

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: 4788907086.1-1

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Prepared for

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Revision History						
Rev.	Issue Date	Revisions	Revised By			
V0	3/20/2019	Initial Issue				



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	Pass		
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)	Pass		
4	Conducted Bandedge and Spurious EmissionFCC Part 15.247 (d) RSS-247 Clause 5.5P		Pass		
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	Pass		
7	Antenna Requirement	FCC Part 15.203 RSS-GEN Clause 8.3	Pass		



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Address:	Guangzhou Shikun Electronics Co., Ltd 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:	March 01, 2019
Date of Tested:	March 01 ~ 20, 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				

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Stephen Guo Laboratory Manager Shawn Wen Laboratory Leader



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r01, 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

Accreditation Certificate	 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 IC(Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. 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:

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.



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)		
	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.			



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

5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	IEE Std. 802.11	IEE Std. 802.11 Frequency (MHz) C		Max PK Conducted Power (dBm)	
1	IEEE 802.11b	2412-2462	1-11[11]	20.37	
1	IEEE 802.11g	2412-2462	1-11[11]	22.27	
1	IEEE 802.11nHT20	2412-2462	1-11[11]	22.34	
1	IEEE 802.11nHT40	2422-2452	3-9[7]	22.44	

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)			Frequency (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 W	The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band							
Test Softw	/are			Ν	ΛTK			
	Transmit			Test	Channel			
Modulation Mode	Antenna	Ν	NCB: 20MHz			NCB: 40MHz		
Wode	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	



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.



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	/	/	/
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	/

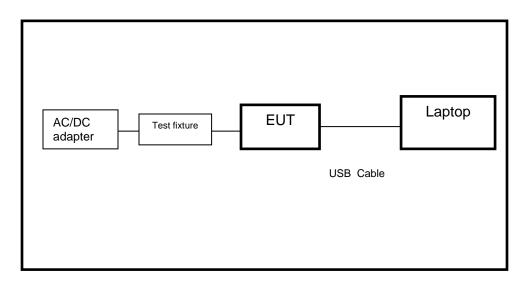
ACCESSORIES

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





6. MEASURING INSTRUMENT AND SOFTWARE USED

	Conducted Emissions							
	Instrument							
Used	Equipment	Manufacturer	Мос	del No.	Seria	l No.	Last Cal.	Next Cal.
\checkmark	EMI Test Receiver	R&S	E	SR3	1019	961	Dec.10,2018	Dec.10,2019
V	Two-Line V- Network	R&S	EN	IV216	1019	983	Dec.10,2018	Dec.10,2019
V	Artificial Mains Networks	Schwarzbeck	NSL	K 8126	8126	465	Dec.10,2018	Dec.10,2019
			Soft	ware				
Used	Des	cription		Man	ufactur	er	Name	Version
\checkmark	Test Software for C	Conducted distu	rbance	e F	arad		EZ-EMC	Ver. UL-3A1
		Rad	iated	Emissic	ons			
			Instru	ument				
Used	Equipment	Manufacturer	Мос	del No.	Seria	l No.	Last Cal.	Next Cal.
V	MXE EMI Receiver	KESIGHT	N9	N9038A		6400 6	Dec.10,2018	Dec.10,2019
V	Hybrid Log Periodic Antenna	TDK	HLP-3003C		1309	960	Sep.17, 2018	Sep.17, 2021
V	Preamplifier	HP	84	8447D		4090 9	Dec.10,2018	Dec.10,2019
V	EMI Measurement Receiver	R&S	ES	SR26	101:	377	Dec.10,2018	Dec.10,2019
\checkmark	Horn Antenna	TDK	HR	N-0118	1309	939	Sep.17, 2018	Sep.17, 2021
V	High Gain Horn Antenna	Schwarzbeck	BBH	A-9170	69)1	Aug.11, 2018	Aug.11, 2021
V	Preamplifier	TDK	PA-0)2-0118	TRS- 000		Dec.10,2018	Dec.10,2019
V	Preamplifier	TDK	PA	-02-2	TRS- 000		Dec.10,2018	Dec.10,2019
$\mathbf{\overline{\mathbf{A}}}$	Loop antenna	Schwarzbeck	15	519B	000	80	Mar.26,2016	Mar.25, 2019
Ø	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	3	Dec.10,2018	Dec.10,2019
			Soft	ware				
Used	Descr	iption	P	Manufac	turer	urer Name		Version
\checkmark	Test Software for Ra	adiated disturba	ance	Fara	b		EZ-EMC	Ver. UL-3A1



	Other instruments									
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.				
\checkmark	Spectrum Analyzer	Keysight	N9030A	MY55410512	Dec.10,2018	Dec.10,2019				
\checkmark	Power Meter	Keysight	N1911A	MY55416024	Dec.10,2018	Dec.10,2019				
\checkmark	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 v05r01	8.2
2	Peak Output Power	KDB 558074 D01 15.247 Meas Guidance v05r01	8.3.1.3/8.3.2.3
3	Power Spectral Density	KDB 558074 D01 15.247 Meas Guidance v05r01	8.4
4	Out-of-band emissions in non- restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r01	8.5
5	Out-of-band emissions in restricted bands	KDB 558074 D01 15.247 Meas Guidance v05r01	8.6
6	Band-edge	KDB 558074 D01 15.247 Meas Guidance v05r01	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



8. ANTENNA PORT TEST RESULTS 8.1. ON TIME AND DUTY CYCLE

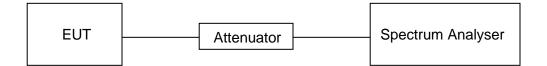
LIMITS

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

RESULTS

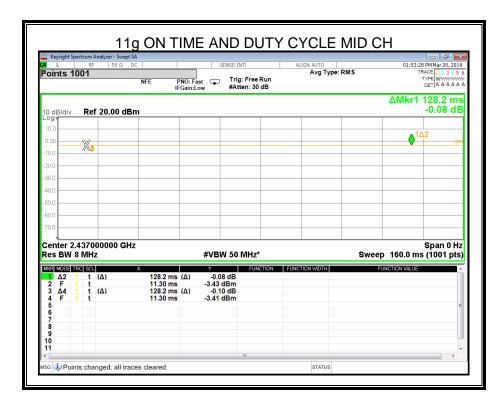
Mode	On Time (msec)	Period (msec)	Duty Cycle x (Linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (KHz)	Final setting For VBW (KHz)
11b	129.3	129.3	1	100	0	0.008	0.01
11g	128.2	128.2	1	100	0	0.008	0.01
11n20	128.6	128.6	1	100	0	0.008	0.01
11n40	128.3	128.3	1	100	0	0.008	0.01

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.

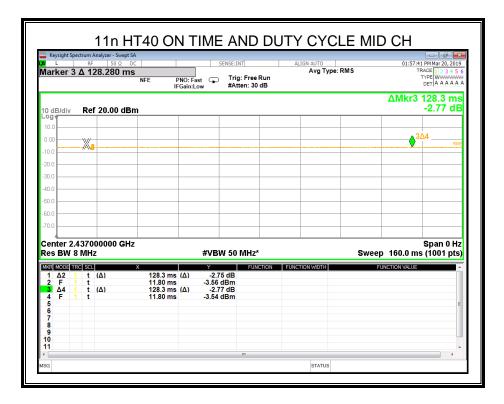


a	L		RF	inalyzer - Sw 50 Ω 29.320	DC ms		NO: Fa Gain:L	ast 😱 🧵	E:INT rig: Free Atten: 30			AUTO Avg Ty	pe: RMS			5:49 PM M TRACE TYPE DET	ar 20, 2019 1 2 3 4 5 A A A A A
	B/div	,	Ref	20.00	dBm										ΔMkr).3 ms 90 dE
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20.0	\vdash																
30.0	\vdash																
10.0																	
50.0	L																
50.0	-																
70.0	⊢																
tes	в٧	81	MH2	-				#VBW 5					5	<u> </u>	160.0	ms (İ0	an 0 Hz 101 pts
1 2	Δ2 F Δ4 F	1 1 1	t	(Δ) (Δ)	X	129.3 ms 11.30 ms 129.3 ms 11.30 ms		4.92 d -3.43 dBi 4.90 d -3.41 dBi	B n B	CTION	FUNCTIO	NWDTH		FUI	NCTION VALU	JE	
7 8 9 10																	
G												STATUS					





L	Spectrum Analyzer - Sv RF 50 S 1 Δ 128.600	Ω DC DC		SENSE:I	NT g: Free Run	ALIGN AUTO Avg	ype: RMS	01:56	:49 PM Mar 20, 201 TRACE 1 2 3 4 5 TYPE WWWW
dB/div	Ref 20.00	IF	Gain:Lo		tten: 30 dB			ΔMkr	DET A A A A A 1 128.6 m 0.01 dl
g	Rei 20.00	авт							0.01 0
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	2.437000000 / 8 MHz	GHz		#VBW 50	MHz*		Swe	eep 160.0 m	Span 0 H ns (1001 pts
	TRC SCL	X	(A)	Y	FUNCTION	FUNCTION WIDT	1	FUNCTION VALU	
1 Δ2 2 F	1 t (Δ) 1 t	128.6 ms 11.80 ms		0.01 dB -3.56 dBm					
3Δ4 4 F	1 t (Δ) 1 t	128.6 ms 11.80 ms	(Δ)	-0.01 dB -3.54 dBm					
5									
7 3									
9									
)									
					III				•





8.2. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH

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(a)(2) ISED RSS-247 5.2 (a)	6 dB Bandwidth	≥ 500KHz	2400-2483.5		
ISED RSS-Gen Clause 6.7	99% Occupied Bandwidth	For reporting purposes only.	2400-2483.5		

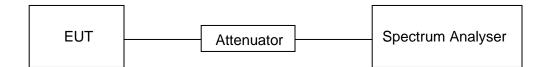
TEST PROCEDURE

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

Center Frequency	The centre frequency of the channel under test
Detector	Peak
	For 6dB Bandwidth :100K For 99% Occupied Bandwidth :1% to 5% of the occupied bandwidth
VBW	For 6dB Bandwidth : ≥3 × RBW For 99% Occupied Bandwidth : approximately 3×RBW
Trace	Max hold
Sweep	Auto couple

Allow the trace to stabilize and measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB and 99% relative to the maximum level measured in the fundamental emission.

TEST SETUP





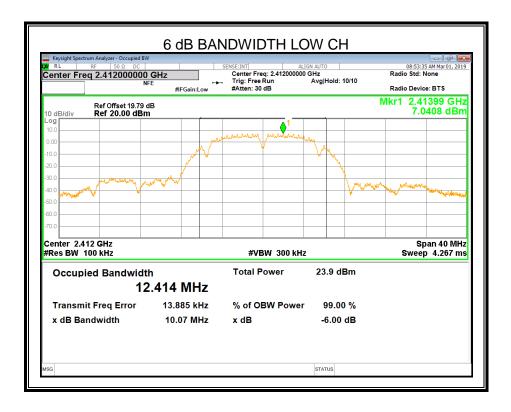
TEST ENVIRONMENT

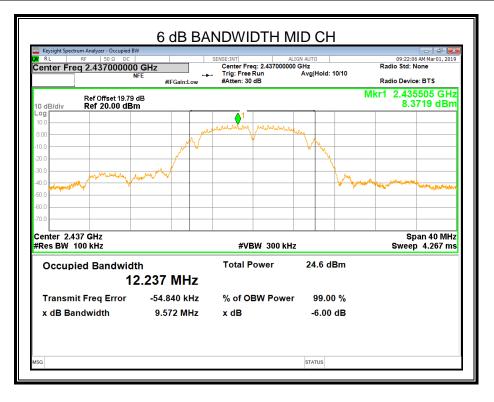
Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

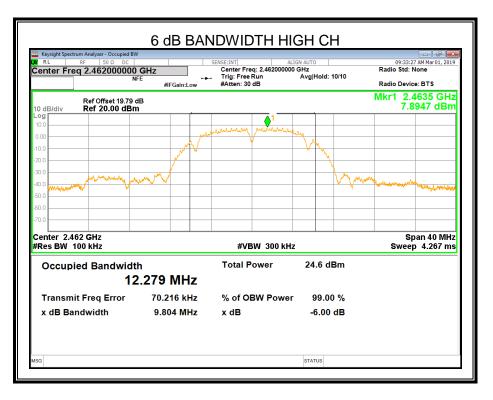
RESULTS

8.2.1. 802.11b MODE

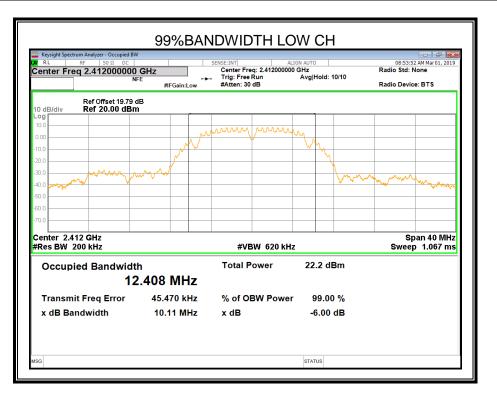
Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	10.07	12.408	≥500	Pass
Middle	9.572	12.222	≥500	Pass
High	9.804	12.283	≥500	Pass

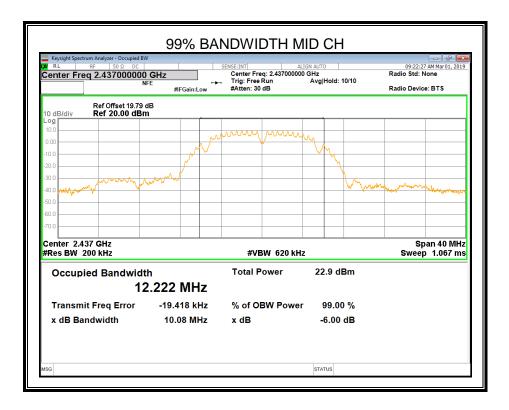




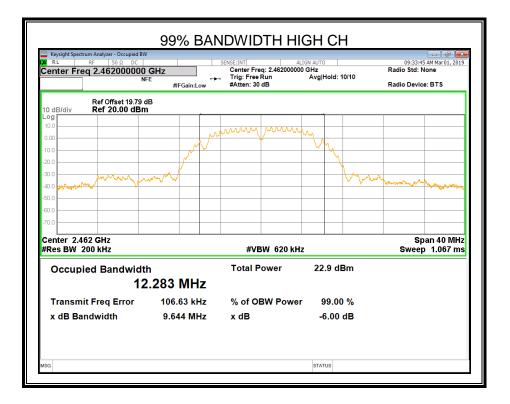






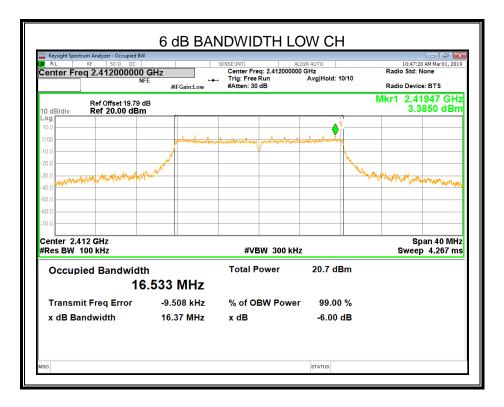


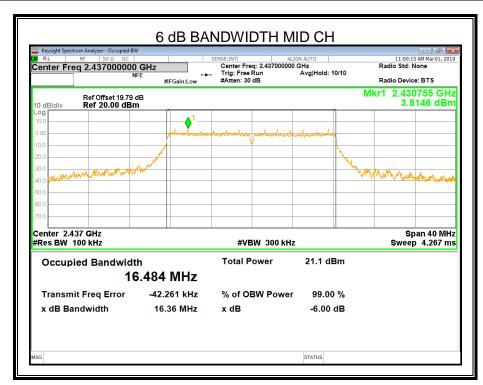


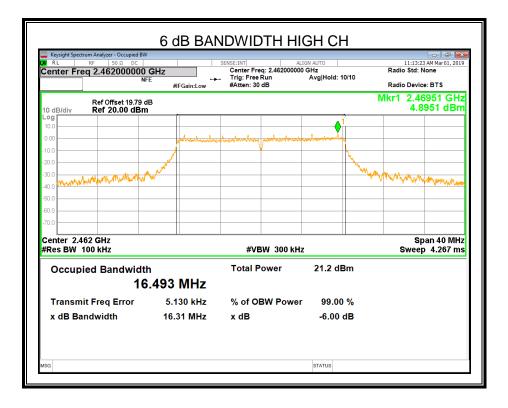


8.2.2. 802.11g MODE

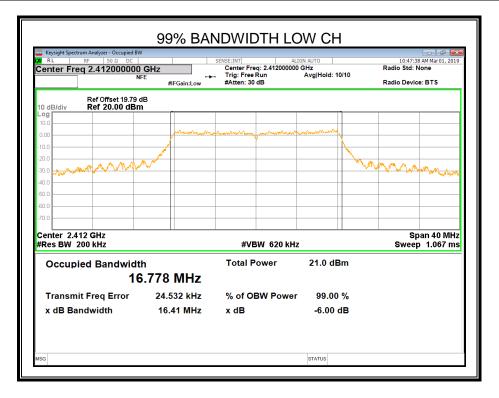
Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	16.37	16.778	≥500	Pass
Middle	16.36	16.694	≥500	Pass
High	16.31	16.721	≥500	Pass

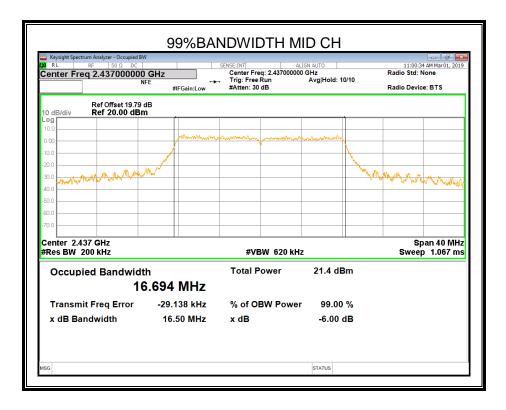




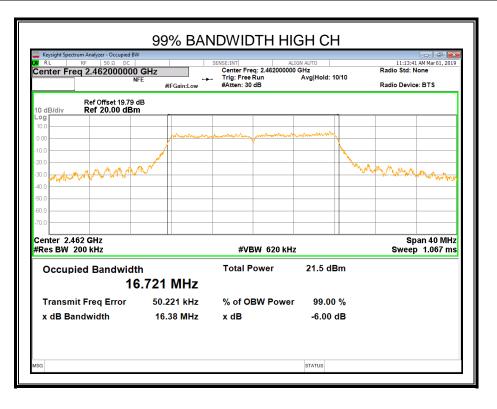






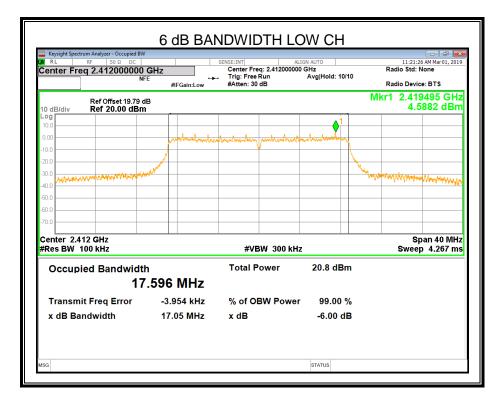


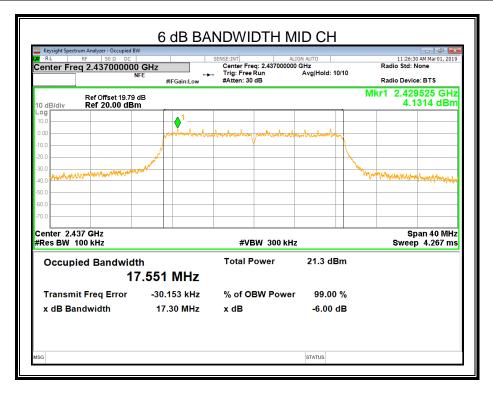


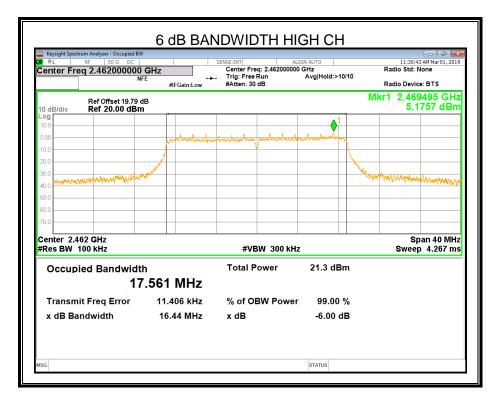


8.2.3. 802.11n HT20 MODE

Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	17.05	17.661	≥500	Pass
Middle	17.30	17.592	≥500	Pass
High	16.44	17.614	≥500	Pass

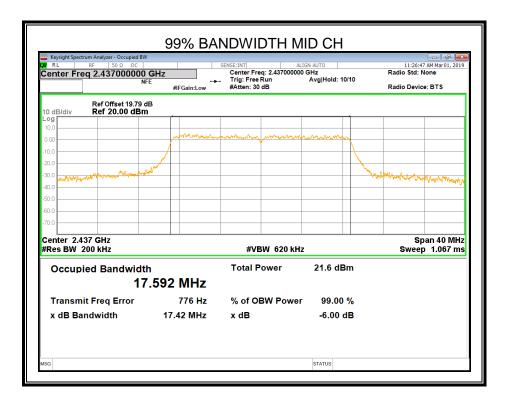




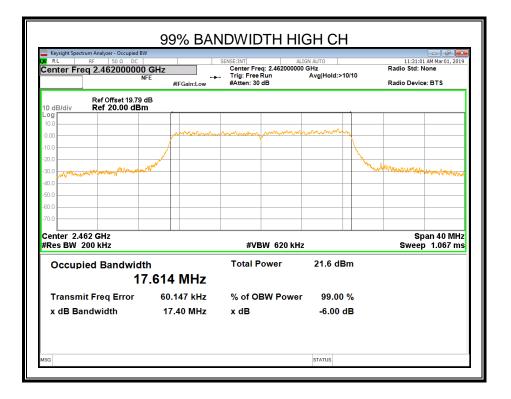




Keysight Spectrum Analyzer - Occupied BW RL RF 50 Ω DC Center Freq 2.412000000 NF	E 🔸	Center Freq: 2.412000000 Trig: Free Run	IGN AUTO O GHz Avg Hold: 10/10	11:21:44 AM Mar01, 2019 Radio Std: None
Ref Offset 19.79 d		#Atten: 30 dB		Radio Device: BTS
10 dB/div Ref 20.00 dBm				
10.0				
0.00	mmm	mound man	mm	
-10.0			\	
-20.0	www			
-30.0 marthan of the sound	V*			must had a second so and for the second
-40.0				
-50.0				
-60.0				
-70.0				
Center 2.412 GHz				Span 40 MHz
#Res BW 200 kHz		#VBW 620 kHz	!	Sweep 1.067 ms
Occupied Bandwidt	า	Total Power	21.2 dBm	
17	.661 MHz			
Transmit Freq Error	38.647 kHz	% of OBW Power	99.00 %	
x dB Bandwidth	17.49 MHz	x dB	-6.00 dB	
ISG			STATUS	

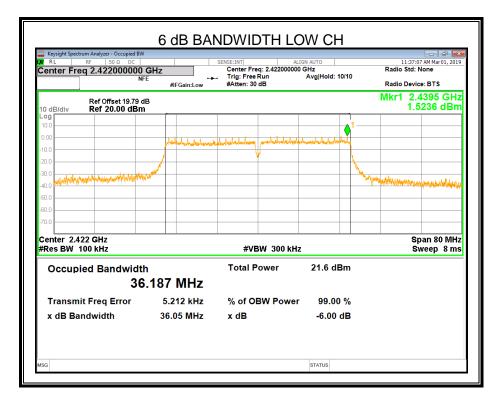


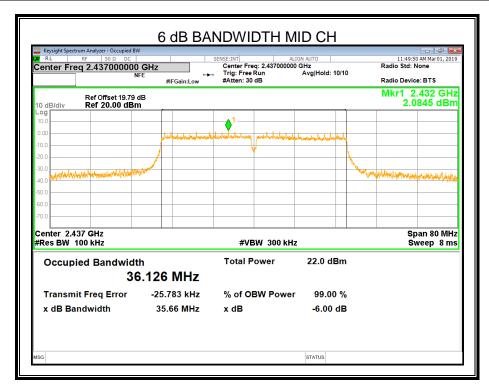


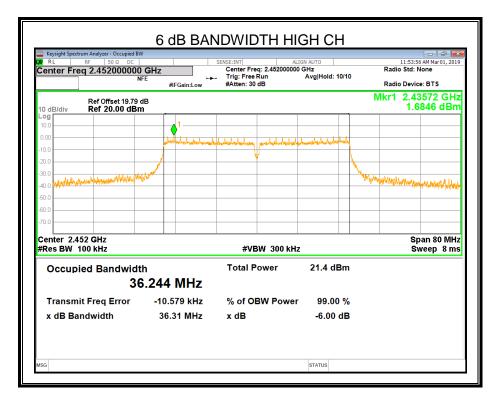


8.2.4. 802.11n HT40 MODE

Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	36.05	36.356	≥500	Pass
Middle	35.66	36.258	≥500	Pass
High	36.31	36.444	≥500	Pass

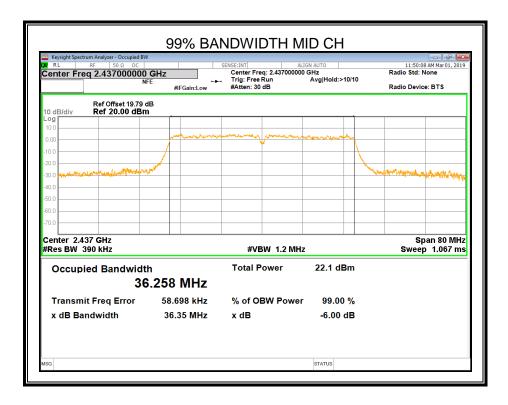




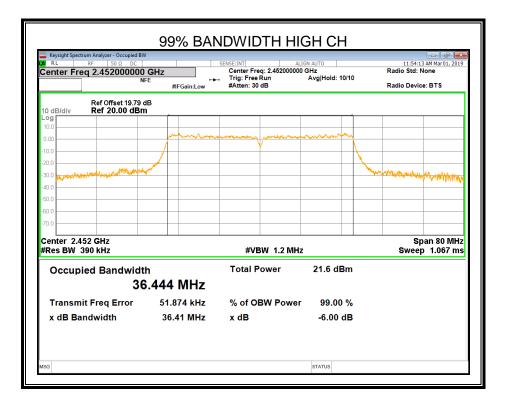




keysight Spectrum Analyzer - Occupied BV RL RF 50 Ω DC Center Freq 2.422000000 N		Center Freq: 2.422000000	GN AUTO GHz Avg Hold: 10/10	11:37:24 AM Mar01, 2019 Radio Std: None Radio Device: BTS
Ref Offset 19.79 o	1B			
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10.0				
20.0	interest and in the second sec			
30.0 And Marker Marker Marker	<i></i>			Martin Contraction of the state
40.0				
50.0				
60.0				
70.0				
Center 2.422 GHz Res BW 390 kHz		#VBW 1.2 MHz		Span 80 MHz Sweep 1.067 ms
Occupied Bandwidt 36	^h 6.356 MHz	Total Power	21.8 dBm	
Transmit Freq Error	82.048 kHz	% of OBW Power	99.00 %	
x dB Bandwidth	36.39 MHz	x dB	-6.00 dB	









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	

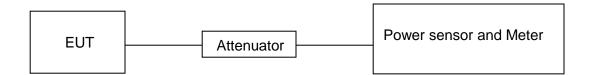
TEST PROCEDURE

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	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



8.3.1. 802.11b MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	19.71	17.46	30
Middle	20.35	18.17	30
High	20.37	18.16	30

8.3.2. 802.11g MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	21.79	14.72	30
Middle	22.23	15.12	30
High	22.27	15.20	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	21.80	14.67	30
Middle	22.34	15.14	30
High	22.14	15.12	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	22.43	15.29	30
Middle	22.44	15.18	30
High	22.25	15.10	30



8.4. POWER SPECTRAL DENSITY

<u>LIMITS</u>

	CFR 47 FCC Part15 (15.2 ISED RSS-247 I			
Section Test Item Limit Frequency Range (MHz)				
CFR 47 FCC §15.247 (e) ISED RSS-247 5.2 (b)	Power Spectral Density	8 dBm/3 kHz	2400-2483.5	

TEST PROCEDURE

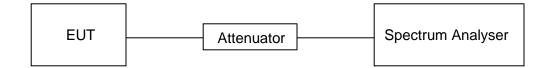
Connect the UUT to the spectrum analyser and use the following settings:

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

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

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

TEST SETUP



TEST ENVIRONMENT

Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

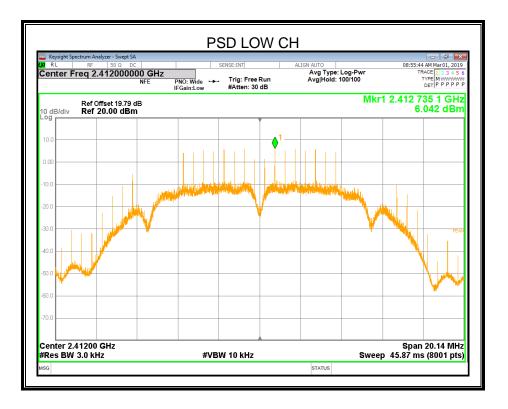
RESULTS

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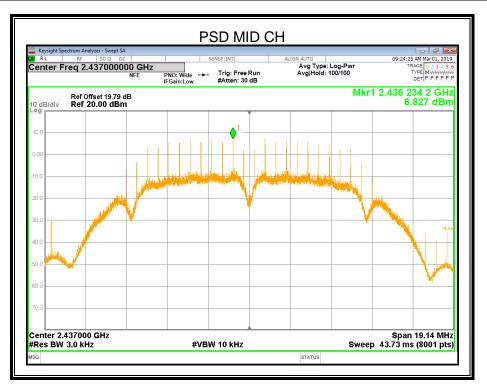


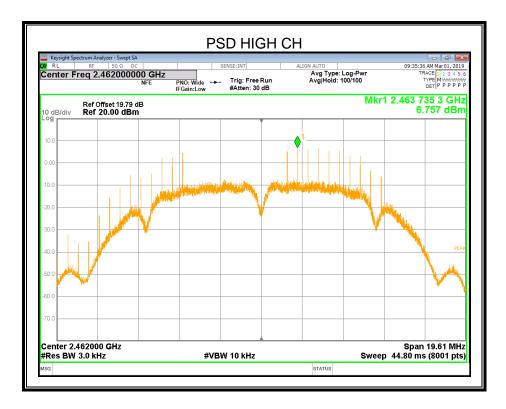
8.4.1. 802.11b MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	6.042	8	PASS
Middle	6.827	8	PASS
High	6.757	8	PASS





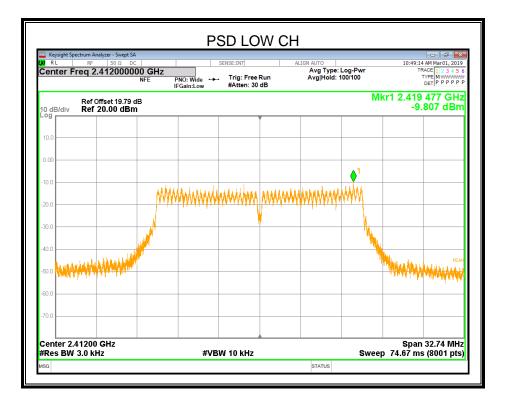




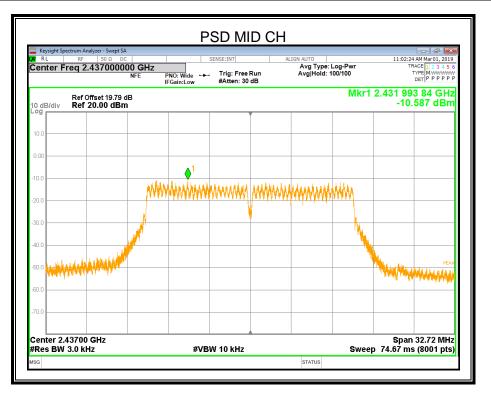


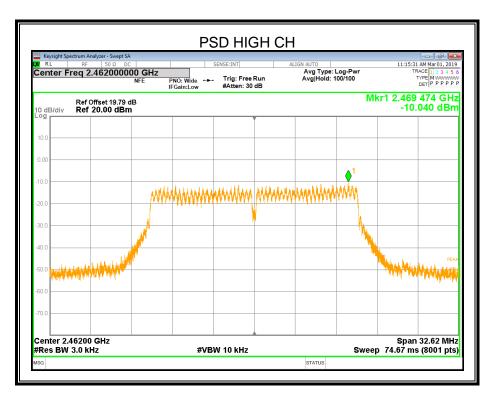
8.4.2. 802.11g MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-9.807	8	PASS
Middle	-10.587	8	PASS
High	-10.040	8	PASS





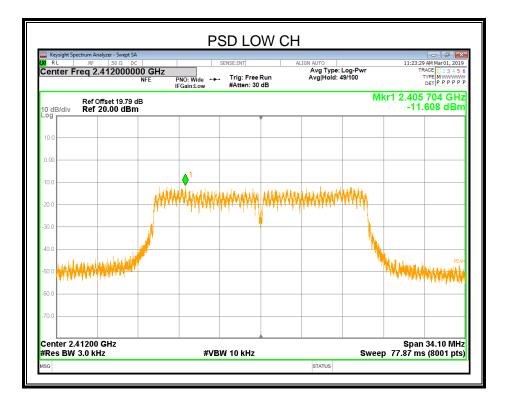




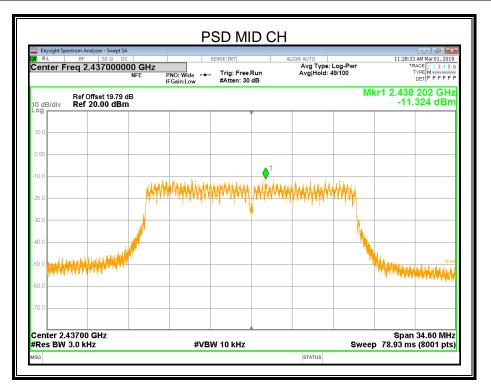


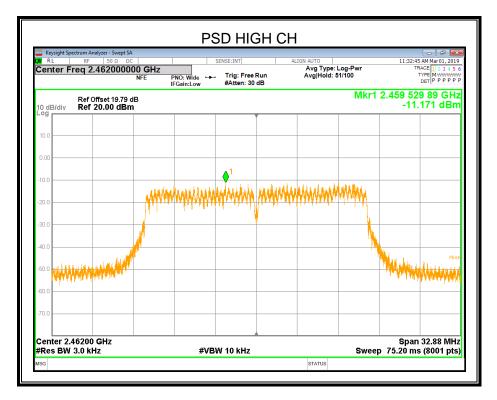
8.4.3. 802.11n HT20 MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-11.608	8	PASS
Middle	-11.324	8	PASS
High	-11.171	8	PASS



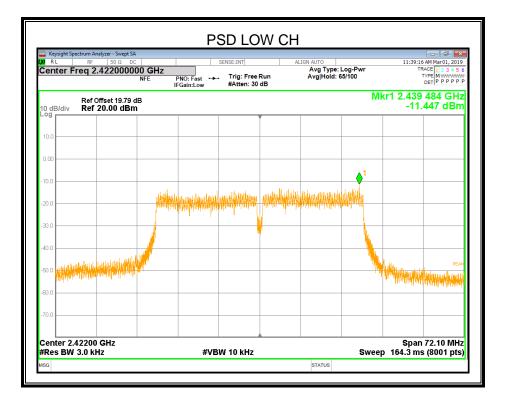




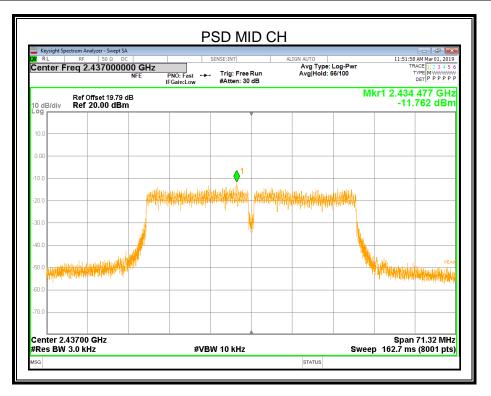


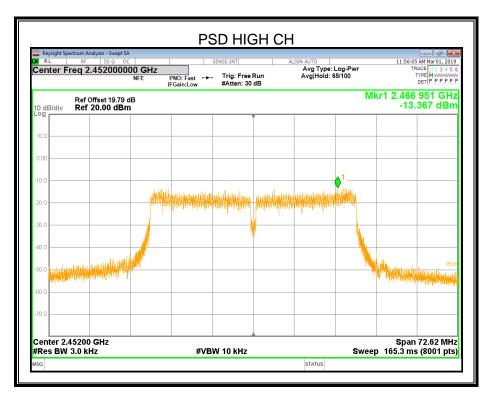
8.4.4. 802.11n HT40 MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-11.447	8	PASS
Middle	-11.762	8	PASS
High	-13.367	8	PASS











8.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2				
Section Test Item Limit				
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	Conducted Bandedge and Spurious Emissions	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power		

TEST PROCEDURE

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

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

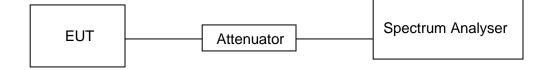
Use the peak marker function to determine the maximum PSD level.

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

Use the peak marker function to determine the maximum amplitude level.



TEST SETUP

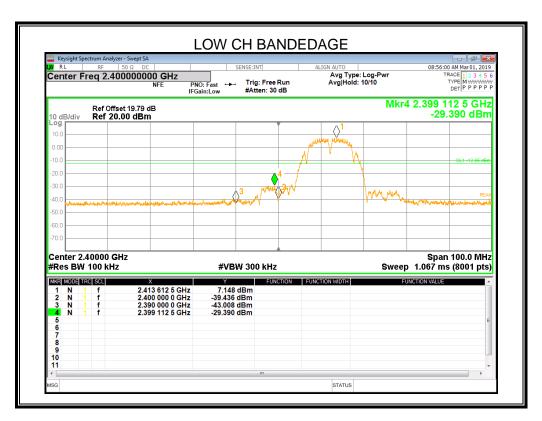


TEST ENVIRONMENT

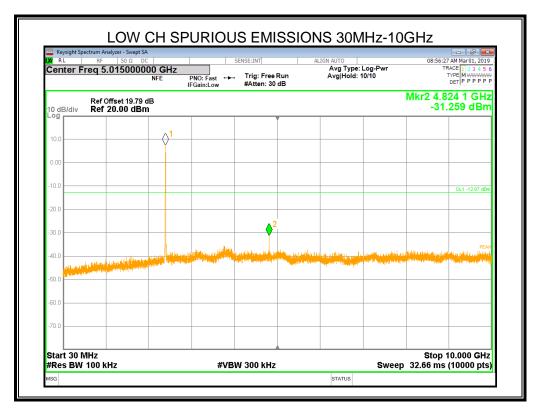
Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

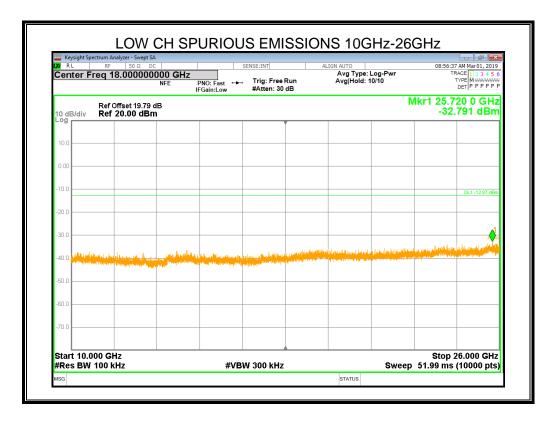
RESULTS

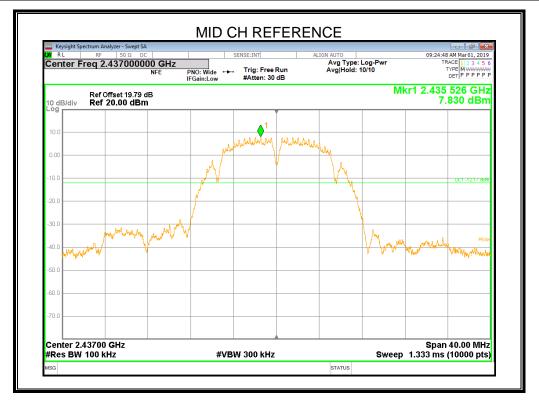
8.5.1. 802.11b MODE

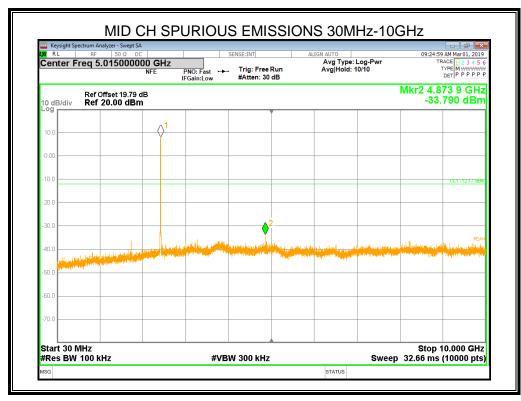










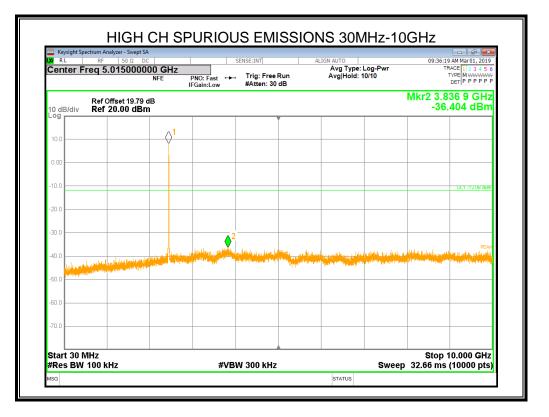


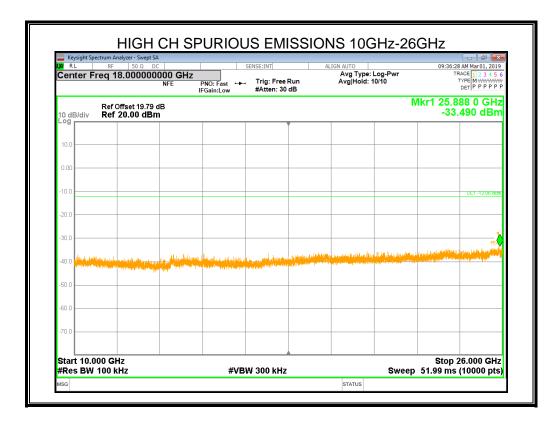


X RL		- Swept SA 10 Ω DC 00000000 GH NFE	IZ PNO: Fast ↔ IFGain:Low	SENSE:INT Trig: Free #Atten: 30	Run	IGN AUTO Avg Type: Avg Hold: 1		TF	ACE 1 2 3 4 5 6 AACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P
10 dB/div Log	Ref Offset Ref 20.0						N		32 0 GHz 412 dBm
10.0									
0.00									
-10.0									DL1 -12:17 dBm
-20.0									
-30.0								المحق والمربون	1 AR
-40.0			dhalin an bha gha a tha an ti Mhan an agus chung saocha			in an dia kampulan di kana Kanan di king panan di kan	a kalendari si si si si si si si si si Sana kalendari si	and a second second and second second	na a the part of the part of the sec
-50.0									
-60.0									
-70.0									
	.000 GHz V 100 kHz		#VI	3W 300 kHz			Sweep		26.000 GHz (10000 pts)

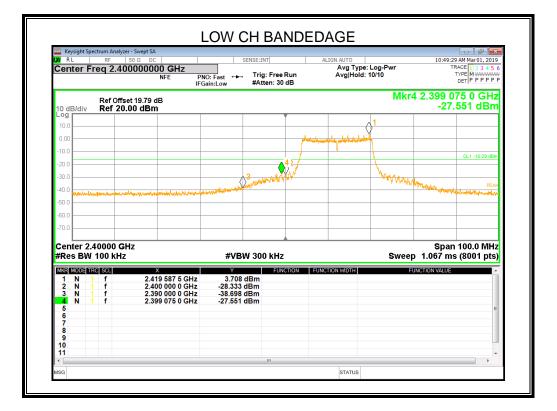


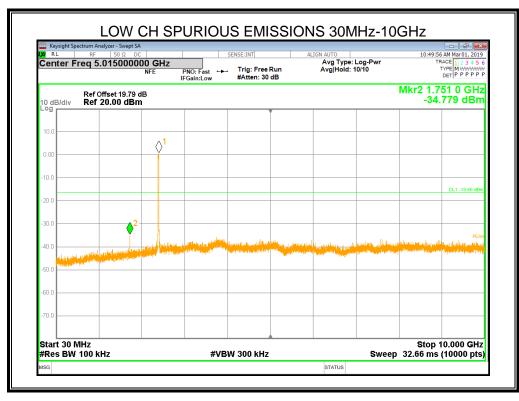




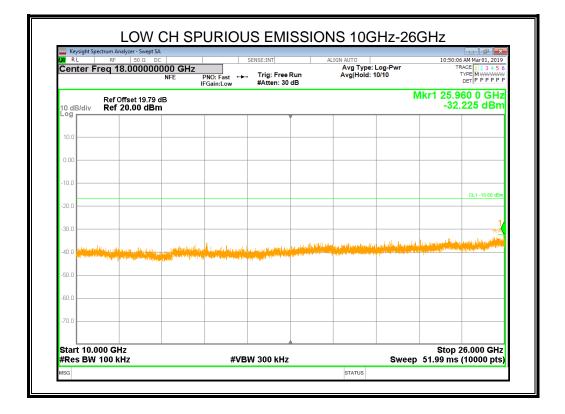


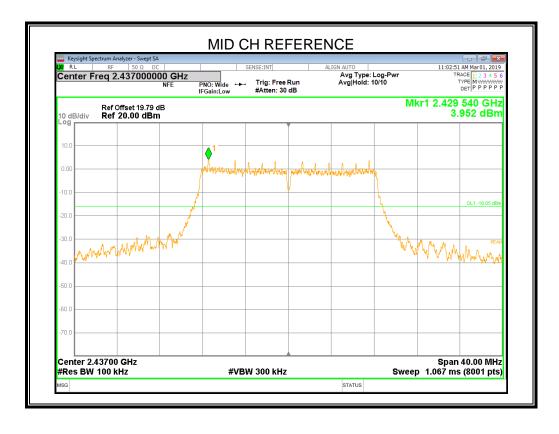
8.5.2. 802.11g MODE



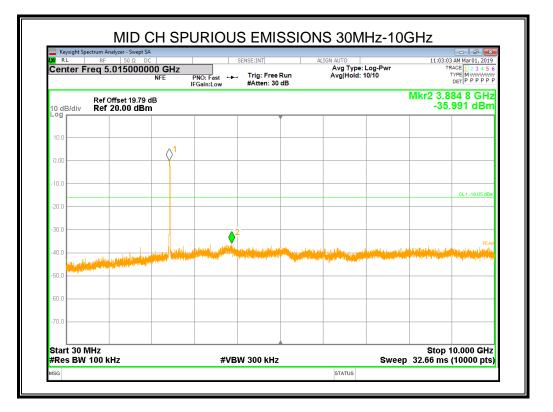


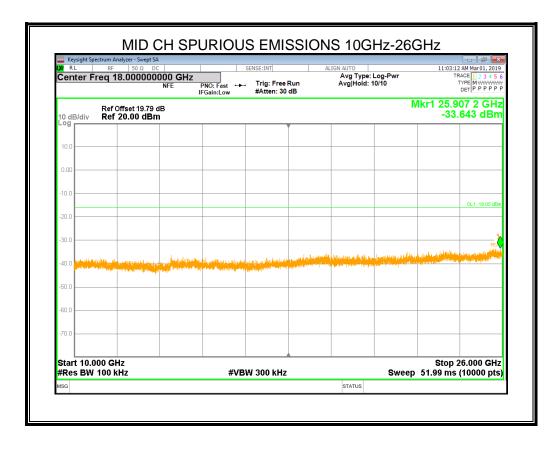




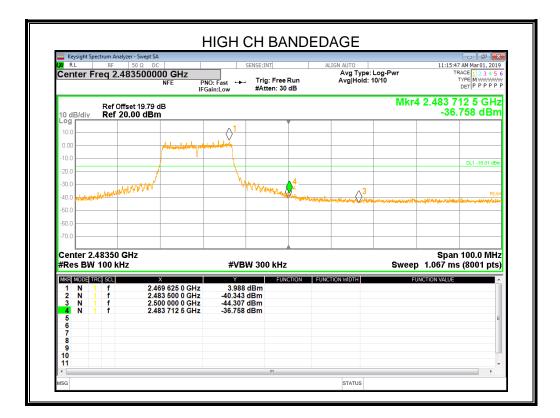


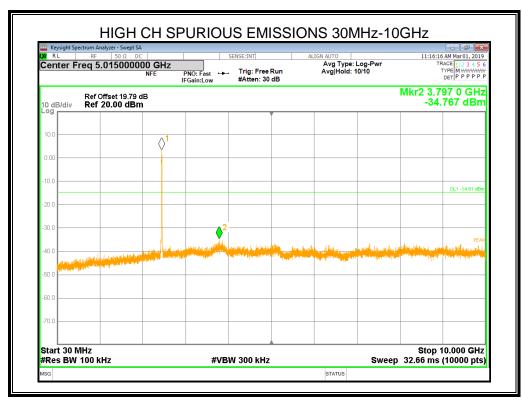




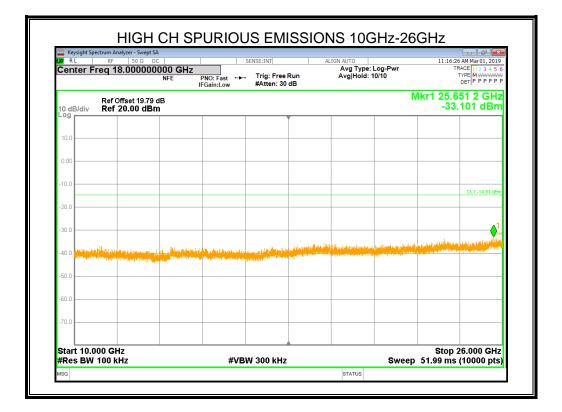




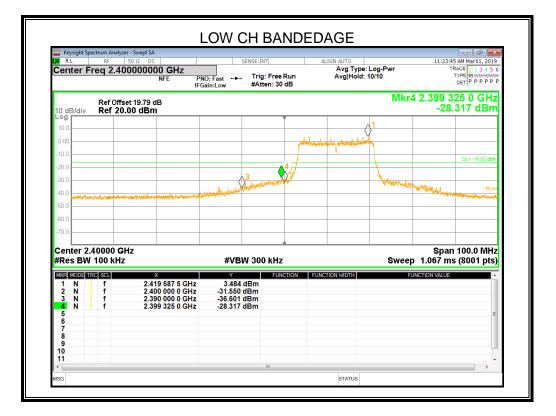


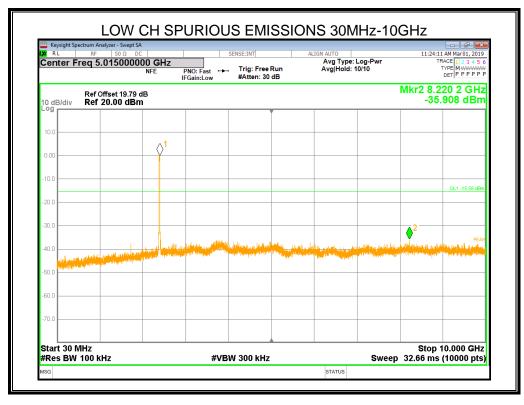




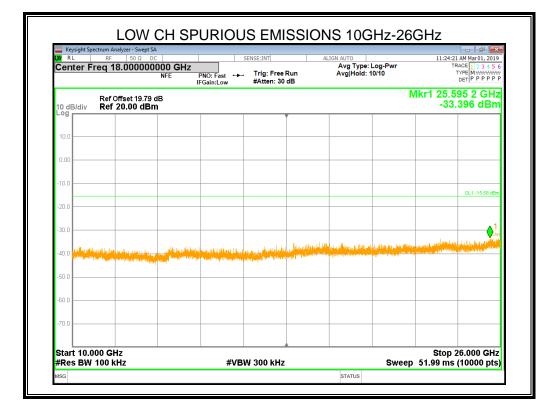


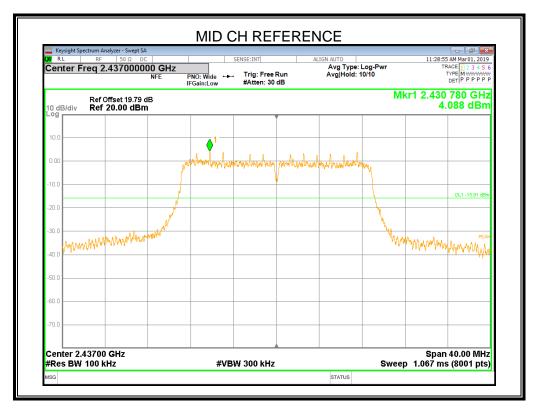
8.5.3. 802.11n HT20 MODE





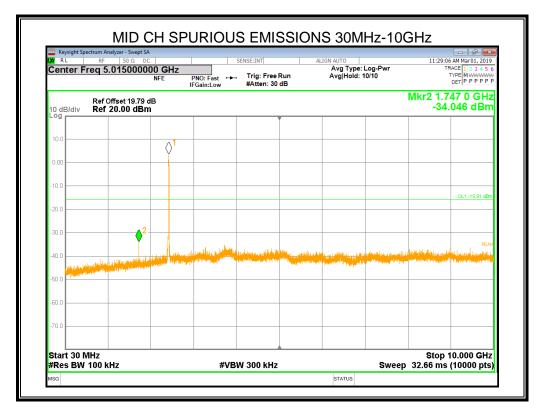


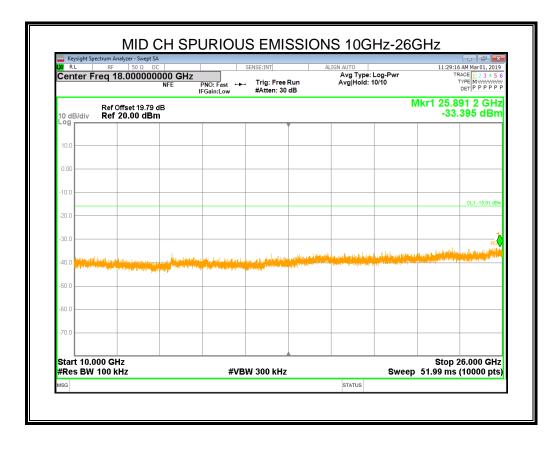




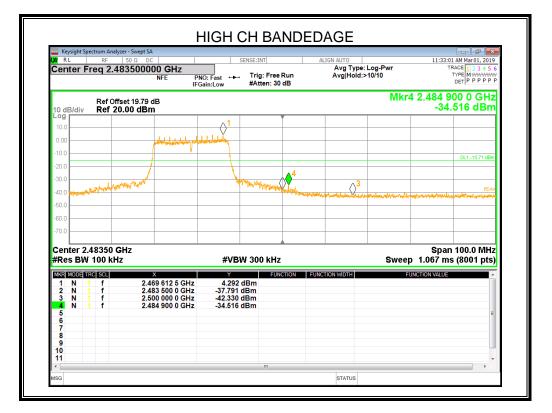
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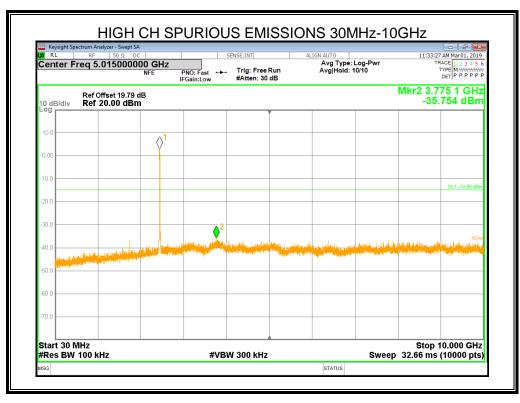




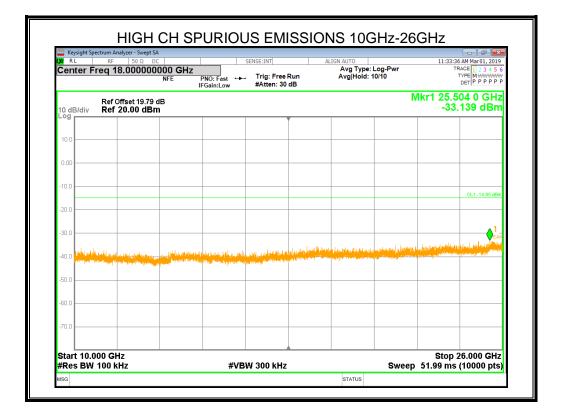




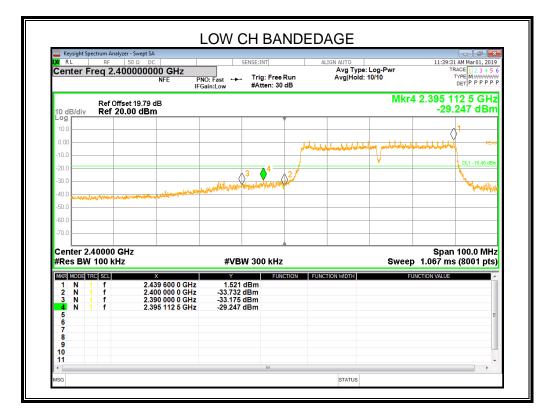


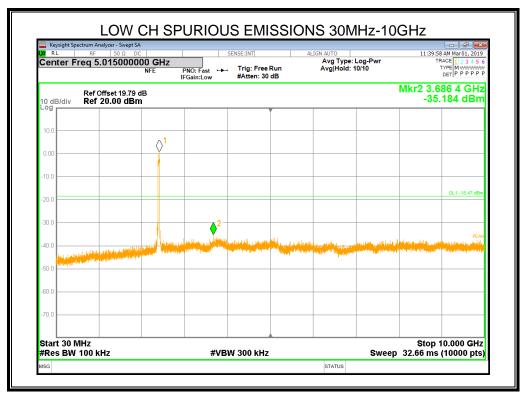




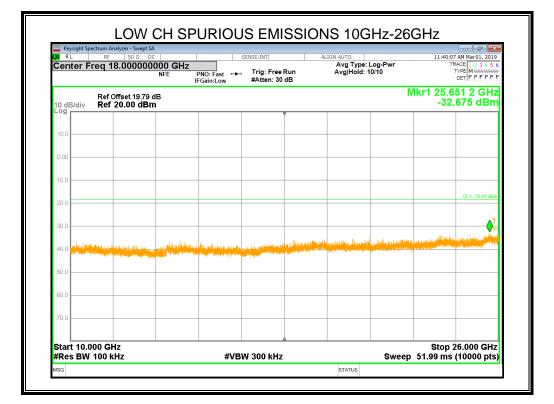


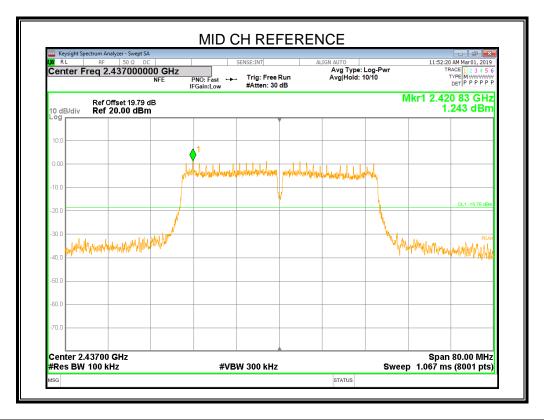
8.5.4. 802.11n HT40 MODE



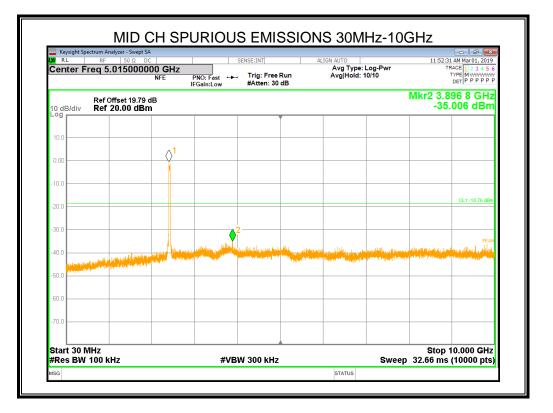


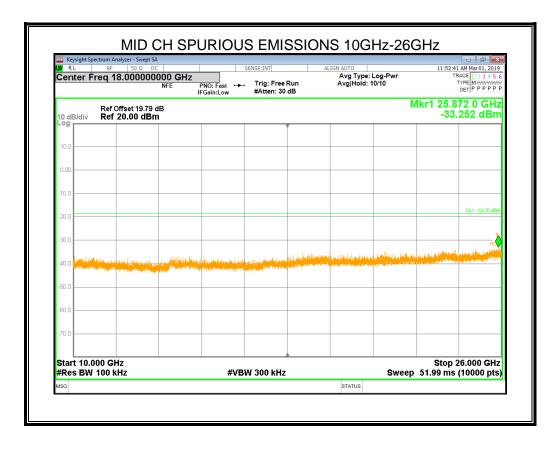




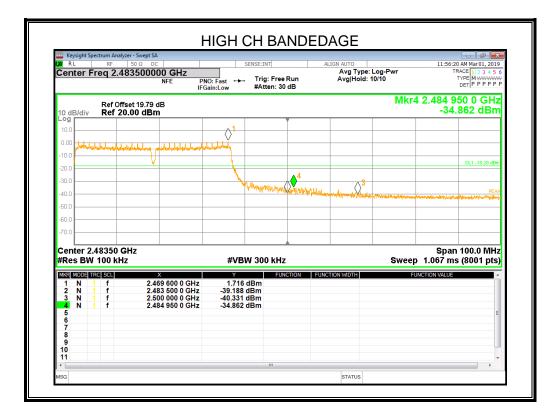


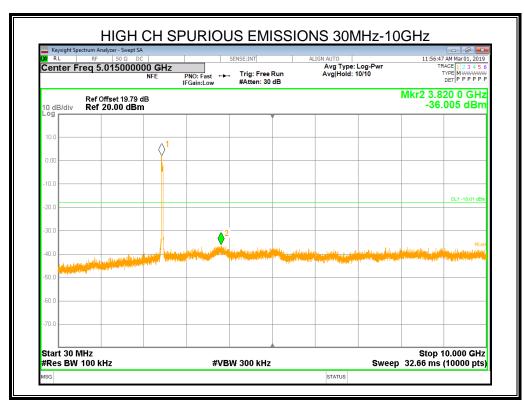














Cent		r⊧ 50 g 18.000	00000000000000000000000000000000000000	PNO: Fast ++ FGain:Low	. Trig: Free #Atten: 30	Run	IGN AUTO Avg Type: Avg Hold:		TF	5 AM Mar 01, 2019 RACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P
10 dE Log I		Ref Offset 1 Ref 20.00			,			N		74 4 GHz 981 dBm
10.0										
0.00										
-10.0										
-20.0										DL1 -18.01 dBm
-30.0						م الممالة	ne de addressar se se dan	n an daharan dan kantidaki da	and the state of the state of the	1 Alternational Angel
-40.0		Marine and the second		della ello de la deven Telever francé pareira			na kan life daes daes i	a a a da a sa a la sa si da la sa si da la sa	and the state of the	a dagi mga aga ga daga daga daga daga daga dag
-50.0										
-60.0										
-70.0										
	t 10.000 s BW 10			 #VB	W 300 kHz			Sweep		26.000 GHz (10000 pts)



9. RADIATED TEST RESULTS

<u>LIMITS</u>

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.



Radiation Disturbance Test Limit for FCC (Above 1G)

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

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

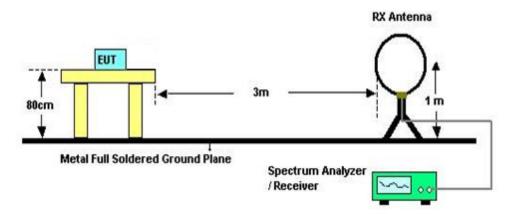
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218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

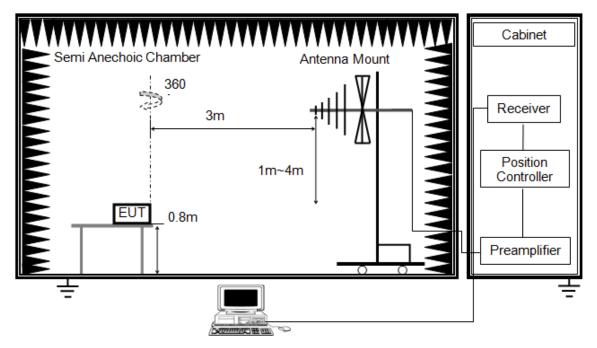
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the 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.

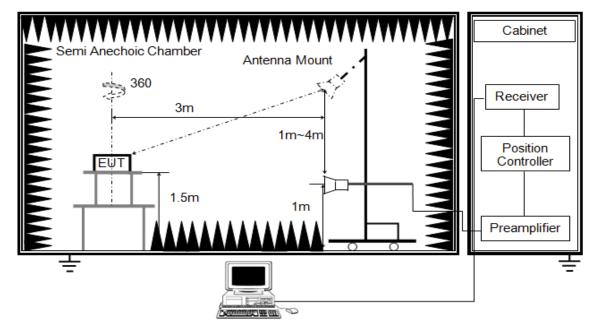
3. The EUT was placed on a turntable with 0.8 meter above ground.

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
NBW	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.

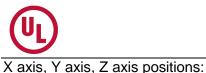
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

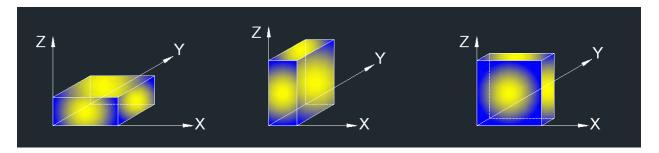
5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

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.





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.

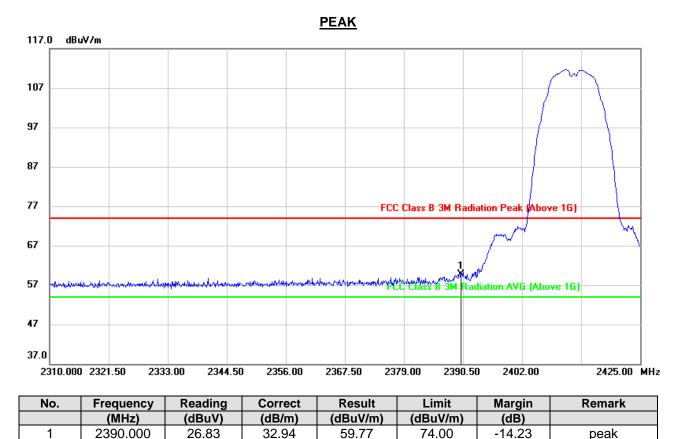
TEST ENVIRONMENT

Temperature	22.1°C	Relative Humidity	49%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V



9.1. RESTRICTED BANDEDGE

9.1.1. 802.11b MODE



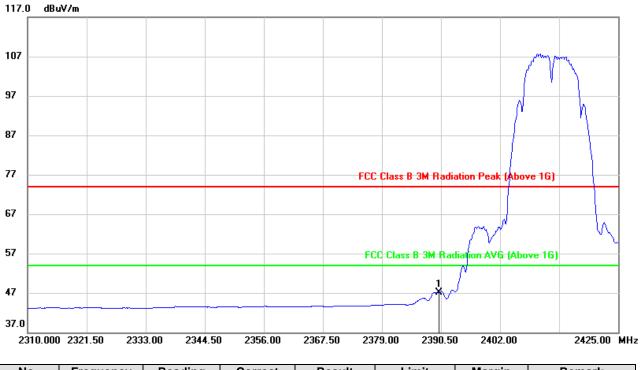
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

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.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	14.20	32.94	47.14	54.00	-6.86	AVG

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

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

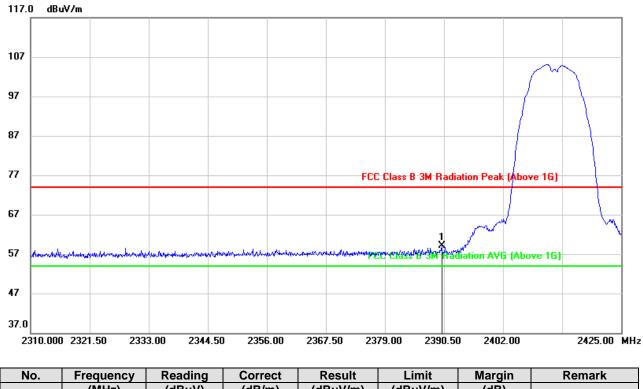
3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

<u>PEAK</u>



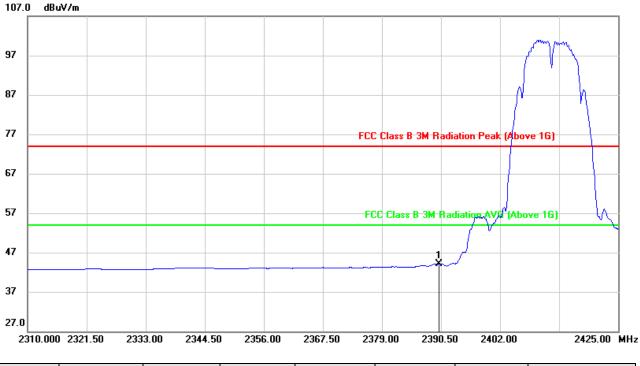
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	26.19	32.94	59.13	74.00	-14.87	peak

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.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	11.10	32.94	44.04	54.00	-9.96	AVG

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

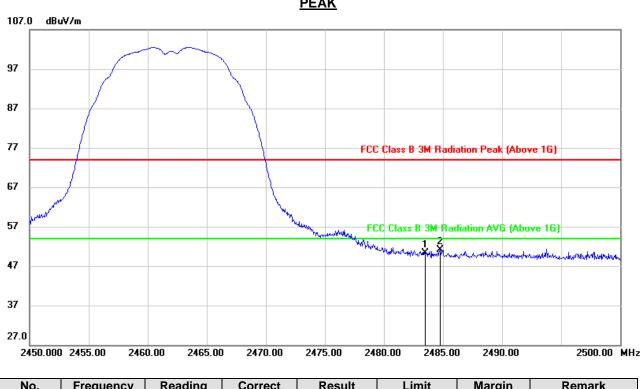
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



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	16.68	33.58	50.26	74.00	-23.74	peak
2	2484.750	17.54	33.59	51.13	74.00	-22.87	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.

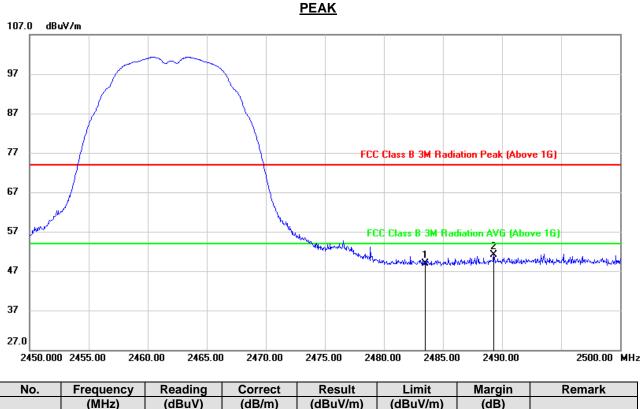
3. Peak: Peak detector.

4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

<u>PEAK</u>



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



NO.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.37	33.58	48.95	74.00	-25.05	peak
2	2489.300	17.43	33.62	51.05	74.00	-22.95	peak

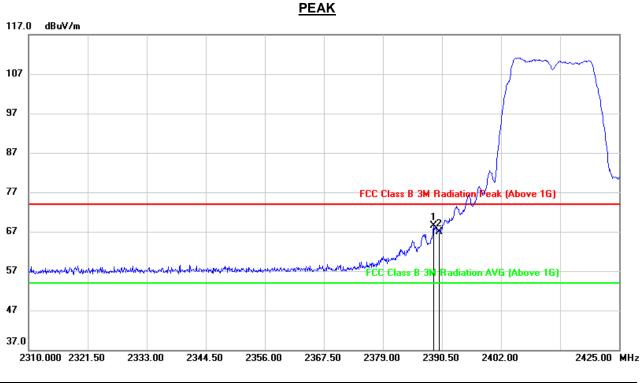
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



9.1.2. 802.11g MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.890	35.54	32.94	68.48	74.00	-5.52	peak
2	2390.000	34.01	32.94	66.95	74.00	-7.05	peak

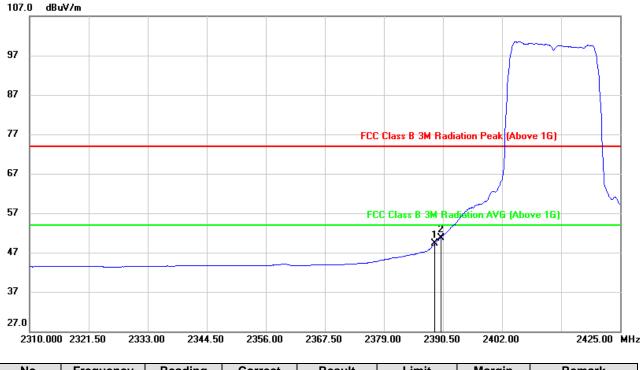
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.890	16.35	32.94	49.29	54.00	-4.71	AVG
2	2390.000	17.81	32.94	50.75	54.00	-3.25	AVG

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

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

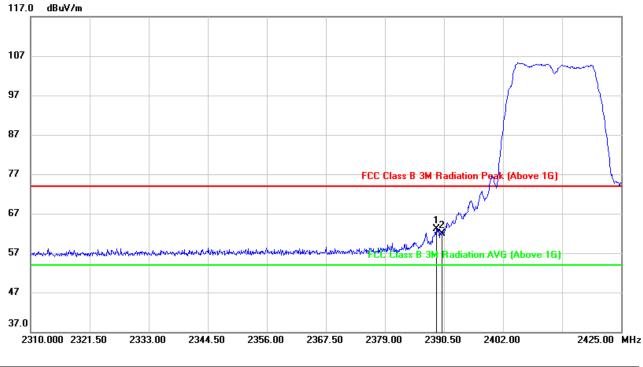
3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)

<u>PEAK</u>



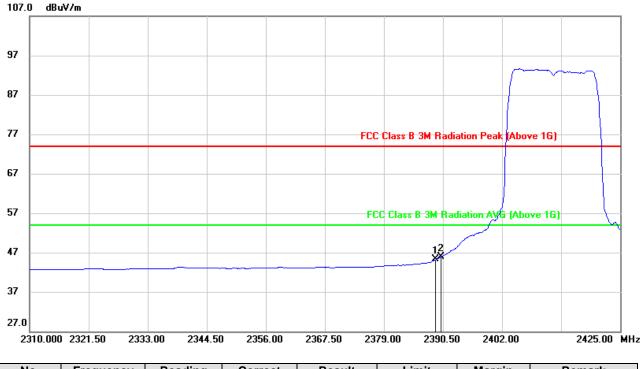
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.005	30.25	32.94	63.19	74.00	-10.81	peak
2	2390.000	28.94	32.94	61.88	74.00	-12.12	peak

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.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.005	12.26	32.94	45.20	54.00	-8.80	AVG
2	2390.000	12.95	32.94	45.89	54.00	-8.11	AVG

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

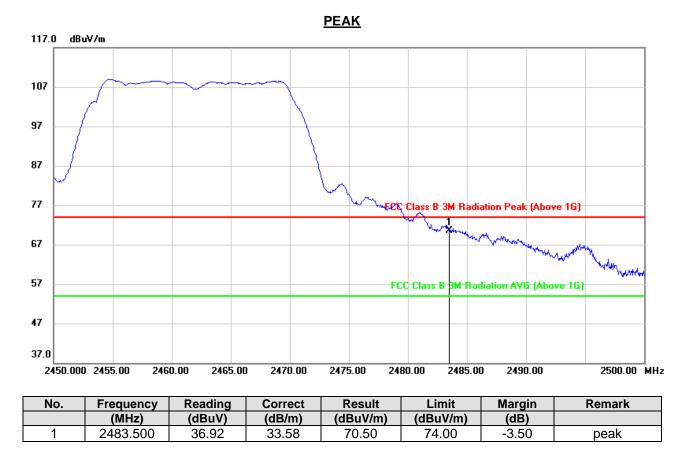
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



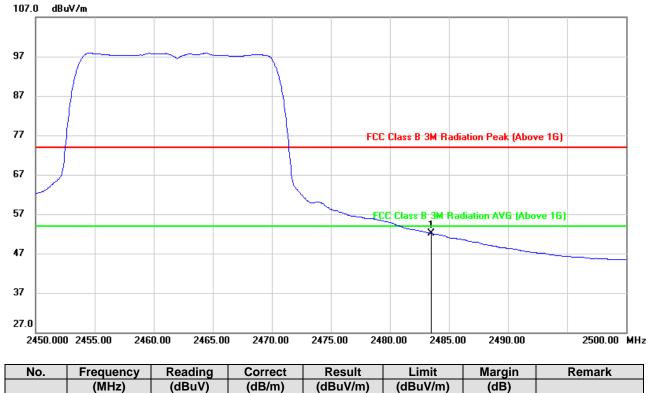
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



Note: 1	Measurement =	Reading Level -	+ Correct Factor

18.53

2483.500

1

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

52.11

54.00

-1.89

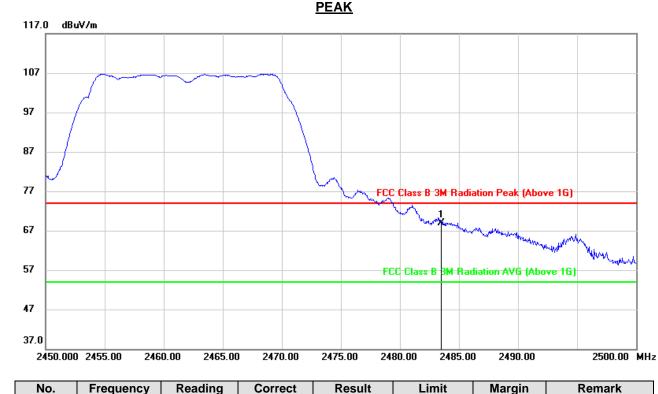
3. AVG: VBW=1/Ton where: ton is transmit duration.

33.58

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	35.25	33.58	68.83	74.00	-5.17	peak

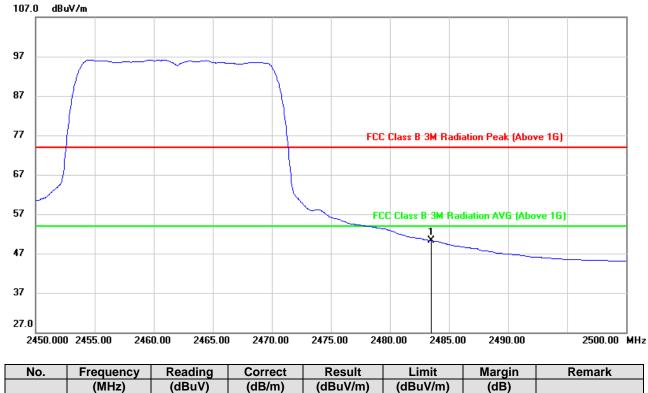
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



Notar 1 Magaziramont	Reading Level + Correct Factor.
NOIE I MEASUREMENTE	Reading Level + Conect Factor.

16.68

2483.500

1

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

50.26

54.00

-3.74

3. AVG: VBW=1/Ton where: ton is transmit duration.

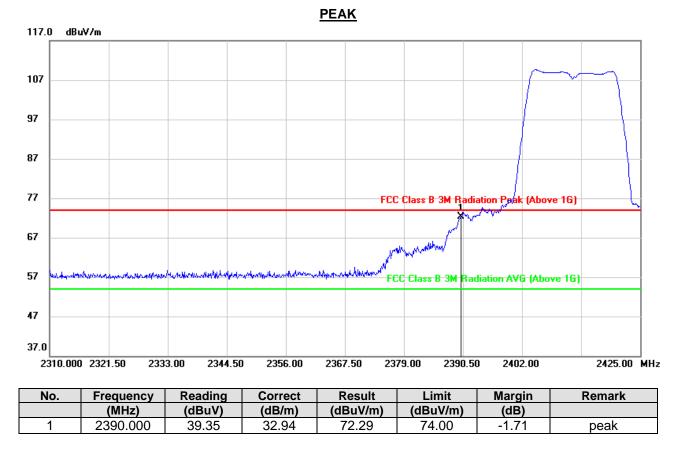
33.58

4. For transmit duration, please refer to clause 8.1.



9.1.3. 802.11n HT20 MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



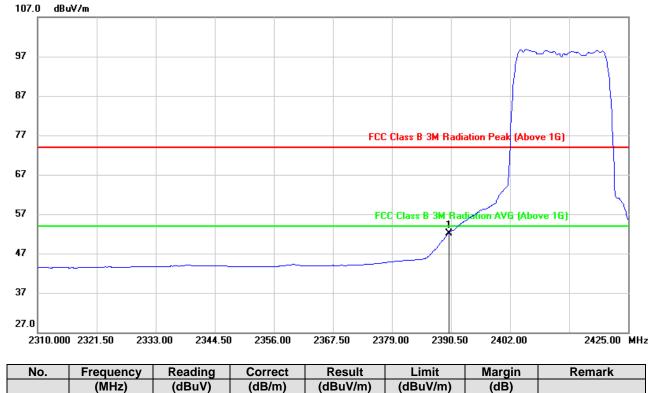
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



AVG



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

19.24

2390.000

1

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

52.18

54.00

-1.82

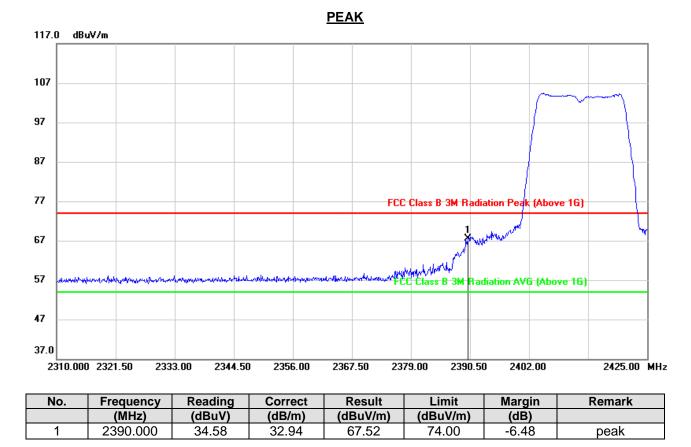
3. AVG: VBW=1/Ton where: ton is transmit duration.

32.94

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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

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

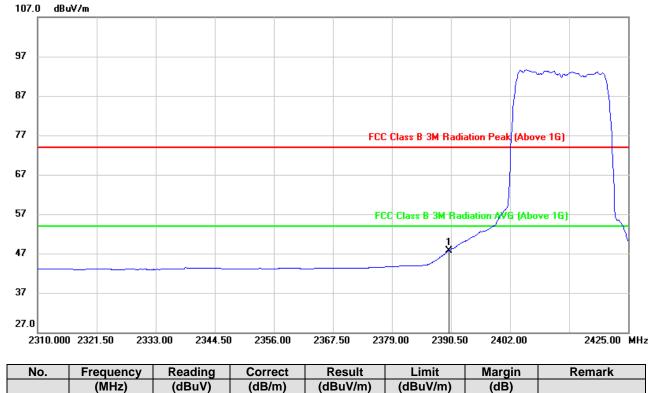
3. Peak: Peak detector.

4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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<u>AVG</u>



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

14.84

2390.000

1

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

47.78

54.00

-6.22

3. AVG: VBW=1/Ton where: ton is transmit duration.

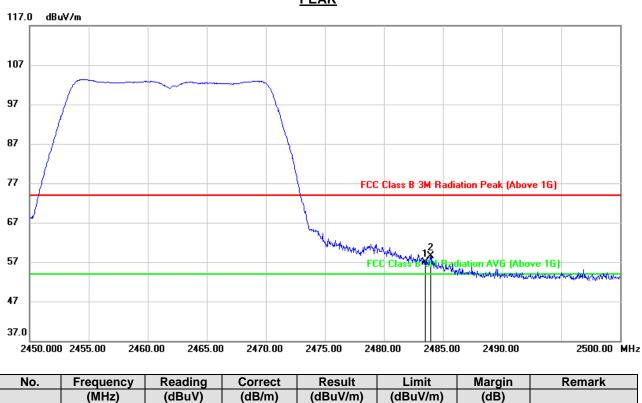
32.94

4. For transmit duration, please refer to clause 8.1.



peak peak

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



2 2483.950 24.88 33.58 58.46 74.00 -15.54	1	2483.500	23.27	33.58	56.85	74.00	-17.15	
	2	2483.950	24.88	33.58	58.46	74.00	-15.54	

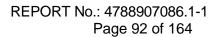
Note: 1. Measurement = Reading Level + Correct Factor.

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

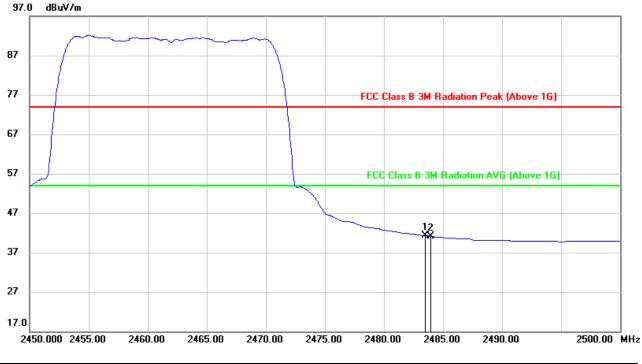
3. Peak: Peak detector.

4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

<u>PEAK</u>







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	7.65	33.58	41.23	54.00	-12.77	AVG
2	2483.950	7.59	33.58	41.17	54.00	-12.83	AVG

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

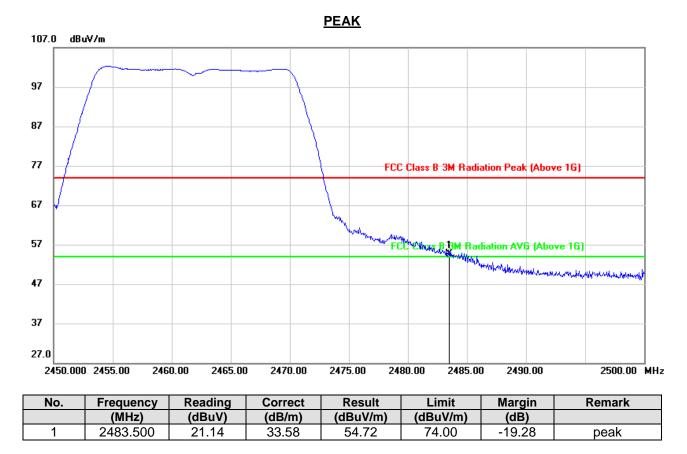
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



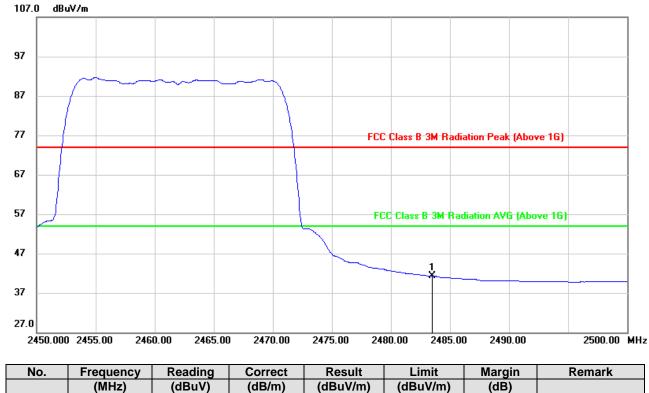
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



AVG



Note: 1	Measurement =	Reading Leve	el + Correct Fac	tor

7.64

2483.500

1

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

41.22

54.00

-12.78

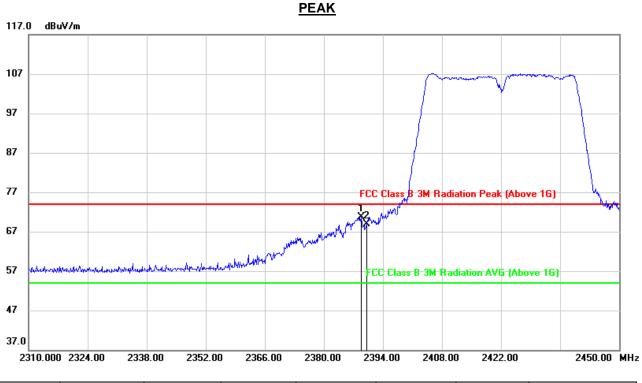
3. AVG: VBW=1/Ton where: ton is transmit duration.

33.58

4. For transmit duration, please refer to clause 8.1.



9.1.4. 802.11n HT40 MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

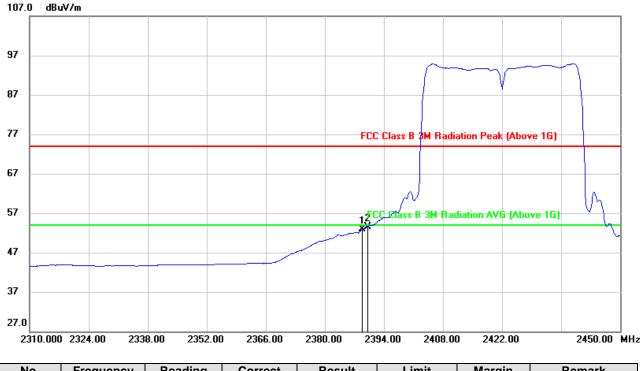
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	37.70	32.94	70.64	74.00	-3.36	peak
2	2390.000	35.89	32.94	68.83	74.00	-5.17	peak

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.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.820	20.01	32.94	52.95	54.00	-1.05	AVG
2	2390.000	20.65	32.94	53.59	54.00	-0.41	AVG

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

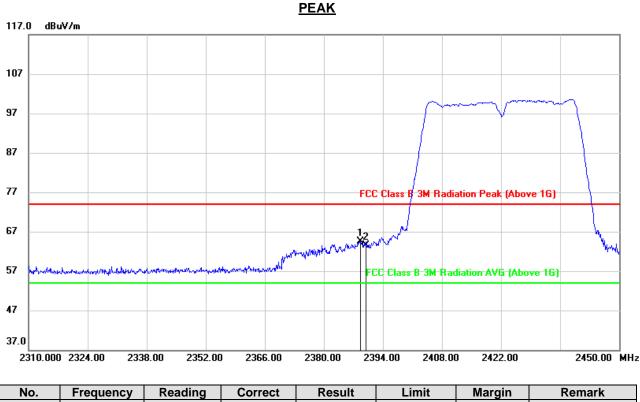
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.680	31.62	32.94	64.56	74.00	-9.44	peak
2	2390.000	30.58	32.94	63.52	74.00	-10.48	peak

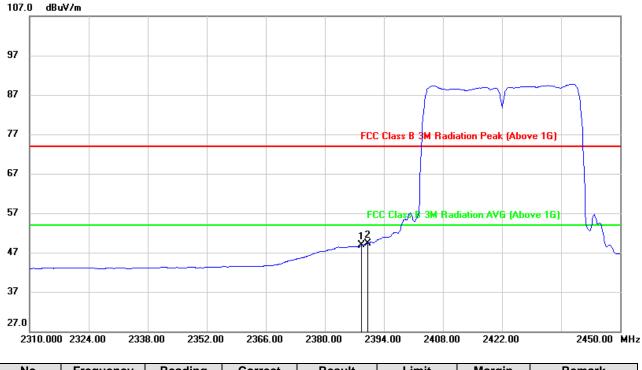
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.680	15.90	32.94	48.84	54.00	-5.16	AVG
2	2390.000	16.41	32.94	49.35	54.00	-4.65	AVG

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

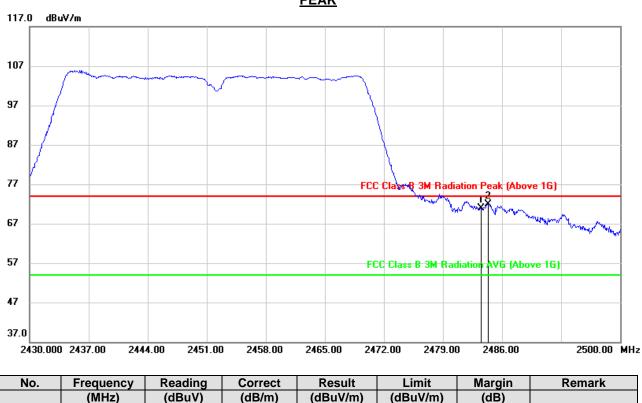
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



NO.	Frequency	Reading	Correct	Result	Limit	wargin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	37.41	33.58	70.99	74.00	-3.01	peak
2	2484.390	38.40	33.59	71.99	74.00	-2.01	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.

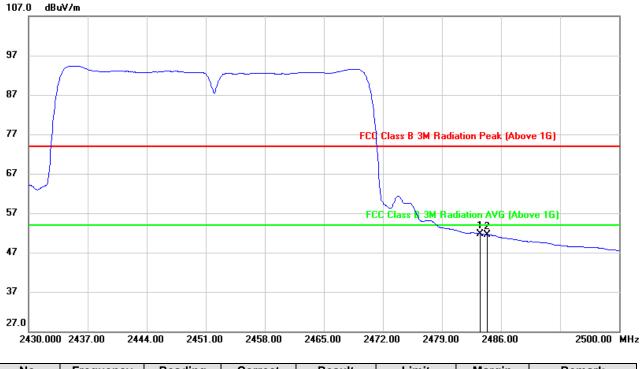
3. Peak: Peak detector.

4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

<u>PEAK</u>



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.22	33.58	51.80	54.00	-2.20	AVG
2	2484.390	17.90	33.59	51.49	54.00	-2.51	AVG

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

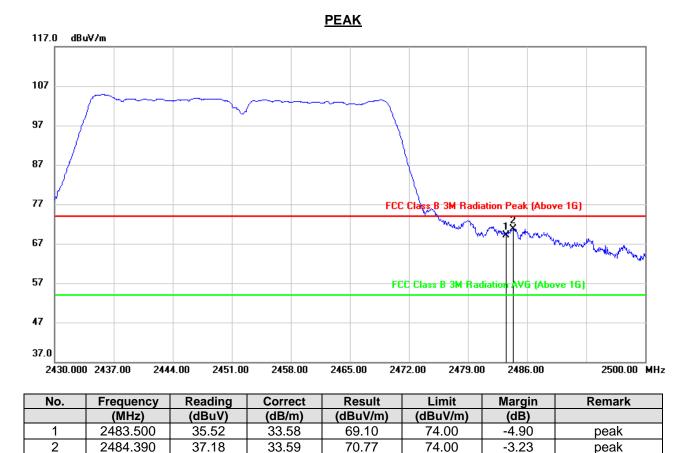
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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

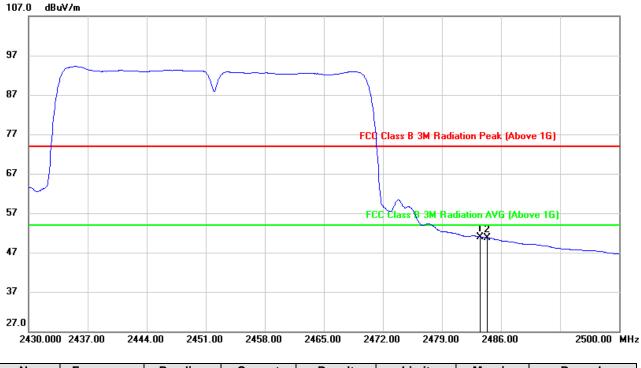
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

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No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	17.34	33.58	50.92	54.00	-3.08	AVG
2	2484.390	17.04	33.59	50.63	54.00	-3.37	AVG

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

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

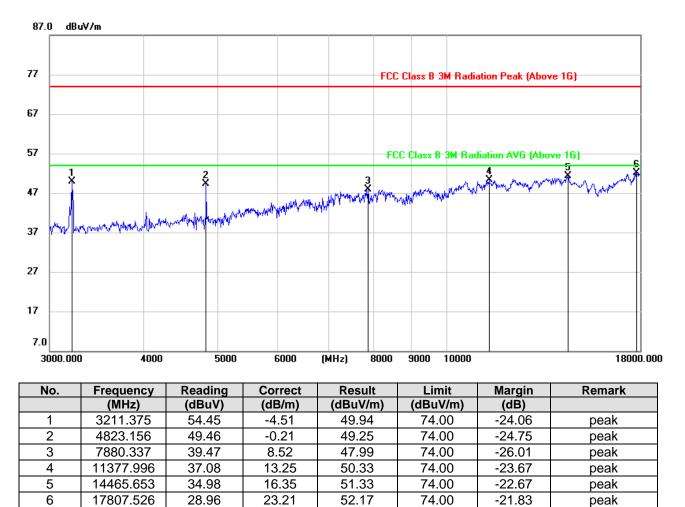
3. AVG: VBW=1/Ton where: ton is transmit duration.

4. For transmit duration, please refer to clause 8.1.



9.2. SPURIOUS EMISSIONS (3~18GHz)

9.2.1. 802.11b MODE



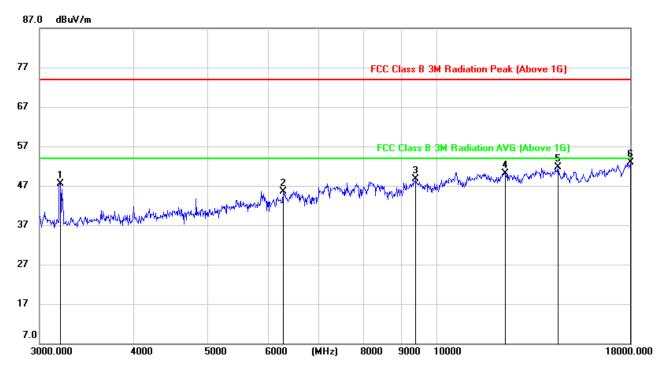
HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

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. 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	3194.159	52.02	-4.50	47.52	74.00	-26.48	peak
2	6276.529	41.09	4.46	45.55	74.00	-28.45	peak
3	9392.984	38.39	10.25	48.64	74.00	-25.36	peak
4	12311.315	35.74	14.39	50.13	74.00	-23.87	peak
5	14465.653	35.26	16.35	51.61	74.00	-22.39	peak
6	18000.000	29.70	23.27	52.97	74.00	-21.03	peak

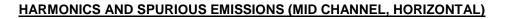
Note: 1. Measurement = Reading Level + Correct Factor.

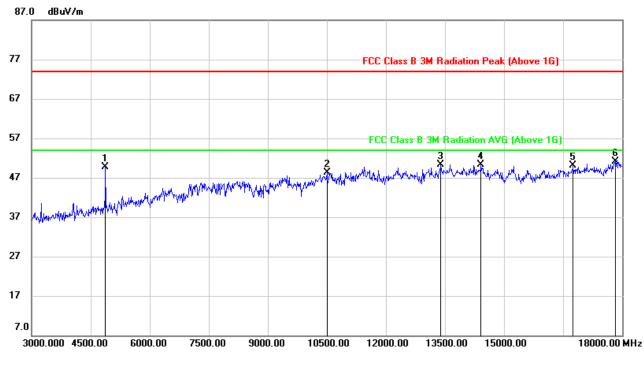
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	49.91	-0.12	49.79	74.00	-24.21	peak
2	10500.000	36.59	11.73	48.32	74.00	-25.68	peak
3	13395.000	34.52	15.87	50.39	74.00	-23.61	peak
4	14415.000	33.94	16.41	50.35	74.00	-23.65	peak
5	16755.000	30.19	19.87	50.06	74.00	-23.94	peak
6	17820.000	27.98	23.21	51.19	74.00	-22.81	peak

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

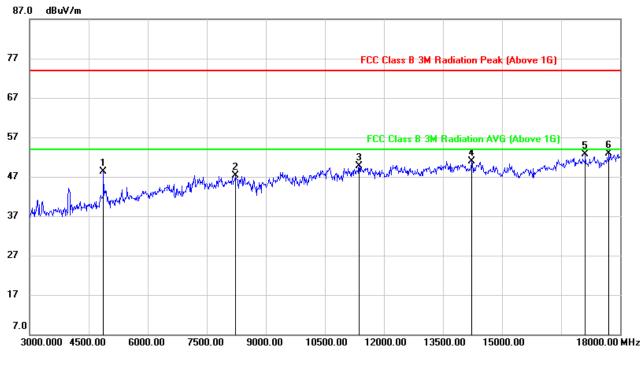
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	4875.000	48.38	-0.12	48.26	74.00	-25.74	peak
2	8235.000	38.03	9.23	47.26	74.00	-26.74	peak
3	11370.000	36.41	13.22	49.63	74.00	-24.37	peak
4	14235.000	34.42	16.42	50.84	74.00	-23.16	peak
5	17115.000	31.81	20.81	52.62	74.00	-21.38	peak
6	17715.000	30.59	22.39	52.98	74.00	-21.02	peak

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

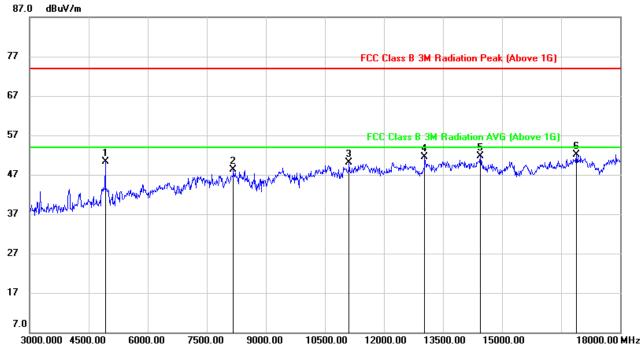
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	50.20	0.02	50.22	74.00	-23.78	peak
2	8175.000	38.87	9.48	48.35	74.00	-25.65	peak
3	11115.000	36.95	13.24	50.19	74.00	-23.81	peak
4	13035.000	36.72	14.81	51.53	74.00	-22.47	peak
5	14445.000	35.34	16.37	51.71	74.00	-22.29	peak
6	16890.000	32.18	19.93	52.11	74.00	-21.89	peak

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

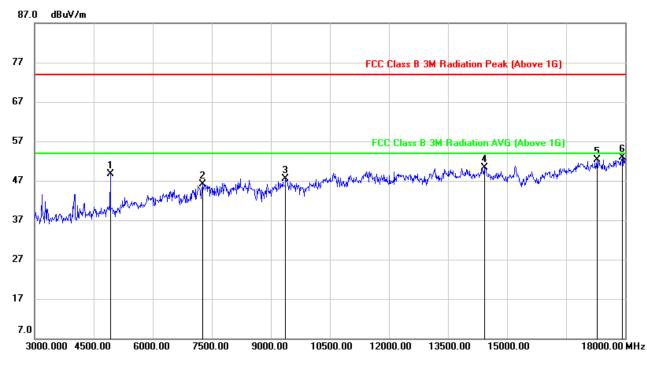
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4920.000	48.68	0.02	48.70	74.00	-25.30	peak
2	7275.000	39.12	7.07	46.19	74.00	-27.81	peak
3	9375.000	37.40	10.14	47.54	74.00	-26.46	peak
4	14430.000	33.83	16.39	50.22	74.00	-23.78	peak
5	17280.000	30.66	21.72	52.38	74.00	-21.62	peak
6	17925.000	29.66	23.18	52.84	74.00	-21.16	peak

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

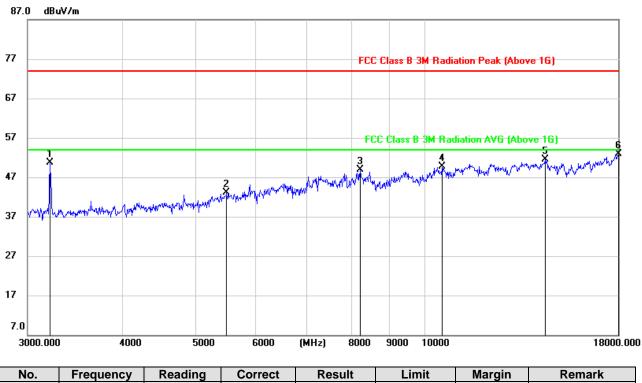
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	3211.375	55.25	-4.51	50.74	74.00	-23.26	peak
2	5497.135	40.25	2.80	43.05	74.00	-30.95	peak
3	8226.601	39.61	9.33	48.94	74.00	-25.06	peak
4	10591.067	37.00	12.69	49.69	74.00	-24.31	peak
5	14413.908	35.06	16.41	51.47	74.00	-22.53	peak
6	18000.000	29.54	23.27	52.81	74.00	-21.19	peak

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

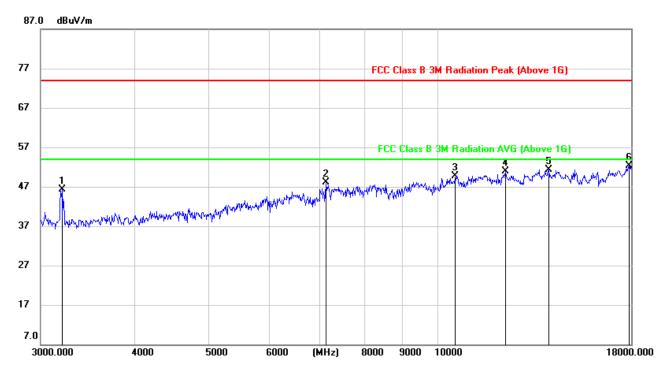
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	3199.887	50.90	-4.54	46.36	74.00	-27.64	peak
2	7128.010	41.12	6.89	48.01	74.00	-25.99	peak
3	10591.067	37.10	12.69	49.79	74.00	-24.21	peak
4	12289.276	36.51	14.38	50.89	74.00	-23.11	peak
5	14031.674	34.96	16.31	51.27	74.00	-22.73	peak
6	17871.454	29.15	23.18	52.33	74.00	-21.67	peak

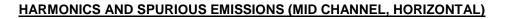
Note: 1. Measurement = Reading Level + Correct Factor.

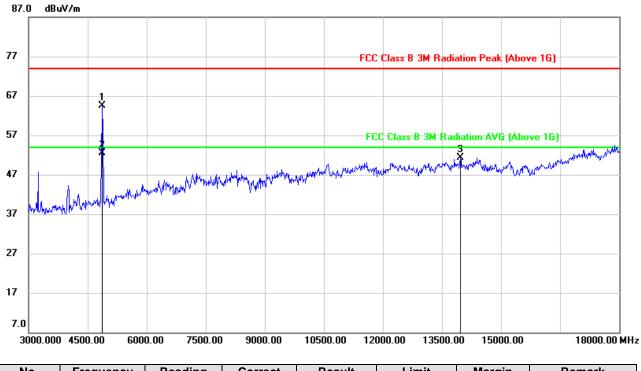
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.081	64.54	-0.13	64.41	74.00	-9.59	peak
2	4874.081	52.60	-0.13	52.47	54.00	-1.53	AVG
3	13965.000	34.97	16.29	51.26	74.00	-22.74	peak

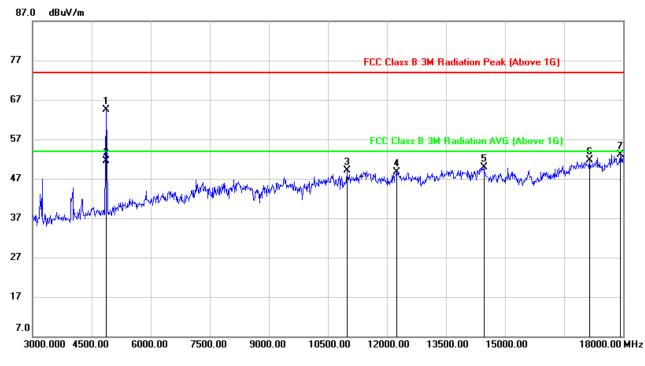
Note: 1. Measurement = Reading Level + Correct Factor.

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

- 3. Peak: Peak detector.
- 4. AVG: VBW=1/Ton where: ton is transmit duration.
- 5. For transmit duration, please refer to clause 8.1.
- 6. The High Pass filter loss factor already add into the correct factor.



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	4874.041	64.60	-0.13	64.47	74.00	-9.53	peak
2	4874.041	51.66	-0.13	51.53	54.00	-2.47	AVG
3	10980.000	35.96	13.06	49.02	74.00	-24.98	peak
4	12240.000	34.36	14.31	48.67	74.00	-25.33	peak
5	14460.000	33.62	16.35	49.97	74.00	-24.03	peak
6	17145.000	30.89	20.88	51.77	74.00	-22.23	peak
7	17925.000	29.97	23.18	53.15	74.00	-20.85	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.

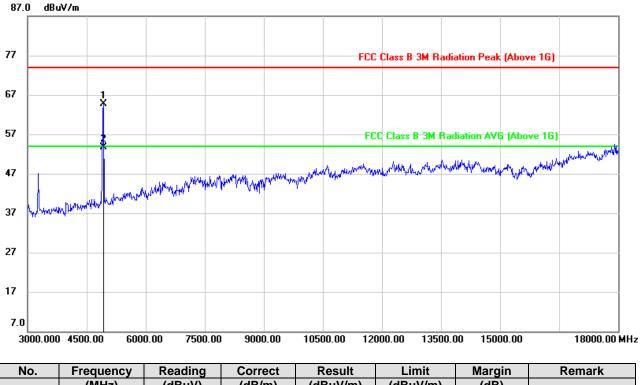
4. AVG: VBW=1/Ton where: ton is transmit duration.

5. For transmit duration, please refer to clause 8.1.

6. The High Pass filter loss factor already add into the correct factor.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

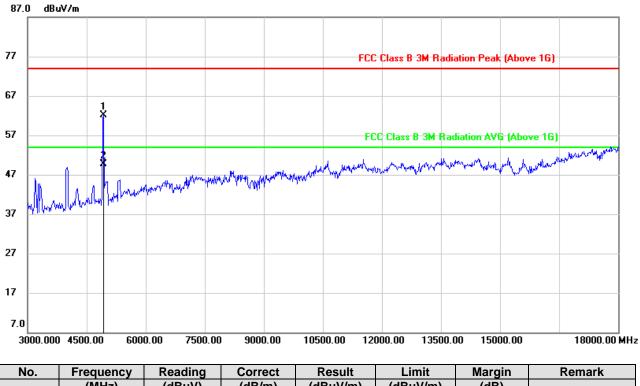


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.136	64.69	0.05	64.74	74.00	-9.26	peak
2	4924.136	53.61	0.05	53.66	54.00	-0.34	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.





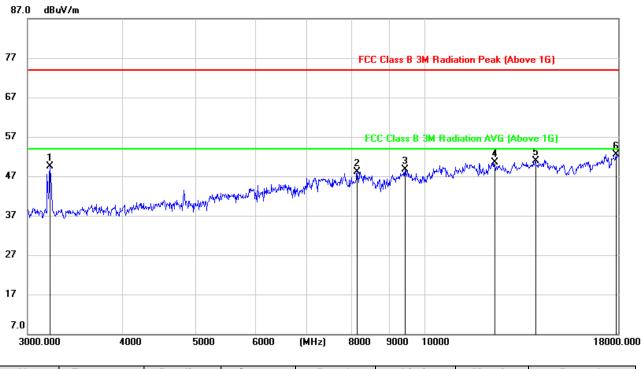


N	o.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1	4924.000	62.15	0.05	62.20	74.00	-11.80	peak
2	2	4924.000	49.68	0.05	49.73	54.00	-4.27	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. 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	3211.375	54.00	-4.51	49.49	74.00	-24.51	peak
2	8153.229	38.80	9.35	48.15	74.00	-25.85	peak
3	9426.705	38.33	10.34	48.67	74.00	-25.33	peak
4	12355.512	36.09	14.35	50.44	74.00	-23.56	peak
5	14006.555	34.58	16.36	50.94	74.00	-23.06	peak
6	17871.454	29.37	23.18	52.55	74.00	-21.45	peak

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

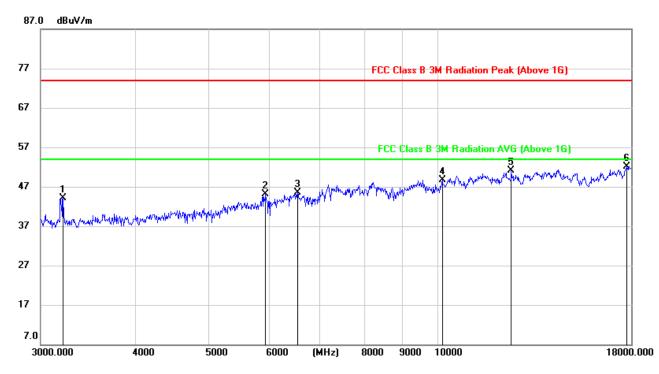
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	3211.375	48.65	-4.51	44.14	74.00	-29.86	peak
2	5937.408	40.34	4.72	45.06	74.00	-28.94	peak
3	6540.592	39.29	6.15	45.44	74.00	-28.56	peak
4	10163.476	37.91	10.85	48.76	74.00	-25.24	peak
5	12511.455	36.38	14.75	51.13	74.00	-22.87	peak
6	17775.648	29.12	22.98	52.10	74.00	-21.90	peak

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

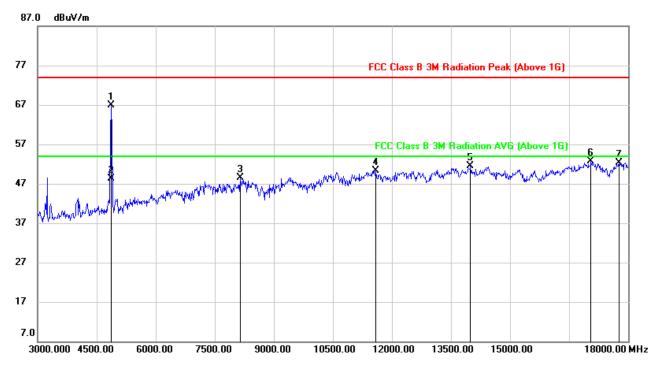
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4860.000	66.97	-0.15	66.82	74.00	-7.18	peak
2	4860.000	48.41	-0.15	48.26	54.00	-5.74	AVG
3	8145.000	39.21	9.30	48.51	74.00	-25.49	peak
4	11595.000	36.13	14.17	50.30	74.00	-23.70	peak
5	13995.000	35.18	16.35	51.53	74.00	-22.47	peak
6	17055.000	32.04	20.57	52.61	74.00	-21.39	peak
7	17775.000	29.33	22.97	52.30	74.00	-21.70	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.

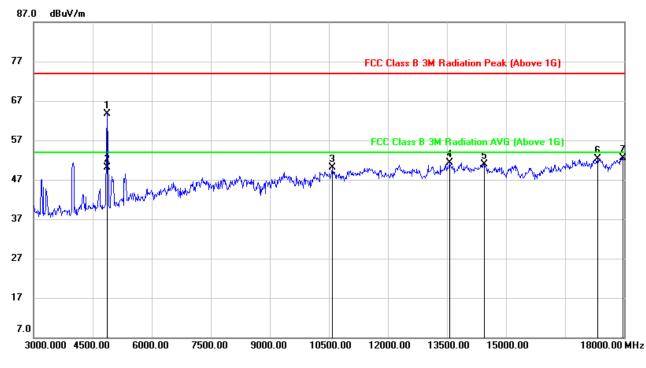
4. AVG: VBW=1/Ton where: ton is transmit duration.

5. For transmit duration, please refer to clause 8.1.

6. The High Pass filter loss factor already add into the correct factor.



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	4872.288	63.86	-0.13	63.73	74.00	-10.27	peak
2	4872.288	50.29	-0.13	50.16	54.00	-3.84	AVG
3	10590.000	37.47	12.68	50.15	74.00	-23.85	peak
4	13560.000	35.36	15.91	51.27	74.00	-22.73	peak
5	14445.000	34.50	16.37	50.87	74.00	-23.13	peak
6	17325.000	30.43	21.80	52.23	74.00	-21.77	peak
7	17970.000	29.21	23.24	52.45	74.00	-21.55	peak

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

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

3. Peak: Peak detector.

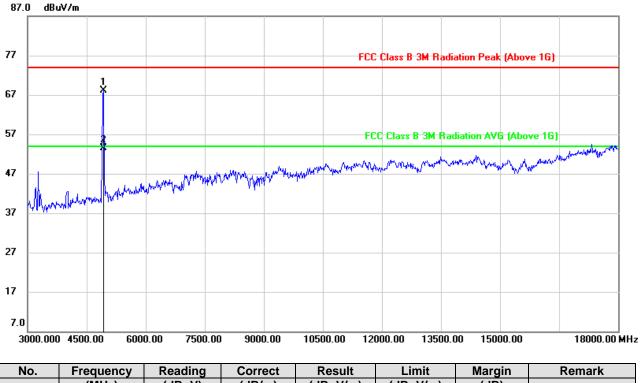
4. AVG: VBW=1/Ton where: ton is transmit duration.

5. For transmit duration, please refer to clause 8.1.

6. The High Pass filter loss factor already add into the correct factor.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

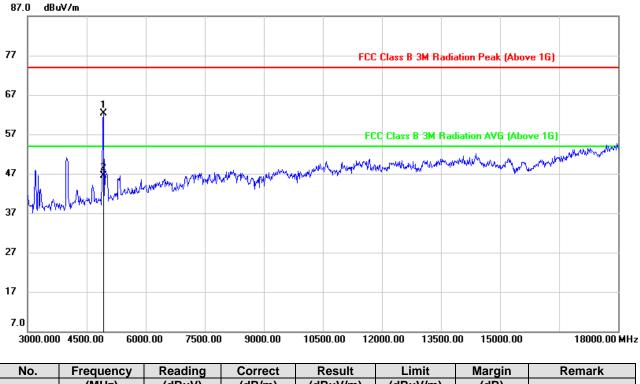


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.246	68.14	0.05	68.19	74.00	-5.81	peak
2	4924.246	53.45	0.05	53.50	54.00	-0.50	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)

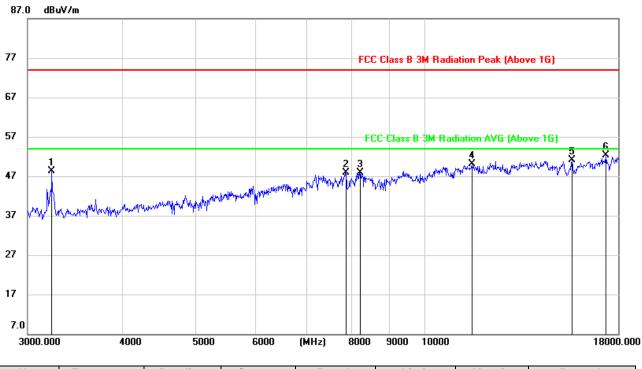


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4920.000	62.34	0.02	62.36	74.00	-11.64	peak
2	4920.000	46.56	0.03	46.59	54.00	-7.41	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. 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	3234.474	52.79	-4.42	48.37	74.00	-25.63	peak
2	7880.337	39.35	8.52	47.87	74.00	-26.13	peak
3	8226.601	38.62	9.33	47.95	74.00	-26.05	peak
4	11562.963	35.87	14.14	50.01	74.00	-23.99	peak
5	15652.247	34.57	16.49	51.06	74.00	-22.94	peak
6	17335.299	30.46	21.75	52.21	74.00	-21.79	peak

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

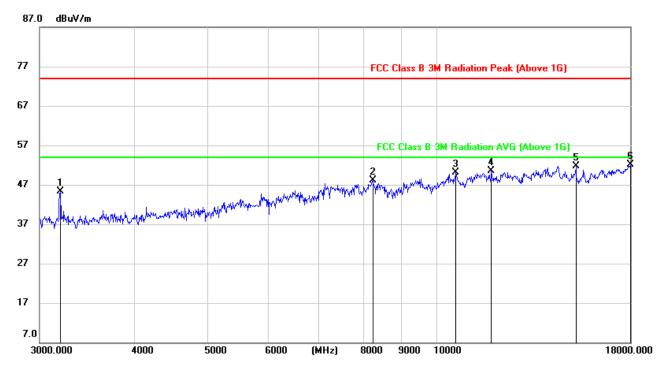
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.



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	3194.159	49.89	-4.50	45.39	74.00	-28.61	peak
2	8241.354	38.91	9.16	48.07	74.00	-25.93	peak
3	10610.061	37.32	12.74	50.06	74.00	-23.94	peak
4	11835.459	36.64	13.81	50.45	74.00	-23.55	peak
5	15264.500	36.22	15.55	51.77	74.00	-22.23	peak
6	18000.000	28.83	23.27	52.10	74.00	-21.90	peak

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

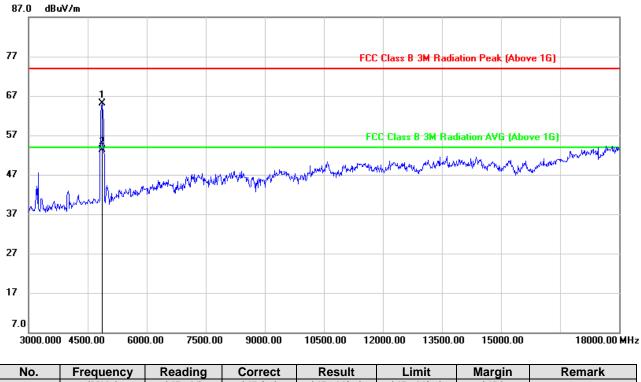
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The High Pass filter loss factor already add into the correct factor.





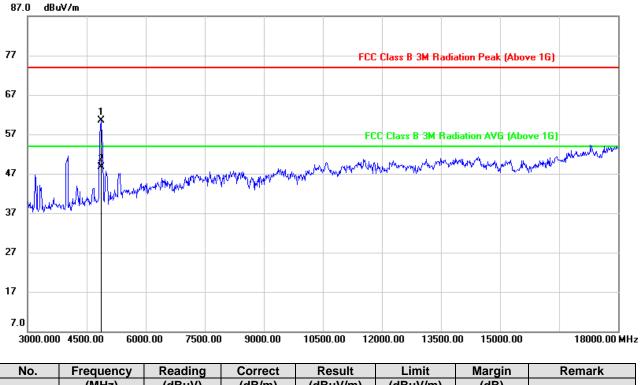


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4873.966	65.31	-0.13	65.18	74.00	-8.82	peak
2	4873.966	53.35	-0.13	53.22	54.00	-0.78	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)

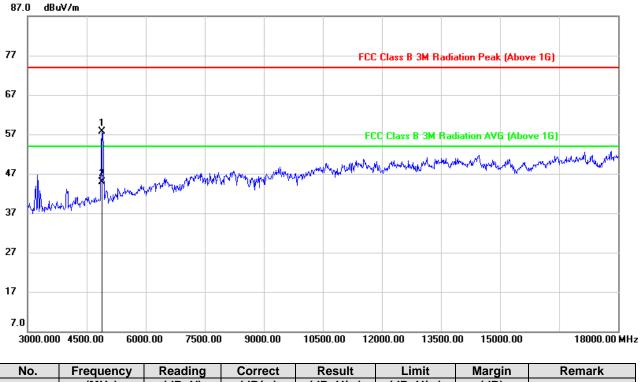


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4873.890	60.62	-0.13	60.49	74.00	-13.51	peak
2	4873.890	48.88	-0.13	48.75	54.00	-5.25	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.



HARMONICS AND SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)

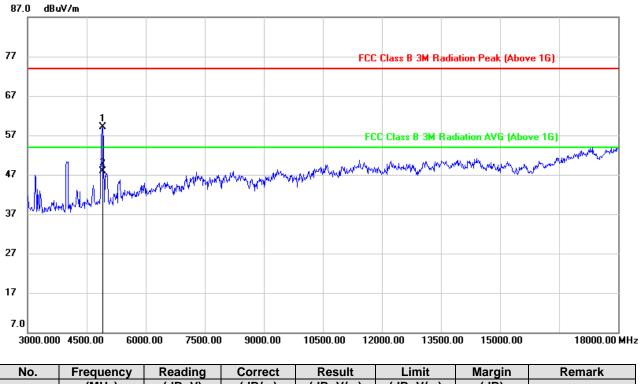


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4903.636	57.83	-0.07	57.76	74.00	-16.24	peak
2	4903.636	45.01	-0.07	44.94	54.00	-9.06	AVG

- 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. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. Proper operation of the transmitter prior to adding the filter to the measurement chain.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4904.100	59.13	-0.07	59.06	74.00	-14.94	peak
2	4904.100	47.97	-0.07	47.90	54.00	-6.10	AVG

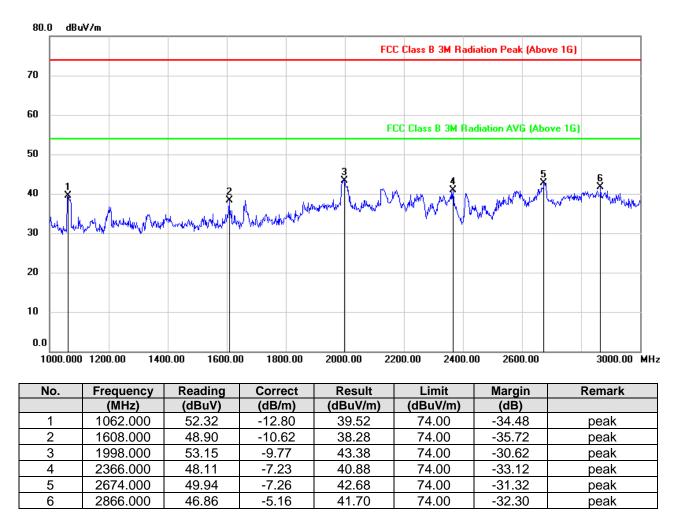
- Note: 1. Measurement = Reading Level + Correct Factor.
 - 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
 - 3. Peak: Peak detector.
 - 4. AVG: VBW=1/Ton where: ton is transmit duration.
 - 5. For transmit duration, please refer to clause 8.1.
 - 6. The High Pass filter loss factor already add into the correct factor.
 - 7. 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)

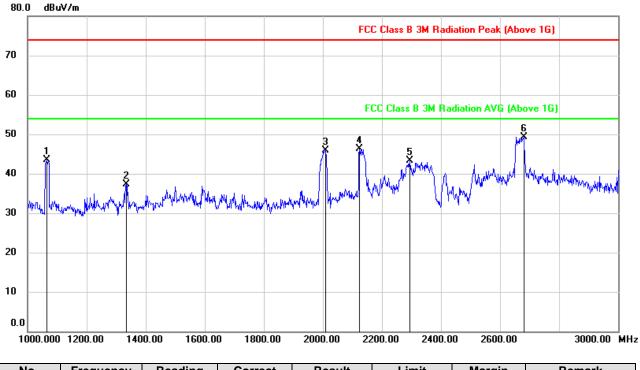


Note: 1. Measurement = Reading Level + Correct Factor.

- 2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- 3. Peak: Peak detector.
- 4. The Band Reject 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	1066.000	56.23	-12.78	43.45	74.00	-30.55	peak
2	1334.000	48.81	-11.45	37.36	74.00	-36.64	peak
3	2008.000	55.60	-9.66	45.94	74.00	-28.06	peak
4	2124.000	54.56	-8.35	46.21	74.00	-27.79	peak
5	2294.000	50.88	-7.55	43.33	74.00	-30.67	peak
6	2680.000	56.66	-7.29	49.37	74.00	-24.63	peak

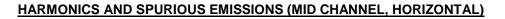
Note: 1. Measurement = Reading Level + Correct Factor.

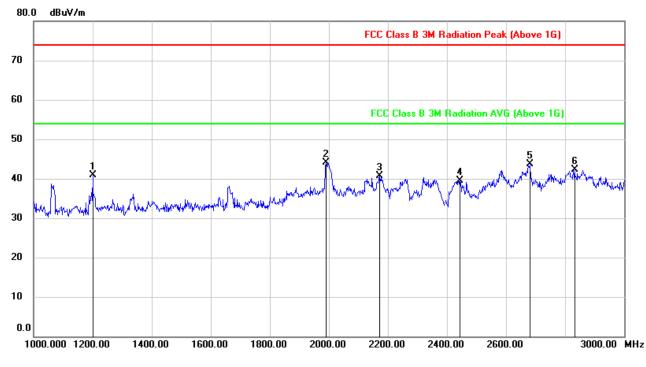
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1200.000	53.38	-12.44	40.94	74.00	-33.06	peak
2	1990.000	53.77	-9.74	44.03	74.00	-29.97	peak
3	2172.000	49.20	-8.40	40.80	74.00	-33.20	peak
4	2444.000	46.22	-6.77	39.45	74.00	-34.55	peak
5	2682.000	50.99	-7.31	43.68	74.00	-30.32	peak
6	2832.000	47.49	-5.18	42.31	74.00	-31.69	peak

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

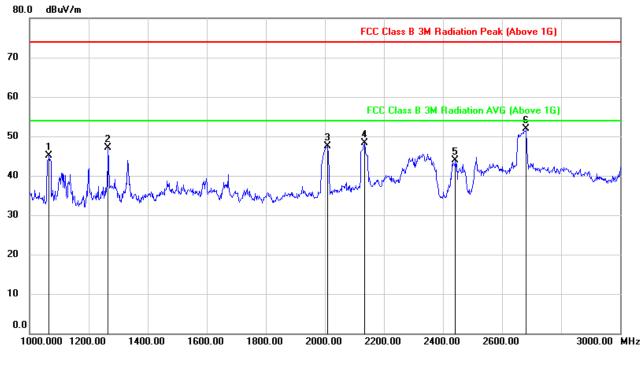
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1066.000	57.82	-12.78	45.04	74.00	-28.96	peak
2	1266.000	58.75	-11.63	47.12	74.00	-26.88	peak
3	2008.000	57.11	-9.66	47.45	74.00	-26.55	peak
4	2134.000	56.60	-8.36	48.24	74.00	-25.76	peak
5	2442.000	50.68	-6.78	43.90	74.00	-30.10	peak
6	2682.000	59.25	-7.31	51.94	74.00	-22.06	peak

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

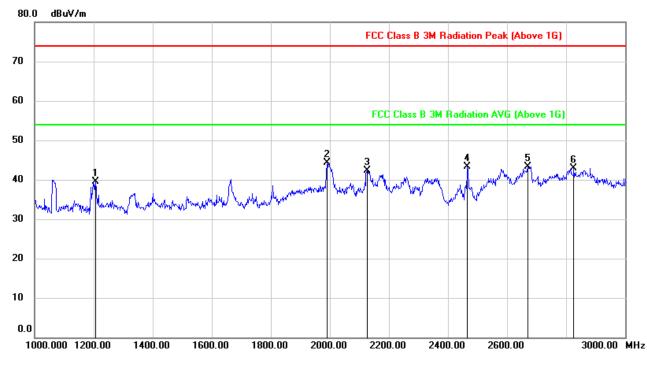
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1206.000	51.84	-12.37	39.47	74.00	-34.53	peak
2	1990.000	54.00	-9.74	44.26	74.00	-29.74	peak
3	2126.000	50.69	-8.35	42.34	74.00	-31.66	peak
4	2466.000	49.95	-6.60	43.35	74.00	-30.65	peak
5	2670.000	50.53	-7.24	43.29	74.00	-30.71	peak
6	2826.000	48.16	-5.19	42.97	74.00	-31.03	peak

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

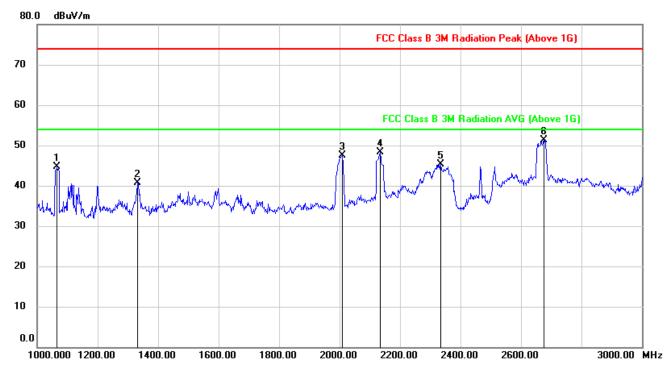
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1066.000	57.44	-12.78	44.66	74.00	-29.34	peak
2	1332.000	52.08	-11.43	40.65	74.00	-33.35	peak
3	2008.000	57.11	-9.66	47.45	74.00	-26.55	peak
4	2134.000	56.60	-8.36	48.24	74.00	-25.76	peak
5	2334.000	52.64	-7.37	45.27	74.00	-28.73	peak
6	2676.000	58.51	-7.28	51.23	74.00	-22.77	peak

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

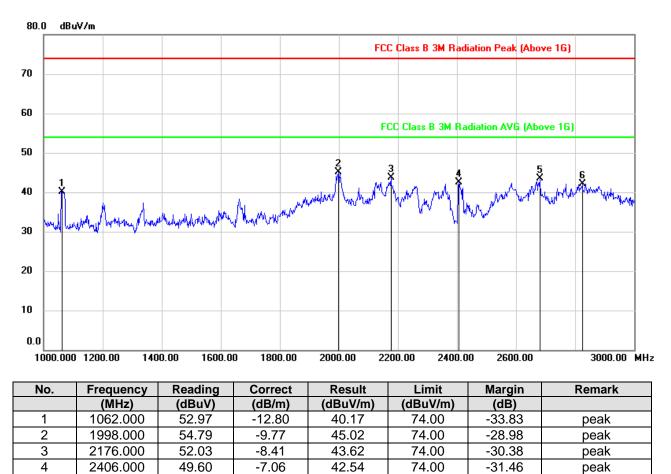
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



9.3.2. 802.11g MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

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

50.75

47.27

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

43.46

42.09

74.00

74.00

-30.54

-31.91

peak

peak

3. Peak: Peak detector.

2680.000

2824.000

5

6

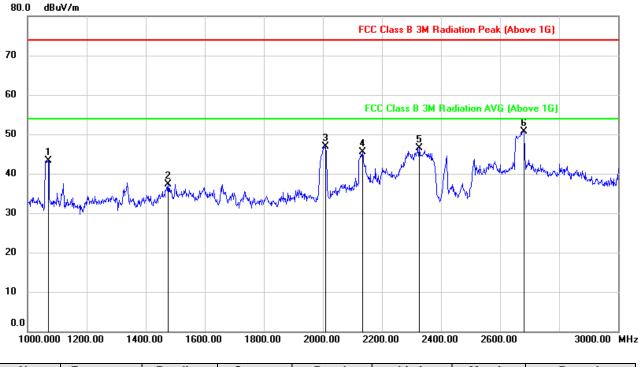
4. The Band Reject filter loss factor already add into the correct factor.

-7.29

-5.18



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	1070.000	56.11	-12.75	43.36	74.00	-30.64	peak
2	1476.000	49.05	-11.68	37.37	74.00	-36.63	peak
3	2008.000	56.53	-9.66	46.87	74.00	-27.13	peak
4	2134.000	53.95	-8.36	45.59	74.00	-28.41	peak
5	2326.000	53.95	-7.39	46.56	74.00	-27.44	peak
6	2680.000	57.98	-7.29	50.69	74.00	-23.31	peak

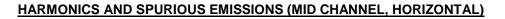
Note: 1. Measurement = Reading Level + Correct Factor.

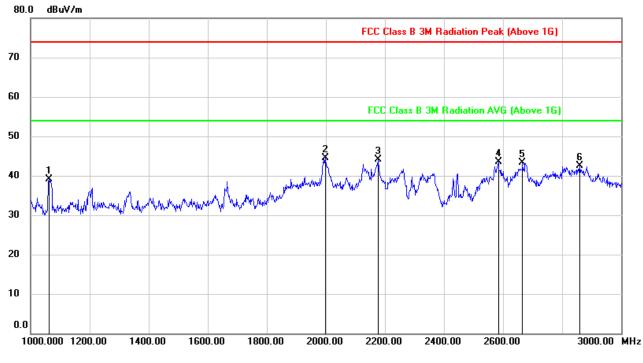
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	51.87	-12.80	39.07	74.00	-34.93	peak
2	1998.000	54.33	-9.77	44.56	74.00	-29.44	peak
3	2178.000	52.52	-8.42	44.10	74.00	-29.90	peak
4	2584.000	50.26	-6.73	43.53	74.00	-30.47	peak
5	2666.000	50.58	-7.20	43.38	74.00	-30.62	peak
6	2860.000	47.61	-5.16	42.45	74.00	-31.55	peak

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

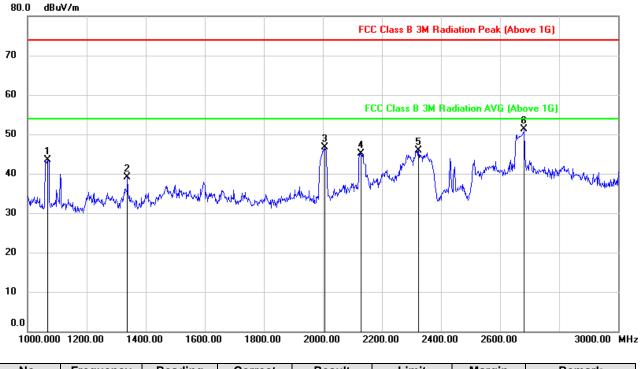
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1068.000	56.27	-12.77	43.50	74.00	-30.50	peak
2	1338.000	50.55	-11.47	39.08	74.00	-34.92	peak
3	2006.000	56.43	-9.70	46.73	74.00	-27.27	peak
4	2130.000	53.56	-8.36	45.20	74.00	-28.80	peak
5	2324.000	53.39	-7.40	45.99	74.00	-28.01	peak
6	2682.000	58.66	-7.30	51.36	74.00	-22.64	peak

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

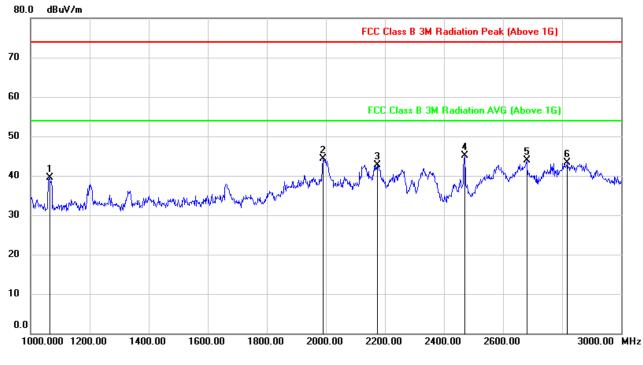
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1064.000	52.19	-12.78	39.41	74.00	-34.59	peak
2	1990.000	53.98	-9.74	44.24	74.00	-29.76	peak
3	2174.000	51.07	-8.41	42.66	74.00	-31.34	peak
4	2470.000	51.77	-6.57	45.20	74.00	-28.80	peak
5	2680.000	51.12	-7.29	43.83	74.00	-30.17	peak
6	2818.000	48.54	-5.19	43.35	74.00	-30.65	peak

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

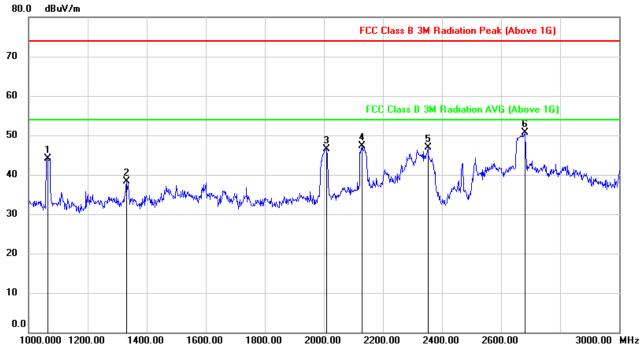
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1064.000	56.91	-12.78	44.13	74.00	-29.87	peak
2	1332.000	49.81	-11.43	38.38	74.00	-35.62	peak
3	2008.000	56.15	-9.66	46.49	74.00	-27.51	peak
4	2130.000	55.59	-8.36	47.23	74.00	-26.77	peak
5	2352.000	54.16	-7.29	46.87	74.00	-27.13	peak
6	2680.000	58.03	-7.29	50.74	74.00	-23.26	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.

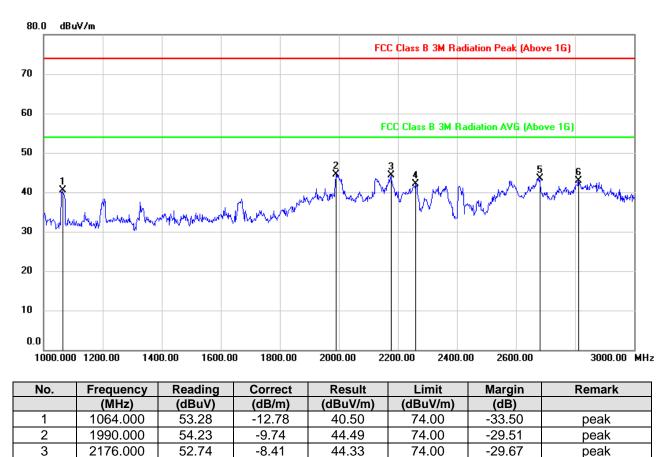
3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



peak peak peak

9.3.3. 802.11n HT20 MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

4	2260.000	49.97	-7.87	42.10	74.00	-31.90	
5	2680.000	50.83	-7.29	43.54	74.00	-30.46	
6	2812.000	48.03	-5.20	42.83	74.00	-31.17	

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

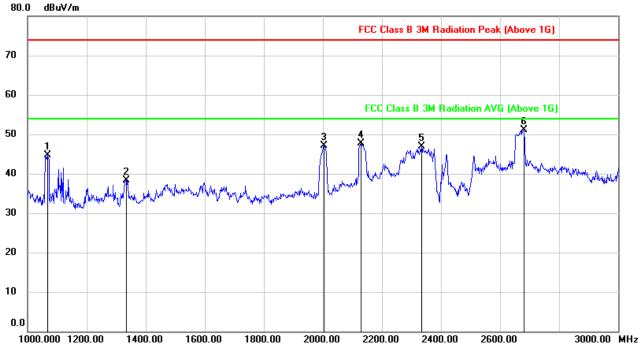
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1068.000	57.44	-12.77	44.67	74.00	-29.33	peak
2	1334.000	49.71	-11.45	38.26	74.00	-35.74	peak
3	2004.000	56.73	-9.72	47.01	74.00	-26.99	peak
4	2128.000	55.98	-8.36	47.62	74.00	-26.38	peak
5	2334.000	54.33	-7.37	46.96	74.00	-27.04	peak
6	2682.000	58.50	-7.30	51.20	74.00	-22.80	peak

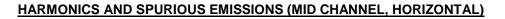
Note: 1. Measurement = Reading Level + Correct Factor.

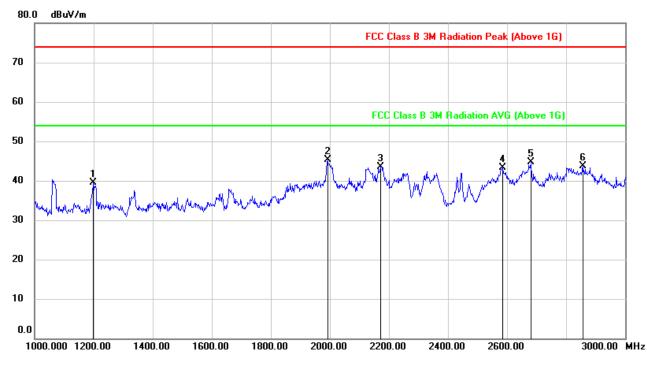
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1198.000	51.94	-12.44	39.50	74.00	-34.50	peak
2	1992.000	55.04	-9.74	45.30	74.00	-28.70	peak
3	2172.000	51.96	-8.40	43.56	74.00	-30.44	peak
4	2586.000	50.08	-6.73	43.35	74.00	-30.65	peak
5	2680.000	52.05	-7.29	44.76	74.00	-29.24	peak
6	2856.000	48.97	-5.17	43.80	74.00	-30.20	peak

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

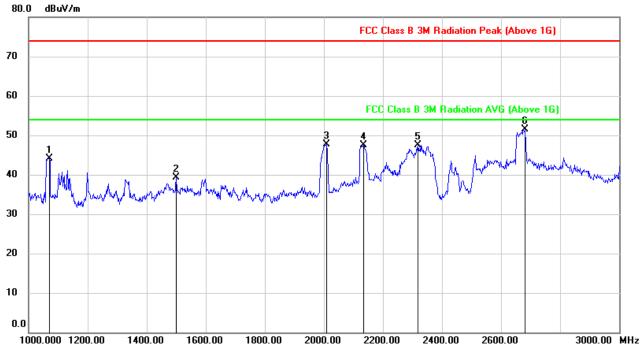
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1070.000	56.87	-12.75	44.12	74.00	-29.88	peak
2	1500.000	50.84	-11.60	39.24	74.00	-34.76	peak
3	2010.000	57.31	-9.63	47.68	74.00	-26.32	peak
4	2134.000	55.84	-8.36	47.48	74.00	-26.52	peak
5	2318.000	54.91	-7.43	47.48	74.00	-26.52	peak
6	2680.000	58.88	-7.29	51.59	74.00	-22.41	peak

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

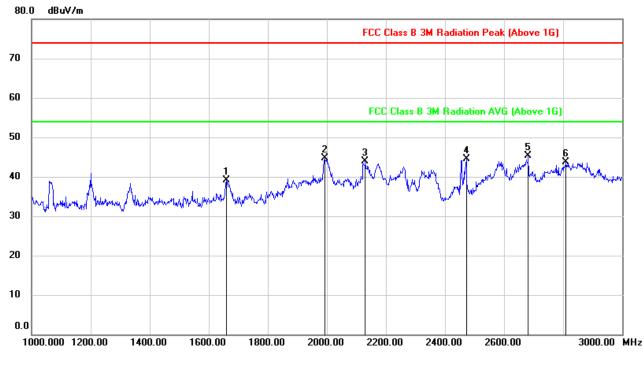
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1660.000	49.83	-10.67	39.16	74.00	-34.84	peak
2	1992.000	54.38	-9.74	44.64	74.00	-29.36	peak
3	2130.000	52.19	-8.36	43.83	74.00	-30.17	peak
4	2472.000	51.11	-6.56	44.55	74.00	-29.45	peak
5	2682.000	52.53	-7.30	45.23	74.00	-28.77	peak
6	2810.000	48.91	-5.19	43.72	74.00	-30.28	peak

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

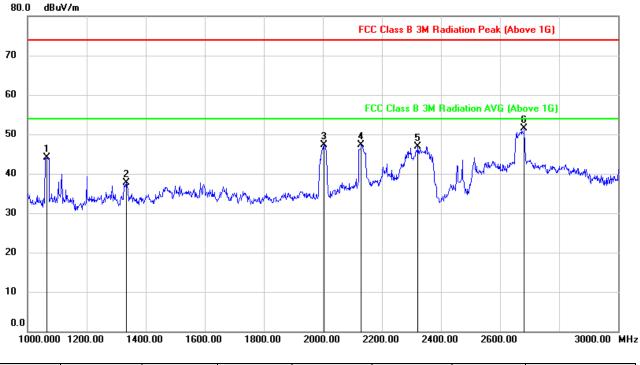
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1064.000	56.89	-12.78	44.11	74.00	-29.89	peak
2	1334.000	49.10	-11.45	37.65	74.00	-36.35	peak
3	2004.000	56.99	-9.72	47.27	74.00	-26.73	peak
4	2130.000	55.69	-8.36	47.33	74.00	-26.67	peak
5	2322.000	54.25	-7.40	46.85	74.00	-27.15	peak
6	2682.000	58.75	-7.30	51.45	74.00	-22.55	peak

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

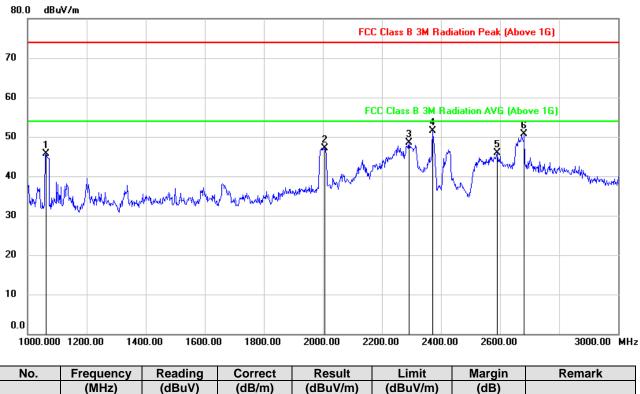
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1062.000	58.41	-12.80	45.61	74.00	-28.39	peak
2	2006.000	56.86	-9.70	47.16	74.00	-26.84	peak
3	2292.000	56.10	-7.57	48.53	74.00	-25.47	peak
4	2372.000	58.66	-7.22	51.44	74.00	-22.56	peak
5	2590.000	52.63	-6.76	45.87	74.00	-28.13	peak
6	2682.000	57.99	-7.30	50.69	74.00	-23.31	peak

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

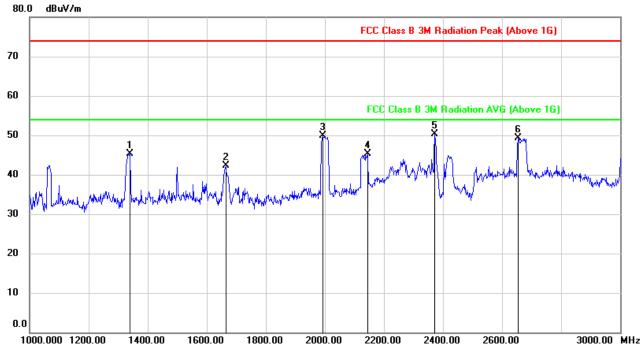
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1340.000	56.82	-11.49	45.33	74.00	-28.67	peak
2	1664.000	52.92	-10.68	42.24	74.00	-31.76	peak
3	1992.000	59.64	-9.74	49.90	74.00	-24.10	peak
4	2144.000	53.61	-8.37	45.24	74.00	-28.76	peak
5	2372.000	57.61	-7.22	50.39	74.00	-23.61	peak
6	2654.000	56.45	-7.14	49.31	74.00	-24.69	peak

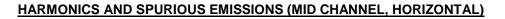
Note: 1. Measurement = Reading Level + Correct Factor.

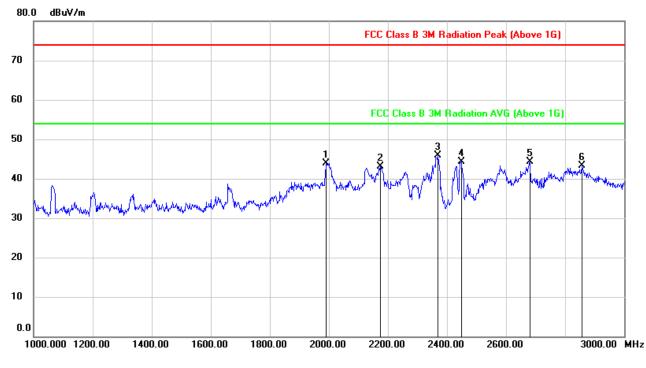
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1990.000	53.58	-9.74	43.84	74.00	-30.16	peak
2	2174.000	51.47	-8.41	43.06	74.00	-30.94	peak
3	2370.000	53.17	-7.22	45.95	74.00	-28.05	peak
4	2448.000	51.13	-6.73	44.40	74.00	-29.60	peak
5	2680.000	51.68	-7.29	44.39	74.00	-29.61	peak
6	2856.000	48.40	-5.17	43.23	74.00	-30.77	peak

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

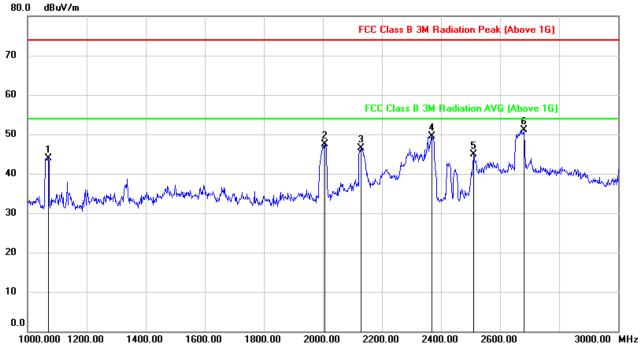
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1070.000	56.57	-12.75	43.82	74.00	-30.18	peak
2	2006.000	57.20	-9.70	47.50	74.00	-26.50	peak
3	2130.000	54.93	-8.36	46.57	74.00	-27.43	peak
4	2370.000	56.82	-7.22	49.60	74.00	-24.40	peak
5	2510.000	51.26	-6.38	44.88	74.00	-29.12	peak
6	2682.000	58.37	-7.30	51.07	74.00	-22.93	peak

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

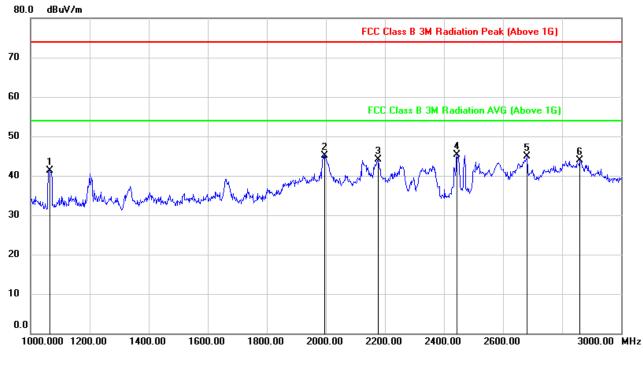
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1064.000	54.12	-12.78	41.34	74.00	-32.66	peak
2	1996.000	54.97	-9.77	45.20	74.00	-28.80	peak
3	2176.000	52.53	-8.41	44.12	74.00	-29.88	peak
4	2444.000	52.02	-6.77	45.25	74.00	-28.75	peak
5	2682.000	52.14	-7.30	44.84	74.00	-29.16	peak
6	2860.000	49.00	-5.16	43.84	74.00	-30.16	peak

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

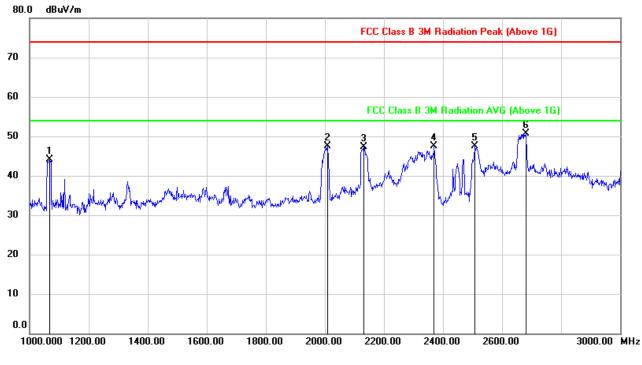
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



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	1068.000	56.78	-12.77	44.01	74.00	-29.99	peak
2	2008.000	57.26	-9.66	47.60	74.00	-26.40	peak
3	2132.000	55.59	-8.35	47.24	74.00	-26.76	peak
4	2370.000	54.77	-7.22	47.55	74.00	-26.45	peak
5	2508.000	53.95	-6.37	47.58	74.00	-26.42	peak
6	2682.000	57.98	-7.30	50.68	74.00	-23.32	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.

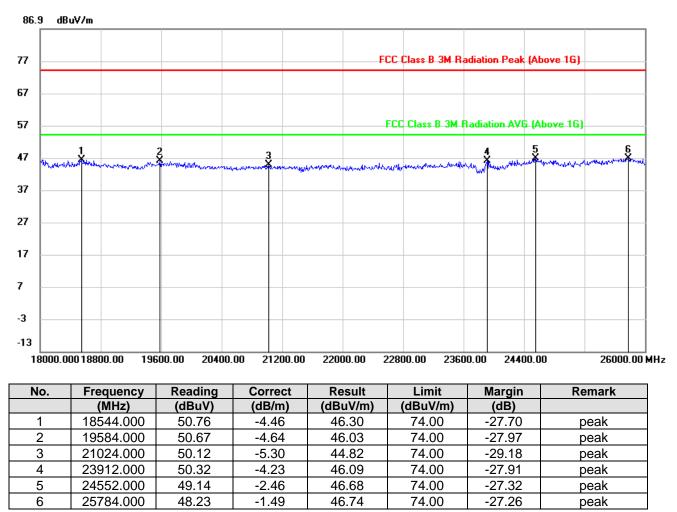
3. Peak: Peak detector.

4. The Band Reject filter loss factor already add into the correct factor.



9.4. PURIOUS EMISSIONS (18~26GHz)

9.4.1. 802.11b MODE



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

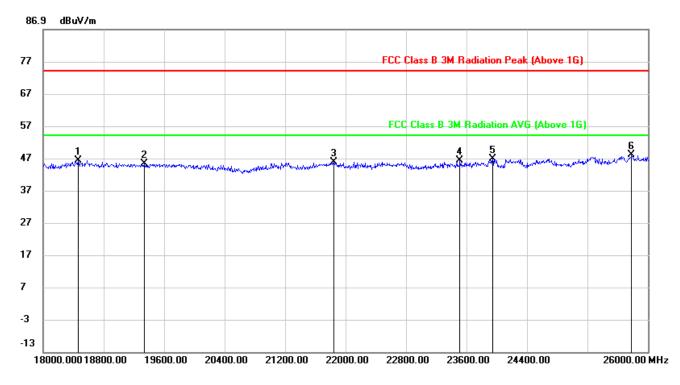
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



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



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18464.000	50.70	-4.39	46.31	74.00	-27.69	peak
2	19336.000	50.20	-4.97	45.23	74.00	-28.77	peak
3	21848.000	51.76	-5.95	45.81	74.00	-28.19	peak
4	23512.000	51.01	-4.76	46.25	74.00	-27.75	peak
5	23944.000	50.95	-4.14	46.81	74.00	-27.19	peak
6	25784.000	49.58	-1.49	48.09	74.00	-25.91	peak

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

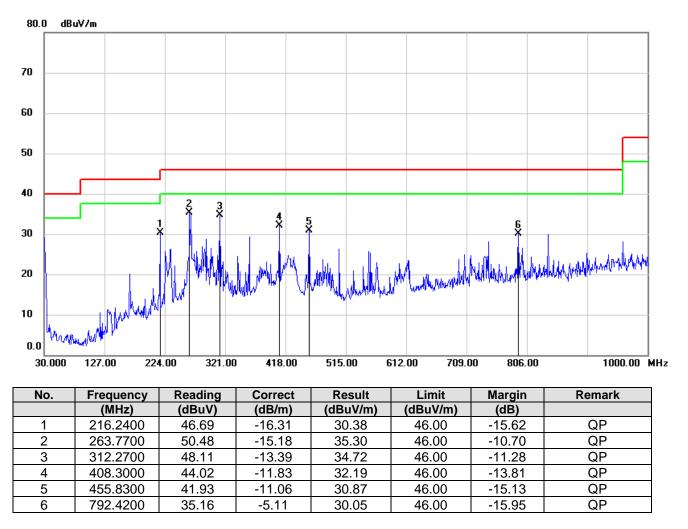
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



9.5. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

9.5.1. 802.11b MODE



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

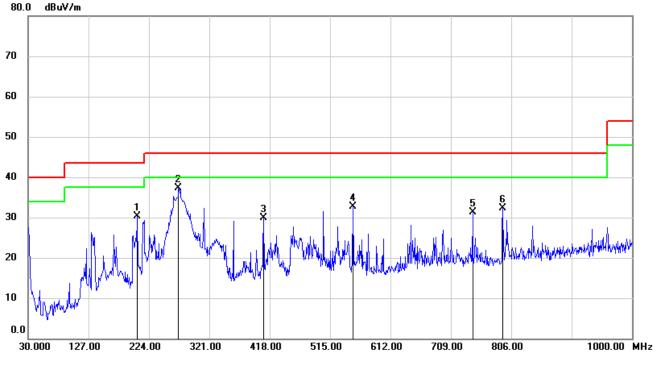
Note: 1. Result Level = Read Level + Correct Factor.

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	205.5700	45.83	-15.59	30.24	43.50	-13.26	QP
2	271.5300	52.20	-14.92	37.28	46.00	-8.72	QP
3	408.3000	41.71	-11.83	29.88	46.00	-16.12	QP
4	551.8600	41.86	-9.06	32.80	46.00	-13.20	QP
5	743.9200	36.95	-5.73	31.22	46.00	-14.78	QP
6	792.4200	37.37	-5.11	32.26	46.00	-13.74	QP

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

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

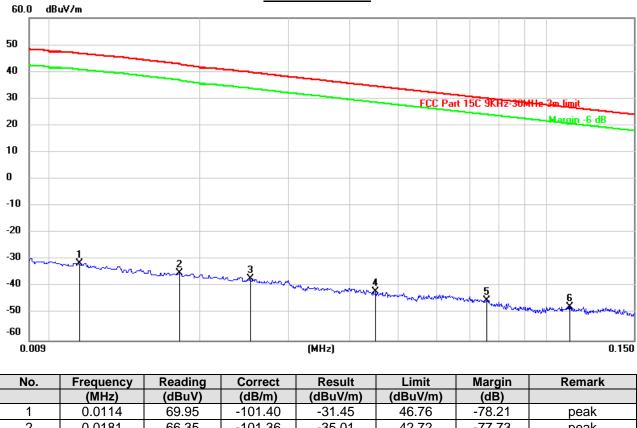
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto



9.6. SPURIOUS EMISSIONS BELOW 30M

9.6.1. 802.11b MODE

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



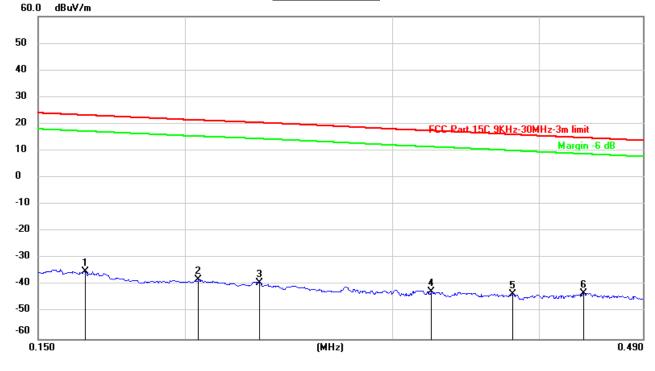
<u>0.09kHz~ 150kHz</u>

No) .	Frequency	Reading	Correct	Result	Limit	Margin	Remark
		(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1		0.0114	69.95	-101.40	-31.45	46.76	-78.21	peak
2		0.0181	66.35	-101.36	-35.01	42.72	-77.73	peak
3		0.0252	64.32	-101.37	-37.05	39.75	-76.80	peak
4		0.0451	59.59	-101.46	-41.87	34.57	-76.44	peak
5		0.0756	56.54	-101.59	-45.05	30.05	-75.10	peak
6		0.1115	54.11	-101.76	-47.65	26.67	-74.32	peak

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



<u>150kHz ~ 490kHz</u>

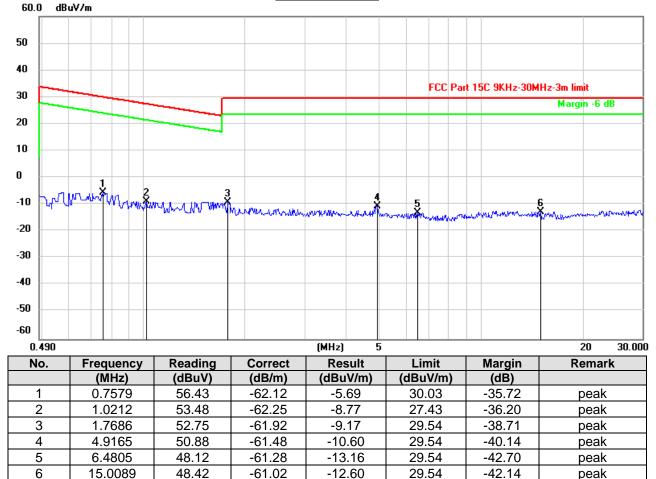


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1645	66.75	-101.66	-34.91	23.29	-58.20	peak
2	0.2053	63.80	-101.73	-37.93	21.39	-59.32	peak
3	0.2313	62.69	-101.77	-39.08	20.48	-59.56	peak
4	0.3240	59.37	-101.88	-42.51	17.46	-59.97	peak
5	0.3800	58.52	-101.94	-43.42	16.06	-59.48	peak
6	0.4364	58.86	-101.99	-43.13	14.85	-57.98	peak

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



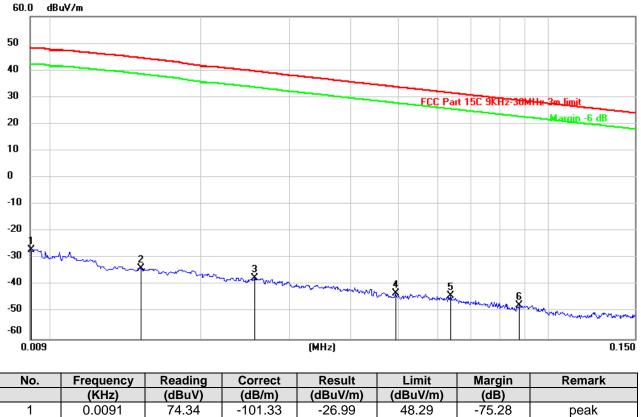
<u>490kHz ~ 30MHz</u>



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



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

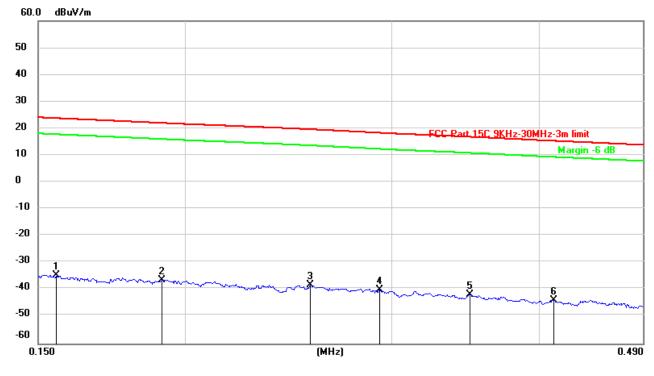


<u>0.09~ 150kHz</u>

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(KHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0091	74.34	-101.33	-26.99	48.29	-75.28	peak
2	0.0151	67.66	-101.37	-33.71	44.53	-78.24	peak
3	0.0256	63.91	-101.37	-37.46	39.61	-77.07	peak
4	0.0492	58.30	-101.47	-43.17	33.78	-76.95	peak
5	0.0636	57.54	-101.54	-44.00	31.56	-75.56	peak
6	0.0874	54.04	-101.69	-47.65	28.78	-76.43	peak

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

150kHz ~ 490kHz

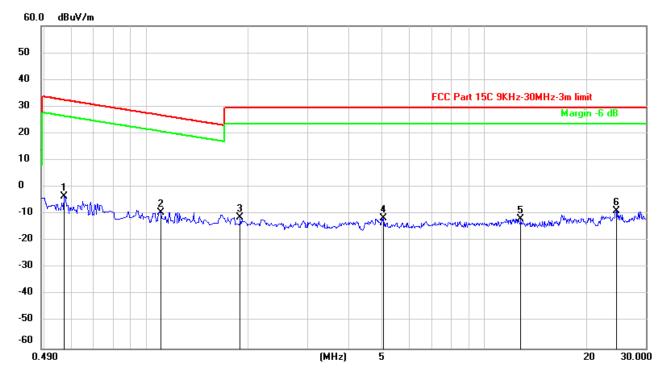


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(KHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1556	67.02	-101.65	-34.63	23.77	-58.40	peak
2	0.1912	65.38	-101.70	-36.32	21.98	-58.30	peak
3	0.2555	63.59	-101.80	-38.21	19.63	-57.84	peak
4	0.2928	61.79	-101.85	-40.06	18.31	-58.37	peak
5	0.3496	60.02	-101.91	-41.89	16.82	-58.71	peak
6	0.4112	58.10	-101.97	-43.87	15.34	-59.21	peak

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



<u>490kHz ~ 30MHz</u>



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	1.1092	52.76	-62.22	-9.46	26.71	-36.17	peak
3	1.8971	50.49	-61.87	-11.38	29.54	-40.92	peak
4	5.0345	50.06	-61.49	-11.43	29.54	-40.97	peak
5	12.8252	49.11	-60.92	-11.81	29.54	-41.35	peak
6	24.5407	51.70	-60.49	-8.79	29.54	-38.33	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.



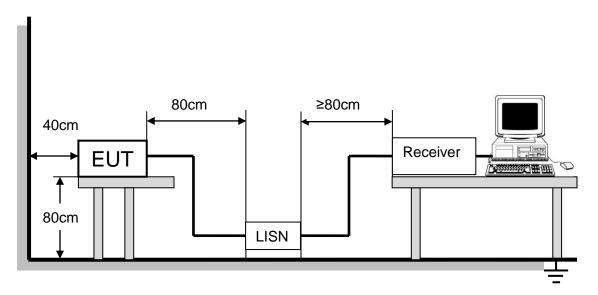
10. AC POWER LINE CONDUCTED EMISSIONS

<u>LIMITS</u>

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

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

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 7 and 13 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

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

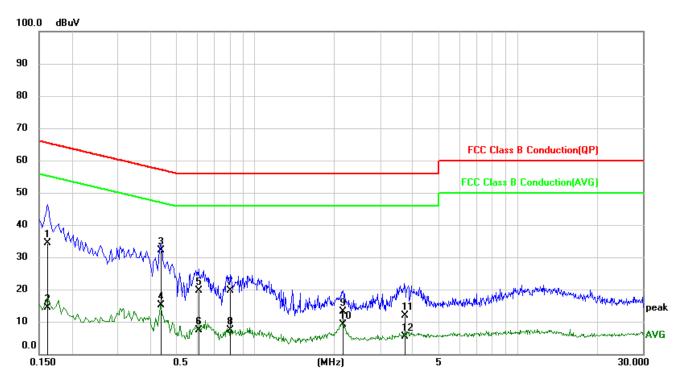
TEST ENVIRONMENT

Temperature	22.5°C	Relative Humidity	53%
Atmosphere Pressure	101kPa	Test Voltage	DC 5V

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10.1. 802.11b MODE



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

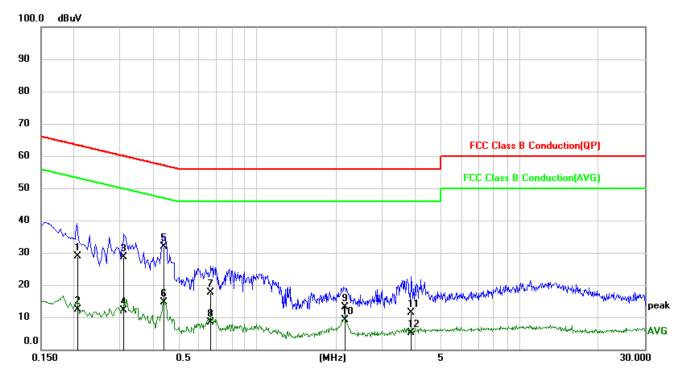
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1620	24.79	9.60	34.39	65.36	-30.97	QP
2	0.1620	4.84	9.60	14.44	55.36	-40.92	AVG
3	0.4382	22.55	9.60	32.15	57.10	-24.95	QP
4	0.4382	5.53	9.60	15.13	47.10	-31.97	AVG
5	0.6117	9.92	9.60	19.52	56.00	-36.48	QP
6	0.6117	-2.20	9.60	7.40	46.00	-38.60	AVG
7	0.8063	9.96	9.60	19.56	56.00	-36.44	QP
8	0.8063	-2.32	9.60	7.28	46.00	-38.72	AVG
9	2.1489	3.56	9.63	13.19	56.00	-42.81	QP
10	2.1489	-0.61	9.63	9.02	46.00	-36.98	AVG
11	3.7388	2.25	9.66	11.91	56.00	-44.09	QP
12	3.7388	-4.22	9.66	5.44	46.00	-40.56	AVG

Note: 1. Result = Reading +Correct Factor.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2080	19.32	9.60	28.92	63.28	-34.36	QP
2	0.2080	2.88	9.60	12.48	53.28	-40.80	AVG
3	0.3089	18.99	9.60	28.59	60.00	-31.41	QP
4	0.3089	2.54	9.60	12.14	50.00	-37.86	AVG
5	0.4414	22.19	9.60	31.79	57.04	-25.25	QP
6	0.4414	5.00	9.60	14.60	47.04	-32.44	AVG
7	0.6592	8.07	9.60	17.67	56.00	-38.33	QP
8	0.6592	-1.19	9.60	8.41	46.00	-37.59	AVG
9	2.1568	3.41	9.62	13.03	56.00	-42.97	QP
10	2.1568	-0.43	9.62	9.19	46.00	-36.81	AVG
11	3.8893	1.73	9.66	11.39	56.00	-44.61	QP
12	3.8893	-4.44	9.66	5.22	46.00	-40.78	AVG

Note: 1. Result = Reading +Correct Factor.

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

3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).

4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.



11. 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