



Neutron Engineering Inc.

Radio Test Report

FCC ID: OVS-iSPOS

This report concerns (check one) : ☒ Original Grant ☐ Class I Change

Issued Date : Nov. 07, 2008

Report No. : R0808005

Equipment : POS System

Model No. : iSPOS XXX; KDS XXX (X=0-9, A-Z or None)

Applicant : SENOR TECH CO., LTD.

Address : No. 165, Kang Ning Street, Hsichih, Taipei Hsien 221, Taiwan.

Tested by:

Neutron Engineering Inc. EMC Laboratory

Data of Test:

Aug. 28, 2008 ~ Sep. 25, 2008

Testing Engineer :

Rush Kao
(Rush Kao)

Technical Manager :

Jeff Yang
(Jeff Yang)

Authorized Signatory :

Andy Chiu
(Andy Chiu)

Neutron Engineering Inc.

B1, No. 37, Lane 365, YangGuang St.,
NeiHu District 114, Taipei, Taiwan.

TEL: +886-2-2657-3299

FAX: +886-2-2657-3331





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.**

Neutron's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **Neutron** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **Neutron** issued reports.

Neutron's reports must not be used by the client to claim product endorsement by the authorities or any agency of the Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and **Neutron-self**, extracts from the test report shall not be reproduced except in full with **Neutron's** authorized written approval.

Neutron's laboratory quality assurance procedures are in compliance with the **ISO Guide 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.



Table of Contents	Page
1 . CERTIFICATION	5
2 . SUMMARY OF TEST RESULTS	6
2.1 TEST FACILITY	7
2.2 MEASUREMENT UNCERTAINTY	7
3 . GENERAL INFORMATION	8
3.1 GENERAL DESCRIPTION OF EUT	8
3.2 DESCRIPTION OF TEST MODES	10
3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	11
3.4 DESCRIPTION OF SUPPORT UNITS	12
4 . EMC EMISSION TEST	13
4.1 CONDUCTED EMISSION MEASUREMENT	13
4.1.1 POWER LINE CONDUCTED EMISSION	13
4.1.2 MEASUREMENT INSTRUMENTS LIST	13
4.1.3 TEST PROCEDURE	14
4.1.4 DEVIATION FROM TEST STANDARD	14
4.1.5 TEST SETUP	14
4.1.6 EUT OPERATING CONDITIONS	15
4.1.7 TEST RESULTS	16
4.2 RADIATED EMISSION MEASUREMENT	18
4.2.2 MEASUREMENT INSTRUMENTS LIST	19
4.2.3 TEST PROCEDURE	19
4.2.4 DEVIATION FROM TEST STANDARD	19
4.2.5 TEST SETUP	20
4.2.6 EUT OPERATING CONDITIONS	20
4.2.7 TEST RESULTS-BETWEEN 30MHZ AND 1000MHZ	21
4.2.8 TEST RESULTS-ABOVE 1000MHZ	23
4.2.9 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS	47
5 . BANDWIDTH TEST	55
5.1 APPLIED PROCEDURES / LIMIT	55
5.1.1 MEASUREMENT INSTRUMENTS LIST	55
5.1.2 TEST PROCEDURE	55
5.1.3 DEVIATION FROM STANDARD	55
5.1.4 TEST SETUP	55
5.1.5 EUT OPERATION CONDITIONS	55
5.1.6 TEST RESULTS	56
6 . PEAK OUTPUT POWER TEST	60



Table of Contents	Page
6.1 APPLIED PROCEDURES / LIMIT	60
6.1.1 MEASUREMENT INSTRUMENTS LIST	60
6.1.2 TEST PROCEDURE	60
6.1.3 DEVIATION FROM STANDARD	60
6.1.4 TEST SETUP	60
6.1.5 EUT OPERATION CONDITIONS	60
6.1.6 TEST RESULTS	61
7 . ANTENNA CONDUCTED SPURIOUS EMISSION	62
7.1 APPLIED PROCEDURES / LIMIT	62
7.1.1 MEASUREMENT INSTRUMENTS LIST	62
7.1.2 TEST PROCEDURE	62
7.1.3 DEVIATION FROM STANDARD	62
7.1.4 TEST SETUP	62
7.1.5 EUT OPERATION CONDITIONS	62
7.1.6 TEST RESULTS	63
8 . POWER SPECTRAL DENSITY TEST	67
8.1 APPLIED PROCEDURES / LIMIT	67
8.1.1 MEASUREMENT INSTRUMENTS LIST	67
8.1.2 TEST PROCEDURE	67
8.1.3 DEVIATION FROM STANDARD	67
8.1.4 TEST SETUP	67
8.1.5 EUT OPERATION CONDITIONS	67
8.1.6 TEST RESULTS	68
9 . RF EXPOSURE TEST	72
9.1 APPLIED PROCEDURES / LIMIT	72
9.1.1 MEASUREMENT INSTRUMENTS LIST	72
9.1.2 MPE CALCULATION METHOD	72
9.1.3 DEVIATION FROM STANDARD	73
9.1.4 TEST SETUP	73
9.1.5 EUT OPERATION CONDITIONS	73
9.1.6 TEST RESULTS	73
10 . EUT TEST PHOTO	74



1. CERTIFICATION

Equipment : POS System
Brand Name : SENOR
Model No. : iSPOS XXX; KDS XXX (X=0-9, A-Z or None)
Applicant : SENOR TECH CO., LTD.
Data of Test : Aug. 28, 2008 ~ Sep. 25, 2008
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-R0808005) 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).



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	
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS	

NOTE:

(1) "N/A" denotes test is not applicable in this Test Report



2.1 TEST FACILITY

The test facilities used to collect the test data in this report is **C01/OS01(FCC R.N.: 95335)** at the location of No.132-1, Lane 329, Sec. 2, Palian Road, Shijr City, Taipei, Taiwan.

2.2 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 %**.

A. Conducted Measurement :

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	H	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	H	3.94	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	H	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	H	2.66	



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Equipment	POS System																		
Trade Name	SENIOR																		
Model No.	iSPOS XXX; KDS XXX (X=0-9, A-Z or None)																		
OEM Brand/Model No.	N/A																		
Model Difference	Model KDS XXX (X=0-9, A-Z or None) is identical to model iSPOS XXX (X=0-9, A-Z or None) except the model designation. Model iSPOS XXX; KDS XXX, X may be 0-9, A-Z or None. Model difference between each other only the changes in which not effective the EMI performance.																		
Product Description	<p>The EUT is a POS System.</p> <table border="1"> <tr> <td>Operation Frequency:</td><td>2412~2462 MHz</td></tr> <tr> <td>Product Class:</td><td>Class 1</td></tr> <tr> <td>Receiver Class:</td><td>Class 3</td></tr> <tr> <td>Modulation Type:</td><td>802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM</td></tr> <tr> <td>Bit Rate of Transmitter</td><td>802.11b:1/2/5.5/11 Mbps 802.11g:6/9/12/18/24/36/48/54Mbps</td></tr> <tr> <td>Number Of Channel</td><td>11CH .Please see Note 2.</td></tr> <tr> <td>Antenna Designation:</td><td>Please see Note 3.</td></tr> <tr> <td>Antenna Gain(Peak)</td><td>Please see Note 3.</td></tr> <tr> <td>EIRP Power(Max):</td><td>802.11b:17.70 dBm (Max.) 802.11g:20.40 dBm (Max.)</td></tr> </table> <p>Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.</p>	Operation Frequency:	2412~2462 MHz	Product Class:	Class 1	Receiver Class:	Class 3	Modulation Type:	802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM	Bit Rate of Transmitter	802.11b:1/2/5.5/11 Mbps 802.11g:6/9/12/18/24/36/48/54Mbps	Number Of Channel	11CH .Please see Note 2.	Antenna Designation:	Please see Note 3.	Antenna Gain(Peak)	Please see Note 3.	EIRP Power(Max):	802.11b:17.70 dBm (Max.) 802.11g:20.40 dBm (Max.)
Operation Frequency:	2412~2462 MHz																		
Product Class:	Class 1																		
Receiver Class:	Class 3																		
Modulation Type:	802.11b:CCK, DQPSK, DBPSK 802.11g:OFDM																		
Bit Rate of Transmitter	802.11b:1/2/5.5/11 Mbps 802.11g:6/9/12/18/24/36/48/54Mbps																		
Number Of Channel	11CH .Please see Note 2.																		
Antenna Designation:	Please see Note 3.																		
Antenna Gain(Peak)	Please see Note 3.																		
EIRP Power(Max):	802.11b:17.70 dBm (Max.) 802.11g:20.40 dBm (Max.)																		
Channel List	Please refer to the Note 2.																		
Power Source	DC Voltage supplied from AC/DC adapter.																		
Power Rating	AC I/P 100-240V~47-63Hz, 1.4A MAX. / DC O/P 12V, 5.0A																		
Connecting I/O Port(s)	CPU: AMD/Geode-ALXD800EEXJ2VD HDD: Fujitsu/MHW2040AT RAM: DSL/DDR400 512M Adapter: ADAPTER TECH./STD-1250P																		
Products Covered	N/A																		

Note:

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



2.

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	Well Green	WGT001	dipole	SMA	2



3.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possibly 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	CH01
Mode 2	CH06
Mode 3	CH11

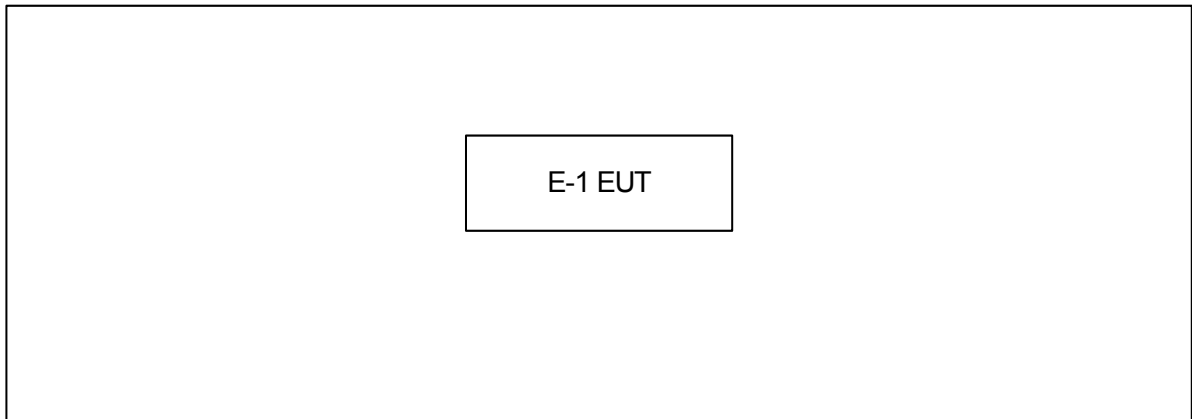
For Conducted Test	
Final Test Mode	Description
Mode 2	CH06

For Radiated Test (30 – 1000MHz)	
Final Test Mode	Description
Mode 2	CH06

For Radiated Test (Above 1000MHz)	
Final Test Mode	Description
Mode 1	CH01
Mode 2	CH06
Mode 3	CH11



3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



**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	POS System	SENR	iSPOS XXX	OVS-iSPOS	N/A	EUT

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 『Length』 column.



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)	
	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	C01	N/A	Oct. 9, 2009
2	LISN (SR03)	EMCO	3816/2	00042991	Jan. 29, 2009
3	Pulse Limiter	Electro-Metrics	EM-7600	112647	Oct. 9, 2009
4	50Ω Terminator	N/A	N/A	N/A	May 13, 2009
5	EMI Test Receiver	R&S	ESCI	100082	Feb. 23, 2009
6	LISN	EMCO	4825/2	00028234	Jul. 09, 2009

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

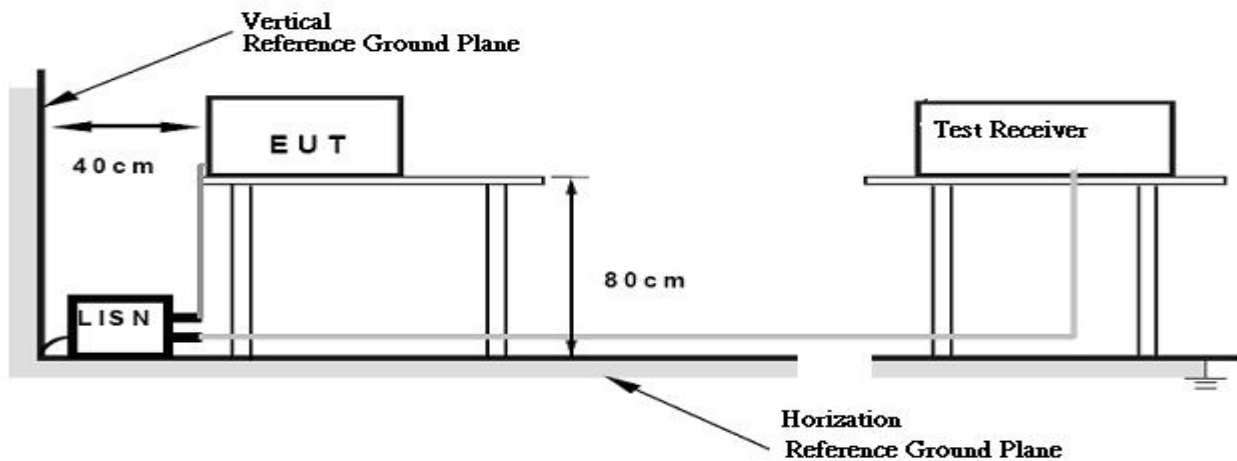
4.1.3 TEST PROCEDURE

- 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.
- 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.
- 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





4.1.6 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



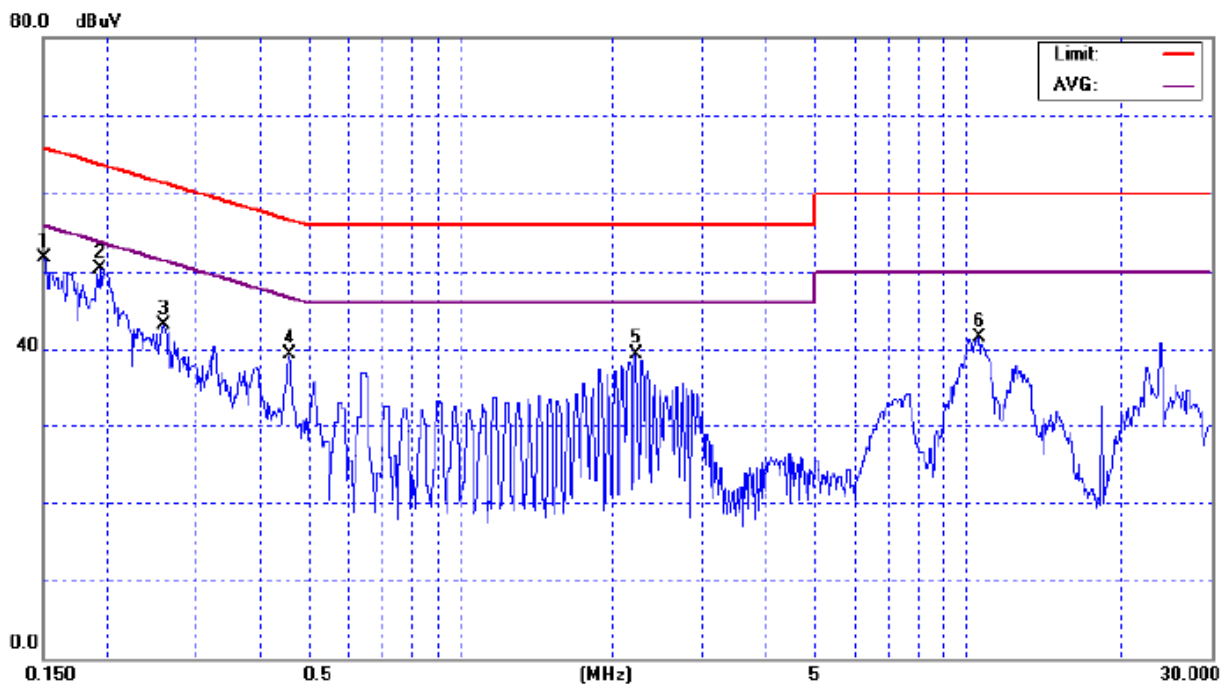
4.1.7 TEST RESULTS

E.U.T :	POS System	Model Name :	iSPOS XXX
Temperature :	26 ° C	Relative Humidity :	56%
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX CH 06		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.15	Line	51.73	*	66.00	56.00	-14.27	(QP)
0.19	Line	50.37	*	63.86	53.86	-13.49	(QP)
0.26	Line	43.19	*	61.48	51.48	-18.29	(QP)
0.46	Line	39.30	*	56.73	46.73	-17.43	(QP)
2.21	Line	39.27	*	56.00	46.00	-16.73	(QP)
10.55	Line	41.42	*	60.00	50.00	-18.58	(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 ◦
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 ◦
- (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 ◦ In this case, a " * " marked in AVG Mode column of Interference Voltage Measured ◦
- (3) Measuring frequency range from 150KHz to 30MHz ◦



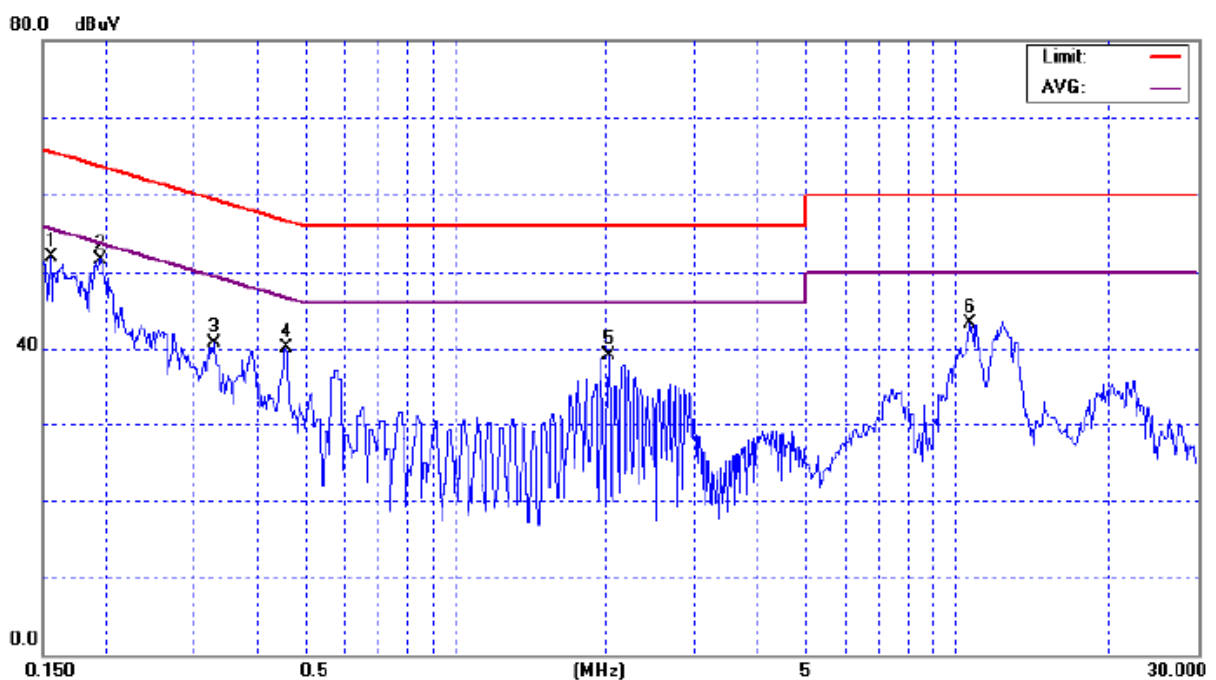


E.U.T :	POS System	Model Name :	iSPOS XXX
Temperature :	26 ° C	Relative Humidity :	56%
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX CH 06		

Freq. (MHz)	Terminal L/N	Measured(dBuV)		Limits(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.15	Neutral	51.86	*	65.73	55.73	-13.87	(QP)
0.19	Neutral	51.60	*	63.83	53.83	-12.23	(QP)
0.33	Neutral	40.70	*	59.47	49.47	-18.77	(QP)
0.46	Neutral	40.11	*	56.73	46.73	-16.62	(QP)
2.02	Neutral	39.12	*	56.00	46.00	-16.88	(QP)
10.65	Neutral	43.27	*	60.00	50.00	-16.73	(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 ◦
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 ◦
- (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 ◦ In this case, a " * " marked in AVG Mode column of Interference Voltage Measured ◦
- (3) Measuring frequency range from 150KHz to 30MHz ◦





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 on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class B (dBuV/m) (at 3m)	
	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).



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. 01, 2009
2	Test Cable	N/A	10M_OS01	N/A	Oct. 20, 2009
3	Test Cable	N/A	OS01-1/-2	N/A	Oct. 9, 2009
4	RF Switch	Anritsu	MP59B	M65982	Aug. 25, 2009
5	Pre-Amplifier	Anritsu	MH648A(OS01)	M09961	Oct. 9, 2009
6	Test Receiver	MEB	SMV41	130	May. 29, 2009
7	Antenna Mast	Chance Most	CMTB-1.5	N/A	N/A
8	Turn Table	Chance Most	CMTB-1.5	N/A	N/A
9	Spectrum Analyzer	ADVAN TEST	R3132	81700025	Mar. 30, 2009
10	Spectrum Analyzer	R&S	FSP-40	100129	Sep. 09, 2009
11	Horn Antenna	EMCO	3115	9120D-325	Aug. 17, 2009
12	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 23, 2009
13	Microflex Cable	NA	NA	1m	Sep. 15, 2009
14	Microflex Cable	United Microwave	A30A30-5006	10M	Feb. 20, 2009

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

4.2.3 TEST PROCEDURE

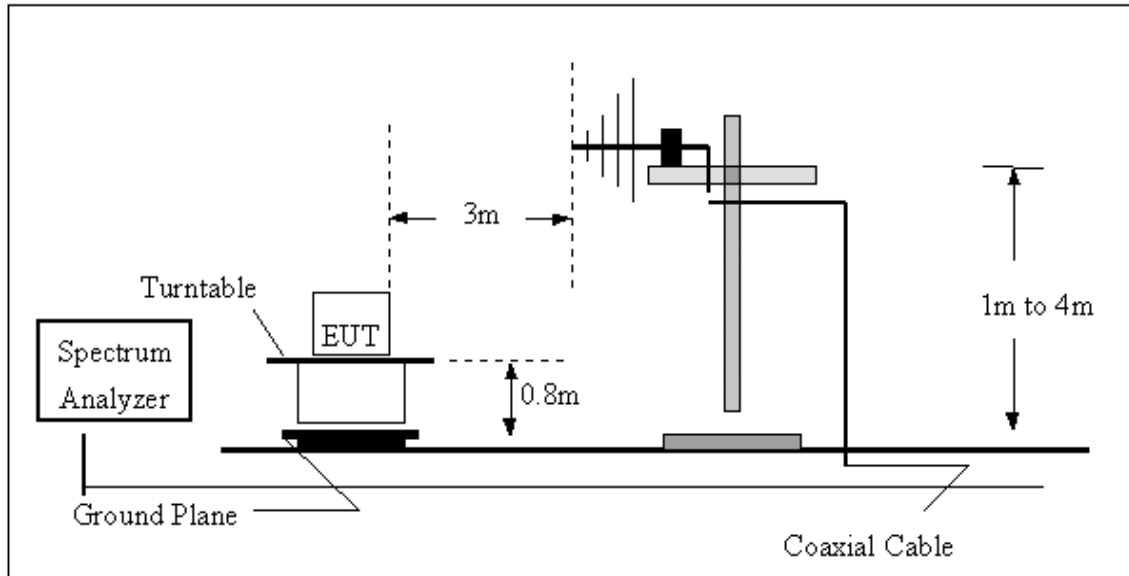
- The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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.
- 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.
- 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.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.2.4 DEVIATION FROM TEST STANDARD

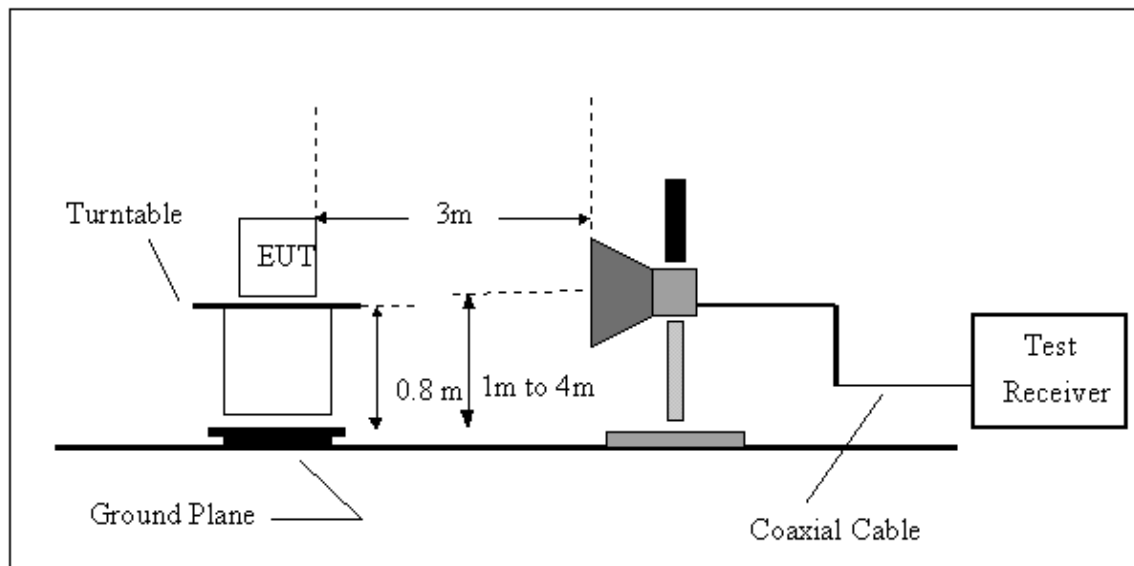
No deviation

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.



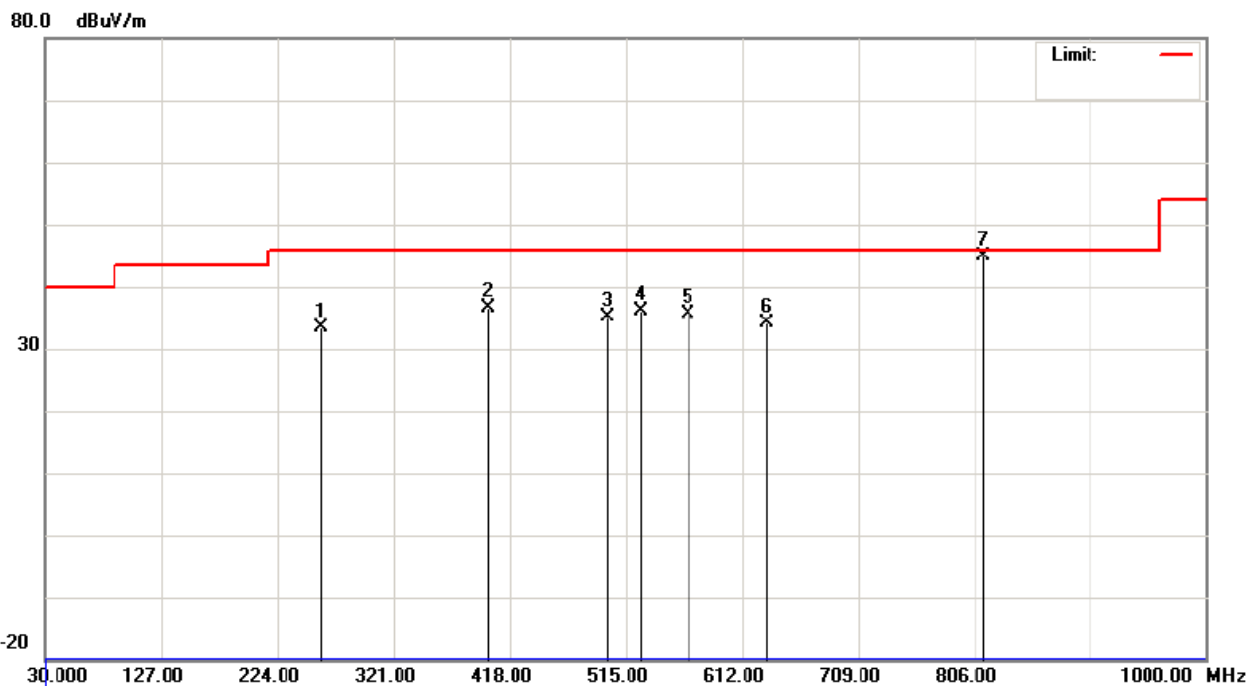
4.2.7 TEST RESULTS-BETWEEN 30MHZ AND 1000MHZ

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	25 °C	Relative Humidity :	64%
Test Power :	AC 120V/60Hz		
Test Mode :	CH06		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
260.86	V	42.35	-9.01	33.34	46.00	- 12.66	(QP)
400.54	V	41.65	-5.11	36.54	46.00	- 9.46	(QP)
499.48	V	38.22	-2.98	35.24	46.00	- 10.76	(QP)
528.58	V	38.55	-2.41	36.14	46.00	- 9.86	(QP)
567.38	V	37.07	-1.39	35.68	46.00	- 10.32	(QP)
633.34	V	33.99	0.04	34.03	46.00	- 11.97	(QP)
813.76	V	44.43	0.57	45.00	46.00	- 1.00	(QP)

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.
- (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.





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	25 °C	Relative Humidity :	64%
Test Power :	AC 120V/60Hz		
Test Mode :	CH06		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
194.90	H	40.80	-10.66	30.14	43.50	- 13.36	(QP)
260.86	H	44.63	-9.01	35.62	46.00	- 10.38	(QP)
326.82	H	36.32	-6.93	29.39	46.00	- 16.61	(QP)
499.48	H	36.64	-2.98	33.66	46.00	- 12.34	(QP)
522.76	H	38.14	-2.54	35.60	46.00	- 10.40	(QP)
625.58	H	31.49	-0.14	31.35	46.00	- 14.65	(QP)
809.88	H	44.20	0.55	44.75	46.00	- 1.25	(QP)

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.
- (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.





4.2.8 TEST RESULTS-ABOVE 1000MHZ

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX 802.11b_CH01		

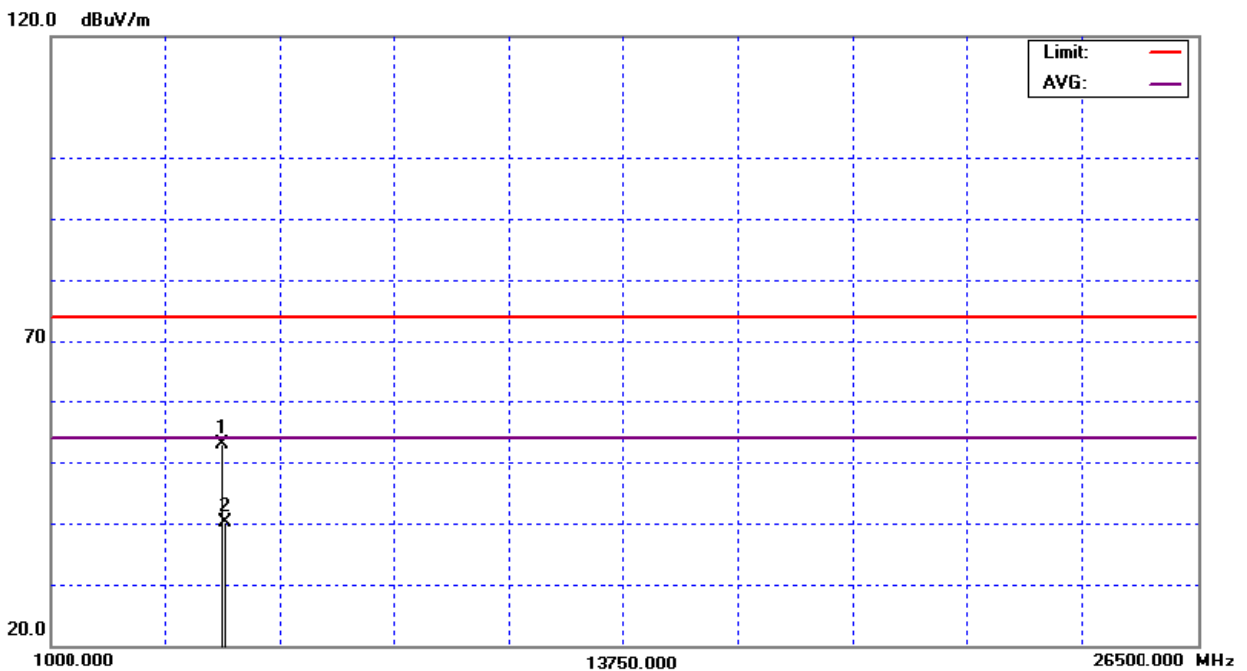
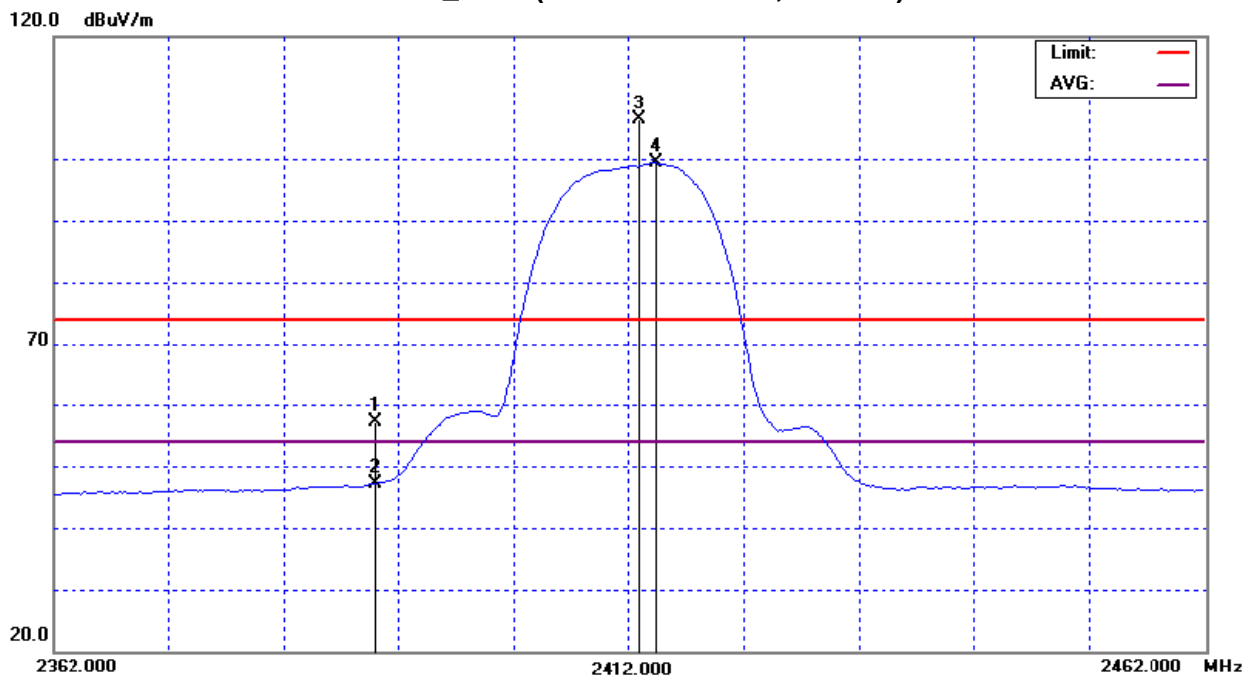
Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	24.51	14.67	32.57	57.08	47.24	74.00	54.00	X/H
2413.00	V	73.78	66.62	32.70	106.48	99.32			X/F
4823.96	V	48.93	36.02	4.04	52.97	40.06	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH01		

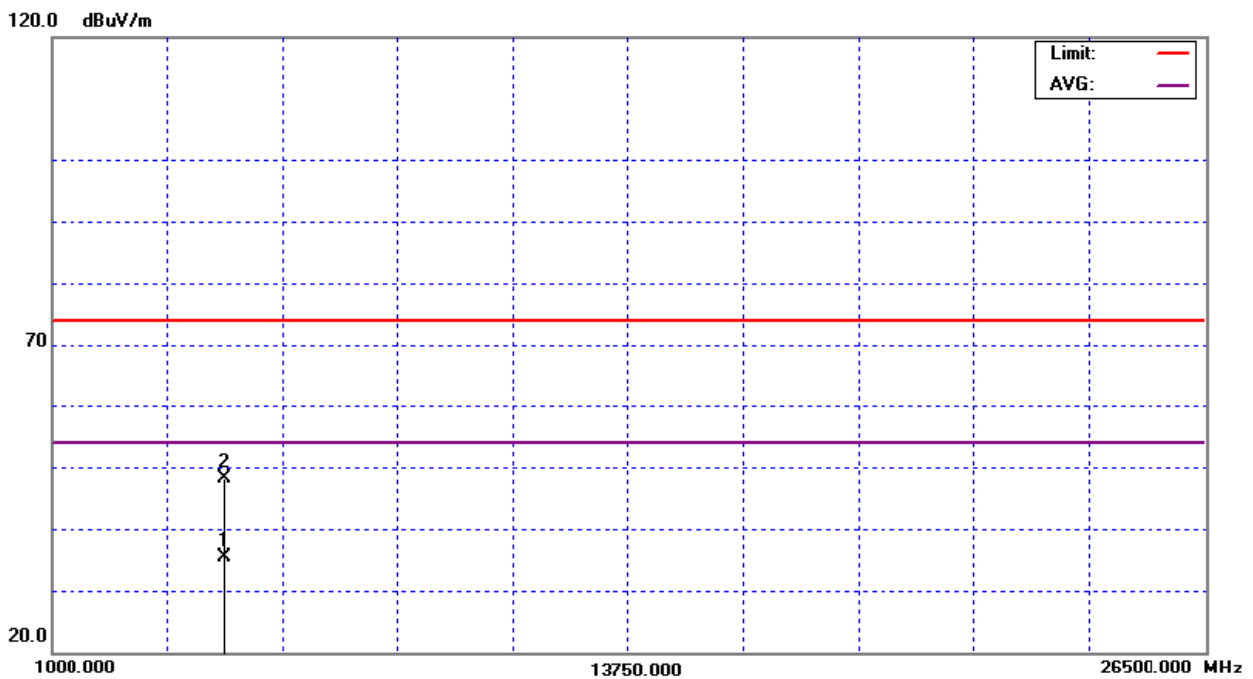
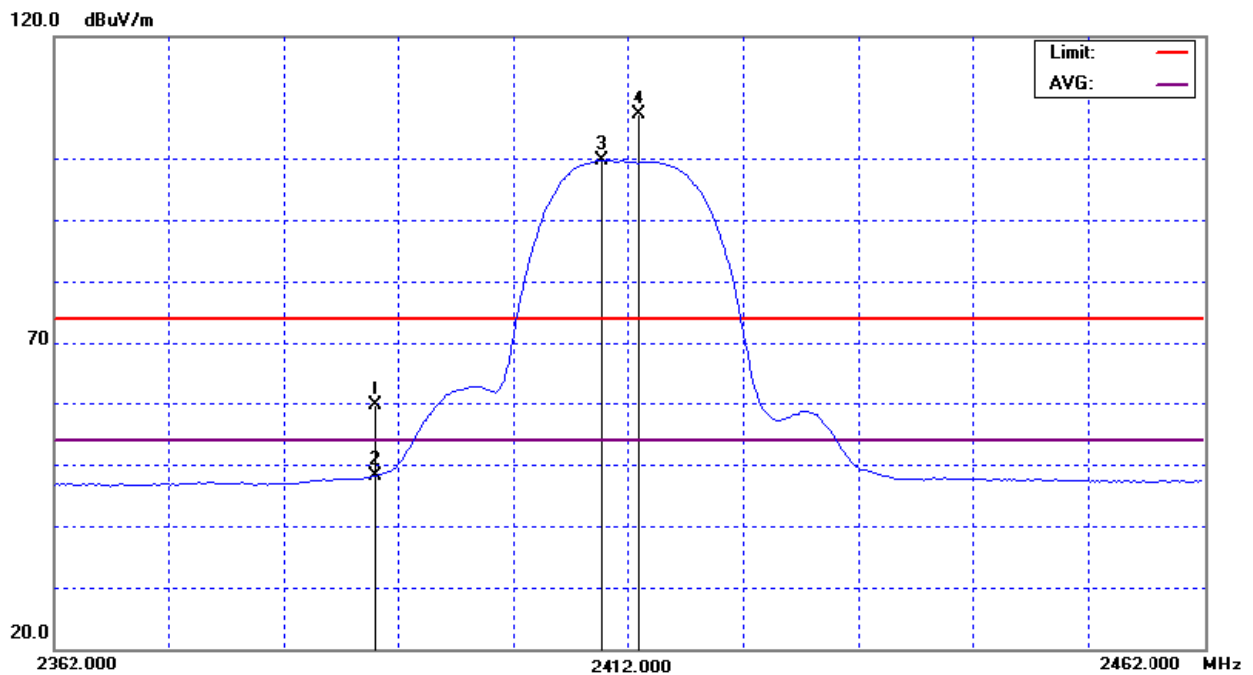
Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	27.02	15.47	32.57	59.59	48.04	74.00	54.00	X/H
2413.00	H	74.34	67.06	32.70	107.04	99.76			X/F
4824.00	H	44.12	31.32	4.05	48.17	35.37	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH06		

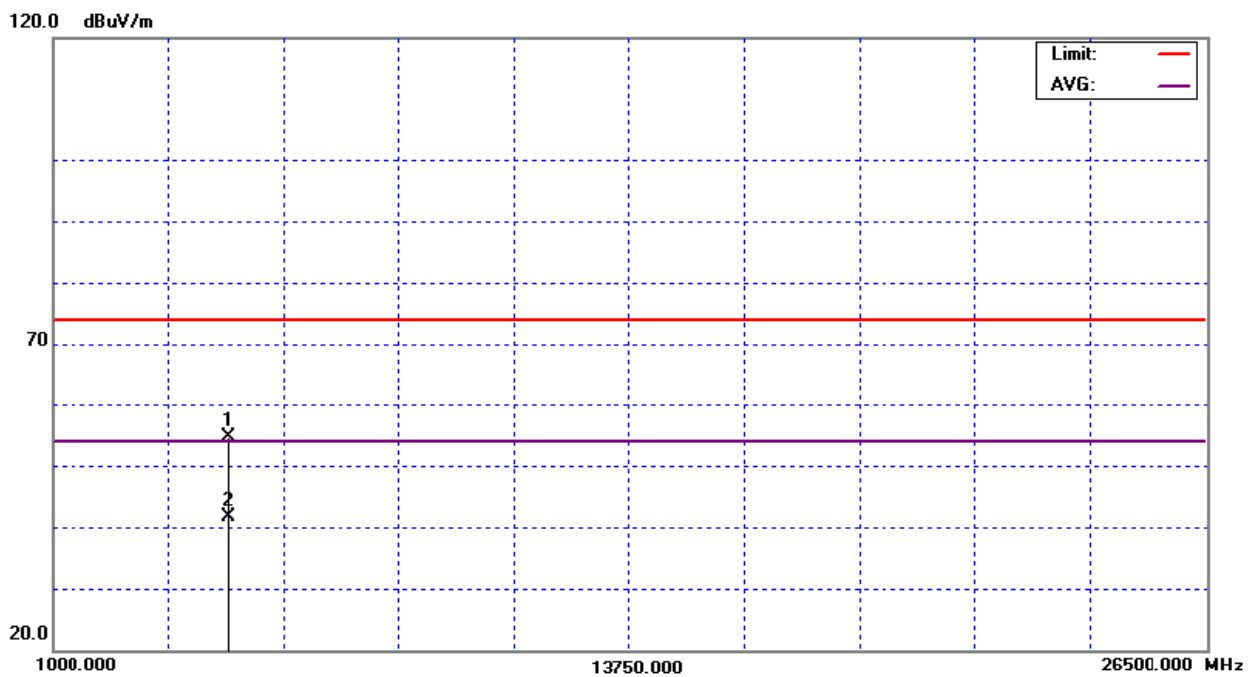
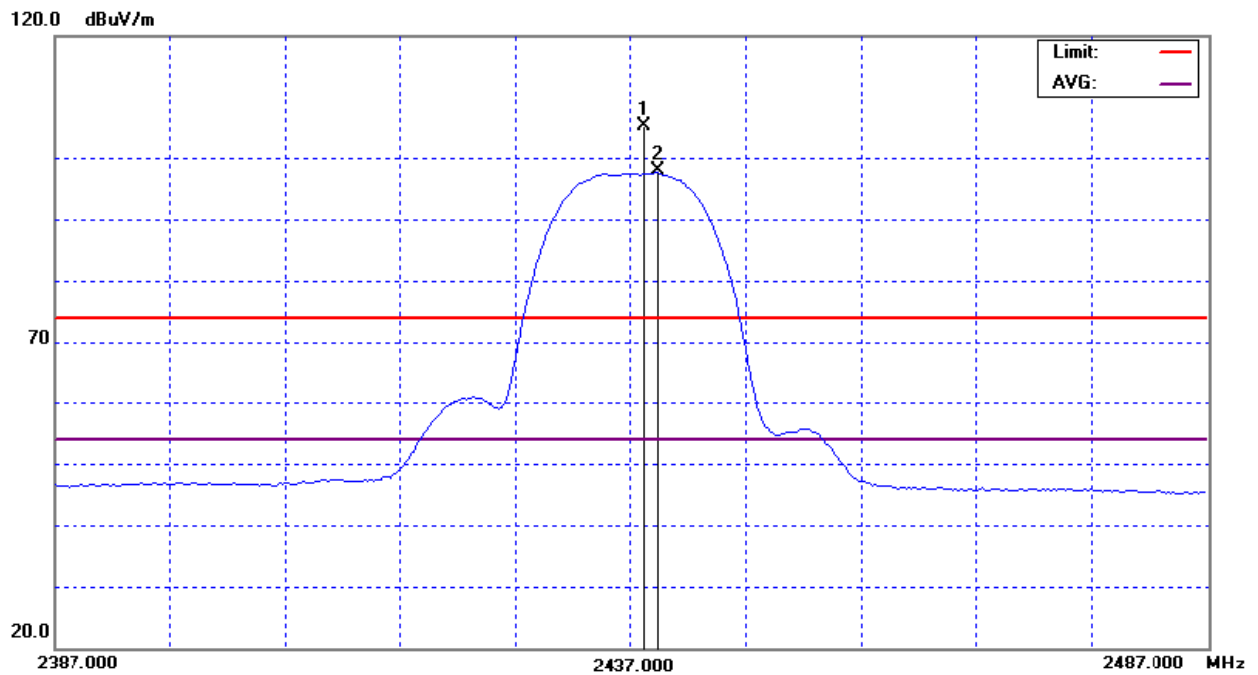
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2438.20	V	72.21	65.01	32.84	105.05	97.85			X/F
4873.92	V	50.44	37.41	4.29	54.73	41.70	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH06		

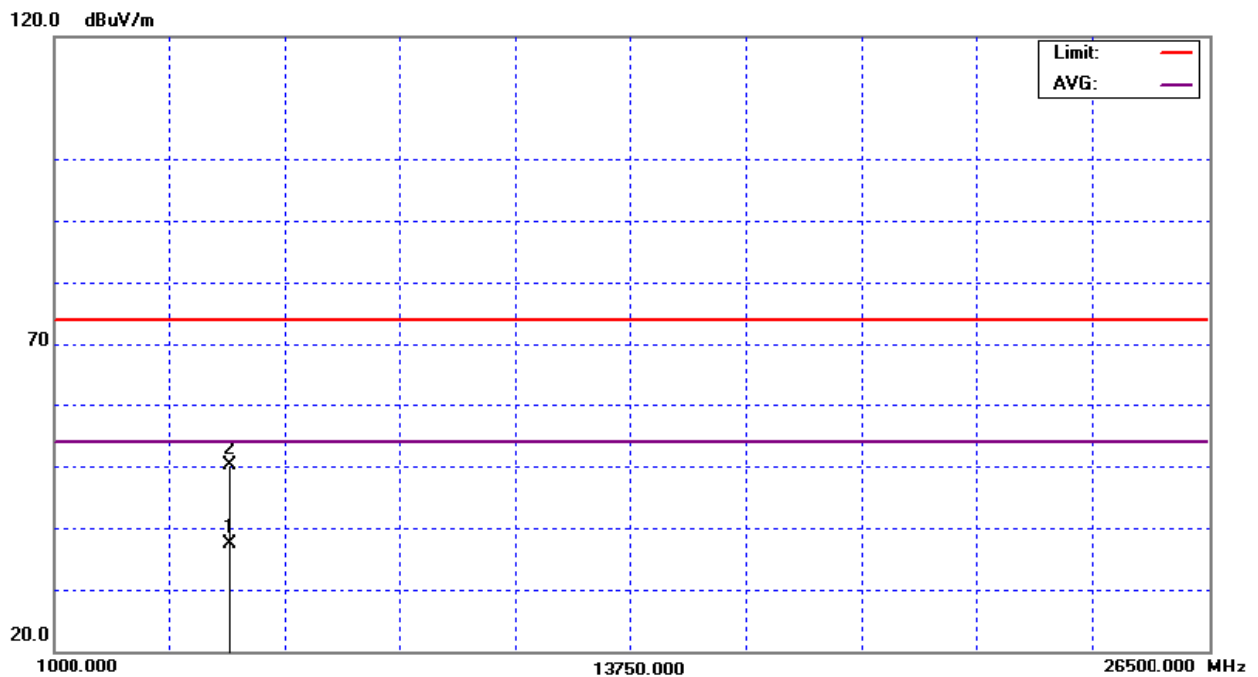
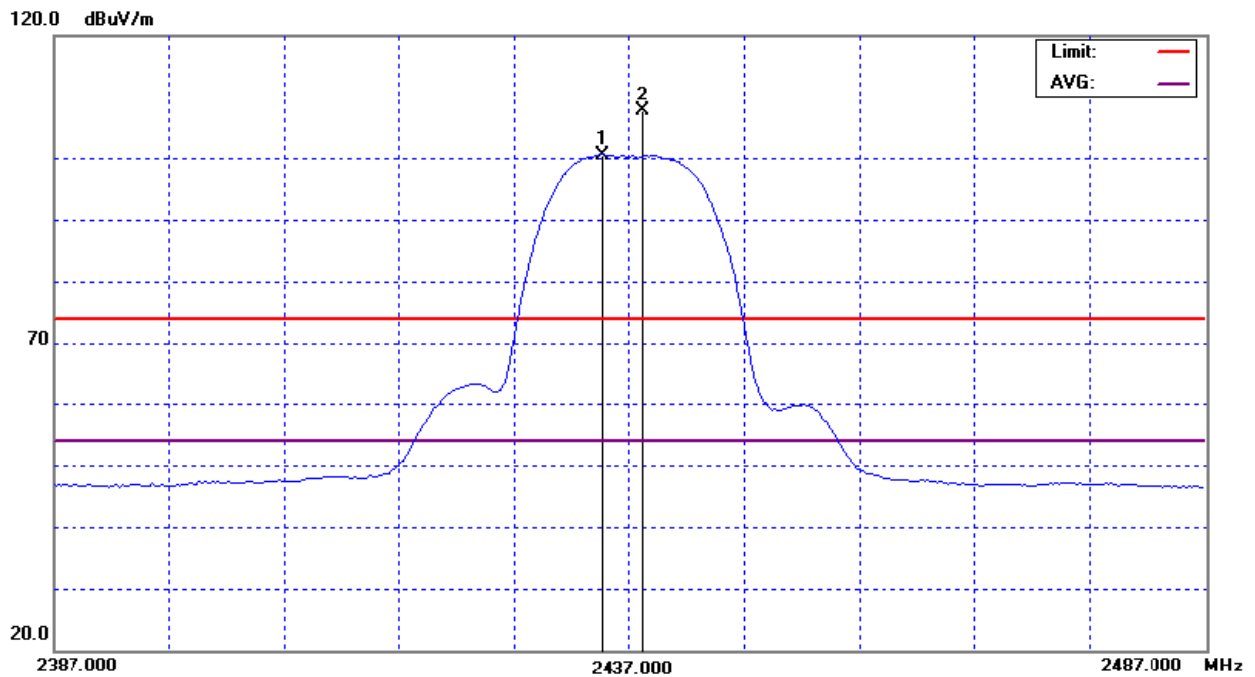
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2438.20	H	74.87	67.44	32.84	107.71	100.28			X/F
4873.88	H	45.94	33.20	4.29	50.23	37.49	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH11		

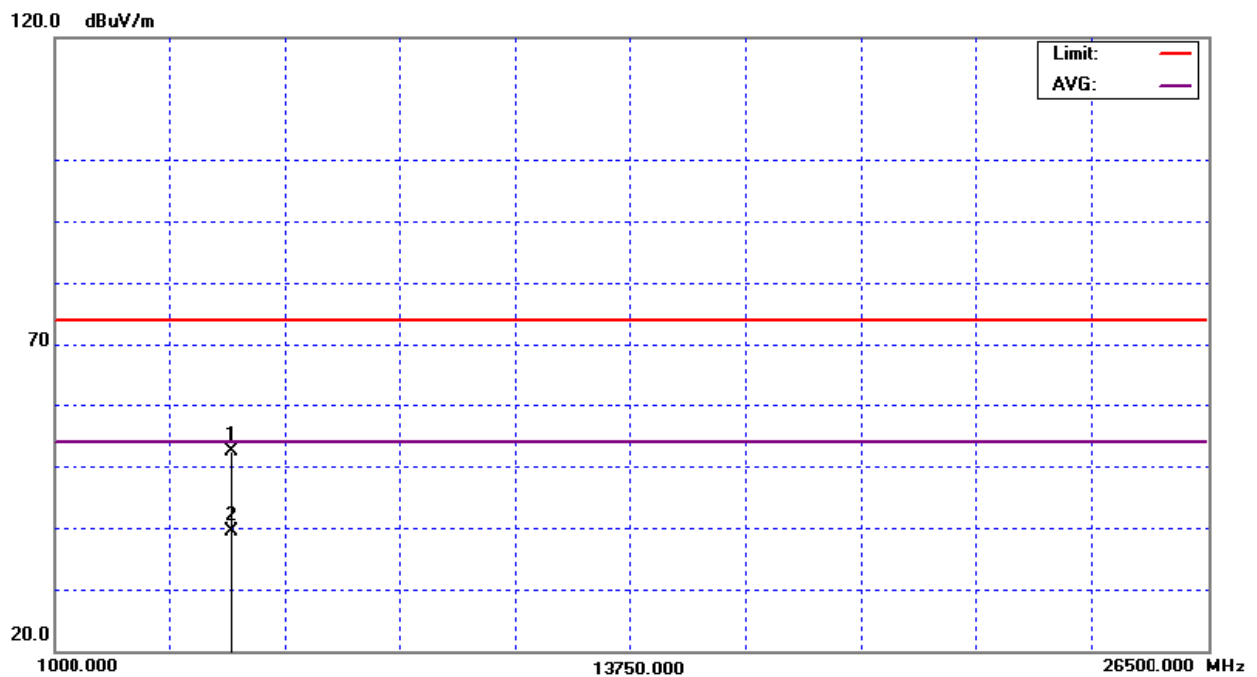
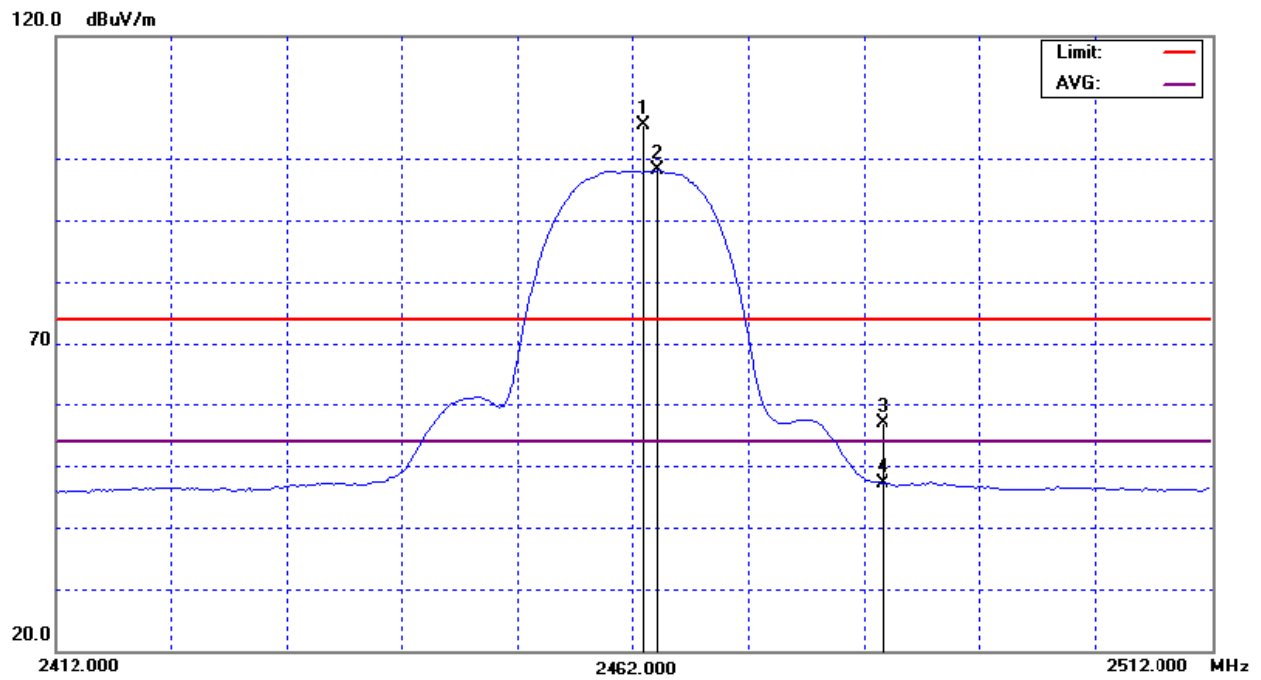
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2463.00	V	72.48	65.06	32.98	105.46	98.04			X/F
2483.50	V	23.81	13.93	33.10	56.91	47.03	74.00	54.00	X/H
4924.00	V	47.75	34.74	4.54	52.29	39.28	74.00	54.00	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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH11		

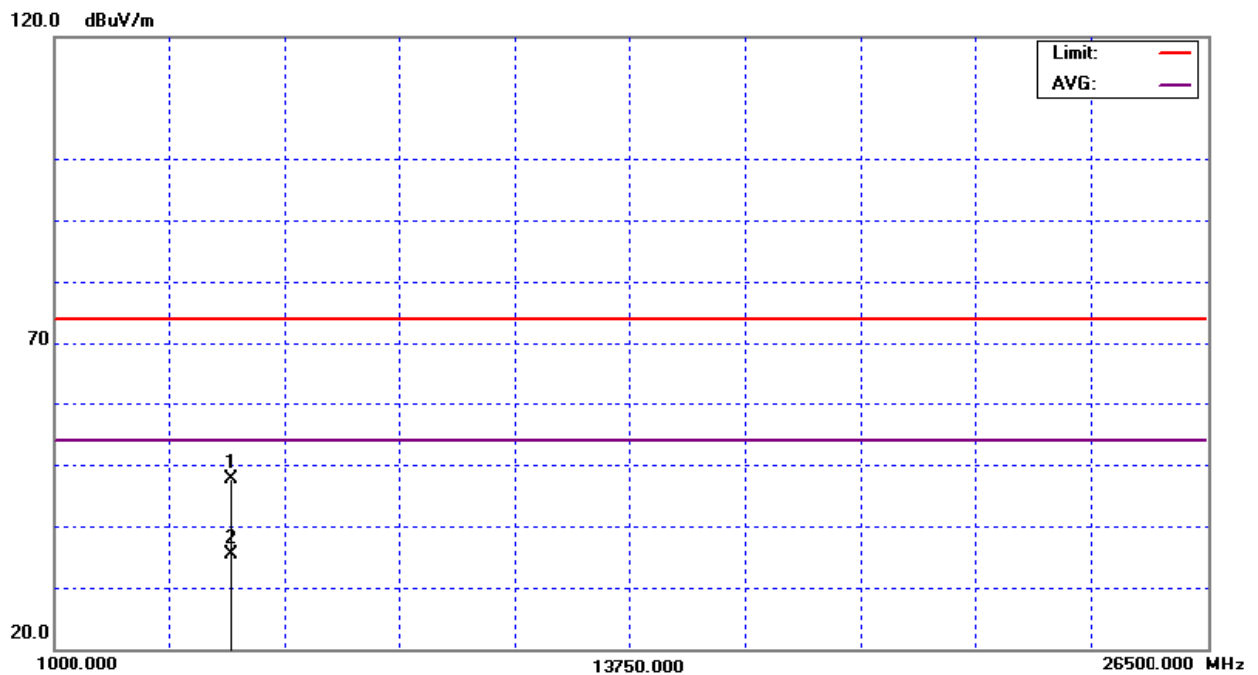
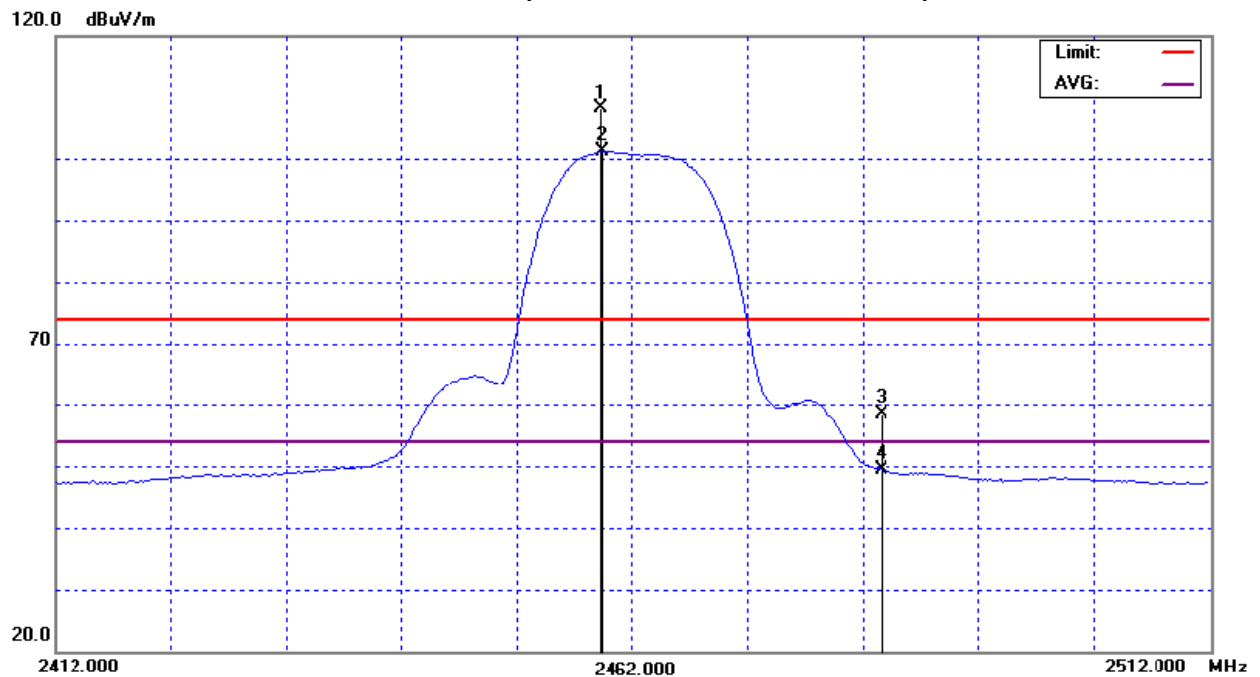
Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2459.20	H	75.20	68.22	32.96	108.16	101.18			X/F
2483.50	H	25.27	16.21	33.10	58.37	49.31	74.00	54.00	X/H
4925.28	H	43.19	30.90	4.54	47.73	35.44	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX 802.11g_CH01		

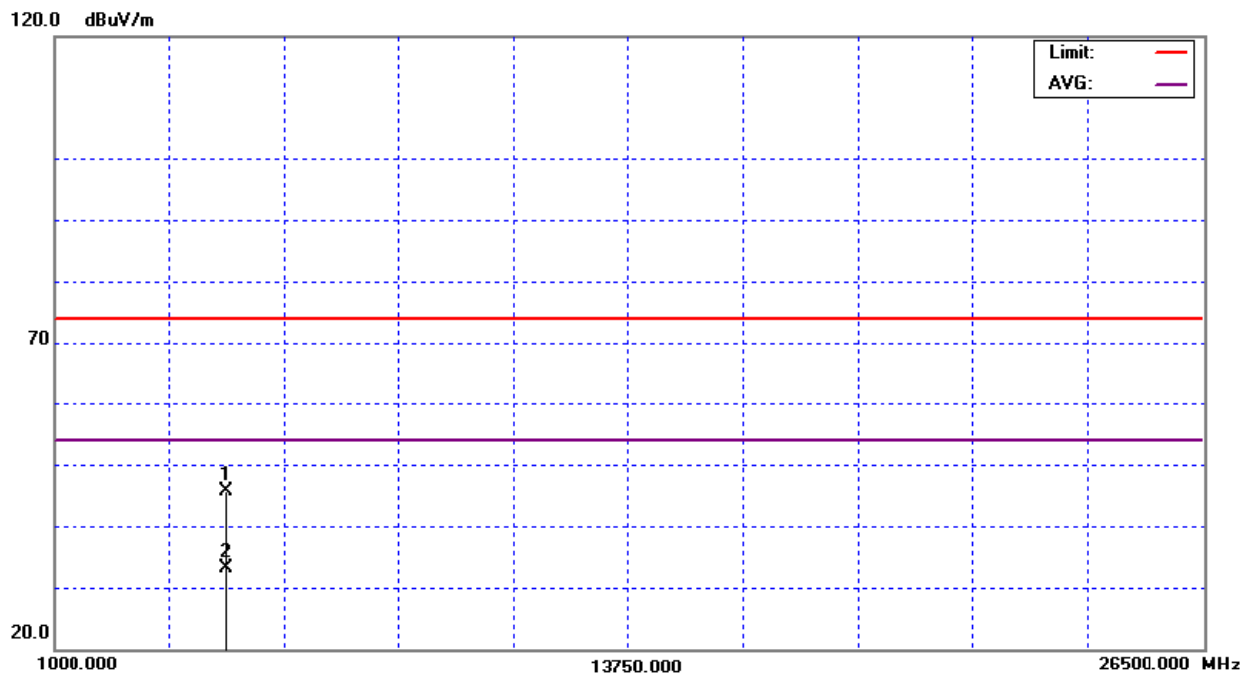
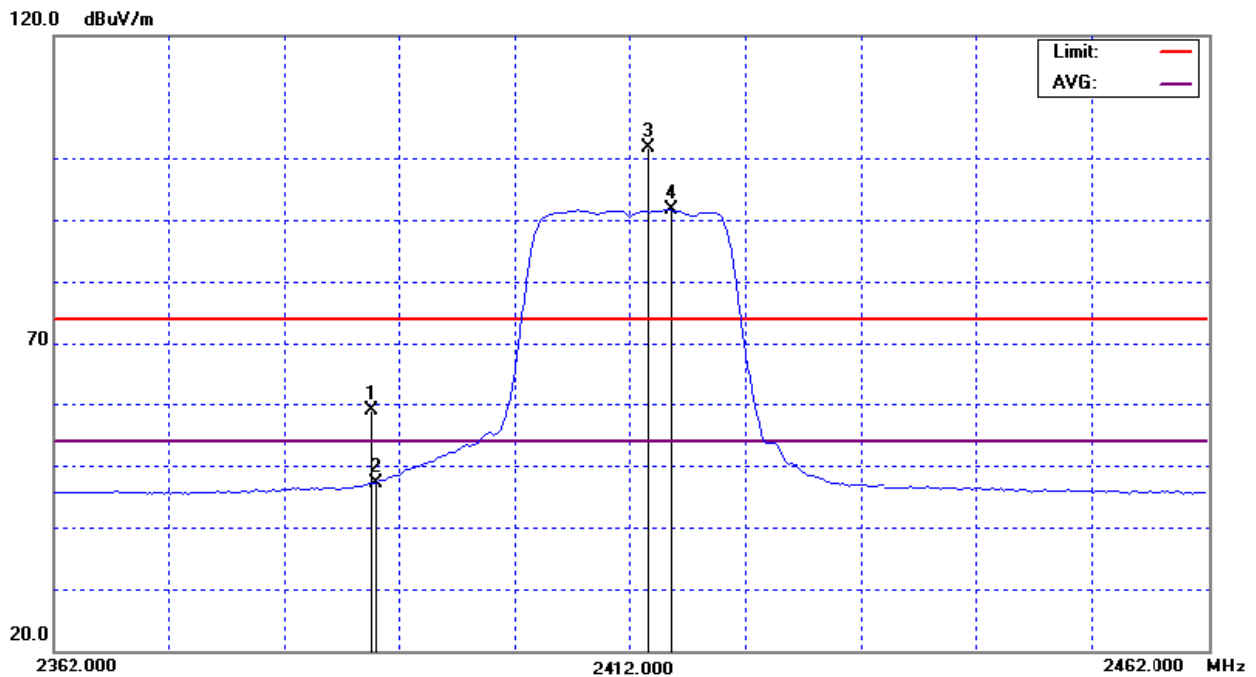
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2389.60	V	26.34	14.60	32.57	58.91	47.17	74.00	54.00	X/H
2413.60	V	68.94	59.00	32.71	101.65	91.71			X/F
4822.50	V	41.69	29.13	4.04	45.73	33.17	74.00	54.00	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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH01		

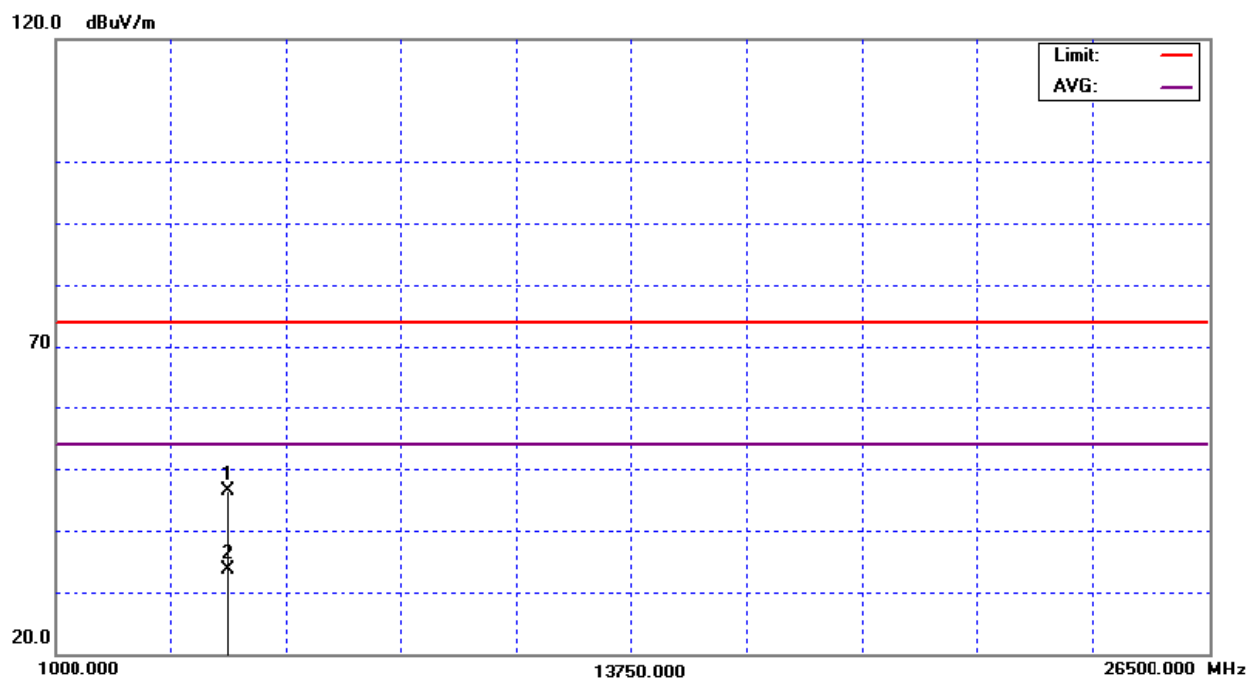
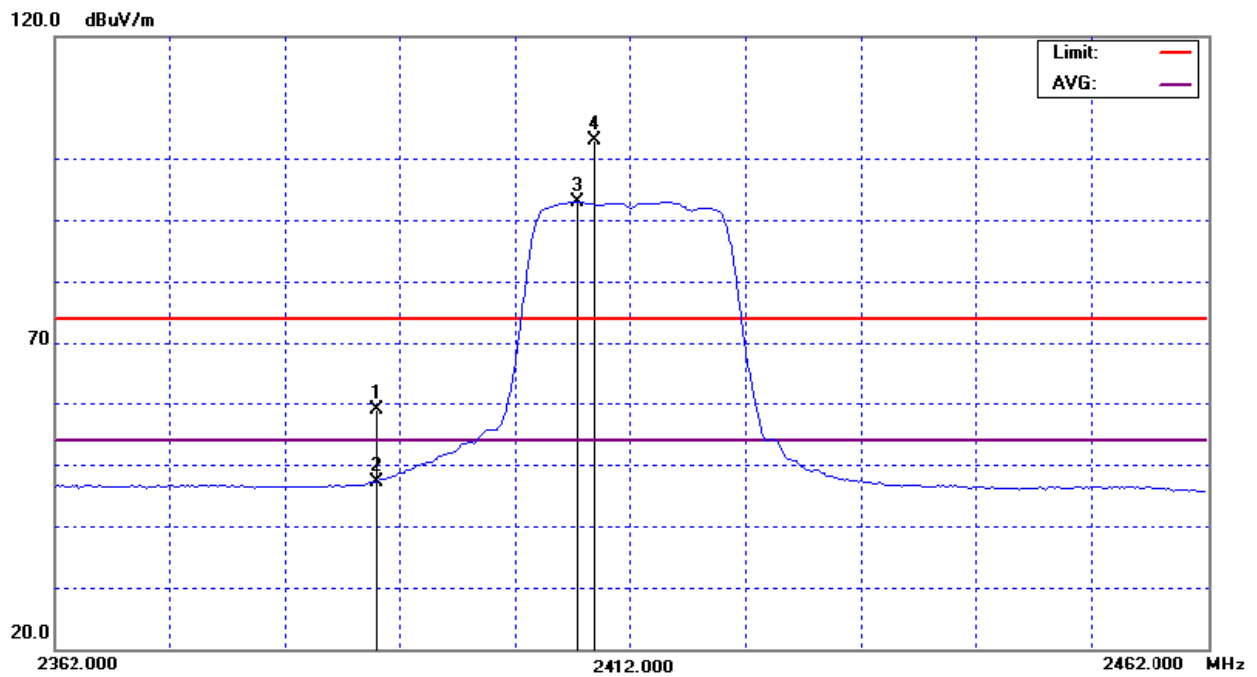
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	26.19	14.65	32.57	58.76	47.22	74.00	54.00	X/H
2408.80	H	70.22	60.31	32.68	102.90	92.99			X/F
4822.60	H	42.36	29.62	4.04	46.40	33.66	74.00	54.00	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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH06		

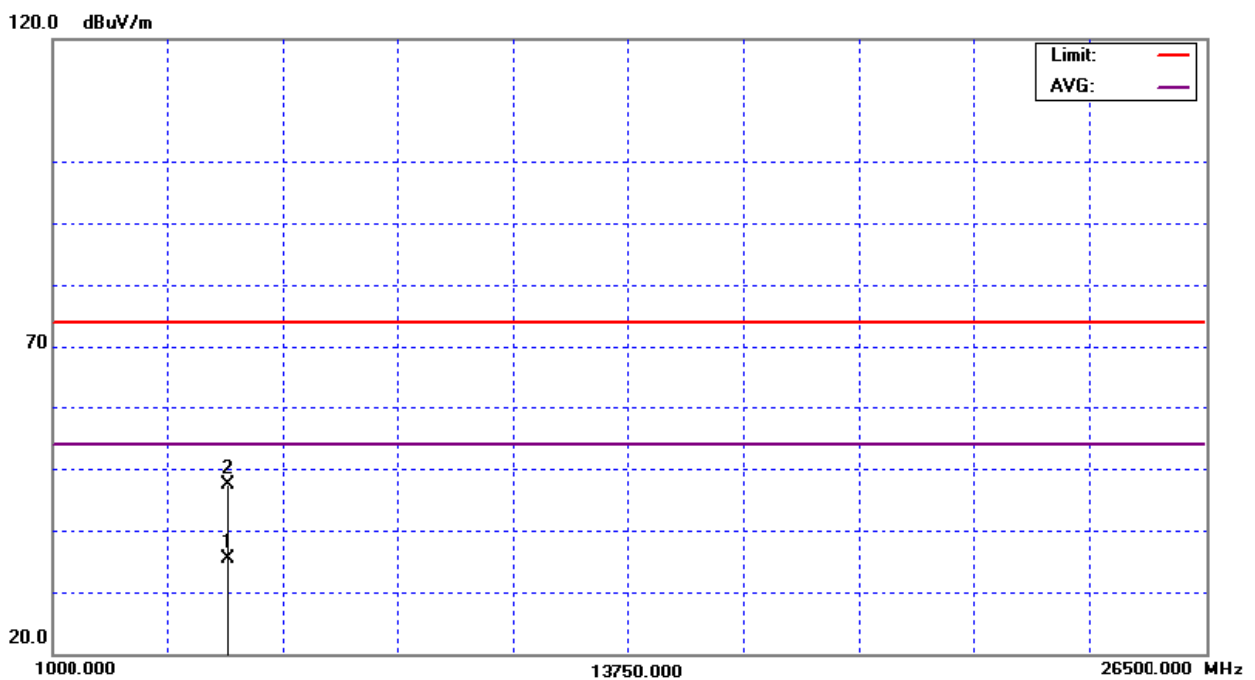
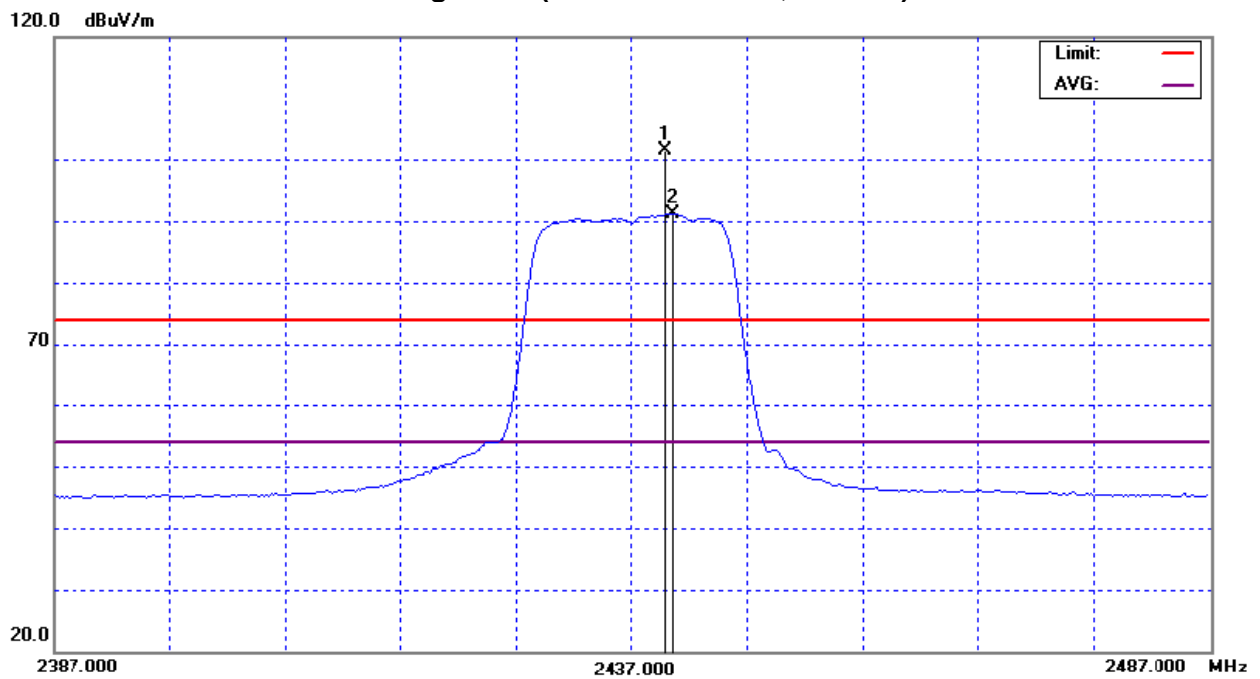
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2440.00	V	68.49	58.39	32.85	101.34	91.24			X/F
4873.72	V	43.14	31.03	4.29	47.43	35.32	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH06		

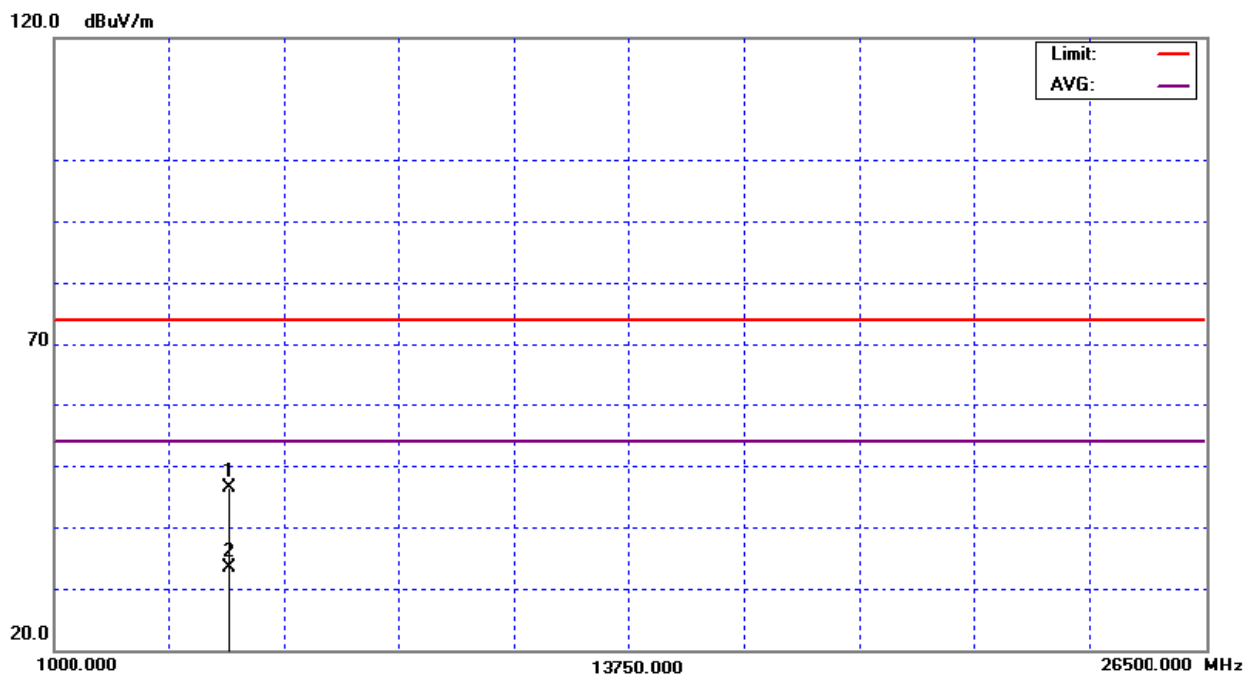
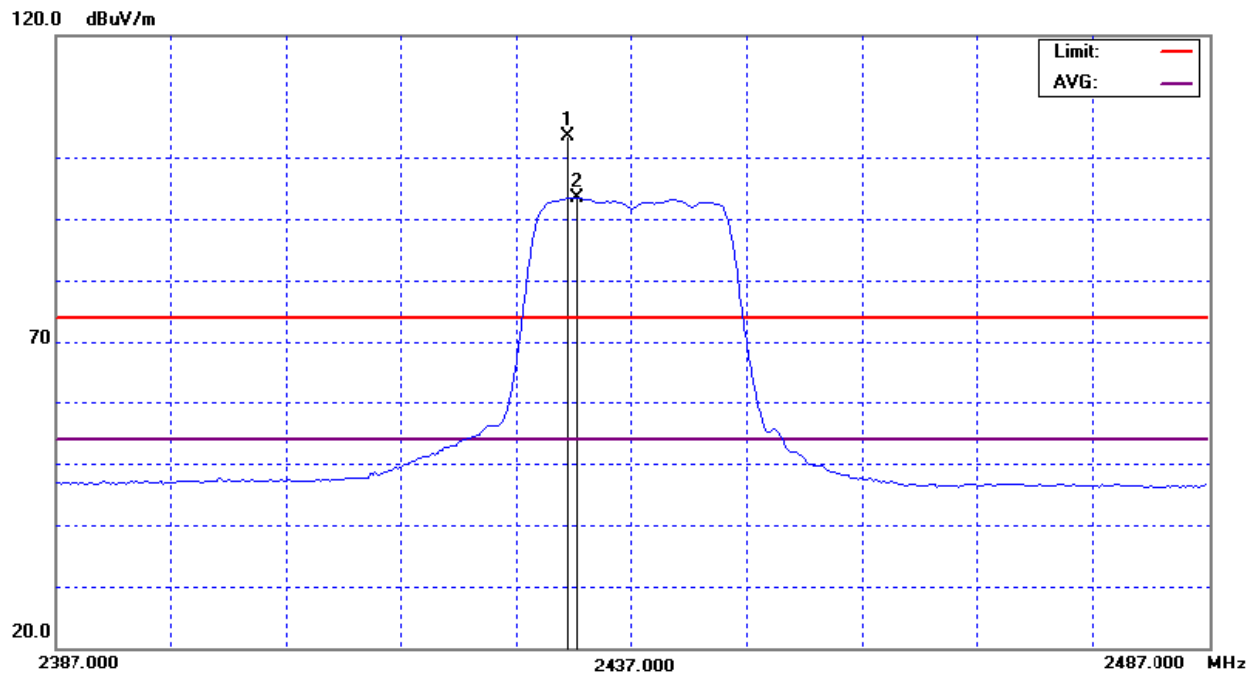
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2431.40	H	70.47	60.66	32.81	103.28	93.47			X/F
4873.44	H	42.15	29.06	4.29	46.44	33.35	74.00	54.00	X/H

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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH11		

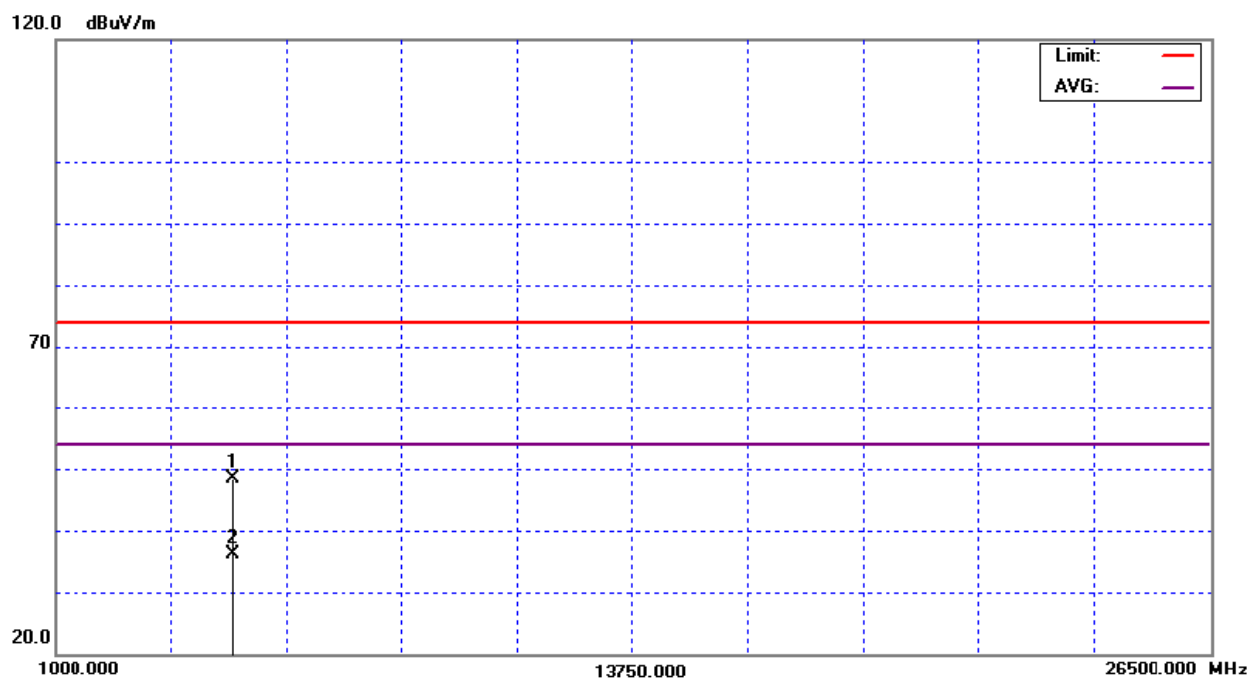
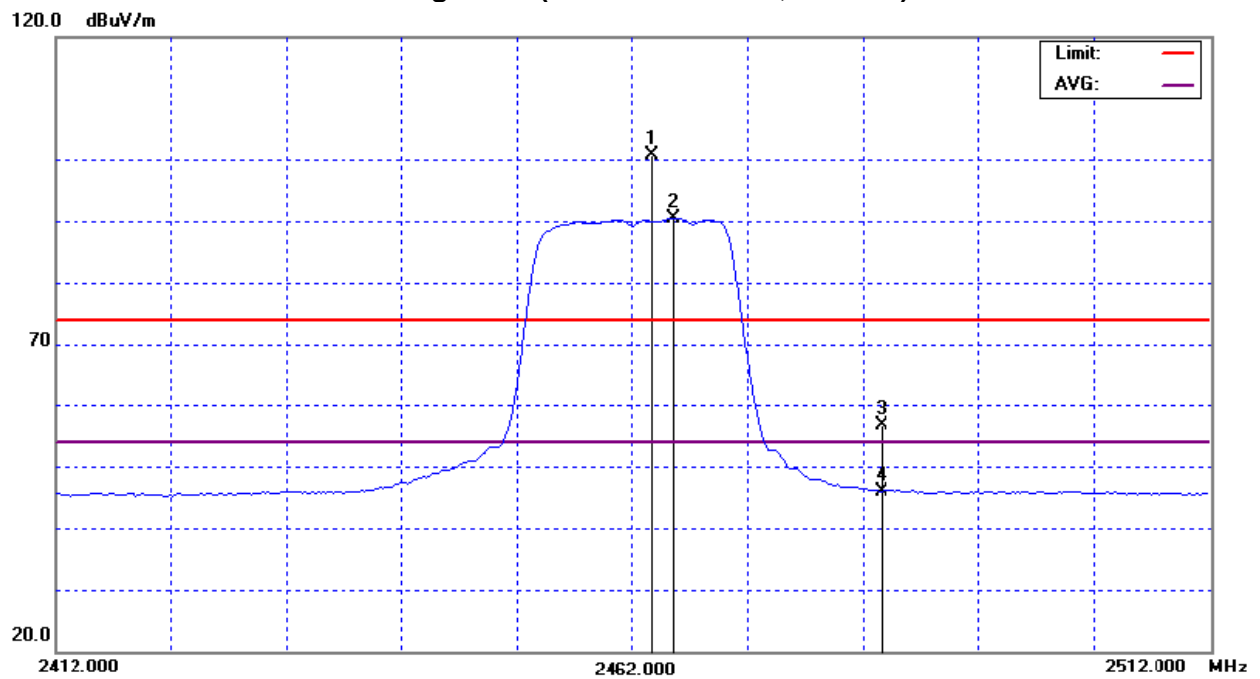
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2463.80	V	67.73	57.49	32.99	100.72	90.48			X/F
2483.50	V	23.64	12.82	33.10	56.74	45.92	74.00	54.00	X/H
4924.40	V	43.88	31.55	4.54	48.42	36.09	74.00	54.00	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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH11		

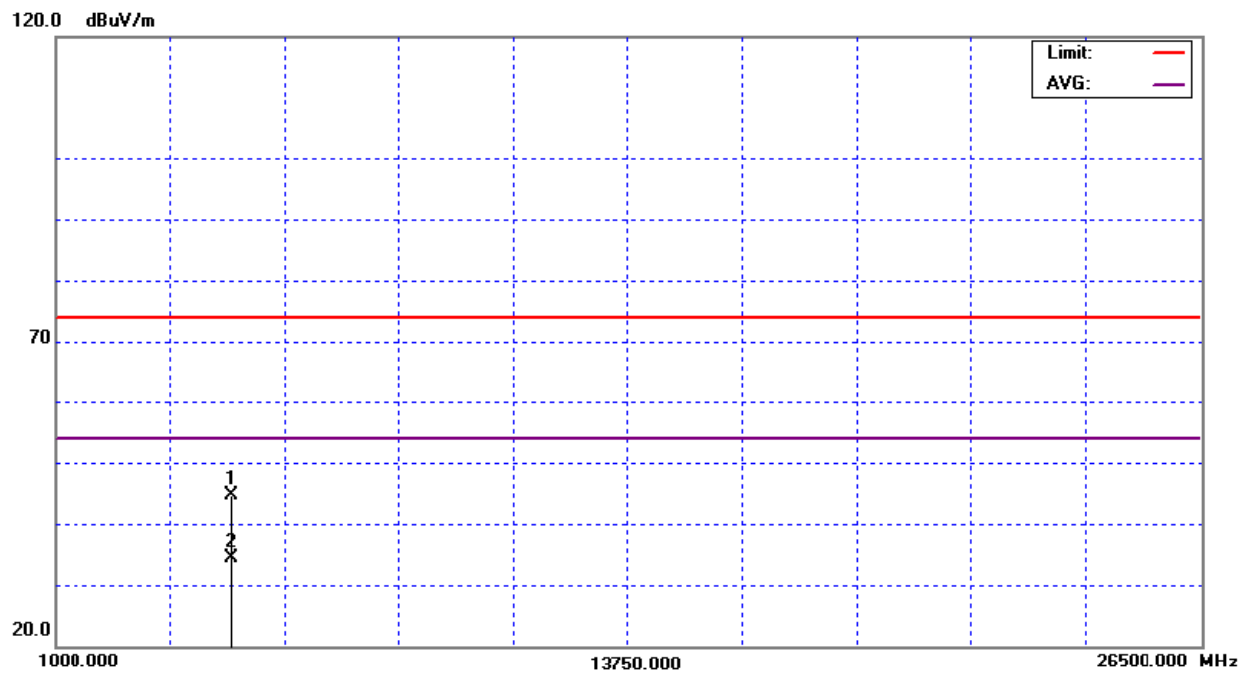
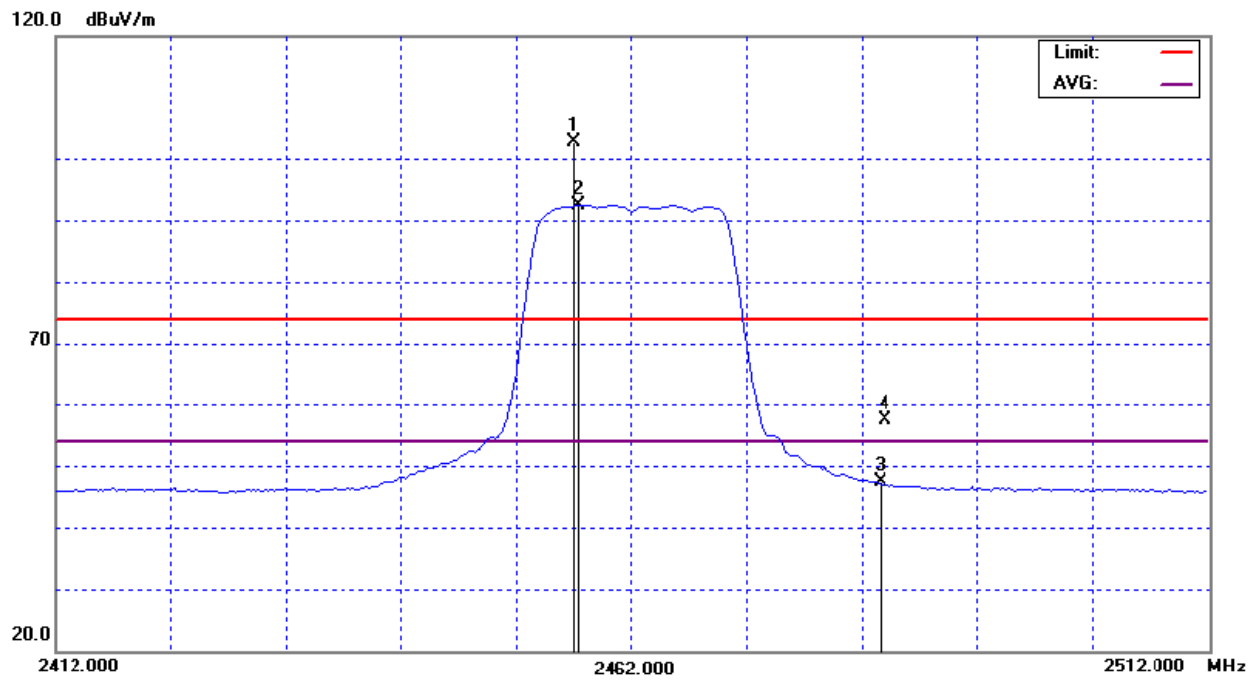
Freq. (MHz)	Ant. Pol. H/V	Reading		Ant./CF CF (dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2457.00	H	69.74	59.47	32.95	102.69	92.42			X/F
2483.90	H	24.19	14.18	33.10	57.29	47.28	74.00	54.00	X/H
4923.60	H	40.08	29.75	4.53	44.61	34.28	74.00	54.00	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 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ◦
- (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.



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





4.2.9 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH11(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	V	24.51	14.67	32.57	57.08	47.24	74.00	54.00	X
2483.50	V	3.81	13.93	33.10	36.91	47.03	74.00	54.00	X

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

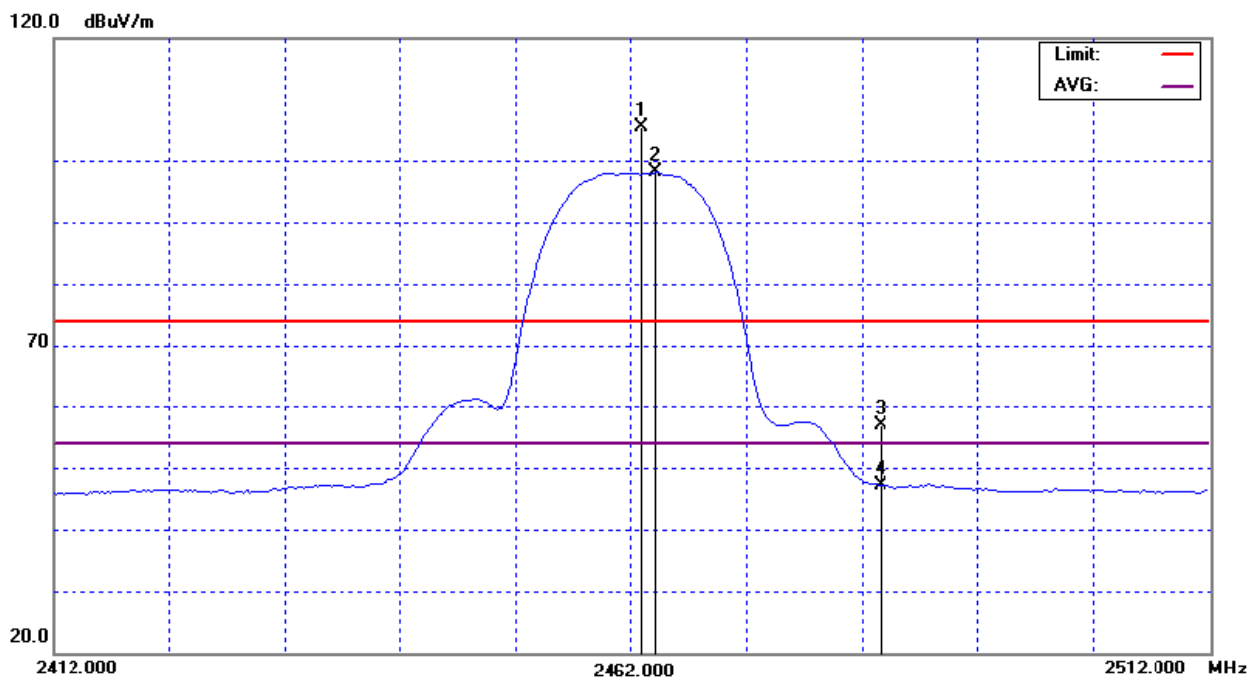
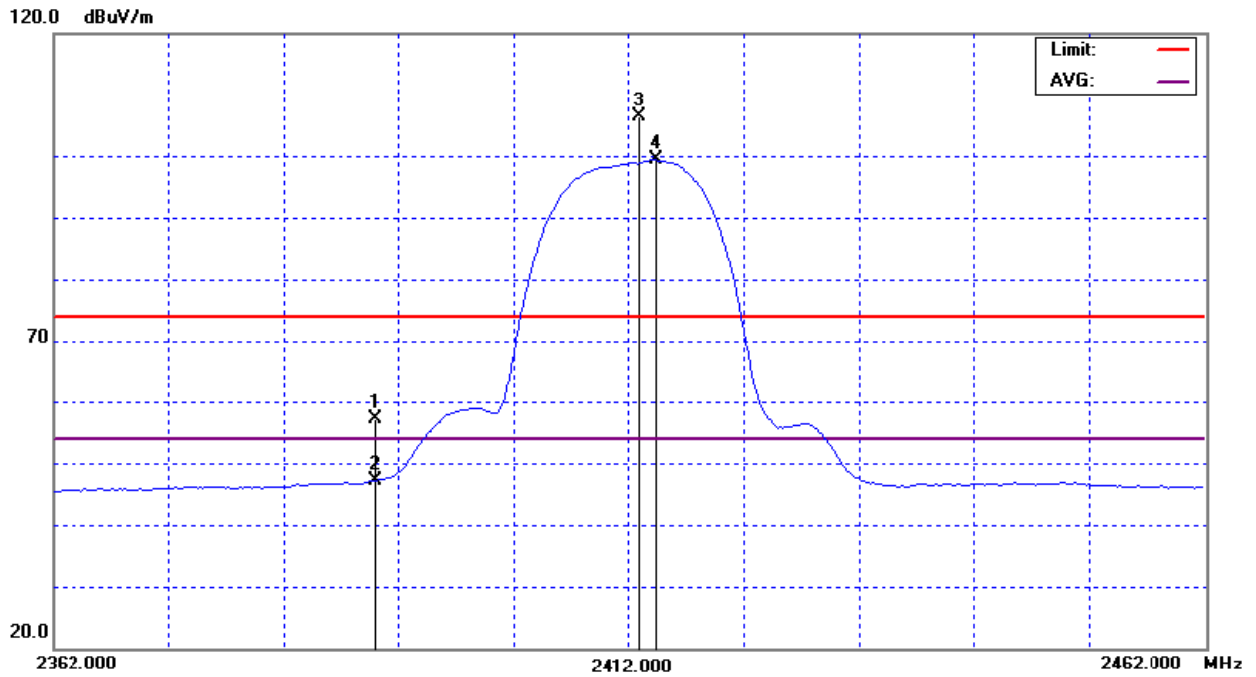
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission °

(3) EUT Orthogonal Axes :

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



802.11b_CH01/CH11 (Restricted Bands Requirements, Vertical)





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH11(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

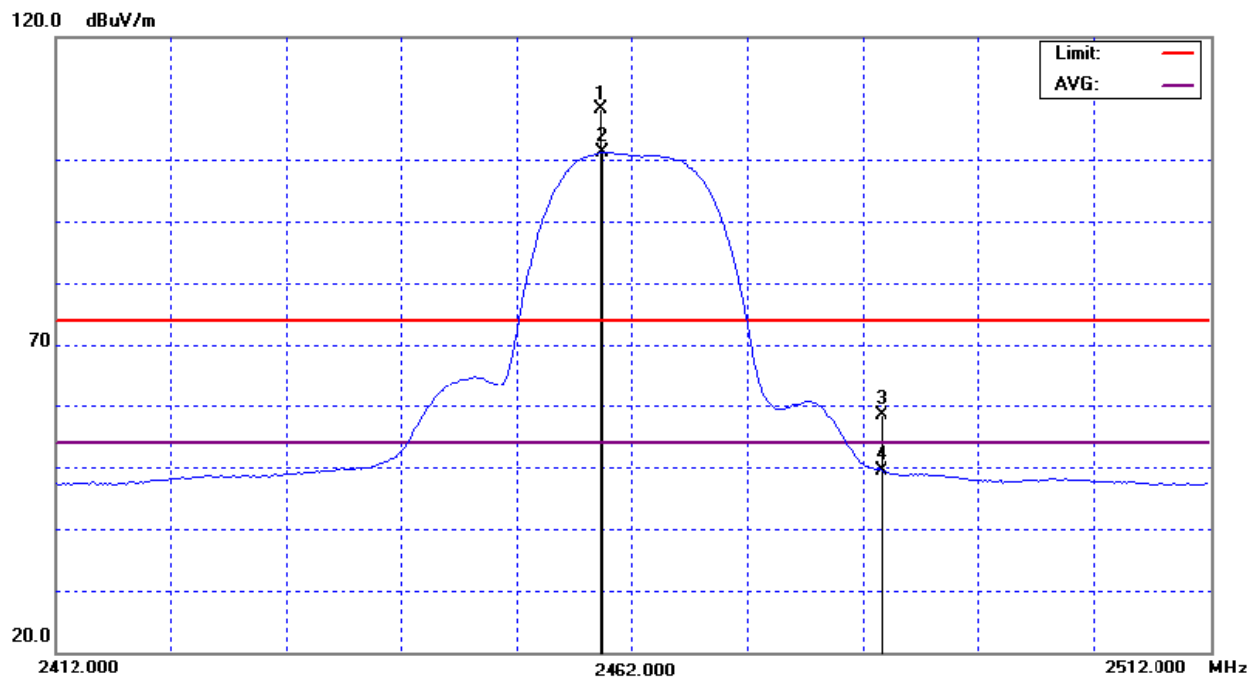
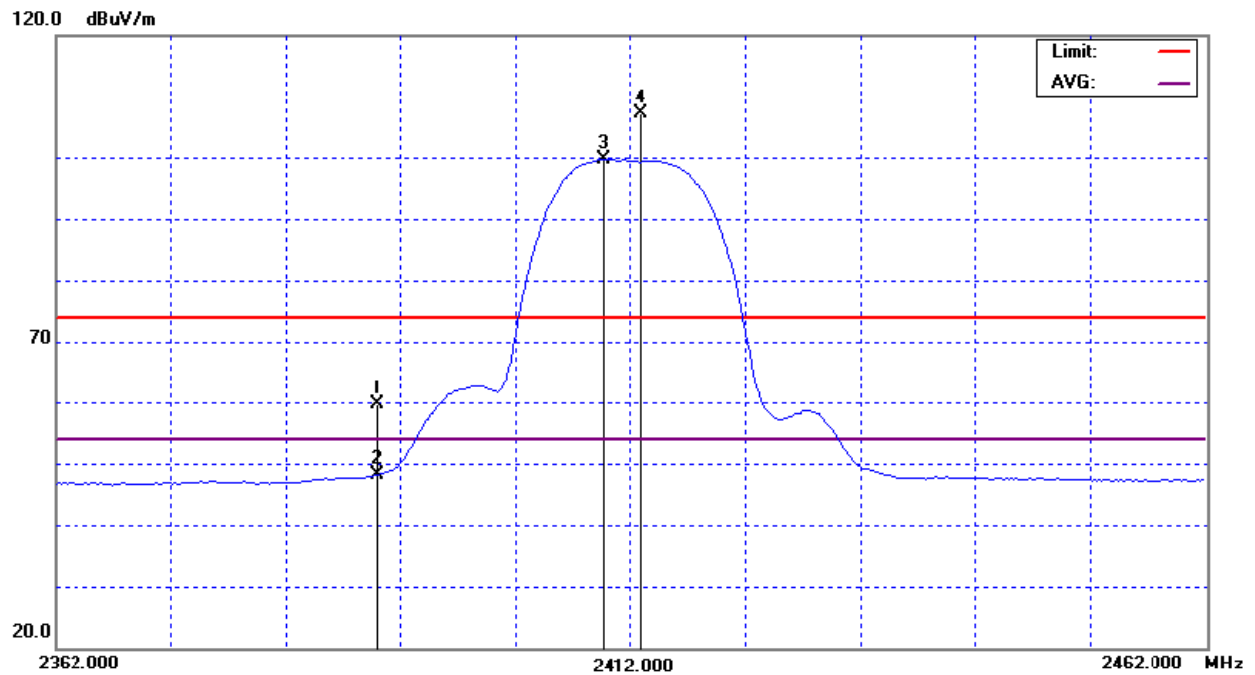
Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	27.02	15.47	32.57	59.59	48.04	74.00	54.00	X
2483.50	H	25.27	16.21	33.10	58.37	49.31	74.00	54.00	X

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 .
- (3) EUT Orthogonal Axes :
 "X" - denotes Laid on Table ; "Y" - denotes Vertical Stand ; "Z" - denotes Side Stand



802.11b_CH01/CH11 (Restricted Bands Requirements, Horizontal)





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH11(Vertical)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2389.60	V	26.34	14.60	32.57	58.91	47.17	74.00	54.00	X
2483.50	V	23.64	12.82	33.10	56.74	45.92	74.00	54.00	X

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

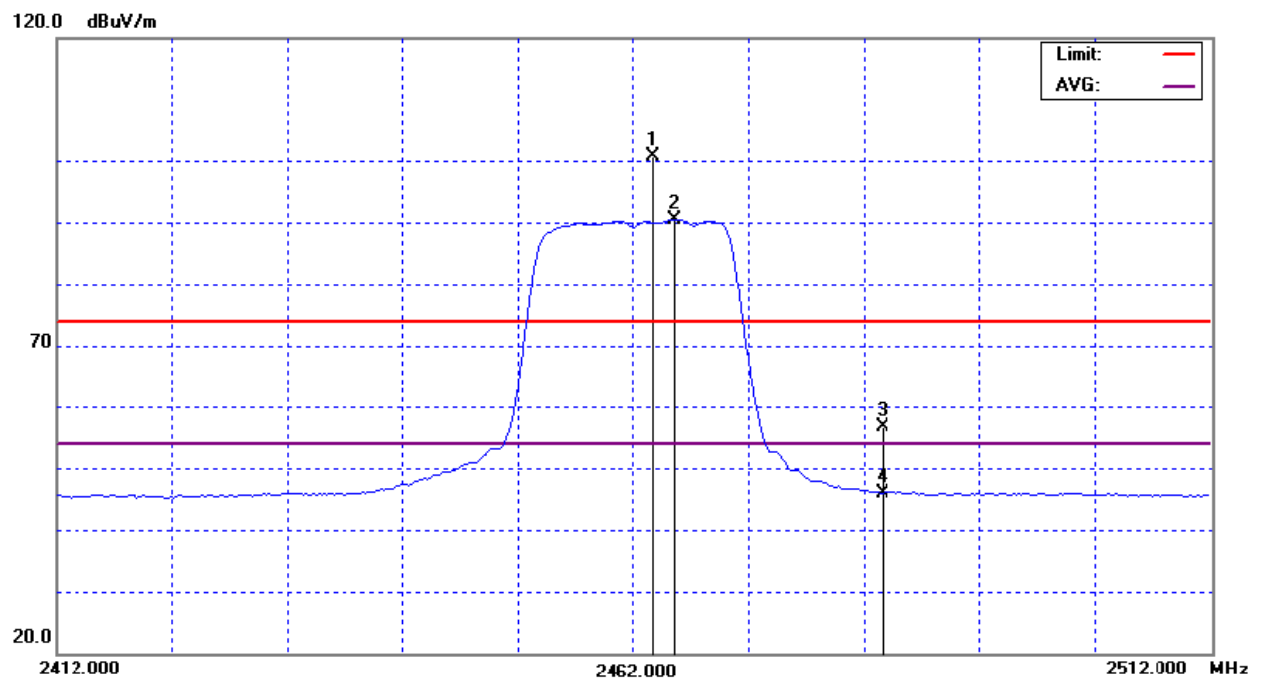
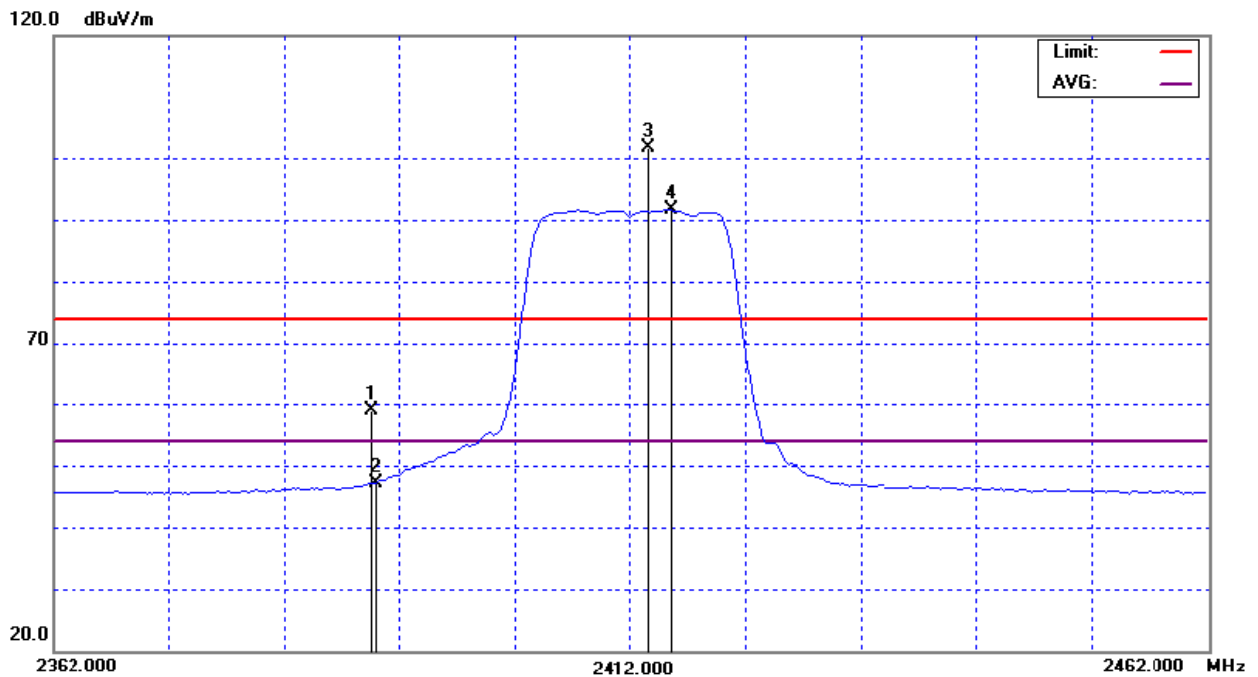
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission ◦

(3) EUT Orthogonal Axes :

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



802.11g_CH01/CH11 (Restricted Bands Requirements, Vertical)





EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Voltage :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH11(Horizontal)		
Note :	<p>The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following:</p> <ol style="list-style-type: none"> 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz. 		

Freq. (MHz)	Ant.Pol. H/V	Reading		Ant./CF CF(dB)	Act.		Limit		Note
		Peak (dBuV)	AV (dBuV)		Peak (dBuV/m)	AV (dBuV/m)	Peak (dBuV/m)	AV (dBuV/m)	
2390.00	H	26.19	14.65	32.57	58.76	47.22	74.00	54.00	X
2483.90	H	24.19	14.18	33.10	57.29	47.28	74.00	54.00	X

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

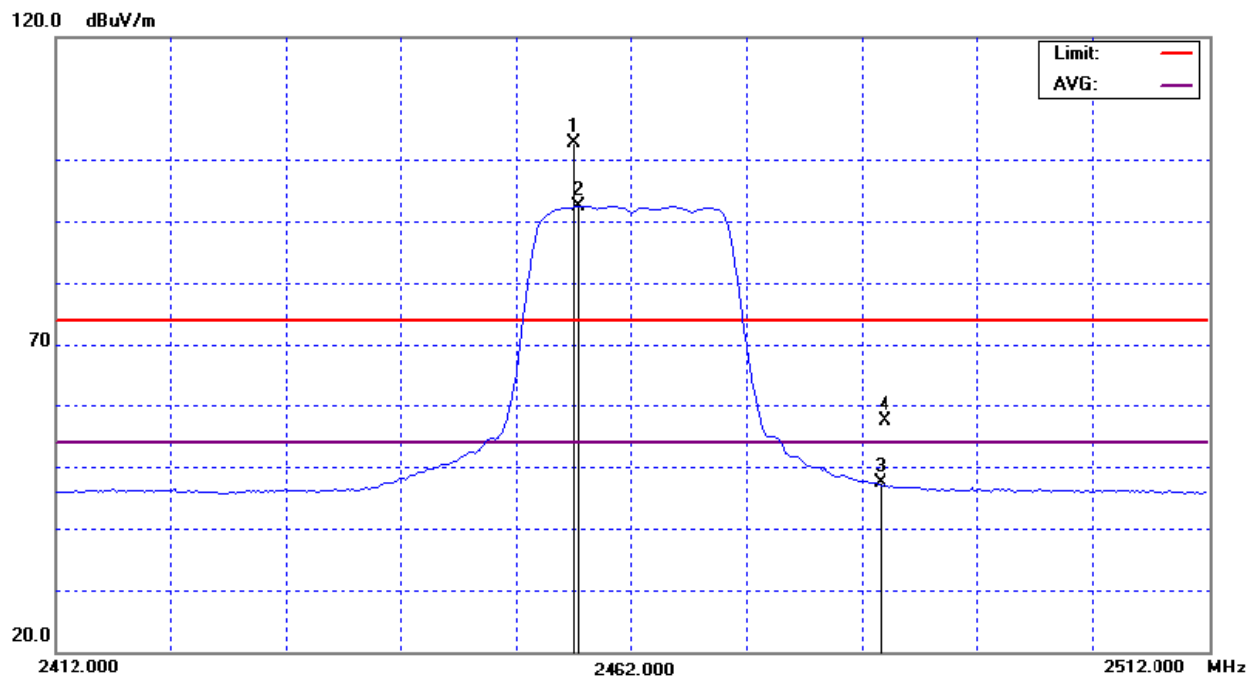
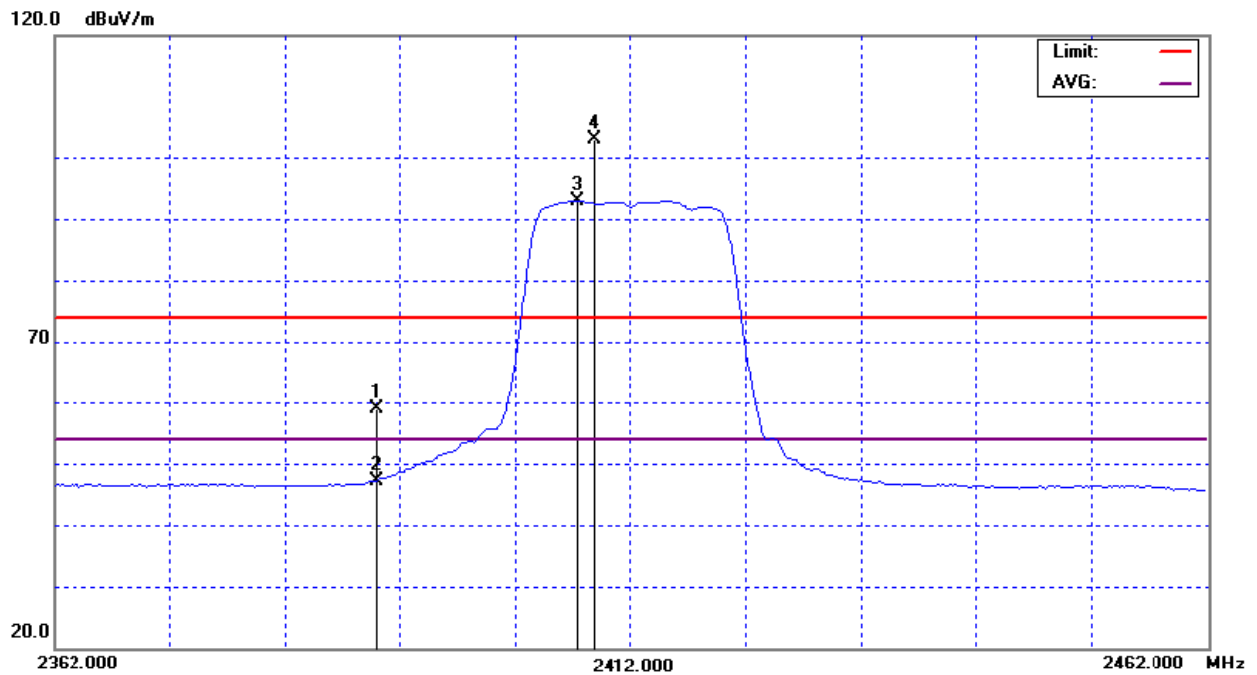
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission .

(3) EUT Orthogonal Axes :

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



802.11g_CH01/CH11 (Restricted Bands Requirements, Horizontal)





5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Bandwidth	$\geq 500\text{KHz}$ (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-40	100129	Sep. 09, 2009

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

5.1.2 TEST PROCEDURE

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

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP



5.1.5 EUT OPERATION CONDITIONS

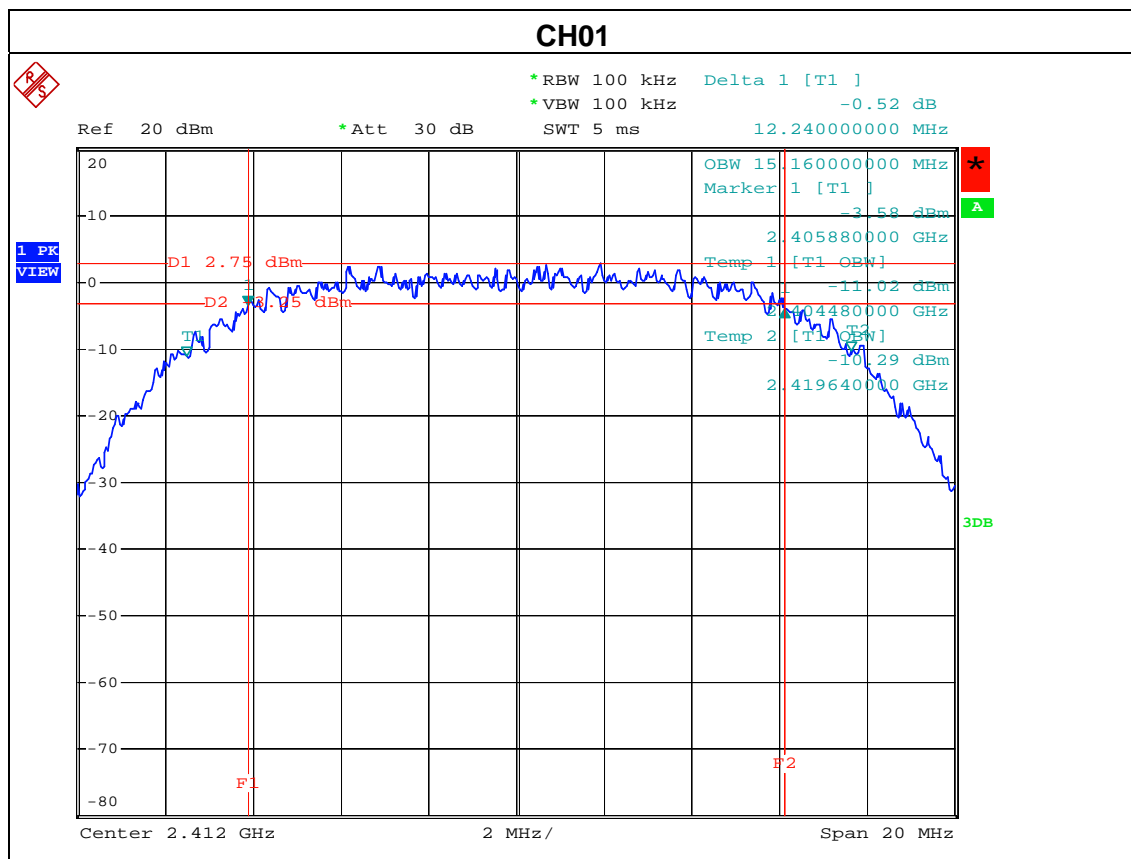
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

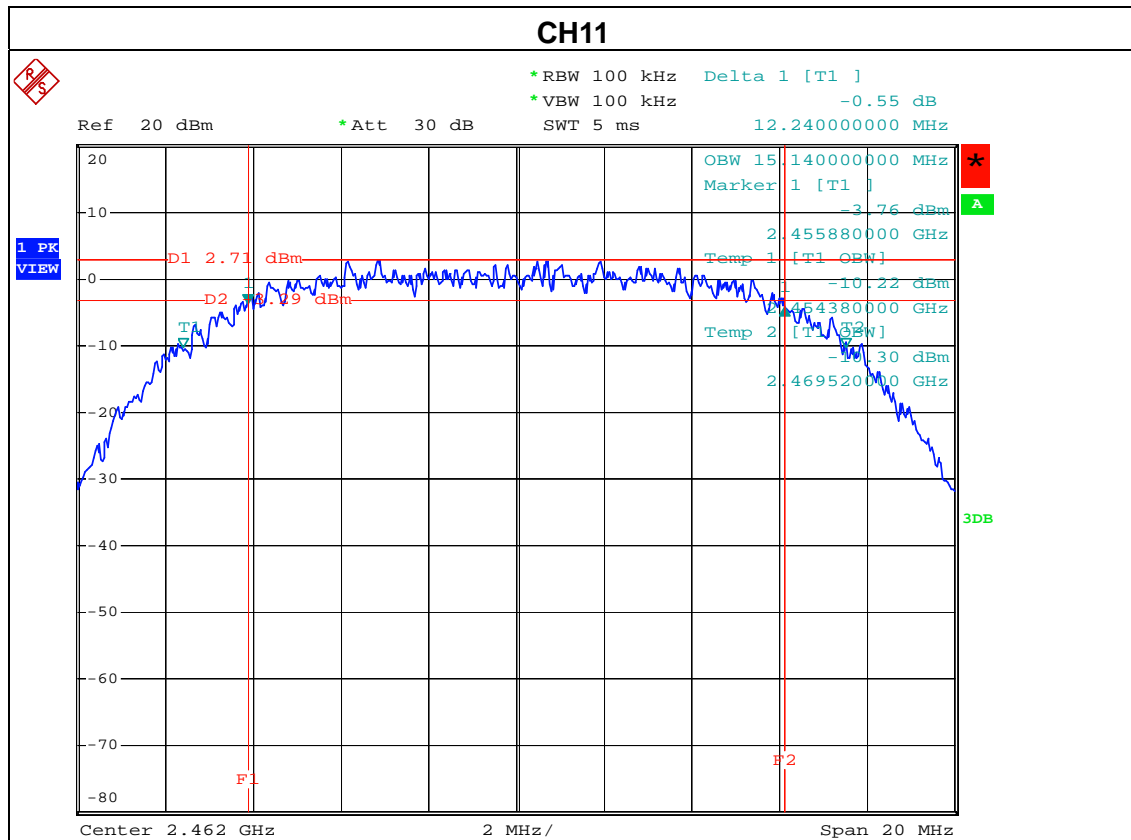
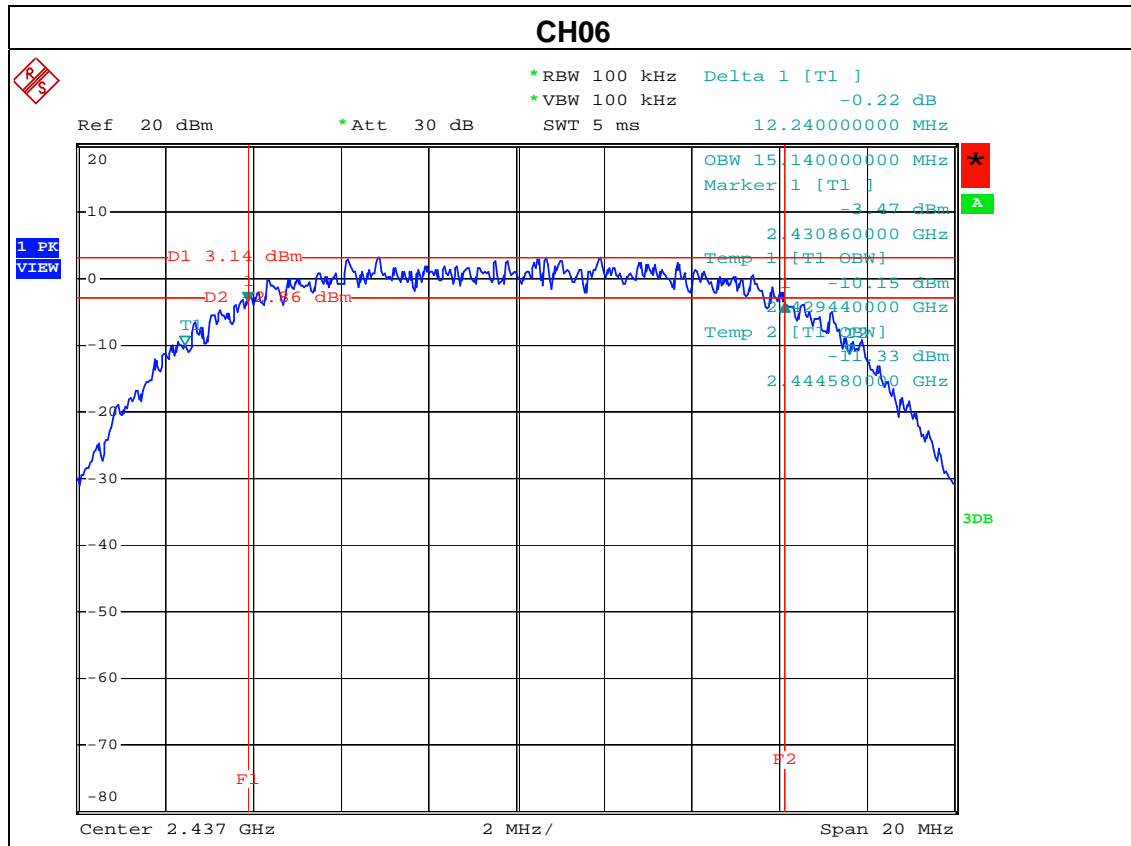


5.1.6 TEST RESULTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	12.24	>=500KHz
CH06	2437	12.24	>=500KHz
CH11	2462	12.24	>=500KHz

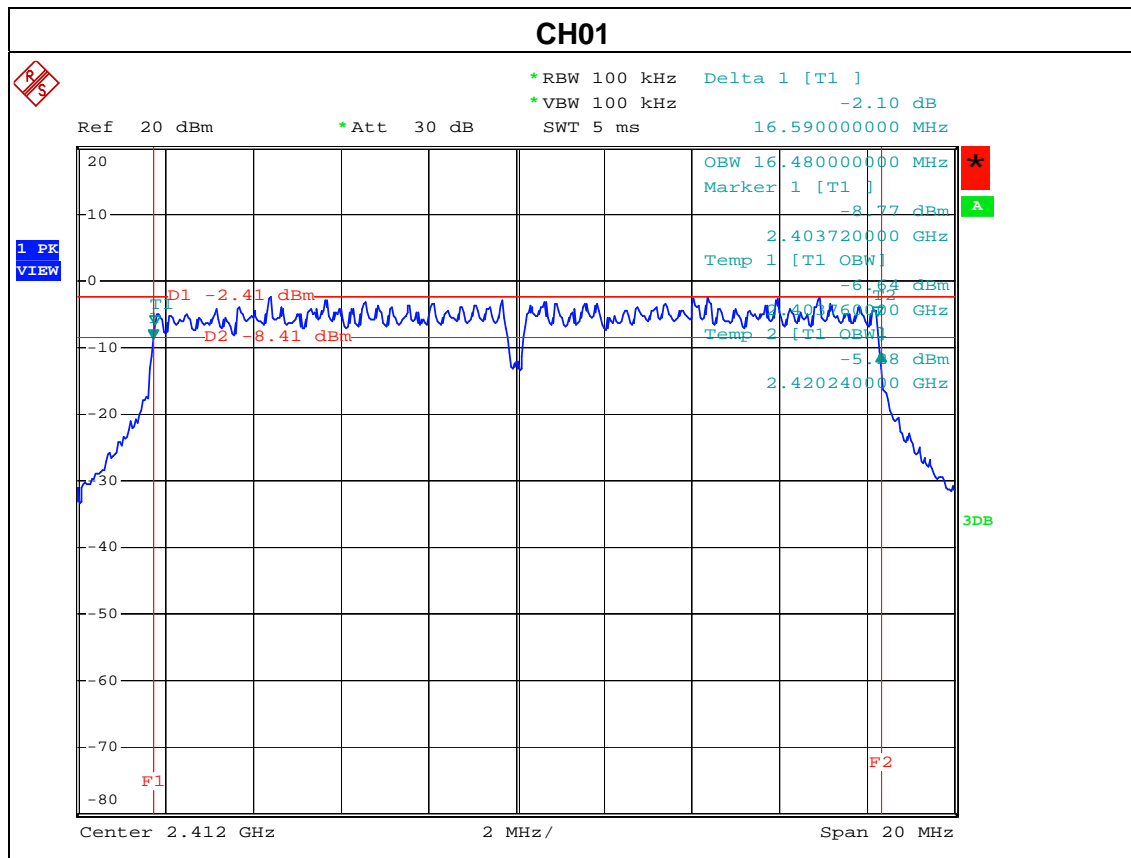


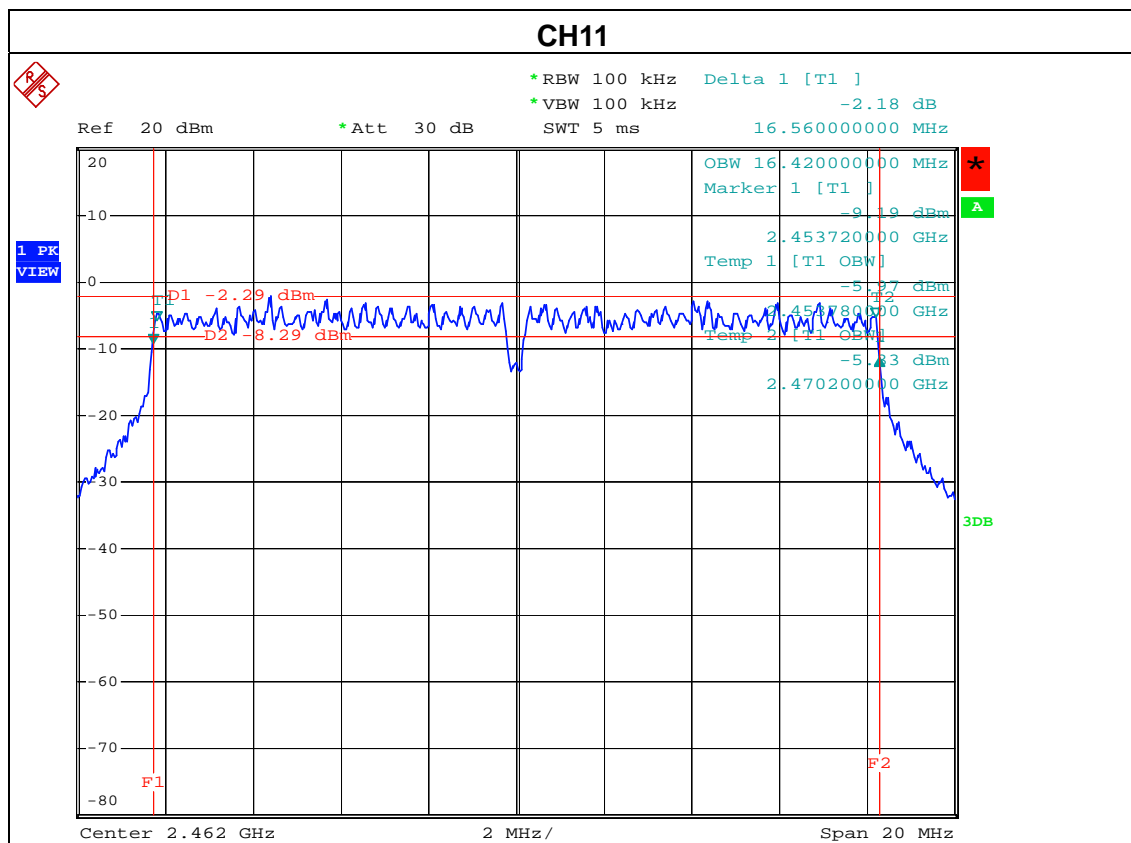
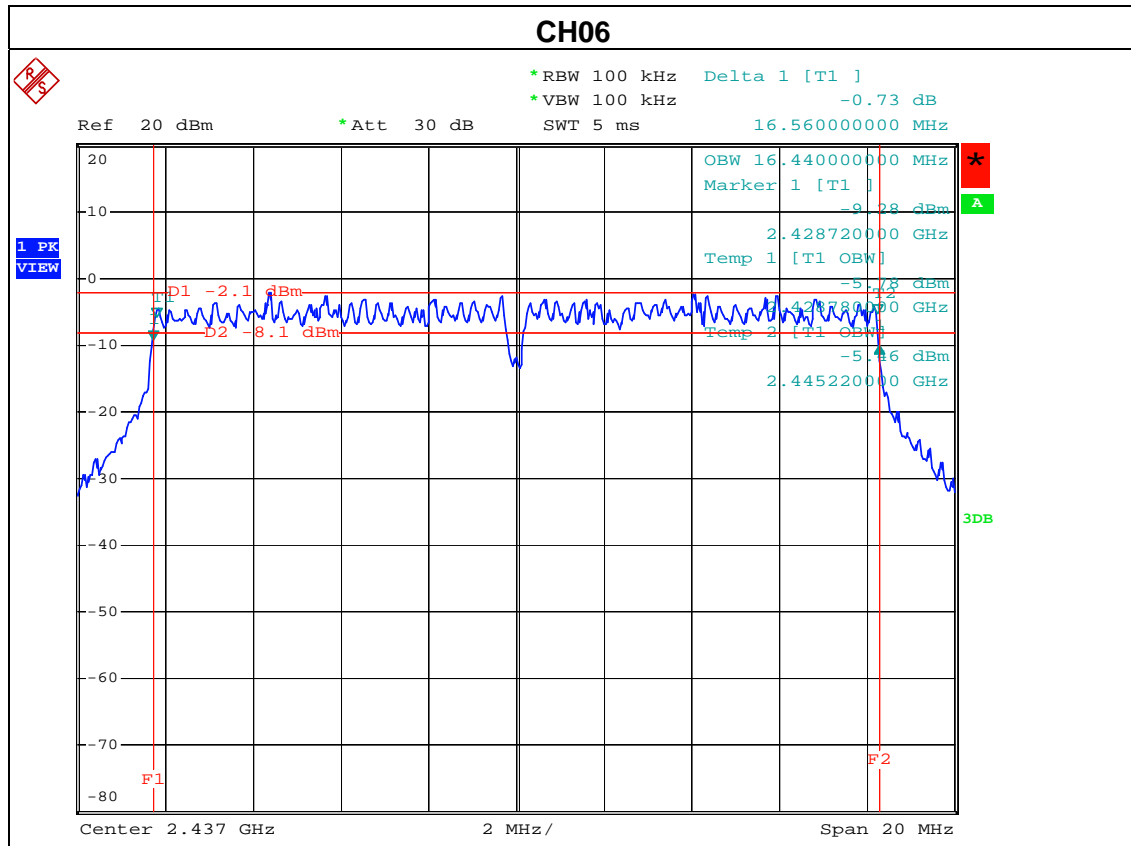




EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.59	>=500KHz
CH06	2437	16.56	>=500KHz
CH11	2462	16.56	>=500KHz







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. 12, 2009
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 12, 2009

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

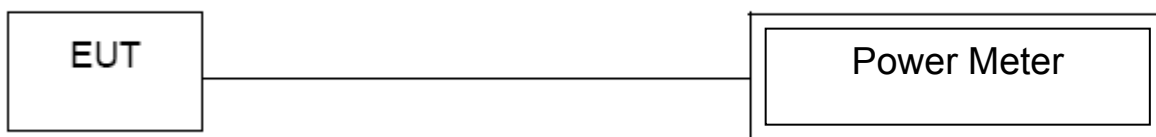
6.1.2 TEST PROCEDURE

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



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.



6.1.6 TEST RESULTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	17.50	30	1
CH06	2437	17.70	30	1
CH11	2462	17.30	30	1

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 ° C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	19.90	30	1
CH06	2437	20.40	30	1
CH11	2462	19.40	30	1



7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
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-40	100129	Sep. 09, 2009

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

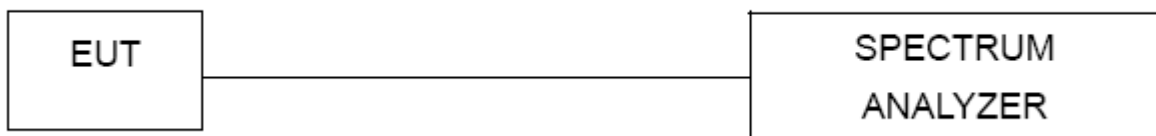
7.1.2 TEST PROCEDURE

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

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP



7.1.5 EUT OPERATION CONDITIONS

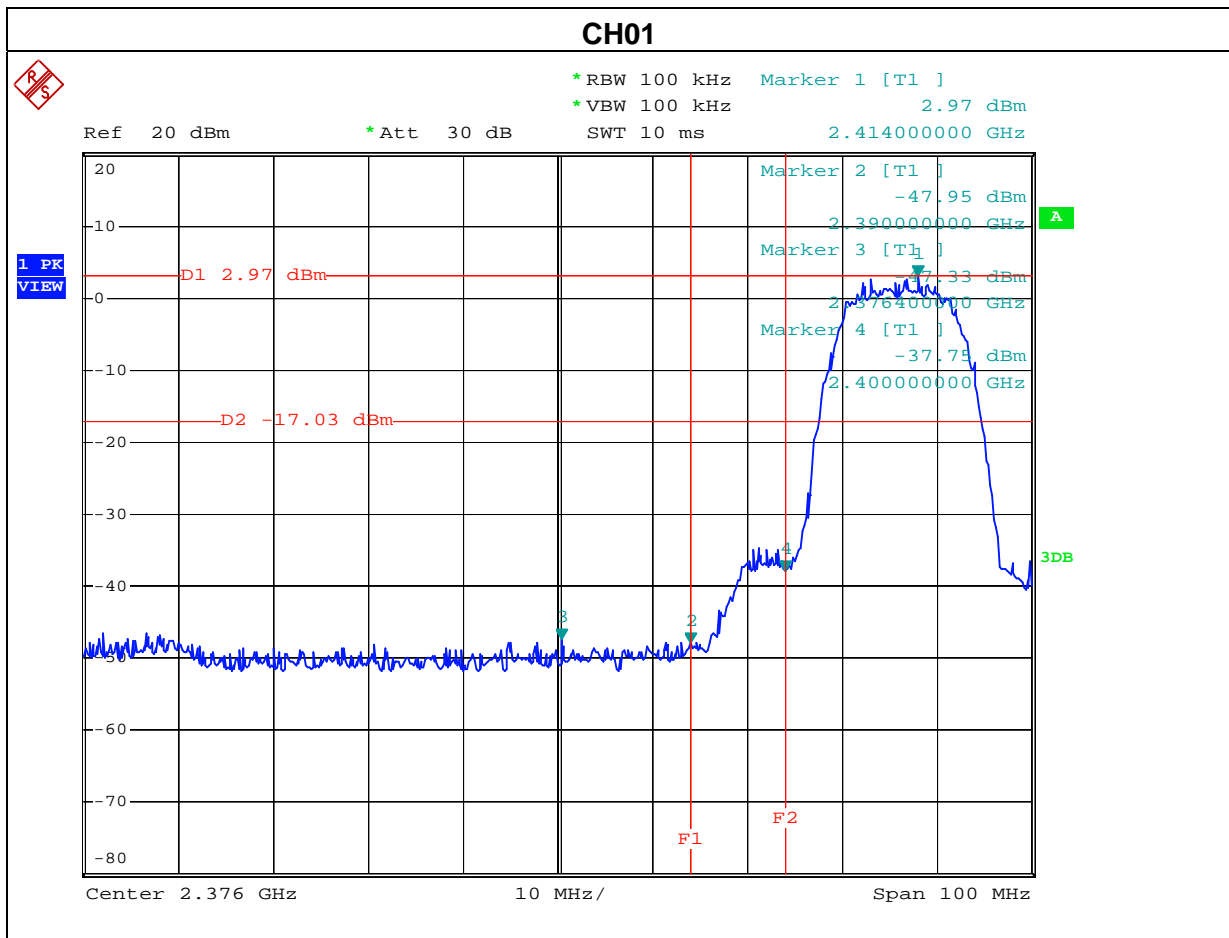
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

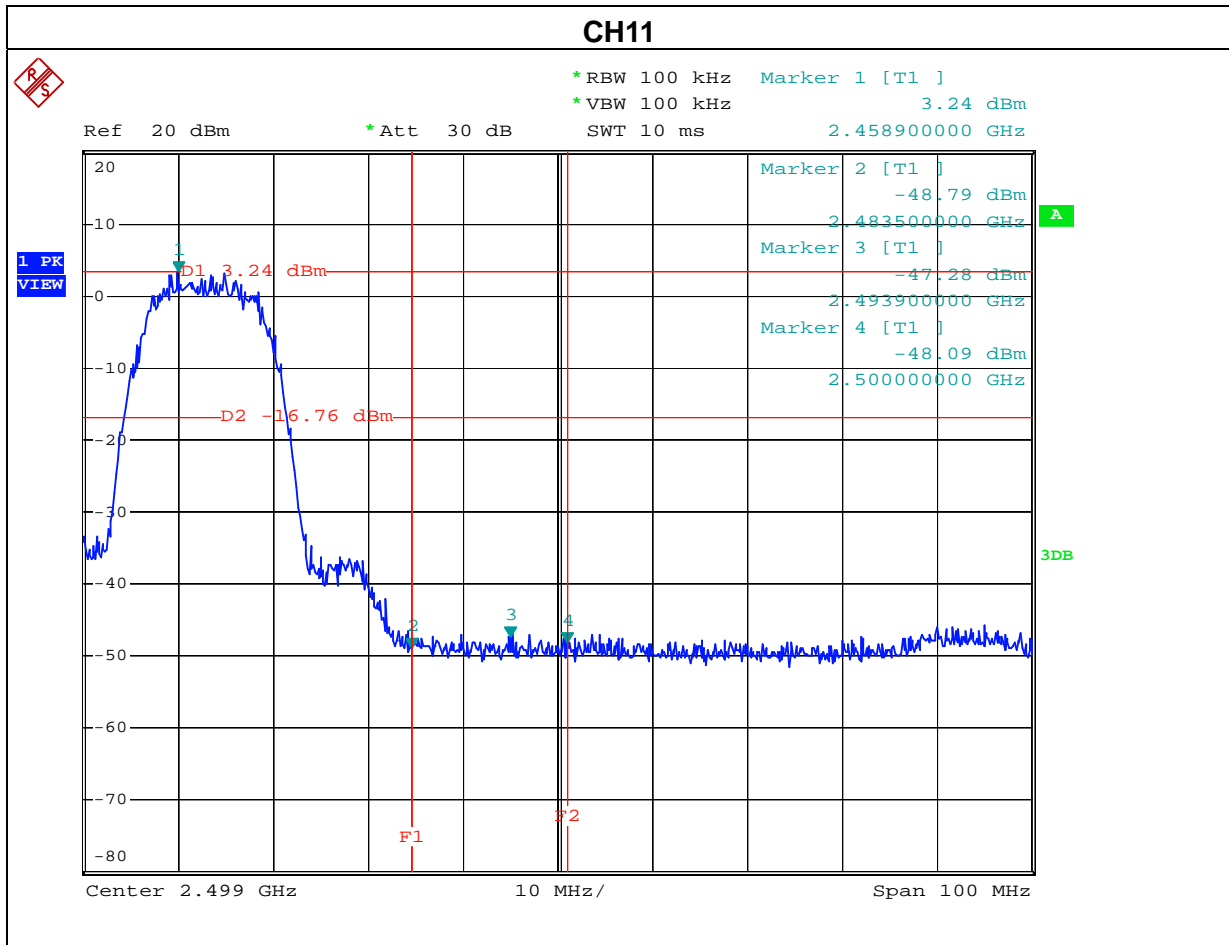


7.1.6 TEST RESULTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2376.4	-47.33	2493.9	-47.28
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 level of the desired power.			

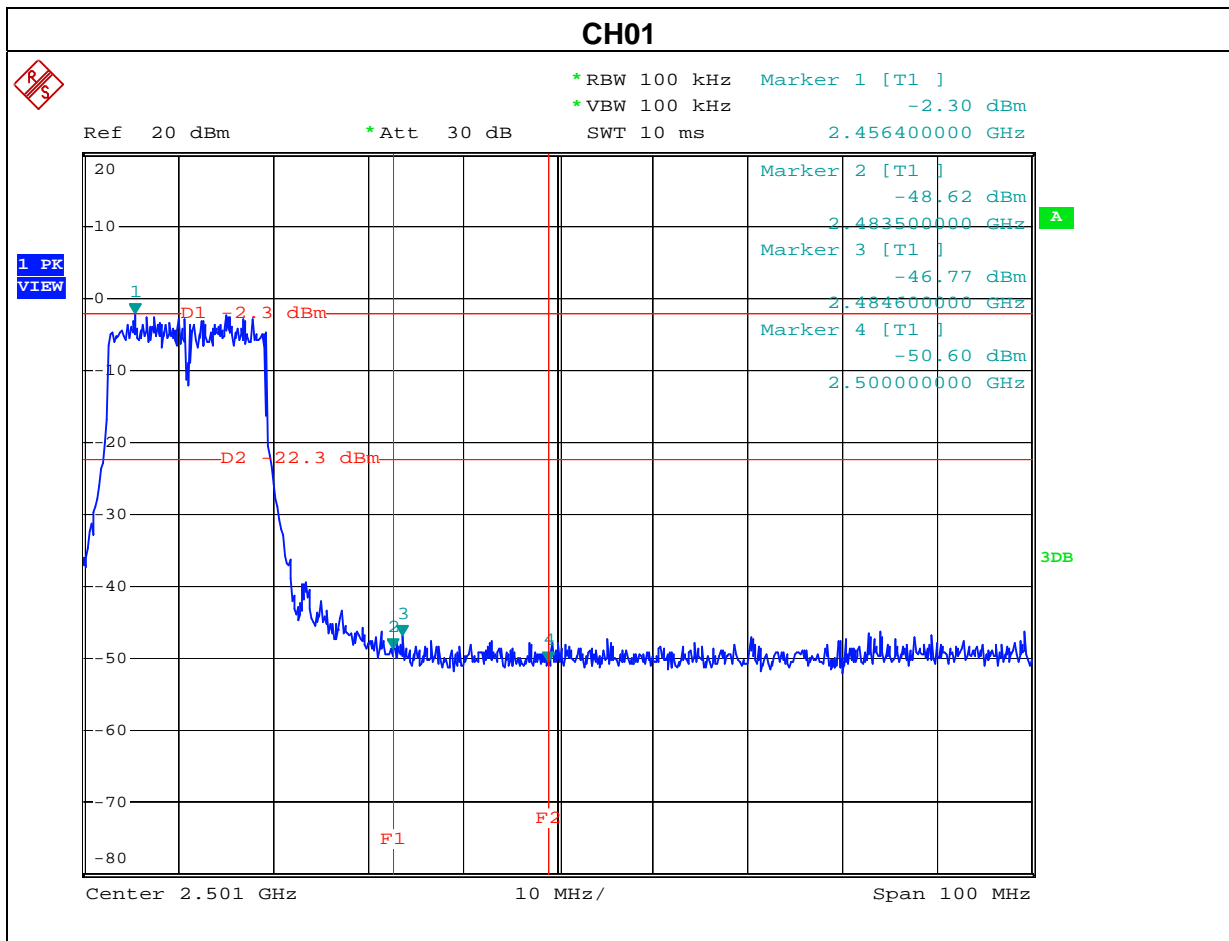


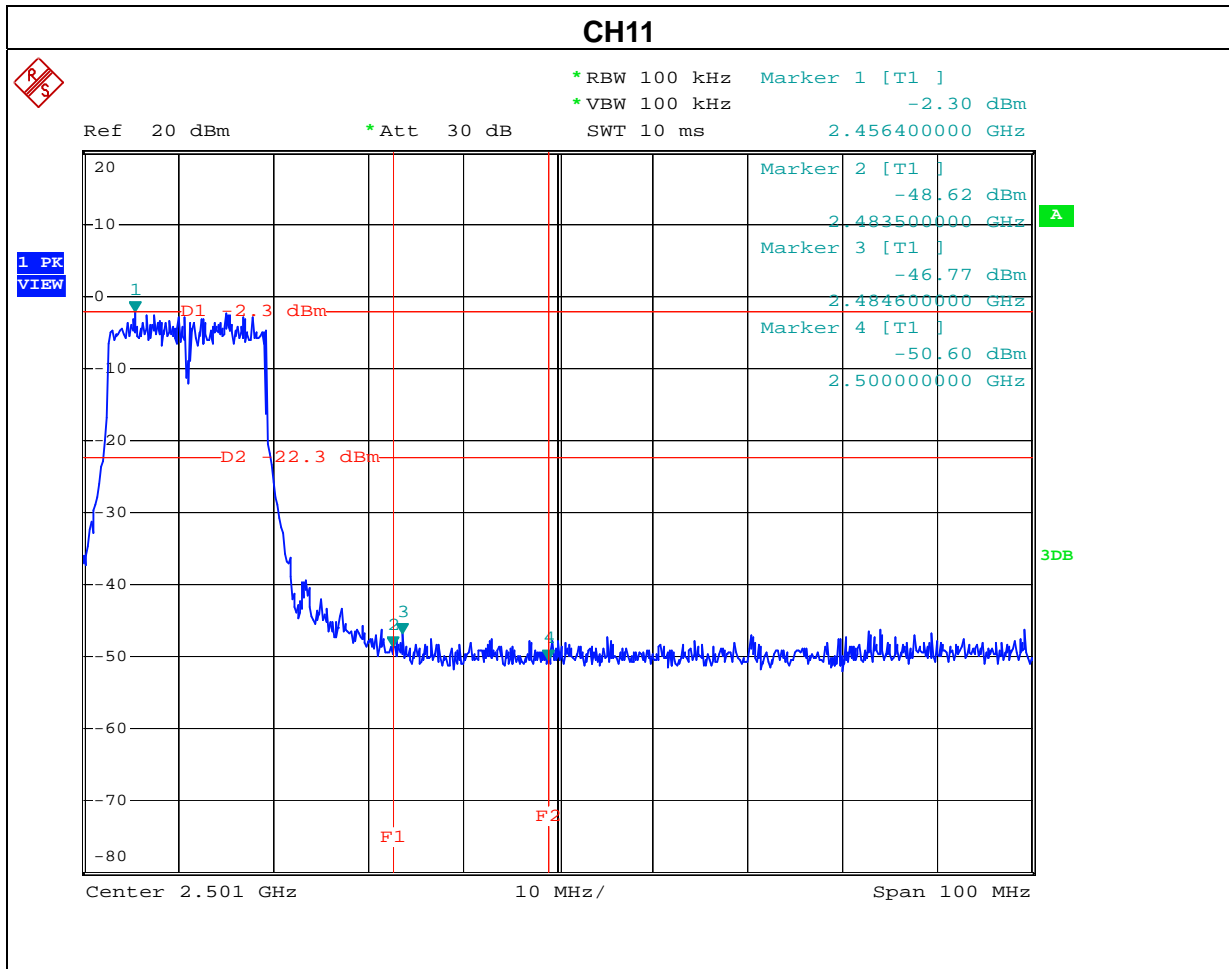




EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2390.0	-48.27	2484.6	-46.77
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 level of the desired power.			







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

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Sep. 09, 2009

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

8.1.2 TEST PROCEDURE

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

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

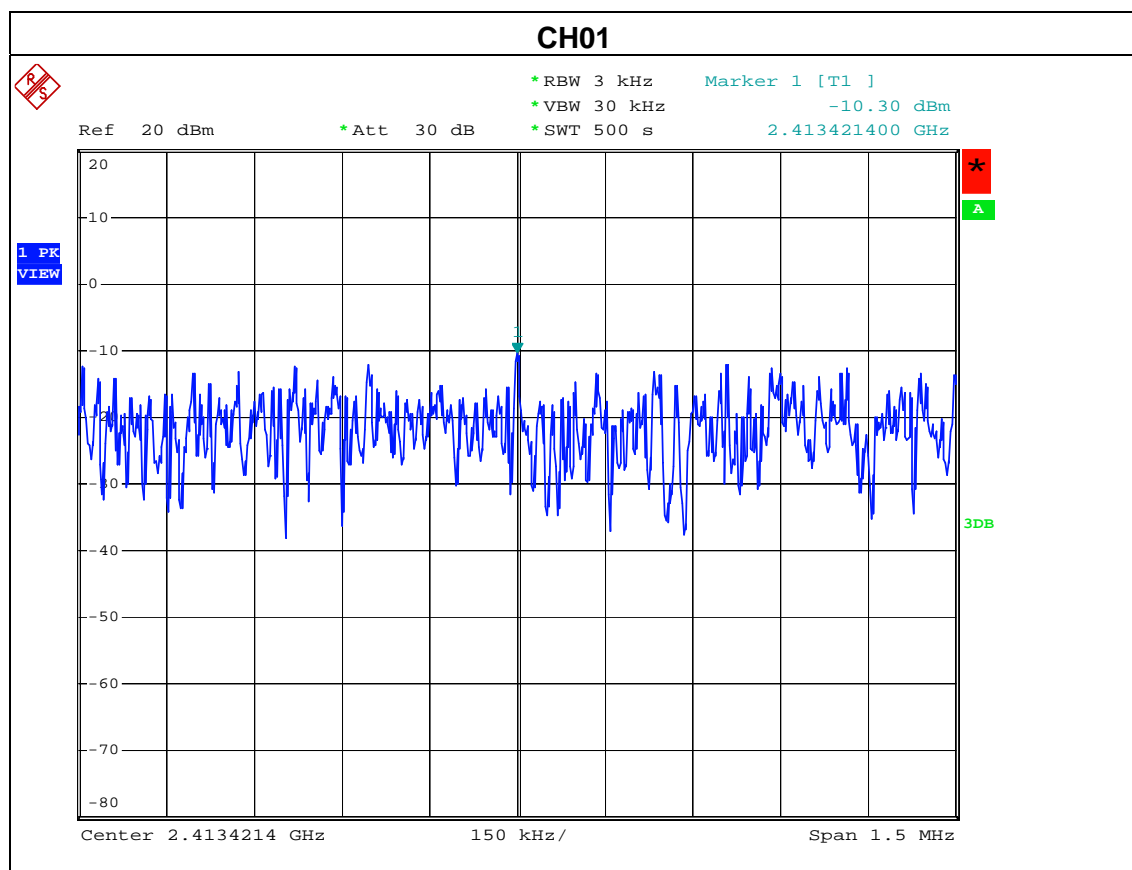
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

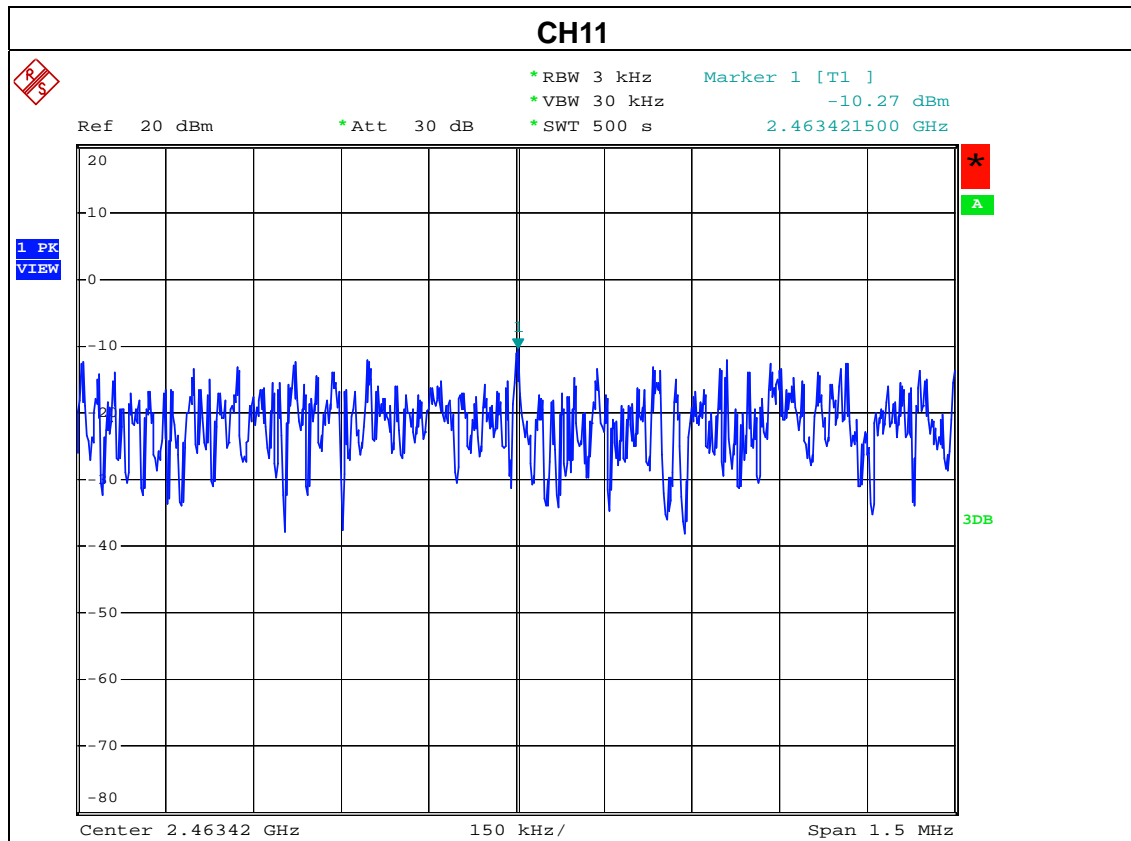
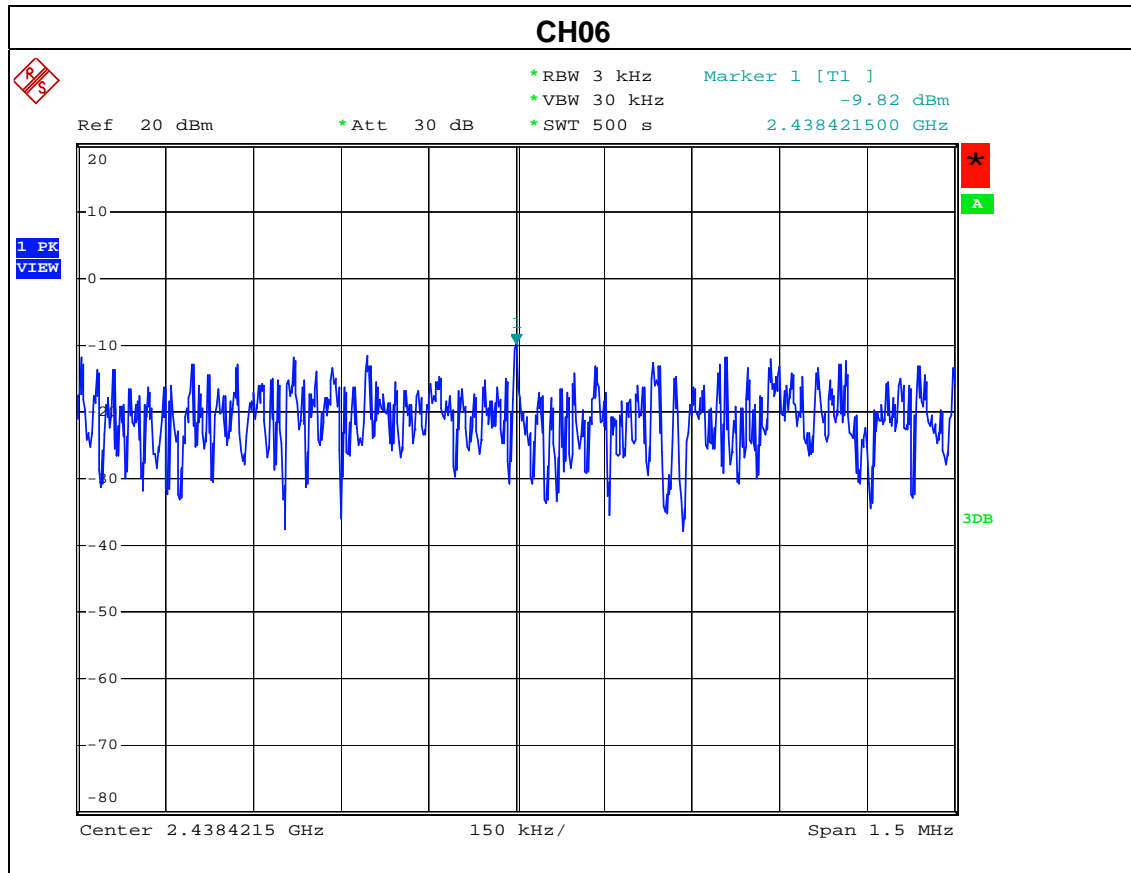


8.1.6 TEST RESULTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)
CH01	2412	-10.30	8
CH06	2437	-9.82	8
CH11	2462	-10.27	8

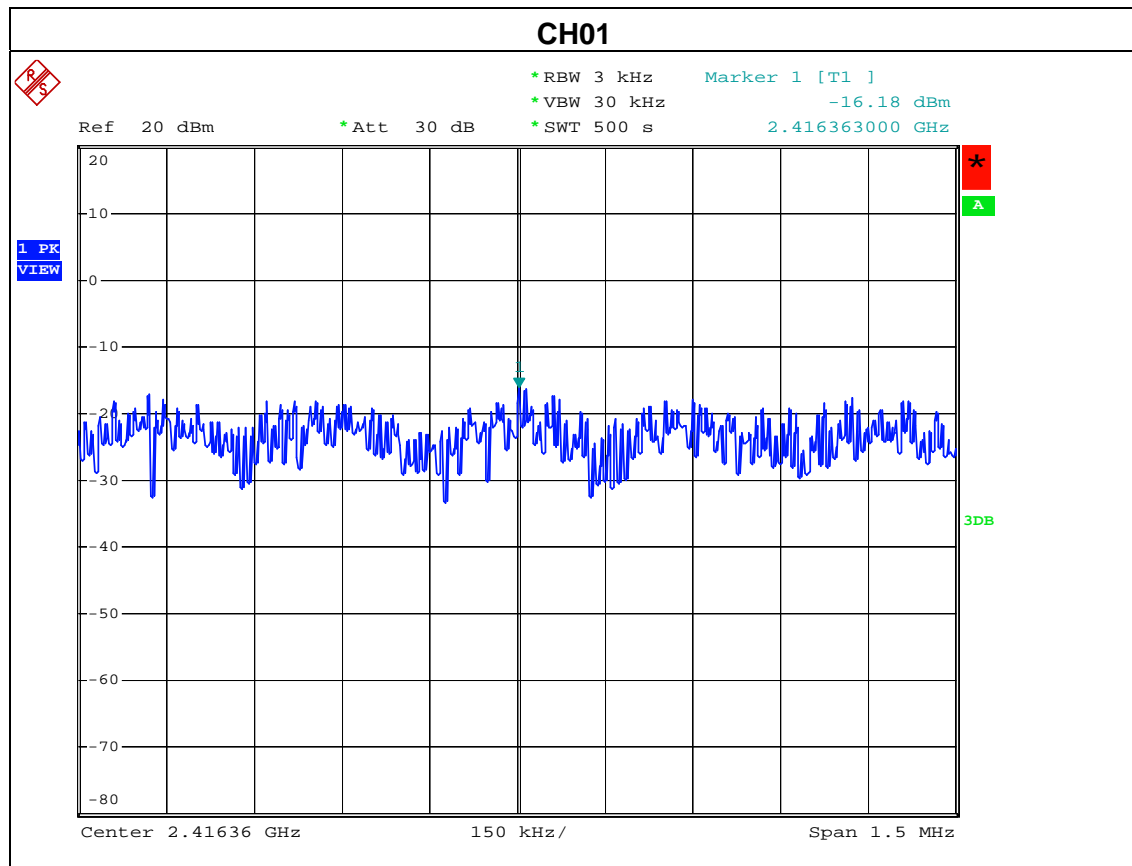


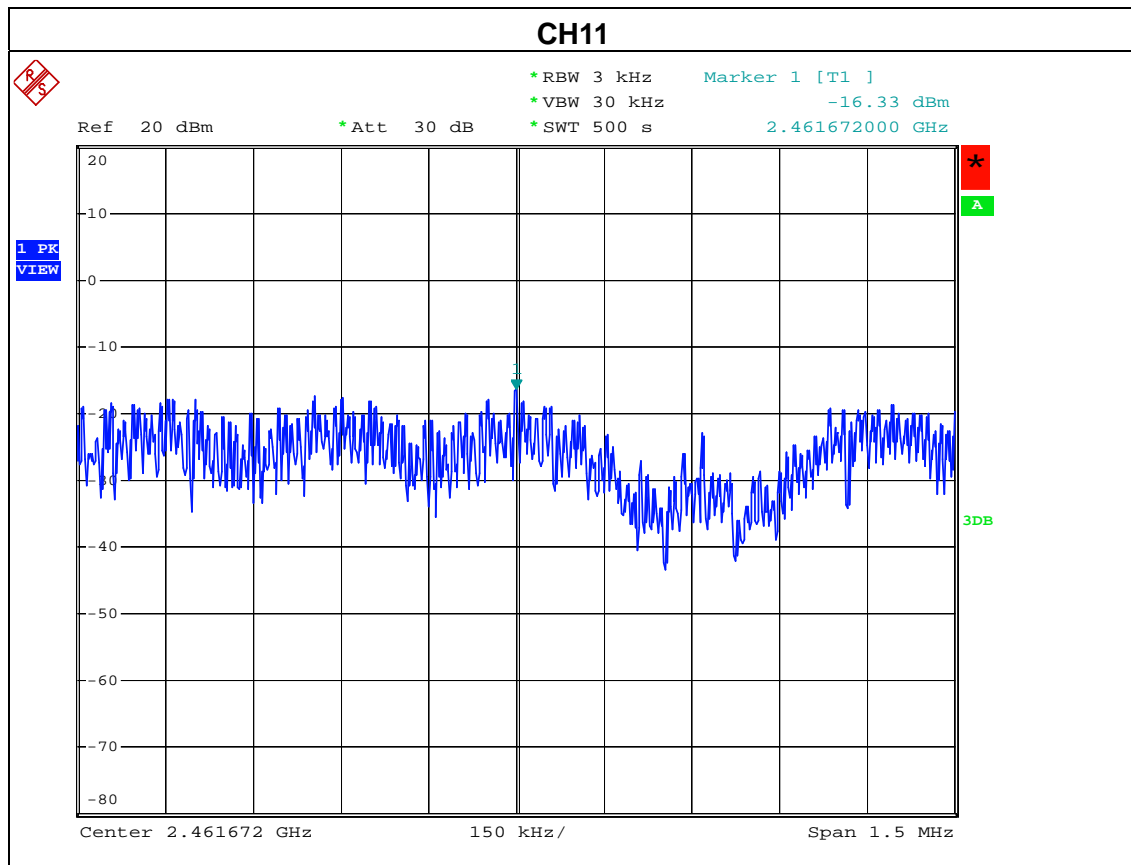
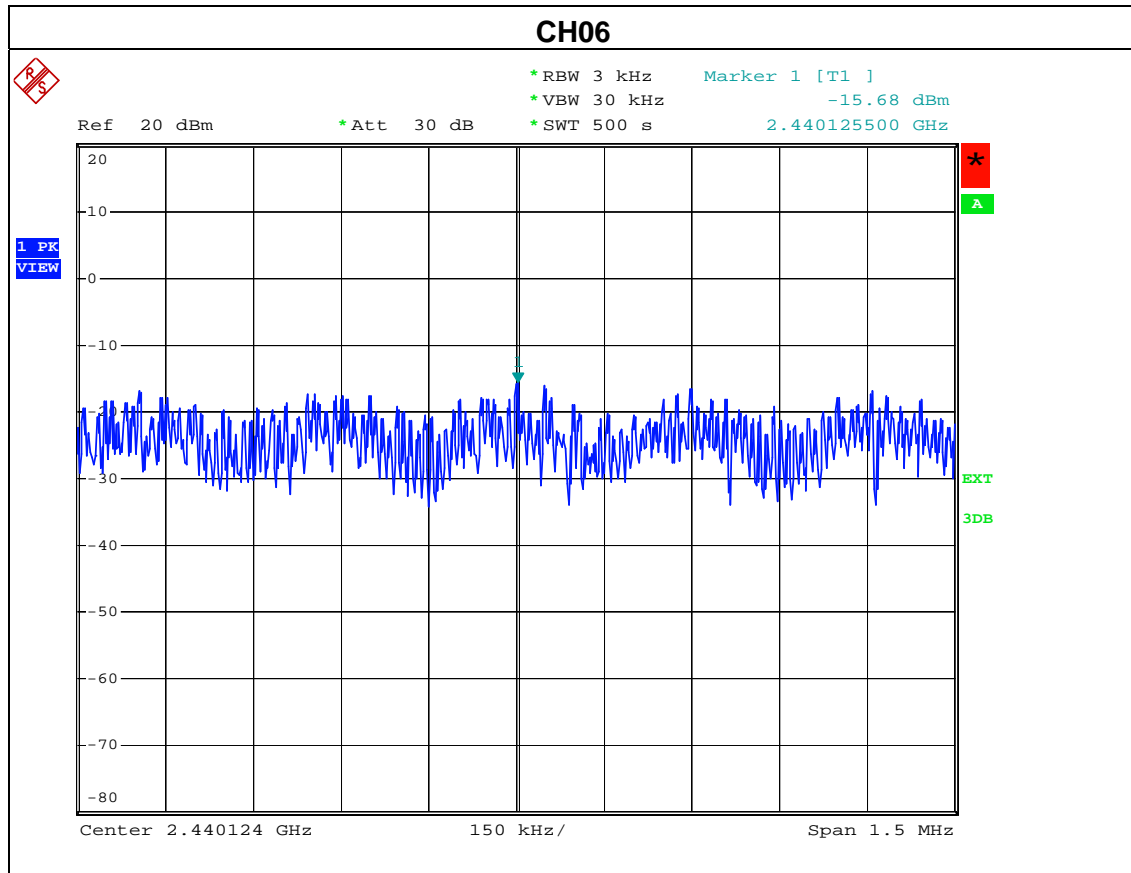




EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29 °C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11g_CH01/CH06/CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)
CH01	2412	-16.18	8
CH06	2437	-15.68	8
CH11	2462	-16.33	8







9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

9.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Sep. 09, 2009

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

9.1.2 MPE CALCULATION METHOD

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained



9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP



9.1.5 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.

9.1.6 TEST RESULTS

EUT :	POS System	Model No. :	iSPOS XXX
Temperature :	29° C	Relative Humidity :	76%
Test Power :	AC 120V/60Hz		
Test Mode :	802.11b&g_CH01/CH06/CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.00	1.5849	20.40	109.6478	0.034590	1	Complies