



SPORTON International Inc.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
Ph: 886-3-327-3456 / FAX: 886-3-327-0973 / www.sporton.com.tw

FCC RADIO TEST REPORT

Applicant's company	PEGATRON CORPORATION
Applicant Address	5F., NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY 11259 Taiwan
FCC ID	VUIDPC3848V
Manufacturer's company	MAINTEK COMPUTER
Manufacturer Address	233 Jinfeng Rd., Suzhou, Jiangsu, PRC

Product Name	Wireless Residential Gateway
Brand Name	technicolor
Model No.	DPC3848V / DPC3848VM
Test Rule	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz
Received Date	Mar. 06, 2014
Final Test Date	Jul. 19, 2016
Submission Type	Class II Change

Statement

Test result included in this report is for the IEEE 802.11n and IEEE 802.11b/g of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.10-2013, 47 CFR FCC Part 15 Subpart C, KDB558074 D01 v03r05 and KDB 662911 D01 v02r01.

The test equipment used to perform the test is calibrated and traceable to NML/ROC.



Table of Contents

1. VERIFICATION OF COMPLIANCE	1
2. SUMMARY OF THE TEST RESULT	2
3. GENERAL INFORMATION	3
3.1. Product Details.....	3
3.2. Accessories.....	3
3.3. Table for Filed Antenna.....	4
3.4. Table for Carrier Frequencies	5
3.5. Table for Test Modes	5
3.6. Table for Testing Locations.....	6
3.7. Table for Multiple List.....	6
3.8. Table for Class II Change	6
3.9. Table for Supporting Units	7
3.10. EUT Operation during Test	7
3.11. Duty Cycle.....	7
3.12. Test Configurations	8
4. TEST RESULT	9
4.1. Radiated Emissions Measurement	9
4.2. Emissions Measurement	14
4.3. Antenna Requirements	22
5. LIST OF MEASURING EQUIPMENTS	23
6. MEASUREMENT UNCERTAINTY.....	24
APPENDIX A. TEST PHOTOS	A1 ~ A2

History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR462770-01AA	Rev. 01	Initial issue of report	Aug. 15, 2016

1. VERIFICATION OF COMPLIANCE

Product Name : Wireless Residential Gateway
Brand Name : technicolor
Model No. : DPC3848V / DPC3848VM
Applicant : PEGATRON CORPORATION
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart C § 15.247

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Mar. 06, 2014 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Sam Chen

SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C			
Part	Rule Section	Description of Test	Result
4.1	15.247(d)	Radiated Emissions	Complies
4.2	15.247(d)	Band Edge Emissions	Complies
4.3	15.203	Antenna Requirements	Complies

3. GENERAL INFORMATION

3.1. Product Details

Items	Description
Product Type	WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Internal Power Supply
Modulation	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: see the below table
Data Modulation	IEEE 802.11b: DSSS (BPSK / QPSK / CCK) IEEE 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	IEEE 802.11b: DSSS (1/ 2/ 5.5/11) IEEE 802.11g: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n: see the below table
Frequency Range	2400 ~ 2483.5MHz
Channel Number	11 for 20MHz bandwidth ; 7 for 40MHz bandwidth
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Items	Description
Beamforming Function	<input type="checkbox"/> With beamforming <input checked="" type="checkbox"/> Without beamforming

Antenna and Bandwidth

Antenna	Three (TX)	
Bandwidth Mode	20 MHz	40 MHz
IEEE 802.11b	V	X
IEEE 802.11g	V	X
IEEE 802.11n	V	V

IEEE 11n Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	3	MCS 0-23
802.11n (HT40)	3	MCS 0-23
Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT supports HT20 and HT40.		
Note 2: Modulation modes consist of below configuration: HT20/HT40: IEEE 802.11n		

3.2. Accessories

Power cable*1, Non-shielded, 1.8m

RJ-45 cable*1, Non-shielded, 1.2m

3.3. Table for Filed Antenna

For Model Name: DPC3848V

Ant.	Brand	Model Name	P/N	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
1	WANSHIH	WPB279	UC3WFI0134	PCB Antenna	MHF	2.81	3.62
2	WANSHIH	WPB287	UC3WFI0147	PCB Antenna	MHF	2.63	3.62
3	WANSHIH	WPB289	UC3WFI0132	PCB Antenna	MHF	2.95	3.73

For Model Name: DPC3848VM

Ant.	Brand	Model Name	P/N	Antenna Type	Connector	Gain (dBi)	
						2.4GHz	5GHz
4	WANSHIH	WPB279	UC3WFI0125	PCB Antenna	MHF	2.47	3.62
5	WANSHIH	WPB287	UC3WFI0124	PCB Antenna	MHF	2.26	3.62
6	WANSHIH	WPB289	UC3WFI0123	PCB Antenna	MHF	2.56	3.73

Note:

Ant. 1 ~ 6 are the same type antennas. Only the higher gain antennas "Ant. 1~3" were tested and recorded in the report.

According to the above antennas, there are three antennas will transit simultaneously (one is Horizontal and the others are Vertical), so array gain only add $10\log(2)$.

<For 2.4GHz Band>

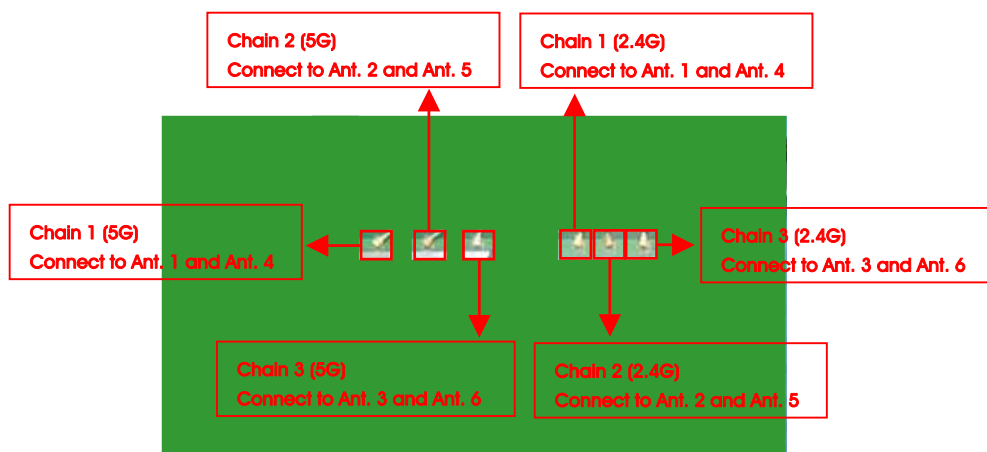
For IEEE 802.11b/g/n mode (3TX/3RX):

Chain 1, Chain 2 and Chain 3 could transmit/receive simultaneously.

<For 5GHz Band>

For IEEE 802.11a/n/ac mode (3TX/3RX):

Chain 1, Chain 2 and Chain 3 could transmit/receive simultaneously.



3.4. Table for Carrier Frequencies

There are two bandwidth systems.

For 20MHz bandwidth systems, use Channel 1~Channel 11.

For 40MHz bandwidth systems, use Channel 3~Channel 9.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz	-	-

3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	Chain
Radiated Emissions 1GHz~10 th Harmonic	11b/CCK	1 Mbps	6	1+2+3
	11n HT40	MCS0	6	1+2+3
Band Edge Emissions	11b/CCK	1 Mbps	6	1+2+3
	11n HT40	MCS0	6	1+2+3

Note: The EUT can only be used at Y axis position.

The following test modes were performed for all tests:

For Radiated Emission test:

Test Mode 1 : CTX

For Co-location MPE Test:

The EUT could be applied with 2.4GHz WLAN function and 5GHz WLAN function; therefore Co-location Maximum Permissible Exposure (Please refer to FA462770-01) test is added for simultaneously transmit between 2.4GHz WLAN function and 5GHz WLAN function.

3.6. Table for Testing Locations

Test Site Location				
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.			
TEL:	886-3-656-9065			
FAX:	886-3-656-9085			
Test Site No.	Site Category	Location	FCC Designation No.	IC File No.
03CH01-CB	SAC	Hsin Chu	TW0006	IC 4086D

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

3.7. Table for Multiple List

The EUT has two model names which are identical to each other in all aspects except for the following table:

Model Name	MoCA Schematic
DPC3848V	X
DPC3848VM	V

From the table above, model name: DPC3848V was selected as representative model for the test and its data was recorded in this report.

3.8. Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR462770AA.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
<ol style="list-style-type: none"> Changing the applicant address to "5F, NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY 11259 Taiwan" from "5F, NO. 76, LIGONG ST., BEITOU DISTRICT, TAIPEI CITY 112 Taiwan". Changing the brand name to "technicolor" from "Cisco". 	No influence on the test results.
<ol style="list-style-type: none"> Changing 2.4GHz PA to P/N: E2605L-RN from P/N: SE2605L due to changing of manufacturing process. 	<p>After evaluating, the worst case is found at 802.11b CH6 and 802.11n HT40 CH6, and retest these channels only.</p> <p>The test item as below</p> <ol style="list-style-type: none"> Radiated Emissions(Above 1GHz). Band Edge Emissions.

Note: For the above test items will be based on original output maximum power to re-test.

3.9. Table for Supporting Units

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC

3.10. EUT Operation during Test

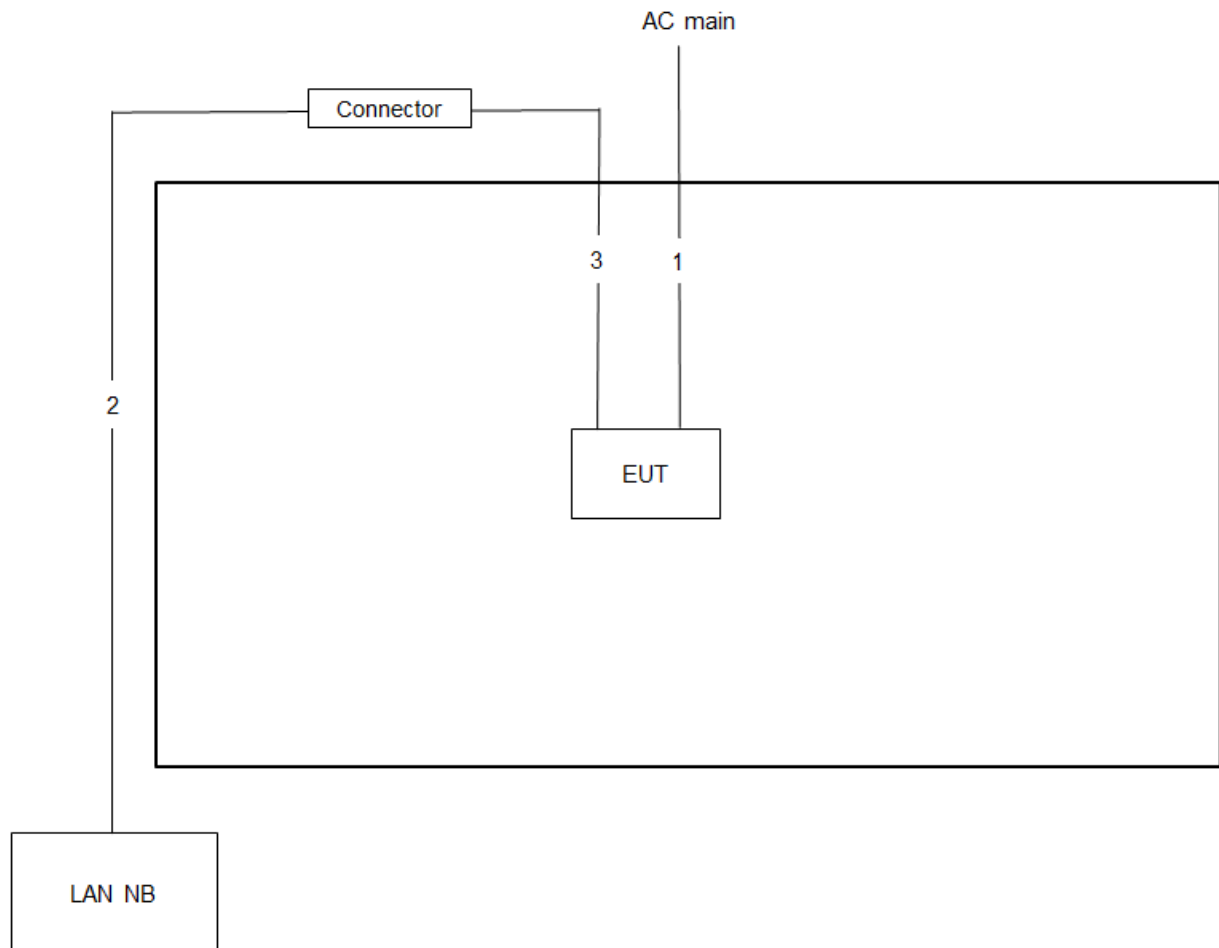
The EUT was programmed to be in continuously transmitting mode.

3.11. Duty Cycle

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11n MCS0 HT40	0.890	0.990	89.90%	0.46	1.12

3.12. Test Configurations

3.12.1. Radiation Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.2m

4. TEST RESULT

4.1. Radiated Emissions Measurement

4.1.1. Limit

30dBc 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

4.1.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

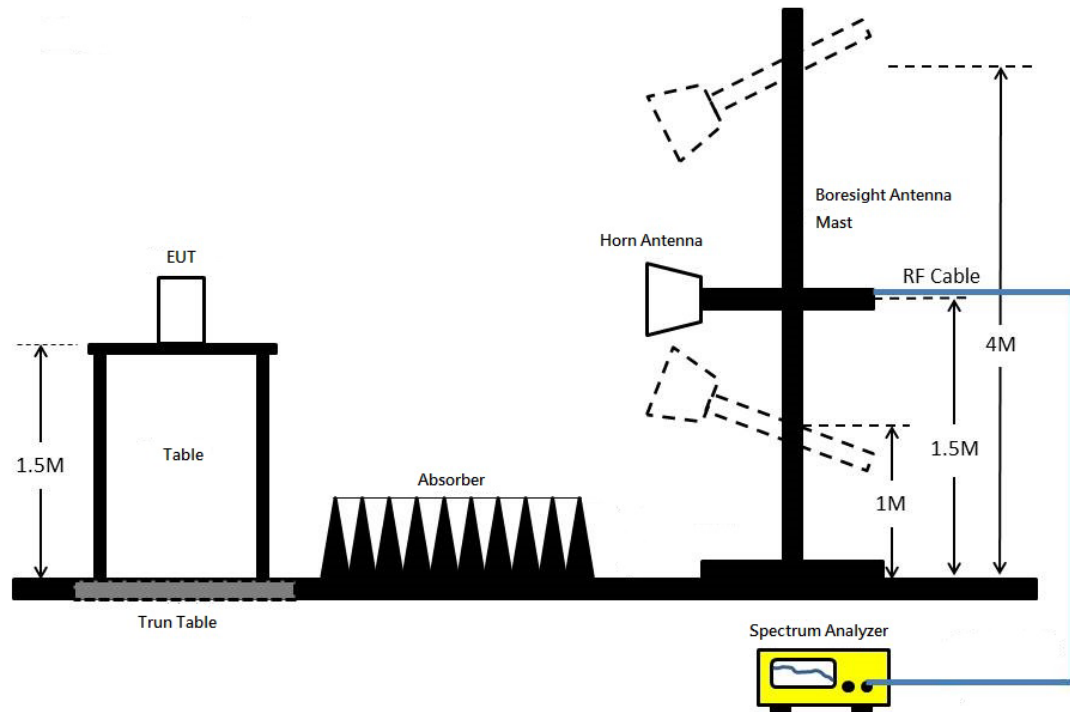
Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1 000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1 MHz / 3MHz for Peak, 1 MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	100kHz / 300kHz for peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 1m & 3m far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 m to 4 m) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T VBW for average reading in spectrum analyzer.
7. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.1.4. Test Setup Layout



4.1.5. Test Deviation

There is no deviation with the original standard.

4.1.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.1.7. Results for Radiated Emissions (1GHz~10th Harmonic)

Temperature	24°C	Humidity	62%
Test Engineer	Owen Hsu	Configurations	IEEE 802.11b CH 6 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2016		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4874.08	49.06	54.00	-4.94	42.37	7.20	31.21	31.72	146	149	Average	HORIZONTAL
2	4874.16	53.40	74.00	-20.60	46.71	7.20	31.21	31.72	146	149	Peak	HORIZONTAL
3	7312.76	59.12	74.00	-14.88	47.35	8.81	35.99	33.03	185	291	Peak	HORIZONTAL
4	7313.00	53.39	54.00	-0.61	41.62	8.81	35.99	33.03	185	291	Average	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamplifier Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	4874.08	54.33	74.00	-19.67	47.64	7.20	31.21	31.72	297	108	Peak	VERTICAL
2	4874.16	51.00	54.00	-3.00	44.31	7.20	31.21	31.72	297	108	Average	VERTICAL
3	7312.04	42.48	54.00	-11.52	30.71	8.81	35.99	33.03	253	131	Average	VERTICAL
4	7312.44	54.36	74.00	-19.64	42.59	8.81	35.99	33.03	253	131	Peak	VERTICAL

Temperature	24°C	Humidity	62%
Test Engineer	Owen Hsu	Configurations	IEEE 802.11n MCS0 HT40 CH 6 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2016		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	7315.00	41.64	54.00	-12.36	29.87	8.81	35.99	33.03	263	57	Average	HORIZONTAL
2	7319.48	54.67	74.00	-19.33	42.85	8.82	36.03	33.03	263	57	Peak	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	cm	deg		
1	7322.76	54.38	74.00	-19.62	42.58	8.82	36.03	33.05	256	66	Peak	VERTICAL
2	7324.44	41.41	54.00	-12.59	29.61	8.82	36.03	33.05	256	66	Average	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.2. Emissions Measurement

4.2.1. Limit

30dBc 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

4.2.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 1/T for Average
RBW / VBW (30dBc in any 100 kHz bandwidth emission)	100 kHz / 300 kHz for Peak

4.2.3. Test Procedures

For Radiated band edges Measurement:

The test procedure is the same as section 4.1.3.

For Radiated Out of Band Emission Measurement:

Test was performed in accordance with KDB558074 D01 v03r05 for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 11.0 Unwanted Emissions into Non-Restricted Frequency Bands Measurement Procedure.

4.2.4. Test Setup Layout

For Radiated band edges Measurement:

This test setup layout is the same as that shown in section 4.1.4.

For Radiated Out of Band Emission Measurement:

This test setup layout is the same as that shown in section 4.1.4.

4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Band Edge and Fundamental Emissions

Temperature	24°C	Humidity	62%
Test Engineer	Owen Hsu	Configurations	IEEE 802.11b CH 6 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2016		

Channel 6

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor			
						dB	dB/m	dB	cm	deg	
1	2389.00	61.13	74.00	-12.87	29.75	4.33	27.05	0.00	260	76 Peak	HORIZONTAL
2	2390.00	52.97	54.00	-1.03	21.59	4.33	27.05	0.00	260	76 Average	HORIZONTAL
3 0	2434.60	118.51			86.98	4.37	27.16	0.00	260	76 Peak	HORIZONTAL
4 0	2435.40	115.07			83.54	4.37	27.16	0.00	260	76 Average	HORIZONTAL
5	2483.80	52.98	54.00	-1.02	21.29	4.42	27.27	0.00	260	76 Average	HORIZONTAL
6	2485.00	63.27	74.00	-10.73	31.58	4.42	27.27	0.00	260	76 Peak	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Temperature	24°C	Humidity	62%
Test Engineer	Owen Hsu	Configurations	IEEE 802.11n MCS0 HT40 CH 6 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2016		

Channel 6

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	2384.80	67.87	74.00	-6.13	36.49	4.33	27.05	0.00	271	66 Peak	HORIZONTAL
2	2390.00	53.13	54.00	-0.87	21.75	4.33	27.05	0.00	271	66 Average	HORIZONTAL
3 0	2444.80	111.97			80.41	4.38	27.18	0.00	271	66 Peak	HORIZONTAL
4 0	2450.80	102.42			70.84	4.39	27.19	0.00	271	66 Average	HORIZONTAL
5	2483.50	70.86	74.00	-3.14	39.17	4.42	27.27	0.00	271	66 Peak	HORIZONTAL
6	2485.00	52.41	54.00	-1.59	20.72	4.42	27.27	0.00	271	66 Average	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

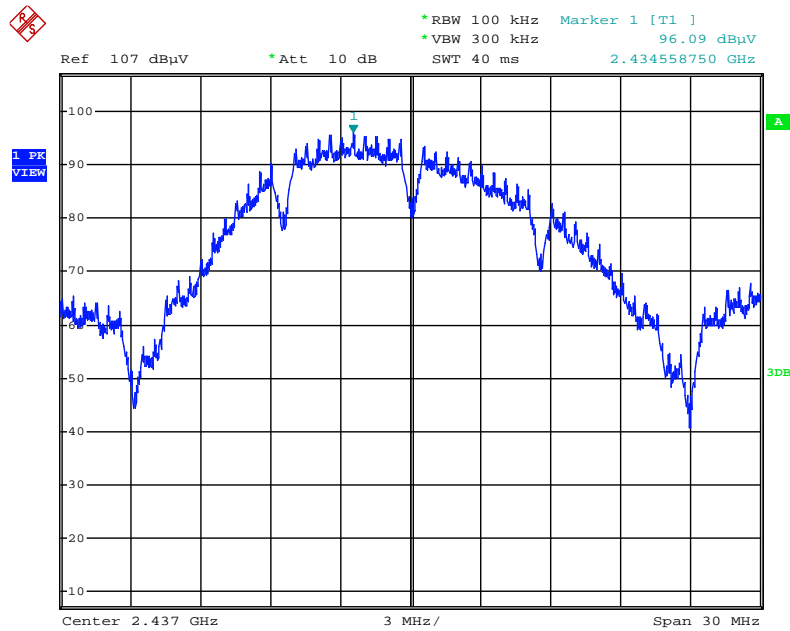
Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

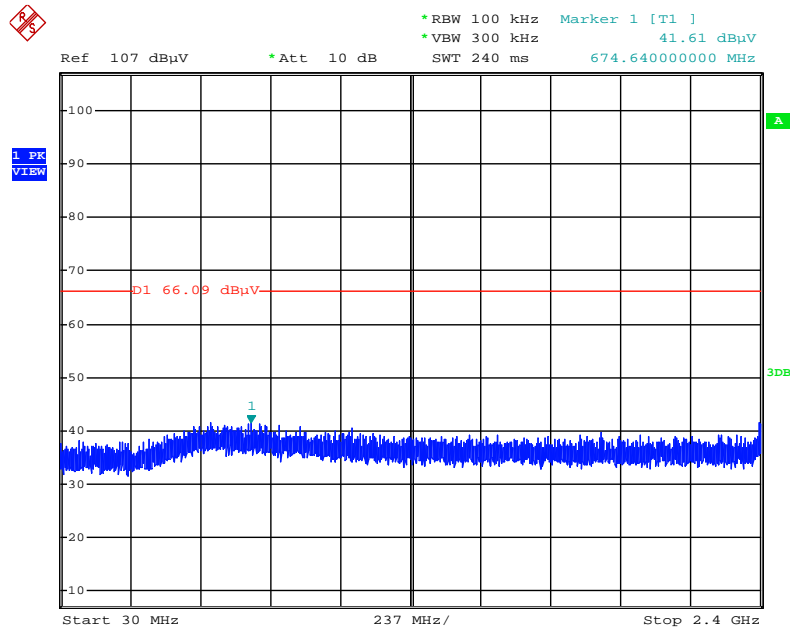
For Emission not in Restricted Band

Plot on Configuration IEEE 802.11b / Reference Level



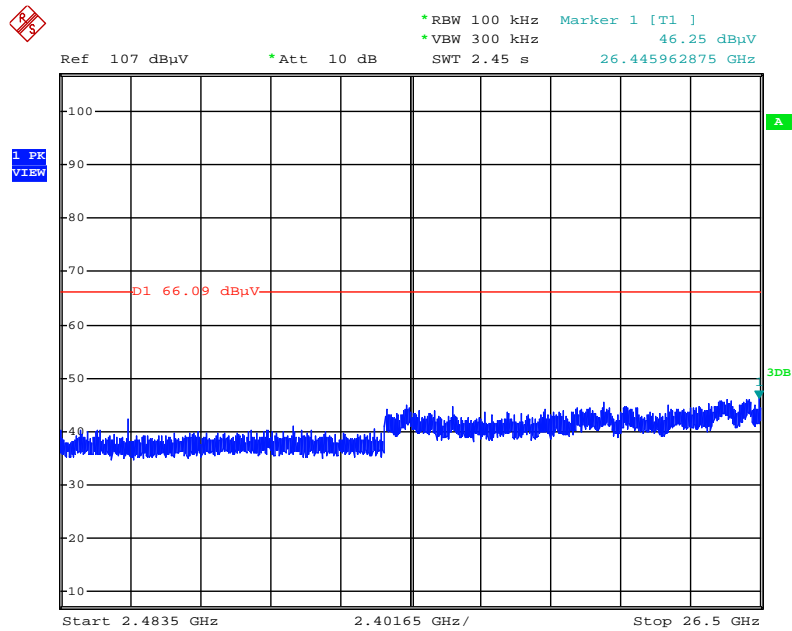
Date: 18.JUL.2016 18:17:52

Plot on Configuration IEEE 802.11b / CH 6 / 30MHz~2400MHz (down 30dBc)



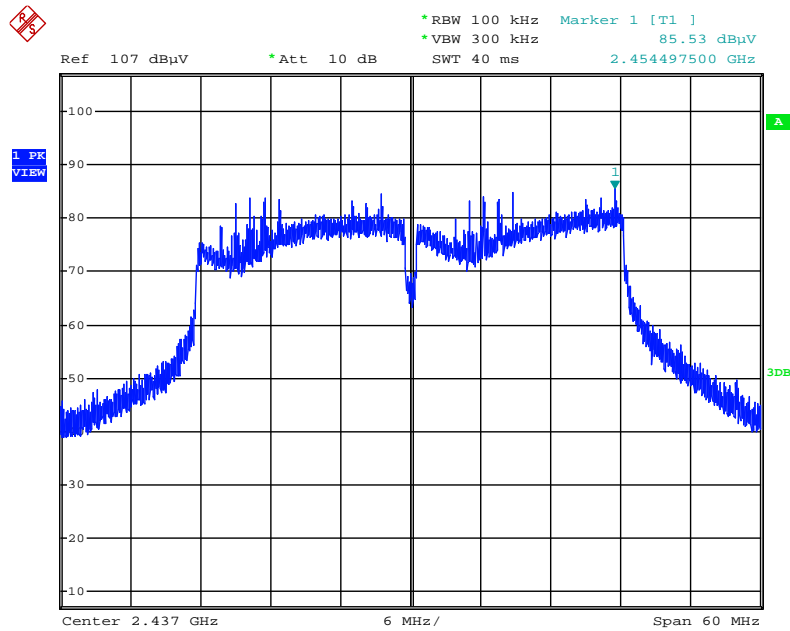
Date: 18.JUL.2016 18:20:25

Plot on Configuration IEEE 802.11b / CH 6 / 2483.5MHz~26500MHz (down 30dBc)



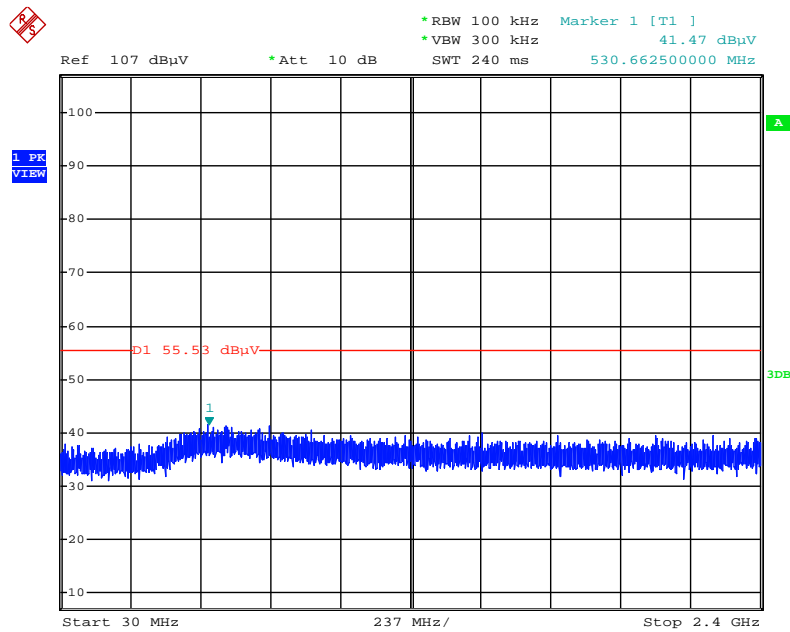
Date: 18.JUL.2016 18:22:06

Plot on Configuration IEEE 802.11n MCS0 HT40 / Reference Level



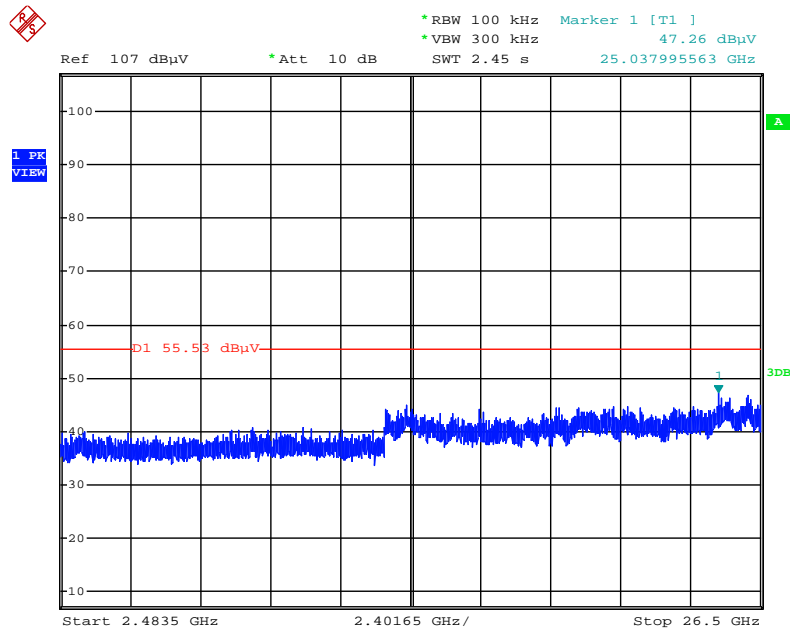
Date: 18.JUL.2016 19:29:29

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 6 / 30MHz~2400MHz (down 30dBc)



Date: 18.JUL.2016 19:38:31

Plot on Configuration IEEE 802.11n MCS0 HT40 / CH 6 / 2483.5MHz~26500MHz (down 30dBc)



Date: 18.JUL.2016 19:38:12

4.3. Antenna Requirements

4.3.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.3.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Horn Antenna	EMCO	3115	00075790	750MHz ~ 18GHz	Oct. 22, 2015	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2015	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 18, 2016	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Oct. 27, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-16	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-17	N/A	1 GHz ~ 18 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-1	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-40G-2	N/A	18GHz ~ 40 GHz	Nov. 02, 2015	Radiation (03CH01-CB)
Test Software	Audix	E3	6.2009-10-7	N/A	N/A	Radiation (03CH01-CB)

Note: Calibration Interval of instruments listed above is one year.

6. MEASUREMENT UNCERTAINTY

Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%