



CFR 47 FCC PART 15 SUBPART C

CERTIFICATION TEST REPORT

For

300Mbps Wireless N Ceiling Mount Access Point

MODEL NUMBER: EAP110

FCC ID: 2AXJ4EAP110V5

REPORT NUMBER: 4790045423.1-6

ISSUE DATE: September 17, 2021

Prepared for

TP-Link Corporation Limited
Room 901, 9/F., New East Ocean Centre, 9 Science Museum Road, Tsim Sha
Tsui, Kowloon, Hong Kong

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

> Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



Page 2 of 236

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	09/17/2021	Initial Issue	



Summary of Test Results						
Clause	Test Items	FCC Rules	Test Results			
1	6dB Bandwidth	FCC Part 15.247 (a) (2)	Pass			
2	Conducted Output Power	FCC Part 15.247 (b) (3)	Pass			
3	Power Spectral Density	FCC Part 15.247 (e)	Pass			
4	Conducted Bandedge and Spurious Emission FCC Part 15.247 (d) F		Pass			
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass			
6	Conducted Emission Test for AC Power Port	FCC Part 15.207	Pass			
7	Antenna Requirement FCC Part 15.203 Pass		Pass			

Note:

^{1.} This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

^{2.} The measurement result for the sample received is <Pass> according to < CFR 47 FCC PART 15 SUBPART C > when <Accuracy Method> decision rule is applied.



TABLE OF CONTENTS

•	AT'	TESTATION OF TEST RESULTS	6
2.	TE	ST METHODOLOGY	7
3.	FA:	CILITIES AND ACCREDITATION	7
4.	CA	LIBRATION AND UNCERTAINTY	8
	4.1.	MEASURING INSTRUMENT CALIBRATION	8
	4.2.	MEASUREMENT UNCERTAINTY	8
5.	EQ	UIPMENT UNDER TEST	9
	5.1.	DESCRIPTION OF EUT	9
	5.2.	CHANNEL LIST	9
	5.3.	MAXIMUM OUTPUT POWER	9
	5.4.	TEST CHANNEL CONFIGURATION	10
	5.5.	THE WORSE CASE POWER SETTING PARAMETER	10
	5.6.	THE WORSE CASE CONFIGURATIONS	11
	5.7.	DESCRIPTION OF AVAILABLE ANTENNAS	12
	5.8.	DESCRIPTION OF TEST SETUP	13
6.	ME	ASURING INSTRUMENT AND SOFTWARE USED	14
7.	AN	TENNA PORT TEST RESULTS	16
	7.1.	ON TIME AND DUTY CYCLE	16
	7.1. 7.2.	ON TIME AND DUTY CYCLE	
			17
	7.2.	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH	17 19
	7.2. 7.3.	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER	17 19 20
8.	7.2. 7.3. 7.4. 7.5.	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY	17 19 20
8.	7.2. 7.3. 7.4. 7.5.	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS	172022
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH	172022243030
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH	17202224303040
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS DIATED TEST RESULTS RESTRICTED BANDEDGE	17202224303040
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER	17192022243030305050
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1 8.1	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH	17202224303040506070
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1 8.1 8.2. 8.2 8.2 8.3.	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH	
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1 8.1 8.2. 8.2 8.3. 8.3	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER	1719202224303050505060708080
8.	7.2. 7.3. 7.4. 7.5. RA 8.1. 8.1 8.1 8.1 8.2. 8.2 8.3. 8.3 8.3 8.3	6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER	



Page 5 of 236

8.5. SP 8.5.1.	URIOUS EMISSIONS (18 GHz ~ 26 GHz) 802.11g MODE	
8.6. SP 8.6.1.	URIOUS EMISSIONS (30 MHz ~ 1 GHz) 802.11g MODE	
8.7. SP 8.7.1.	URIOUS EMISSIONS BELOW 30 MHz802.11g MODE	
9. AC PO\	WER LINE CONDUCTED EMISSIONS	127
9.1.1.	802.11g MODE	128
10. ANTE	ENNA REQUIREMENTS	130
11. Appe	ndix	131
11.1. A	Appendix A: DTS Bandwidth	131
11.1.1.	Test Result	
11.1.2.	Test Graphs	132
11.2. A	Appendix B: Occupied Channel Bandwidth	146
11.2.1.	Test Result	146
11.2.2.	Test Graphs	147
11.3. A	Appendix C: Maximum AVG conducted output power	161
11.3.1.	Test Result	
11.4. A	Appendix D: Maximum power spectral density	163
11.4.1.		
11.4.2.		
11.5 A	Appendix E: Band edge measurements	179
11.5.1.		
11.5.2.		
11.6. A	Appendix F: Conducted Spurious Emission	101
11.6.1.		
11.6.2.		
117 4	Appendix G: Duty Cycle	234
11.7.1.		
	Test Granhs	



Page 6 of 236

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: TP-Link Corporation Limited

Address: Room 901, 9/F., New East Ocean Centre, 9 Science Museum

Road, Tsim Sha Tsui, Kowloon, Hong Kong

Manufacturer Information

Company Name: TP-Link Technologies Co., Ltd.

Address: Building 24(floors1,3,4,5) and 28(floors1-4) Central Science and

Technology Park, Shennan Rd, Nanshan, Shenzhen, China

EUT Information

EUT Name: 300Mbps Wireless N Ceiling Mount Access Point

Model: EAP110 Brand: tp-link

Sample Received Date: July 30, 2021

Sample Status: Normal Sample ID: 4106242

Date of Tested: July 30, 2021 ~ September 15, 2021

APPLICABLE STANDARDS				
STANDARD TEST RESULTS				
CFR 47 FCC PART 15 SUBPART C	PASS			

Prepared By:	Checked By:
kelo. Theny.	Shemmalier

Kebo Zhang Shawn Wen Project Engineer Laboratory Leader

Approved By:

Stephen Guo

Laboratory Manager



Page 7 of 236

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 662911 D01 Multiple Transmitter Output v02r01, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15 and ANSI C63.10-2013.

3. FACILITIES AND ACCREDITATION

	A2LA (Certificate No.: 4102.01)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with A2LA.
	FCC (FCC Designation No.: CN1187)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Has been recognized to perform compliance testing on equipment subject
	to the Commission's Delcaration of Conformity (DoC) and Certification
	rules
	ISED (Company No.: 21320)
Accreditation	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Certificate	has been registered and fully described in a report filed with ISED.
	The Company Number is 21320 and the test lab Conformity Assessment
	Body Identifier (CABID) is CN0046.
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	has been assessed and proved to be in compliance with VCCI, the
	Membership No. is 3793.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20019 and R-20004
	Shielding Room B , the VCCI registration No. is C-20012 and T-20011

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30 MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30 MHz had been correlated to measurements performed on an OFS.

Page 8 of 236

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognize national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Uncertainty
3.62 dB
2.2 dB
4.00 dB
5.78 dB (1 GHz ~ 18 GHz)
5.23 dB (18 GHz ~ 26 GHz)
±0.028%
±0.0196%
±0.686 dB
±0.743 dB
±1.328 dB
±0.746 dB (9 kHz ~ 1 GHz)
±1.328dB (1 GHz ~ 26 GHz)

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	300Mbps Wireless N Ceiling Mount Access Point		
Model EAP110			
Radio Technology IEEE802.11b/g/n HT20/n HT40			
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz		
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)		
Software version	EAP110v5_1.0.0_[20210720-rel62688]		
Firmware version	2053500380 Rev 1.0		
Rated Input	AC 120 V, 60 Hz		

5.2. CHANNEL LIST

	Channel List for 802.11b/g/n (20 MHz)						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	4	2427	7	2442	10	2457
2	2417	5	2432	8	2447	11	2462
3	2422	6	2437	9	2452	1	/

	Channel List for 802.11n (40 MHz)						
Channel Frequency (MHz) Channel Frequency (MHz) Channel Frequency		Frequency (MHz)	Channel	Frequency (MHz)			
3	2422	5	2432	7	2442	9	2452
4	2427	6	2437	8	2447	1	1

5.3. MAXIMUM OUTPUT POWER

IEEE Std. 802.11	Frequency (MHz)	Channel Number	Maximum Conducted AVG Output Power (dBm)
b	2412 ~ 2462	1-11[11]	24.13
g	2412 ~ 2462	1-11[11]	23.83
n HT20	2412 ~ 2462	1-11[11]	23.46
n HT40	2422 ~ 2452	3-9[7]	21.91



Page 10 of 236

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency(MHz)
802.11b	CH 1, CH2 CH 6,CH10 CH 11	2412, 2417, 2437, 2457, 2462
802.11g	CH 1, CH2 CH 6,CH10 CH 11	2412, 2417, 2437, 2457, 2462
802.11n HT20	CH 1, CH2 CH 6,CH10 CH 11	2412, 2417, 2437, 2457, 2462
802.11n HT40	CH 3, CH4 CH 6,CH8, CH 9	2422, 2427, 2437, 2447, 2452

5.5. THE WORSE CASE POWER SETTING PARAMETER

The	The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band										
Test Softv	vare					QAT	Tool_Dbg				
NA 1 1 C	Transmit				Test	Softwar	e Settin	ıg Valı	ıe		
Modulation Mode	Antenna	NCB: 20MHz				NCB: 40MHz					
Wiode	Number	CH1	CH2	CH6	CH10	CH11	CH3	CH4	CH6	CH8	CH9
802.11b	1&2	28	28	28	28	27					
802.11g	1&2	23	28	28	28	24	NA				
802.11n HT20	1&2	20	26	28	27	21					
802.11n HT40	1&2			/			1B	1F	24	1F	1D



Page 11 of 236

5.6. THE WORSE CASE CONFIGURATIONS

The EUT was tested in the following configuration(s):

Controlled in test mode using a software application on the EUT supplied by customer. The application was used to enable a continuous transmission and to select the mode, test channels, bandwidth, data rates as required.

Worst-case data rates as provided by the client were:

802.11b mode: 1 Mbps 802.11b mode: 6 Mbps 802.11n HT20 mode: MCS0 802.11n HT40 mode: MCS0

The EUT has 2 separate antennas which correspond to 2 separate antenna ports. Core 1 and Core 2 correspond to antenna 1 and antenna 2 respectively.

The measured additional path loss was included in any path loss calculations for all RF cable used during tested.



Page 12 of 236

5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	PIFA Antenna	4
2	2412-2462	PIFA Antenna	4

Test Mode	Transmit and Receive Mode	Description
IEEE 802.11b	⊠2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11g	⊠2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT20	⊠2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.
IEEE 802.11n HT40	⊠2TX, 2RX	ANT 1 and ANT 2 can be used as transmitting/receiving antenna.

Note:

- 1. 802.11n HT20/HT40 support MIMO mode.
- 2. 802.11b/g support CDD mode.

Note: The value of the antenna gain was declared by customer.

Page 13 of 236

5.8. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	PC	Dell	Vostro 3902	8KNDDB2

I/O CABLES

Cable No	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	RJ45 cable	1	/	2.0	1
2	AC Cable	N/A	N/A	0.3	No Ferrite Core No shield

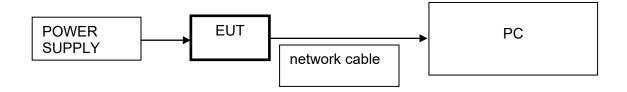
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	I.T.E POWER SUPPLY	tp-link	TL-POE2406	Input:100-240V~, 50/60Hz, 0.3A Output:24Vdc, 0.25A

TEST SETUP

The EUT can work in engineering mode with a software.

SETUP DIAGRAM FOR TESTS

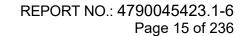




6. MEASURING INSTRUMENT AND SOFTWARE USED

	Conducted Emissions							
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date			
EMI Test Receiver	R&S	ESR3	101961	Nov. 12, 2020	Nov. 11, 2021			
Two-Line V- Network	R&S	ENV216	101983	Nov. 12, 2020	Nov. 11, 2021			
Artificial Mains Networks	Schwarzbeck	NSLK 8126	8126465	Nov. 12, 2020	Nov. 11, 2021			
	Software							
	Description			Name	Version			
Test Software	for Conducted	Emissions	Farad	EZ-EMC	Ver. UL-3A1			

	Radiated Emissions							
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date			
MXE EMI Receiver	KESIGHT	N9038A	MY56400036	Nov. 12, 2020	Nov. 11, 2021			
Hybrid Log Periodic Antenna	TDK	HLP-3003C	130959	April 24, 2020	April 23, 2023			
Preamplifier	HP	8447D	2944A09099	Nov. 12, 2020	Nov. 11, 2021			
EMI Measurement Receiver	R&S	ESR26	101377	Nov. 12, 2020	Nov. 11, 2021			
Horn Antenna	TDK	HRN-0118	130939	Sept. 17, 2018	Sept. 17, 2021			
Preamplifier	TDK	PA-02-0118	TRS-305- 00067	Nov. 20, 2020	Nov. 19, 2021			
Horn Antenna	Schwarzbeck	BBHA9170	#697	July 20, 2021	July 19, 2024			
Preamplifier	TDK	PA-02-2	TRS-307- 00003	Nov. 12, 2020	Nov. 11, 2021			
Preamplifier	TDK	PA-02-3	TRS-308- 00002	Nov. 12, 2020	Nov. 11, 2021			
Loop antenna	Schwarzbeck	1519B	80000	Jan.17, 2019	Jan.17,2022			
Preamplifier	TDK	PA-02-001- 3000	TRS-302- 00050	Nov. 12, 2020	Nov. 11, 2021			
Preamplifier	Mini-Circuits	ZX60-83LN- S+	SUP01201941	Nov. 20, 2020	Nov. 19, 2021			
High Pass Filter	Wi	WHKX10- 2700-3000- 18000-40SS	23	Nov. 12, 2020	Nov. 11, 2021			
Band Reject Filter	Wainwright	WRCJV8- 2350-2400- 2483.5- 2533.5-40SS	4	Nov. 12, 2020	Nov. 11, 2021			





Software

Description Manufacturer Name Version

Test Software for Radiated Emissions Farad EZ-EMC Ver. UL-3A1

Tonsend RF Test System								
Equipment	Manufacturer	М	odel No.	Serial No.	Last	Cal.	Due. Date	
Wideband Radio Communication Tester	R&S	R&S CMW500		155523	Nov.20,2020		Nov.19,2021	
PXA Signal Analyzer	Keysight	N	9030A	MY55410512	Nov.20	0,2020	Nov.19,2021	
MXG Vector Signal Generator	Keysight	t N5182B		MY56200284	Nov.20,2020		Nov.19,2021	
MXG Vector Signal Generator	Keysight	N5172B		MY56200301	Nov.20	0,2020	Nov.19,2021	
DC power supply	Keysight	ght E3642A		MY55159130	Nov.24,2020		Nov.23,2021	
Software								
Description	Manufactu	rer	er Name			,	Version	
Tonsend SRD Test Syste	m Tonsend	d	JS1120	-3 RF Test Sys	stem	2.6	2.6.77.0518	

Other Instruments							
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.		
Dual Channel Power Meter	Keysight	N1912A	MY55416024	Nov. 20, 2020	Nov. 19, 2021		
Power Sensor	Keysight	USB Wideband Power Sensor	MY5100022	Nov. 20, 2020	Nov. 19, 2021		
Attenuartor	Keysight	8496B	US00431137	Nov. 20, 2020	Nov. 19, 2021		

Page 16 of 236

7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

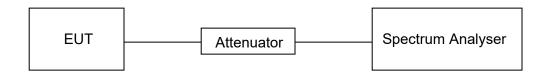
LIMITS

None; for reporting purposes only

PROCEDURE

Refer to ANSI C63.10-2013 clause 11.6 Zero – Span Spectrum Analyzer method.

TEST SETUP



TEST ENVIRONMENT

Temperature	26.2 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ

RESULTS

Please refer to appendix G.

REPORT NO.: 4790045423.1-6 Page 17 of 236

7.2. 6 dB DTS BANDWIDTH AND 99 % OCCUPIED BANDWIDTH

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C					
Section Test Item Limit Frequency Range (MHz)					
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500 kHz	2400-2483.5		
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	For reporting purposes only.	2400-2483.5		

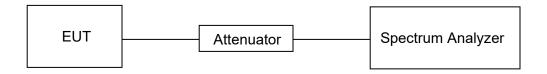
TEST PROCEDURE

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Frequency Span	Between 2 times and 5.0 times the OBW
Detector	Peak
RBW	For 6 dB Bandwidth: 100 kHz For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 6 dB Bandwidth: ≥3 × RBW For 99 % Occupied Bandwidth: ≥3 × RBW
Trace	Max hold
Sweep	Auto couple

- a) Use the 99 % power bandwidth function of the instrument, allow the trace to stabilize and report the measured bandwidth.
- b) Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST SETUP





Page 18 of 236

TEST ENVIRONMENT

Temperature	26.2 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ

RESULTS

Please refer to appendix A & B.

Page 19 of 236

7.3. CONDUCTED OUTPUT POWER

LIMITS

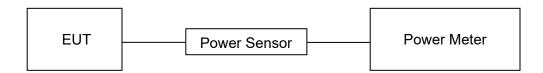
CFR 47 FCC Part15 (15.247) Subpart C				
Section Test Item Limit Frequency Range (MHz)				
CFR 47 FCC 15.247(b)(3)	AVG Output Power	1 watt or 30 dBm	2400-2483.5	

TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).

Measure peak emission level, the indicated level is the average output power, after any corrections for external attenuators and cables.

TEST SETUP



TEST ENVIRONMENT

Temperature	26.2 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ

RESULTS

Please refer to appendix C.



Page 20 of 236

7.4. POWER SPECTRAL DENSITY

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section Test Item Limit Frequency Range (MHz)			
CFR 47 FCC §15.247 (e)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.10.

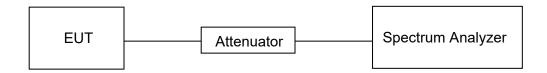
Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	AVG
RBW	3 kHz ≤ RBW ≤ 100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Trace average
Sweep time	Auto couple

Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST SETUP



TEST ENVIRONMENT

Temperature	26.2 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ



Page 21 of 236

RESULTS

Please refer to appendix D.



Page 22 of 236

7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C			
Section Test Item Limit			
CFR 47 FCC §15.247 (d) Conducted Bandedge and Spurious Emissions Conducted at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power			

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 11.11 and 11.13.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD

Change the settings for emission level measurement:

ISDAD	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	≥3 × RBW
measurement points	≥span/RBW
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11.

TEST SETUP



EUT Attenuator Spectrum Analyzer

TEST ENVIRONMENT

Temperature	26.2 °C	Relative Humidity	55.3 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ

RESULTS

Please refer to appendix E & F.

8. RADIATED TEST RESULTS

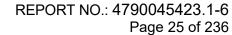
LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz ~ 1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz						
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m				
(IVII IZ)	(uv/iii) at 5 iii	Quasi-Peak				
30 - 88	100	40				
88 - 216	150	43.5				
216 - 960	200	46				
Above 960	500	54				
Above 1000	500	Peak	Average			
	500	74	54			

FCC Emissions radiated outside of the specified frequency bands below 30 MHz							
Frequency (MHz) Field strength (microvolts/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					





FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

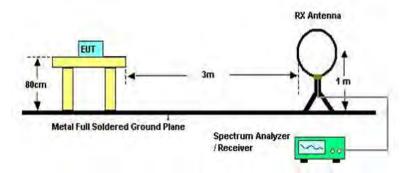
Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. ²Above 38.6c



Page 26 of 236

TEST SETUP AND PROCEDURE

Below 30 MHz



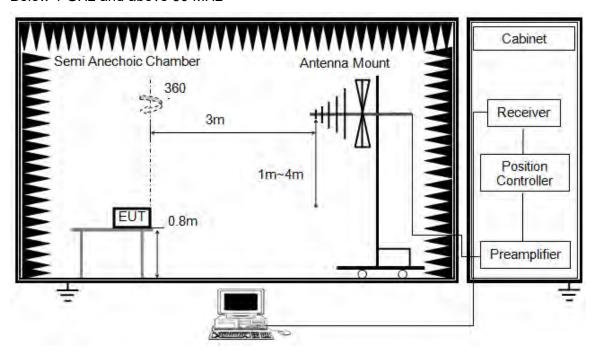
The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.
- 2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
- 5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
- 6. For measurement below 1 GHz, 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 and average detector mode remeasured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
- 7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
- 8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to Y-51.5 = Z dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.



Below 1 GHz and above 30 MHz



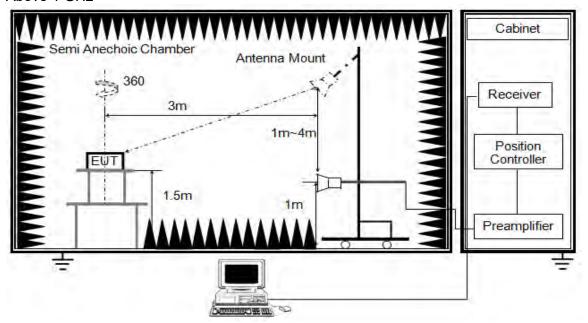
The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 80 cm above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement below 1 GHz, 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 emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.



Above 1 GHz

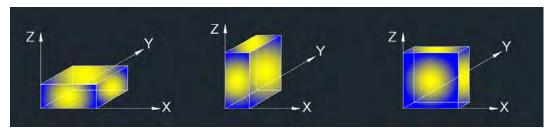


The setting of the spectrum analyser

RBW	1 MHz
IVRW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.
- 2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 1.5 m above ground.
- 4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
- 6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

TEST ENVIRONMENT

Temperature	mperature 26.2 °C		52 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ

RESULTS

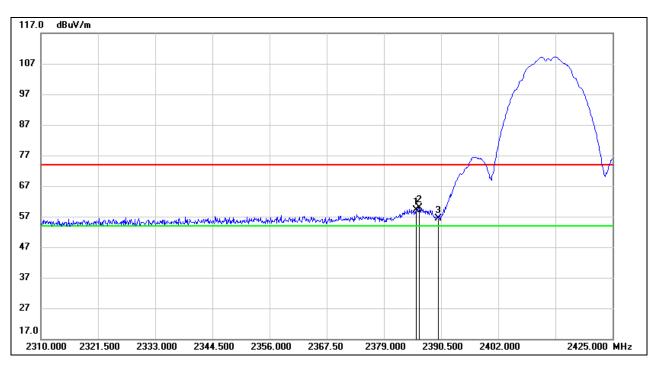


8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b MODE

RESTRICTED BANDEDGE (CHANNEL 1, HORIZONTAL)

PEAK

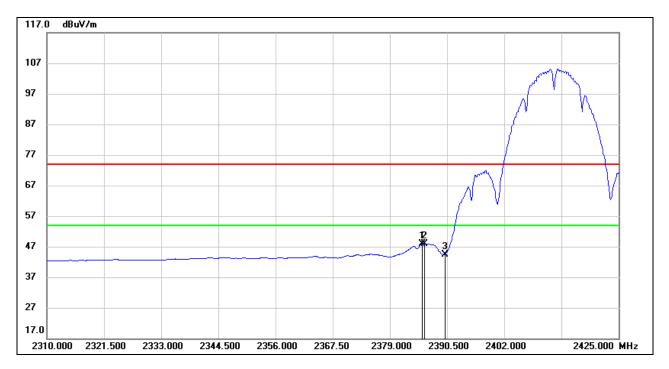


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2385.555	25.82	33.31	59.13	74.00	-14.87	peak
2	2386.130	26.64	33.32	59.96	74.00	-14.04	peak
3	2390.000	22.95	33.35	56.30	74.00	-17.70	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



<u>AVG</u>



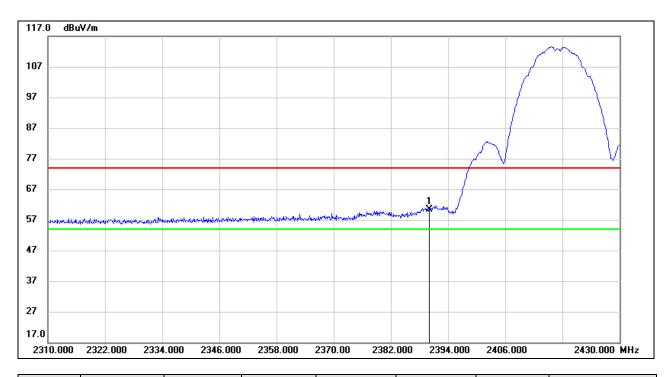
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2385.555	14.59	33.31	47.90	54.00	-6.10	AVG
2	2386.130	14.46	33.32	47.78	54.00	-6.22	AVG
3	2390.000	11.11	33.35	44.46	54.00	-9.54	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 2, HORIZONTAL)

PEAK

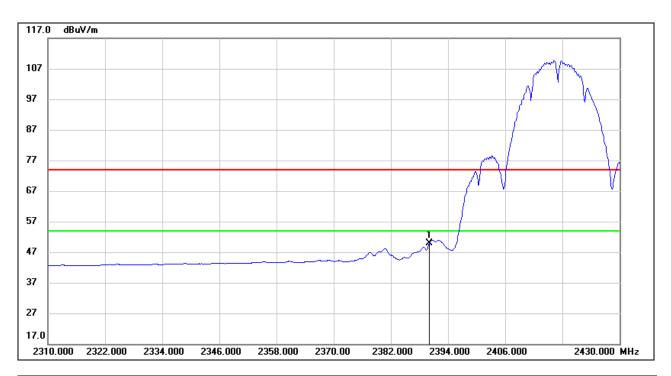


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	26.95	33.35	60.30	74.00	-13.70	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



<u>AVG</u>



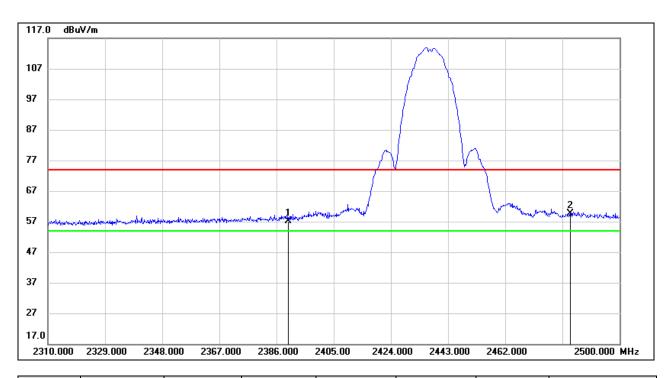
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	16.54	33.35	49.89	54.00	-4.11	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 6, HORIZONTAL)

PEAK

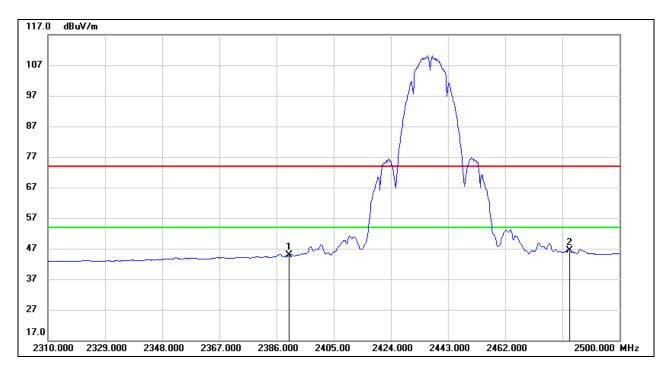


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	23.83	33.35	57.18	74.00	-16.82	peak
2	2483.500	25.82	33.71	59.53	74.00	-14.47	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



<u>AVG</u>



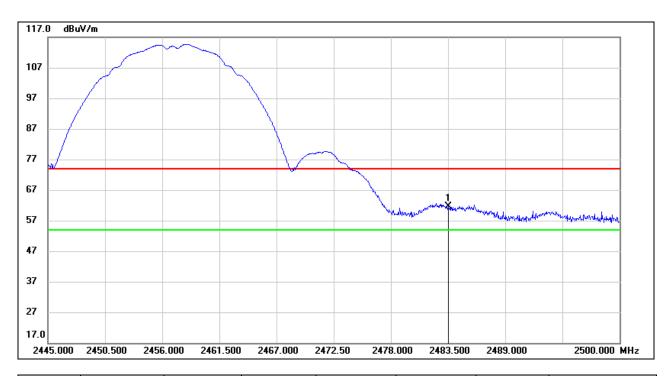
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	11.45	33.35	44.80	54.00	-9.20	AVG
2	2483.500	12.77	33.71	46.48	54.00	-7.52	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 10, HORIZONTAL)

PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	27.95	33.71	61.66	74.00	-12.34	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



AVG



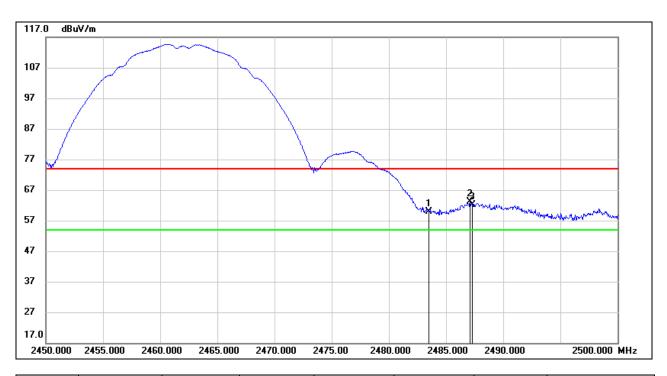
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.12	33.71	51.83	54.00	-2.17	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 11, HORIZONTAL)

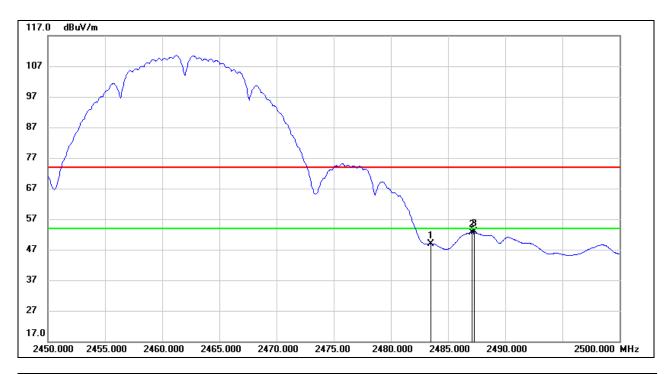
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.23	33.71	59.94	74.00	-14.06	peak
2	2487.100	29.51	33.72	63.23	74.00	-10.77	peak
3	2487.300	28.39	33.72	62.11	74.00	-11.89	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.27	33.71	48.98	54.00	-5.02	AVG
2	2487.100	18.99	33.72	52.71	54.00	-1.29	AVG
3	2487.300	19.05	33.72	52.77	54.00	-1.23	AVG

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

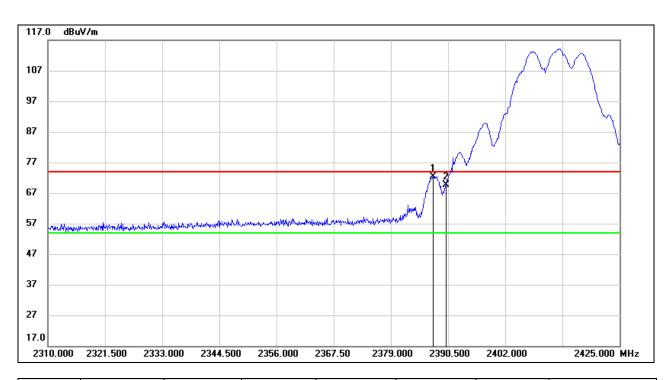
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.



8.1.2. 802.11g MODE

RESTRICTED BANDEDGE (CHANNEL 1, HORIZONTAL)

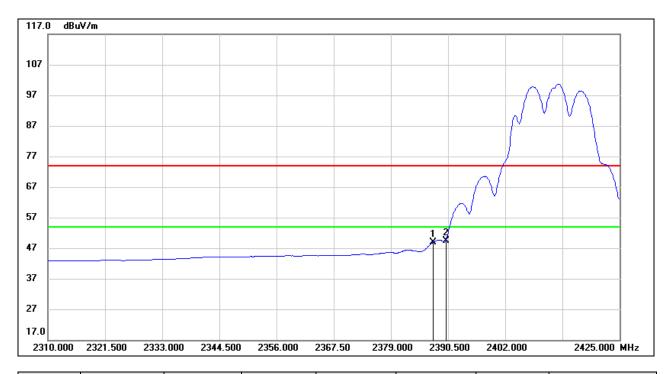
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2387.510	39.10	33.34	72.44	74.00	-1.56	peak
2	2390.000	36.37	33.35	69.72	74.00	-4.28	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





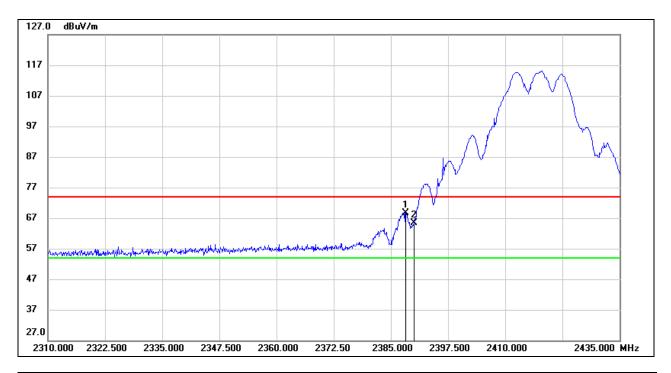
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2387.510	15.58	33.34	48.92	54.00	-5.08	AVG
2	2390.000	16.13	33.35	49.48	54.00	-4.52	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 2, HORIZONTAL)

PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.250	35.29	33.34	68.63	74.00	-5.37	peak
2	2390.000	32.11	33.35	65.46	74.00	-8.54	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





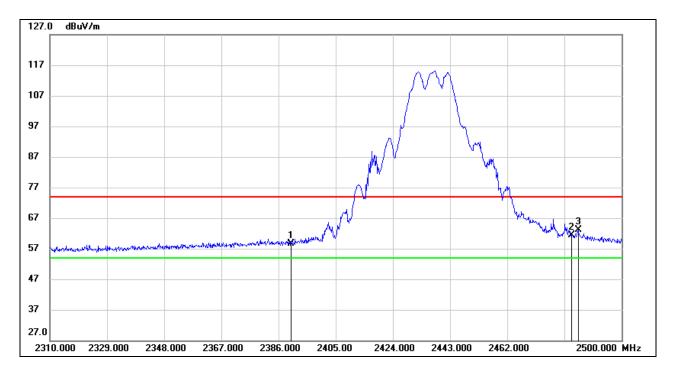
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.250	14.86	33.34	48.20	54.00	-5.80	AVG
2	2390.000	13.59	33.35	46.94	54.00	-7.06	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 6, HORIZONTAL)

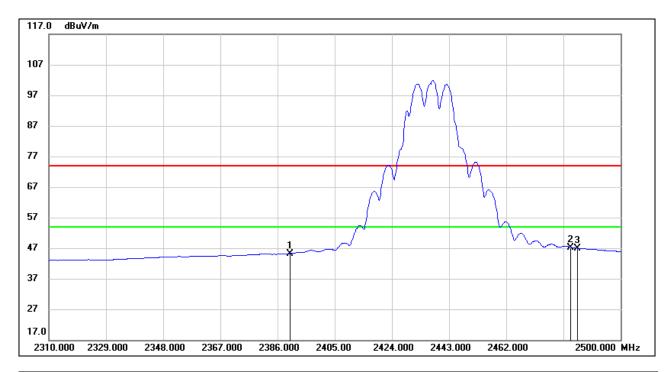
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	25.21	33.35	58.56	74.00	-15.44	peak
2	2483.500	27.73	33.71	61.44	74.00	-12.56	peak
3	2485.560	29.45	33.71	63.16	74.00	-10.84	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





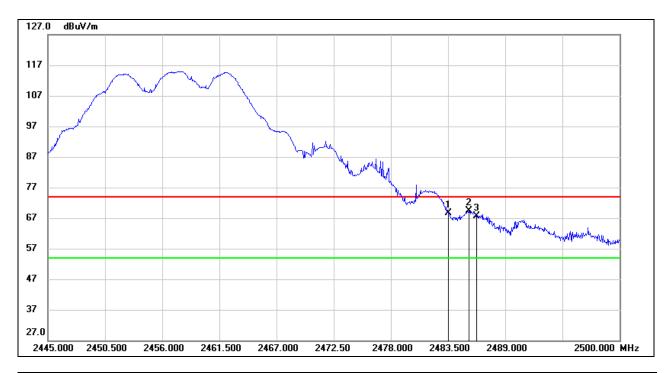
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	11.87	33.35	45.22	54.00	-8.78	AVG
2	2483.500	13.53	33.71	47.24	54.00	-6.76	AVG
3	2485.560	13.21	33.71	46.92	54.00	-7.08	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 10, HORIZONTAL)

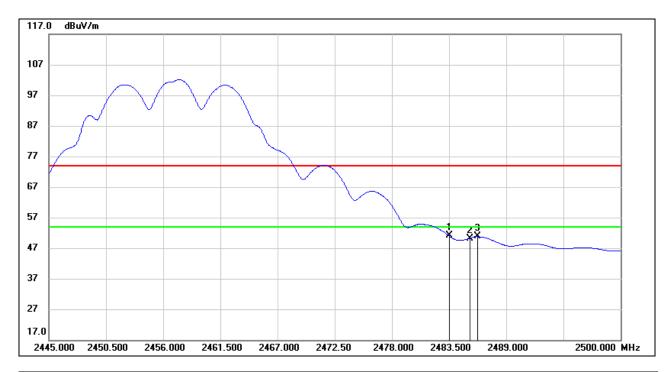
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	34.84	33.71	68.55	74.00	-5.45	peak
2	2485.480	35.65	33.71	69.36	74.00	-4.64	peak
3	2486.250	33.87	33.72	67.59	74.00	-6.41	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	17.32	33.71	51.03	54.00	-2.97	AVG
2	2485.480	16.54	33.71	50.25	54.00	-3.75	AVG
3	2486.250	17.16	33.72	50.88	54.00	-3.12	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 11, HORIZONTAL)

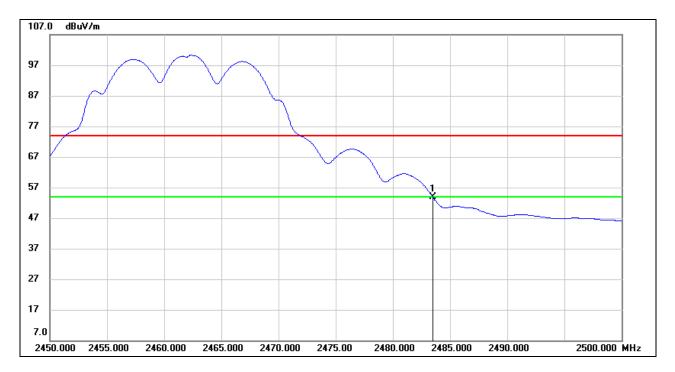
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	38.05	33.71	71.76	74.00	-2.24	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	20.08	33.71	53.79	54.00	-0.21	AVG

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.



8.1.3. 802.11n HT20 MODE

RESTRICTED BANDEDGE (CHANNEL 1, HORIZONTAL)

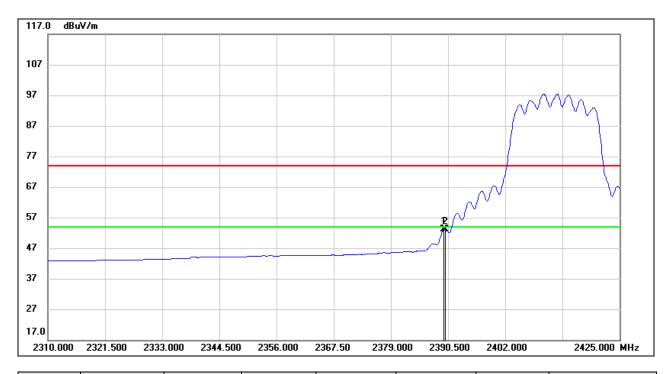
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.695	39.46	33.35	72.81	74.00	-1.19	peak
2	2390.000	37.71	33.35	71.06	74.00	-2.94	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





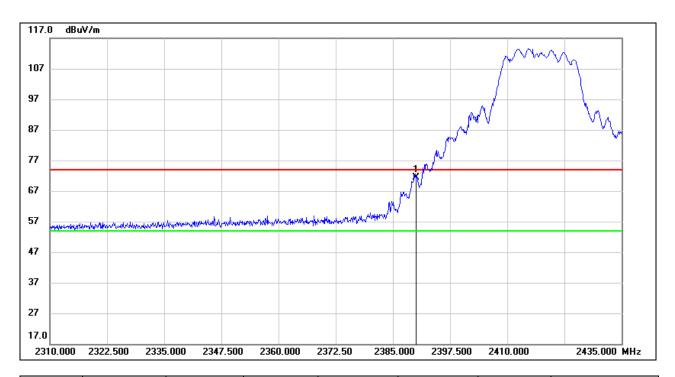
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.695	19.76	33.35	53.11	54.00	-0.89	AVG
2	2390.000	19.81	33.35	53.16	54.00	-0.84	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 2, HORIZONTAL)

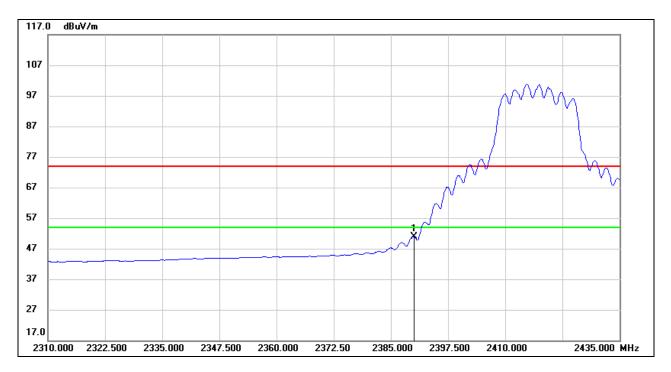
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	38.06	33.35	71.41	74.00	-2.59	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





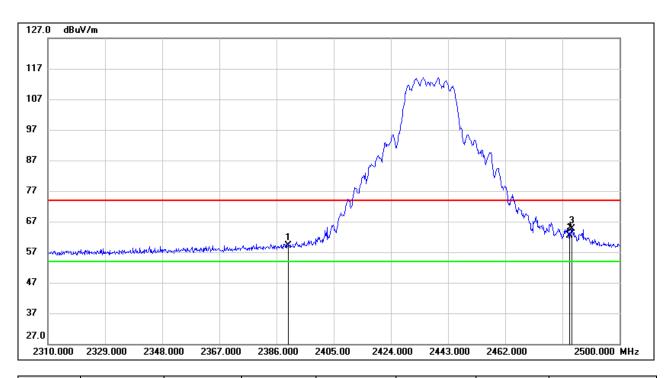
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	17.52	33.35	50.87	54.00	-3.13	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 6, HORIZONTAL)

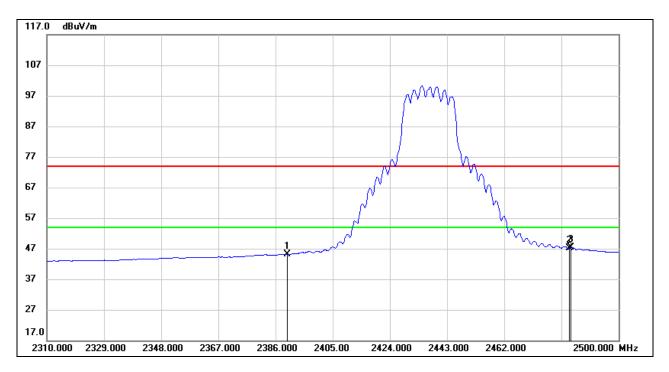
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	25.74	33.35	59.09	74.00	-14.91	peak
2	2483.500	28.62	33.71	62.33	74.00	-11.67	peak
3	2484.040	31.01	33.71	64.72	74.00	-9.28	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





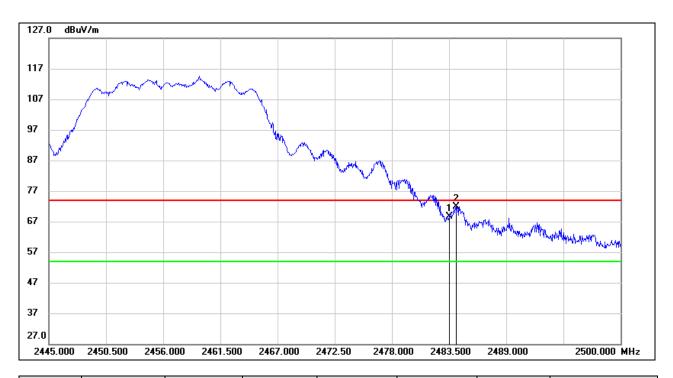
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	11.87	33.35	45.22	54.00	-8.78	AVG
2	2483.500	13.42	33.71	47.13	54.00	-6.87	AVG
3	2484.040	13.60	33.71	47.31	54.00	-6.69	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 10, HORIZONTAL)

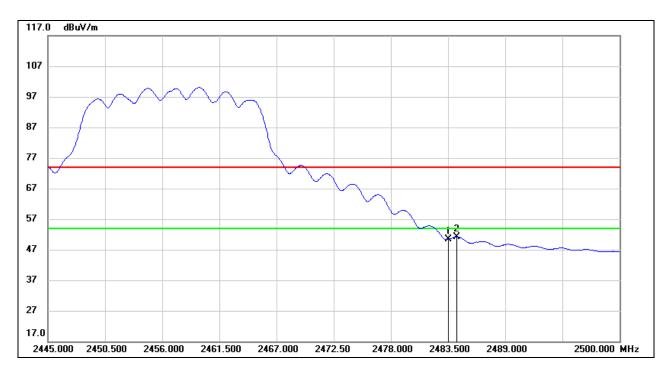
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	34.83	33.71	68.54	74.00	-5.46	peak
2	2484.160	38.27	33.71	71.98	74.00	-2.02	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	16.71	33.71	50.42	54.00	-3.58	AVG
2	2484.325	17.39	33.71	51.10	54.00	-2.90	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 11, HORIZONTAL)

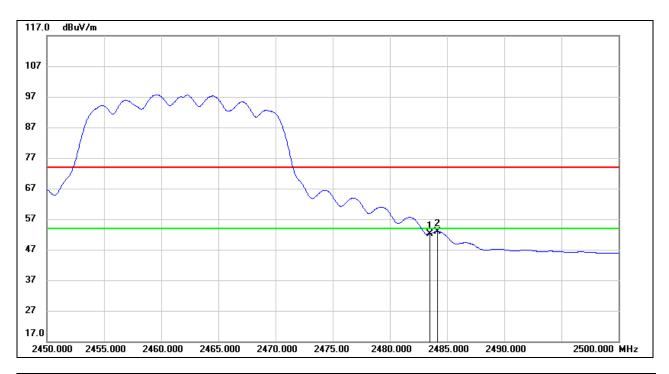
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	36.65	33.71	70.36	74.00	-3.64	peak
2	2484.150	36.58	33.71	70.29	74.00	-3.71	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.42	33.71	52.13	54.00	-1.87	AVG
2	2484.150	19.27	33.71	52.98	54.00	-1.02	AVG

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

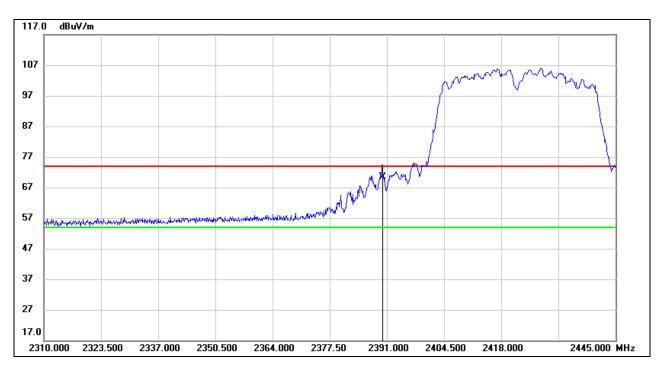
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.



8.1.4. 802.11n HT40 MODE

RESTRICTED BANDEDGE (CHANNEL 3, HORIZONTAL)

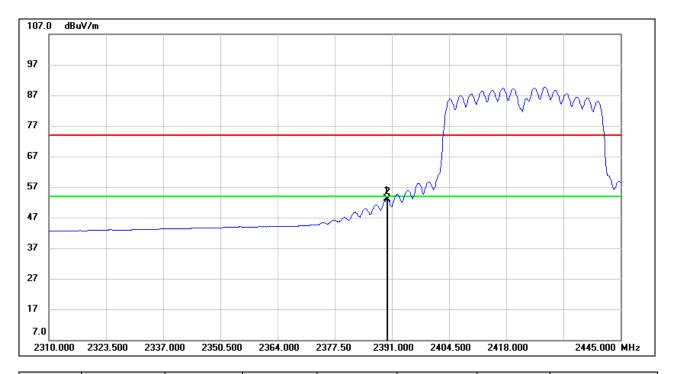
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	37.04	33.35	70.39	74.00	-3.61	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





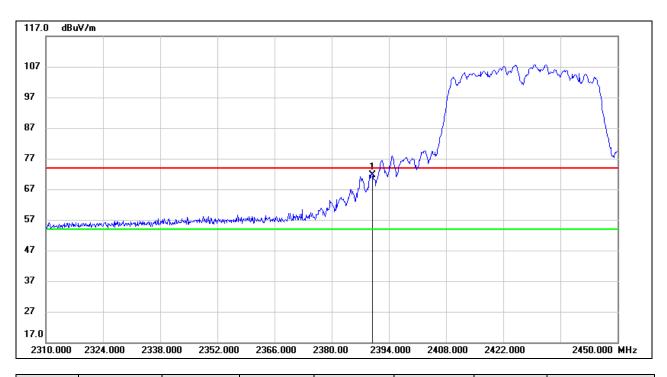
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.785	19.80	33.35	53.15	54.00	-0.85	AVG
2	2390.000	19.59	33.35	52.94	54.00	-1.06	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 4, HORIZONTAL)

PEAK

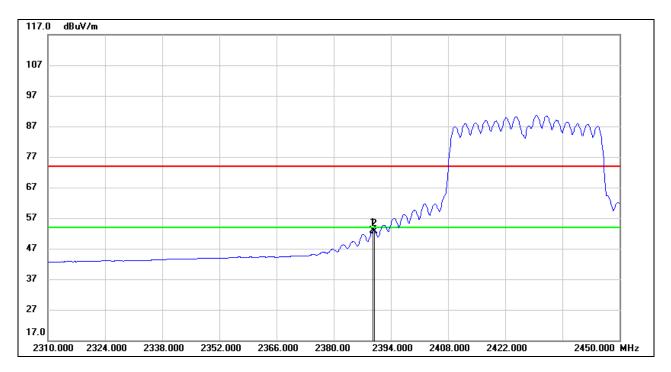


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	38.21	33.35	71.56	74.00	-2.44	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



AVG



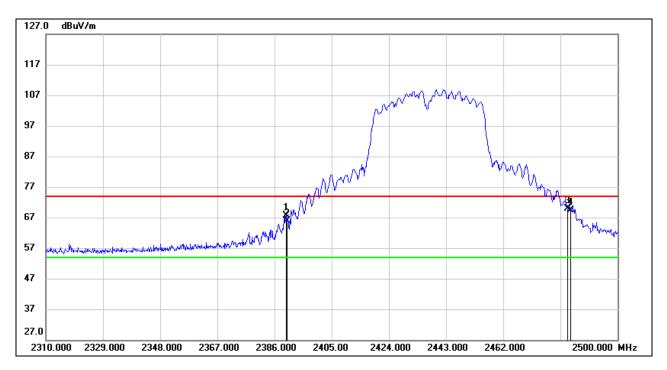
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.660	19.51	33.35	52.86	54.00	-1.14	AVG
2	2390.000	19.23	33.35	52.58	54.00	-1.42	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 6, HORIZONTAL)

PEAK

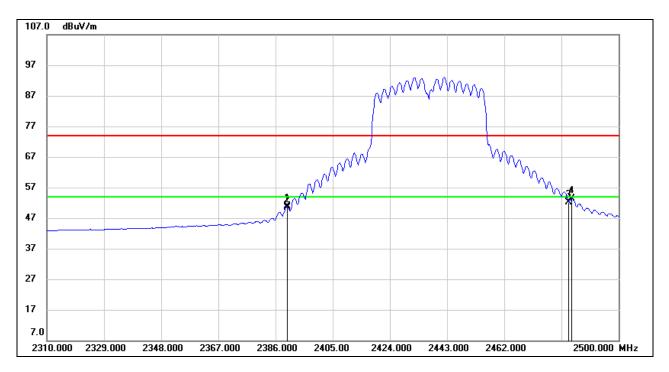


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.800	34.33	33.35	67.68	74.00	-6.32	peak
2	2390.000	32.43	33.35	65.78	74.00	-8.22	peak
3	2483.500	36.07	33.71	69.78	74.00	-4.22	peak
4	2484.420	35.65	33.71	69.36	74.00	-4.64	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



AVG



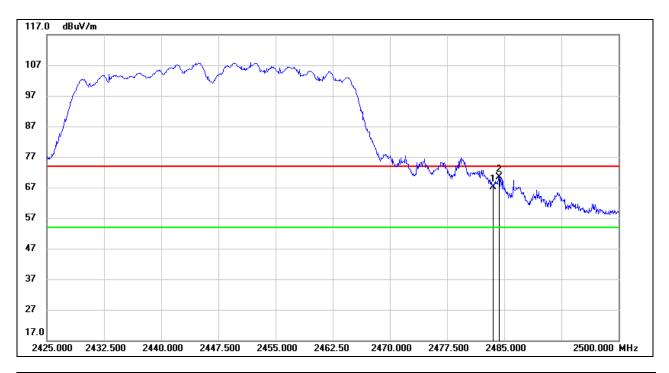
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.800	17.48	33.35	50.83	54.00	-3.17	AVG
2	2390.000	17.14	33.35	50.49	54.00	-3.51	AVG
3	2483.500	18.40	33.71	52.11	54.00	-1.89	AVG
4	2484.420	19.62	33.71	53.33	54.00	-0.67	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 8, HORIZONTAL)

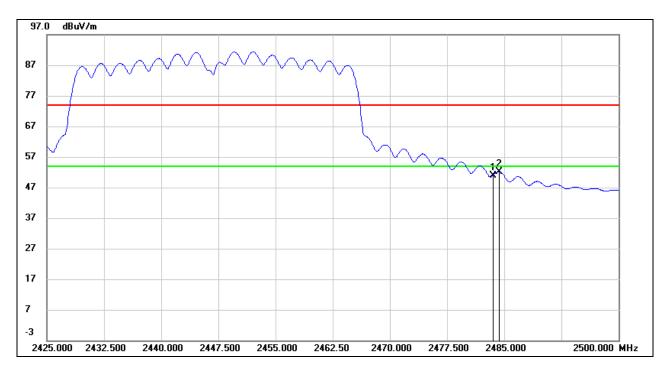
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	33.45	33.71	67.16	74.00	-6.84	peak
2	2484.325	36.74	33.71	70.45	74.00	-3.55	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





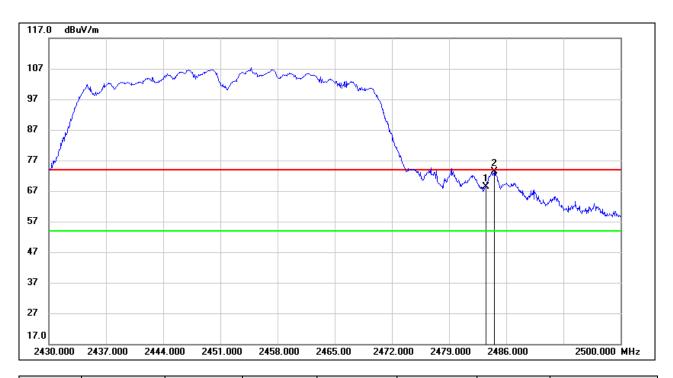
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	17.21	33.71	50.92	54.00	-3.08	AVG
2	2484.325	18.47	33.71	52.18	54.00	-1.82	AVG

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



RESTRICTED BANDEDGE (CHANNEL 9, HORIZONTAL)

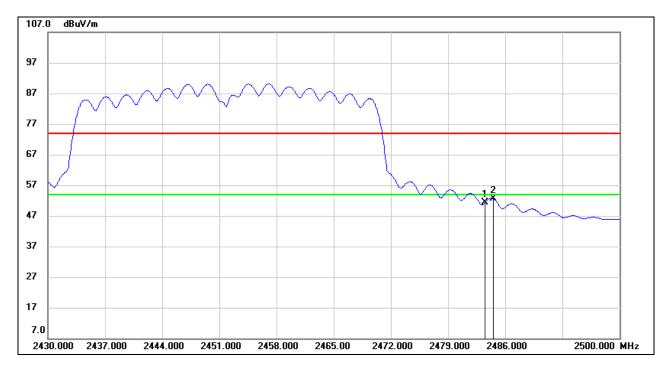
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	34.74	33.71	68.45	74.00	-5.55	peak
2	2484.530	39.55	33.71	73.26	74.00	-0.74	peak

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	17.68	33.71	51.39	54.00	-2.61	AVG
2	2484.540	18.82	33.71	52.53	54.00	-1.47	AVG

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. Peak: Peak detector.
- 3. Only the worst data was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

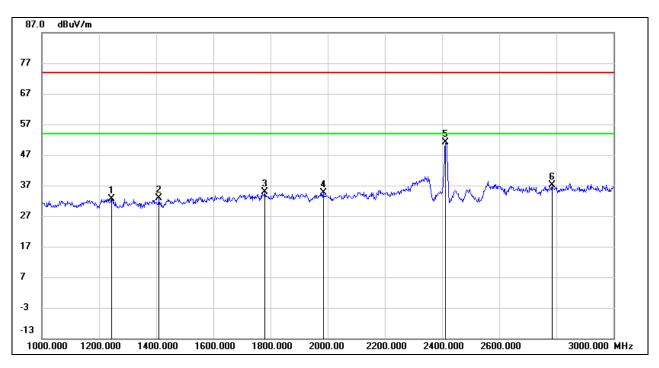
Note: Horizontal and Vertical have been tested, only the worst data was recorded in the report.



8.2. SPURIOUS EMISSIONS (1 GHz ~ 3 GHz)

8.2.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)

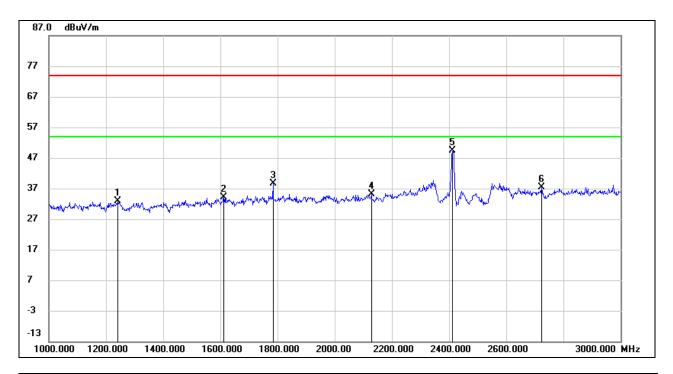


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1244.000	45.64	-12.93	32.71	74.00	-41.29	peak
2	1410.000	45.62	-12.66	32.96	74.00	-41.04	peak
3	1780.000	45.01	-10.20	34.81	74.00	-39.19	peak
4	1984.000	44.87	-10.18	34.69	74.00	-39.31	peak
5	2412.000	59.59	-8.37	51.22	/	/	Fundamental
6	2784.000	43.83	-6.66	37.17	74.00	-36.83	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)

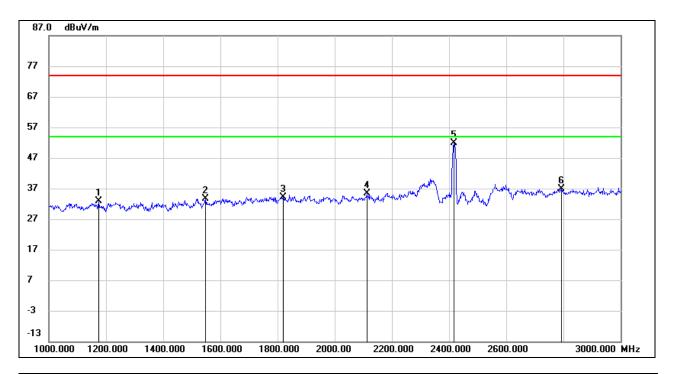


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1242.000	45.76	-12.93	32.83	74.00	-41.17	peak
2	1612.000	45.70	-11.46	34.24	74.00	-39.76	peak
3	1784.000	48.68	-10.16	38.52	74.00	-35.48	peak
4	2128.000	44.62	-9.46	35.16	74.00	-38.84	peak
5	2412.000	57.76	-8.37	49.39	/	/	Fundamental
6	2724.000	44.42	-7.04	37.38	74.00	-36.62	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, HORIZONTAL)

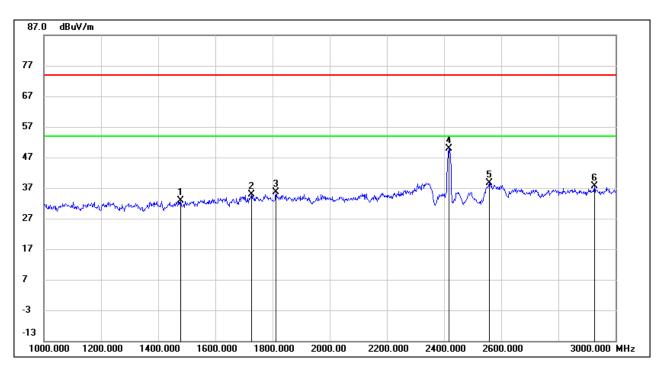


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1174.000	45.90	-13.13	32.77	74.00	-41.23	peak
2	1548.000	45.53	-11.91	33.62	74.00	-40.38	peak
3	1820.000	44.27	-10.06	34.21	74.00	-39.79	peak
4	2112.000	44.90	-9.55	35.35	74.00	-38.65	peak
5	2417.000	60.29	-8.37	51.92	/	/	Fundamental
6	2794.000	43.39	-6.59	36.80	74.00	-37.20	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, VERTICAL)

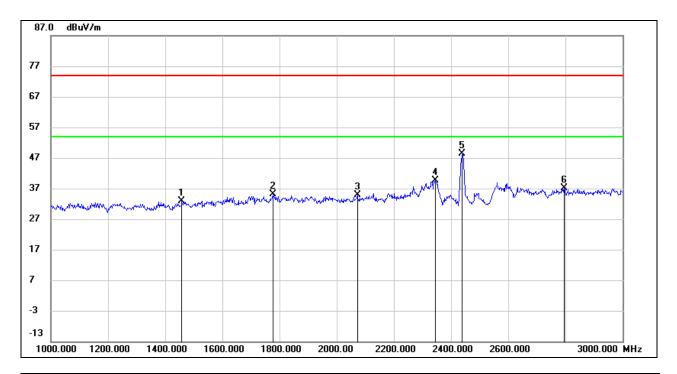


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1478.000	45.24	-12.33	32.91	74.00	-41.09	peak
2	1726.000	45.40	-10.60	34.80	74.00	-39.20	peak
3	1812.000	45.56	-10.05	35.51	74.00	-38.49	peak
4	2417.000	58.35	-8.37	49.98	/	/	Fundamental
5	2558.000	46.63	-8.01	38.62	74.00	-35.38	peak
6	2926.000	43.55	-5.95	37.60	74.00	-36.40	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)

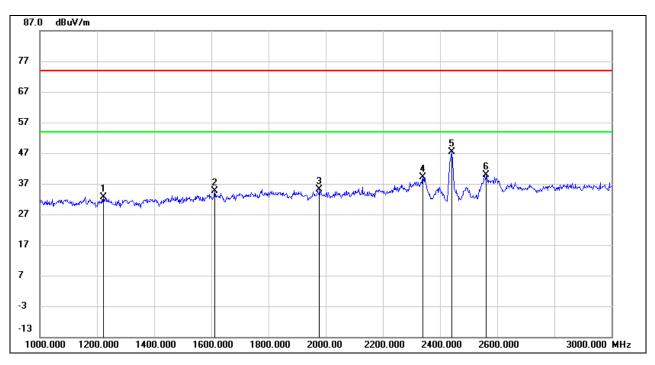


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1458.000	45.41	-12.44	32.97	74.00	-41.03	peak
2	1776.000	45.30	-10.22	35.08	74.00	-38.92	peak
3	2072.000	44.54	-9.78	34.76	74.00	-39.24	peak
4	2344.000	48.28	-8.58	39.70	74.00	-34.30	peak
5	2437.000	56.62	-8.33	48.29	/	/	Fundamental
6	2796.000	43.59	-6.58	37.01	74.00	-36.99	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)

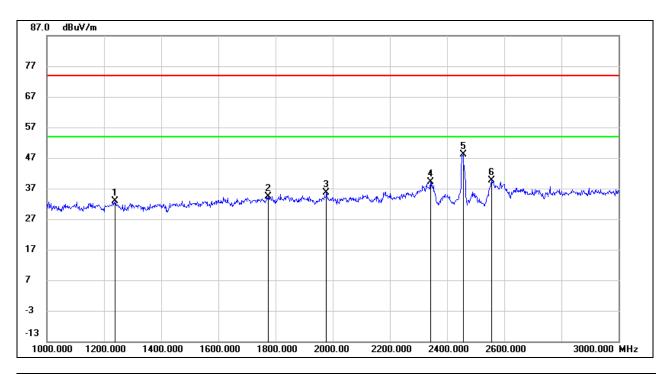


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1222.000	45.64	-12.96	32.68	74.00	-41.32	peak
2	1612.000	46.09	-11.46	34.63	74.00	-39.37	peak
3	1978.000	45.33	-10.18	35.15	74.00	-38.85	peak
4	2340.000	47.82	-8.59	39.23	74.00	-34.77	peak
5	2437.000	55.72	-8.32	47.40	/	/	Fundamental
6	2562.000	47.92	-8.00	39.92	74.00	-34.08	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, HORIZONTAL)

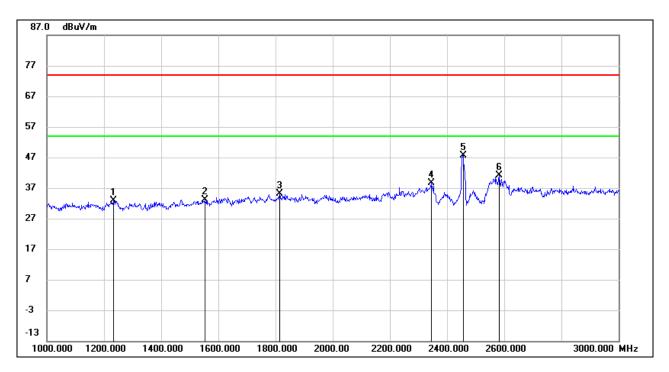


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1238.000	45.78	-12.94	32.84	74.00	-41.16	peak
2	1774.000	44.60	-10.24	34.36	74.00	-39.64	peak
3	1978.000	45.73	-10.18	35.55	74.00	-38.45	peak
4	2342.000	47.72	-8.58	39.14	74.00	-34.86	peak
5	2457.000	56.37	-8.30	48.07	/	/	Fundamental
6	2556.000	47.65	-8.03	39.62	74.00	-34.38	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, VERTICAL)

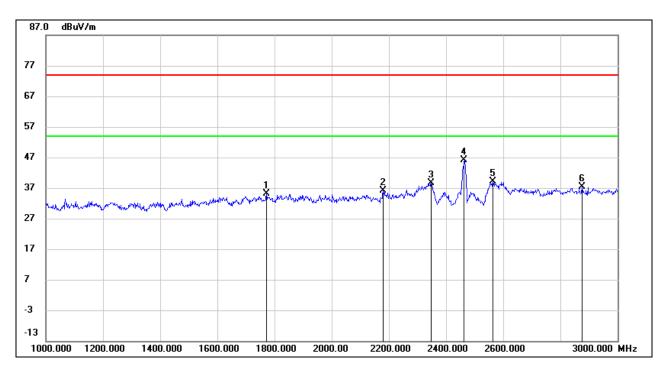


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1234.000	45.78	-12.95	32.83	74.00	-41.17	peak
2	1552.000	45.07	-11.88	33.19	74.00	-40.81	peak
3	1814.000	45.18	-10.06	35.12	74.00	-38.88	peak
4	2344.000	47.21	-8.58	38.63	74.00	-35.37	peak
5	2457.000	55.92	-8.30	47.62	/	/	Fundamental
6	2582.000	49.04	-7.92	41.12	74.00	-32.88	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)

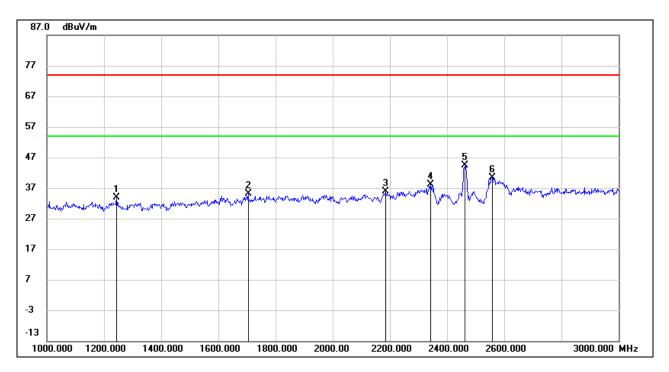


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1772.000	45.51	-10.26	35.25	74.00	-38.75	peak
2	2180.000	45.37	-9.17	36.20	74.00	-37.80	peak
3	2348.000	47.30	-8.57	38.73	74.00	-35.27	peak
4	2462.000	54.48	-8.29	46.19	/	/	Fundamental
5	2564.000	47.02	-7.99	39.03	74.00	-34.97	peak
6	2876.000	43.69	-6.19	37.50	74.00	-36.50	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1244.000	46.71	-12.93	33.78	74.00	-40.22	peak
2	1704.000	45.86	-10.77	35.09	74.00	-38.91	peak
3	2184.000	44.99	-9.14	35.85	74.00	-38.15	peak
4	2342.000	46.63	-8.58	38.05	74.00	-35.95	peak
5	2462.000	52.71	-8.29	44.42	/	/	Fundamental
6	2558.000	48.49	-8.01	40.48	74.00	-33.52	peak

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

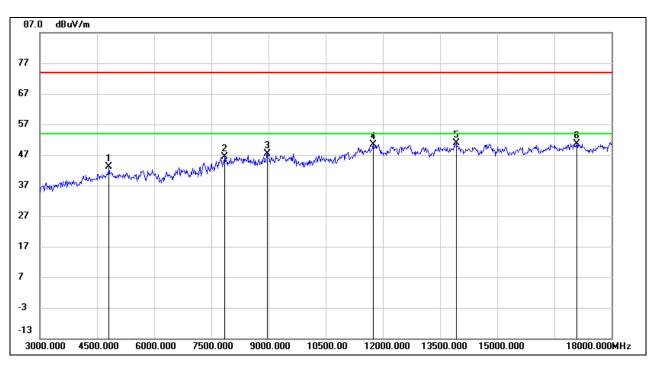
Note: All modes and channels have been tested, only the worst data was recorded in the report.



8.3. SPURIOUS EMISSIONS (3 GHz ~ 18 GHz)

8.3.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)

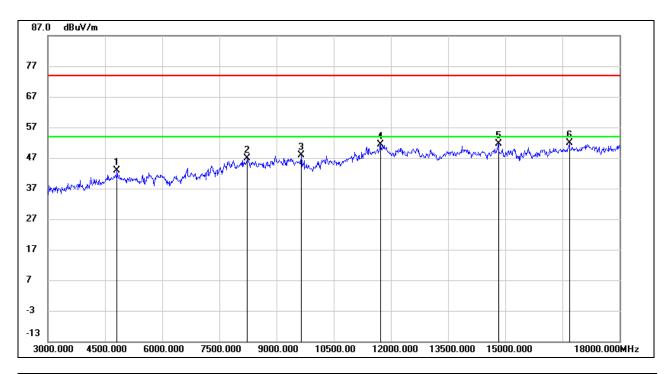


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	42.60	0.61	43.21	74.00	-30.79	peak
2	7845.000	38.30	8.12	46.42	74.00	-27.58	peak
3	8970.000	37.08	10.32	47.40	74.00	-26.60	peak
4	11745.000	35.19	15.31	50.50	74.00	-23.50	peak
5	13920.000	33.99	16.89	50.88	74.00	-23.12	peak
6	17085.000	30.12	20.58	50.70	74.00	-23.30	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)

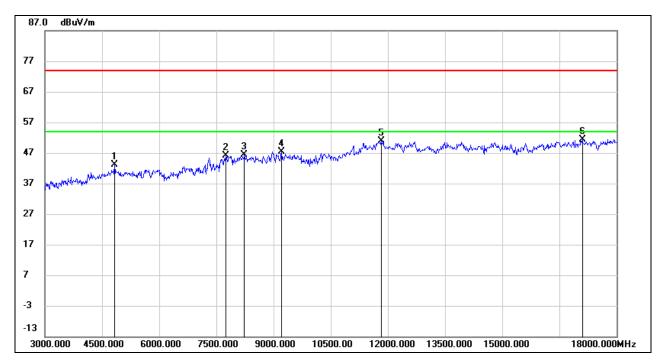


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	42.35	0.61	42.96	74.00	-31.04	peak
2	8235.000	37.54	9.22	46.76	74.00	-27.24	peak
3	9645.000	37.52	10.36	47.88	74.00	-26.12	peak
4	11730.000	36.07	15.23	51.30	74.00	-22.70	peak
5	14820.000	34.70	16.81	51.51	74.00	-22.49	peak
6	16680.000	32.23	19.61	51.84	74.00	-22.16	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, HORIZONTAL)

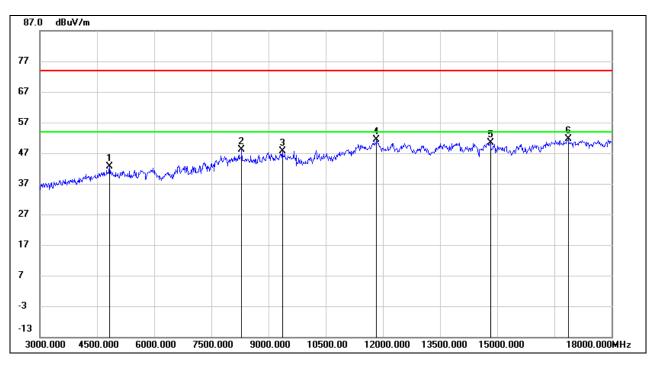


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4830.000	42.58	0.64	43.22	74.00	-30.78	peak
2	7755.000	37.98	8.07	46.05	74.00	-27.95	peak
3	8235.000	37.06	9.22	46.28	74.00	-27.72	peak
4	9210.000	38.07	9.34	47.41	74.00	-26.59	peak
5	11820.000	35.27	15.58	50.85	74.00	-23.15	peak
6	17100.000	30.64	20.64	51.28	74.00	-22.72	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, VERTICAL)

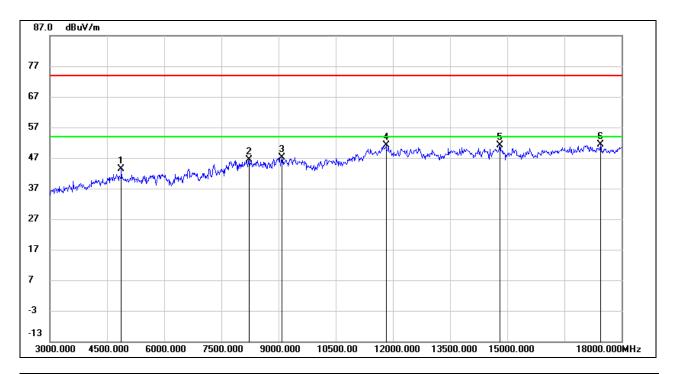


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4830.000	41.89	0.64	42.53	74.00	-31.47	peak
2	8295.000	39.16	8.99	48.15	74.00	-25.85	peak
3	9360.000	37.64	10.11	47.75	74.00	-26.25	peak
4	11835.000	35.72	15.56	51.28	74.00	-22.72	peak
5	14820.000	33.56	16.81	50.37	74.00	-23.63	peak
6	16860.000	31.65	19.88	51.53	74.00	-22.47	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)

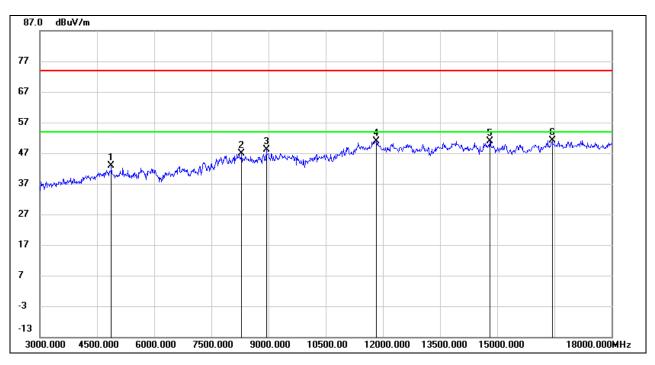


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	42.63	0.71	43.34	74.00	-30.66	peak
2	8220.000	37.07	9.29	46.36	74.00	-27.64	peak
3	9090.000	37.05	10.03	47.08	74.00	-26.92	peak
4	11820.000	35.56	15.58	51.14	74.00	-22.86	peak
5	14805.000	34.36	16.80	51.16	74.00	-22.84	peak
6	17445.000	30.56	20.78	51.34	74.00	-22.66	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)

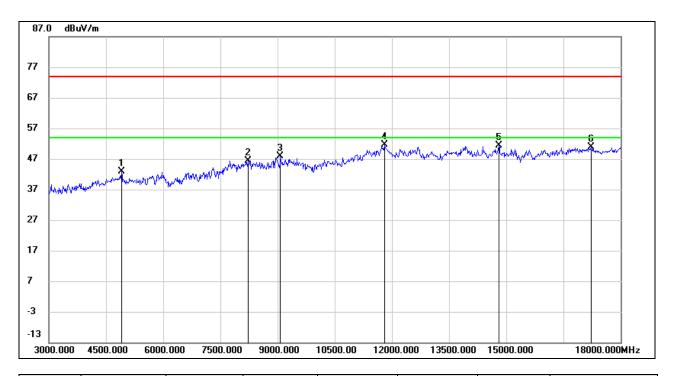


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	42.11	0.71	42.82	74.00	-31.18	peak
2	8295.000	37.90	8.99	46.89	74.00	-27.11	peak
3	8940.000	38.07	9.99	48.06	74.00	-25.94	peak
4	11835.000	35.29	15.56	50.85	74.00	-23.15	peak
5	14805.000	34.15	16.80	50.95	74.00	-23.05	peak
6	16440.000	32.29	18.87	51.16	74.00	-22.84	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, HORIZONTAL)

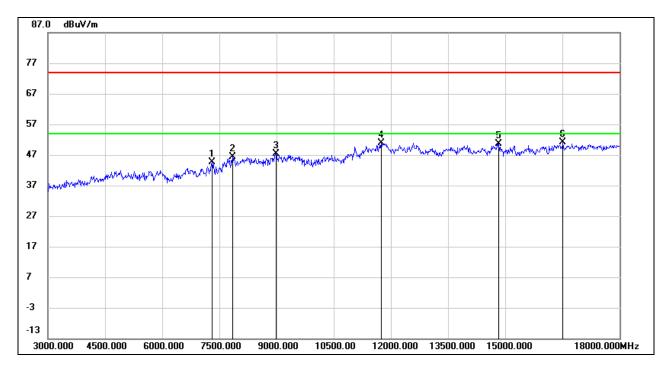


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4905.000	42.06	0.75	42.81	74.00	-31.19	peak
2	8220.000	37.07	9.29	46.36	74.00	-27.64	peak
3	9075.000	37.69	10.13	47.82	74.00	-26.18	peak
4	11805.000	36.10	15.60	51.70	74.00	-22.30	peak
5	14805.000	34.66	16.80	51.46	74.00	-22.54	peak
6	17220.000	29.79	21.01	50.80	74.00	-23.20	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, VERTICAL)

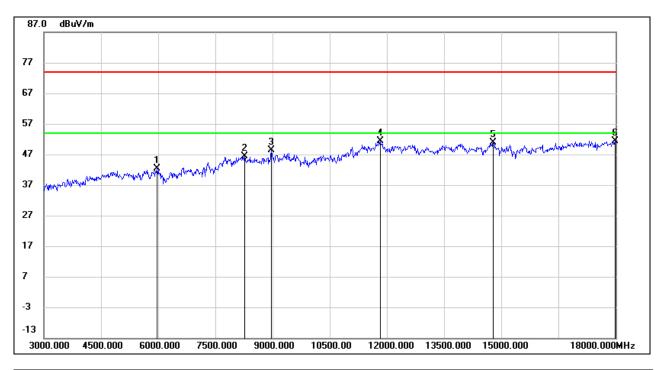


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	7305.000	37.18	7.37	44.55	74.00	-29.45	peak
2	7845.000	38.16	8.12	46.28	74.00	-27.72	peak
3	8985.000	36.85	10.47	47.32	74.00	-26.68	peak
4	11745.000	35.58	15.31	50.89	74.00	-23.11	peak
5	14835.000	33.85	16.81	50.66	74.00	-23.34	peak
6	16515.000	31.92	19.19	51.11	74.00	-22.89	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)

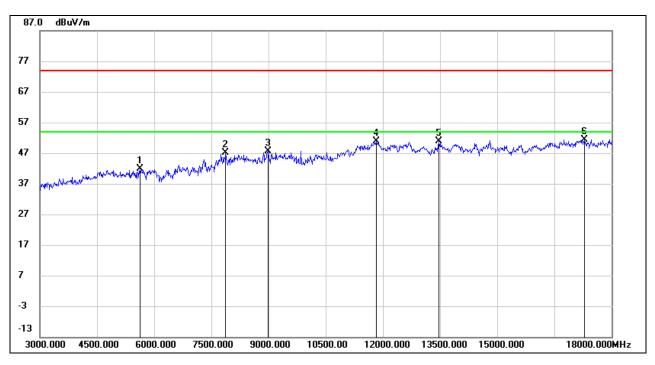


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5970.000	39.11	3.18	42.29	74.00	-31.71	peak
2	8265.000	37.16	9.11	46.27	74.00	-27.73	peak
3	8970.000	37.98	10.32	48.30	74.00	-25.70	peak
4	11820.000	35.82	15.58	51.40	74.00	-22.60	peak
5	14790.000	34.19	16.78	50.97	74.00	-23.03	peak
6	17985.000	28.78	22.67	51.45	74.00	-22.55	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5625.000	39.38	2.46	41.84	74.00	-32.16	peak
2	7875.000	39.15	8.03	47.18	74.00	-26.82	peak
3	8985.000	37.21	10.47	47.68	74.00	-26.32	peak
4	11820.000	35.41	15.58	50.99	74.00	-23.01	peak
5	13470.000	34.46	16.38	50.84	74.00	-23.16	peak
6	17280.000	30.53	20.92	51.45	74.00	-22.55	peak

Note: 1. Measurement = Reading Level + Correct Factor.

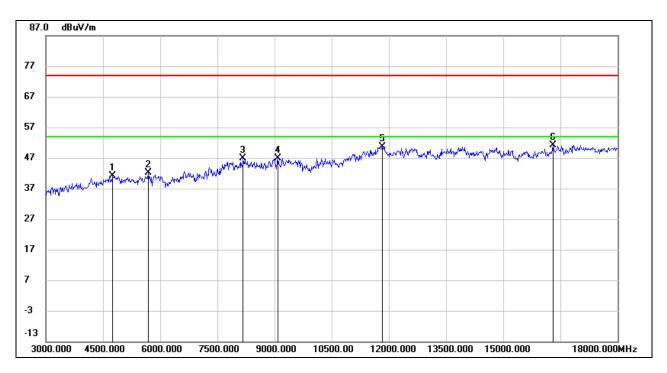
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: Both the two antennas had been tested, but only the worst data was recorded in the report.



8.3.2. 802.1g MODE

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)

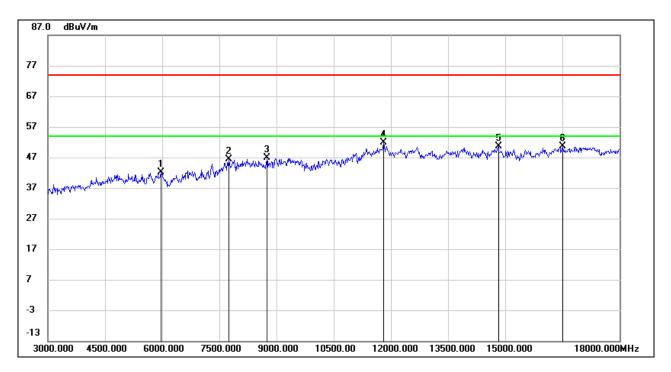


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4740.000	40.87	0.25	41.12	74.00	-32.88	peak
2	5685.000	39.58	2.47	42.05	74.00	-31.95	peak
3	8175.000	37.83	9.14	46.97	74.00	-27.03	peak
4	9090.000	36.97	10.03	47.00	74.00	-27.00	peak
5	11820.000	35.17	15.58	50.75	74.00	-23.25	peak
6	16305.000	32.85	18.30	51.15	74.00	-22.85	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)

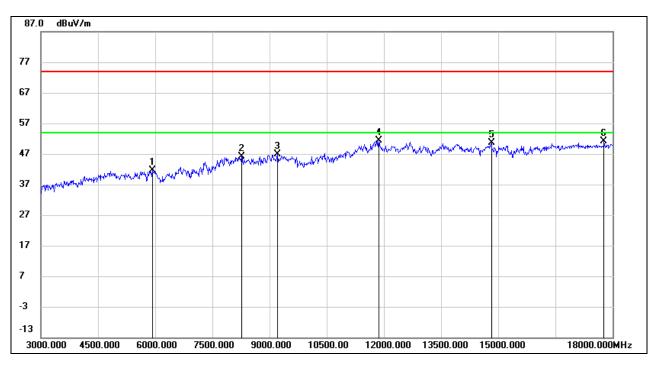


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5970.000	38.83	3.18	42.01	74.00	-31.99	peak
2	7755.000	38.36	8.07	46.43	74.00	-27.57	peak
3	8745.000	38.30	8.53	46.83	74.00	-27.17	peak
4	11805.000	36.22	15.60	51.82	74.00	-22.18	peak
5	14820.000	33.84	16.81	50.65	74.00	-23.35	peak
6	16515.000	31.50	19.19	50.69	74.00	-23.31	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, HORIZONTAL)

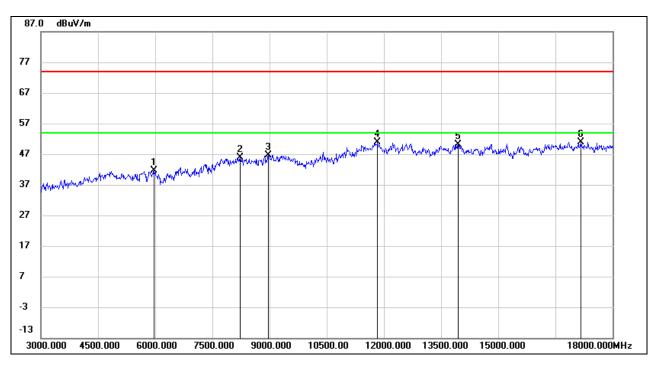


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5925.000	38.65	3.01	41.66	74.00	-32.34	peak
2	8265.000	36.98	9.11	46.09	74.00	-27.91	peak
3	9210.000	37.51	9.34	46.85	74.00	-27.15	peak
4	11865.000	35.80	15.52	51.32	74.00	-22.68	peak
5	14820.000	33.71	16.81	50.52	74.00	-23.48	peak
6	17775.000	28.63	22.53	51.16	74.00	-22.84	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, VERTICAL)

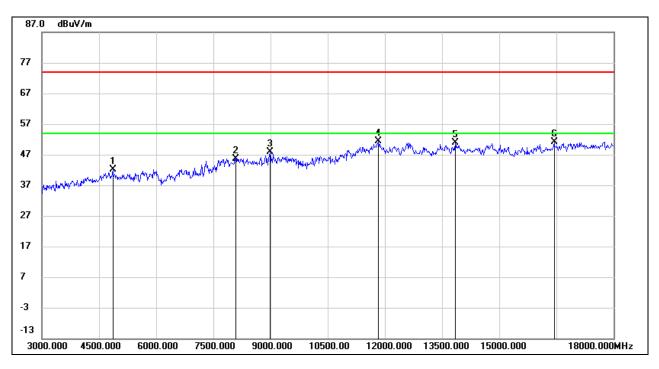


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5970.000	38.47	3.18	41.65	74.00	-32.35	peak
2	8220.000	36.65	9.29	45.94	74.00	-28.06	peak
3	8970.000	36.36	10.32	46.68	74.00	-27.32	peak
4	11835.000	35.23	15.56	50.79	74.00	-23.21	peak
5	13950.000	33.37	16.88	50.25	74.00	-23.75	peak
6	17160.000	30.11	20.88	50.99	74.00	-23.01	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)

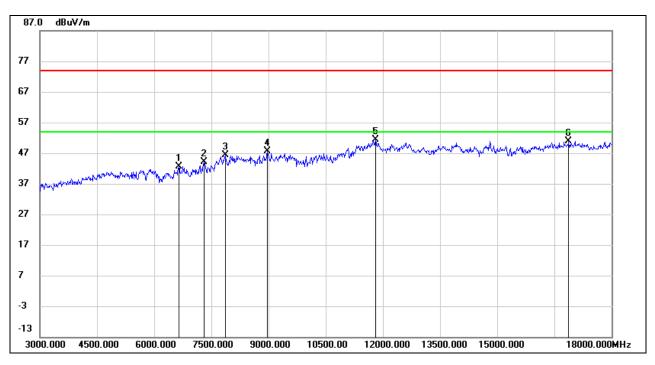


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4860.000	41.43	0.68	42.11	74.00	-31.89	peak
2	8085.000	37.25	8.38	45.63	74.00	-28.37	peak
3	8985.000	37.34	10.47	47.81	74.00	-26.19	peak
4	11835.000	35.80	15.56	51.36	74.00	-22.64	peak
5	13845.000	33.94	16.93	50.87	74.00	-23.13	peak
6	16440.000	32.36	18.87	51.23	74.00	-22.77	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)

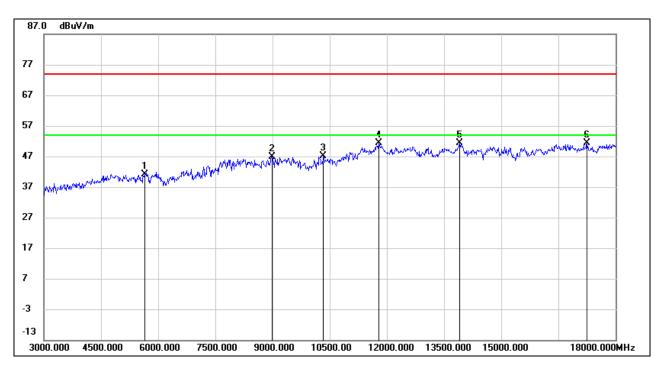


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	6645.000	37.12	5.51	42.63	74.00	-31.37	peak
2	7305.000	36.65	7.37	44.02	74.00	-29.98	peak
3	7860.000	38.25	8.07	46.32	74.00	-27.68	peak
4	8970.000	37.20	10.32	47.52	74.00	-26.48	peak
5	11805.000	35.71	15.60	51.31	74.00	-22.69	peak
6	16875.000	30.87	19.92	50.79	74.00	-23.21	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, HORIZONTAL)

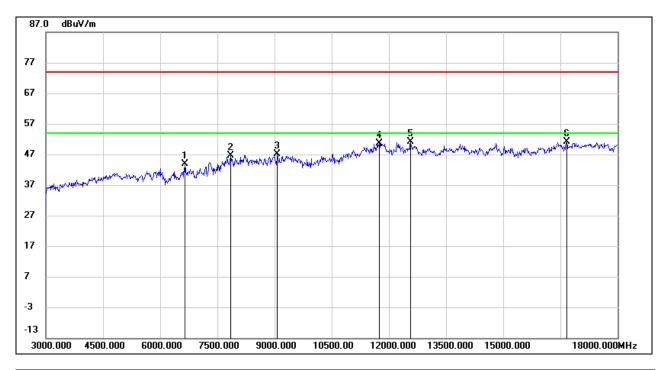


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5655.000	38.68	2.47	41.15	74.00	-32.85	peak
2	8985.000	36.51	10.47	46.98	74.00	-27.02	peak
3	10335.000	35.94	11.22	47.16	74.00	-26.84	peak
4	11790.000	35.83	15.56	51.39	74.00	-22.61	peak
5	13905.000	34.53	16.90	51.43	74.00	-22.57	peak
6	17250.000	30.31	20.97	51.28	74.00	-22.72	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, VERTICAL)

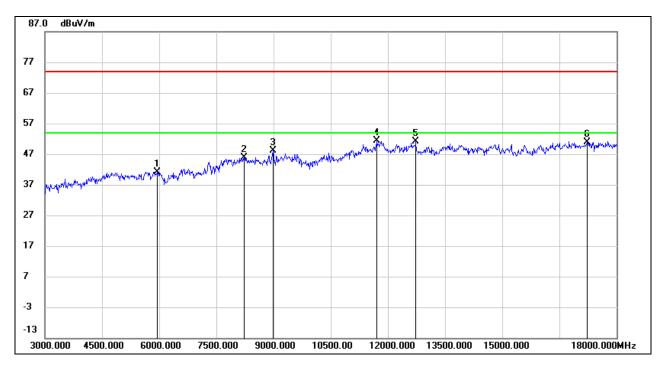


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	6645.000	38.32	5.51	43.83	74.00	-30.17	peak
2	7845.000	38.53	8.12	46.65	74.00	-27.35	peak
3	9075.000	37.02	10.13	47.15	74.00	-26.85	peak
4	11745.000	35.22	15.31	50.53	74.00	-23.47	peak
5	12570.000	35.80	15.31	51.11	74.00	-22.89	peak
6	16665.000	31.44	19.60	51.04	74.00	-22.96	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)

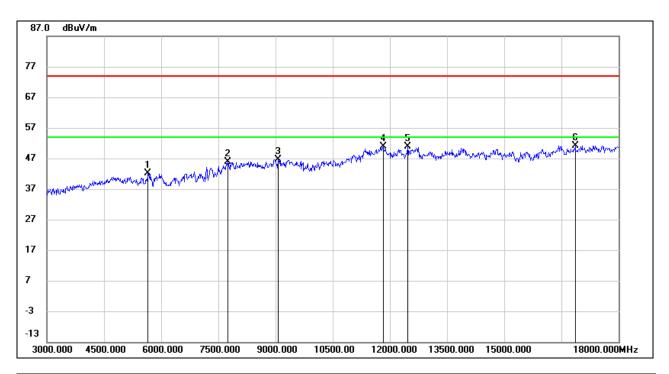


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5955.000	38.09	3.13	41.22	74.00	-32.78	peak
2	8220.000	36.71	9.29	46.00	74.00	-28.00	peak
3	8985.000	37.64	10.47	48.11	74.00	-25.89	peak
4	11715.000	36.12	15.15	51.27	74.00	-22.73	peak
5	12735.000	35.66	15.53	51.19	74.00	-22.81	peak
6	17235.000	30.01	20.99	51.00	74.00	-23.00	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



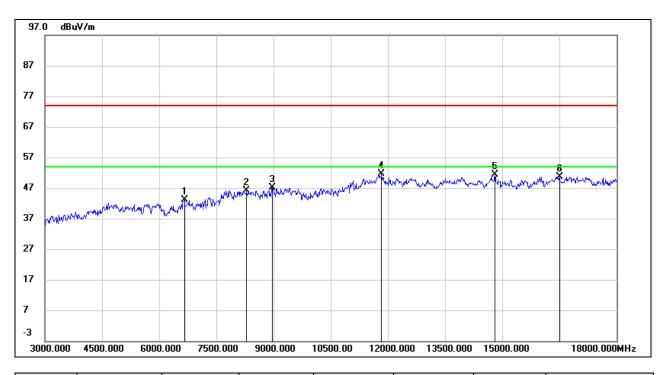
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5655.000	39.56	2.47	42.03	74.00	-31.97	peak
2	7755.000	37.90	8.07	45.97	74.00	-28.03	peak
3	9075.000	36.48	10.13	46.61	74.00	-27.39	peak
4	11820.000	35.18	15.58	50.76	74.00	-23.24	peak
5	12465.000	35.40	15.42	50.82	74.00	-23.18	peak
6	16860.000	31.35	19.88	51.23	74.00	-22.77	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



8.3.3. 802.11n HT20 MODE

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, HORIZONTAL)

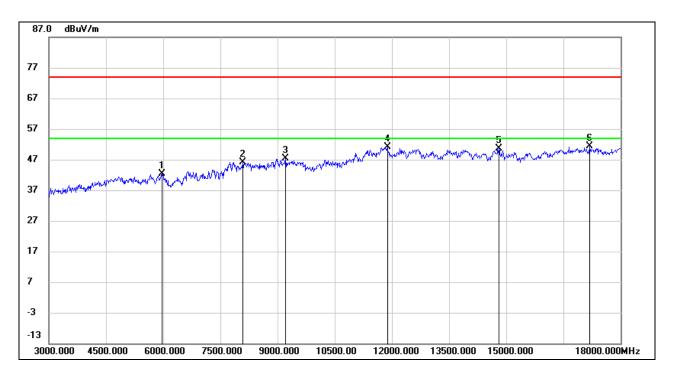


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	6660.000	37.61	5.52	43.13	74.00	-30.87	peak
2	8295.000	37.22	8.99	46.21	74.00	-27.79	peak
3	8970.000	36.89	10.32	47.21	74.00	-26.79	peak
4	11835.000	36.01	15.56	51.57	74.00	-22.43	peak
5	14805.000	34.69	16.80	51.49	74.00	-22.51	peak
6	16500.000	31.63	19.12	50.75	74.00	-23.25	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 1, VERTICAL)

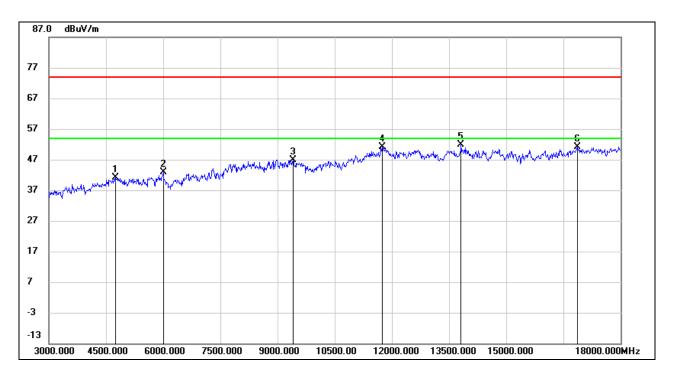


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5970.000	39.11	3.18	42.29	74.00	-31.71	peak
2	8085.000	37.85	8.38	46.23	74.00	-27.77	peak
3	9210.000	37.98	9.34	47.32	74.00	-26.68	peak
4	11880.000	35.59	15.49	51.08	74.00	-22.92	peak
5	14805.000	33.83	16.80	50.63	74.00	-23.37	peak
6	17190.000	30.32	21.00	51.32	74.00	-22.68	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, HORIZONTAL)

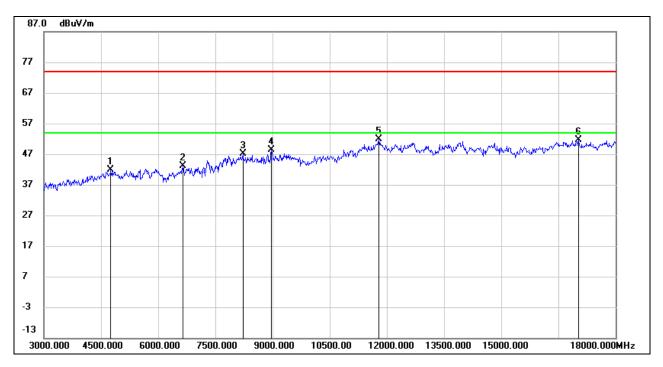


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4755.000	40.73	0.33	41.06	74.00	-32.94	peak
2	6000.000	39.48	3.30	42.78	74.00	-31.22	peak
3	9405.000	36.53	10.32	46.85	74.00	-27.15	peak
4	11745.000	35.71	15.31	51.02	74.00	-22.98	peak
5	13815.000	34.87	16.94	51.81	74.00	-22.19	peak
6	16860.000	31.17	19.88	51.05	74.00	-22.95	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 2, VERTICAL)

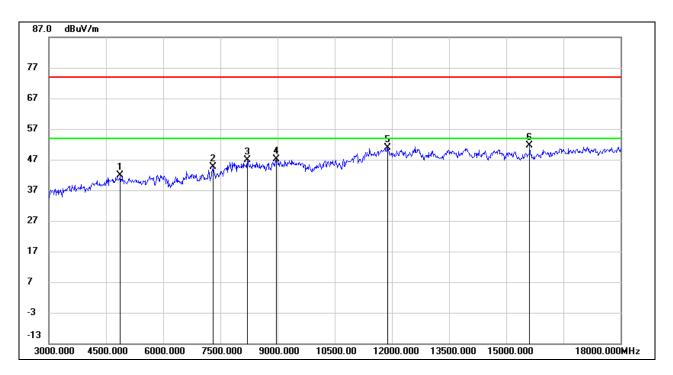


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4755.000	41.59	0.33	41.92	74.00	-32.08	peak
2	6645.000	37.50	5.51	43.01	74.00	-30.99	peak
3	8220.000	37.82	9.29	47.11	74.00	-26.89	peak
4	8970.000	38.14	10.32	48.46	74.00	-25.54	peak
5	11790.000	36.31	15.56	51.87	74.00	-22.13	peak
6	17025.000	31.23	20.33	51.56	74.00	-22.44	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)

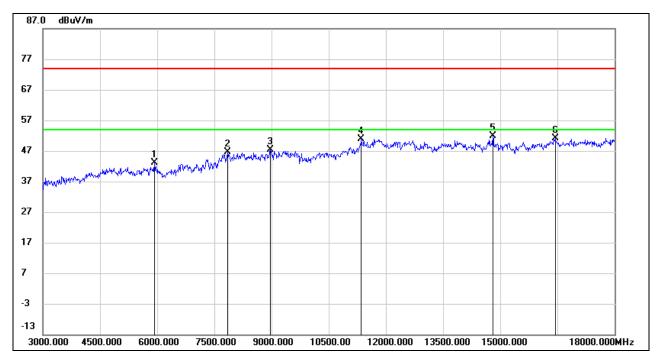


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	41.19	0.71	41.90	74.00	-32.10	peak
2	7305.000	37.16	7.37	44.53	74.00	-29.47	peak
3	8205.000	37.51	9.34	46.85	74.00	-27.15	peak
4	8970.000	36.80	10.32	47.12	74.00	-26.88	peak
5	11880.000	35.39	15.49	50.88	74.00	-23.12	peak
6	15615.000	34.89	16.71	51.60	74.00	-22.40	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)

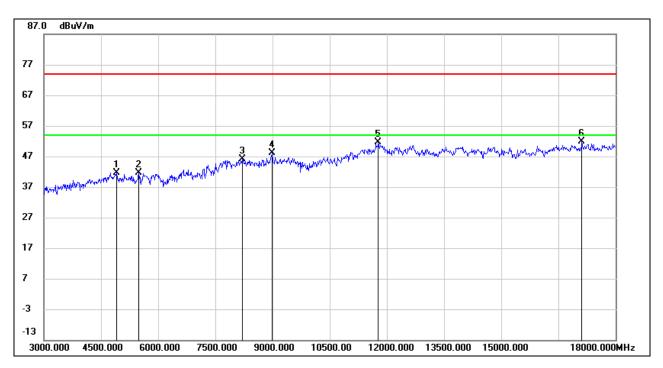


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5925.000	40.11	3.01	43.12	74.00	-30.88	peak
2	7845.000	38.39	8.12	46.51	74.00	-27.49	peak
3	8970.000	36.97	10.32	47.29	74.00	-26.71	peak
4	11355.000	36.79	14.08	50.87	74.00	-23.13	peak
5	14805.000	35.16	16.80	51.96	74.00	-22.04	peak
6	16440,000	32 30	18 87	51.17	74 00	-22 83	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, HORIZONTAL)

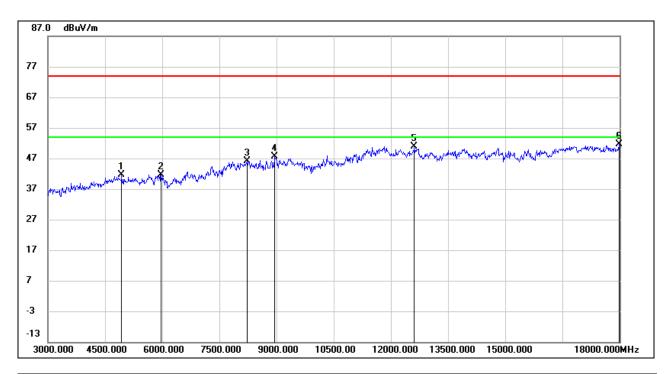


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4905.000	40.88	0.75	41.63	74.00	-32.37	peak
2	5490.000	39.38	2.14	41.52	74.00	-32.48	peak
3	8205.000	36.86	9.34	46.20	74.00	-27.80	peak
4	8985.000	37.69	10.47	48.16	74.00	-25.84	peak
5	11775.000	36.08	15.47	51.55	74.00	-22.45	peak
6	17115.000	31.07	20.69	51.76	74.00	-22.24	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 10, VERTICAL)

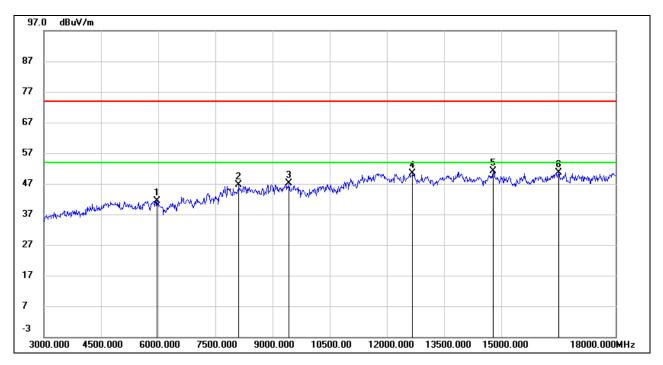


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4935.000	40.84	0.80	41.64	74.00	-32.36	peak
2	5970.000	38.52	3.18	41.70	74.00	-32.30	peak
3	8220.000	36.77	9.29	46.06	74.00	-27.94	peak
4	8955.000	37.40	10.15	47.55	74.00	-26.45	peak
5	12615.000	35.67	15.31	50.98	74.00	-23.02	peak
6	17985.000	28.85	22.67	51.52	74.00	-22.48	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, HORIZONTAL)

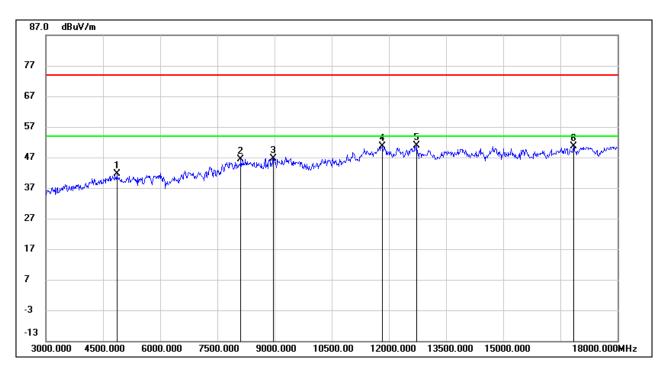


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5970.000	38.23	3.18	41.41	74.00	-32.59	peak
2	8115.000	38.10	8.64	46.74	74.00	-27.26	peak
3	9435.000	36.71	10.36	47.07	74.00	-26.93	peak
4	12675.000	34.87	15.42	50.29	74.00	-23.71	peak
5	14790.000	34.33	16.78	51.11	74.00	-22.89	peak
6	16515.000	31.41	19.19	50.60	74.00	-23.40	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 11, VERTICAL)



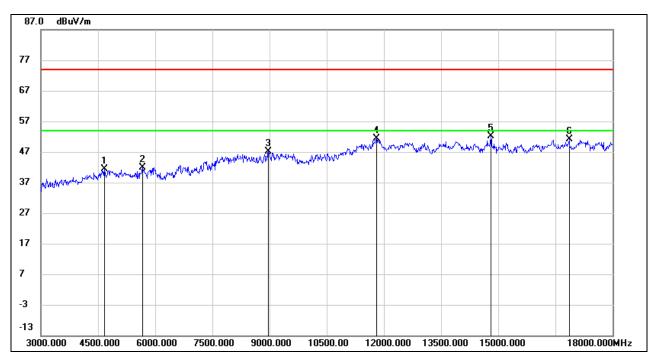
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4860.000	40.90	0.68	41.58	74.00	-32.42	peak
2	8115.000	37.70	8.64	46.34	74.00	-27.66	peak
3	8970.000	36.30	10.32	46.62	74.00	-27.38	peak
4	11835.000	34.99	15.56	50.55	74.00	-23.45	peak
5	12735.000	35.29	15.53	50.82	74.00	-23.18	peak
6	16845.000	30.77	19.85	50.62	74.00	-23.38	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



8.3.4. 802.11n HT40 MODE

HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 3, HORIZONTAL)

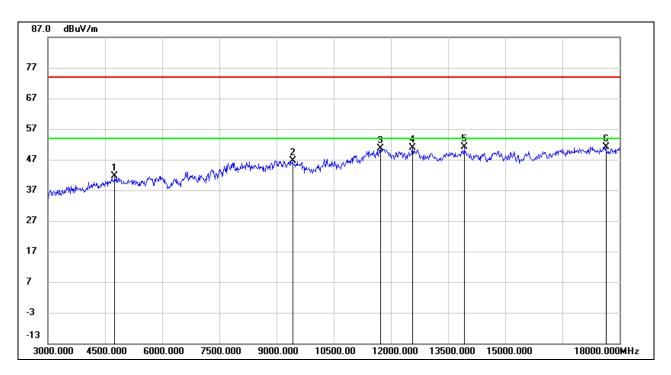


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4665.000	41.65	-0.20	41.45	74.00	-32.55	peak
2	5670.000	39.38	2.47	41.85	74.00	-32.15	peak
3	8970.000	36.70	10.32	47.02	74.00	-26.98	peak
4	11805.000	35.66	15.60	51.26	74.00	-22.74	peak
5	14805.000	35.34	16.80	52.14	74.00	-21.86	peak
6	16860.000	31.23	19.88	51.11	74.00	-22.89	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 3, VERTICAL)

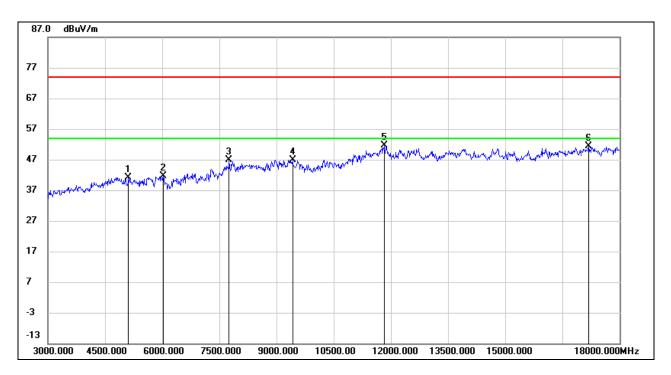


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4755.000	41.35	0.33	41.68	74.00	-32.32	peak
2	9420.000	36.27	10.34	46.61	74.00	-27.39	peak
3	11730.000	35.31	15.23	50.54	74.00	-23.46	peak
4	12570.000	35.56	15.31	50.87	74.00	-23.13	peak
5	13920.000	34.35	16.89	51.24	74.00	-22.76	peak
6	17640.000	29.64	21.48	51.12	74.00	-22.88	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 4, HORIZONTAL)

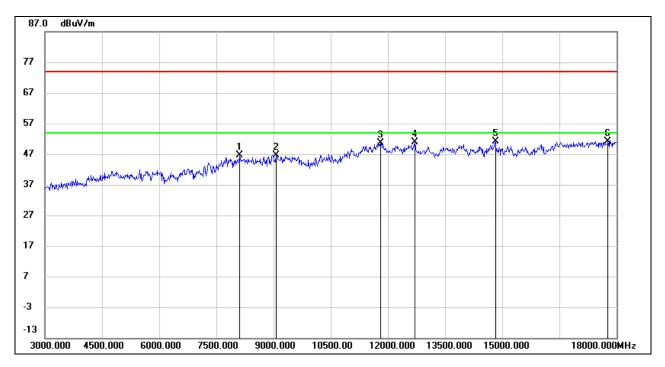


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5115.000	39.62	1.60	41.22	74.00	-32.78	peak
2	6030.000	38.41	3.30	41.71	74.00	-32.29	peak
3	7755.000	38.76	8.07	46.83	74.00	-27.17	peak
4	9420.000	36.55	10.34	46.89	74.00	-27.11	peak
5	11835.000	36.03	15.56	51.59	74.00	-22.41	peak
6	17190.000	30.41	21.00	51.41	74.00	-22.59	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 4, VERTICAL)

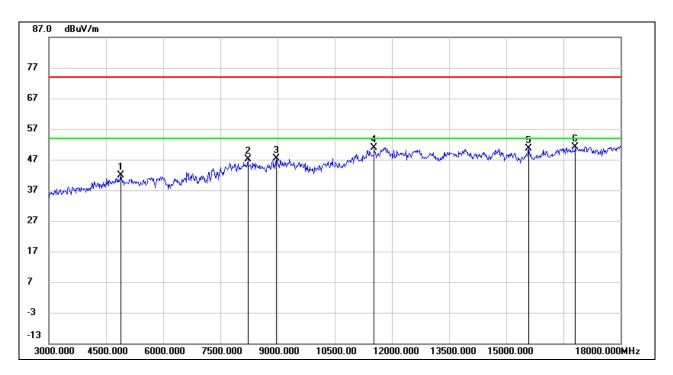


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	8115.000	38.07	8.64	46.71	74.00	-27.29	peak
2	9075.000	36.62	10.13	46.75	74.00	-27.25	peak
3	11805.000	35.06	15.60	50.66	74.00	-23.34	peak
4	12705.000	35.29	15.48	50.77	74.00	-23.23	peak
5	14820.000	34.40	16.81	51.21	74.00	-22.79	peak
6	17775.000	28.59	22.53	51.12	74.00	-22.88	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, HORIZONTAL)

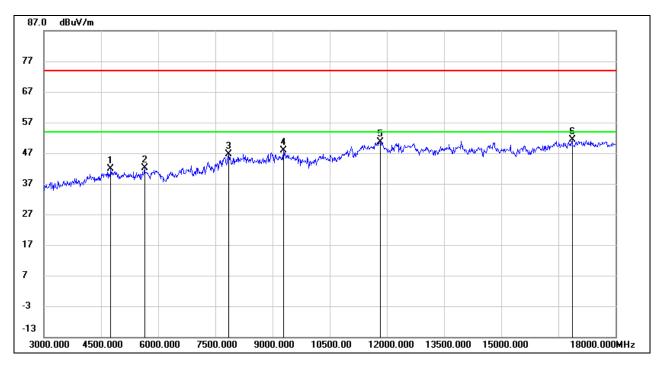


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4890.000	41.17	0.73	41.90	74.00	-32.10	peak
2	8220.000	37.92	9.29	47.21	74.00	-26.79	peak
3	8970.000	37.01	10.32	47.33	74.00	-26.67	peak
4	11535.000	36.52	14.40	50.92	74.00	-23.08	peak
5	15585.000	34.07	16.66	50.73	74.00	-23.27	peak
6	16815.000	31.28	19.78	51.06	74.00	-22.94	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 6, VERTICAL)

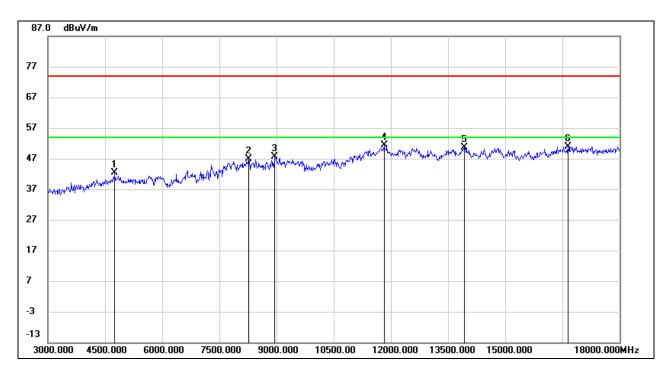


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4755.000	41.50	0.33	41.83	74.00	-32.17	peak
2	5640.000	39.68	2.47	42.15	74.00	-31.85	peak
3	7845.000	38.49	8.12	46.61	74.00	-27.39	peak
4	9285.000	38.22	9.72	47.94	74.00	-26.06	peak
5	11820.000	35.12	15.58	50.70	74.00	-23.30	peak
6	16860.000	31.61	19.88	51.49	74.00	-22.51	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 8, HORIZONTAL)

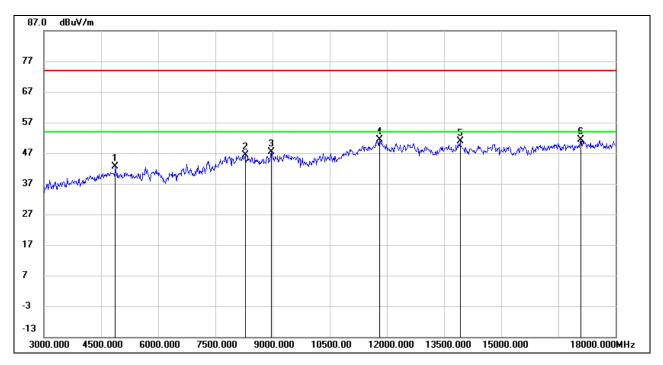


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4755.000	42.01	0.33	42.34	74.00	-31.66	peak
2	8265.000	37.65	9.11	46.76	74.00	-27.24	peak
3	8955.000	37.49	10.15	47.64	74.00	-26.36	peak
4	11820.000	35.73	15.58	51.31	74.00	-22.69	peak
5	13920.000	33.72	16.89	50.61	74.00	-23.39	peak
6	16650.000	31.28	19.58	50.86	74.00	-23.14	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 8, VERTICAL)

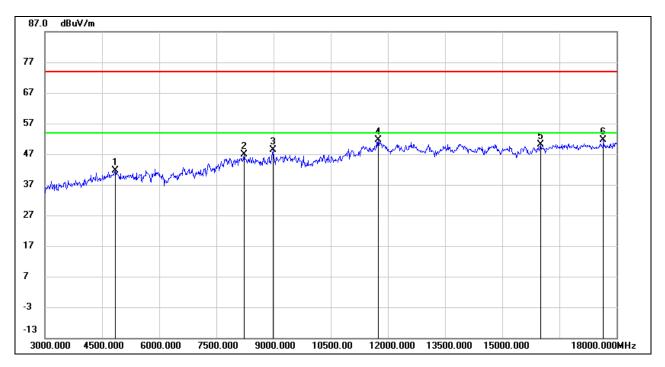


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	42.02	0.71	42.73	74.00	-31.27	peak
2	8280.000	37.36	9.05	46.41	74.00	-27.59	peak
3	8970.000	37.05	10.32	47.37	74.00	-26.63	peak
4	11805.000	35.66	15.60	51.26	74.00	-22.74	peak
5	13920.000	34.03	16.89	50.92	74.00	-23.08	peak
6	17085.000	30.84	20.58	51.42	74.00	-22.58	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 9, HORIZONTAL)

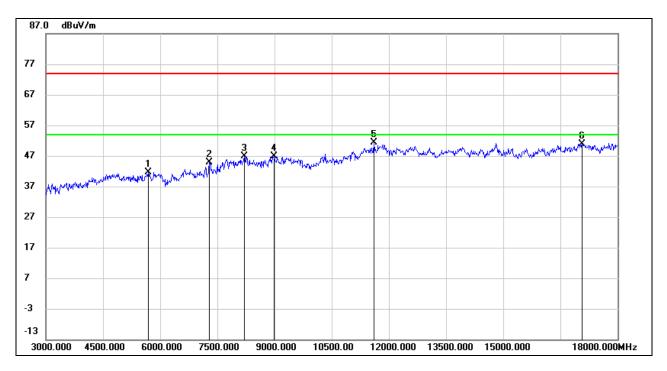


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4845.000	41.08	0.66	41.74	74.00	-32.26	peak
2	8220.000	37.69	9.29	46.98	74.00	-27.02	peak
3	8985.000	37.79	10.47	48.26	74.00	-25.74	peak
4	11745.000	36.26	15.31	51.57	74.00	-22.43	peak
5	16005.000	32.90	17.24	50.14	74.00	-23.86	peak
6	17655.000	30.10	21.60	51.70	74.00	-22.30	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (CHANNEL 9, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	5685.000	39.19	2.47	41.66	74.00	-32.34	peak
2	7290.000	37.59	7.31	44.90	74.00	-29.10	peak
3	8205.000	37.54	9.34	46.88	74.00	-27.12	peak
4	8985.000	36.50	10.47	46.97	74.00	-27.03	peak
5	11610.000	36.85	14.57	51.42	74.00	-22.58	peak
6	17070.000	30.39	20.52	50.91	74.00	-23.09	peak

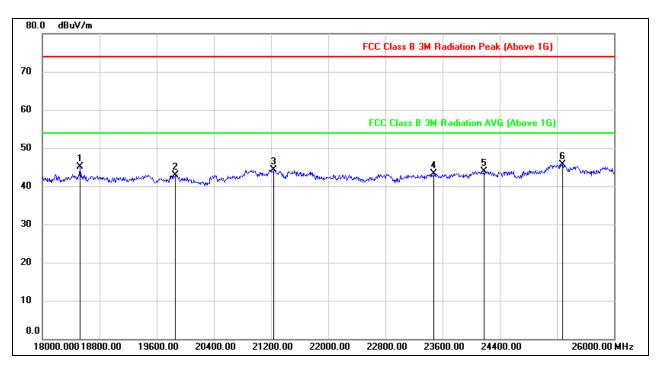
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band reject filter losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



8.5. SPURIOUS EMISSIONS (18 GHz ~ 26 GHz)

8.5.1. 802.11b MODE

SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18528.000	50.41	-5.26	45.15	74.00	-28.85	peak
2	19864.000	48.29	-5.34	42.95	74.00	-31.05	peak
3	21240.000	49.00	-4.77	44.23	74.00	-29.77	peak
4	23480.000	46.54	-3.16	43.38	74.00	-30.62	peak
5	24176.000	46.69	-2.80	43.89	74.00	-30.11	peak
6	25280.000	47.35	-1.68	45.67	74.00	-28.33	peak

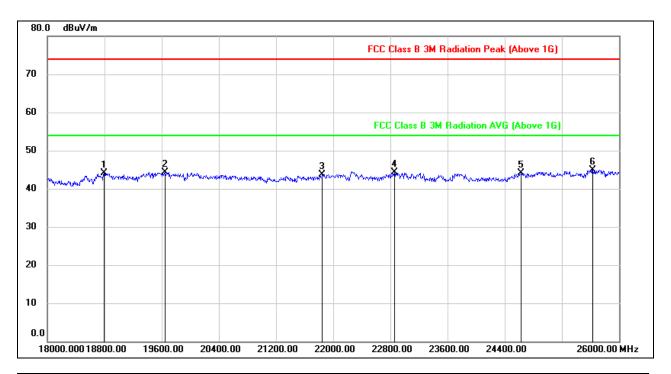
Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18792.000	49.45	-5.39	44.06	74.00	-29.94	peak
2	19648.000	49.73	-5.37	44.36	74.00	-29.64	peak
3	21848.000	48.08	-4.39	43.69	74.00	-30.31	peak
4	22856.000	47.96	-3.59	44.37	74.00	-29.63	peak
5	24624.000	46.49	-2.33	44.16	74.00	-29.84	peak
6	25632.000	46.06	-1.16	44.90	74.00	-29.10	peak

Note: 1. Measurement = Reading Level + Correct Factor.

2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

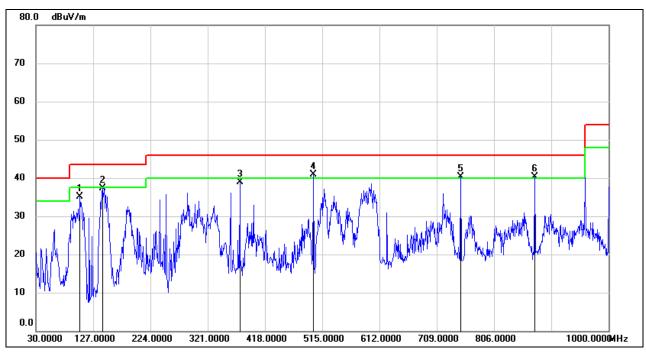
Note: All the modes had been tested, but only the worst data was recorded in the report.



8.6. SPURIOUS EMISSIONS (30 MHz ~ 1 GHz)

8.6.1. 802.11b MODE

SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, HORIZONTAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	104.6900	55.80	-20.76	35.04	43.50	-8.46	QP
2	143.4900	56.05	-18.66	37.39	43.50	-6.11	QP
3	375.3200	52.71	-13.79	38.92	46.00	-7.08	QP
4	500.4500	52.43	-11.46	40.97	46.00	-5.03	QP
5	749.7400	48.18	-7.94	40.24	46.00	-5.76	QP
6	874.8700	45.90	-5.64	40.26	46.00	-5.74	QP

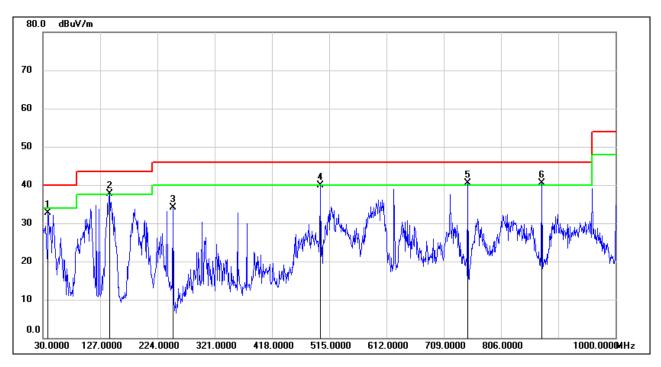
Note: 1. Result Level = Read Level + Correct Factor.

2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.

3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



SPURIOUS EMISSIONS (HIGH CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	38.7300	52.42	-19.81	32.61	40.00	-7.39	QP
2	143.4900	56.28	-18.66	37.62	43.50	-5.88	QP
3	250.1900	52.95	-18.91	34.04	46.00	-11.96	QP
4	500.4500	51.29	-11.46	39.83	46.00	-6.17	QP
5	749.7400	48.35	-7.94	40.41	46.00	-5.59	QP
6	874.8700	46.23	-5.64	40.59	46.00	-5.41	QP

Note: 1. Result Level = Read Level + Correct Factor.

- 2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- 3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.

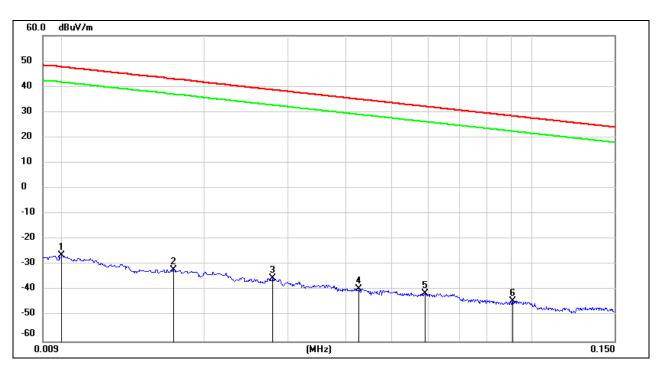


8.7. SPURIOUS EMISSIONS BELOW 30 MHz

8.7.1. 802.11b MODE

SPURIOUS EMISSIONS (HIGH CHANNEL, LOOP ANTENNA FACE ON TO THE EUT, WORST-CASE CONFIGURATION)

9 kHz~ 150 kHz

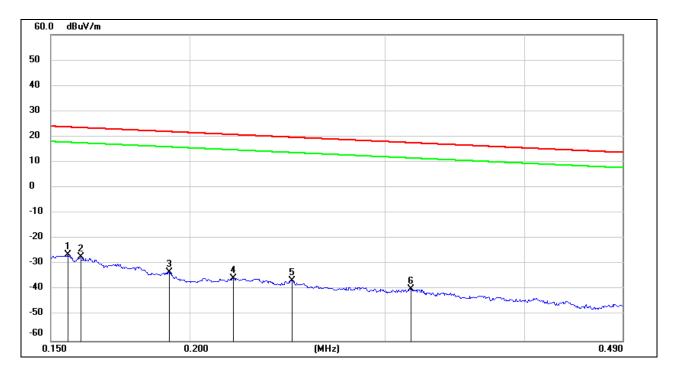


No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0100	75.22	-101.40	-26.18	47.6	-73.78	peak
2	0.0171	69.38	-101.36	-31.98	42.94	-74.92	peak
3	0.0279	66.17	-101.38	-35.21	38.69	-73.90	peak
4	0.0427	62.14	-101.45	-39.31	34.99	-74.30	peak
5	0.0589	60.31	-101.52	-41.21	32.2	-73.41	peak
6	0.0911	57.61	-101.72	-44.11	28.41	-72.52	peak

- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.



150 kHz ~ 490 kHz

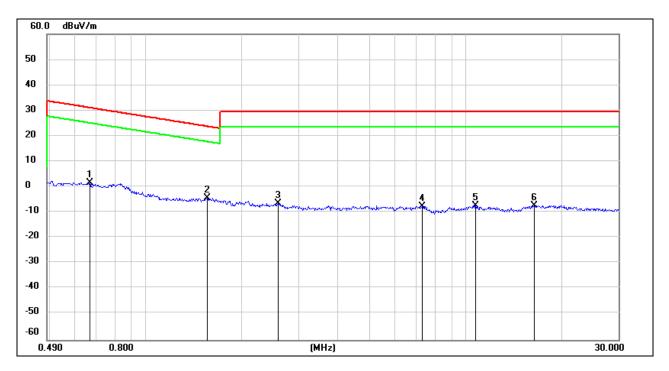


No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1554	75.27	-101.65	-26.38	23.77	-50.15	peak
2	0.1595	74.36	-101.65	-27.29	23.55	-50.84	peak
3	0.1917	68.54	-101.70	-33.16	21.95	-55.11	peak
4	0.2190	66.27	-101.75	-35.48	20.79	-56.27	peak
5	0.2472	65.45	-101.80	-36.35	19.74	-56.09	peak
6	0.3163	62.20	-101.87	-39.67	17.6	-57.27	peak

- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.



490 kHz ~ 30 MHz



No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.6671	63.75	-62.10	1.65	31.12	-29.47	peak
2	1.5564	57.68	-62.02	-4.34	23.76	-28.10	peak
3	2.5935	55.11	-61.68	-6.57	29.54	-36.11	peak
4	7.3361	53.58	-61.17	-7.59	29.54	-37.13	peak
5	10.7299	53.48	-60.83	-7.35	29.54	-36.89	peak
6	16.3959	53.67	-60.96	-7.29	29.54	-36.83	peak

Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.
- 3. All 3 polarizations (Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.



Page 127 of 236

9. AC POWER LINE CONDUCTED EMISSIONS

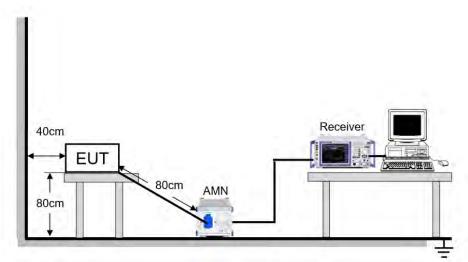
LIMITS

Please refer to CFR 47 FCC §15.207 (a).

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.



The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner. which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

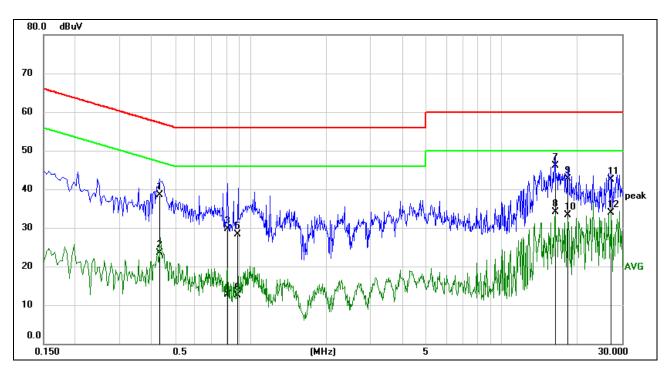
Temperature	26.1°C	Relative Humidity	63 %
Atmosphere Pressure	101 kPa	Test Voltage	AC 120V, 60 HZ



RESULTS

9.1.1. 802.11b MODE

LINE L RESULTS (HIGH CHANNEL, WORST-CASE CONFIGURATION)



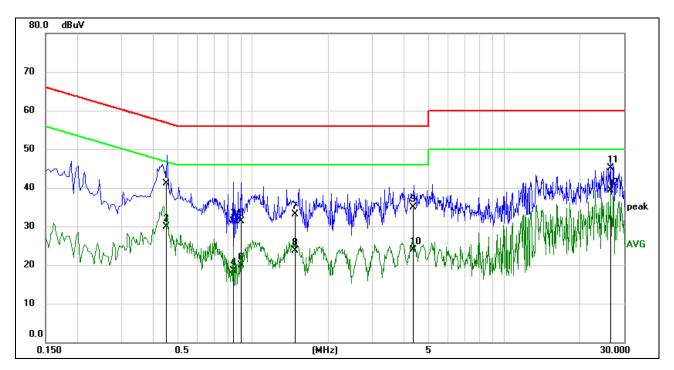
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4341	28.94	9.60	38.54	57.17	-18.63	QP
2	0.4341	13.98	9.60	23.58	47.17	-23.59	AVG
3	0.8081	20.02	9.60	29.62	56.00	-26.38	QP
4	0.8081	3.07	9.60	12.67	46.00	-33.33	AVG
5	0.8836	18.69	9.60	28.29	56.00	-27.71	QP
6	0.8836	2.87	9.60	12.47	46.00	-33.53	AVG
7	16.2279	36.44	9.67	46.11	60.00	-13.89	QP
8	16.2279	24.53	9.67	34.20	50.00	-15.80	AVG
9	18.2431	33.03	9.77	42.80	60.00	-17.20	QP
10	18.2431	23.44	9.77	33.21	50.00	-16.79	AVG
11	27.1585	32.66	9.89	42.55	60.00	-17.45	QP
12	27.1585	24.04	9.89	33.93	50.00	-16.07	AVG

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
- 4. Step size: 80 Hz (0.009 MHz \sim 0.15 MHz), 4 kHz (0.15 MHz \sim 30 MHz), Scan time: auto.



LINE N RESULTS (HIGH CHANNEL, WORST-CASE CONFIGURATION)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4539	31.57	9.60	41.17	56.80	-15.63	QP
2	0.4539	20.34	9.60	29.94	46.80	-16.86	AVG
3	0.8442	21.71	9.60	31.31	56.00	-24.69	QP
4	0.8442	8.96	9.60	18.56	46.00	-27.44	AVG
5	0.9023	21.69	9.61	31.30	56.00	-24.70	QP
6	0.9023	10.36	9.61	19.97	46.00	-26.03	AVG
7	1.4796	23.52	9.62	33.14	56.00	-22.86	QP
8	1.4796	14.05	9.62	23.67	46.00	-22.33	AVG
9	4.3385	25.37	9.60	34.97	56.00	-21.03	QP
10	4.3385	14.25	9.60	23.85	46.00	-22.15	AVG
11	26.4868	35.26	9.86	45.12	60.00	-14.88	QP
12	26.4868	29.47	9.86	39.33	50.00	-10.67	AVG

Note: 1. Result = Reading +Correct Factor.

- 2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
- 4. Step size: 80 Hz (0.009 MHz \sim 0.15 MHz), 4 kHz (0.15 MHz \sim 30 MHz), Scan time: auto.

Note: All the modes and channels had been tested, but only the worst data was recorded in the report.



REPORT NO.: 4790045423.1-6

Page 130 of 236

10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203

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

Please refer to FCC §15.247(b)(4)

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

RESULTS

Complies



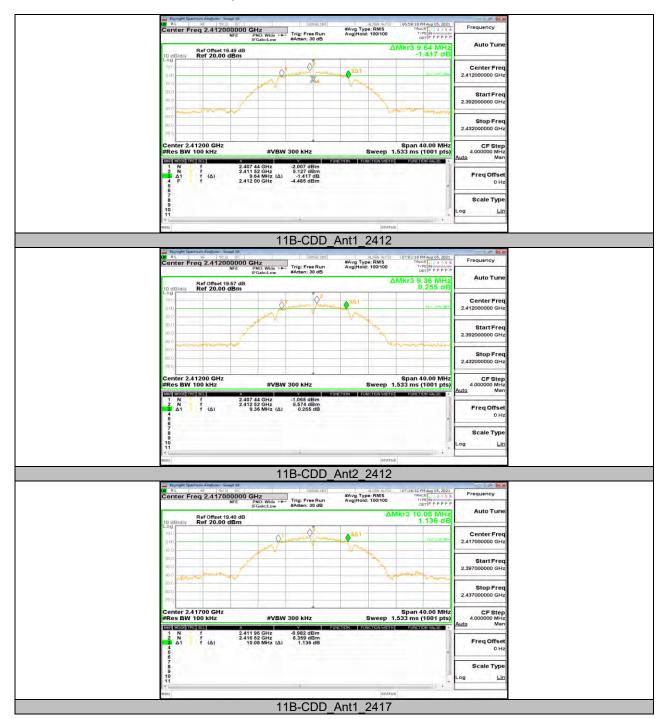
11. Appendix

11.1. Appendix A: DTS Bandwidth 11.1.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
	Ant1	2412	9.640	2407.440	2417.080	0.5	PASS
	Ant2	2412	9.360	2407.440	2416.800	0.5	PASS
	Ant1	2417	10.080	2411.960	2422.040	0.5	PASS
	Ant2	2417	10.120	2411.960	2422.080	0.5	PASS
440.000	Ant1	2437	9.200	2432.400	2441.600	0.5	PASS
11B-CDD	Ant2	2437	9.600	2432.440	2442.040	0.5	PASS
	Ant1	2457	10.120	2451.960	2462.080	0.5	PASS
	Ant2	2457	9.120	2452.480	2461.600	0.5	PASS
	Ant1	2462	9.880	2457.200	2467.080	0.5	PASS
	Ant2	2462	9.640	2457.440	2467.080	0.5	PASS
	Ant1	2412	16.400	2403.800	2420.200	0.5	PASS
	Ant2	2412	15.760	2404.440	2420.200	0.5	PASS
	Ant1	2417	16.120	2409.040	2425.160	0.5	PASS
	Ant2	2417	16.160	2409.040	2425.200	0.5	PASS
11G-CDD	Ant1	2437	16.360	2428.840	2445.200	0.5	PASS
TIG-CDD	Ant2	2437	16.000	2429.200	2445.200	0.5	PASS
	Ant1	2457	16.120	2449.080	2465.200	0.5	PASS
	Ant2	2457	16.320	2448.840	2465.160	0.5	PASS
	Ant1	2462	15.480	2454.440	2469.920	0.5	PASS
	Ant2	2462	15.400	2454.200	2469.600	0.5	PASS
	Ant1	2412	17.600	2403.200	2420.800	0.5	PASS
	Ant2	2412	16.600	2403.600	2420.200	0.5	PASS
	Ant1	2417	16.720	2408.840	2425.560	0.5	PASS
	Ant2	2417	17.400	2408.440	2425.840	0.5	PASS
11N20MIMO	Ant1	2437	17.640	2428.200	2445.840	0.5	PASS
1 IINZUIVIIIVIO	Ant2	2437	17.400	2428.440	2445.840	0.5	PASS
	Ant1	2457	17.600	2448.200	2465.800	0.5	PASS
	Ant2	2457	16.560	2448.600	2465.160	0.5	PASS
	Ant1	2462	16.480	2453.440	2469.920	0.5	PASS
	Ant2	2462	16.360	2453.800	2470.160	0.5	PASS
	Ant1	2422	35.200	2404.400	2439.600	0.5	PASS
	Ant2	2422	35.200	2404.400	2439.600	0.5	PASS
	Ant1	2427	35.200	2409.400	2444.600	0.5	PASS
	Ant2	2427	35.200	2409.400	2444.600	0.5	PASS
11N40MIMO	Ant1	2437	35.200	2419.400	2454.600	0.5	PASS
1 11N4UIVIIIVIU	Ant2	2437	35.200	2419.400	2454.600	0.5	PASS
	Ant1	2447	35.200	2429.400	2464.600	0.5	PASS
	Ant2	2447	35.200	2429.400	2464.600	0.5	PASS
	Ant1	2452	35.200	2434.400	2469.600	0.5	PASS
	Ant2	2452	35.200	2434.400	2469.600	0.5	PASS



11.1.2. Test Graphs























































11.2. Appendix B: Occupied Channel Bandwidth 11.2.1. Test Result

Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
	Ant1	2412	14.256	2404.949	2419.205	PASS
	Ant2	2412	14.155	2404.988	2419.143	PASS
	Ant1	2417	14.316	2409.888	2424.204	PASS
	Ant2	2417	14.194	2409.953	2424.147	PASS
11B-CDD	Ant1	2437	14.311	2429.864	2444.175	PASS
LIB-CDD	Ant2	2437	14.174	2429.963	2444.137	PASS
	Ant1	2457	14.287	2449.892	2464.179	PASS
	Ant2	2457	14.161	2449.961	2464.122	PASS
	Ant1	2462	14.280	2454.890	2469.170	PASS
	Ant2	2462	14.169	2454.956	2469.125	PASS
	Ant1	2412	16.942	2403.608	2420.550	PASS
	Ant2	2412	16.721	2403.679	2420.400	PASS
	Ant1	2417	17.316	2408.459	2425.775	PASS
11G-CDD	Ant2	2417	16.673	2408.664	2425.337	PASS
	Ant1	2437	17.023	2428.504	2445.527	PASS
	Ant2	2437	16.768	2428.640	2445.408	PASS
	Ant1	2457	16.911	2448.504	2465.415	PASS
	Ant2	2457	16.740	2448.669	2465.409	PASS
	Ant1	2462	17.023	2453.493	2470.516	PASS
	Ant2	2462	16.835	2453.625	2470.460	PASS
	Ant1	2412	17.994	2403.103	2421.097	PASS
	Ant2	2412	17.691	2403.210	2420.901	PASS
	Ant1	2417	17.932	2408.075	2426.007	PASS
	Ant2	2417	17.698	2408.193	2425.891	PASS
11N20MIMO	Ant1	2437	17.945	2428.061	2446.006	PASS
I IINZUIVIIIVIO	Ant2	2437	17.736	2428.167	2445.903	PASS
	Ant1	2457	18.457	2447.911	2466.368	PASS
	Ant2	2457	17.742	2448.181	2465.923	PASS
	Ant1	2462	17.929	2453.007	2470.936	PASS
	Ant2	2462	17.711	2453.117	2470.828	PASS
	Ant1	2422	36.030	2403.927	2439.957	PASS
	Ant2	2422	35.957	2404.038	2439.995	PASS
	Ant1	2427	35.990	2408.984	2444.974	PASS
	Ant2	2427	36.189	2408.981	2445.170	PASS
11N40MIMO	Ant1	2437	35.836	2419.008	2454.844	PASS
I IIN-UNIINO	Ant2	2437	35.932	2419.056	2454.988	PASS
	Ant1	2447	35.884	2428.982	2464.866	PASS
	Ant2	2447	36.009	2429.009	2465.018	PASS
	Ant1	2452	35.943	2433.955	2469.898	PASS
	Ant2	2452	36.055	2433.973	2470.028	PASS



11.2.2. Test Graphs









