

CFR 47 FCC PART 15 SUBPART C ISED RSS-247 ISSUE 2

TEST REPORT

For

IEEE 802.11b/g/n 1T1R USB WiFi Module

MODEL NUMBER: SKO.W7601.3

FCC ID: 2AR82-SKOW7601301 IC: 24728-SKOW7601301

REPORT NUMBER: 4788992194 -1

ISSUE DATE: April 29, 2019

Prepared for

Guangzhou Shikun Electronics Co., Ltd NO.192 KEZHU ROAD, SCIENCE PARK GUANGZHOU, GUANGDONG, CHINA

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, People's Republic of China

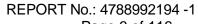
Tel: +86 769 22038881 Fax: +86 769 33244054 Website: www.ul.com



Page 2 of 116

	1 11 4
LA MAIAA	HIC+CK/
Revision	1 110101 9

Rev.	Issue Date	Revisions	Revised By
V0	4/29/2019	Initial Issue	





Page 3 of 116

	Summary of Test Results							
Clause	Test Items	FCC/IC Rules	Test Results					
1	6dB Bandwidth and 99% Occupied Bandwidth	FCC Part 15.247 (a) (2) RSS-247 Clause 5.2 (a) ISED RSS-Gen Clause 6.7	Note1					
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3) RSS-247 Clause 5.4 (e)	Pass					
3	Power Spectral Density	FCC Part 15.247 (e) RSS-247 Clause 5.2 (b)	Note1					
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d) RSS-247 Clause 5.5	Note1					
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205 RSS-247 Clause 5.5 RSS-GEN Clause 8.9	Pass					
6	Conducted Emission Test For AC Power Port	FCC Part 15.207 RSS-GEN Clause 8.8	Note1					
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 8.3	Pass					



TABLE OF CONTENTS

١.	ΑT	TESTATION OF TEST RESULTS	6
2.	TE	ST METHODOLOGY	7
3.	FA	CILITIES AND ACCREDITATION	7
4.	CA	LIBRATION AND UNCERTAINTY	8
4	4.1.	MEASURING INSTRUMENT CALIBRATION	8
4	4.2.	MEASUREMENT UNCERTAINTY	8
5.	EQ	UIPMENT UNDER TEST	9
	5.1.	DESCRIPTION OF EUT	9
	5.2.	MAXIMUM OUTPUT POWER	9
į	5.3.	CHANNEL LIST1	10
į	5.4.	TEST CHANNEL CONFIGURATION1	10
į	5.5.	THE WORSE CASE CONFIGURATIONS1	
	5.6.	DESCRIPTION OF AVAILABLE ANTENNAS1	
į	5.7.	DESCRIPTION OF TEST SETUP1	
6.	ME	ASURING INSTRUMENT AND SOFTWARE USED1	3
7.	ME	ASUREMENT METHODS1	4
8.	ΔN	TENNA PORT TEST RESULTS1	5
_	8.1.		_
•	n. I.	ON TIME AND DUTY CYCLE	15
,		ON TIME AND DUTY CYCLE1 PEAK CONDUCTED OUTPUT POWER	
8	8.3. 8.3	PEAK CONDUCTED OUTPUT POWER 1 .1. 802.11b MODE	8 9
ł	8.3. 8.3 8.3	PEAK CONDUCTED OUTPUT POWER	8 9 9
ł	8.3. 8.3 8.3 8.3	PEAK CONDUCTED OUTPUT POWER	8 9 9
	8.3. 8.3 8.3 8.3 8.3	PEAK CONDUCTED OUTPUT POWER	8 9 9 9
9.	8.3. 8.3 8.3 8.3 8.3	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS	9 9 9 9
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1.	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS 2 RESTRICTED BANDEDGE 2	8 9 9 9 9 20
9.	8.3. 8.3 8.3 8.3 8.3	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2	89999 9086
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1. 9.1	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4	89999 2086 342
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1. 9.1 9.1	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4 .4. 802.11n HT40 MODE 5	89999 20 664 20
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1. 9.1 9.1 9.1	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4 .4. 802.11n HT40 MODE 5 SPURIOUS EMISSIONS (3~18GHz) 5	8 9 9 9 9 6 6 4 2 6 0 5 8
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1. 9.1 9.1 9.1 9.2.	PEAK CONDUCTED OUTPUT POWER 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4 .4. 802.11n HT40 MODE 5 SPURIOUS EMISSIONS (3~18GHz) 5 .1. 802.11b MODE 5	89999 206420 888
9.	8.3. 8.3 8.3 8.3 8.3 RA 9.1. 9.1 9.1 9.1	PEAK CONDUCTED OUTPUT POWER 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS RESTRICTED BANDEDGE 2 .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4 .4. 802.11n HT40 MODE 5 SPURIOUS EMISSIONS (3~18GHz) 5 .1. 802.11b MODE 5 .2. 802.11g MODE 6	89999 20 26642 3684
9.	8.3. 8.3 8.3 8.3 8.3 8.3 8.3 8.1 9.1 9.1 9.1 9.1 9.2 9.2	PEAK CONDUCTED OUTPUT POWER. 1 .1. 802.11b MODE 1 .2. 802.11g MODE 1 .3. 802.11n HT20 MODE 1 .4. 802.11n HT40 MODE 1 DIATED TEST RESULTS .1. 802.11b MODE 2 .2. 802.11g MODE 3 .3. 802.11n HT20 MODE 4 .4. 802.11n HT40 MODE 5 SPURIOUS EMISSIONS (3~18GHz) 5 .1. 802.11b MODE 5 .2. 802.11g MODE 5 .3. 802.11n HT20 MODE 6 .3. 802.11n HT20 MODE 7	89999 0 66420 8840



Page 5 of 116

			rage 5 of 116
	9.3.1.	802.11b MODE	82
	9.3.2.	802.11g MODE	8888
	9.3.3.	802.11n HT20 MODE	94
	9.3.5.	802.11n HT40 MODE	
		IRIOUS EMISSIONS (18~26GHz)	
	9.4.1.	802.11b MODE	106
	9.5. SP	PURIOUS EMISSIONS (0.03 ~ 1 GHz)	108
	9.5.1.	802.11b MODE	108
	9.6. SP	URIOUS EMISSIONS BELOW 30M	110
	9.6.1.	802.11b MODE	110
1 (0. ANTE	ENNA REQUIREMENTS	116



Page 6 of 116

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Guangzhou Shikun Electronics Co., Ltd Address: NO.192 KEZHU ROAD,SCIENCE PARK GUANGZHOU,GUANGDONG,CHINA

Manufacturer Information

Company Name: Guangzhou Shikun Electronics Co., Ltd Address: NO.192 KEZHU ROAD,SCIENCE PARK GUANGZHOU,GUANGDONG,CHINA

EUT Description

EUT Name: IEEE 802.11b/g/n 1T1R USB WiFi Module

SKO.W7601.3

Sample Status: Normal

Sample Received Date: April 26, 2019
Date of Tested: April 26 ~ 29, 2019

APPLICABLE STANDARDS						
STANDARD TEST RESULTS						
CFR 47 FCC PART 15 SUBPART C	PASS					
ISED RSS-247 Issue 2	PASS					
ISED RSS-GEN Issue 5	PASS					

Prepared By: Checked By:

Kebo Zhang

Kelo. zhang.

Engineer Project Associate

Approved By:

Shawn Wen Laboratory Leader

Shann den

Stephen Guo

Laboratory Manager



REPORT No.: 4788992194 -1 Page 7 of 116

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, KDB 414788 D01 Radiated Test Site v01r01, CFR 47 FCC Part 2, CFR 47 FCC Part 15, ANSI C63.10-2013, ISED RSS-247 Issue 2 and ISED RSS-GEN Issue 5.

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
Accreditation	IC(Company No.: 21320)
Certificate	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Continuodio	has been registered and fully described in a report filed with ISED.
	The Company Number is 21320.
	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 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



Page 8 of 116

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:

Test Item	Uncertainty
Conduction emission	3.62dB
Radiation Emission test(include Fundamental emission) (9kHz-30MHz)	2.2dB
Radiation Emission test(include Fundamental emission) (30MHz-1GHz)	4.00dB
Radiation Emission test (1GHz to 26GHz)(include Fundamental emission)	5.78dB (1GHz-18Gz)
(1.61.12 to 2661.12)(misiado i diridamental emission)	5.23dB (18GHz-26Gz)

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

REPORT No.: 4788992194 -1 Page 9 of 116

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	IEEE 802.11b/g/n 1T1R USB WiFi Module
Model	SKO.W7601.3
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)
Rated Input	DC 5V
Class II Permissive Change	Please refer to Class II Permissive Change letter.

5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	IEE Std. 802.11	Frequency (MHz)	Channel Number	Max PK Conducted Power (dBm)	Max AVG Conducted Power (dBm)
1	IEEE 802.11b	2412-2462	1-11[11]	18.32	15.87
1	IEEE 802.11g	2412-2462	1-11[11]	20.44	13.66
1	IEEE 802.11nHT20	2412-2462	1-11[11]	20.88	14.02
1	IEEE 802.11nHT40	2422-2452	3-9[7]	20.07	13.15

Note: The test Max conducted powers are smaller than original application.



Page 10 of 116

5.3. 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	/	/	

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

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency		
WiFi TX(802.11b)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz		
WiFi TX(802.11g)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz		
WiFi TX(802.11n HT20)	CH 1, CH 6, CH 11	2412MHz, 2437MHz, 2462MHz		
WiFi TX(802.11n HT40)	CH 3, CH 6, CH 9	2422MHz, 2437MHz, 2452MHz		

5.5. THE WORSE CASE CONFIGURATIONS

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band								
Test Softw	vare			N	/ITK			
	Transmit			Test	Channel			
Modulation Mode	Antenna	١	ICB: 20MH	Z	1	NCB: 40MHz		
Mode	Number	CH 1	CH 6	CH 11	CH 3	CH 6	CH 9	
802.11b	1	13	12	13				
802.11g	1	11	10	11	/			
802.11n HT20	1	10	0F	10				
802.11n HT40	1	/			11	11	11	



Page 11 of 116

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Customer 's Part No.	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)	
1	0460-5001-3550	2412-2462	Metal	1.876	

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

Page 12 of 116

5.7. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	P/N
1	Laptop	ThinkPad	T460S	SL10K24796 JS
2	Test fixture	/	1	/
3	AC/DC adapter	HUAWEI	HW-120150E2W	Input: AC 100- 240V,50/60Hz, 0.5A

I/O CABLES

Item	Port	Connector Type	Cable Type	Cable Length(m)	Remarks
1	USB	NA	NA	0.8	/

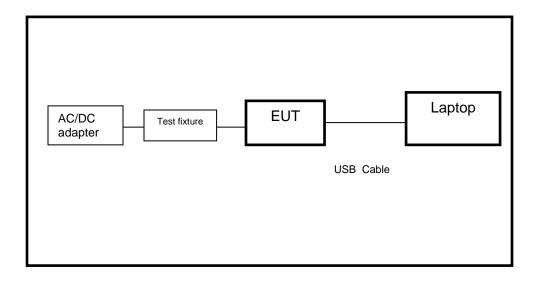
ACCESSORIES

Item	Accessory	Brand Name	Model Name	Description
1	/	/	/	/

TEST SETUP

The EUT can work in engineering mode with a software through a Laptop.

SETUP DIAGRAM FOR TESTS





REPORT No.: 4788992194 -1 Page 13 of 116

6. MEASURING INSTRUMENT AND SOFTWARE USED

	Conducted Emissions								
			Instru	ment					
Used	Equipment	Manufacturer	Mod	el No.	Seri	al No.	Last Cal.	Next Cal.	
V	EMI Test Receiver	R&S	ES	SR3	10	1961	Dec.10,2018	Dec.10,2019	
V	Two-Line V- Network	R&S	EN,	V216	10	1983	Dec.10,2018	Dec.10,2019	
V	Artificial Mains Networks	Schwarzbeck	NSL	< 8126	812	6465	Dec.10,2018	Dec.10,2019	
			Softv	vare					
Used	Des	cription		Man	ufactı	ırer	Name	Version	
V	Test Software for C	Conducted distu	rbance		arad		EZ-EMC	Ver. UL-3A1	
		Rad	iated E	Emissi	ons				
			Instru	ment					
Used	Equipment	Manufacturer	Mod	el No.	Seri	al No.	Last Cal.	Next Cal.	
V	MXE EMI Receiver	KESIGHT	N90)38A		56400 36	Dec.10,2018	Dec.10,2019	
V	Hybrid Log Periodic Antenna	TDK	HLP-	3003C	130	0960	Sep.17, 2018	Sep.17, 2021	
V	Preamplifier	HP	84	47D		4A090 99	Dec.10,2018	Dec.10,2019	
V	EMI Measurement Receiver	R&S	ES	R26	10	1377	Dec.10,2018	Dec.10,2019	
$\overline{\checkmark}$	Horn Antenna	TDK	HRN	-0118	130	0939	Sep.17, 2018	Sep.17, 2021	
V	High Gain Horn Antenna	Schwarzbeck	BBHA	\-9170	6	91	Aug.11, 2018	Aug.11, 2021	
V	Preamplifier	TDK	PA-02	2-0118		S-305- 1066	Dec.10,2018	Dec.10,2019	
V	Preamplifier	TDK	PA-	02-2		S-307- 0003	Dec.10,2018	Dec.10,2019	
$\overline{\checkmark}$	Loop antenna	Schwarzbeck	15	19B	00	800	Mar.26,2016	Mar.25, 2019	
V	Band Reject Filter	Wainwright	WRCJV8- 2350-2400- 2483.5- 2533.5-40SS			4	Dec.10,2018	Dec.10,2019	
	High Pass Filter	Wi	WHKX10- 2700-3000- 18000-40SS			23	Dec.10,2018	Dec.10,2019	
			Softv	vare					
Used	Descr	ription	N	Manufacturer			Name	Version	
$\overline{\checkmark}$	Test Software for Radiated disturbance			Farad EZ-EMC		EZ-EMC	Ver. UL-3A1		



Page 14 of 116

Other instruments									
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.			
V	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.10,2018	Dec.10,2019			
V	Power Meter	Keysight	N1911A	MY55416024	Dec.10,2018	Dec.10,2019			
	Power Sensor	Keysight	U2021XA	MY5100022	Dec.10,2018	Dec.10,2019			

7. MEASUREMENT METHODS

No.	Test Item	KDB Name	Section
1	6dB Bandwidth	KDB 558074 D01 15.247 Meas Guidance v05r02	8.2
2	Peak Output Power	KDB 558074 D01 15.247 Meas Guidance v05r02	8.3.1.3/8.3.2.3
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r02	8.4
4	Out-of-band emissions in non- restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r02	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r02	8.7
7	Conducted Emission Test For AC Power Port	ANSI C63.10-2013	6.2
8	99% Bandwidth	ANSI C63.10-2013	6.9.3



Page 15 of 116

8. ANTENNA PORT TEST RESULTS

8.1. ON TIME AND DUTY CYCLE

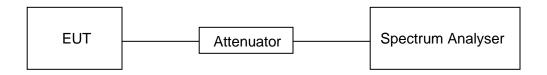
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

emperature 22.7°C		Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

RESULTS

Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (KHz)	Final setting For VBW (KHz)
11b	119.5	119.5	1	100	0	0.008	0.01
11g	120.0	120.0	1	100	0	0.008	0.01
11n20	121.0	121.0	1	100	0	0.008	0.01
11n40	119.4	119.4	1	100	0	0.008	0.01

Note:

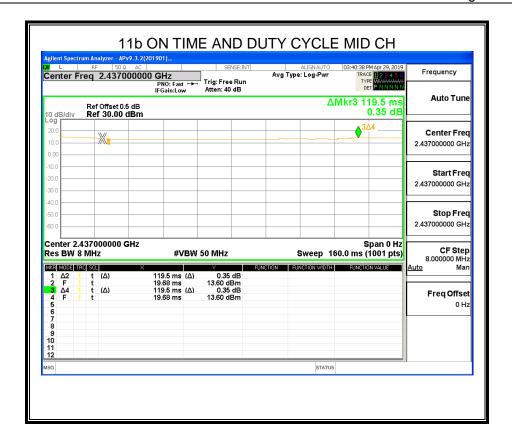
Duty Cycle Correction Factor=10log (1/x).

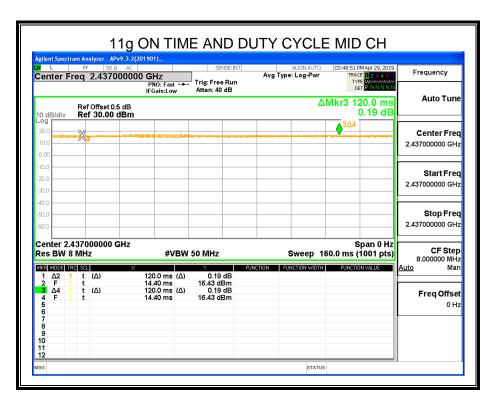
Where: x is Duty Cycle (Linear)

Where: T is On Time

If that calculated VBW is not available on the analyzer then the next higher value should be used.

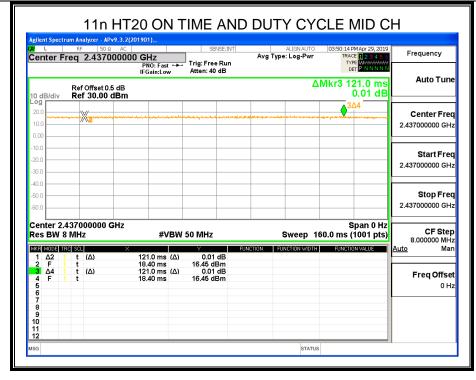


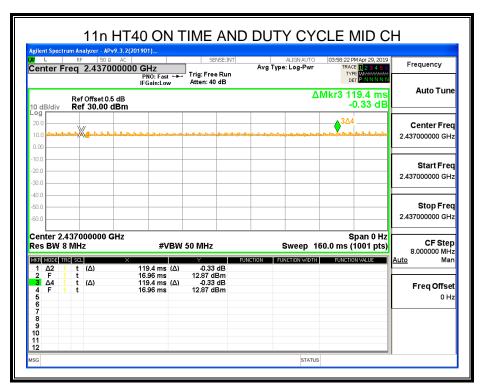






Page 17 of 116





8.2.

8.3. PEAK CONDUCTED OUTPUT POWER

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section Test Item Limit Frequency Range (MHz)			
CFR 47 FCC 15.247(b)(3) ISED RSS-247 5.4 (e)	Peak Output Power	1 watt or 30dBm	2400-2483.5

TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.

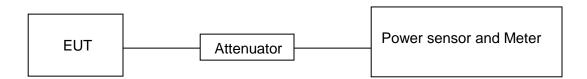
Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power sensor.

Measure the power of each channel.

Peak Detector use for Peak result.

AVG Detector use for AVG result.

TEST SETUP



TEST ENVIRONMENT

Temperature	23.1°C	Relative Humidity	59%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



RESULTS

8.3.1. 802.11b MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	18.25	15.84	30
Middle	18.32	15.87	30
High	18.24	15.85	30

8.3.2. 802.11g MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	20.44	13.66	30
Middle	20.06	13.47	30
High	20.23	13.53	30

8.3.3. 802.11n HT20 MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	20.88	14.02	30
Middle	20.81	13.93	30
High	20.75	13.87	30

8.3.4. 802.11n HT40 MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	19.78	12.99	30
Middle	19.82	12.91	30
High	20.07	13.15	30



Page 20 of 116

9. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209

Please refer to ISED RSS-GEN Clause 8.9 (Transmitter)

Radiation Disturbance Test Limit for FCC (Class B)(9KHz-1GHz)

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
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Note: 1) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

(2) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). This paragraph (f) shall not apply to Access BPL devices operating below 30 MHz.



REPORT No.: 4788992194 -1 Page 21 of 116

Radiation Disturbance Test Limit for FCC (Above 1G)

Eroguanay (MHz)	dB(uV/m) (at 3 meters)	
Frequency (MHz)	Peak	Average
Above 1000	74	54

IC Restricted bands please refer to ISED RSS-GEN Clause 8.10 FCC Restricted bands of operation:

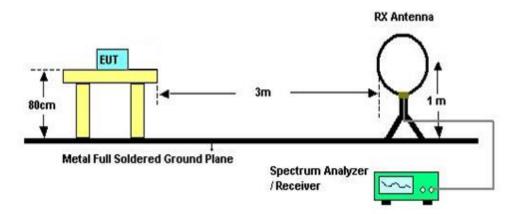
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	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



TEST SETUP AND PROCEDURE

Below 30MHz

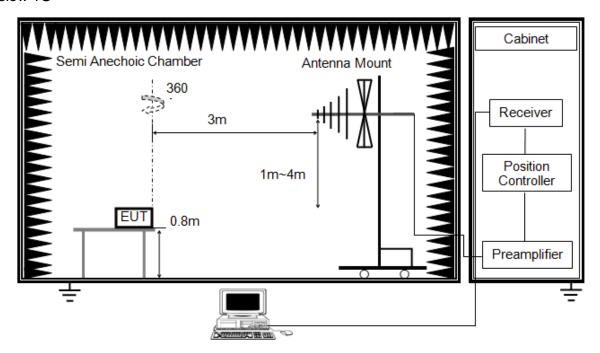


The setting of the spectrum analyser

RBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
VBW	200Hz (From 9kHz to 0.15MHz)/ 9KHz (From 0.15MHz to 30MHz)
Sweep	Auto
Detector	Peak/QP/ Average
Trace	Max hold

- 1. The testing follows the guidelines in ANSI C63.10-2013
- 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 and vertical polarizations of the antenna are set to make the measurement.
- 3. The EUT was placed on a turntable with 0.8 meter 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 1GHz, 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.
- 6. For the actual test configuration, please refer to the related item in this test report (Photographs of the Test Configuration)
- 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.

Below 1G



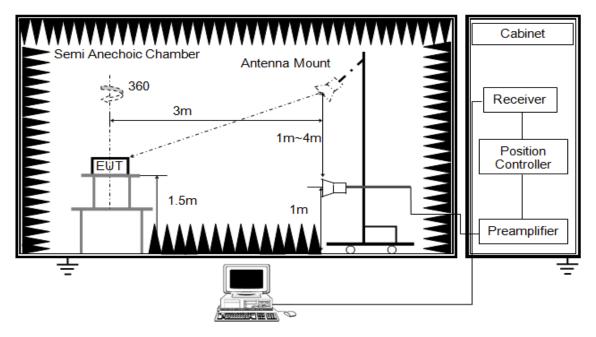
The setting of the spectrum analyser

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

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 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 0.8 meter 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 1GHz, 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 1G



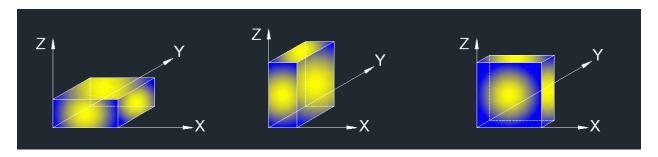
The setting of the spectrum analyser

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

- 1. The testing follows the guidelines in ANSI C63.10-2013.
- 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 1.5m 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 1GHz, 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 8.1.ON TIME AND DUTY CYCLE.



X axis, Y axis, Z axis positions:



Note 1: For below 1GHz 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.

Note 2: For above 1GHz 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.

Note 3: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

TEST ENVIRONMENT

Temperature	23.7°C	Relative Humidity	52%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



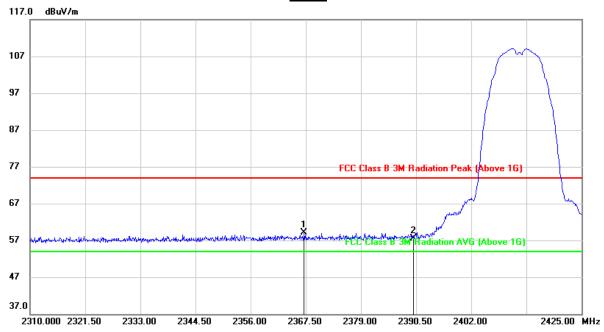
Page 26 of 116

9.1. RESTRICTED BANDEDGE

9.1.1. 802.11b MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



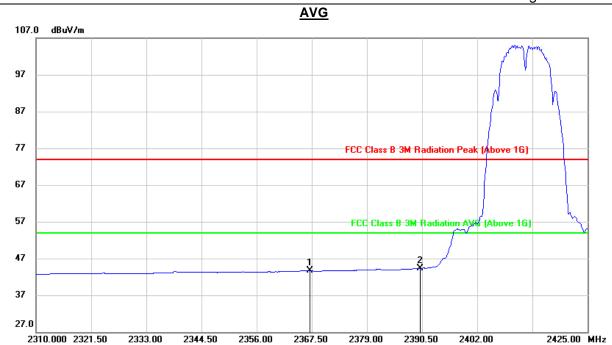


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2367.155	26.18	32.87	59.05	74.00	-14.95	peak
2	2390.000	24.50	32.94	57.44	74.00	-16.56	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

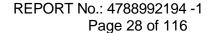


Page 27 of 116



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2367.155	10.84	32.87	43.71	54.00	-10.29	AVG
2	2390.000	11.39	32.94	44.33	54.00	-9.67	AVG

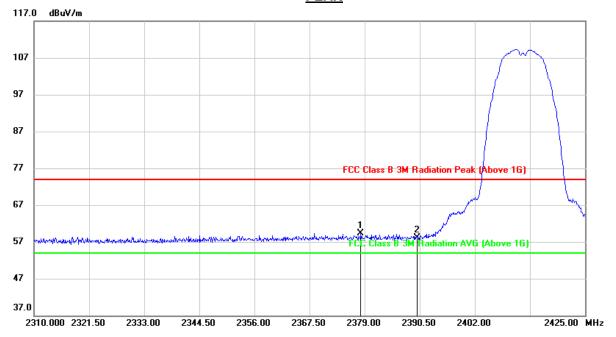
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



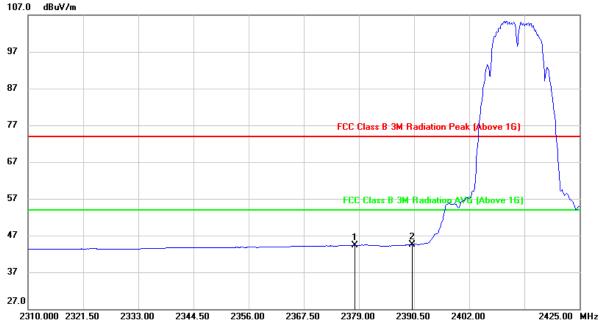
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2378.195	26.42	32.90	59.32	74.00	-14.68	peak
2	2390.000	25.14	32.94	58.08	74.00	-15.92	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



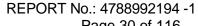
Page 29 of 116





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2378.195	11.47	32.90	44.37	54.00	-9.63	AVG
2	2390.000	11.64	32.94	44.58	54.00	-9.42	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

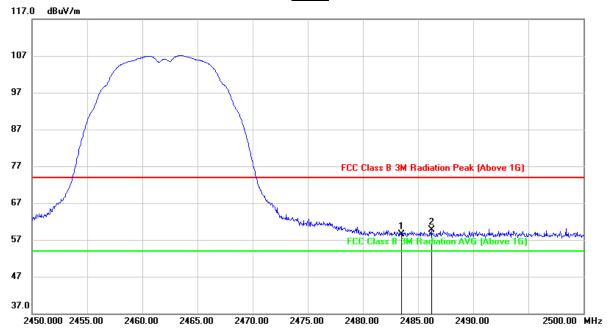




Page 30 of 116

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



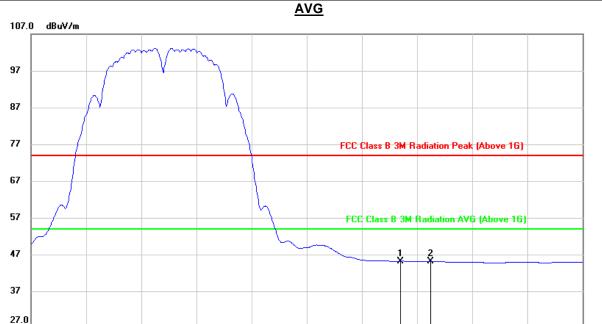


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	24.89	33.58	58.47	74.00	-15.53	peak
2	2486.200	26.10	33.60	59.70	74.00	-14.30	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



REPORT No.: 4788992194 -1 Page 31 of 116



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	11.61	33.58	45.19	54.00	-8.81	AVG
2	2486.200	11.53	33.60	45.13	54.00	-8.87	AVG

2475.00

2480.00

2485.00

2490.00

2500.00 MHz

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

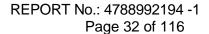
2465.00

2470.00

2460.00

2450.000 2455.00

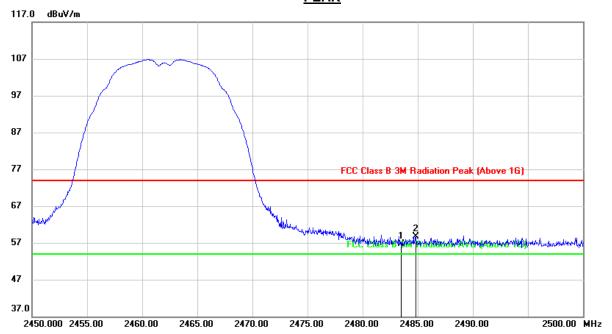
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

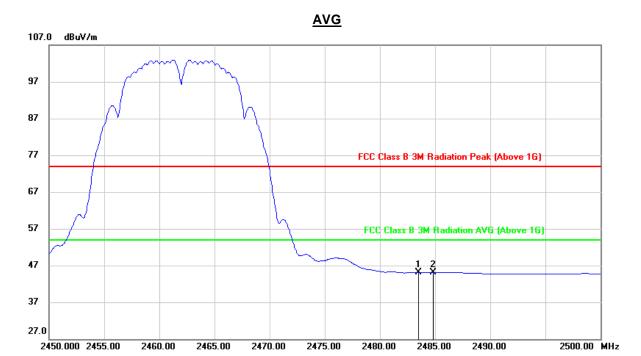
PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	23.18	33.58	56.76	74.00	-17.24	peak
2	2484.800	25.21	33.59	58.80	74.00	-15.20	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission 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	11.46	33.58	45.04	54.00	-8.96	AVG
2	2484.800	11.49	33.59	45.08	54.00	-8.92	AVG

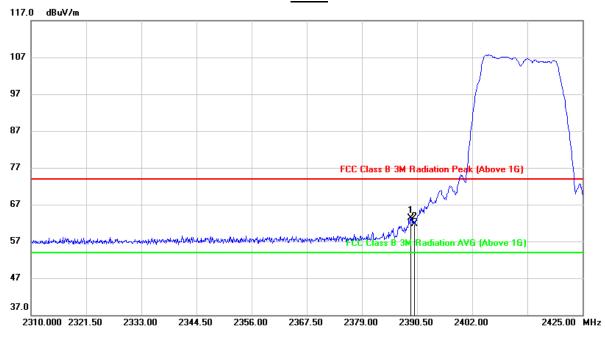
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



9.1.2. 802.11g MODE

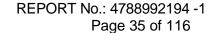
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK



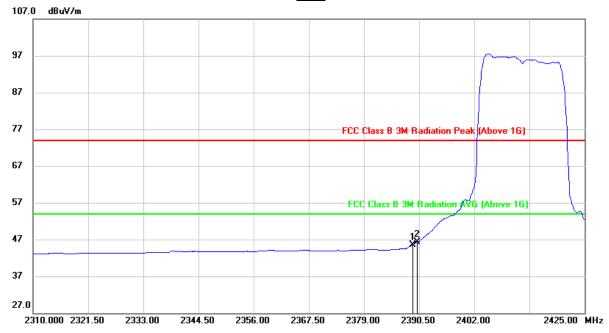
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.120	30.31	32.94	63.25	74.00	-10.75	peak
2	2390.000	28.85	32.94	61.79	74.00	-12.21	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



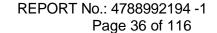






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.120	12.60	32.94	45.54	54.00	-8.46	AVG
2	2390.000	13.31	32.94	46.25	54.00	-7.75	AVG

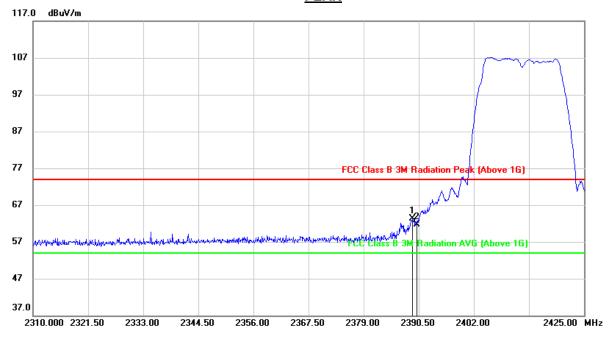
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





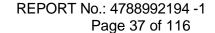
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



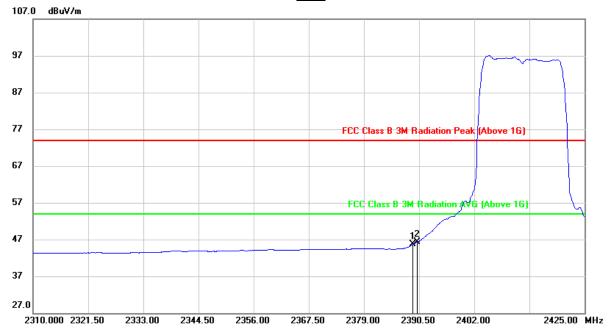
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.235	30.33	32.94	63.27	74.00	-10.73	peak
2	2390.000	28.79	32.94	61.73	74.00	-12.27	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



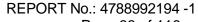






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.235	12.76	32.94	45.70	54.00	-8.30	AVG
2	2390.000	13.33	32.94	46.27	54.00	-7.73	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

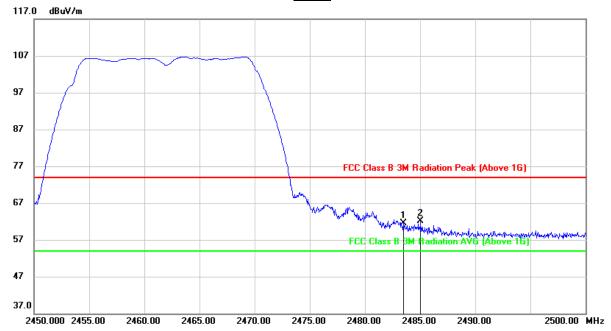




Page 38 of 116

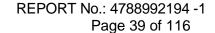
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





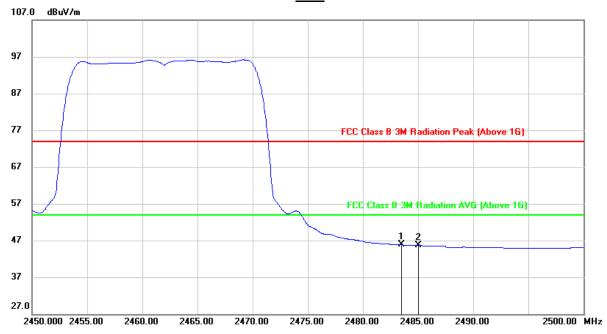
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	27.85	33.58	61.43	74.00	-12.57	peak
2	2485.050	28.51	33.59	62.10	74.00	-11.90	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.









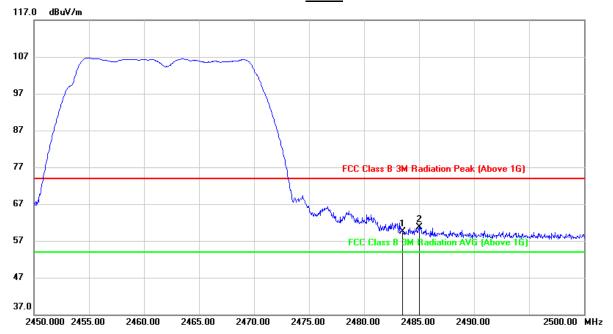
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	12.26	33.58	45.84	54.00	-8.16	AVG
2	2485.050	12.05	33.59	45.64	54.00	-8.36	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



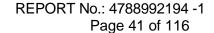
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

<u>PEAK</u>



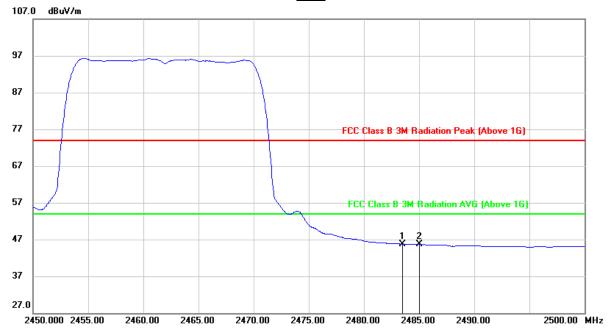
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.02	33.58	59.60	74.00	-14.40	peak
2	2485.000	27.07	33.59	60.66	74.00	-13.34	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



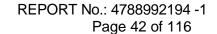






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	12.16	33.58	45.74	54.00	-8.26	AVG
2	2485.000	12.04	33.59	45.63	54.00	-8.37	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

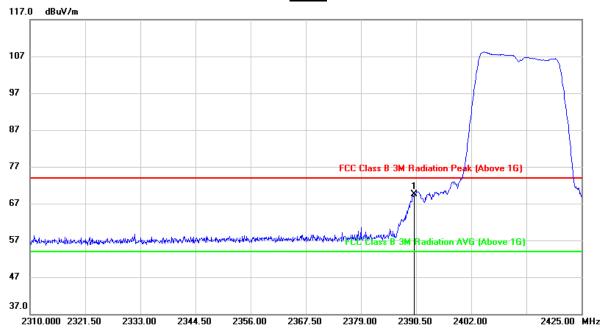




9.1.3. 802.11n HT20 MODE

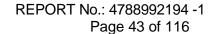
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

PEAK



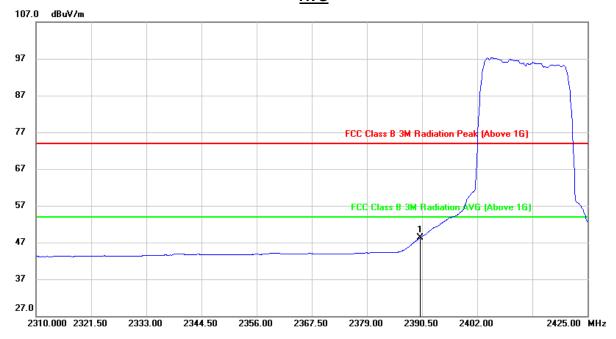
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	36.53	32.94	69.47	74.00	-4.53	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



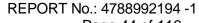


<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	15.32	32.94	48.26	54.00	-5.74	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

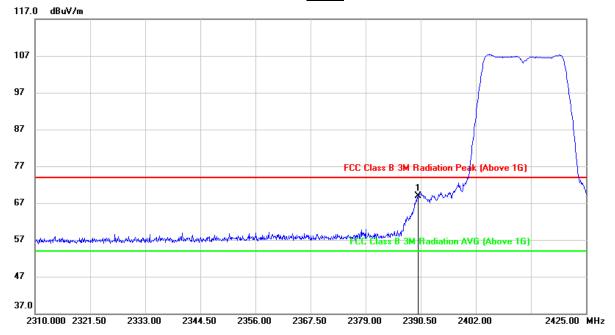




Page 44 of 116

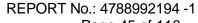
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)





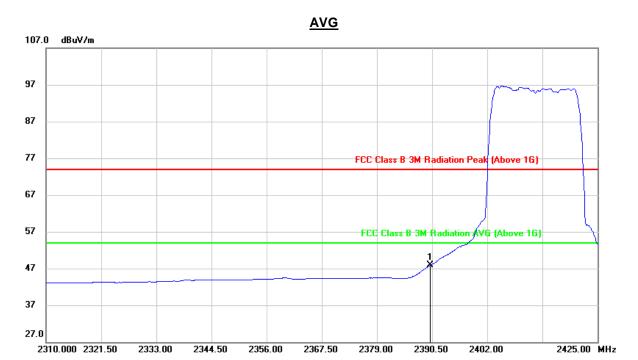
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	35.88	32.94	68.82	74.00	-5.18	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





Page 45 of 116



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	14.91	32.94	47.85	54.00	-6.15	AVG

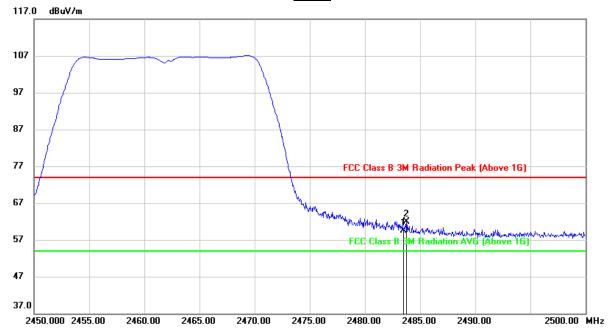
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



Page 46 of 116

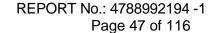
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





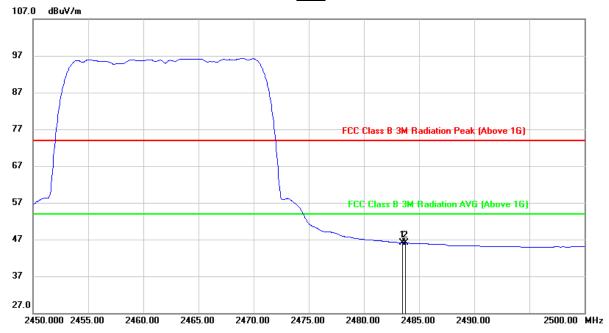
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	25.83	33.58	59.41	74.00	-14.59	peak
2	2483.750	28.25	33.58	61.83	74.00	-12.17	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



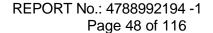






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	12.56	33.58	46.14	54.00	-7.86	AVG
2	2483.750	12.56	33.58	46.14	54.00	-7.86	AVG

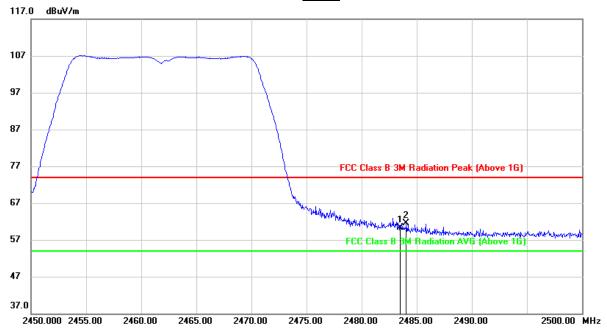
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





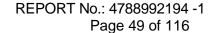
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



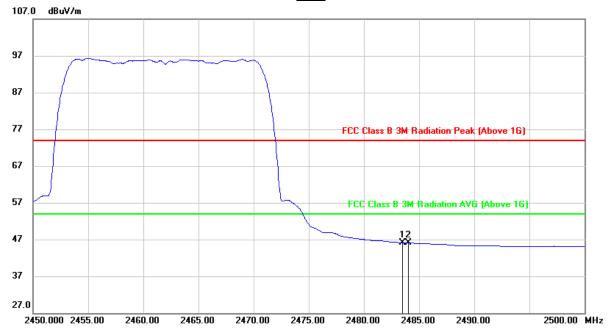
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.82	33.58	60.40	74.00	-13.60	peak
2	2484.050	27.99	33.58	61.57	74.00	-12.43	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



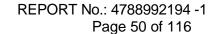






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	12.57	33.58	46.15	54.00	-7.85	AVG
2	2484.050	12.57	33.58	46.15	54.00	-7.85	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

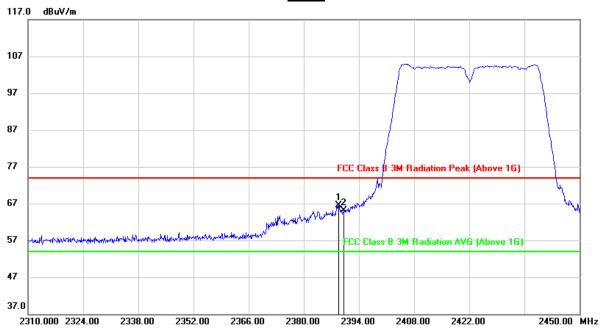




9.1.4. 802.11n HT40 MODE

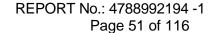
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)





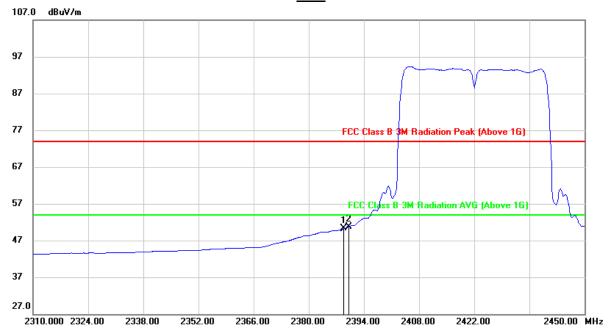
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	33.53	32.94	66.47	74.00	-7.53	peak
2	2390.000	32.18	32.94	65.12	74.00	-8.88	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



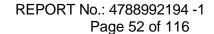






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	17.28	32.94	50.22	54.00	-3.78	AVG
2	2390.000	17.82	32.94	50.76	54.00	-3.24	AVG

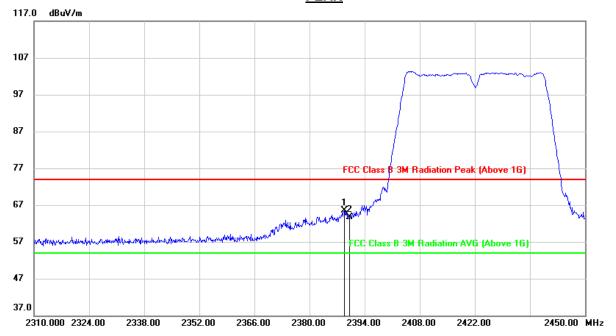
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





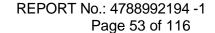
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

PEAK



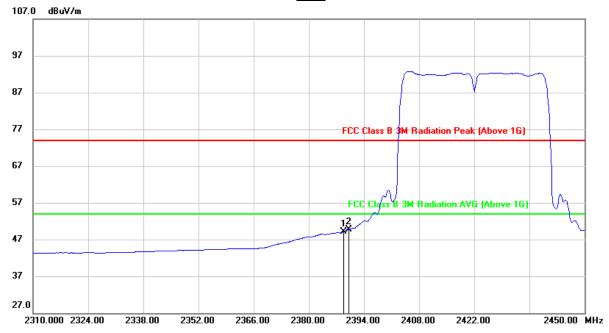
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	32.55	32.94	65.49	74.00	-8.51	peak
2	2390.000	30.83	32.94	63.77	74.00	-10.23	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



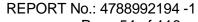






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	16.25	32.94	49.19	54.00	-4.81	AVG
2	2390.000	16.78	32.94	49.72	54.00	-4.28	AVG

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

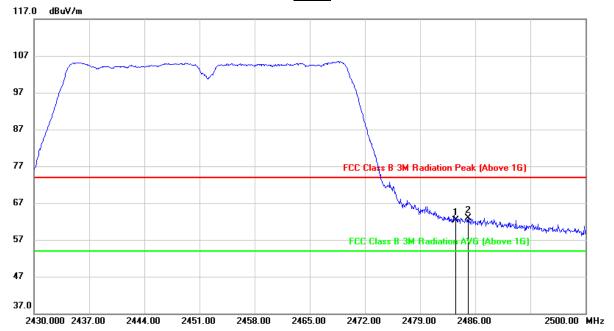




Page 54 of 116

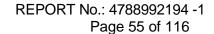
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





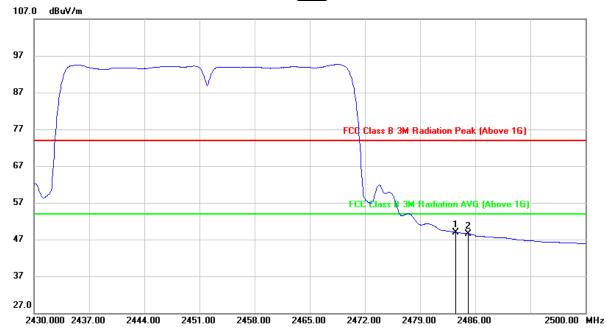
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	28.79	33.58	62.37	74.00	-11.63	peak
2	2485.090	29.41	33.59	63.00	74.00	-11.00	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



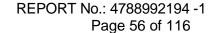






No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.35	33.58	48.93	54.00	-5.07	AVG
2	2485.090	15.00	33.59	48.59	54.00	-5.41	AVG

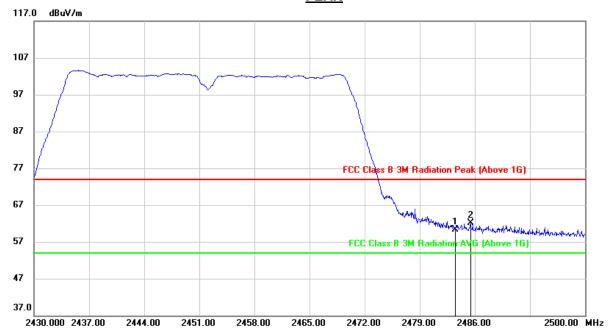
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.





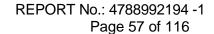
RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)

PEAK



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	26.81	33.58	60.39	74.00	-13.61	peak
2	2485.440	28.45	33.59	62.04	74.00	-11.96	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Only the worst case emission 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	13.55	33.58	47.13	54.00	-6.87	AVG
2	2485.440	13.18	33.59	46.77	54.00	-7.23	AVG

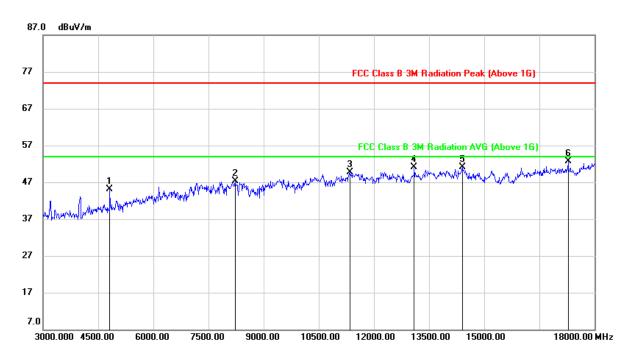
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. AVG: VBW=1/Ton where: ton is transmit duration.
- 4. For transmit duration, please refer to clause 8.1.
- 5. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.



9.2. SPURIOUS EMISSIONS (3~18GHz)

9.2.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

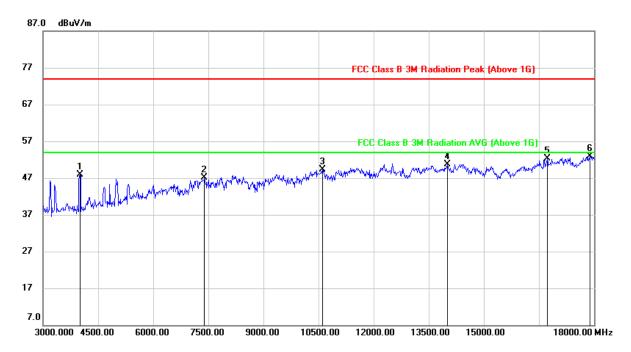


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	45.32	-0.23	45.09	74.00	-28.91	peak
2	8220.000	37.85	9.40	47.25	74.00	-26.75	peak
3	11340.000	36.56	13.08	49.64	74.00	-24.36	peak
4	13095.000	36.21	14.97	51.18	74.00	-22.82	peak
5	14400.000	34.58	16.43	51.01	74.00	-22.99	peak
6	17280.000	30.97	21.72	52.69	74.00	-21.31	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



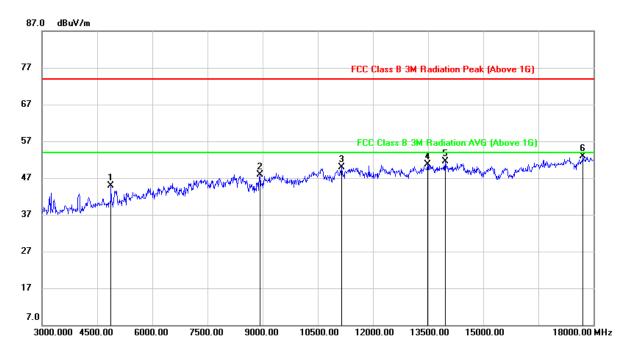
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	50.90	-2.94	47.96	74.00	-26.04	peak
2	7395.000	39.58	7.48	47.06	74.00	-26.94	peak
3	10605.000	36.50	12.75	49.25	74.00	-24.75	peak
4	14010.000	34.29	16.34	50.63	74.00	-23.37	peak
5	16725.000	32.37	19.85	52.22	74.00	-21.78	peak
6	17895.000	29.71	23.16	52.87	74.00	-21.13	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



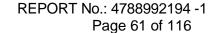


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



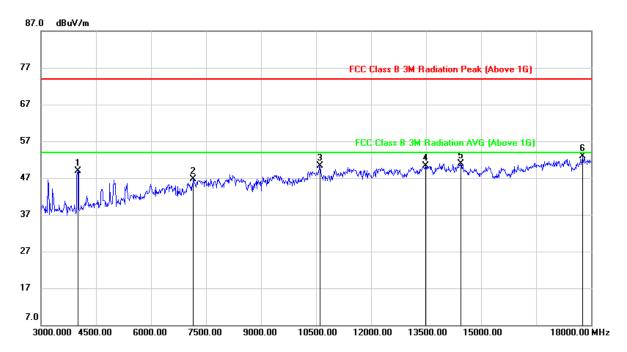
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	45.12	-0.12	45.00	74.00	-29.00	peak
2	8925.000	38.62	9.34	47.96	74.00	-26.04	peak
3	11145.000	36.81	13.19	50.00	74.00	-24.00	peak
4	13485.000	34.99	15.70	50.69	74.00	-23.31	peak
5	13965.000	35.27	16.29	51.56	74.00	-22.44	peak
6	17715.000	30.58	22.39	52.97	74.00	-21.03	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

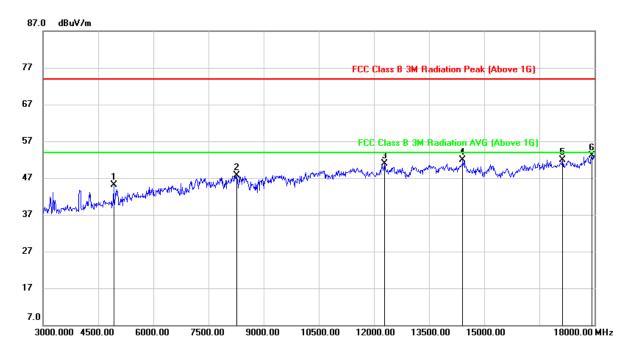


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	51.87	-2.94	48.93	74.00	-25.07	peak
2	7155.000	39.74	6.88	46.62	74.00	-27.38	peak
3	10605.000	37.56	12.75	50.31	74.00	-23.69	peak
4	13485.000	34.54	15.70	50.24	74.00	-23.76	peak
5	14445.000	34.47	16.37	50.84	74.00	-23.16	peak
6	17775.000	29.89	22.97	52.86	74.00	-21.14	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

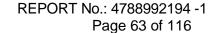


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



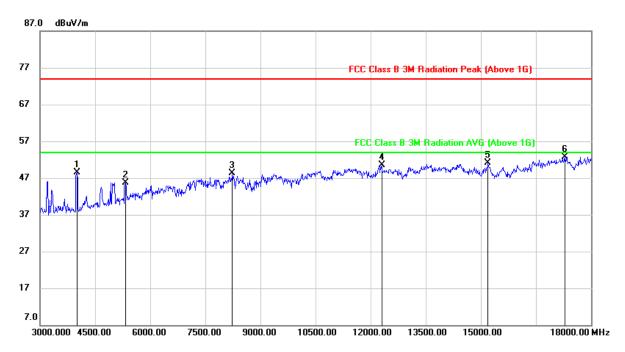
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4920.000	45.07	0.02	45.09	74.00	-28.91	peak
2	8265.000	38.84	8.91	47.75	74.00	-26.25	peak
3	12285.000	36.45	14.37	50.82	74.00	-23.18	peak
4	14415.000	35.55	16.41	51.96	74.00	-22.04	peak
5	17130.000	31.11	20.84	51.95	74.00	-22.05	peak
6	17925.000	29.87	23.18	53.05	74.00	-20.95	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



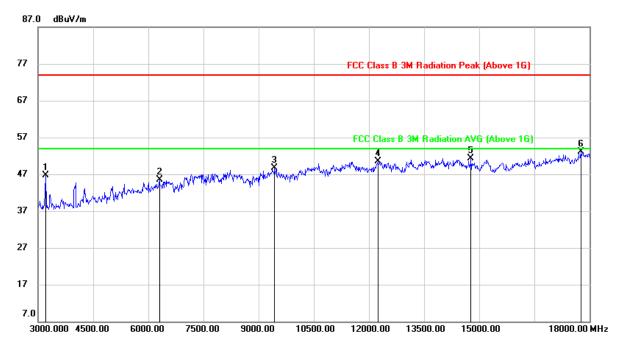
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	51.35	-2.94	48.41	74.00	-25.59	peak
2	5325.000	44.21	1.57	45.78	74.00	-28.22	peak
3	8235.000	38.98	9.23	48.21	74.00	-25.79	peak
4	12300.000	36.20	14.39	50.59	74.00	-23.41	peak
5	15195.000	35.47	15.56	51.03	74.00	-22.97	peak
6	17280.000	31.06	21.72	52.78	74.00	-21.22	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



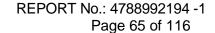
9.2.2. 802.11g MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



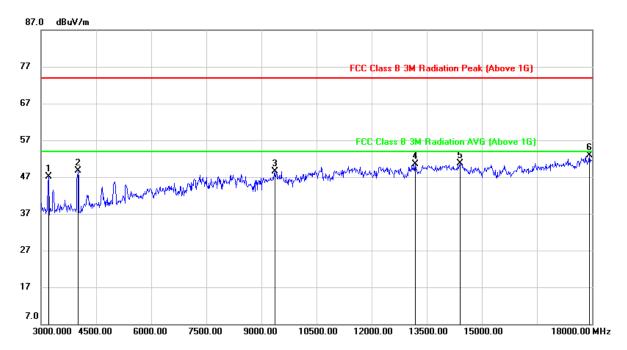
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3210.000	51.29	-4.51	46.78	74.00	-27.22	peak
2	6300.000	40.91	4.55	45.46	74.00	-28.54	peak
3	9435.000	38.31	10.37	48.68	74.00	-25.32	peak
4	12240.000	36.20	14.31	50.51	74.00	-23.49	peak
5	14775.000	35.51	15.71	51.22	74.00	-22.78	peak
6	17760.000	30.22	22.83	53.05	74.00	-20.95	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



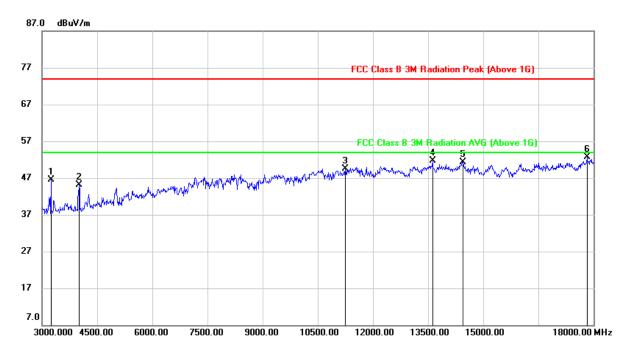
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3210.000	51.57	-4.51	47.06	74.00	-26.94	peak
2	4005.000	51.64	-2.94	48.70	74.00	-25.30	peak
3	9360.000	38.53	10.05	48.58	74.00	-25.42	peak
4	13185.000	35.48	14.99	50.47	74.00	-23.53	peak
5	14415.000	34.38	16.41	50.79	74.00	-23.21	peak
6	17925.000	29.76	23.18	52.94	74.00	-21.06	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



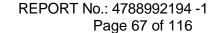


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



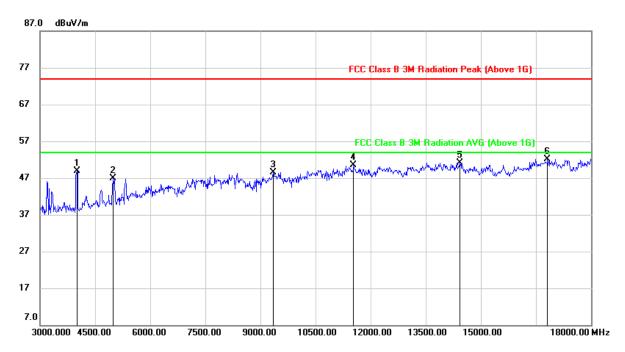
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3240.000	50.84	-4.41	46.43	74.00	-27.57	peak
2	4005.000	48.03	-2.94	45.09	74.00	-28.91	peak
3	11250.000	36.59	12.99	49.58	74.00	-24.42	peak
4	13620.000	35.62	16.04	51.66	74.00	-22.34	peak
5	14445.000	34.97	16.37	51.34	74.00	-22.66	peak
6	17820.000	29.48	23.21	52.69	74.00	-21.31	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



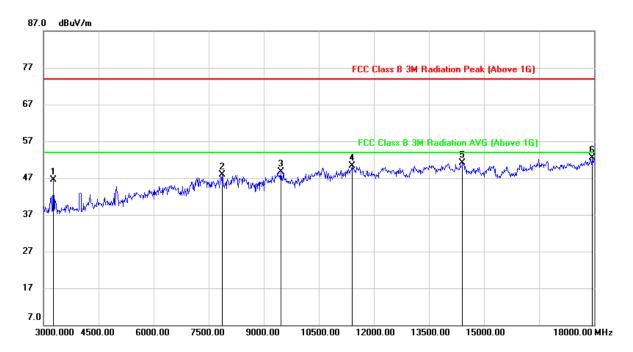
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	51.78	-2.94	48.84	74.00	-25.16	peak
2	4995.000	46.52	0.46	46.98	74.00	-27.02	peak
3	9345.000	38.55	9.95	48.50	74.00	-25.50	peak
4	11535.000	36.49	14.10	50.59	74.00	-23.41	peak
5	14430.000	34.75	16.39	51.14	74.00	-22.86	peak
6	16815.000	32.15	19.92	52.07	74.00	-21.93	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

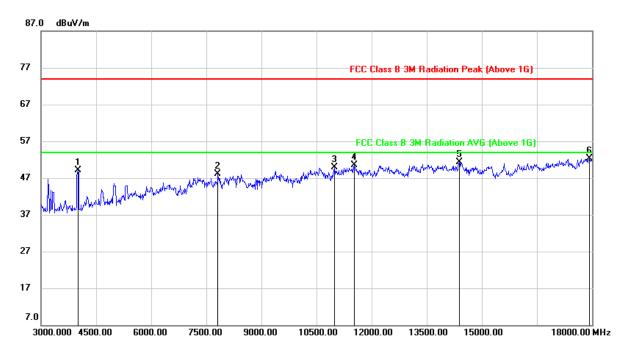


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3270.000	50.75	-4.31	46.44	74.00	-27.56	peak
2	7875.000	39.35	8.55	47.90	74.00	-26.10	peak
3	9465.000	38.35	10.41	48.76	74.00	-25.24	peak
4	11400.000	36.91	13.36	50.27	74.00	-23.73	peak
5	14415.000	34.63	16.41	51.04	74.00	-22.96	peak
6	17955.000	29.29	23.23	52.52	74.00	-21.48	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

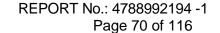


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	52.00	-2.94	49.06	74.00	-24.94	peak
2	7815.000	39.20	8.81	48.01	74.00	-25.99	peak
3	10995.000	36.73	13.23	49.96	74.00	-24.04	peak
4	11520.000	36.35	14.10	50.45	74.00	-23.55	peak
5	14385.000	34.80	16.41	51.21	74.00	-22.79	peak
6	17925.000	29.19	23.18	52.37	74.00	-21.63	peak

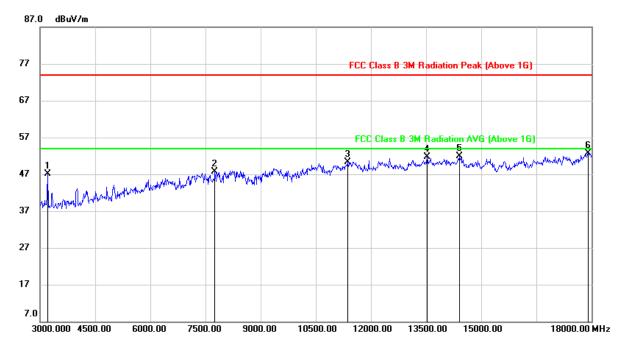
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





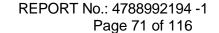
9.2.3. 802.11n HT20 MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



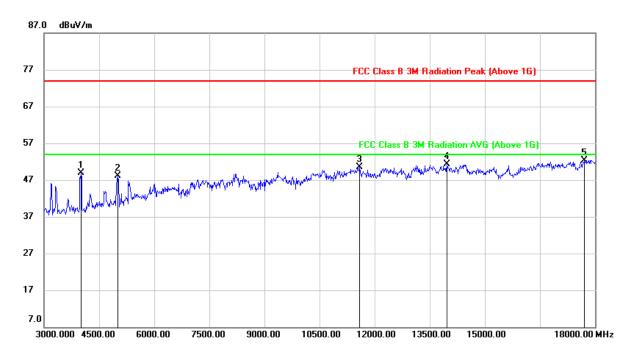
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3210.000	51.66	-4.51	47.15	74.00	-26.85	peak
2	7755.000	39.43	8.30	47.73	74.00	-26.27	peak
3	11370.000	37.04	13.22	50.26	74.00	-23.74	peak
4	13530.000	35.87	15.79	51.66	74.00	-22.34	peak
5	14415.000	35.44	16.41	51.85	74.00	-22.15	peak
6	17910.000	29.58	23.17	52.75	74.00	-21.25	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



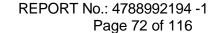


HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



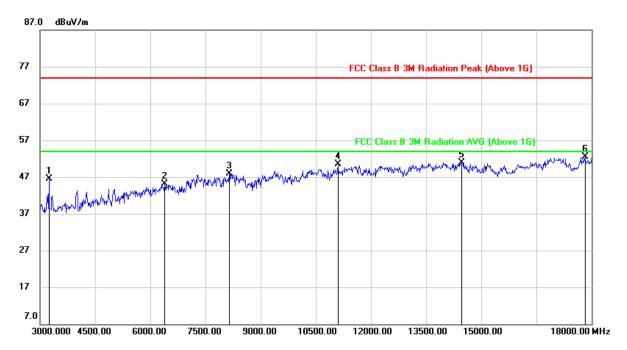
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	51.93	-2.94	48.99	74.00	-25.01	peak
2	5010.000	47.70	0.50	48.20	74.00	-25.80	peak
3	11595.000	36.26	14.17	50.43	74.00	-23.57	peak
4	13965.000	35.02	16.29	51.31	74.00	-22.69	peak
5	17715.000	30.01	22.39	52.40	74.00	-21.60	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



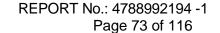


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



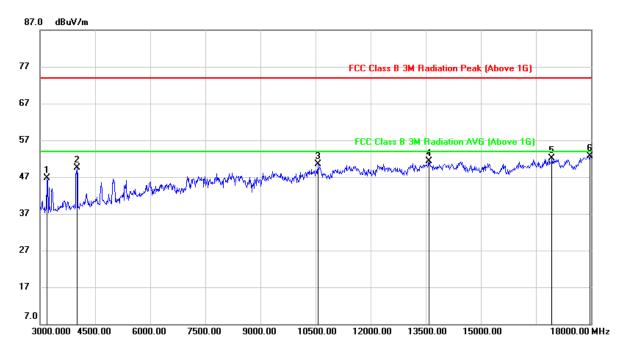
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3240.000	50.90	-4.41	46.49	74.00	-27.51	peak
2	6390.000	40.22	4.97	45.19	74.00	-28.81	peak
3	8145.000	38.67	9.30	47.97	74.00	-26.03	peak
4	11100.000	37.30	13.27	50.57	74.00	-23.43	peak
5	14460.000	34.46	16.35	50.81	74.00	-23.19	peak
6	17820.000	29.36	23.21	52.57	74.00	-21.43	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



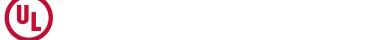


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



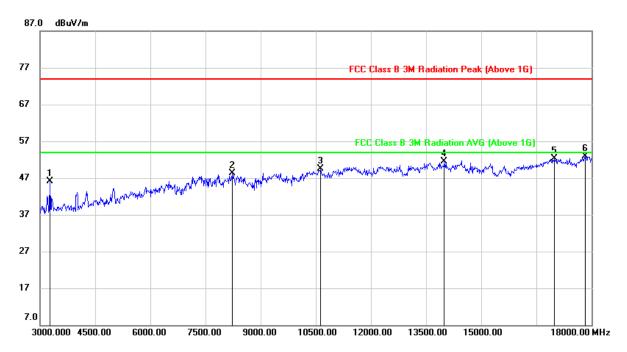
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3195.000	51.12	-4.51	46.61	74.00	-27.39	peak
2	4005.000	52.51	-2.94	49.57	74.00	-24.43	peak
3	10560.000	38.17	12.37	50.54	74.00	-23.46	peak
4	13590.000	35.30	16.04	51.34	74.00	-22.66	peak
5	16935.000	31.99	20.07	52.06	74.00	-21.94	peak
6	17970.000	29.56	23.24	52.80	74.00	-21.20	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



REPORT No.: 4788992194 -1 Page 74 of 116

HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

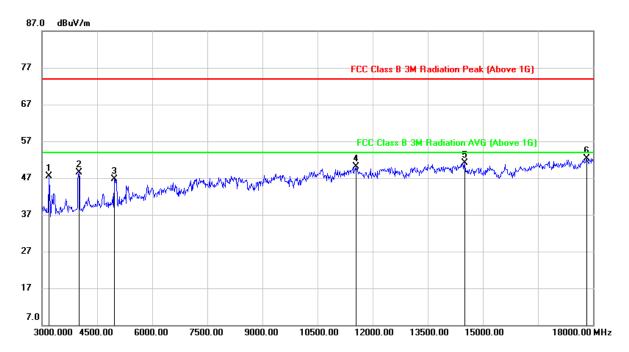


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3270.000	50.49	-4.31	46.18	74.00	-27.82	peak
2	8220.000	38.98	9.40	48.38	74.00	-25.62	peak
3	10635.000	37.01	12.59	49.60	74.00	-24.40	peak
4	13995.000	35.10	16.35	51.45	74.00	-22.55	peak
5	16980.000	31.97	20.25	52.22	74.00	-21.78	peak
6	17820.000	29.69	23.21	52.90	74.00	-21.10	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

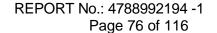


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3180.000	51.93	-4.44	47.49	74.00	-26.51	peak
2	4005.000	51.50	-2.94	48.56	74.00	-25.44	peak
3	4965.000	46.37	0.28	46.65	74.00	-27.35	peak
4	11550.000	35.89	14.13	50.02	74.00	-23.98	peak
5	14505.000	34.74	16.28	51.02	74.00	-22.98	peak
6	17820.000	29.13	23.21	52.34	74.00	-21.66	peak

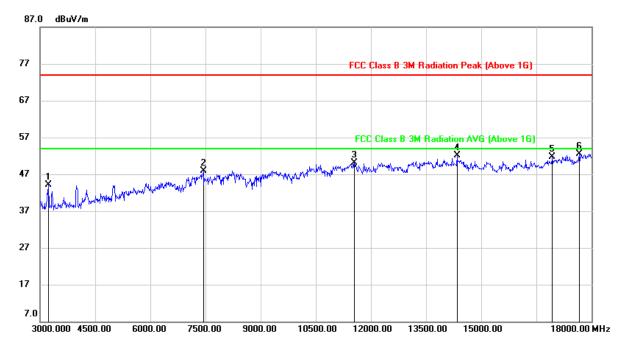
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





9.2.4. 802.11n HT40 MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



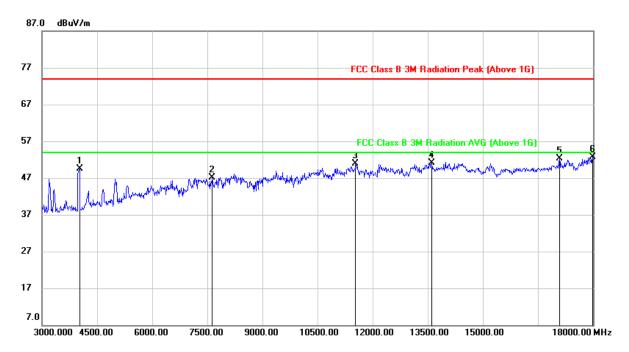
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3225.000	48.66	-4.46	44.20	74.00	-29.80	peak
2	7440.000	40.54	7.39	47.93	74.00	-26.07	peak
3	11550.000	35.93	14.13	50.06	74.00	-23.94	peak
4	14340.000	35.80	16.36	52.16	74.00	-21.84	peak
5	16935.000	31.60	20.07	51.67	74.00	-22.33	peak
6	17670.000	30.58	21.98	52.56	74.00	-21.44	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



REPORT No.: 4788992194 -1 Page 77 of 116

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

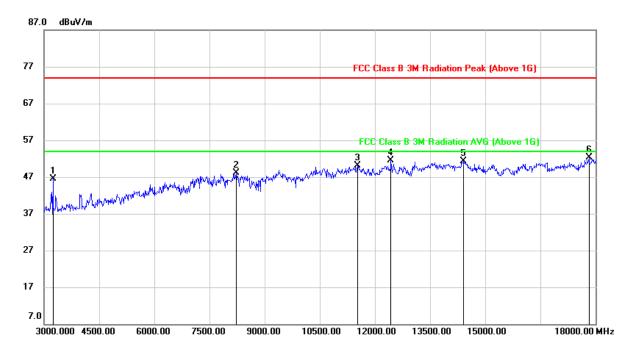


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4020.000	52.45	-2.93	49.52	74.00	-24.48	peak
2	7635.000	39.53	7.61	47.14	74.00	-26.86	peak
3	11535.000	36.89	14.10	50.99	74.00	-23.01	peak
4	13605.000	35.00	16.07	51.07	74.00	-22.93	peak
5	17085.000	31.52	20.72	52.24	74.00	-21.76	peak
6	17985.000	29.54	23.25	52.79	74.00	-21.21	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

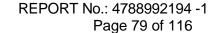


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)



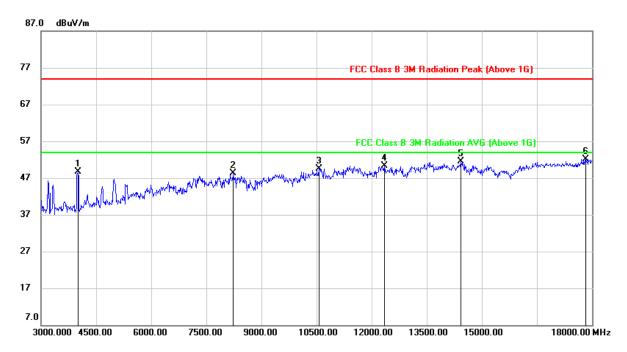
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3240.000	50.92	-4.41	46.51	74.00	-27.49	peak
2	8235.000	38.78	9.23	48.01	74.00	-25.99	peak
3	11520.000	35.93	14.10	50.03	74.00	-23.97	peak
4	12435.000	37.04	14.51	51.55	74.00	-22.45	peak
5	14400.000	34.96	16.43	51.39	74.00	-22.61	peak
6	17820.000	29.13	23.21	52.34	74.00	-21.66	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

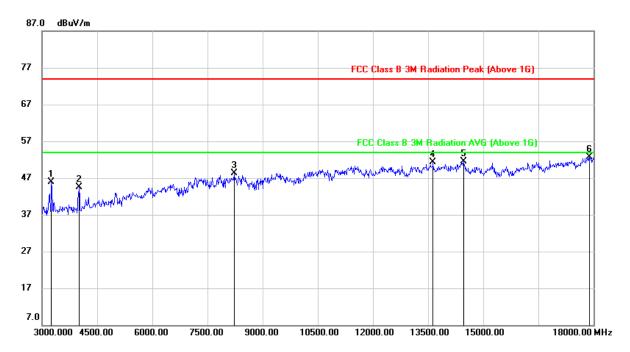


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4005.000	51.64	-2.94	48.70	74.00	-25.30	peak
2	8235.000	39.02	9.23	48.25	74.00	-25.75	peak
3	10575.000	37.08	12.52	49.60	74.00	-24.40	peak
4	12345.000	35.94	14.36	50.30	74.00	-23.70	peak
5	14430.000	35.10	16.39	51.49	74.00	-22.51	peak
6	17820.000	28.99	23.21	52.20	74.00	-21.80	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

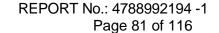


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



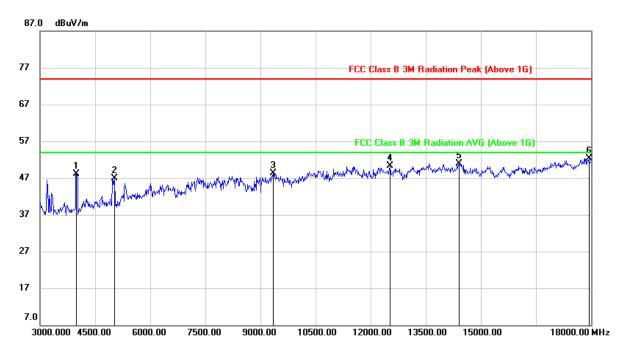
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3255.000	50.29	-4.36	45.93	74.00	-28.07	peak
2	4005.000	47.49	-2.94	44.55	74.00	-29.45	peak
3	8220.000	38.92	9.40	48.32	74.00	-25.68	peak
4	13635.000	35.37	16.01	51.38	74.00	-22.62	peak
5	14475.000	35.12	16.33	51.45	74.00	-22.55	peak
6	17895.000	29.45	23.16	52.61	74.00	-21.39	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	51.10	-2.95	48.15	74.00	-25.85	peak
2	5025.000	46.27	0.55	46.82	74.00	-27.18	peak
3	9345.000	38.26	9.95	48.21	74.00	-25.79	peak
4	12525.000	35.67	14.65	50.32	74.00	-23.68	peak
5	14400.000	34.38	16.43	50.81	74.00	-23.19	peak
6	17940.000	29.15	23.21	52.36	74.00	-21.64	peak

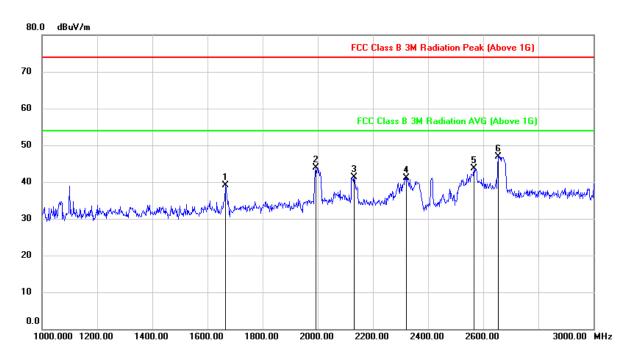
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The High Pass filter loss factor already add into the correct factor.
- 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



9.3. SPURIOUS EMISSIONS (1~3GHz)

9.3.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

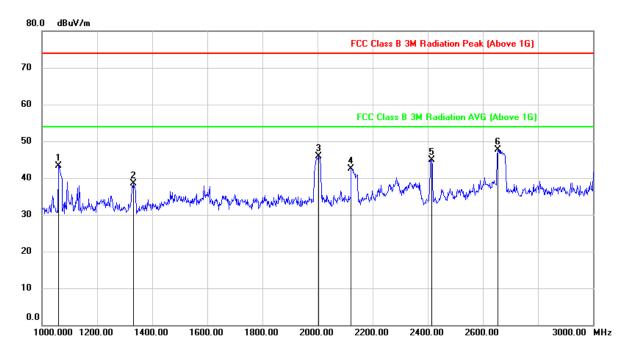


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1664.000	49.76	-10.69	39.07	74.00	-34.93	peak
2	1994.000	53.25	-9.42	43.83	74.00	-30.17	peak
3	2132.000	49.81	-8.42	41.39	74.00	-32.61	peak
4	2322.000	48.49	-7.36	41.13	74.00	-32.87	peak
5	2566.000	50.17	-6.44	43.73	74.00	-30.27	peak
6	2654.000	53.26	-6.26	47.00	74.00	-27.00	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

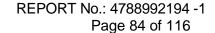


HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



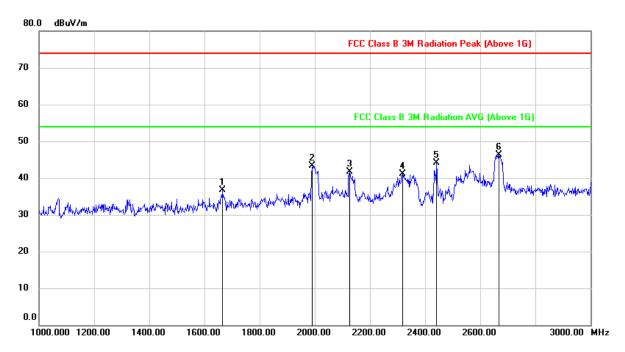
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.50	-13.23	43.27	74.00	-30.73	peak
2	1332.000	50.32	-11.86	38.46	74.00	-35.54	peak
3	2004.000	55.27	-9.40	45.87	74.00	-28.13	peak
4	2122.000	51.07	-8.48	42.59	74.00	-31.41	peak
5	2414.000	51.78	-6.89	44.89	74.00	-29.11	peak
6	2654.000	53.94	-6.26	47.68	74.00	-26.32	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

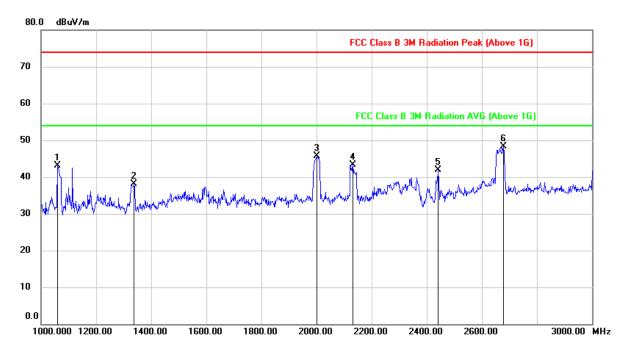


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1666.000	47.37	-10.68	36.69	74.00	-37.31	peak
2	1990.000	52.82	-9.42	43.40	74.00	-30.60	peak
3	2126.000	50.11	-8.46	41.65	74.00	-32.35	peak
4	2318.000	48.50	-7.39	41.11	74.00	-32.89	peak
5	2442.000	50.74	-6.65	44.09	74.00	-29.91	peak
6	2668.000	52.39	-6.17	46.22	74.00	-27.78	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

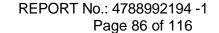


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



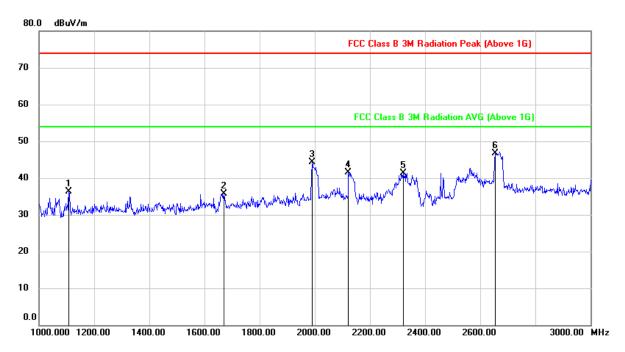
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.42	-13.23	43.19	74.00	-30.81	peak
2	1338.000	50.00	-11.87	38.13	74.00	-35.87	peak
3	2002.000	55.06	-9.42	45.64	74.00	-28.36	peak
4	2132.000	51.77	-8.42	43.35	74.00	-30.65	peak
5	2442.000	48.52	-6.65	41.87	74.00	-32.13	peak
6	2678.000	54.37	-6.11	48.26	74.00	-25.74	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



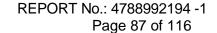


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



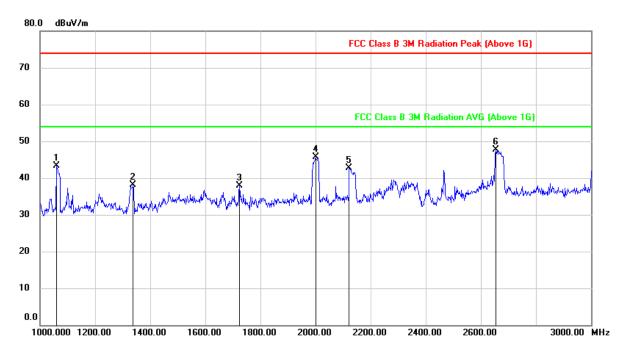
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1108.000	49.38	-13.07	36.31	74.00	-37.69	peak
2	1670.000	46.31	-10.67	35.64	74.00	-38.36	peak
3	1990.000	53.65	-9.42	44.23	74.00	-29.77	peak
4	2122.000	49.96	-8.48	41.48	74.00	-32.52	peak
5	2320.000	48.71	-7.38	41.33	74.00	-32.67	peak
6	2654.000	52.98	-6.26	46.72	74.00	-27.28	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



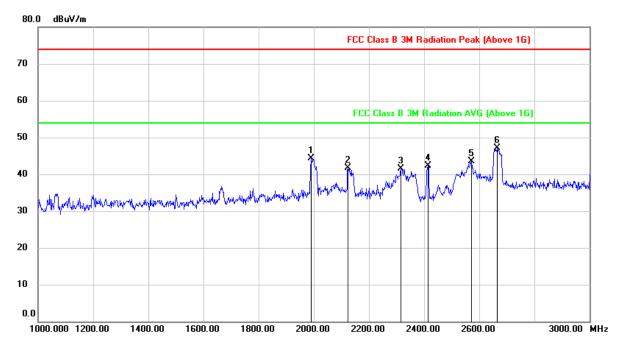
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.58	-13.23	43.35	74.00	-30.65	peak
2	1338.000	49.95	-11.87	38.08	74.00	-35.92	peak
3	1724.000	48.19	-10.36	37.83	74.00	-36.17	peak
4	2000.000	55.11	-9.43	45.68	74.00	-28.32	peak
5	2122.000	51.19	-8.48	42.71	74.00	-31.29	peak
6	2654.000	53.90	-6.26	47.64	74.00	-26.36	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



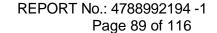
9.3.2. 802.11g MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



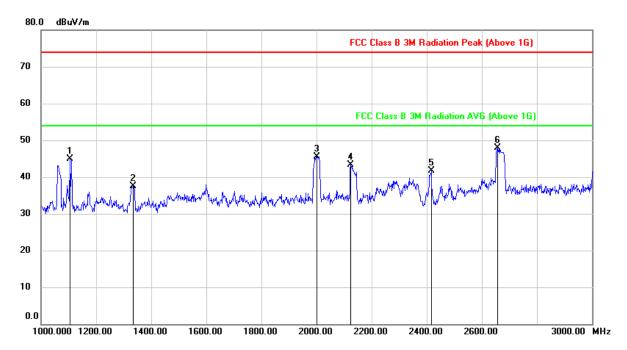
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1990.000	53.63	-9.42	44.21	74.00	-29.79	peak
2	2124.000	50.10	-8.47	41.63	74.00	-32.37	peak
3	2316.000	48.93	-7.40	41.53	74.00	-32.47	peak
4	2414.000	49.18	-6.89	42.29	74.00	-31.71	peak
5	2572.000	49.90	-6.46	43.44	74.00	-30.56	peak
6	2666.000	53.27	-6.18	47.09	74.00	-26.91	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



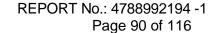


HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



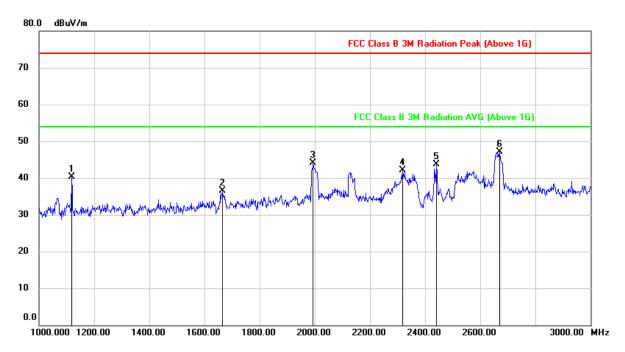
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1104.000	57.94	-13.10	44.84	74.00	-29.16	peak
2	1334.000	49.40	-11.87	37.53	74.00	-36.47	peak
3	2000.000	55.02	-9.43	45.59	74.00	-28.41	peak
4	2124.000	51.69	-8.47	43.22	74.00	-30.78	peak
5	2416.000	48.60	-6.88	41.72	74.00	-32.28	peak
6	2658.000	54.15	-6.23	47.92	74.00	-26.08	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

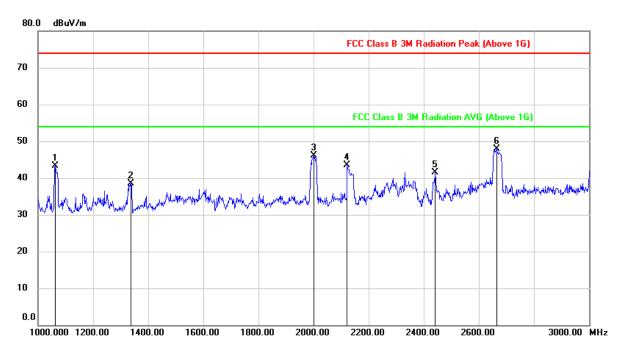


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1118.000	53.27	-12.97	40.30	74.00	-33.70	peak
2	1666.000	47.27	-10.68	36.59	74.00	-37.41	peak
3	1994.000	53.60	-9.42	44.18	74.00	-29.82	peak
4	2318.000	49.58	-7.39	42.19	74.00	-31.81	peak
5	2442.000	50.39	-6.65	43.74	74.00	-30.26	peak
6	2670.000	53.35	-6.16	47.19	74.00	-26.81	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

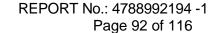


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



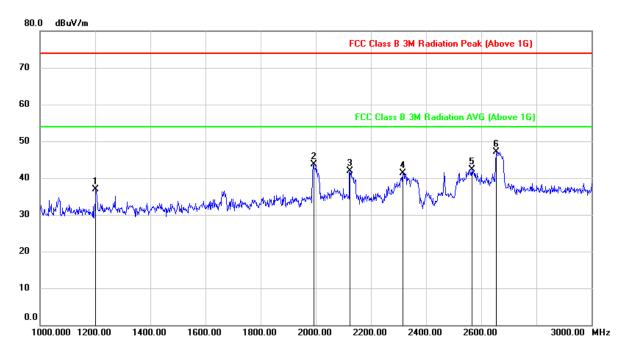
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	56.51	-13.23	43.28	74.00	-30.72	peak
2	1338.000	50.38	-11.87	38.51	74.00	-35.49	peak
3	2000.000	55.61	-9.43	46.18	74.00	-27.82	peak
4	2122.000	52.05	-8.48	43.57	74.00	-30.43	peak
5	2442.000	48.25	-6.65	41.60	74.00	-32.40	peak
6	2664.000	54.01	-6.20	47.81	74.00	-26.19	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



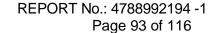


HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



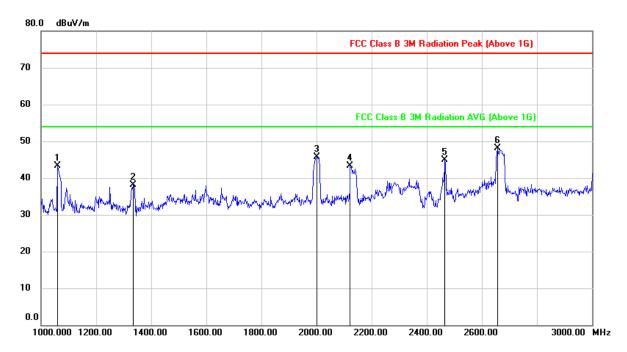
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1202.000	49.01	-12.20	36.81	74.00	-37.19	peak
2	1992.000	53.22	-9.42	43.80	74.00	-30.20	peak
3	2124.000	50.42	-8.47	41.95	74.00	-32.05	peak
4	2316.000	48.72	-7.40	41.32	74.00	-32.68	peak
5	2566.000	48.84	-6.44	42.40	74.00	-31.60	peak
6	2654.000	53.31	-6.26	47.05	74.00	-26.95	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



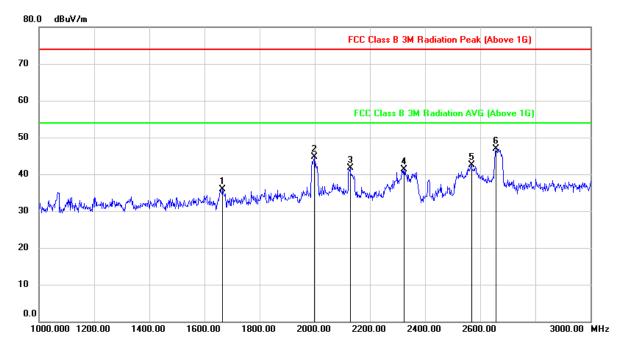
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.44	-13.23	43.21	74.00	-30.79	peak
2	1334.000	50.04	-11.87	38.17	74.00	-35.83	peak
3	2000.000	55.19	-9.43	45.76	74.00	-28.24	peak
4	2122.000	51.82	-8.48	43.34	74.00	-30.66	peak
5	2466.000	51.42	-6.45	44.97	74.00	-29.03	peak
6	2658.000	54.32	-6.23	48.09	74.00	-25.91	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



9.3.3. 802.11n HT20 MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

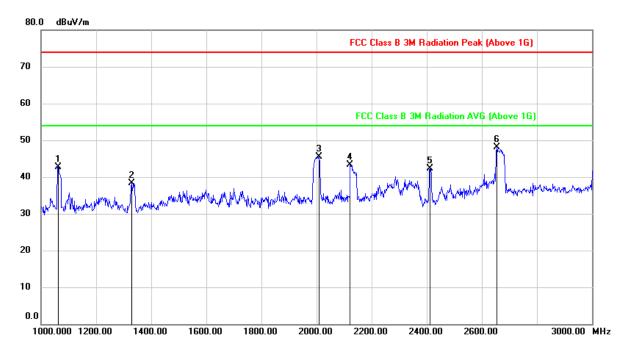


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1666.000	46.63	-10.68	35.95	74.00	-38.05	peak
2	1998.000	54.14	-9.43	44.71	74.00	-29.29	peak
3	2128.000	50.22	-8.45	41.77	74.00	-32.23	peak
4	2324.000	48.59	-7.36	41.23	74.00	-32.77	peak
5	2568.000	48.96	-6.46	42.50	74.00	-31.50	peak
6	2656.000	53.19	-6.24	46.95	74.00	-27.05	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

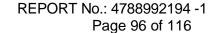


HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)



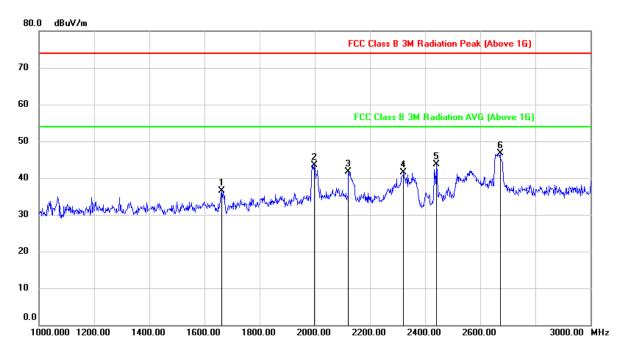
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	55.89	-13.23	42.66	74.00	-31.34	peak
2	1330.000	50.22	-11.87	38.35	74.00	-35.65	peak
3	2010.000	54.88	-9.34	45.54	74.00	-28.46	peak
4	2122.000	51.73	-8.48	43.25	74.00	-30.75	peak
5	2412.000	49.17	-6.91	42.26	74.00	-31.74	peak
6	2654.000	54.35	-6.26	48.09	74.00	-25.91	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

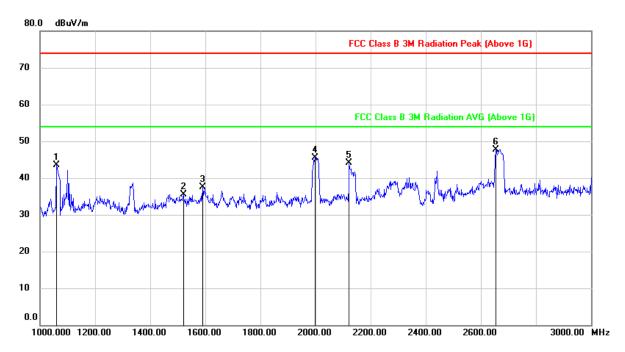


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1662.000	47.20	-10.69	36.51	74.00	-37.49	peak
2	1998.000	52.98	-9.43	43.55	74.00	-30.45	peak
3	2122.000	50.26	-8.48	41.78	74.00	-32.22	peak
4	2322.000	48.90	-7.36	41.54	74.00	-32.46	peak
5	2442.000	50.27	-6.65	43.62	74.00	-30.38	peak
6	2672.000	52.81	-6.15	46.66	74.00	-27.34	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

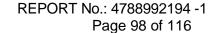


HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



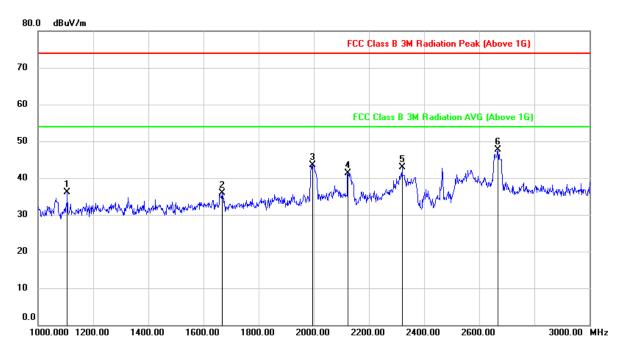
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.66	-13.23	43.43	74.00	-30.57	peak
2	1520.000	47.12	-11.57	35.55	74.00	-38.45	peak
3	1590.000	48.50	-10.93	37.57	74.00	-36.43	peak
4	1998.000	54.96	-9.43	45.53	74.00	-28.47	peak
5	2122.000	52.60	-8.48	44.12	74.00	-29.88	peak
6	2654.000	54.02	-6.26	47.76	74.00	-26.24	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.





HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

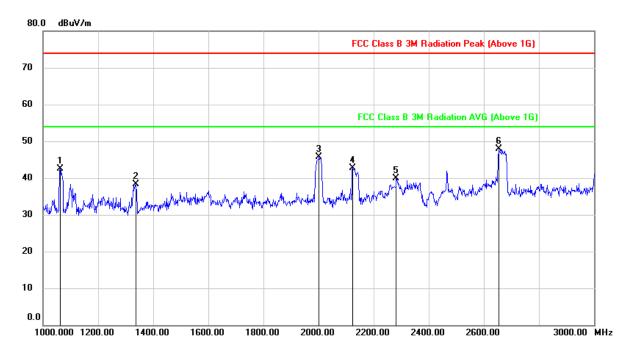


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1106.000	49.15	-13.08	36.07	74.00	-37.93	peak
2	1668.000	46.55	-10.68	35.87	74.00	-38.13	peak
3	1996.000	52.95	-9.43	43.52	74.00	-30.48	peak
4	2124.000	49.81	-8.47	41.34	74.00	-32.66	peak
5	2320.000	50.22	-7.38	42.84	74.00	-31.16	peak
6	2668.000	53.84	-6.17	47.67	74.00	-26.33	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



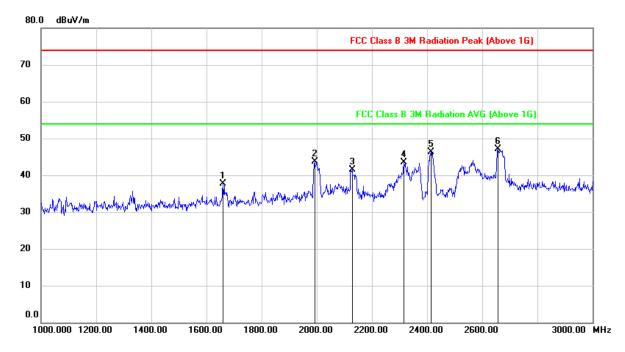
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	55.78	-13.23	42.55	74.00	-31.45	peak
2	1336.000	50.12	-11.87	38.25	74.00	-35.75	peak
3	2002.000	55.12	-9.42	45.70	74.00	-28.30	peak
4	2124.000	51.10	-8.47	42.63	74.00	-31.37	peak
5	2282.000	47.41	-7.58	39.83	74.00	-34.17	peak
6	2654.000	54.18	-6.26	47.92	74.00	-26.08	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



9.3.5. 802.11n HT40 MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

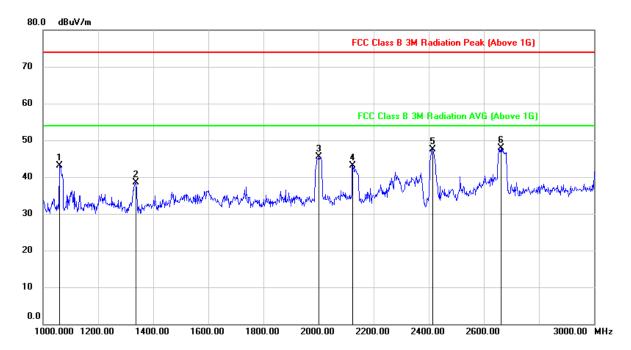


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1660.000	48.33	-10.69	37.64	74.00	-36.36	peak
2	1992.000	53.09	-9.42	43.67	74.00	-30.33	peak
3	2128.000	49.87	-8.45	41.42	74.00	-32.58	peak
4	2316.000	50.82	-7.40	43.42	74.00	-30.58	peak
5	2414.000	53.27	-6.89	46.38	74.00	-27.62	peak
6	2658.000	53.27	-6.23	47.04	74.00	-26.96	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, VERTICAL)

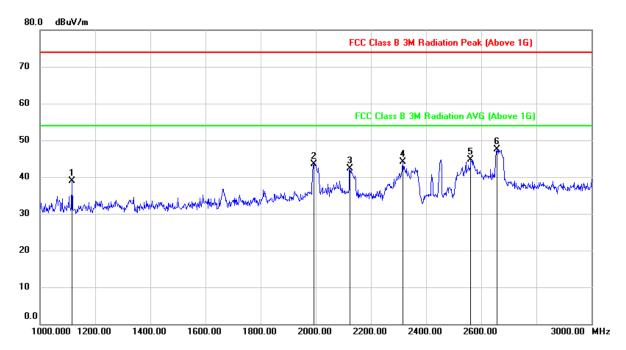


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.29	-13.23	43.06	74.00	-30.94	peak
2	1336.000	50.29	-11.87	38.42	74.00	-35.58	peak
3	2002.000	54.85	-9.42	45.43	74.00	-28.57	peak
4	2124.000	51.59	-8.47	43.12	74.00	-30.88	peak
5	2414.000	54.34	-6.89	47.45	74.00	-26.55	peak
6	2662.000	54.02	-6.21	47.81	74.00	-26.19	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, HORIZONTAL)

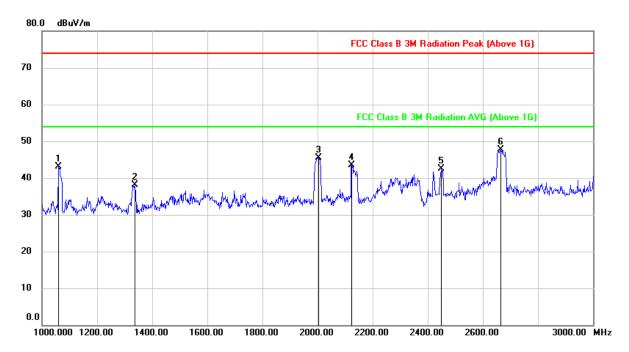


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1116.000	51.84	-12.99	38.85	74.00	-35.15	peak
2	1992.000	52.87	-9.42	43.45	74.00	-30.55	peak
3	2124.000	50.79	-8.47	42.32	74.00	-31.68	peak
4	2316.000	51.41	-7.40	44.01	74.00	-29.99	peak
5	2562.000	51.11	-6.43	44.68	74.00	-29.32	peak
6	2656.000	53.65	-6.24	47.41	74.00	-26.59	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

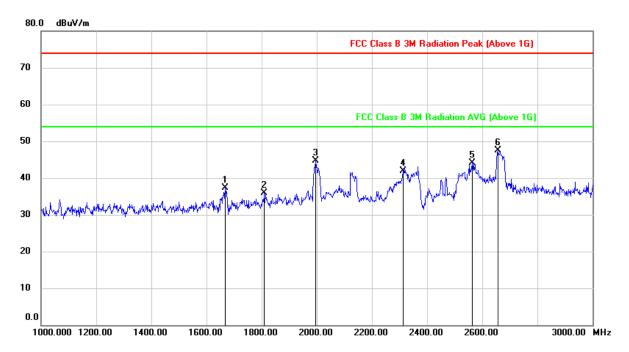


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1060.000	56.32	-13.23	43.09	74.00	-30.91	peak
2	1336.000	50.04	-11.87	38.17	74.00	-35.83	peak
3	2004.000	54.92	-9.40	45.52	74.00	-28.48	peak
4	2124.000	52.01	-8.47	43.54	74.00	-30.46	peak
5	2450.000	49.09	-6.58	42.51	74.00	-31.49	peak
6	2664.000	53.90	-6.20	47.70	74.00	-26.30	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

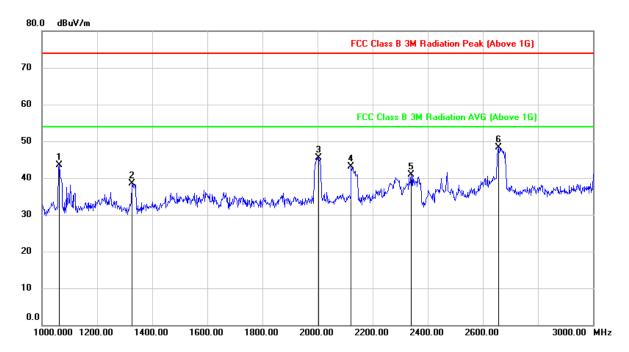


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1668.000	47.90	-10.68	37.22	74.00	-36.78	peak
2	1810.000	45.44	-9.59	35.85	74.00	-38.15	peak
3	1996.000	54.06	-9.43	44.63	74.00	-29.37	peak
4	2312.000	49.29	-7.41	41.88	74.00	-32.12	peak
5	2564.000	50.63	-6.43	44.20	74.00	-29.80	peak
6	2656.000	53.69	-6.24	47.45	74.00	-26.55	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 then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	56.67	-13.23	43.44	74.00	-30.56	peak
2	1326.000	50.32	-11.86	38.46	74.00	-35.54	peak
3	2004.000	54.93	-9.40	45.53	74.00	-28.47	peak
4	2122.000	51.66	-8.48	43.18	74.00	-30.82	peak
5	2340.000	48.13	-7.29	40.84	74.00	-33.16	peak
6	2656.000	54.48	-6.24	48.24	74.00	-25.76	peak

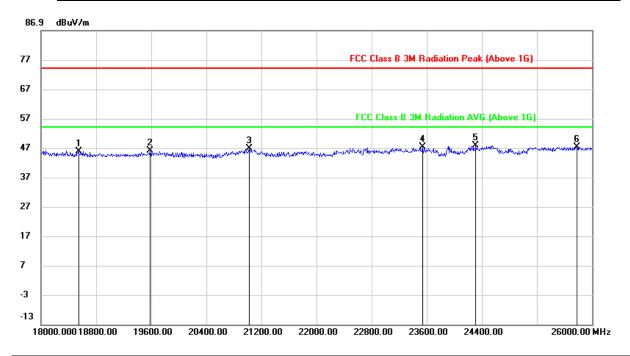
- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.
 - 5. Proper operation of the transmitter prior to adding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



9.4. PURIOUS EMISSIONS (18~26GHz)

9.4.1. 802.11b MODE

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

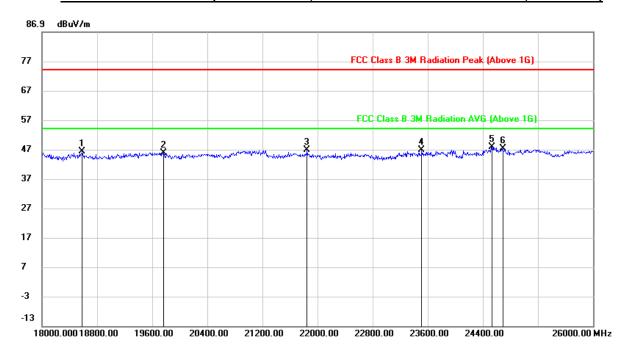


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18544.000	50.26	-4.46	45.80	74.00	-28.20	peak
2	19584.000	50.67	-4.64	46.03	74.00	-27.97	peak
3	21024.000	52.12	-5.30	46.82	74.00	-27.18	peak
4	23536.000	51.96	-4.74	47.22	74.00	-26.78	peak
5	24312.000	51.10	-3.35	47.75	74.00	-26.25	peak
6	25784.000	48.73	-1.49	47.24	74.00	-26.76	peak

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. Proper operation of the transmitter prior to adding the filter to the measurement chain.



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



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18584.000	50.69	-4.53	46.16	74.00	-27.84	peak
2	19760.000	50.14	-4.34	45.80	74.00	-28.20	peak
3	21848.000	52.76	-5.95	46.81	74.00	-27.19	peak
4	23512.000	51.51	-4.76	46.75	74.00	-27.25	peak
5	24528.000	50.36	-2.51	47.85	74.00	-26.15	peak
6	24688.000	49.39	-2.11	47.28	74.00	-26.72	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. Proper operation of the transmitter prior to adding the filter to the measurement chain.

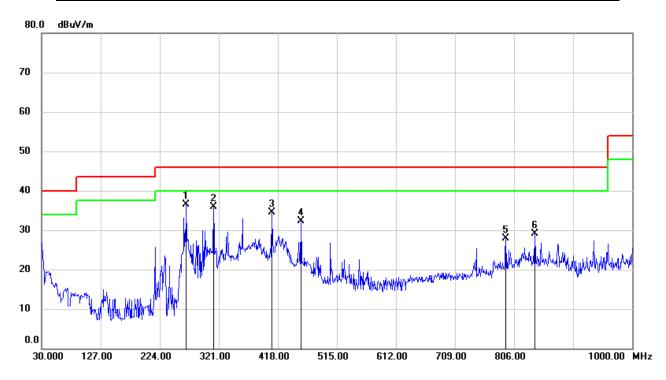
Note: All test mode has been tested, only the worst data record in the report



9.5. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

9.5.1. 802.11b MODE

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



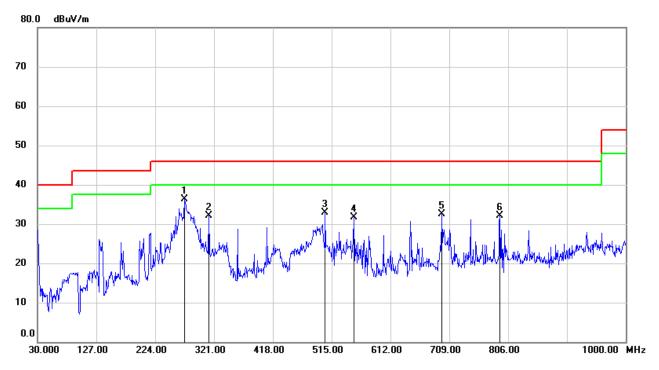
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	267.6500	51.53	-15.06	36.47	46.00	-9.53	QP
2	312.2700	49.26	-13.39	35.87	46.00	-10.13	QP
3	408.3000	46.33	-11.83	34.50	46.00	-11.50	QP
4	455.8300	43.38	-11.06	32.32	46.00	-13.68	QP
5	792.4200	32.95	-5.11	27.84	46.00	-18.16	QP
6	839.9500	33.44	-4.28	29.16	46.00	-16.84	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 (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	272.5000	51.13	-14.86	36.27	46.00	-9.73	QP
2	312.2700	45.52	-13.39	32.13	46.00	-13.87	QP
3	504.3300	42.92	-10.06	32.86	46.00	-13.14	QP
4	551.8600	40.75	-9.06	31.69	46.00	-14.31	QP
5	696.3900	38.83	-6.29	32.54	46.00	-13.46	QP
6	792.4200	37.12	-5.11	32.01	46.00	-13.99	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

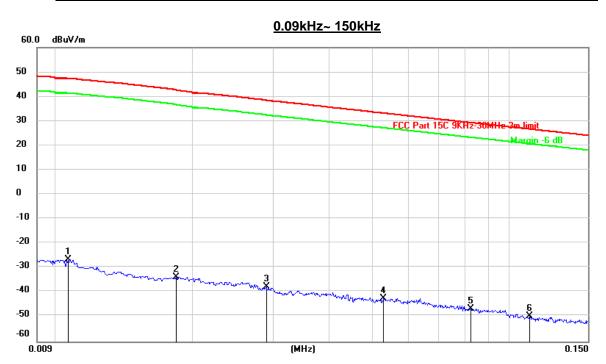
Note: All test mode has been tested, only the worst data record in the report

REPORT No.: 4788992194 -1 Page 110 of 116

9.6. SPURIOUS EMISSIONS BELOW 30M

9.6.1. 802.11b MODE

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



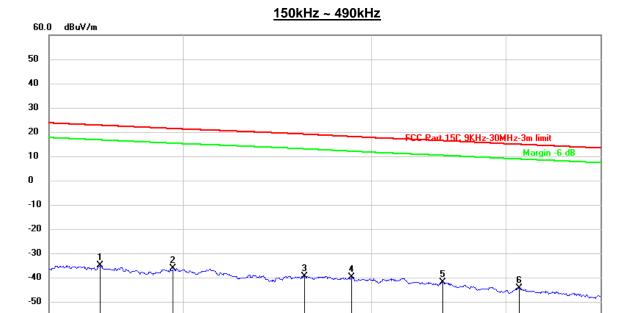
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0106	74.71	-101.39	-26.68	47.24	-73.92	peak
2	0.0183	67.55	-101.36	-33.81	42.60	-76.41	peak
3	0.0290	63.86	-101.38	-37.52	38.41	-75.93	peak
4	0.0529	59.18	-101.49	-42.31	33.16	-75.47	peak
5	0.0825	55.09	-101.65	-46.56	29.28	-75.84	peak
6	0.1115	52.03	-101.76	-49.73	26.67	-76.40	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.

0.490



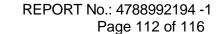
-60 0.150



Frequency Reading Correct Result Limit Remark No. Margin (MHz) (dBuV) (dB/m) (dBuV/m) (dBuV/m) (dB) 0.1675 67.62 -101.67 -34.05 23.13 -57.18 peak -57.00 2 0.1958 66.48 -101.71 -35.23 21.77 peak 63.23 3 0.2595 -101.81 -38.58 19.48 -58.06 peak 4 0.2872 62.87 -101.83 -38.96 18.51 -57.47 peak 5 0.3496 61.02 -101.91 -40.89 16.82 -57.71 peak 6 0.4112 58.60 -101.97 -43.37 15.34 -58.71 peak

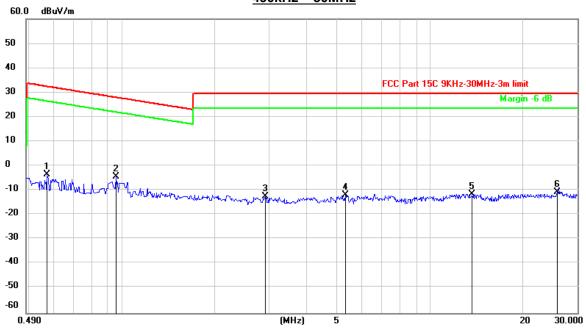
(MHz)

- 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.





490kHz ~ 30MHz



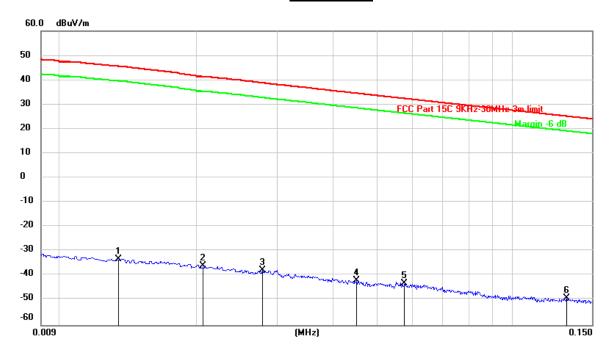
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5725	58.53	-62.07	-3.54	32.48	-36.02	peak
2	0.9582	57.93	-62.24	-4.31	27.98	-32.29	peak
3	2.9222	49.01	-61.60	-12.59	29.54	-42.13	peak
4	5.3067	49.50	-61.44	-11.94	29.54	-41.48	peak
5	13.6806	49.54	-60.96	-11.42	29.54	-40.96	peak
6	25.8094	49.64	-60.37	-10.73	29.54	-40.27	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.



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

0.09~ 150kHz

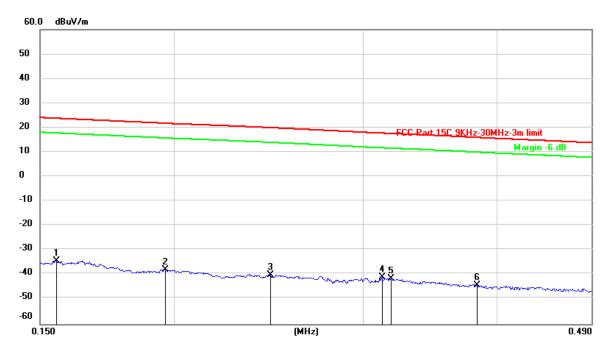


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0134	68.23	-101.39	-33.16	45.55	-78.71	peak
2	0.0206	65.42	-101.35	-35.93	41.37	-77.30	peak
3	0.0279	63.67	-101.38	-37.71	38.80	-76.51	peak
4	0.0451	59.59	-101.46	-41.87	34.57	-76.44	peak
5	0.0575	58.41	-101.51	-43.10	32.43	-75.53	peak
6	0.1318	52.73	-101.69	-48.96	25.21	-74.17	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.

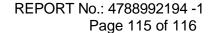


150kHz ~ 490kHz



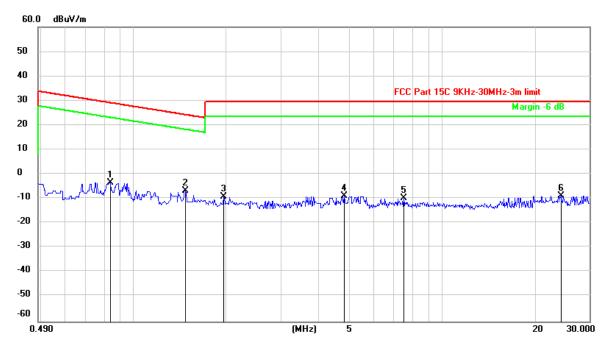
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1554	67.27	-101.65	-34.38	23.78	-58.16	peak
2	0.1962	63.79	-101.71	-37.92	21.75	-59.67	peak
3	0.2462	61.77	-101.80	-40.03	19.95	-59.98	peak
4	0.3125	60.83	-101.87	-41.04	17.75	-58.79	peak
5	0.3190	60.39	-101.88	-41.49	17.58	-59.07	peak
6	0.3830	57.70	-101.94	-44.24	15.98	-60.22	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.





490kHz ~ 30MHz



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.8400	58.71	-62.17	-3.46	29.13	-32.59	peak
2	1.4700	55.39	-62.05	-6.66	24.26	-30.92	peak
3	1.9522	52.61	-61.84	-9.23	29.54	-38.77	peak
4	4.8075	52.53	-61.45	-8.92	29.54	-38.46	peak
5	7.5133	51.27	-61.14	-9.87	29.54	-39.41	peak
6	24.3045	51.80	-60.51	-8.71	29.54	-38.25	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 test mode has been tested, only the worst data record in the report



REPORT No.: 4788992194 -1

Page 116 of 116

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

END OF REPORT