

Radio Test Report

FCC ID: XHM-P2340000

This report concerns (check one): Original Grant Class II Change

Issued Date: Jul. 30, 2009 **Project No.** : R0905007 **Equipment**: Handheld POS

Model Name: P234

Applicant : FLYTECH technology Co., Ltd.

: 1F, No. 168, Sing-Ai Rd., NeiHu District Address

114, Taipei, Taiwan

Tested by:

Neutron Engineering Inc. EMC Laboratory

Date of Test:

May 26, 2009 ~ Jul. 28, 2009

Testing Engineer: Rush Kao (Rush Kao)

Technical Manager:

Authorized Signatory:

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Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C.**, or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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1. CERTIFICATION

Equipment: Handheld POS Brand Name: FLYTECH

Model No.: P234

Applicant: FLYTECH technology Co., Ltd. Data of Test: May 26, 2009 ~ Jul. 28, 2009 Test Item: ENGINEERING SAMPLE

Standards: FCC Part15, Subpart C / ANSI C63.4: 2003

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-R0905007) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

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2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

	FCC Part15, Subpart C				
Standard Section Test Item Judgment			Remark		
15.207	Conducted Emission	PASS			
15.247 (c)	Antenna conducted Spurious Emission	PASS			
15.247 (a)(2)	6dB Bandwidth	PASS			
15.247 (b)	Peak Output Power	PASS			
15.247 (c)	Radiated Spurious Emission	PASS			
15.247 (d)	Power Spectral Density	PASS			
15.203	Antenna Requirement	PASS			

NOTE:

- (1)" N/A" denotes test is not applicable in this Test Report
- (2) The EUT include Wireless Lan and Bluetooth function, this report covers EUT Wireless Lan function only. Its Bluetooth function testing is covered in another test report: NEI-FCCP-2-R0905007.

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2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **C01/CB08(FCC R.N.: 614388)** at the location of No.132-1, Lane 329, Sec. 2, Palian Road, Shijr City, Taipei, Taiwan. / 1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 % \circ

A. Conducted Measurement:

Ī	Test Site	Method	Measurement Frequency Range	U,(dB)	NOTE
	C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)	NOTE
OS-01	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Η	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	Η	3.94	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	Н	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	Н	2.66	

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3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	Handheld POS		
Trade Name	FLYTECH		
Model No.	P234		
OEM Brand/Model No.	N/A		
Model Difference	N/A		
Product Description	AVG. Output Power(Max) Based on the application, in User's Manual, the EUTITE/Computing Device. Manual specification, please refer	OFDM (54,48,36,24,18,12,9,6Mbps) CCK (11Mbps, 5.5Mbps) DQPSK (2Mbps) DBPSK (1Mbps) 802.11b: 11,5.5,2,1 Mbps, auto rate 802.11g: 54,48,36,24,18,12,9,6Mbps, auto rate 11CH .Please see Note 2. Please see Note 3. Please see Note 3. Please see Note 3. 1: 802.11b: 17.73dBm (Max.) 802.11g: 21.13dBm (Max.) 1: 802.11b: 13.5dBm (Max.) 1: 802.11g: 13.2dBm (Max.)	
Channel List	Please refer to the Note 2	2.	
Power Source	DC Voltage supplied from		
Power Rating	I/P: AC 100-240V~1.0A 50-6		
Products Covered	Mother Board: FLYTECH / B21 CPU: Marvell / XScale270 416Mhz/1.35V T-PBGA 356 Ball (88AP270MA2-BGO2C416) RAM: Mobile SDRAM 128MB PANEL: 4.3" LCD PANEL LG / LB043WQ1 HDD: MDOC 1GB Card Reader: PROMAG / MSR170U RF Module(WLAN 802.11b_g): USI / WM-G-MR-09 RF Module(Bluetooth): DELTA / DFBM-CS320 ADAPTER: EDAC / EA1015A-2U; CWT / CAP011051		

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Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2 .						
۷.	Channel List					
	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
	01	2412	05	2432	09	2452
	02	2417	06	2437	10	2457
	03	2422	07	2442	11	2462
	04	2427	08	2447		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	ACX	AT5020	Ship Ant	N/A	0

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3.2 DESCRIPTION OF TEST MODES

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 above was evaluated respectively.

Pretest Test Mode	Description
Mode 1	802.11b_CH01/CH06/CH11(ADAPTER: EDAC)
Mode 2	802.11g_CH01/CH06/CH11(ADAPTER: EDAC)
Mode 3	802.11b_CH01/CH06/CH11(ADAPTER : CWT)
Mode 4	802.11g_CH01/CH06/CH11(ADAPTER : CWT)

For Conducted Test		
Final Test Mode Description		
Mode 1	802.11b_CH06(ADAPTER: EDAC)	

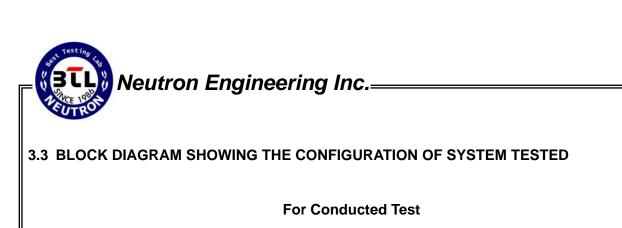
For Radiated Test (30 – 1000MHz)		
Final Test Mode Description		
Mode 1	802.11b_CH06(ADAPTER: EDAC)	

For Radiated Test (Above 1000MHz)		
Final Test Mode	Description	
Mode 1	802.11b_CH01/CH06/CH11(ADAPTER: EDAC)	
Mode 2	802.11g_CH01/CH06/CH11(ADAPTER: EDAC)	

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The EUT is considered a portable unit; it was pre-tested on the positioned of each 3 axis. The worst case was found positioned on X-pane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

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E-2 SD Card

For Radiated Test

E-1 EUT	

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3.4 DESCRIPTION OF SUPPORT UNITS

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

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Series No.	Note
E-1	Handheld POS	FLYTECH	P234	XHM-P2340000	N/A	EUT
E-2	SD MEMORY CARD	Hagiwara	HPC-SD64T	N/A	0326TA5355H	

Item	Shielded Type	Ferrite Core	Length	Note
	N/A	N/A	N/A	

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>[Length]</code> column.

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4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A	(dBuV)	Class B (dBuV)	
TREQUENCT (MITZ)	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

4.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Test Cable	N/A	SR03_C_01 &02	N/A	Aug. 19, 2009
2	LISN	EMCO	3816/2	00042991	Jan. 21, 2010
3	Pulse Limiter	Electro-Metrics	EM-7600	112647	Dec. 15, 2009
4	EMI Test Receiver	R&S	ESCI	100082	Mar. 17, 2010

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

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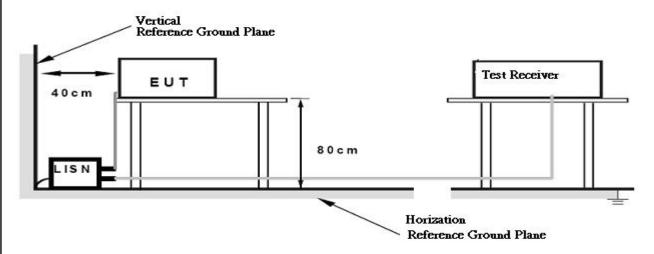
4.1.3 TEST PROCEDURE

- a. 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.
- b. 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.
- c. 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.
- d LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

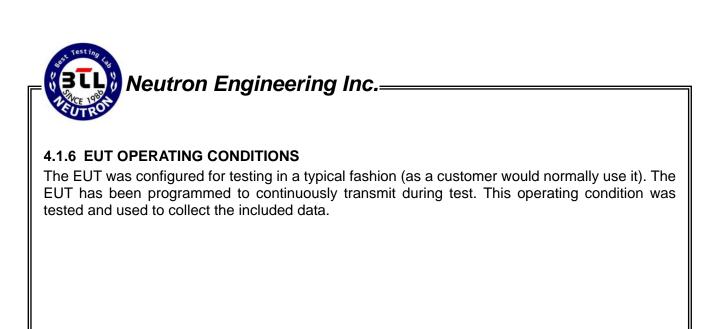
4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



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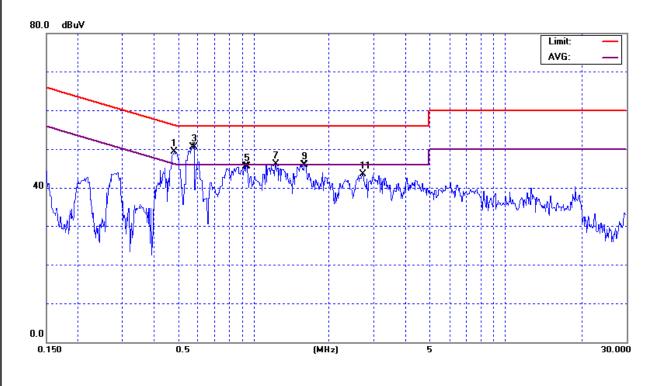
4.1.7 TEST RESULTS

E.U.T:	Handheld POS	Model Name :	P234	
Temperature:	23°C	Relative Humidity:	49%	
Test Voltage:	AC 120V/60Hz			
Test Mode:	802.11b_CH06(ADAPTER: EDAC)			

Freq.	Terminal	Measure	d(dBuV)	Limits	(dBuV)	Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.48	Line	49.22	32.52	56.30	46.30	-7.08	(QP)
0.58	Line	50.43	25.91	56.00	46.00	-5.57	(QP)
0.94	Line	45.47	25.58	56.00	46.00	-10.53	(QP)
1.23	Line	46.03	25.69	56.00	46.00	-9.97	(QP)
1.59	Line	45.97	25.62	56.00	46.00	-10.03	(QP)
2.37	Line	43.57	*	56.00	46.00	-12.43	(QP)

Remark

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz, VBW =10KHz, Swp. Time = 0.3 sec./MHz $^{\circ}$ Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz, VBW=10Hz, Swp. Time =0.3 sec./MHz $^{\circ}$
- (2) All readings are QP Mode value unless otherwise stated AVG in column of Note ... If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform on this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the North Republic States of the North Republic S
- (3) Measuring frequency range from 150KHz to 30MHz o



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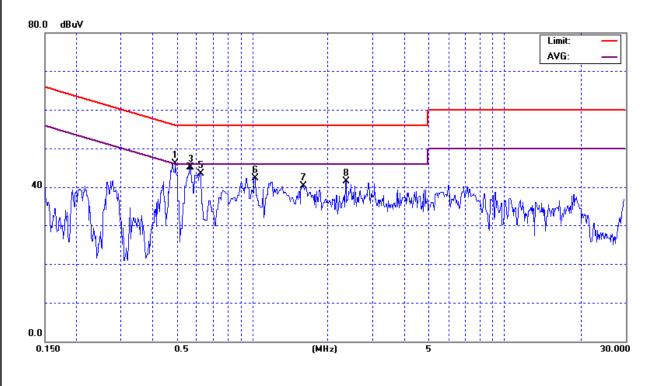


E.U.T:	Handheld POS	Model Name :	P234	
Temperature:	23°C	Relative Humidity:	49%	
Test Voltage:	AC 120V/60Hz			
Test Mode:	802.11b_CH06(ADAPTER: EDAC)			

Freq.	Terminal	Measure	d(dBuV)	Limits	(dBuV)	Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	NOLE
0.49	Neutral	46.15	30.15	56.12	46.12	-9.97	(QP)
0.57	Neutral	45.03	28.04	56.00	46.00	-10.97	(QP)
0.63	Neutral	43.57	*	56.00	46.00	-12.43	(QP)
1.02	Neutral	42.26	*	56.00	46.00	-13.74	(QP)
1.59	Neutral	40.35	*	56.00	46.00	-15.65	(QP)
2.35	Neutral	41.56	*	56.00	46.00	-14.44	(QP)

Remark

- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9KHz; SPA setting in RBW=10KHz, VBW =10KHz, Swp. Time = 0.3 sec./MHz $^{\circ}$ Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=1MHz, VBW=10Hz, Swp. Time =0.3 sec./MHz $^{\circ}$
- (2) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform on this case, a " * " marked in AVG Mode column of Interference Voltage Measured on the North Research AVG Mode column of Interference Voltage Measured on the North Research AVG Mode column of Interference Voltage Measured on the North Research AVG Mode column of Interference Voltage Measured on the North Research Rese
- (3) Measuring frequency range from 150KHz to 30MHz \circ



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4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3m)		
TREQUENCT (MITZ)	PEAK	AVERAGE	
Above 1000	74	54	

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

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4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Log-Bicon Antenna	Schwarzbeck	VULB 9160	3176	Jul. 23, 2010
2	Test Cable	N/A	LMR-400	N/A	Jan. 05, 2010
3	Test Cable	N/A	OS01-1/-2	N/A	Oct. 08, 2009
4	Pre-Amplifier	Anritsu	MH648A	M09961	Dec. 29, 2009
5	Spectrum Analyzer	HP	8591EM	3536A00687	Mar. 13, 2010
6	EMI Measuring Receiver	SHCAFFNER	SCR 3501	408	Nov. 24.2009
7	Spectrum Analyzer	R&S	FSP-30	100854	Apr. 16, 2010
8	Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-546	May 19, 2010
9	Microwave Pre_amplifier	Agilent	8449B	3008A02331	Jan. 19, 2010
10	Microflex Cable	NA	NA	1m	Sep. 15, 2009
11	Microflex Cable	NA	NA	10M	Feb. 19, 2010

Remark: "N/A" denotes No Model No. / Serial No. and No Calibration specified.

4.2.3 TEST PROCEDURE

- a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. 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.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

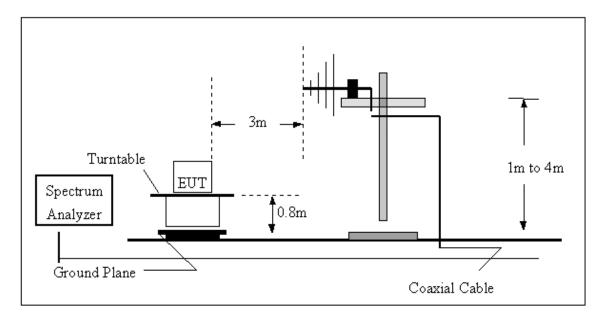
No deviation

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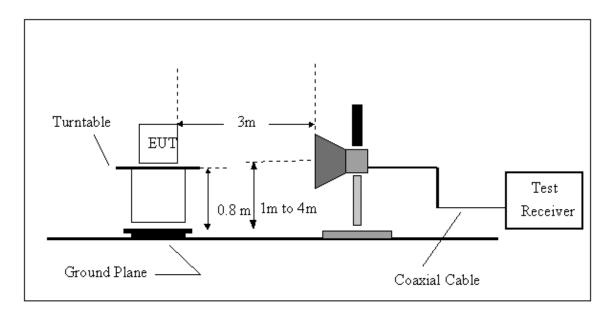


4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

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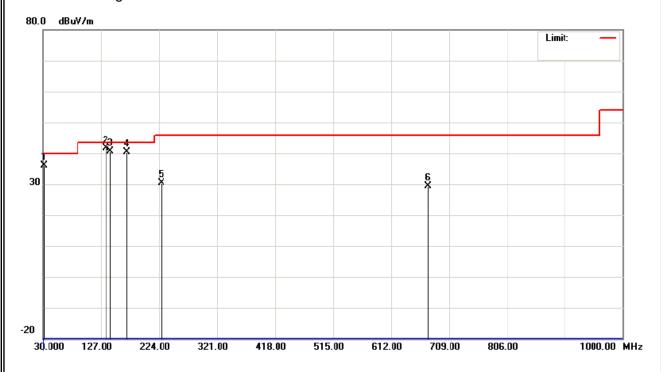
4.2.7 TEST RESULTS-BETWEEN 30MHZ AND 1000MHZ

EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Power :	AC 120V/60Hz	AC 120V/60Hz					
Test Mode :	802.11b_CH06(ADAPTER: EDAC)						

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	H/V	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	NOLE
31.94	V	57.18	-21.08	36.10	40.00	- 3.90	
134.76	V	62.59	-20.84	41.75	43.50	- 1.75	(QP)
142.52	V	60.93	-20.18	40.75	43.50	- 2.75	(QP)
169.68	V	61.08	-20.62	40.46	43.50	- 3.04	(QP)
227.88	V	52.93	-22.58	30.35	46.00	- 15.65	
674.08	V	42.47	-12.97	29.50	46.00	- 16.50	

Remark:

- (1) Spectrum Setting : 30MHz 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency \circ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission •
- (5) Data of measurement within this frequency range shown " " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



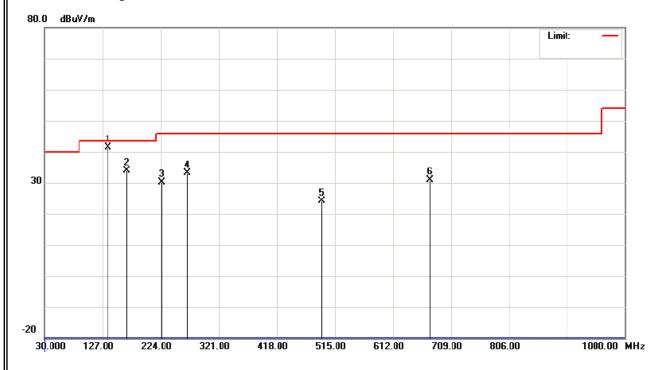
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EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Power :	AC 120V/60Hz	AC 120V/60Hz					
Test Mode :	802.11b_CH06(ADAPTER: EDAC)						

Freq.	Ant.	Reading(RA)	Corr.Factor(CF)	Measured(FS)	Limits(QP)	Margin	Note
(MHz)	H/V	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	NOLE
136.70	Н	62.02	-20.66	41.36	43.50	- 2.14	(QP)
167.74	Н	54.44	-20.44	34.00	43.50	- 9.50	
225.94	Η	52.85	-22.70	30.15	46.00	- 15.85	
268.62	Н	54.61	-21.40	33.21	46.00	- 12.79	
493.66	Н	40.61	-16.36	24.25	46.00	- 21.75	
674.08	Н	43.97	-12.97	31.00	46.00	- 15.00	

Remark:

- (1) Spectrum Setting : 30MHz 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency \circ "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission •
- (5) Data of measurement within this frequency range shown " " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



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4.2.8 TEST RESULTS-ABOVE 1000MHZ

EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11b_CH01(ADAPTER: EDAC)					

Freq.	Ant.Pol.	Read	ling	Ant./CF	Ad	ct.	Lir	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	21.01	12.22	32.38	53.39	44.60	74.00	54.00	X/E
2412.80	V	66.75	63.28	32.47	99.22	95.75			X/F
4824.00	V	44.41	31.56	4.44	48.85	36.00	74.00	54.00	X/H
7235.98	V	45.09	31.92	10.76	55.85	42.68	74.00	54.00	X/H

Remark:

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

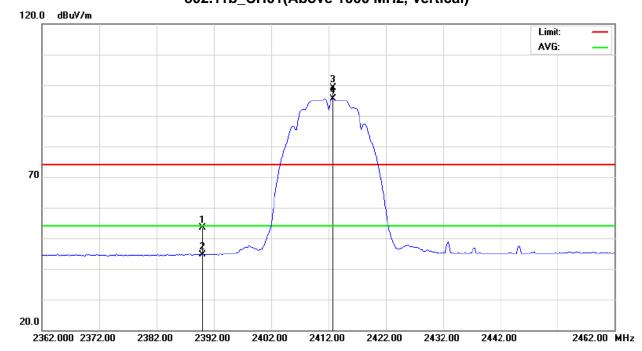
AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

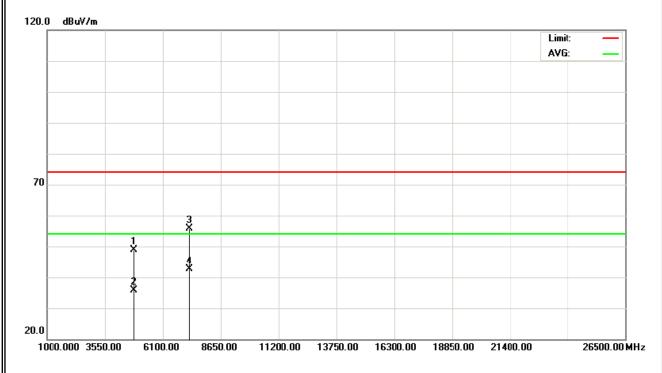
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11b_CH01(Above 1000 MHz, Vertical)





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EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Test Mode :	802.11b_CH01(ADAPTER: ED	DAC)					

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Liı	mit	
		Peak	ΑV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	24.19	15.10	32.38	56.57	47.48	74.00	54.00	X/E
2412.80	Н	76.71	73.27	32.47	109.18	105.74			X/F
4824.00	Н	43.74	31.42	4.44	48.18	35.86	74.00	54.00	X/H
7235.96	Н	43.85	31.70	10.76	54.61	42.46	74.00	54.00	X/H

Remark:

(1) Spectrum Setting:

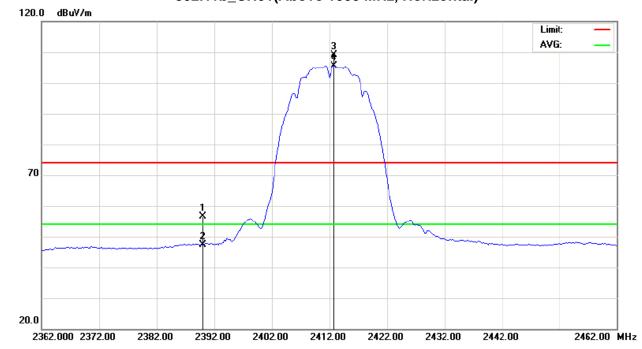
QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

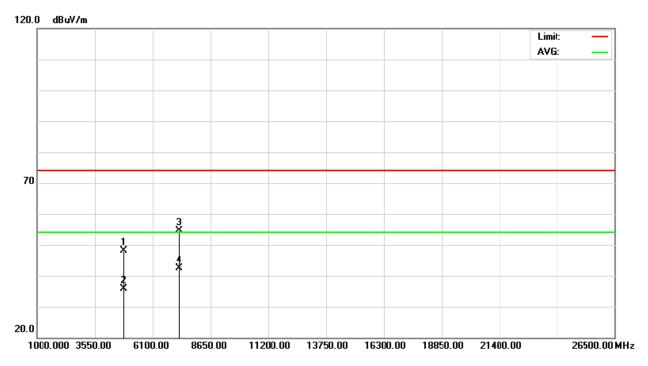
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission $\,^{\circ}$
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11b_CH01(Above 1000 MHz, Horizontal)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11b_CH06(ADAPTER: EDAC)					

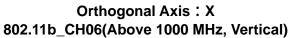
Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Liı	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2436.40	V	67.17	64.05	32.56	99.73	96.61			X/F
4873.95	V	42.92	31.23	4.57	47.49	35.80	74.00	54.00	X/H
7308.50	V	44.16	31.18	10.96	55.12	42.14	74.00	54.00	X/H

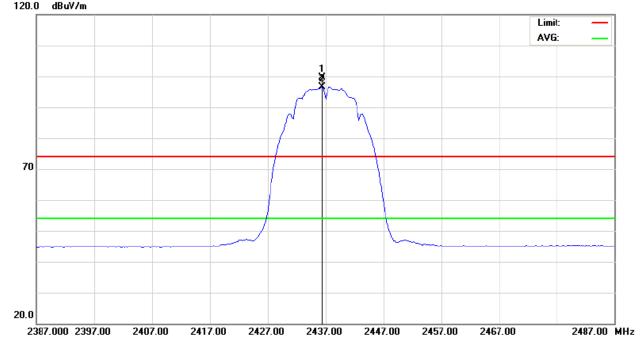
Remark:

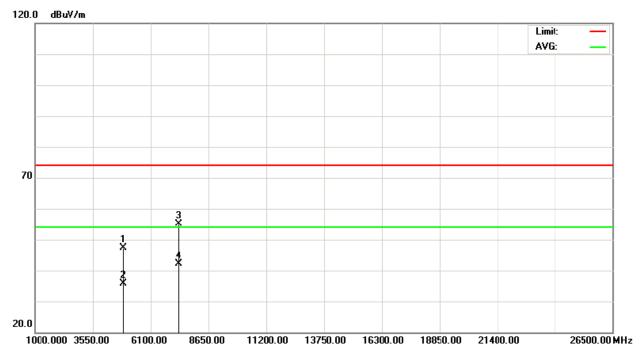
- (1) Spectrum Setting:
 - QP: 30MHz 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Neutron Engineering Inc. 120.0 dBuV/m









EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11b_CH06(ADAPTER: EDAC)					

	Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
			Peak	AV		Peak	AV	Peak	AV	Note
	(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
	2436.40	Н	76.57	73.49	32.56	109.13	106.05			X/F
	4874.03	Η	43.48	31.53	4.57	48.05	36.10	74.00	54.00	X/H
Г	7310.99	Н	43.75	31.22	10.97	54.72	42.19	74.00	54.00	X/H

Remark:

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

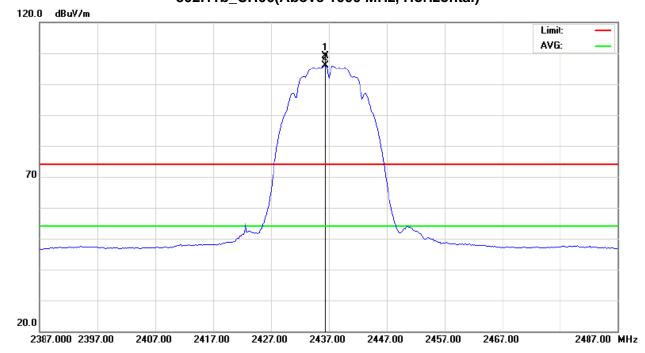
AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

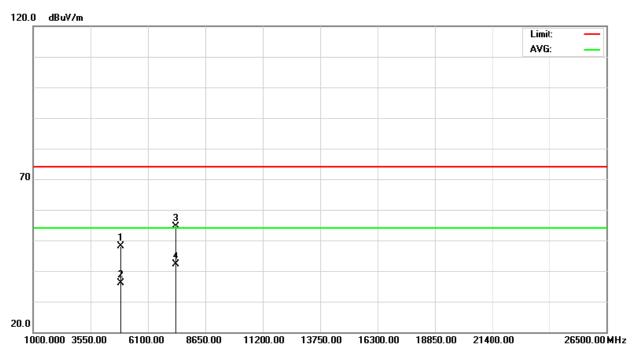
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11b_CH06(Above 1000 MHz, Horizontal)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11b_CH11(ADAPTER: EDAC)					

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.80	V	65.36	61.86	32.66	98.02	94.52			X/F
2483.50	V	21.42	12.49	32.74	54.16	45.23	74.00	54.00	X/E
4923.94	V	45.23	32.29	4.70	49.93	36.99	74.00	54.00	X/H
7385.92	V	44.72	30.99	11.18	55.90	42.17	74.00	54.00	X/H

Remark:

(1) Spectrum Setting:

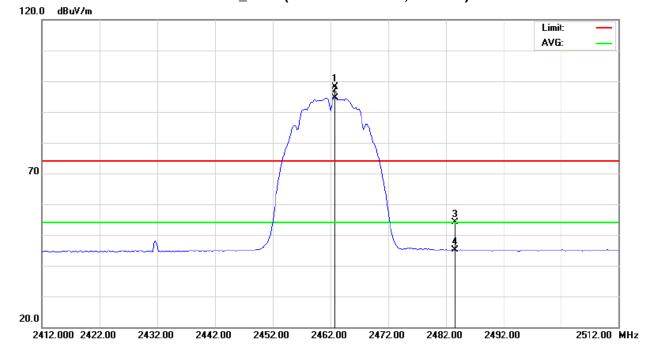
QP: 30MHz – 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

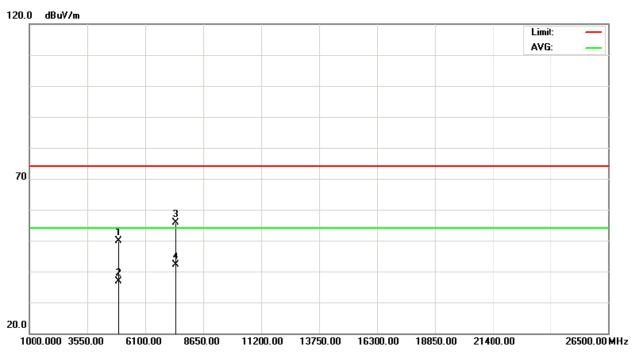
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11b_CH11(Above 1000 MHz, Vertical)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage: AC 120V/60Hz						
Test Mode : 802.11b_CH11(ADAPTER : ED		DAC)				

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2462.80	Н	75.84	72.30	32.66	108.50	104.96			X/F
2483.50	Н	24.96	15.12	32.74	57.70	47.86	74.00	54.00	X/E
4924.02	Н	43.21	31.66	4.70	47.91	36.36	74.00	54.00	X/H
7386.04	Н	44.77	31.24	11.18	55.95	42.42	74.00	54.00	X/H

Remark:

(1) Spectrum Setting:

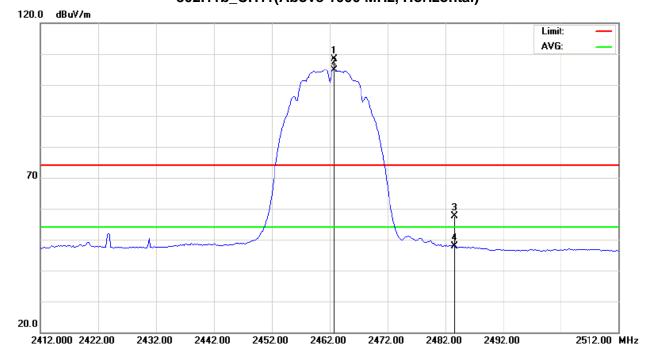
QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

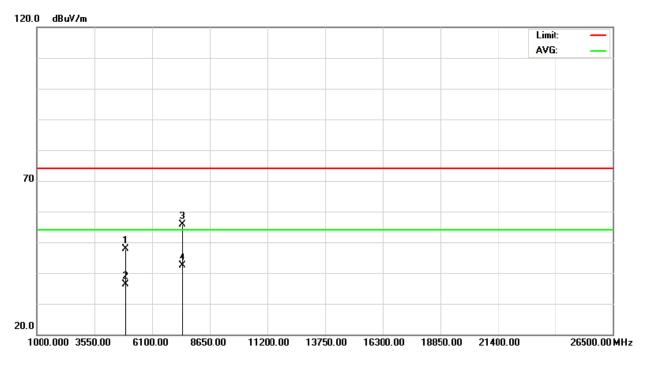
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11b_CH11(Above 1000 MHz, Horizontal)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11g_CH01(ADAPTER: EDAC)					

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	ΑV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	31.19	14.76	32.38	63.57	47.14	74.00	54.00	X/E
2418.40	V	71.12	61.96	32.49	103.61	94.45			X/F
4823.92	V	43.22	31.16	4.44	47.66	35.60	74.00	54.00	X/H
7235.88	V	45.74	31.96	10.76	56.50	42.72	74.00	54.00	X/H

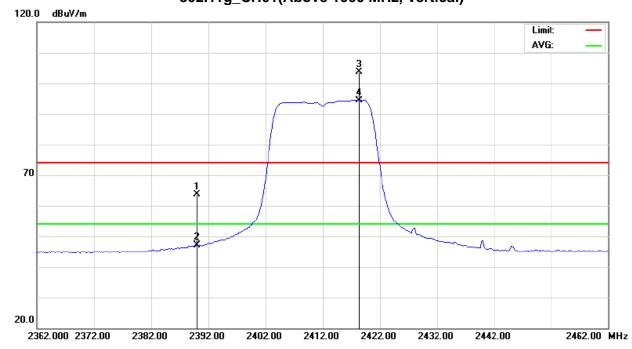
Remark:

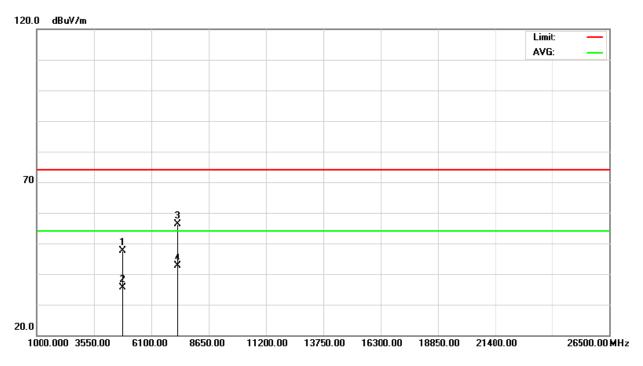
- (1) Spectrum Setting:
 - QP: 30MHz 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11g_CH01(Above 1000 MHz, Vertical)





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EUT:	Handheld POS	Model No. :	P234					
Temperature:	23°C	Relative Humidity:	42%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Test Mode :	802.11g_CH01(ADAPTER: ED	302.11g_CH01(ADAPTER: EDAC)						

Freq.	Ant.Pol.	Reading		Ant./CF	Ad	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2390.00	Н	37.43	19.76	32.38	69.81	52.14	74.00	54.00	X/E	
2417.20	Н	78.21	69.39	32.49	110.70	101.88			X/F	
4824.00	Н	43.65	31.61	4.44	48.09	36.05	74.00	54.00	X/H	
7235.92	Н	44.38	31.48	10.76	55.14	42.24	74.00	54.00	X/H	

(1) Spectrum Setting:

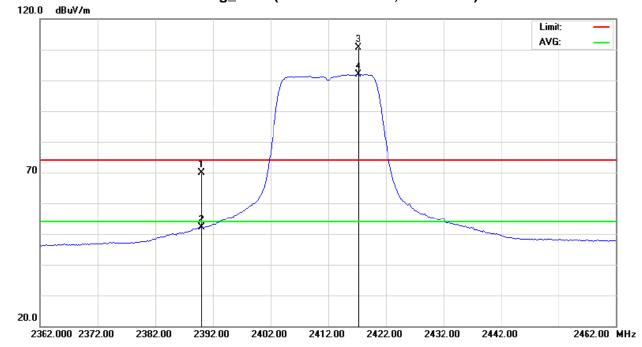
QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

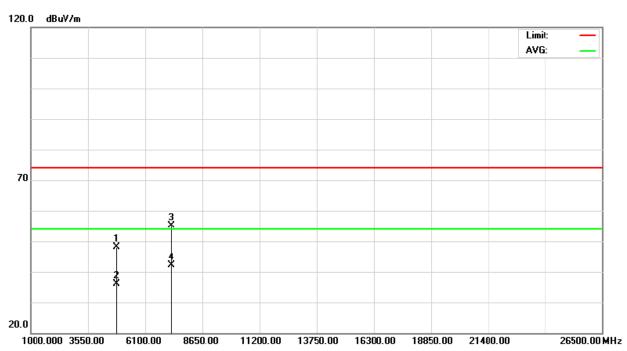
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission $\,^{\circ}$
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11g_CH01(Above 1000 MHz, Horizontal)





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EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz						
Test Mode :	302.11g_CH06(ADAPTER: EDAC)						

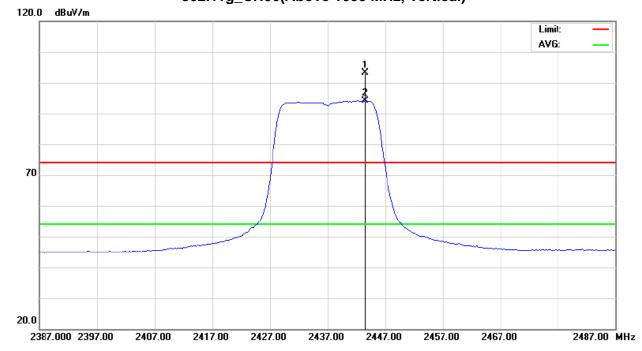
Freq.	Ant.Pol.	Rea	Reading		A	Act.		Limit		
		Peak	ΑV		Peak	AV	Peak	AV	Note	
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)		
2443.60	V	70.44	61.44	32.59	103.03	94.03			X/F	
4874.50	V	44.66	31.75	4.57	49.23	36.32	74.00	54.00	X/H	
7311.03	V	44.38	31.51	10.97	55.35	42.48	74.00	54.00	X/H	

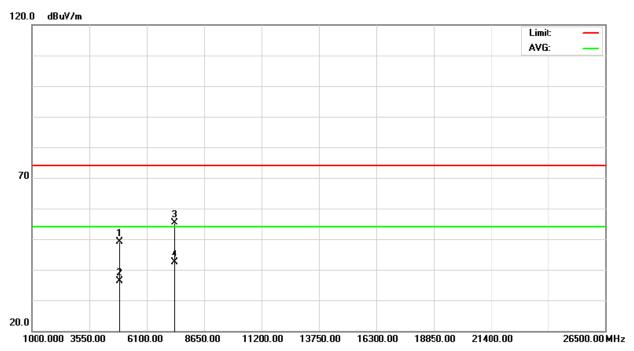
- (1) Spectrum Setting:
 - QP: 30MHz 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11g_CH06(Above 1000 MHz, Vertical)





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EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Voltage :	AC 120V/60Hz						
Test Mode :	802.11g_CH06(ADAPTER: ED	302.11g_CH06(ADAPTER: EDAC)					

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Liı		
		Peak	ΑV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2431.90	Н	77.18	68.75	32.54	109.72	101.29			X/F
4874.02	Н	43.33	32.13	4.57	47.90	36.70	74.00	54.00	X/H
7311.04	Н	43.46	31.36	10.97	54.43	42.33	74.00	54.00	X/H

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

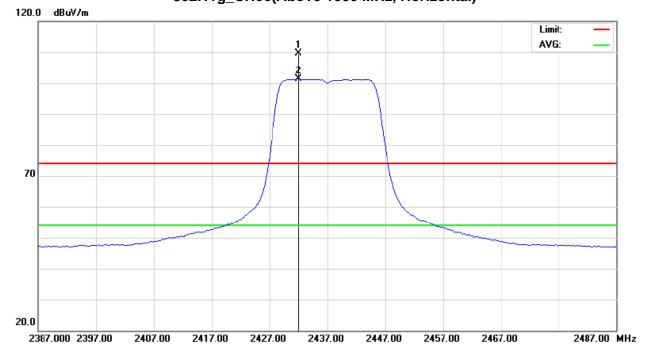
AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

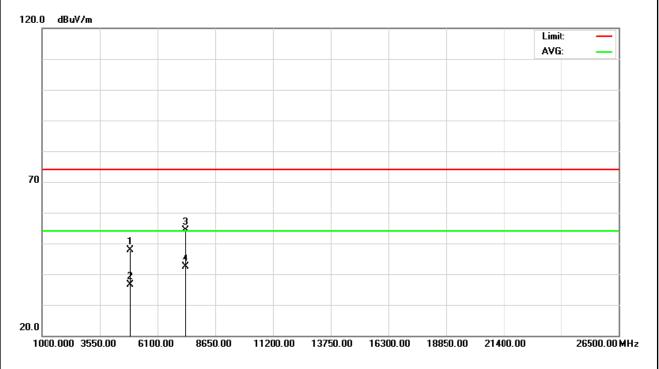
- (2) All readings are Peak unless otherwise stated QP in column of \lceil Note $_{
 m J}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform $_{
 m O}$
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11g_CH06(Above 1000 MHz, Horizontal)





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EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz						
Test Mode :	B02.11g_CH11(ADAPTER: EDAC)						

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Liı		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2457.00	V	70.68	61.81	32.64	103.32	94.45			X/F
2483.50	V	28.87	14.47	32.74	61.61	47.21	74.00	54.00	X/E
4924.40	V	44.76	31.71	4.70	49.46	36.41	74.00	54.00	X/H
7385.88	V	44.09	31.35	11.18	55.27	42.53	74.00	54.00	X/H

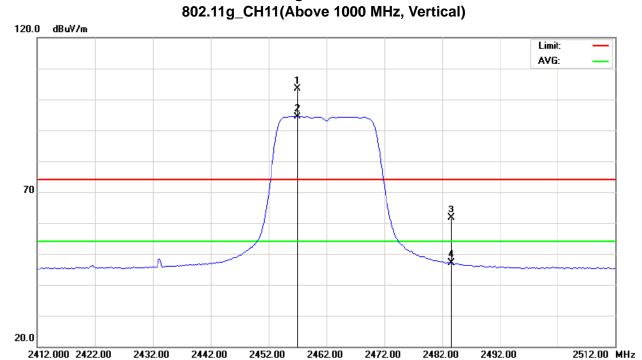
(1) Spectrum Setting:

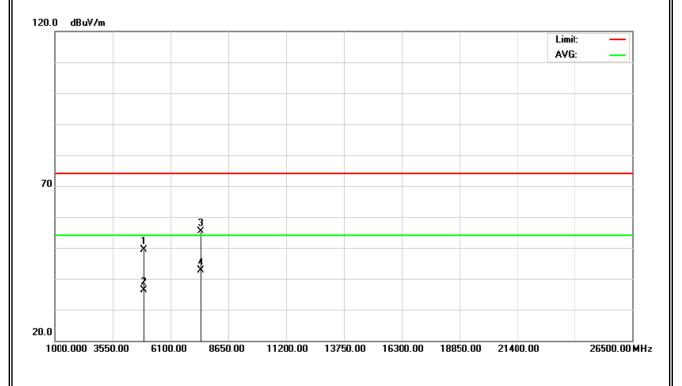
QP: 30MHz – 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Neutron Engineering Inc. Orthogonal Axis: X 802.11g_CH11(Above 1000 MHz





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EUT:	Handheld POS	Model No. :	P234					
Temperature:	23°C	Relative Humidity:	42%					
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz						
Test Mode :	802.11g_CH11(ADAPTER: ED	302.11g_CH11(ADAPTER: EDAC)						

Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2457.00	Н	75.86	67.03	32.64	108.50	99.67			X/F
2483.50	Н	29.77	16.47	32.74	62.51	49.21	74.00	54.00	X/E
4924.08	Н	42.61	31.03	4.70	47.31	35.73	74.00	54.00	X/H
7386.12	Н	43.37	31.30	11.18	54.55	42.48	74.00	54.00	X/H

(1) Spectrum Setting:

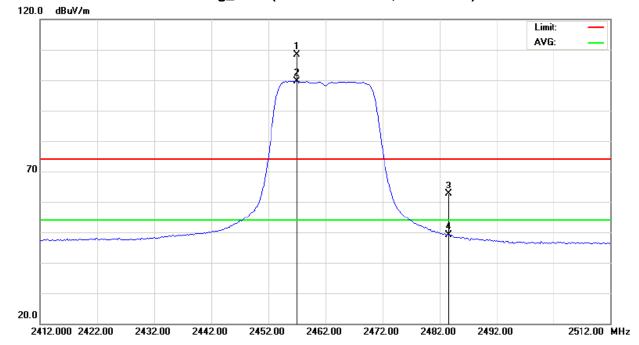
QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

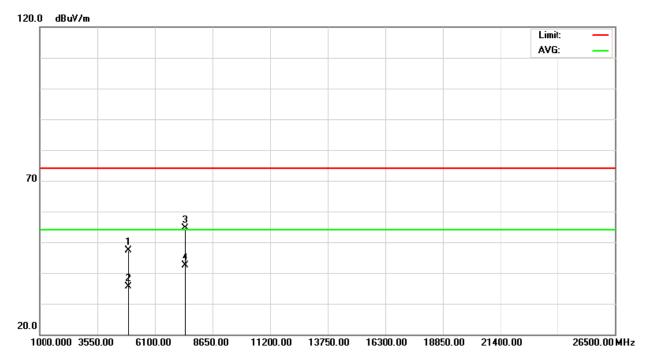
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note $_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform \circ
- (3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (7) EUT Orthogonal Axes:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

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Orthogonal Axis: X 802.11g_CH11(Above 1000 MHz, Horizontal)





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4.2.9 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS

EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Voltage:	AC 120V/60Hz						
Test Mode :	802.11b_CH01/CH11(ADAPTER: EDAC) (Vertical)						
Note:	The emission of the carrier rad (Peak and AV) as following: 1. The transmitter was then conto transmit at the lowest chameasured at 2310-2390 MH: 2. The transmitter was configur transmit at the highest chanres measured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH11). Then the	st case antenna and setup ne field strength was se antenna and setup to				

F	req.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
			Peak	AV		Peak	AV	Peak	AV	Note
1)	MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
23	90.00	V	21.01	12.22	32.38	53.39	44.60	74.00	54.00	Х
24	83.50	V	21.42	12.49	32.74	54.16	45.23	74.00	54.00	Х

Remark:

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms.

Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

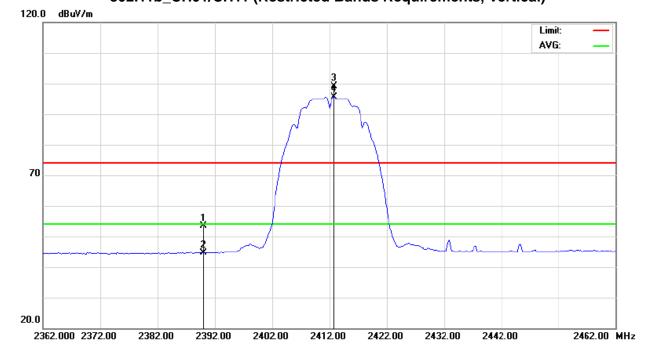
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission $\,^{\circ}$
- (3) EUT Orthogonal Axes:

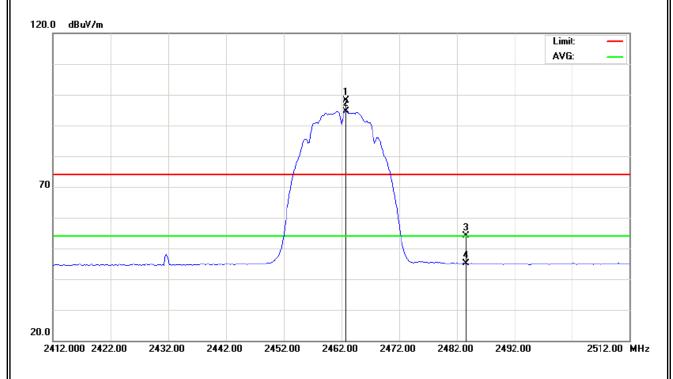
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand

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802.11b_CH01/CH11 (Restricted Bands Requirements, Vertical)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11b_CH01/CH11(ADAPTER: EDAC) (Horizontal)					
Note:	The emission of the carrier radi (Peak and AV) as following: 1. The transmitter was then conto transmit at the lowest charmeasured at 2310-2390 MH: 2. The transmitter was configured transmit at the highest charmeasured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH11). Then the	st case antenna and setup ne field strength was se antenna and setup to			

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Liı	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	24.19	15.10	32.38	56.57	47.48	74.00	54.00	Χ
2483.50	Н	24.96	15.12	32.74	57.70	47.86	74.00	54.00	Χ

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

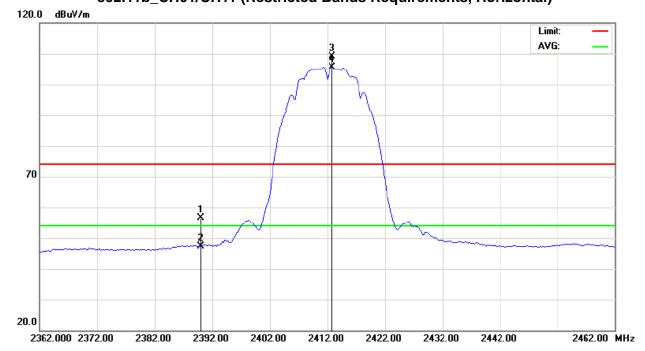
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ∘
- (3) EUT Orthogonal Axes:

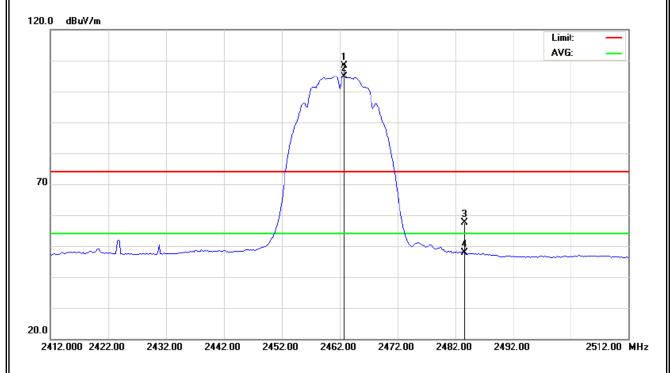
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand

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Neutron Engineering Inc.=

802.11b_CH01/CH11 (Restricted Bands Requirements, Horizontal)





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EUT:	Handheld POS	Model No. :	P234			
Temperature:	23°C	Relative Humidity:	42%			
Test Voltage:	AC 120V/60Hz					
Test Mode :	802.11g_CH01/CH11(ADAPTER: EDAC) (Vertical)					
Note:	The emission of the carrier rad (Peak and AV) as following: 1. The transmitter was then conto transmit at the lowest chameasured at 2310-2390 MH. 2. The transmitter was configur transmit at the highest chanres measured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH11). Then the	st case antenna and setup ne field strength was se antenna and setup to			

Freq.	Ant.Pol.	Read	ding	Ant./CF	Ad	ct.	Lir	nit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	31.19	14.76	32.38	63.57	47.14	74.00	54.00	Х
2483.50	V	28.87	14.47	32.74	61.61	47.21	74.00	54.00	Х

(1) Spectrum Setting:

QP: 30MHz – 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

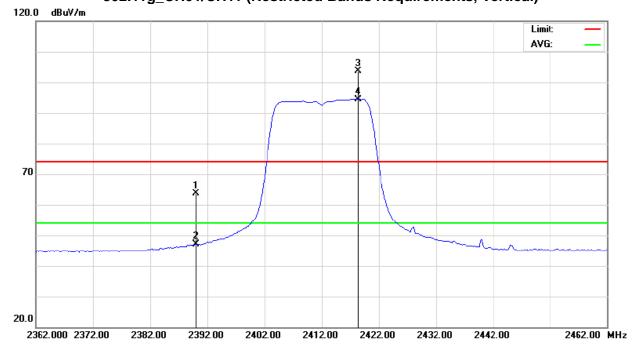
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission $\,^{\circ}$
- (3) EUT Orthogonal Axes:

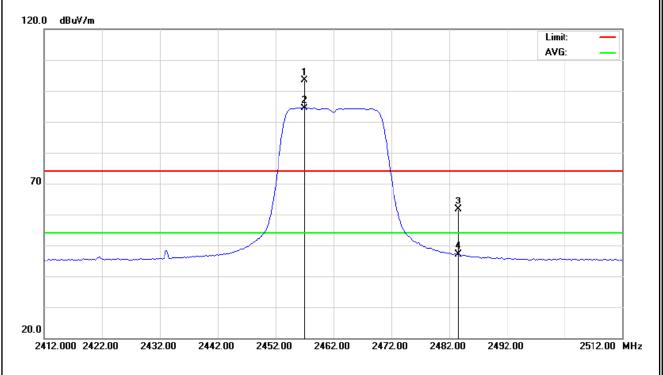
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand

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Neutron Engineering Inc.=

802.11g_CH01/CH11 (Restricted Bands Requirements, Vertical)





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EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Voltage:	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH11(ADAPTE	R: EDAC) (Horizon	tal)
Note:	The emission of the carrier radi (Peak and AV) as following: 1. The transmitter was then cor to transmit at the lowest char measured at 2310-2390 MH: 2. The transmitter was configur transmit at the highest chanr measured at 2483.5-2500 M	nfigured with the wor nnel (CH01). Then th z. red with the worst can nel (CH11). Then the	st case antenna and setup ne field strength was se antenna and setup to

Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Lir	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	37.43	19.76	32.38	69.81	52.14	74.00	54.00	Χ
2483.50	Н	29.77	16.47	32.74	62.51	49.21	74.00	54.00	Χ

(1) Spectrum Setting:

QP: 30MHz - 1000MHz: RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. Peak: 1GHz- 25GHz: RBW= 1MHz, VBW= 1MHz, Sweep time = Auto AV: 1GHz- 25GHz: RBW= 1MHz, VBW= 10Hz, Sweep time = Auto

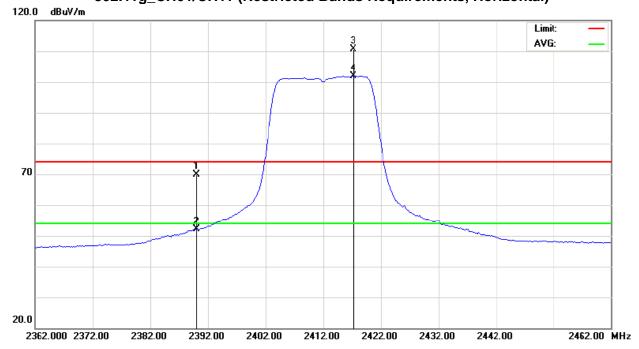
- (2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission \circ
- (3) EUT Orthogonal Axes:

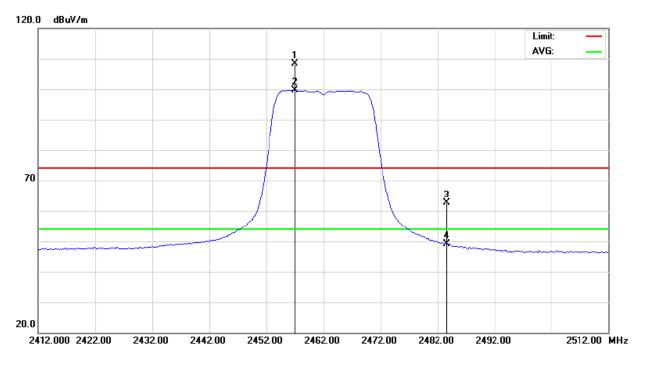
"X" - denotes Laid on Table; "Y" - denotes Vertical Stand; "Z" - denotes Side Stand

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Neutron Engineering Inc.=

802.11g_CH01/CH11 (Restricted Bands Requirements, Horizontal)





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5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C						
Test Item Limit Frequency Range (MHz) Result						
Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS			

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Apr. 16, 2010

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

5.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

5.1.5 EUT OPERATION CONDITIONS

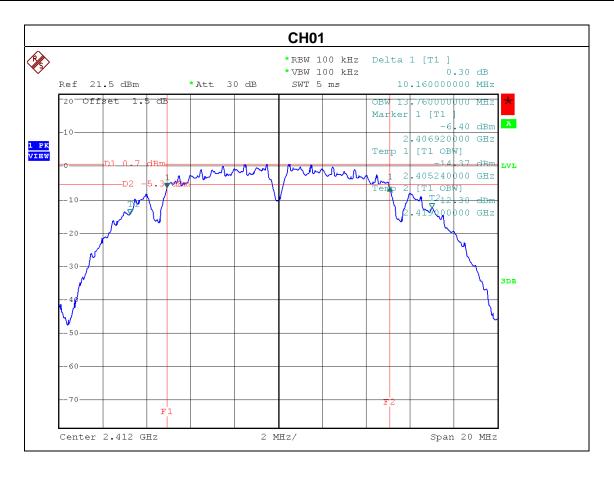
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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5.1.6 TEST RESULTS

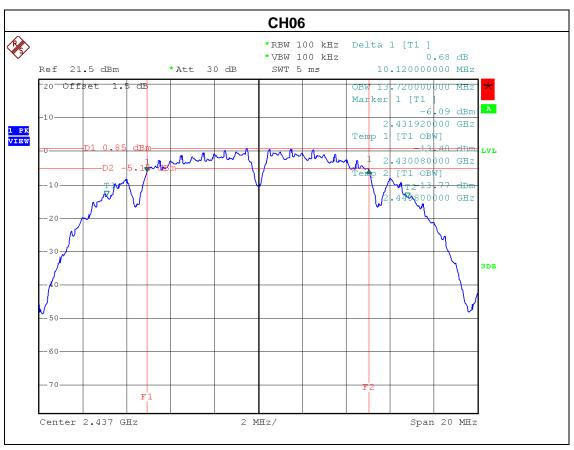
EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Power :	AC 120V/60Hz	AC 120V/60Hz					
Test Mode :	802.11b_CH01/CH06/CH11(ADAPTER: EDAC)						

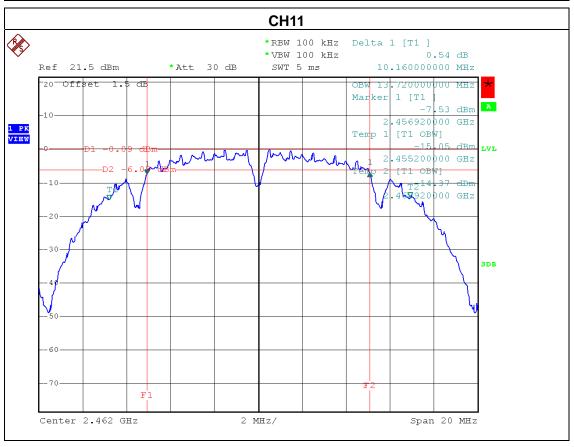
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	10.16	>=500KHz
CH06	2437	10.12	>=500KHz
CH11	2462	10.16	>=500KHz



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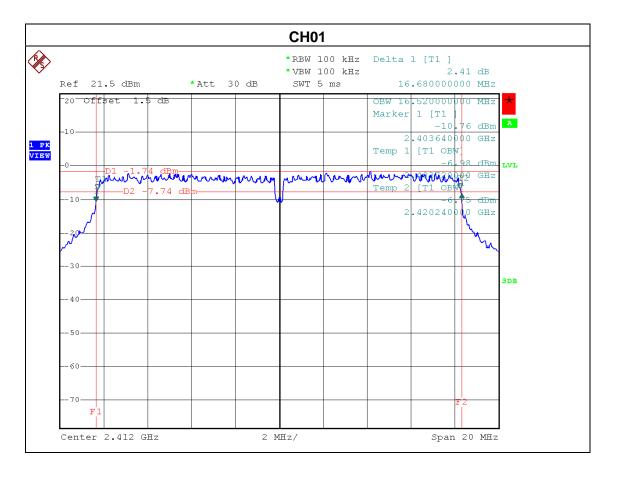






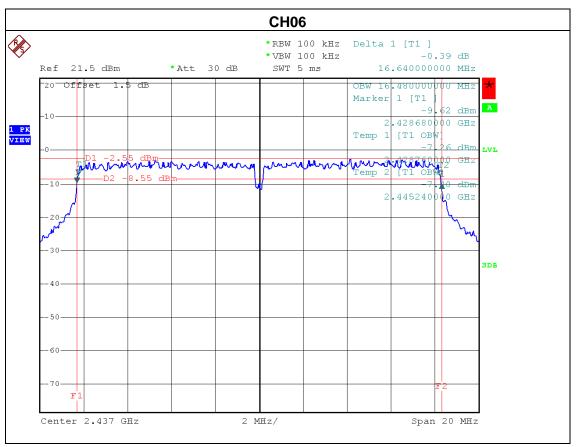
EUT:	Handheld POS	Model No. :	P234				
Temperature:	23°C	Relative Humidity:	42%				
Test Power :	AC 120V/60Hz	AC 120V/60Hz					
Test Mode :	802.11g_CH01/CH06/CH11(ADAPTER: EDAC)						

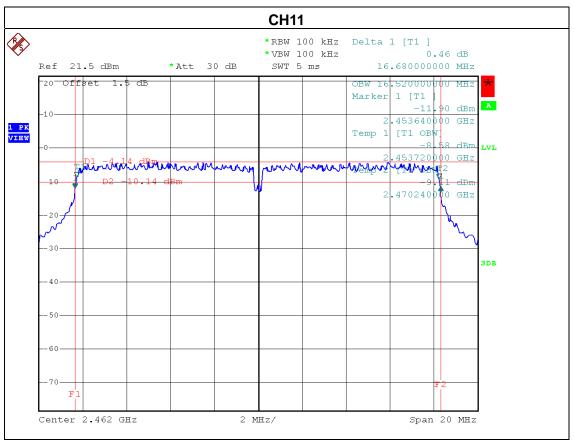
Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.68	>=500KHz
CH06	2437	16.64	>=500KHz
CH11	2462	16.68	>=500KHz



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6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C					
Test Item	Limit	Frequency Range (MHz)	Result		
Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS		

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2487A	6K00004714	Feb. 10, 2010
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 10, 2010

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

6.1.2 TEST PROCEDURE

The EUT was directly connected to the power meter and antenna output port as show in the block diagram below,

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP

	Ī	
EUT		Power Meter

6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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6.1.6 TEST RESULTS

EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Power :	AC 120V/60Hz		
Test Mode :	B02.11b_CH01/CH06/CH11(ADAPTER: EDAC)		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	16.51	30	1
CH06	2437	16.22	30	1
CH11	2462	17.73	30	1

EUT:	Handheld POS	Model No. :	P234	
Temperature:	23°C	Relative Humidity:	42%	
Test Power :	AC 120V/60Hz			
Test Mode :	802.11g_CH01/CH06/CH11(ADAPTER: EDAC)			

Test Channel	Frequency	Peak Output Power	LIMIT	LIMIT
rest orialine	(MHz)	(dBm)	(dBm)	(W)
CH01	2412	21.13	30	1
CH06	2437	20.23	30	1
CH11	2462	18.30	30	1

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7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

7.1. 1.12.5.1.1.0.0.1.2.5.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1						
FCC Part15, Subpart C						
Test Item Limit Frequency Range (MHz) Res						
Antenna conducted Spurious Emission	20dB less than the peak value of fundamental frequency	30-25000	PASS			

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-30	100854	Apr. 16, 2010

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

7.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

7.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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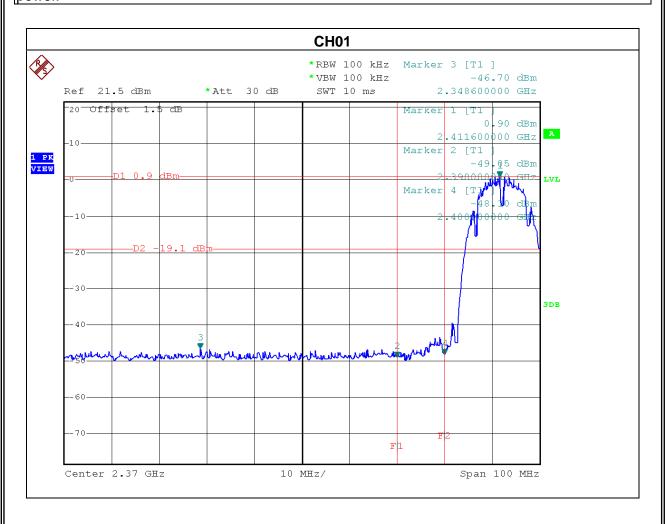
7.1.6 TEST RESULTS

EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH11(ADAPTER: EDAC)		

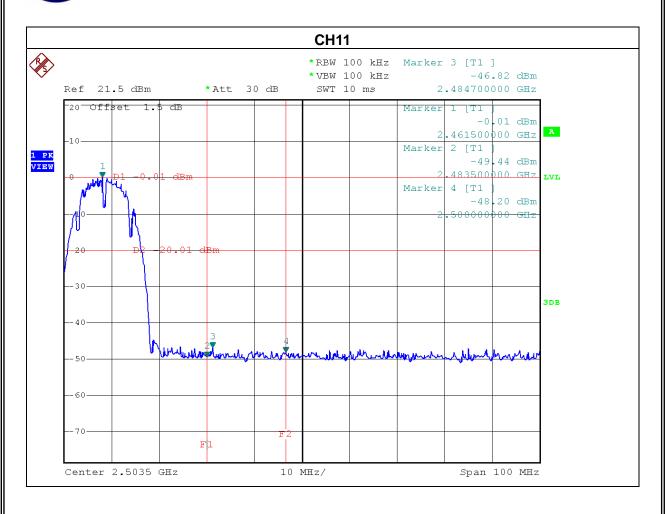
Channel of Worst Data: CH1,CH11					
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.					
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)					
2348.6 -46.70 2484.7 -46.82					
Result					

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired

power.



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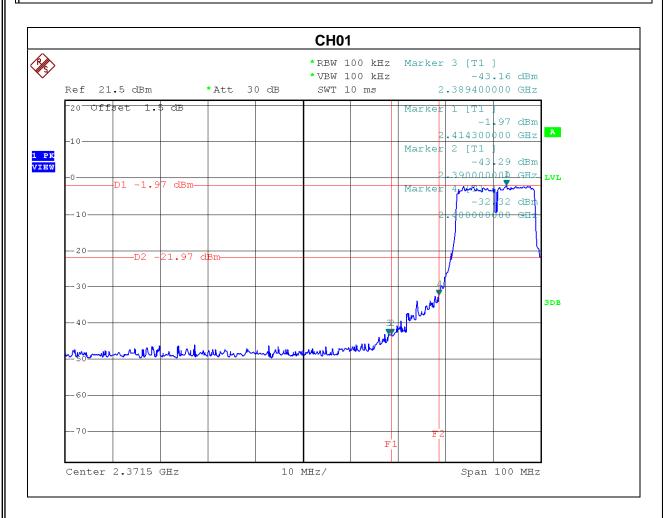


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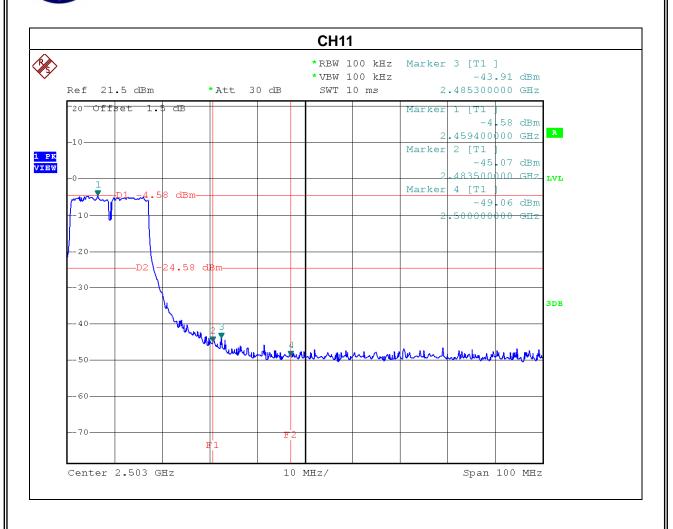
EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH11(ADAPTER: EDAC)		

Channel of Worst Data: CH1,CH11				
The max. radio frequency power in any 100kHz bandwidth outside the frequency band bandwidth within the frequency band.				
FREQUENCY(MHz) POWER(dBm) FREQUENCY(MHz) POWER(dBm)				
2389.4 -43.16 2485.3 -43.91				
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.



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8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C					
Test Item Limit Frequency Range (MHz) Result					
Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS		

8.1.1 MEASUREMENT INSTRUMENTS LIST

It	em	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
	1	Spectrum Analyzer	R&S	FSP-30	100854	Apr. 16, 2010

Remark: "N/A" denotes No Model No., Serial No. or No Calibration specified.

8.1.2 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW=3KHz, VBW=30KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP

EUT	SPECTRUM
	ANALYZER

8.1.5 EUT OPERATION CONDITIONS

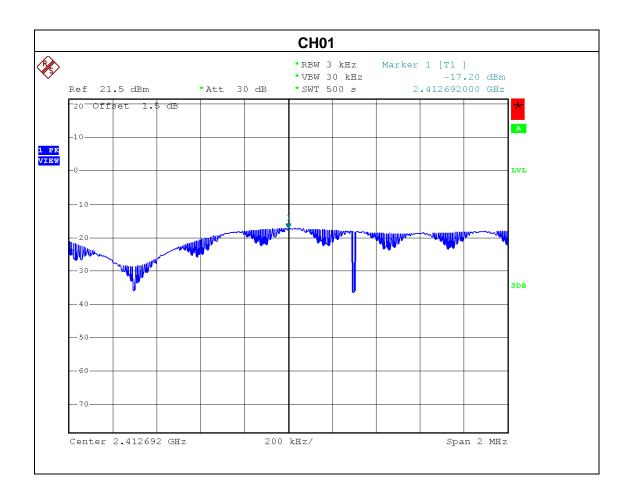
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

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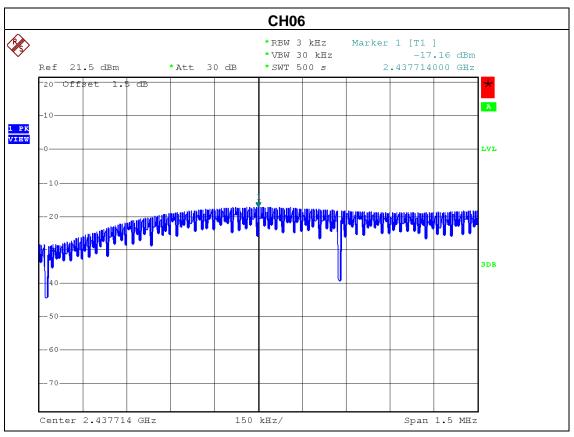
8.1.6 TEST RESULTS

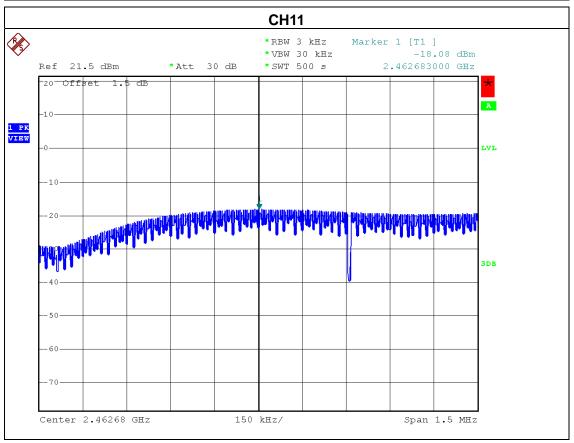
EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH06/CH11(ADAPTER: EDAC)		

Test Channel	Frequency	Peak Output Power	LIMIT
rest orialine	(MHz)	(dBm)	(dBm)
CH01	2412	-17.20	8
CH06	2437	-17.16	8
CH11	2462	-18.08	8



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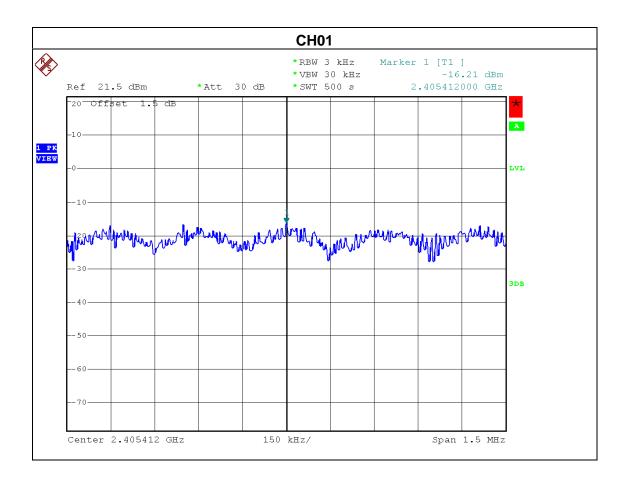






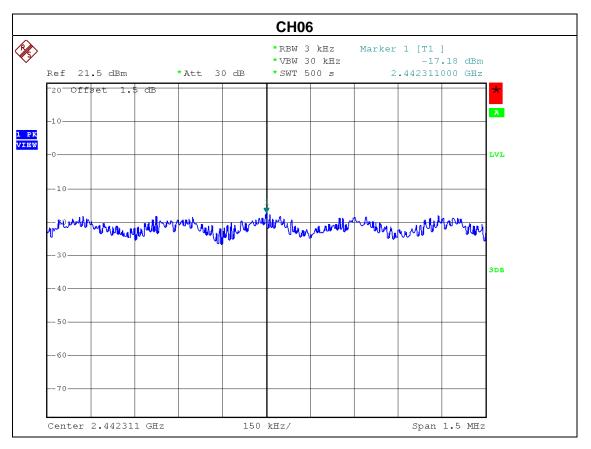
EUT:	Handheld POS	Model No. :	P234
Temperature:	23°C	Relative Humidity:	42%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH06/CH11(ADAPTER: EDAC)		

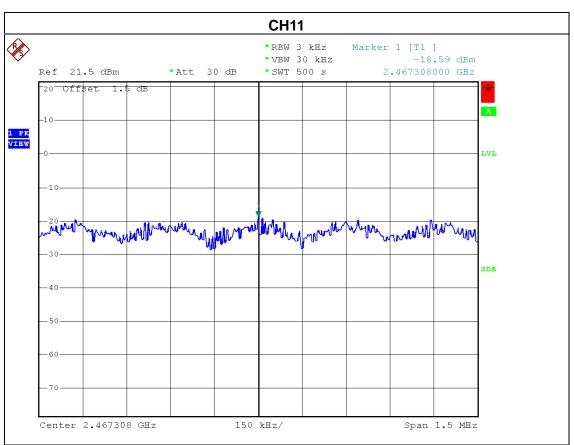
Test Channel	Frequency	Peak Output Power	LIMIT
Test Grianner	(MHz)	(dBm)	(dBm)
CH01	2412	-16.21	8
CH06	2437	-17.18	8
CH11	2462	-18.59	8



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9. EUT TEST PHOTO

Conducted Measurement Photos





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Radiated Measurement Photos EUT Orthogonal Axis : X





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Radiated Measurement Photos EUT Orthogonal Axis : X



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