

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC153918

1 of 45 Page:

FCC Radio Test Report FCC ID: 2AL64-WESTGATE

Original Grant

Report No. TB-FCC153918

Applicant Shenzhen qiuyu Electronic Co.,Ltd

Equipment Under Test (EUT)

EUT Name Tablet PC

Model No. PTV-R78-3288

Serial Model No. Westgate Owner Tablet

Brand Name Westgate Owner

Receipt Date 2017-05-12

Test Date 2017-05-13 to 2017-05-18

Issue Date 2017-05-19

Standards FCC Part 15: 2016, Subpart C(15.247)

Test Method ANSI C63.10: 2013

Conclusions : PASS

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

Test/Witness

Engineer

Approved&

Authorized

the report.

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. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in

TB-RF-074-1.0

Tel: +86 75526509301



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1. General Information about EUT

1.1 Client Information

Applicant: Shenzhen qiuyu Electronic Co.,Ltd

Address 3F, E Building, Hongzhuyongqi Industrial Park, Lezhujiao village,

xixiang town, Bao'an District, Shenzhen, China

Manufacturer : Shenzhen qiuyu Electronic Co.,Ltd

Address : 3F, E Building, Hongzhuyongqi Industrial Park, Lezhujiao village,

xixiang town, Bao'an District, Shenzhen, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	1	Tablet PC			
Models No.	7	PTV-R78-3288, Westgat	te Owner Tablet		
Model Difference	-5		ntical in the same PCB layout and electrical ce is model name for commercial.		
MUDE		Operation Frequency:	Bluetooth 4.0(BLE): 2402MHz~2480MHz		
		Number of Channel:	Bluetooth 4.0(BLE): 40 channels see note(3)		
Product		RF Output Power:	-3.54 dBm Conducted Power		
Description	ď	Antenna Gain:	1.4 dBi FPC Antenna		
		Modulation Type:	GFSK		
		Bit Rate of Transmitter:	1Mbps(GFSK)		
Power Supply		DC Voltage supplied by DC Voltage supplied by			
Power Rating	r Rating : AC/DC Adapter (K-T100502000U): Input: AC 100~240V, 50/60Hz, 0.35A. Output: DC 5V, 2.0A.		/60Hz, 0.35A.		
Connecting I/O Port(S)	•		DC 3.7V by 3500mAh Li-ion battery. Please refer to the User's Manual		

Note:

This Test Report is FCC Part 15.247 for Bluetooth BLE, the test procedure follows the FCC KDB 558074 D01 DTS Means Guidance v04.

- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.
- (3) Channel List:

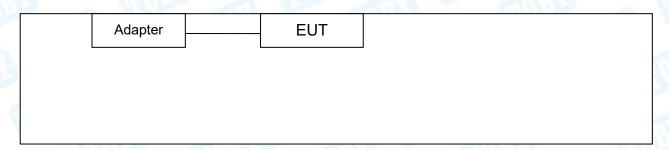


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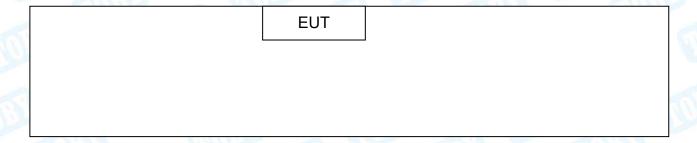
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	14	2430	28	2458
01	2404	15	2432	29	2460
02	2406	16	2434	30	2462
03	2408	17	2436	31	2464
04	2410	18	2438	32	2466
05	2412	19	2440	33	2468
06	2414	20	2442	34	2470
07	2416	21	2444	35	2472
08	2418	22	2446	36	2474
09	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454		
13	2428	27	2456		

1.3 Block Diagram Showing the Configuration of System Tested

Charging + TX Mode



TX Mode





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1.4 Description of Support Units

Equipment Information				
Name	Model	FCC ID/VOC	Manufacturer	Used "√"
Mary Control	W.	The state of the s	39 7	Miles .
		Cable Information		
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	YES	NO	1.0M	

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For (For Conducted Test			
Final Test Mode	Description			
Mode 1	Charging + TX Mode			

For	Radiated Test
Final Test Mode	Description
Mode 2	TX Mode
Mode 3	TX Mode (Channel 00/20/39)

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

BLE Mode: GFSK Modulation Transmitting mode.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



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1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF setting.

Test Software Version	RTLBTAPP.exe		
Frequency	2402 MHz	2442MHz	2480 MHz
BLE GFSK	DEF	DEF	DEF

1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, 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 %.

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
	Level Accuracy:	
Conducted Emission 9kHz~150kHz ±3.42	±3.42 dB	
	150kHz to 30MHz ±3.42 dB	±3.42 dB
Dedicted Emission	Level Accuracy:	14 00 IB
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy:	±4.40 dB
Radiated Emission	30MHz to 1000 MHz	±4.40 db
Radiated Emission	Level Accuracy:	+4 20 dB
Radiated Emission	Above 1000MHz	±4.20 dB



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1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



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2. Test Summary

Standard S	Section	Took House		Damari
FCC	IC	Test Item	Judgment	Remark
15.203		Antenna Requirement	PASS	N/A
15.207(a)	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205&15.247(d)	RSS-GEN 7.2.2	Band-Edge & Unwanted Emissions into Restricted Frequency	PASS	N/A
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	PASS	N/A
15.247(b)(3)	RSS 247 5.4 (4)	Conducted Max Output Power	PASS	N/A
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	PASS	N/A
15.205, 15.209&15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious &Unwanted Emissions into Restricted Frequency	PASS	N/A

Note: N/A is an abbreviation for Not Applicable.



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3. Test Equipment

Conducte	d Emission Te	st			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 22, 2016	Jul. 21, 2017
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 22, 2016	Jul. 21, 2017
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 22, 2016	Jul. 21, 2017
LISN	Rohde & Schwarz	ENV216	101131	Jul. 22, 2016	Jul. 21, 2017
Radiation	Emission Tes	t			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.25, 2017	Mar. 24, 201
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.25, 2017	Mar. 24, 2018
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.24, 2017	Mar. 23, 2018
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.24, 2017	Mar. 23, 201
Loop Antenna	Laplace instrument	RF300	0701	Mar.24, 2017	Mar. 23, 2018
Pre-amplifier	Sonoma	310N	185903	Mar.24, 2017	Mar. 23, 201
Pre-amplifier	HP	8449B	3008A00849	Mar.25, 2017	Mar. 24, 2018
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.24, 2017	Mar. 23, 2018
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna C	Conducted Em	ission			
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 22, 2016	Jul. 21, 2017
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 22, 2016	Jul. 21, 2017
Power Meter	Anritsu	ML2495A	25406005	Jul. 22, 2016	Jul. 21, 2017
Power Sensor	Anritsu	ML2411B	25406005	Jul. 22, 2016	Jul. 21, 2017



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4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

4.1.2 Test Limit

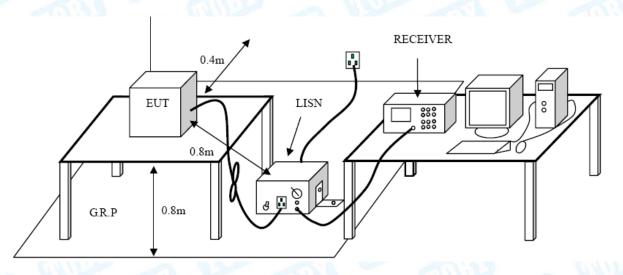
Conducted Emission Test Limit

Francis of Miles	Maximum RF Line Voltage (dBμV)		
Frequency	Quasi-peak Level	Average Level	
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

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 to 40 cm long.



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I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Da5ta

Test data please refer the following pages.



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EUT:	Tablet	PC	Me	odel:		PTV-R78	-3288
Temperature:	: 25℃	em'	Re	elative Humi	idity:	55%	Allen
Test Voltage:	AC 12	0V/60 Hz		10	(6)	MASS	
Terminal:	Line	7	MAG		1 6		
Test Mode:	TX GF	SK Mode 2	402 MHz	MILE		- N	BULL
Remark:	Only w	vorse case is	s reported	6	100	133	
90.0 dBuV							
						QP:	
40	N. M.		Trodipal _{later} operate and open selection		,~\ _\ /\ _\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		X
40	A. M.		Carrette of Mary 1919		MANAGANAN		
-10	A DALLANDA AND A		Mallad Mary And Mary Mary		MANAGANAN		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		(MHz)	5	mayaan		
-10	0.5	Reading	(MHz) Correct Factor	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Limit		
-10 0.150		Reading	Correct	5 Measure-	our experience	And And Assertance	
-10 0.150	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	30.000
-10 0.150 No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment dBuV	Limit dBuV	Over	30.000
No. Mk.	Freq. MHz 0.1819	Reading Level dBuV 37.41	Correct Factor dB 10.12	Measure- ment dBuV 47.53	Limit dBuV 64.39	Over dB -16.86 -22.27	30.000 Detector QP

No. Mk	. Freq.	Level	Factor	ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1819	37.41	10.12	47.53	64.39	-16.86	QP
2	0.1819	22.00	10.12	32.12	54.39	-22.27	AVG
3 *	0.6660	31.86	10.02	41.88	56.00	-14.12	QP
4	0.6660	16.78	10.02	26.80	46.00	-19.20	AVG
5	3.3700	26.75	10.06	36.81	56.00	-19.19	QP
6	3.3700	12.54	10.06	22.60	46.00	-23.40	AVG
7	4.8019	27.36	10.06	37.42	56.00	-18.58	QP
8	4.8019	14.36	10.06	24.42	46.00	-21.58	AVG
9	8.4938	30.51	10.11	40.62	60.00	-19.38	QP
10	8.4938	15.57	10.11	25.68	50.00	-24.32	AVG
11	17.8859	34.32	10.06	44.38	60.00	-15.62	QP
12	17.8859	18.57	10.06	28.63	50.00	-21.37	AVG



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EUT:	Tablet PC	Mo	del:	PTV-R78-	3288
Temperature:	25°C		lative Humidity:	55%	0200
Test Voltage:	AC 120V/60 Hz	30	THUE		111111
Terminal:	Neutral			anni 9	
Test Mode:	TX GFSK Mode	2402 MHz			
Remark:	Only worse case	e is reported	Will man	a V	
90.0 dBuV				00	
-10	0.5		5	QP: AVG:	peak AVG
0.150		(MHz)			30.000
No. Mk. Fr	Reading eq. Level	Correct Factor	Measure- ment Lin	nit Over	
MI	Hz dBuV	dB	dBuV dB	uV dB	Detector
1 0.18	34.70	9.99	44.69 64.	21 -19.52	QP
2 0.18	360 26.84	9.99	36.83 54.	21 -17.38	AVG
3 0.67	700 32.94	10.10	43.04 56.	00 -12.96	QP
4 * 0.67	700 26.48	10.10	36.58 46.	00 -9.42	AVG
5 0.75	31.43	10.11	41.54 56.	00 -14.46	QP
6 0.75	539 25.71	10.11	35.82 46.	00 -10.18	AVG
7 2.17	780 27.21	10.05	37.26 56.	00 -18.74	QP
8 2.17	780 21.25	10.05	31.30 46.	00 -14.70	AVG
9 17.18	36.21	10.22	46.43 60.	00 -13.57	QP
10 17.18	320 20.44	10.22	30.66 50.	00 -19.34	AVG
11 19.20	020 34.91	10.18	45.09 60.	00 -14.91	QP
12 19.20	020 19.24	10.18	29.42 50.	00 -20.58	AVG
Emission Level=	Read Level+ Cor	rect Factor			



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EUT:	Tabl	et PC		Model:		PTV-F	R78-3288
Temperature	: 25 ℃			Relative Hu	ımidity:	55%	Allen
Test Voltage:	AC 2	240V/60 Hz		THE PER	16	1 CAME	
Terminal:	Line		2 BIG				
Test Mode:	TX	GFSK Mode	2402 MHz	GMILE			Alline
Remark:	Only	worse case	is reported	t	e la	1113	
90.0 dBuV							
							P: — VG: —
						Let*	AND MANY
40 4 1		, K. M.	A. Ida bada	id getical of grant to be designed to be a	whompythatel	Mary brought of mary hand had	<u> </u>
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	MY M. W.	M 144/MW	v ⁱ leo/gllo/MM/M/Me _{erin}	of Ages and Construction	Little]"]	manue M
MMI		W WIN	MMMMM	Many photographer and particular	approximated the same	Water State of the	1
7 ~	W + W	4 04/00	CO. 4. Blabba	7			-
10							
0.150	0.	5	(MHz)	5			30.000
	0.						30.000
	Freq.	Reading Level	(MHz) Correct Factor	Measure- ment	Limit	Over	30.000
0.150		Reading	Correct	Measure-	Limit	Over dB	30.000
0.150 No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	dBuV		
0.150 No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	dBuV	dB	Detector
0.150 No. Mk. 1 (2	Freq. MHz 0.2940	Reading Level dBuV 29.95	Correct Factor dB	Measure- ment dBuV 39.97	dBuV 60.41 50.41	dB -20.44	Detector QP
0.150 No. Mk. 1 (2 (3)	Freq. MHz 0.2940	Reading Level dBuV 29.95 19.25	Correct Factor dB 10.02	Measure- ment dBuV 39.97 29.27	dBuV 60.41 50.41 56.00	dB -20.44 -21.14	Detector QP AVG
0.150 No. Mk. 1 (2 (3 4 * (4 * (4 * (4 * (4 * (4 * (4 * (4	Freq. MHz 0.2940 0.2940 0.6460	Reading Level dBuV 29.95 19.25 30.55 25.02	Correct Factor dB 10.02 10.02 10.09	Measure- ment dBuV 39.97 29.27 40.64 35.11	dBuV 60.41 50.41 56.00 46.00	dB -20.44 -21.14 -15.36 -10.89	Detector QP AVG QP AVG
0.150 No. Mk. 1 (2 (3 4 * (5 (5 (4 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68	Correct Factor dB 10.02 10.02 10.09 10.09	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78	dBuV 60.41 50.41 56.00 46.00 56.00	dB -20.44 -21.14 -15.36 -10.89 -18.22	Detector QP AVG QP AVG QP
0.150 No. Mk. 1 (2 (3 4 * (5 6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20	Correct Factor dB 10.02 10.02 10.09 10.10 10.10	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30	dBuV 60.41 50.41 56.00 46.00 56.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70	Detector QP AVG QP AVG QP AVG
0.150 No. Mk. 1	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900 0.7900	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20 20.76	Correct Factor dB 10.02 10.02 10.09 10.09 10.10 10.10 10.01	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30 30.77	dBuV 60.41 50.41 56.00 46.00 56.00 56.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70 -25.23	Detector QP AVG QP AVG QP AVG QP
0.150 No. Mk. 1 (2 (3 (4 * (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900 0.7900 0.6420 0.6420	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20 20.76 14.52	Correct Factor dB 10.02 10.02 10.09 10.09 10.10 10.10 10.01	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30 30.77 24.53	dBuV 60.41 50.41 56.00 46.00 56.00 46.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70 -25.23 -21.47	Detector QP AVG QP AVG QP AVG AVG
0.150 No. Mk. 1 (2 (3 (4 * (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900 0.7900 0.6420 7.3300	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20 20.76 14.52 22.23	Correct Factor dB 10.02 10.02 10.09 10.09 10.10 10.10 10.01 10.01 10.07	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30 30.77 24.53 32.30	dBuV 60.41 50.41 56.00 46.00 56.00 46.00 60.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70 -25.23 -21.47 -27.70	Detector QP AVG QP AVG QP AVG QP AVG QP AVG
0.150 No. Mk. 1 (2 (3 (4 * (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6 (6	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900 0.7900 0.6420 0.6420	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20 20.76 14.52	Correct Factor dB 10.02 10.02 10.09 10.09 10.10 10.10 10.01	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30 30.77 24.53	dBuV 60.41 50.41 56.00 46.00 56.00 46.00 60.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70 -25.23 -21.47	Detector QP AVG QP AVG QP AVG AVG
0.150 No. Mk. 1	Freq. MHz 0.2940 0.2940 0.6460 0.6460 0.7900 0.7900 0.7900 0.6420 7.3300	Reading Level dBuV 29.95 19.25 30.55 25.02 27.68 20.20 20.76 14.52 22.23	Correct Factor dB 10.02 10.02 10.09 10.09 10.10 10.10 10.01 10.01 10.07	Measure- ment dBuV 39.97 29.27 40.64 35.11 37.78 30.30 30.77 24.53 32.30	dBuV 60.41 50.41 56.00 46.00 56.00 46.00 60.00 50.00	dB -20.44 -21.14 -15.36 -10.89 -18.22 -15.70 -25.23 -21.47 -27.70	Detector QP AVG QP AVG QP AVG QP AVG QP AVG



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4	10	DV
e de la companya de l	K O	IKY
1	. •	T T

EUT:	Tablet Po		Model:		PTV	/-R78-3288
Temperature:	25℃		Relative H	umidit	y : 55%	ó
Test Voltage:	AC 240V	/60 Hz	WILL Y	16		9
Terminal:	Neutral	2 88				
Test Mode:	TX GFSk	K Mode 2402 MF	łz (1)			ARTE
Remark:	Only wor	se case is repor	ted	GIII	133	
90.0 dBuV						
						P: — VG: —
	×. X	Y X			nivered/dpains/hillywed/b	, MANANA,
40 ~~~~	Why wh h	THANKARAM MARAMAR	LIGHT HE TO A THAT HE WAS THE WAS THE	usperstelytech pelpeled	Virginiahahan .	- m
5 4)	Managh in Man.				pe pe
WY V	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	An AMM	Mayortuba agglesiban sarayaan	mande-rate prope	alange days and restrict the rest	
		Andrea . Malle.	AL. AL			MA'
10						
0.150	0.5	(MHz)	5			30.000
	Read	ding Correct	Measure-			-
No. Mk. F	req. Lev	el Factor	ment	Limit	Over	
N	MHz dBı	uV dB	dBuV	dBuV	dB	Detector
1 0.3	3620 30.	80 10.07	40.87	58.68	-17.81	QP
2 0.3	3620 19.	16 10.07	29.23	48 68	-19.45	AVG
				10.00		
3 * 0.6	34.	14 10.02			-11.84	QP
	3540 34. 3540 20.		44.16	56.00	-11.84 -15.39	QP AVG
4 0.6	§540 20.	59 10.02	44.16 30.61	56.00 46.00	-15.39	AVG
4 0.6 5 0.7	6540 20. 7940 31.	59 10.02 54 10.06	44.16 30.61 41.60	56.00 46.00 56.00	-15.39 -14.40	AVG QP
4 0.6 5 0.7 6 0.7	6540 20. 7940 31. 7940 16.	10.02 54 10.06 07 10.06	44.16 30.61 41.60 26.13	56.00 46.00 56.00 46.00	-15.39 -14.40 -19.87	AVG QP AVG
4 0.6 5 0.7 6 0.7 7 1.2	6540 20. 7940 31. 7940 16. 2260 28.	10.02 54 10.06 07 10.06 01 10.14	44.16 30.61 41.60 26.13 38.15	56.00 46.00 56.00 46.00 56.00	-15.39 -14.40 -19.87 -17.85	AVG QP AVG QP
4 0.6 5 0.7 6 0.7 7 1.2 8 1.2	6540 20. 7940 31. 7940 16. 2260 28.	10.02 54 10.06 07 10.06 01 10.14 52 10.14	44.16 30.61 41.60 26.13 38.15 23.66	56.00 46.00 56.00 46.00 56.00 46.00	-15.39 -14.40 -19.87 -17.85 -22.34	AVG QP AVG QP AVG
4 0.6 5 0.7 6 0.7 7 1.2 8 1.2	6540 20. 7940 31. 7940 16. 2260 28.	10.02 54 10.06 07 10.06 01 10.14 52 10.14	44.16 30.61 41.60 26.13 38.15 23.66	56.00 46.00 56.00 46.00 56.00 46.00	-15.39 -14.40 -19.87 -17.85	AVG QP AVG QP
4 0.6 5 0.7 6 0.7 7 1.2 8 1.2 9 17.8	6540 20. 7940 31. 7940 16. 2260 28.	10.02 54 10.06 07 10.06 01 10.14 52 10.14 56 10.06	44.16 30.61 41.60 26.13 38.15 23.66 41.62	56.00 46.00 56.00 46.00 56.00 46.00	-15.39 -14.40 -19.87 -17.85 -22.34	AVG QP AVG QP AVG
4 0.6 5 0.7 6 0.7 7 1.2 8 1.2 9 17.8 10 17.8	3540 20. 7940 31. 7940 16. 2260 28. 2260 13. 3900 31.	10.02 54 10.06 07 10.06 01 10.14 52 10.14 56 10.06 61 10.06	44.16 30.61 41.60 26.13 38.15 23.66 41.62 28.67	56.00 46.00 56.00 46.00 56.00 46.00 60.00	-15.39 -14.40 -19.87 -17.85 -22.34 -18.38	AVG QP AVG QP AVG



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5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.247(d)

5.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency	Distance Meters(at 3m)				
(MHz)	Peak (dBuV/m)	Average (dBuV/m)			
Above 1000	74	54			

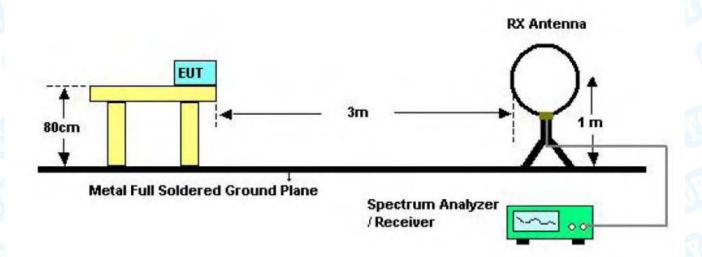
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

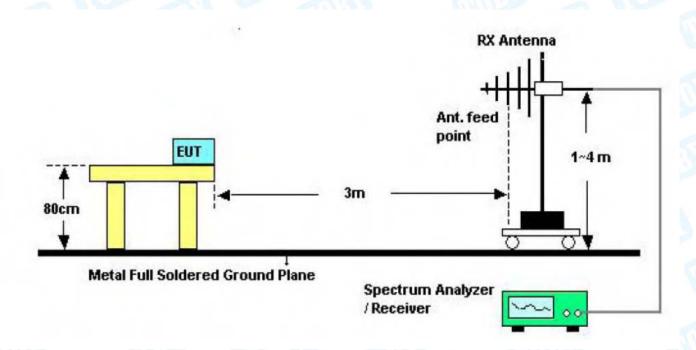


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5.2 Test Setup



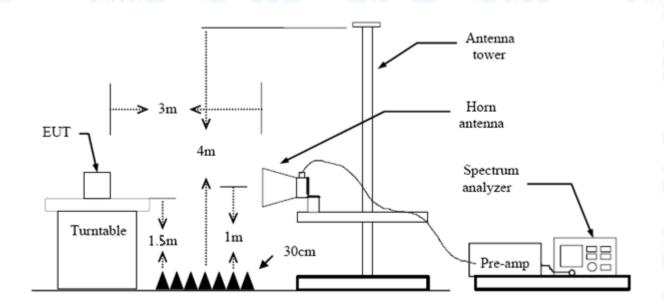
Below 30MHz Test Setup



Below 1000MHz Test Setup



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Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



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5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Test data please refer the following pages.



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9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB

below the permissible value has no need to be reported.

30MHz~1GHz

C 120/60Hz orizontal LE TX 2402 Mod nly worse case i	de	Relative Hur		C 3M Radiation Margin 6	
orizontal LE TX 2402 Mod		2 34	(RF)FCC 15(Margin -6	
LE TX 2402 Mod		2 34	(RF)FCC 150	Margin -6	
nly worse case i		2 3 4	(RF)FCC 15(Margin -6	
	s reported	2 34	(RF)FCC 15(Margin -6	
Mark Wall	Myny	2 34	(RF)FCC 15	Margin -6	
Mark Mark Mark	N/ hully M	2 3 4 X X X X X X X X X X X X X X X X X X X	(RF)FCC 15	Margin -6	
0 70 80	(MHz)	300	400 500	600 700	1000.00
Reading Level	Correct Factor	Measure- ment	Limit	Over	
dBuV	dB/m	dBuV/m	dBuV/m	dB	Detecto
38 55.87	-23.65	32.22	40.00	-7.78	peak
74 57.11	-18.18	38.93	46.00	-7.07	peak
81 58.34	-16.81	41.53	46.00	-4.47	peak
00 56.41	-16.43	39.98	46.00	-6.02	peak
97 43.61	-6.50	37.11	46.00	-8.89	peak
					peak
	Reading Level dBuV 38 55.87 74 57.11 81 58.34 00 56.41 97 43.61 59 43.70	Reading Level Factor dBuV dB/m 38 55.87 -23.65 74 57.11 -18.18 81 58.34 -16.81 90 56.41 -16.43 97 43.61 -6.50 59 43.70 -6.00	Reading Level Factor Measure-	Reading Level Factor Measure- House Heaver	Reading Level Factor Measure-ment Limit Over dBuV dB/m dBuV/m dBuV/m dB 38 55.87 -23.65 32.22 40.00 -7.78 74 57.11 -18.18 38.93 46.00 -7.07 81 58.34 -16.81 41.53 46.00 -4.47 00 56.41 -16.43 39.98 46.00 -6.02 97 43.61 -6.50 37.11 46.00 -8.89 59 43.70 -6.00 37.70 46.00 -8.30



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Test Voltage: AC 120/60Hz Ant. Pol. Vertical Test Mode: BLE TX 2402 Mode Remark: Only worse case is reported 80.0 dBuV/m (REFFECT 15C 3M Radiation Margin - 6 dB	
Ant. Pol. Vertical Test Mode: BLE TX 2402 Mode Remark: Only worse case is reported 80.0 dBuV/m (RF)FCC 15C 3M Radiation Margin 6 dB	
Remark: Only worse case is reported 80.0 dBuV/m (RFJFCC 15C 3M Radiation Margin -6 dB	
Remark: Only worse case is reported 80.0 dBuV/m (RF)FCC 15C 3M Radiation Margin -6 dB	
80.0 dBuV/m (RF)FCC 15C 3M Radiation Margin -6 dB	
(RF)FCC 15C 3M Radiation Margin -6 dB	
	<u> </u>
-20 30.000 40 50 60 70 80 (MHz) 300 400 500 600 700	1000.00
Reading Correct Measure- No. Mk. Freq. Level Factor ment Limit Over	
MHz dBuV _{dB/m} dBuV/m dBuV/m dB E	Detecto
1 48.1625 56.13 -23.72 32.41 40.00 -7.59	
2 106.7587 57.86 -21.85 36.01 43.50 -7.49	peak
3 * 143.8291 59.78 -21.51 38.27 43.50 -5.23	peak peak
4 191.7450 57.11 -20.45 36.66 43.50 -6.84	

290.0172

480.5276

5

6

Emission Level= Read Level+ Correct Factor

56.09

49.95

-16.85

-11.13

39.24

38.82

46.00

46.00

-6.76

-7.18

peak

peak

^{*:}Maximum data x:Over limit !:over margin



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Above 1GHz

EUT:	Tablet PC	Model:	PTV-R78-3288						
Temperature:	25℃	Relative Humidity:	55%						
Test Voltage:	AC 120/60Hz								
Ant. Pol.	Horizontal								
Test Mode:	BLE Mode TX 2402 MHz								
Remark:	No report for the emission which more than 10 dB below the								
	prescribed limit.								

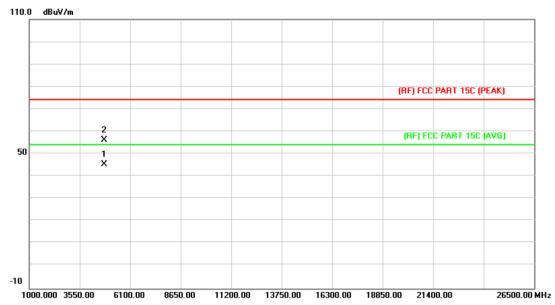


N	lo. N	Иk.	Freq.			Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4805.000	44.68	13.44	58.12	74.00	-15.88	peak
2	*		4807.425	31.70	13.47	45.17	54.00	-8.83	AVG



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EUT:	Tablet PC	Model:	PTV-R78-3288				
Temperature:	25℃	Relative Humidity:	55%				
Test Voltage:	AC 120/60Hz	AC 120/60Hz					
Ant. Pol.	Vertical						
Test Mode:	BLE Mode TX 2402 MHz		A VIII				
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.						



No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4804.250	31.84	13.44	45.28	54.00	-8.72	AVG
2		4806.210	42.75	13.46	56.21	74.00	-17.79	peak



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EUT:	Tablet PC	Model:	PTV-R78-3288				
Temperature:	25℃	Relative Humidity:	55%				
Test Voltage:	AC 120/60Hz	AC 120/60Hz					
Ant. Pol.	Horizontal	O					
Test Mode:	BLE Mode TX 2442 MHz		2				
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.182	42.47	13.90	56.37	74.00	-17.63	peak
2	*	4882.065	31.36	13.90	45.26	54.00	-8.74	AVG



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EUT:	Tablet PC	Model:	PTV-R78-3288				
Temperature:	25℃	Relative Humidity:	55%				
Test Voltage:	AC 120/60Hz						
Ant. Pol.	Vertical	Vertical					
Test Mode:	BLE Mode TX 2442 MHz		A VIII				
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						
110 0 dRuV/m							

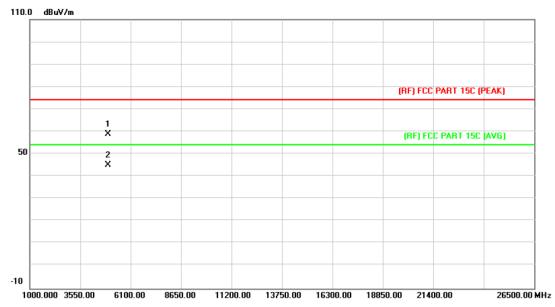


No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4881.721	44.74	13.90	58.64	74.00	-15.36	peak
2	*	4882.576	31.37	13.90	45.27	54.00	-8.73	AVG



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EUT:	Tablet PC	Model:	PTV-R78-3288					
Temperature:	25℃	Relative Humidity:	55%					
Test Voltage:	AC 120/60Hz	AC 120/60Hz						
Ant. Pol.	Horizontal	O						
Test Mode:	BLE Mode TX 2480 MHz	MIDE	3 Million					
Remark:	No report for the emission which more than 10 dB below the							
	prescribed limit.							

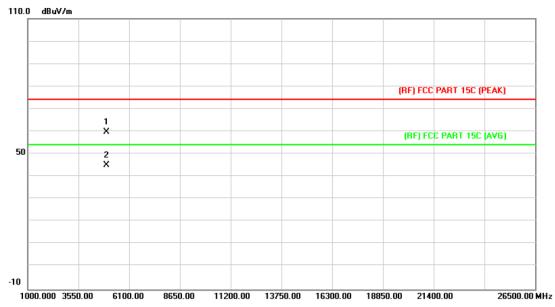


N	lo.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4959.595	44.57	14.36	58.93	74.00	-15.07	peak
2	,	*	4960.432	30.77	14.36	45.13	54.00	-8.87	AVG



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EUT:	Tablet PC	Model:	PTV-R78-3288				
Temperature:	25℃	25°C Relative Humidity: 55%					
Test Voltage:	AC 120/60Hz	AC 120/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	BLE Mode TX 2480 MHz		3 Hills				
Remark:	No report for the emission v	No report for the emission which more than 10 dB below the					
	prescribed limit.						



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4958.893	45.35	14.35	59.70	74.00	-14.30	peak
2	*	4960.102	30.71	14.36	45.07	54.00	-8.93	AVG



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6. Restricted Bands Requirement

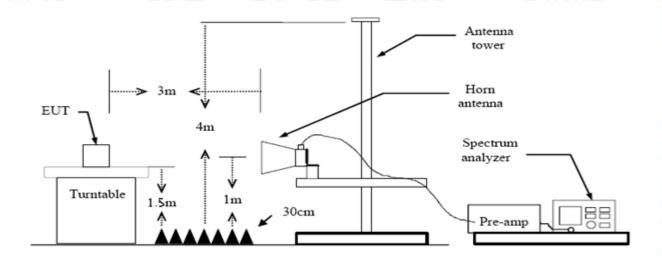
6.1 Test Standard and Limit

6.1.1 Test Standard FCC Part 15.247(d) FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Distance Mo	eters(at 3m)
Band (MHz)	Peak (dBuV/m)	Average (dBuV/m)
2310 ~2390	74	54
2483.5 ~2500	74	54

6.2 Test Setup



6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector



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mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

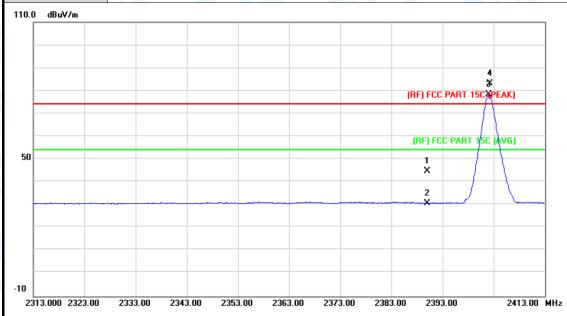
Test data please refer the following pages.



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(1) Radiation Test

EUT:	Tablet PC	Model:	PTV-R78-3288
Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	AC 120/60Hz	The state of the s	
Ant. Pol.	Horizontal		A VIVE
Test Mode:	BLE Mode TX 2402 MHz		319
Remark:	N/A		
110.0 JD.V/-			



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	43.97	0.77	44.74	74.00	-29.26	peak
2		2390.000	29.94	0.77	30.71	54.00	-23.29	AVG
3	*	2402.000	77.55	0.82	78.37	Fundamenta	I Frequency	AVG
4	Χ	2402.300	82.45	0.82	83.27	Fundamenta	I Frequency	peak



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EUT	T: Tablet PC Model:					PTV-R78	3-3288					
Tem	peratu	re:	25℃		All I	9	Relativ	e Hun	nidity:	55%	Alle	
Tes	t Voltag	e:	AC 12	20/60Hz		1	1180		67	7:33		
A nt	. Pol.		Vertic	al		BA						
Tes	t Mode:		BLE N	Mode TX	2402 I	MHz	6	4/1/2				
Ren	nark:		N/A	13						33		
110.0	dBuV/m											
									(RF) FC	A PART 15C PI	EAK)	
										Λ		
									(RF) F	CC PART 15C ((VG)	
50									1 X			
									2		+	
				·····					X		<u> </u>	
-10 23	13.000 232	3.00	2333.00	2343.00	2353.00	2363.0	00 237	3.00 2	383.00 239	3.00	2413.00 MH	
				Read	ina (Correc	t Ma	asure-				
١	No. Mk	. F	req.	Leve	_	Factor		nent	Limit	Over		
		N	ИHz	dBu'	V	dB/m	dE	BuV/m	dBuV/n	n dB	Detecto	
1		239	0.000	42.1	0	0.77	4	2.87	74.00	-31.1	3 peak	
2		239	0.000	30.0)5	0.77	3	0.82	54.00	-23.1	8 AVG	
3	*	240	2.100	76.3	4	0.82	7	7.16	— Fundamer	ital Frequenc	y AVG	
4	Х	240	2.200	79.5		0.82	0	0.41	-	tal Frequenc	y peak	



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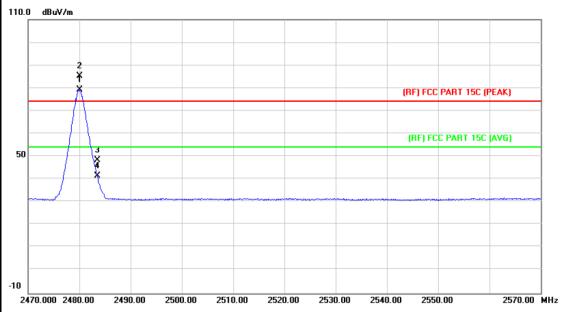
EUT:	Tablet PC		Model:	PTV-R78-3288
Temperature:	25℃		Relative Humidity:	55%
Test Voltage:	AC 120/60Hz	1		11:32
Ant. Pol.	Horizontal	A PHOTO		
Test Mode:	BLE Mode TX 2	2480 MHz		- William
Remark:	N/A			33
10.0 dBuV/m				
2 *				
<u> </u>			(RF) FCC	PART 15C (PEAK)
			(RF) FC	CC PART 15C (AVG)
50 3				
/ *				
10				
2470.000 2480.00	2490.00 2500.00 25	510.00 2520.00	2530.00 2540.00 255	50.00 2570.00 MH
	Dooding	Courset	Magazira	
No. Mk.	Reading Freq. Level	Correct Factor	Measure- ment Limit	Over
	MHz dBuV	dB/m	dBuV/m dBuV/n	n dB Detector
4 * 040	20.000 70.40	4.45	77.04	A) /O

No.	Mk	Freq.	Level	Factor	ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2480.000	76.19	1.15	77.34	Fundamental	Frequency	AVG
2	X	2480.200	82.37	1.15	83.52	Fundamental	Frequency	peak
3		2483.500	45.04	1.17	46.21	74.00	-27.79	peak
4		2483.500	38.13	1.17	39.30	54.00	-14.70	AVG



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EUT:	Tablet PC	Model:	PTV-R78-3288
Temperature:	25℃	Relative Humidity:	55%
Test Voltage:	AC 120/60Hz		The second
Ant. Pol.	Vertical		
Test Mode:	BLE Mode TX 2480 MHz		
Remark:	N/A		<u> </u>



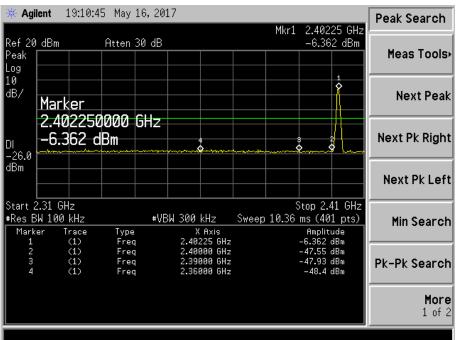
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2480.000	78.17	1.15	79.32	Fundamental	Frequency	AVG
2	Χ	2480.100	84.19	1.15	85.34	Fundamental	Frequency	peak
3		2483.500	47.09	1.17	48.26	74.00	-25.74	peak
4		2483.500	40.26	1.17	41.43	54.00	-12.57	AVG

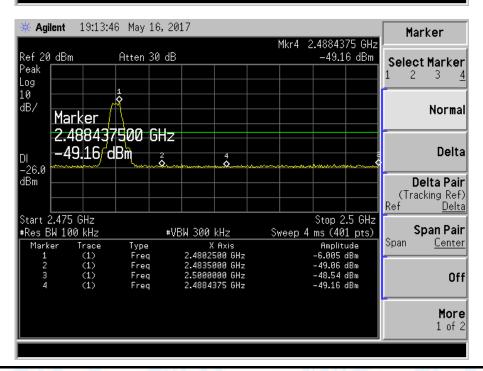


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(2) Conducted Test









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7. Bandwidth Test

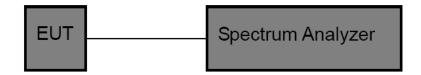
7.1 Test Standard and Limit

7.1.1 Test Standard FCC Part 15.247 (a)(2)

7.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-247								
Test Item	Test Item Limit Frequency Range(MH							
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5						

7.2 Test Setup



7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

7.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.



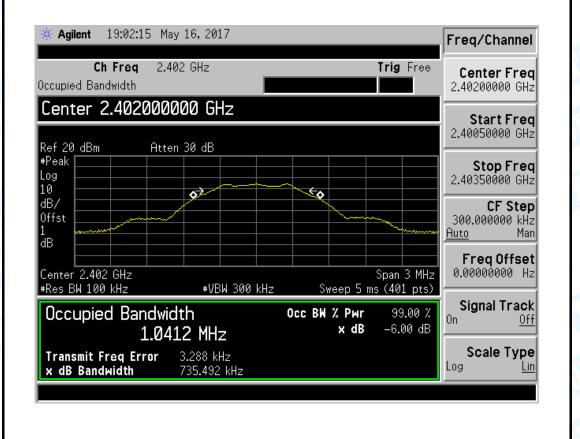
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7.5 Test Data

EUT:	Table	et PC	Model:		
Temperature:	25℃	D ON W	Relative Humidity:	55%	
Test Voltage:	Test Voltage: AC 120/60Hz				
Test Mode:	BLE	TX Mode		133	
Channel freque	ency	6dB Bandwidth	99% Bandwidth	Limit	
(MHz)		(kHz)	(kHz)	(kHz)	
2402	735.492		1041.2		
2442		725.260	1039.0	>=500	
2480		741.714 1042.0			
		DIES		<u> </u>	

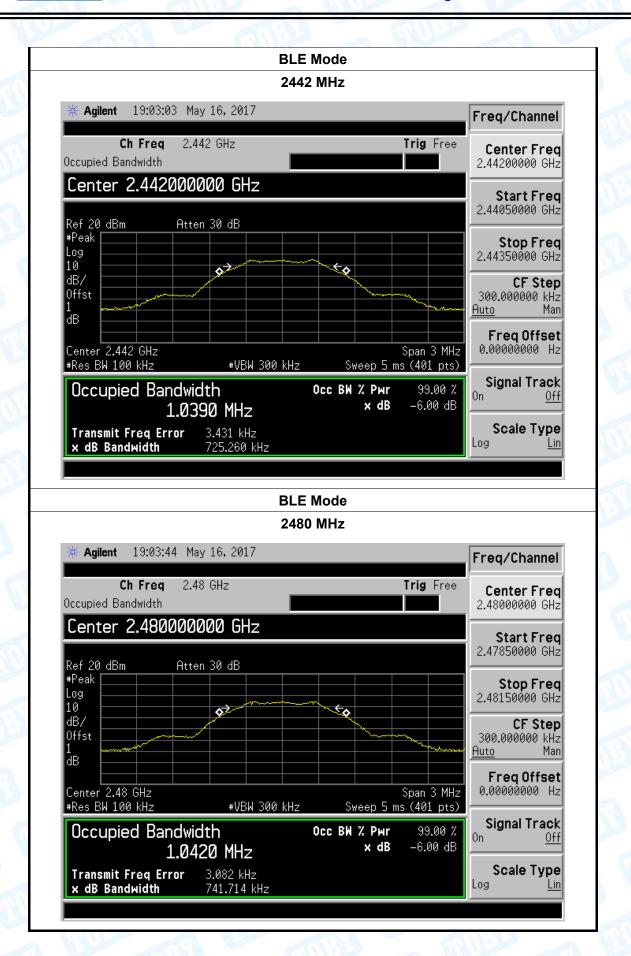
BLE Mode

2402 MHz





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8. Peak Output Power Test

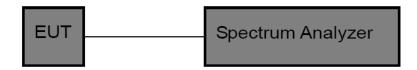
8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (b)(3)

8.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-247							
Test Item	Limit	Frequency Range(MHz)					
Peak Output Power	1 Watt or 30 dBm	2400~2483.5					

8.2 Test Setup



8.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to section 9.1.1 of KDB 558074 D01 DTS Meas Guidance v04.

- (1) Set the RBW≥DTS Bandwidth
- (2) Set VBW≥3*RBW
- (3) Set Span≥3*RBW
- (4) Sweep time=auto
- (5) Detector= peak
- (6) Trace mode= maxhold.
- (7) Allow trace to fully stabilize, and then use peak marker function to determine the peak amplitude level.

8.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.



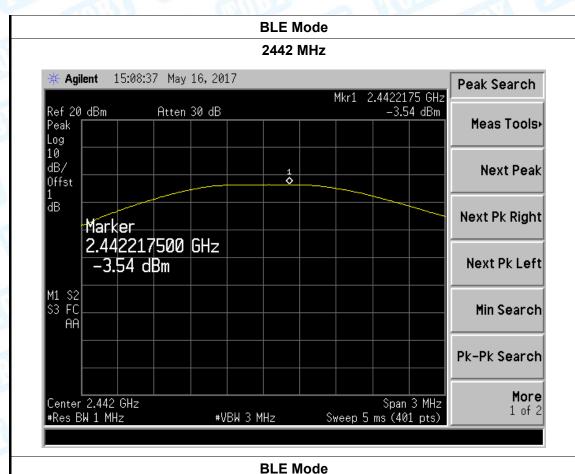
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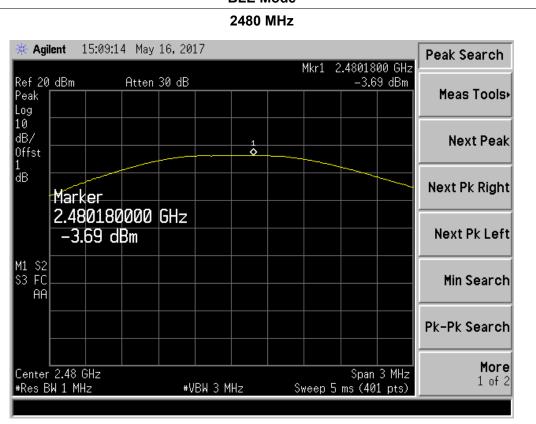
8.5 Test Data

EUT: Tablet PC		Tablet P	С		Mod	el:			PTV-R78-3288	
emperature	:	25℃		a W	Relative Humidity:			ty:	55%	
est Voltage		AC 120/	60Hz	13		1111	100			
est Mode:		BLE TX	Mode	1ode				33		
hannel fre	quenc	y (MHz)		Test Res	sult (di	Bm)		L	_imit (dBm)	
24	402			-4	.115					
24	142			-3	.540				30	
24	480			-3	.690					
			•	BLE	Mode		1			
				240	2 MHz					
Ref 20 dB Peak	m	Atten	30 dB			Mkr1		175 GHz .5 dBm	Meas Tools	
									Heas I odis	
Log 10 dB/ Offst					1 ♦				Next Peak	
10 dB/ Offst 1 dB	arker				100					
10 dB/ Offst 1 dB Ma	4022	47500 dBm	GHz		1 •				Next Peak	
10 dB/ Offst 1 dB Ma	4022	47500	GHz		100				Next Peak Next Pk Right	
10 dB/ Offst 1 dB Ma 2. M1 S2 S3 FC	4022	47500	GHz		100				Next Peak Next Pk Right Next Pk Left	



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9. Power Spectral Density Test

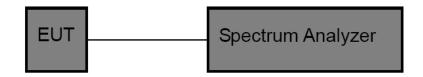
9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247 (e)

9.1.2 Test Limit

FCC Part 15 Subpart C(15.247)							
Test Item	Limit	Frequency Range(MHz)					
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5					

9.2 Test Setup



9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v04.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser center frequency to DTS channel center frequenyc.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz(5) Set the VBW to: 10 kHz
- (6) Detector: peak (7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

9.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Midle and high channel for the test.



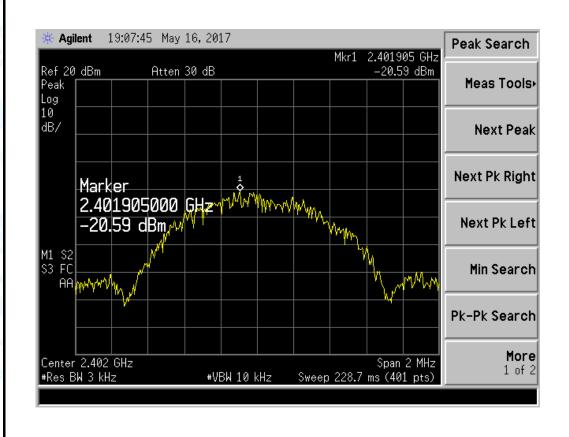
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9.5 Test Data

EUT:	Tablet PC	4000	Model:		PTV-	R78-3288	
Temperature:	25℃		Relative Humidity:				
Test Voltage:	AC 120/6	0Hz		- (ani'b		
Test Mode:	BLE TX N	/lode			China Control		
Channel Free	quency	Power Density		Lim	it	Popult	
(MHz)		(dBn	(dBr	n)	Result		
2402		-20.5	59				
2442		-19.95		8		PASS	
2480		-20.04					
		DIEM	a d a		L		

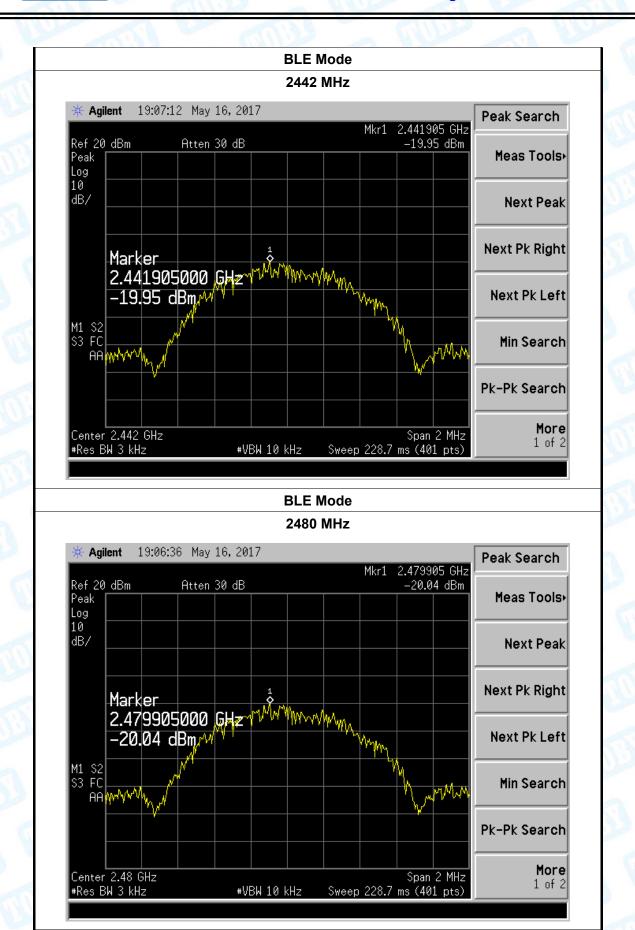
BLE Mode

2402 MHz





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10. Antenna Requirement

10.1 Standard Requirement

10.1.1 Standard FCC Part 15.203

10.1.2 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 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.

10.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 1.4dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

10.3 Result

The EUT antenna is a FPC Antenna. It complies with the standard requirement.

Antenna Type
Permanent attached antenna
⊠Unique connector antenna
☐Professional installation antenna

----END OF REPORT-----