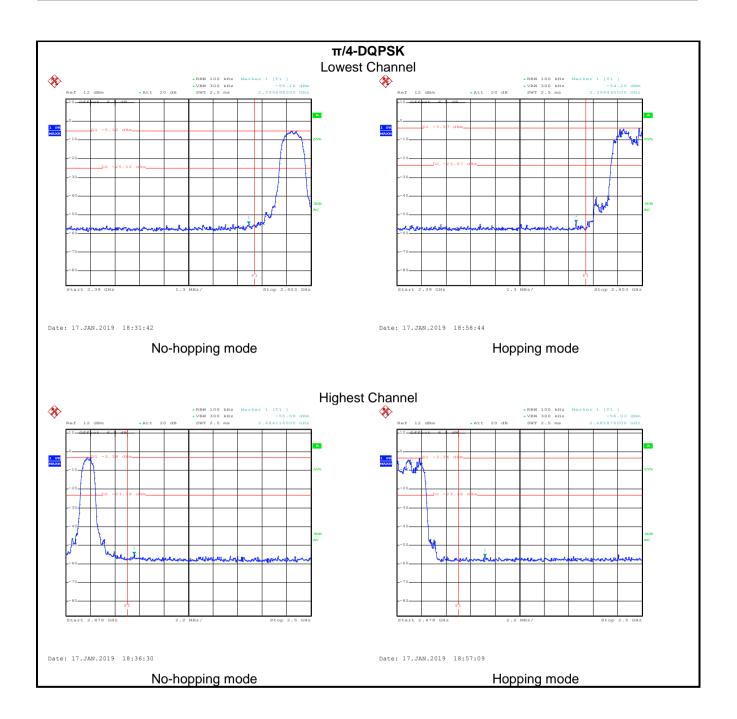
Test Requirement:	FCC Part 15 C Section 15.247 (d)			
Test Method:	ANSI C63.10:2013 and KDB 558074			
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Detector=Peak			
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Non-hopping mode and hopping mode			
Test results:	Pass			



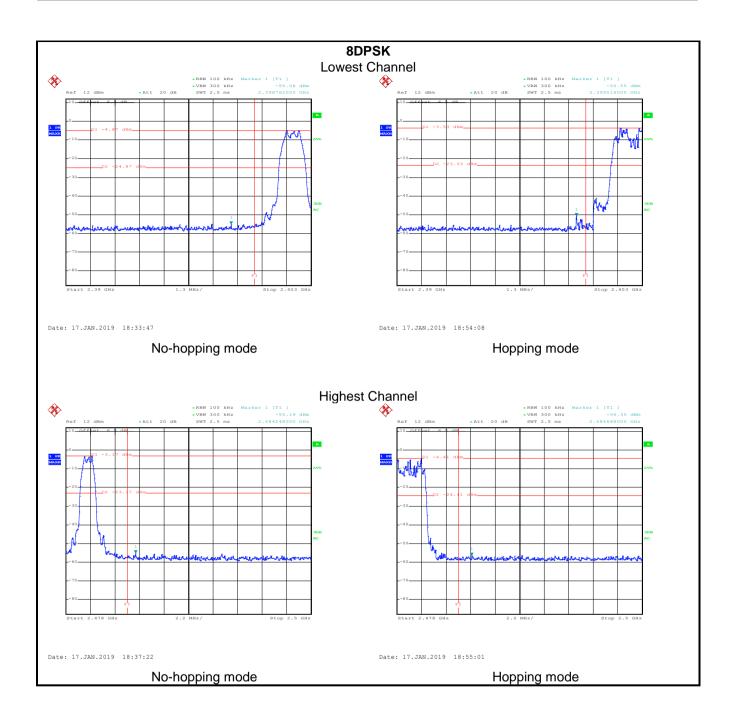
Test plot as follows:













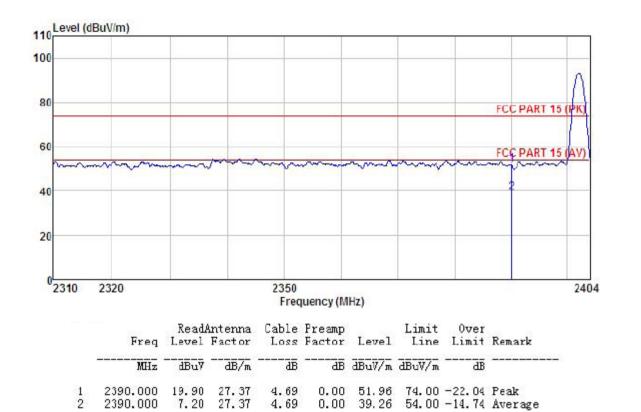
6.9.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205						
Test Method:	ANSI C63.10:	2013					
Test Frequency Range:	2.3GHz to 2.50	GHz					
Test Distance:	3m						
Receiver setup:	Frequency Detector RBW VBW					W	Remark
	Al 4011-	Peak		1MHz	3MF	Ηz	Peak Value
	Above 1GHz	RMS		1MHz	3MF	Ηz	Average Value
Limit:	Frequen	су	Lim	it (dBuV/m @3	3m)	•	Remark
	Above 10	\U-		54.00		Av	erage Value
	Above 10	סרוב		74.00		F	Peak Value
Test setup:	Horn Antenna Tower AE EUT Horn Antenna Tower Ground Reference Plane Test Receiver Amplifer Controller						
Test Procedure:	 The EUT was placed on the top of a rotating table 1.5meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or 						
Test Instruments:	Refer to sectio			d and then rep			
Test mode:	Non-hopping n	node					
Test results:	Passed						



GFSK Mode:

Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A	
Test By:	Zora	Test mode:	DH1 Tx mode	
Test Channel:	Lowest channel	Polarization:	Vertical	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%	

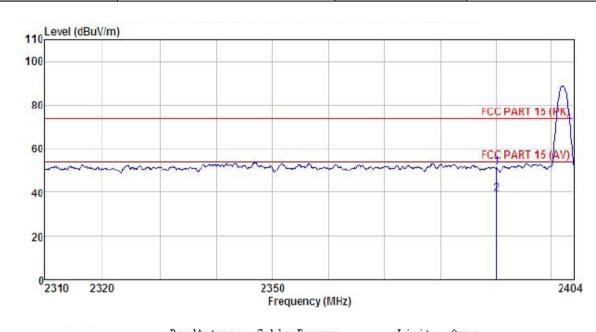


Remark

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A		
Test By:	Zora	Test mode:	DH1 Tx mode		
Test Channel:	Lowest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



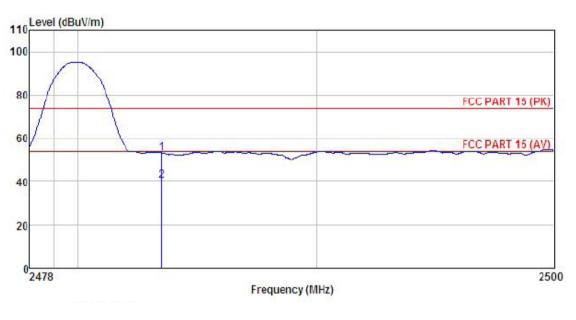
Freq		Antenna Factor						
MHz	dBu7		<u>dB</u>	<u>dB</u>	dBu∛/m	dBuV/m	<u>dB</u>	
2390.000 2390.000								

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A		
Test By:	Zora	Test mode:	DH1 Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



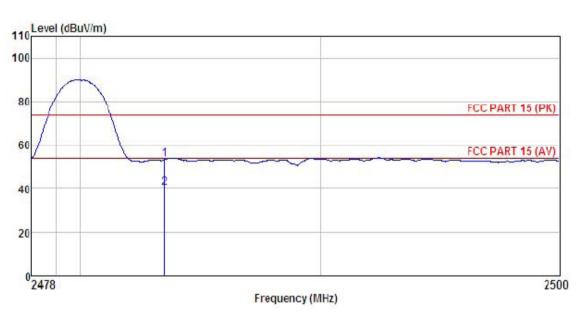
Freq	ReadAnten eq Level Fact							
MHz	—dBu7		<u>ab</u>	<u>ab</u>	dBu7/m	dBuV/m	<u>ab</u>	
2483.500 2483.500								

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



Freq	ReadAntenna Level Factor							
MHz	dBu₹	<u>dB</u> /m	<u>ab</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
2483.500 2483.500								

Remark:

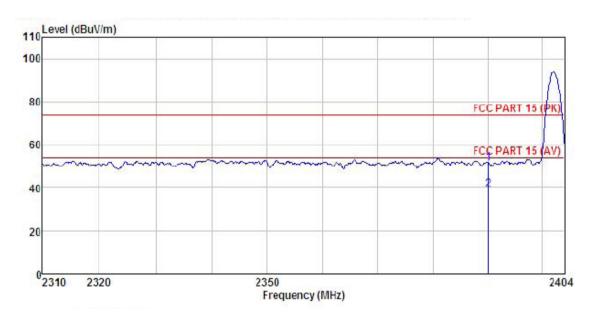
1 2

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



π/4-DQPSK mode

Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A		
Test By:	Zora	Test mode:	2DH1 Tx mode		
Test Channel:	Lowest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



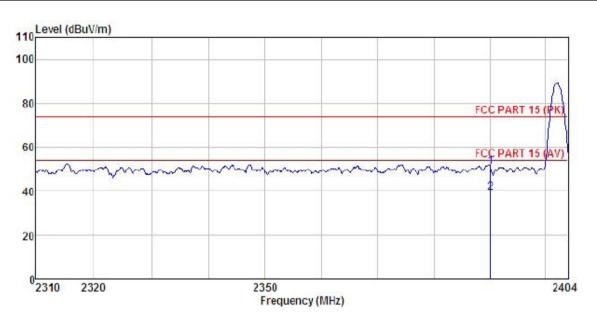
		ReadAntenna		Cable	Preamp		Limit	0ver	
	<u></u>		Factor						
		dBu7	<u>dB</u> /m	<u>ab</u>	dB dBuV/m dBuV/m dl	<u>dB</u>			
1	2390.000	19.39	27.37	4.69	0.00	51.45	74.00	-22.55	Peak
2	2390.000								

Remark

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A		
Test By:	Zora	Test mode:	2DH1 Tx mode		
Test Channel:	Lowest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		

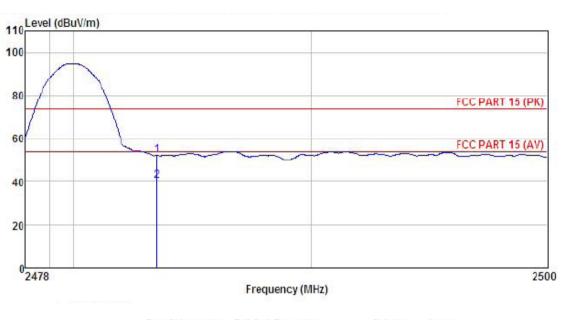


	Freq		Antenna Factor						Remark
	MHz	dBu7		<u>dB</u>	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>d</u> B	
1 2	2390.000 2390.000								

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	2DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

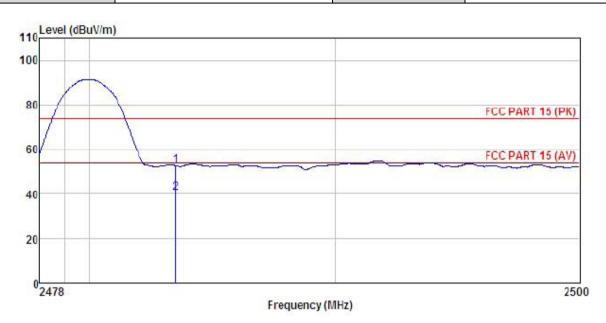


Freq		Antenna Factor						
MHz	dBu7	<u>d</u> B/m	<u>ā</u> B	<u>d</u> B	dBuV/m	dBuV/m	<u>d</u> B	
2483.500 2483.500								

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A		
Test By:	Zora	Test mode:	2DH1 Tx mode		
Test Channel:	Highest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



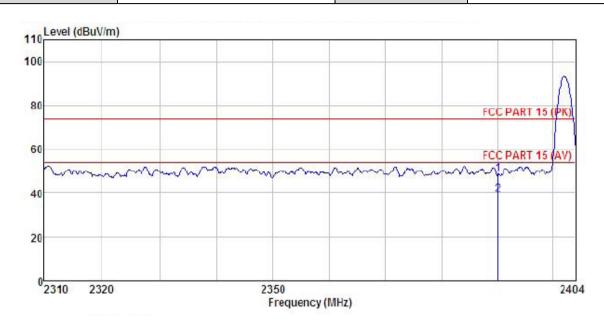
Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBu7	<u>dB</u> /m	āĒ	<u>d</u> B	dBuV/m	dBuV/m	<u>dB</u>	
2483.500 2483.500								

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



8DPSK mode

Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



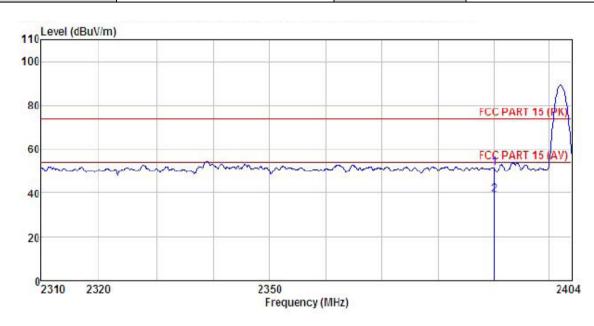
	ReadAi Freq Level I		Antenna Factor						
	MHz	dBu7		<u>ab</u>	<u>ab</u>	dBu√/m	dBuV/m	<u>ab</u>	
1 2	2390.000 2390.000								

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

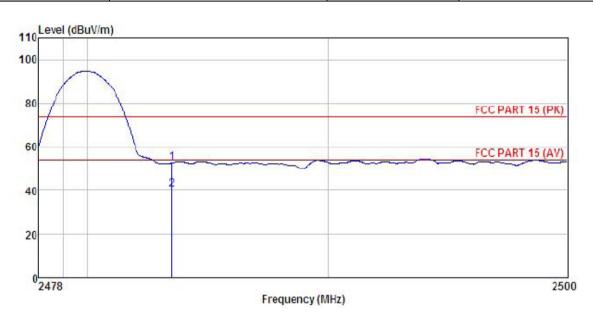


	Freq		Antenna Factor					
	MHz	dBu7	<u>dB</u> /m	 <u>dB</u>	dBuV/m	dBuV/m	<u>q</u> B	
1 2	2390.000 2390.000							

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

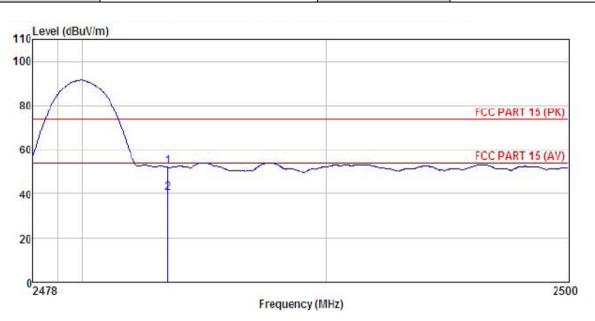


	Freq	Read Level	Antenna Factor	Cable Loss	Freamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBu7		<u>ab</u>	<u>ab</u>	dBu√/m	dBuV/m	<u>ab</u>	
1 2	2483.500 2483.500								

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode: 3DH1 Tx mode	
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	ReadAntenna Freq Level Factor		Cable Loss	Preamp Factor	Level	Limit Line	t Over e Limit	Remark	
	MHz	₫₿uŸ	<u>dB</u> /m	āB	<u>ab</u>	dBu√/m	dBuV/m	<u>qp</u>	
1 2	2483.500 2483.500								

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



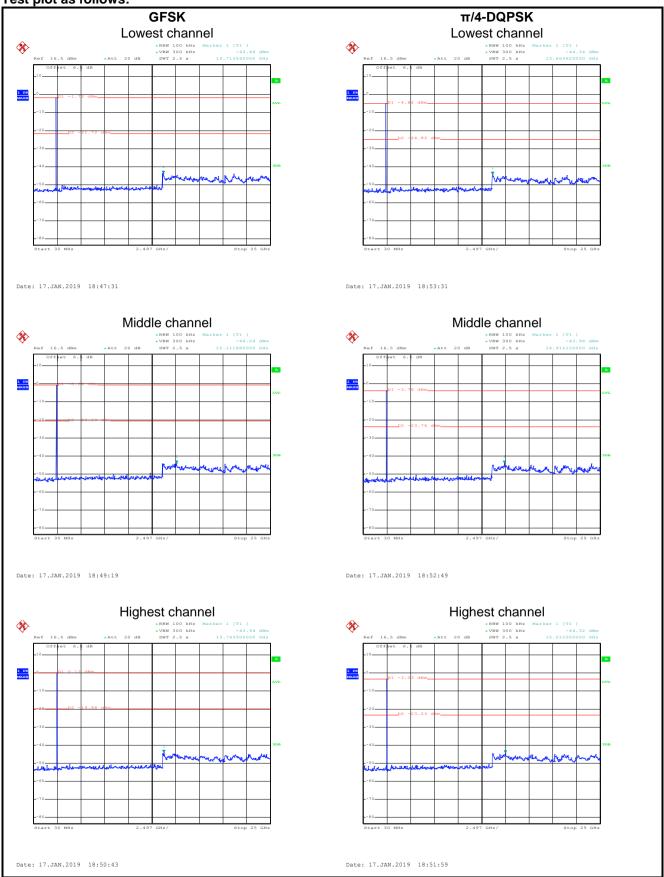
6.10 Spurious Emission

6.10.1 Conducted Emission Method

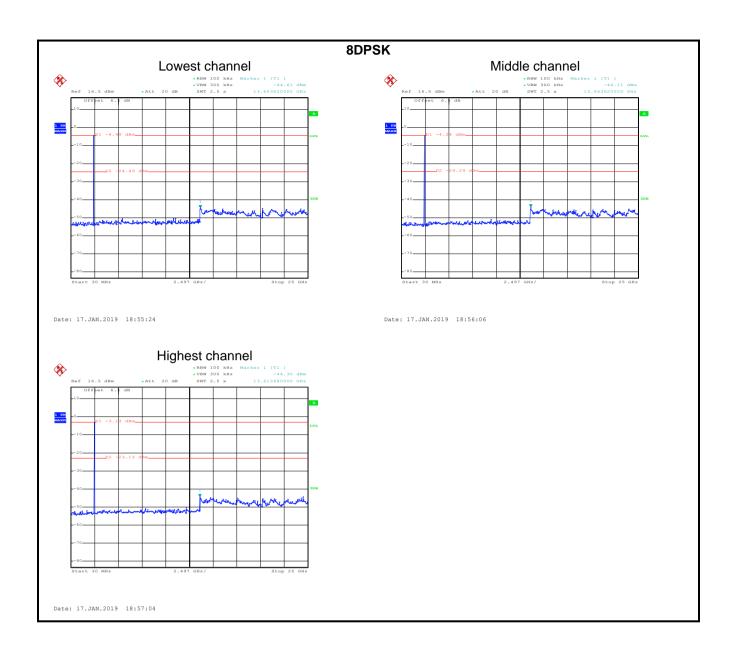
Test Requirement:	FCC Part 15 C Section 15.247 (d)					
Test Method:	ANSI C63.10:2013 and KDB 558074					
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.					
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane					
Test Instruments:	Refer to section 5.8 for details					
Test mode:	Non-hopping mode					
Test results:	Pass					



Test plot as follows:









6.10.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C	Section 15	5.209	1			
Test Method:	ANSI C63.10: 2013						
Test Frequency Range:	9 kHz to 25 GH:						
Test Distance:	3m	<u>-</u>					
Receiver setup:		Frequency Detector RBW VBW Remark					
	<u>' ' </u>				300kl		
		Peak		1MHz	ЗМН		
	Above 1GHz RMS 1MHz 3MH						
Limit:	Frequency Limit (dBuV/m @3m) Remark						
	30MHz-88N	-		40.0	,	Quasi-peak Value	
	88MHz-216ľ	MHz		43.5		Quasi-peak Value	
	216MHz-960	MHz		46.0		Quasi-peak Value	
	960MHz-10	SHz		54.0		Quasi-peak Value	
				54.0		Average Value	
	Above 1GI	Hz -		74.0		Peak Value	
Test setup:	7/////		4m	m		Antenna Tower Search Antenna RF Test Receiver	
	Above 1GHz	nd Plane ———					
	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	AE EU (Turntable)	Ground Reference Plane Test Receiver Amplier Controller				
Test Procedure:	/1.5m(above	1GHz) ab	ove t	the ground a	a 3 me	ole 0.8m(below 1GHz) eter chamber. The table ion of the highest	

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
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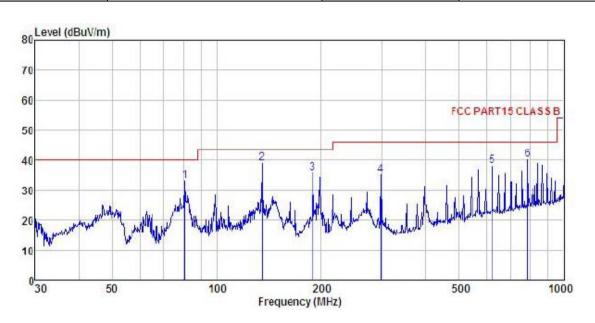
	 The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Non-hopping mode
Test results:	Pass
Remark:	 Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 9 kHz to 30 MHz is noise floor, so only shows the data of above 30MHz in this report.



Measurement Data (worst case):

Below 1GHz:

Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



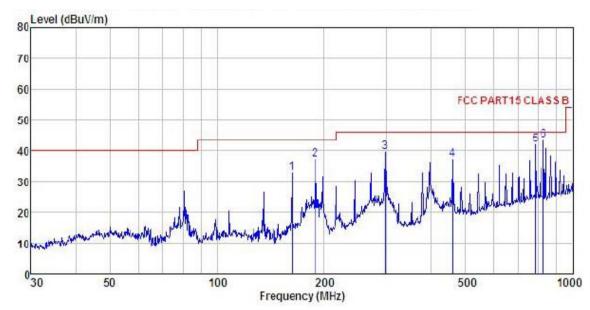
	Freq		Antenna Factor					Over Limit	Remark
2	MHz	₫₿uŸ			<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>ab</u>	
1 2 3 4 5	80.927 135.032 189.074 297.224 622.890 185.093	52. 86 57. 49 50. 81 47. 04 43. 50 43. 13	8. 29 8. 39 11. 07 13. 58 19. 48 21. 00	1.69 2.34 2.79 2.93 3.90 4.35	29.30 28.91 28.46 28.86	38. 92 35. 76 35. 09 38. 02	43.50 43.50 46.00 46.00	-4.58 -7.74 -10.91	QP QP QP QP

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Product Name:	7 INCH WIFI TABLET	Product model:	HT0705W08A
Test By:	Zora	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



			Antenna					Over	D
	rreq	Level	Factor	Loss	ractor	rever	Line	Limit	Kemark
,	MHz	dBu₹	dB/m	₫B	₫B	dBu√/m	dBuV/m	<u>dB</u>	
1	162.041	50.11	9.16	2.60	29.12	32, 75	43.50	-10.75	QF
2	189.074	52.29	11.07	2.79	28.91	37.24	43.50	-6.26	QF
2	297.224	51.56	13.58	2.93	28.46	39.61	46.00	-6.39	QF
4	459.114	46.53	16.37	3.27	28.89	37.28	46.00	-8.72	QF
4 5	185.093	44.93	21.00	4.35	28.28	42.00	46.00	-4.00	QF
6	827.493	45.91	21.17	4.26	28.09	43, 25	46.00	-2.75	QP

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Above 1GHz:

Above 1GHz	<u>: </u>							
			Test ch	annel: Lowe	est channel			
			De	tector: Peak	Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804	46.53	30.85	6.80	41.81	42.37	74.00	-31.63	Vertical
4804	47.81	30.85	6.80	41.81	43.65	74.00	-30.35	Horizontal
			Dete	ctor: Averaç	ge Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4804.00	37.54	30.85	6.80	41.81	33.38	54.00	-20.62	Vertical
4804.00	38.55	30.85	6.80	41.81	34.39	54.00	-19.61	Horizontal
			Test ch	annel: Mido	lle channel			
			De	tector: Peak	Value		T	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4882.00	46.36	31.20	6.86	41.84	42.58	74.00	-31.42	Vertical
4882.00	47.15	31.20	6.86	41.84	43.37	74.00	-30.63	Horizontal
			Dete	ctor: Averaç	ge Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4882.00	37.33	31.20	6.86	41.84	33.55	54.00	-20.45	Vertical
4882.00	38.04	31.20	6.86	41.84	34.26	54.00	-19.74	Horizontal
				annel: High				
				tector: Peak	Value		I	Г
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	46.56	31.63	6.91	41.87	43.23	74.00	-30.77	Vertical
4960.00	46.89	31.63	6.91	41.87	43.56	74.00	-30.44	Horizontal
			Dete	ctor: Avera	ge Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4960.00	37.45	31.63	6.91	41.87	34.12	54.00	-19.88	Vertical
4060.00	27.60	24.62	6.04	44.07	24.25	E4.00	10 CF	Harizantal

Remark:

4960.00

37.68

1. Final Level =Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

6.91

2. The emission levels of other frequencies are very lower than the limit and not show in test report.

41.87

34.35

54.00

-19.65

31.63

Project No.: CCISE1812128

Horizontal