

## CFR 47 FCC PART 15 SUBPART C

#### **TEST REPORT**

For

## Lighting

#### MODEL NUMBER: 8Wy-A806ST-Q1Z

#### FCC ID: 2AB2Q8WYA806ST

#### REPORT NUMBER: 4788910050.1-1

ISSUE DATE: March 15, 2019

Prepared for

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		Revision History	<u></u>
Rev.	Issue Date	Revisions	Revised By
V0	3/15/2019	Initial Issue	



	Summary of Test Results					
Clause	Test Items	FCC Rules	Test Results			
1	6dB Bandwidth and 99% Occupied Bandwidth	FCC Part 15.247 (a) (2)	Pass			
2	Peak Conducted Output Power	FCC Part 15.247 (b) (3)	Pass			
3	Power Spectral Density	FCC Part 15.247 (e)	Pass			
4	Conducted Bandedge and Spurious Emission	FCC Part 15.247 (d)	Pass			
5	Radiated Bandedge and Spurious Emission	FCC Part 15.247 (d) FCC Part 15.209 FCC Part 15.205	Pass			
6	Conducted Emission Test For AC Power Port	FCC Part 15.207	Pass			
7	Antenna Requirement	FCC Part 15.203	Pass			



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## **1. ATTESTATION OF TEST RESULTS**

An	nlicant	Information	
	phicanic	mormation	

Company Name:	LEEDARSON LIGHTING CO., LTD.			
Address:	Xingtai Industrial Zone, Economic Development Zone, Changtai			
	County, Zhangzhou City, Fujian Province, P.R.China			

#### Manufacturer Information

Company Name: Address: LEEDARSON LIGHTING CO., LTD. Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, P.R.China

#### **EUT Description**

EUT Name: Model: Series Model: Model Difference: Sample Status: Sample Received Date: Date of Tested: Lighting 8Wy-A806ST-Q1Z 8Wy-A806ST-Q1R Please refer to section 5.1 Normal January 23, 2019 January 24 ~ March 15, 2019

# APPLICABLE STANDARDSSTANDARDTEST RESULTSCFR 47 FCC PART 15 SUBPART CPASS

Prepared By:

Kebo. zhung.

Sherry lies

Checked By:

Kebo Zhang Engineer Project Associate Approved By:

Shawn Wen Laboratory Leader

Stephen Guo Laboratory Manager

Aephenbuo



## 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 and ANSI C63.10-2013.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<ul> <li>A2LA (Certificate No.: 4102.01)</li> <li>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</li> <li>FCC (FCC Designation No.: CN1187)</li> <li>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</li> <li>IC(Company No.: 21320)</li> <li>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.</li> <li>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</li> <li>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.</li> </ul>

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	Lighting			
Model	8Wy-A806ST-Q1Z			
Series Model	8Wy-A806ST-Q1R			
Model Difference	8Wy-A806ST-Q1R have the same RF circuit and the performance, same technical construction including drive circuit diagram, PCB Layout, components and component layout, all electrical construction and mechanical construction with 8Wy-A806ST-Q1Z.The difference lies only the model number and an additional color temperature changeable IC and its auxiliary circuit, which consist of the components: R12,R13, C4,C10,U3,D4 etc.			
Radio Technology	IEEE802.11b/g/n HT20			
Operation frequency	IEEE 802.11b: 2412M IEEE 802.11g: 2412M IEEE 802.11n HT20: 2	łz		
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK)			
Rated Input AC 120V, 60Hz				
	Deven Adamtan	Input	/	
Power Supply	Power Adapter	Output	1	
	Battery	/		

## 5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	IEE Std. 802.11	Frequency (MHz)	Channel Number	Max PK Conducted Power (dBm)
1	IEEE 802.11b	2412-2462	1-11[11]	16.22
1	IEEE 802.11g	2412-2462	1-11[11]	17.87
1	IEEE 802.11nHT20	2412-2462	1-11[11]	18.24

## 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	/	/

## 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

## 5.5. THE WORSE CASE CONFIGURATIONS

The W	/orse Case	e Power Setting Parame	ter under 2400 ~ 2483.	5MHz Band						
Test Softw	vare		UI_mptool							
Modulation Mode	Transmit		Test Channel							
	n Antenna		NCB: 20MHz							
Widde	Number	CH 1	CH 1 CH 6							
802.11b	1	41	42	42						
802.11g	1	47	47 47 47							
802.11n HT20 1 45 45 45										



## 5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	Antenna Gain (dBi)
1	2412-2462	Integral Antenna	-0.7

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.



## 5.7. DESCRIPTION OF TEST SETUP

#### SUPPORT EQUIPMENT

Item	ItemEquipmentBrand Nam1LaptopThinkPac		Model Name	P/N
1			T460S	SL10K24796 JS
2	USB TO UART	/	/	/

#### I/O CABLES

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

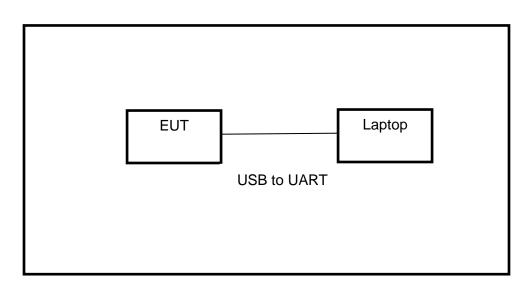
#### ACCESSORIES

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

		Cond	lucted E	Emissi	ons			
			Instrun	nent				
Used	Equipment	Manufacturer	Mode	l No.	Seria	l No.	Last Cal.	Next Cal.
$\checkmark$	EMI Test Receiver	R&S	ESI	R3	1019	961	Dec.10,2018	Dec.10,2019
V	Two-Line V- Network	R&S	ENV216		1019	983	Dec.10,2018	Dec.10,2019
V	Artificial Mains Networks	Schwarzbeck	NSLK	8126	8126	465	Dec.10,2018	Dec.10,2019
			Softwa	are				
Image: Network       R&S       ENV216       101983       Dec.10,2018       Dec.10         Image: Mathematical Mains Networks       Schwarzbeck       NSLK 8126       8126465       Dec.10,2018       Dec.10         Software         Used Description       Manufacturer       Name       Vers         Image: Mathematical Mains Networks       Schwarzbeck       Farad       EZ-EMC       Ver. UI         Radiated Emissions         Instrument         Used Equipment Manufacturer Model No. Serial No. Last Cal. Next         Image: MXE EMI Receiver       KESIGHT       N9038A       MY56400 036       Dec.10,2018       Dec.10         Image: MXE EMI Receiver       KESIGHT       N9038A       MY56400 036       Dec.10,2018       Dec.10         Image: MXE EMI Receiver       KESIGHT       N9038A       MY56400 036       Dec.10,2018       Dec.10         Image: MXE EMI Receiver       KESIGHT       N9038A       MY56400 036       Dec.10,2018       Dec.10         Image: MXE EMI Receiver       KESIGHT       N9038A       ESR26       101377       Dec.10,2018       Dec.10         Image: Mathema       TDK       HRN-0118       130939       Sep.17, 2018       Sep.17         Image							Version	
$\checkmark$	Test Software for C	Conducted distu	rbance	F	arad		EZ-EMC	Ver. UL-3A1
		Rad	iated E	nissio	ns			
			Instrun	nent				
Used	Equipment	Manufacturer	Mode	l No.	Seria	l No.	Last Cal.	Next Cal.
V	MXE EMI Receiver	KESIGHT	N903	38A			Dec.10,2018	Dec.10,2019
V		TDK	HLP-3	003C			Sep.17, 2018	Sep.17, 2021
V	Preamplifier	HP	844	7D			Dec.10,2018	Dec.10,2019
V		R&S	ESF	R26	101377		Dec.10,2018	Dec.10,2019
$\checkmark$	Horn Antenna	TDK	HRN-	0118	130939		Sep.17, 2018	Sep.17, 2021
V	U U	Schwarzbeck	BBHA	-9170			Aug.11, 2018	Aug.11, 2021
V	Preamplifier	TDK	PA-02	-0118	000	66	Dec.10,2018	Dec.10,2019
V	Preamplifier	TDK	PA-0	)2-2			Dec.10,2018	Dec.10,2019
$\checkmark$	Loop antenna	Schwarzbeck			000	80	Mar.26,2016	Mar.25, 2019
V	Band Reject Filter	Wainwright	2350-2 2483	2400- 3.5-	4		Dec.10,2018	Dec.10,2019
V	High Pass Filter	Wi	2700-3			3	Dec.10,2018	Dec.10,2019
			Softwa	are				
Used	Descr	iption	Ma	anufact	urer		Name	Version
$\checkmark$	Test Software for Ra	adiated disturba	ince	Farac	ł		EZ-EMC	Ver. UL-3A1
		Oth	ner insti	ument	ts			



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					1 29	
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

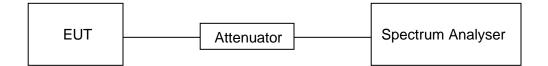
#### LIMITS

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	AC 120V,60Hz

#### **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	128.8	128.8	1	100	0	0.008	0.01
11g	128.5	128.5	1	100	0	0.008	0.01
11n20	128.0	128.0	1	100	0	0.008	0.01

Note:

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

Where: x is Duty Cycle (Linear)

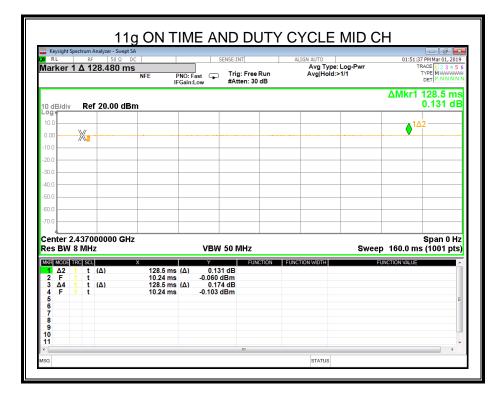
Where: T is On Time

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

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RL		RF	alyzer - Swept SA 50 Ω DC				SENSE:IN	NT.		ALIG	N AUTO				48 PM Mar 01, 2019
arke	er 3 /	128	8.800 ms		PNO: Fa Gain:L	ast ⊊⊃ ₋ow		g: Free F ten: 30 (			Avg Typ Avg Hold		wr		TYPE MWWWW DET P NNNN
) dB/	div	Ref	20.00 dBm	, ,										ΔMkr3	128.8 ms -0.016 dE
															3Δ4
0.00					<u> </u>		<u> </u>					_			
0.0		11 55					<u> </u>					_			
0.0							<u> </u>								
0.0							<u> </u>								
10.0							<u> </u>								
50.0												_			_
50.0		_			<u> </u>		<u> </u>					_			
70.0															
ente	r 2.4	3700	0000 GHz												Span 0 Hz
	W 8 I		••••			VBW	V 50 N	ЛНz					Sweep	160.0 m	is (1001 pts
	DE TRC			X		Y		FUNC	TION	FUNCTIO	N WIDTH		FUI	ICTION VALUE	
1Δ 2 F	1	t (. t		128.8 ms 12.48 ms		-0.01 0.193	13 dB dBm								
3Δ 4 F	4 1	t (	Δ)	128.8 ms 12.48 ms		-0.01 0.196	16 dB								
5 6				12.401.10		0.100	uom								
7															
8 9															
10															
								m							



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Keysight Spectrum Analyzer - Swept S           RL         RF         50 Ω         D		SENSE:	INT	ALIGN AUTO		01:53:02	PM Mar 01, 2019
arker 3 Δ 128.000 ms	5	ast 😱 Tri	g: Free Run tten: 30 dB	Avg Type Avg Hold:	: Log-Pwr >1/1	TR 1	ACE 1 2 3 4 5 TYPE MWWWM DET P N N N N
dB/div Ref 20.00 dB	m						128.0 ms 0.109 dE
0.0						3/	A4
						<b>\</b>	
0.0							
0.0							
0.0							
0.0							
0.0							
0.0							
0.0							
enter 2.437000000 GHz es BW 8 MHz	2	VBW 50	MHz		Sweep	160.0 ms	Span 0 Hz (1001 pts
KR MODE TRC SCL	×	Y	FUNCTION	FUNCTION WIDTH	FUI	NCTION VALUE	
1 Δ2 1 t (Δ) 2 F 1 t	128.0 ms (Δ) 12.64 ms	0.682 dB -1.013 dBm					
<mark>3</mark> Δ4 1 t (Δ) 4 F 1 t	128.0 ms (Δ) 12.64 ms	0.109 dB -0.440 dBm					
5 6							
7							
9							
0							



## 8.2. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH

#### **LIMITS**

CFR 47 FCC Part15 (15.247) Subpart C						
Section	Test Item	Limit	Frequency Range (MHz)			
CFR 47 FCC 15.247(a)(2)	6 dB Bandwidth	≥ 500KHz	2400-2483.5			
ANSI C63.10-2013 section 6.9.3	99% Occupied Bandwidth	For reporting purposes only.	2400-2483.5			

#### TEST PROCEDURE

Connect the OOT to the spectrum analyser and use the following settings.				
Center Frequency	The centre frequency of the channel under test			
Detector	Peak			
BBW	For 6dB Bandwidth :100K For 99% Occupied Bandwidth :1% to 5% of the occupied bandwidth			
	For 6dB Bandwidth : ≥3 × RBW For 99% Occupied Bandwidth : approximately 3×RBW			

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

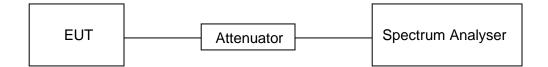
Max hold

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

Trace Sweep





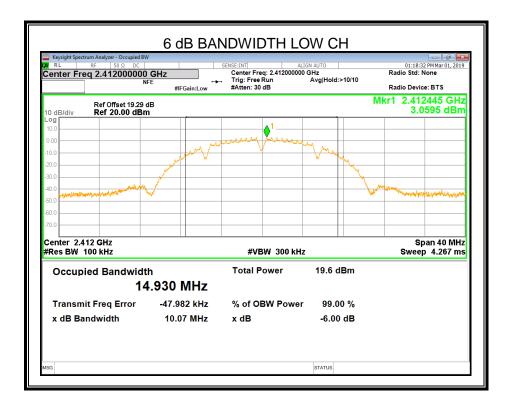
#### TEST ENVIRONMENT

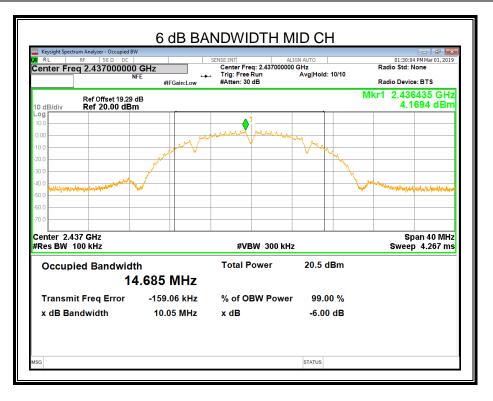
Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V,60Hz

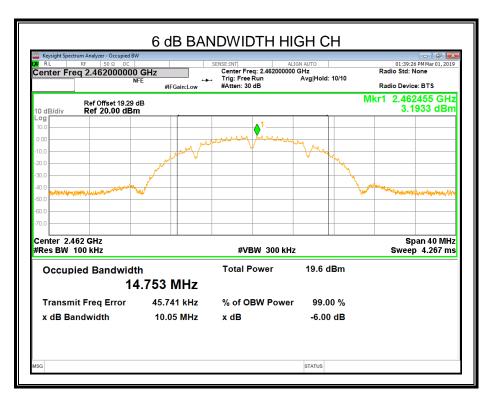
#### **RESULTS**

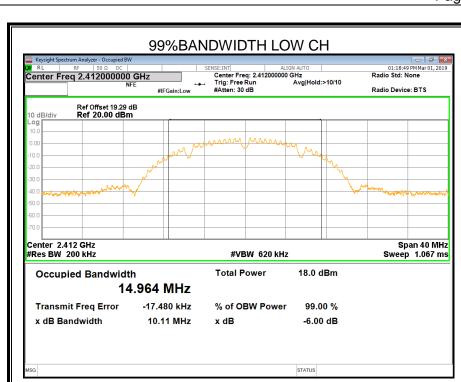
#### 8.2.1. 802.11b MODE

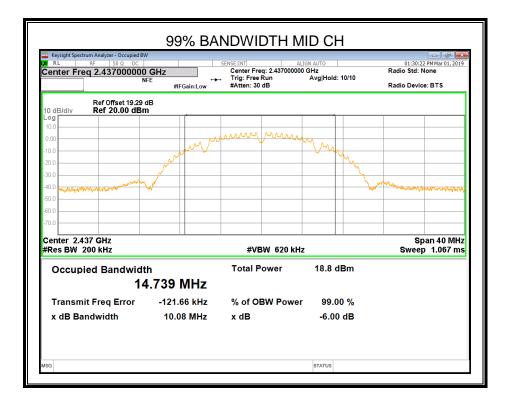
Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	10.07	14.964	≥500	Pass
Middle	10.05	14.739	≥500	Pass
High	10.05	14.793	≥500	Pass



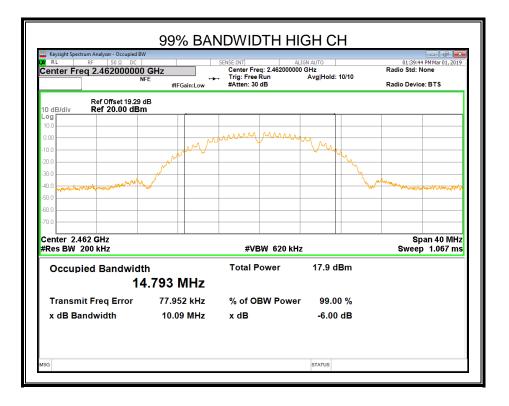






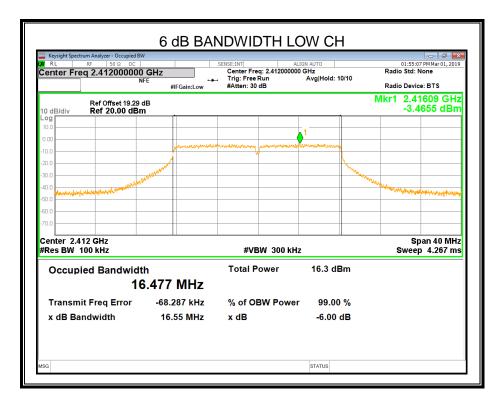


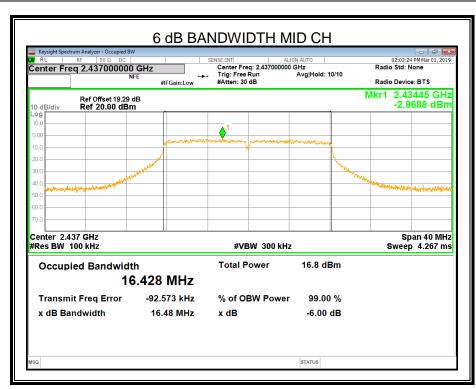


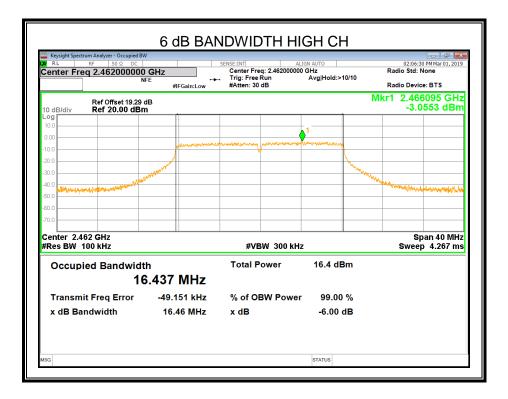


## 8.2.2. 802.11g MODE

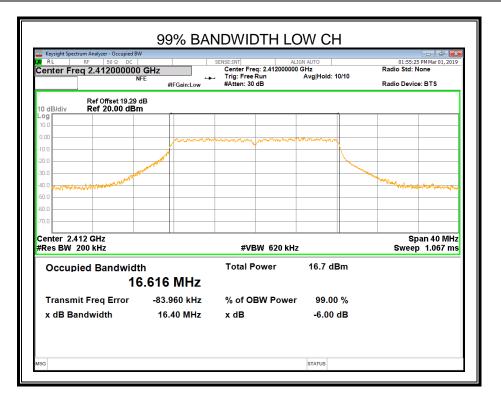
Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	16.55	16.616	≥500	Pass
Middle	16.48	16.557	≥500	Pass
High	16.46	16.562	≥500	Pass

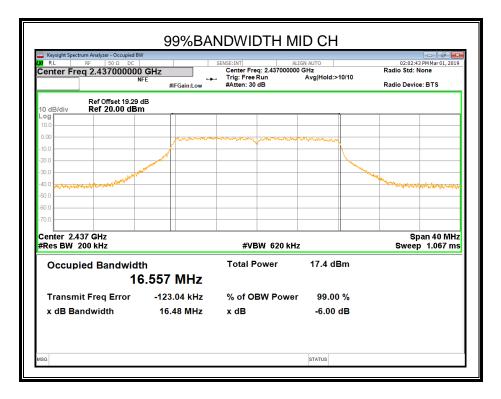


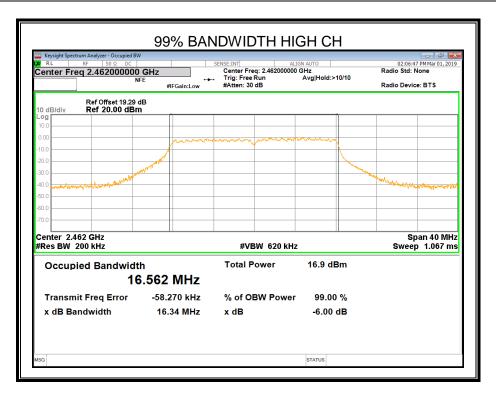






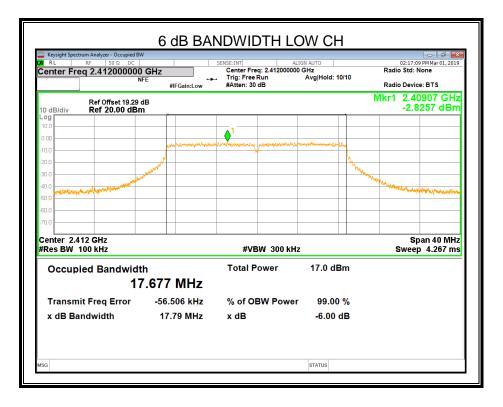


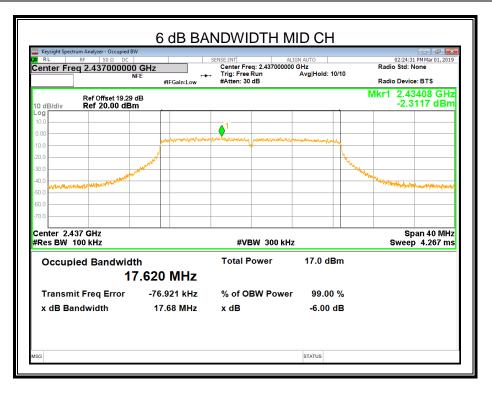


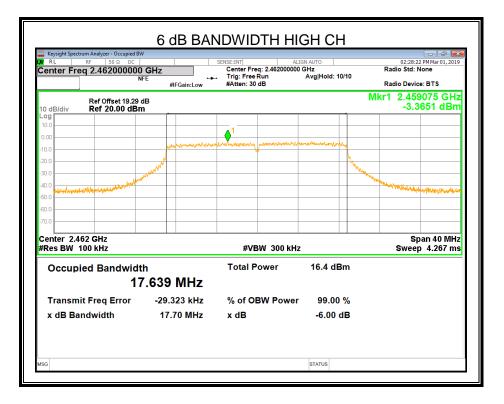


Channel	6dB bandwidth (MHz)	99% bandwidth (MHz)	Limit (kHz)	Result
Low	17.79	17.790	≥500	Pass
Middle	17.68	17.700	≥500	Pass
High	17.70	17.722	≥500	Pass

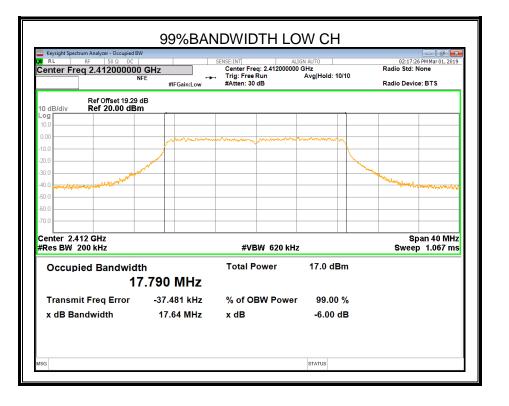
#### 8.2.3. 802.11n HT20 MODE

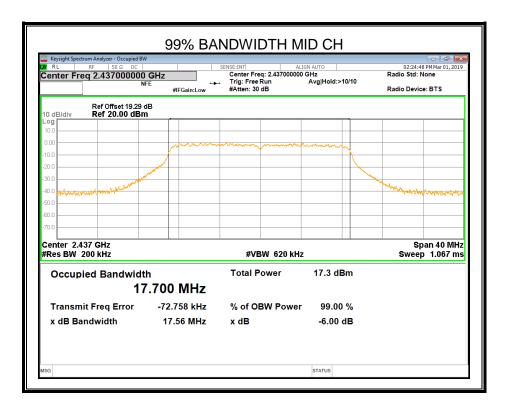




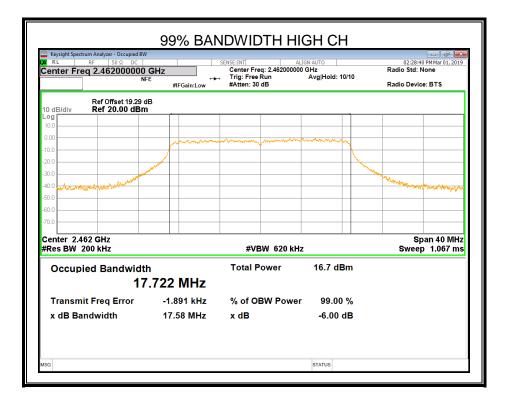














## 8.3. PEAK CONDUCTED OUTPUT POWER

#### <u>LIMITS</u>

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

#### TEST PROCEDURE

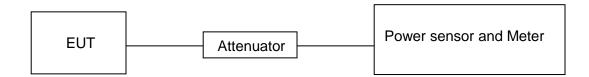
Place the EUT on the table and set it in the transmitting mode.

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	AC 120V,60Hz



#### <u>RESULTS</u>

#### 8.3.1. 802.11b MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	15.37	13.18	30
Middle	16.22	13.94	30
High	15.39	13.16	30

## 8.3.2. 802.11g MODE

Test Channel	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(AV)	LIMIT
	(dBm)	(dBm)	dBm
Low	17.15	10.45	30
Middle	17.87	11.20	30
High	17.35	10.68	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	17.80	10.66	30
Middle	18.24	11.21	30
High	17.67	10.65	30



## 8.4. POWER SPECTRAL DENSITY

#### **LIMITS**

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

#### TEST PROCEDURE

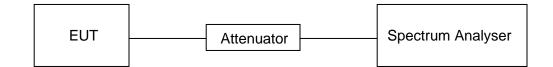
Connect the UUT to the spectrum analyser and use the following settings:

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	AC 120V,60Hz

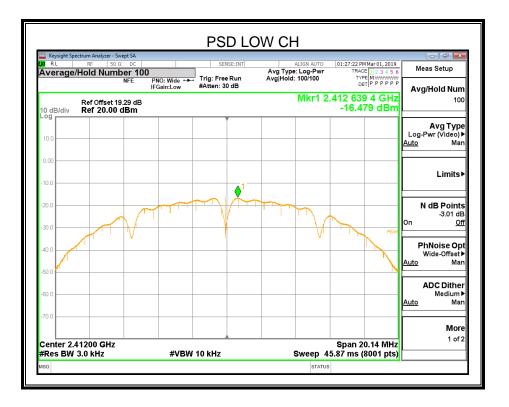
#### <u>RESULTS</u>

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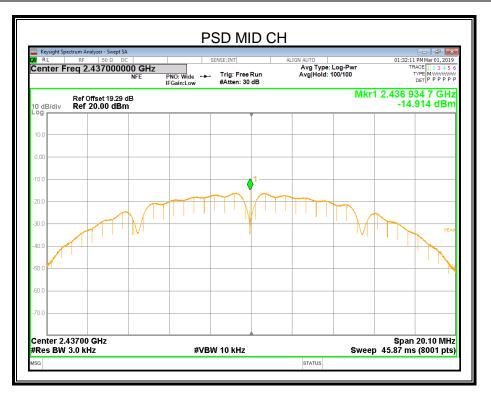


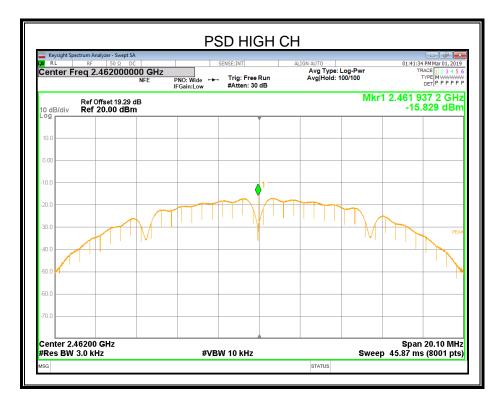
#### 8.4.1. 802.11b MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-16.479	8	PASS
Middle	-14.914	8	PASS
High	-15.829	8	PASS





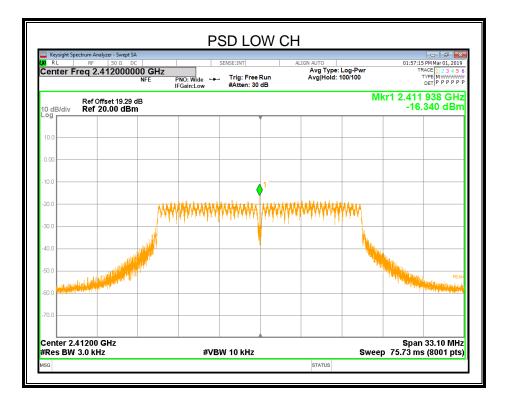




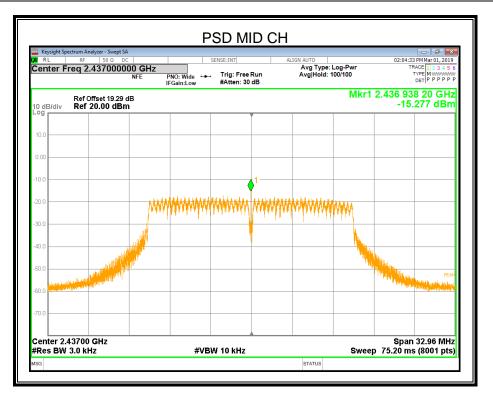


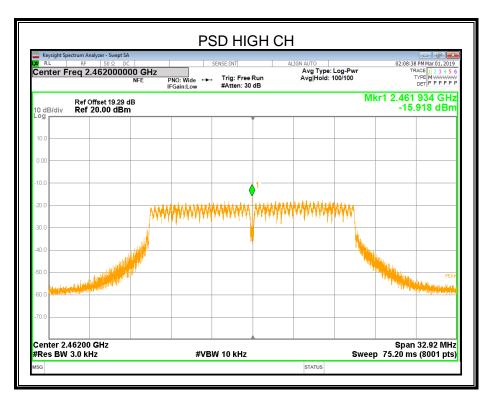
8.4.2. 802.11g MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-16.340	8	PASS
Middle	-15.277	8	PASS
High	-15.918	8	PASS





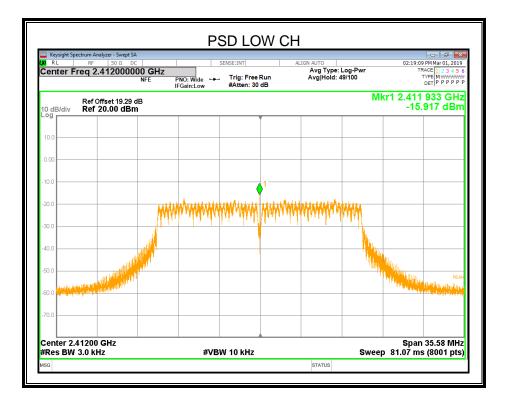




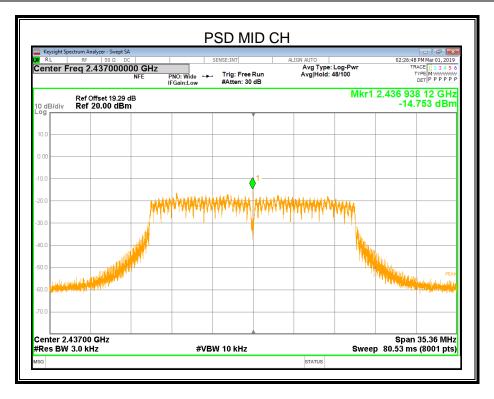


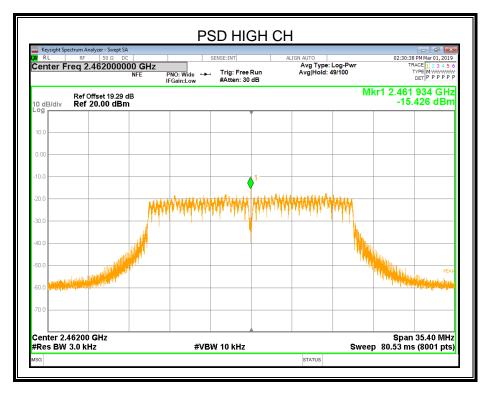
8.4.3. 802.11n HT20 MODE

Test Channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-15.917	8	PASS
Middle	-14.753	8	PASS
High	-15.426	8	PASS











# 8.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

### LIMITS

CFR 47 FCC Part15 (15.247) Subpart C					
Section	Test Item	Limit			
CFR 47 FCC §15.247 (d)	Conducted Bandedge and Spurious Emissions	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.

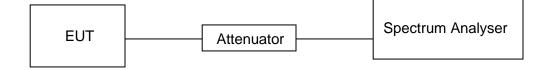
Use the peak marker function to determine the maximum PSD level.

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

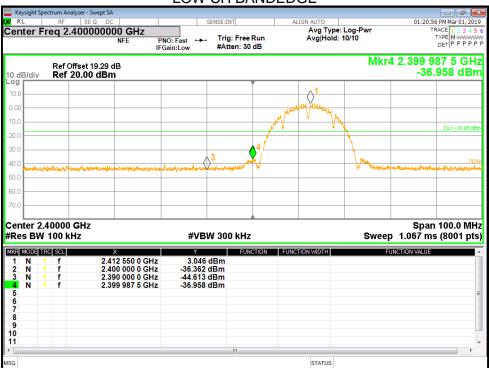


### **TEST ENVIRONMENT**

Temperature	22.3°C	Relative Humidity	56%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V,60Hz

### **RESULTS**

# 8.5.1. 802.11b MODE



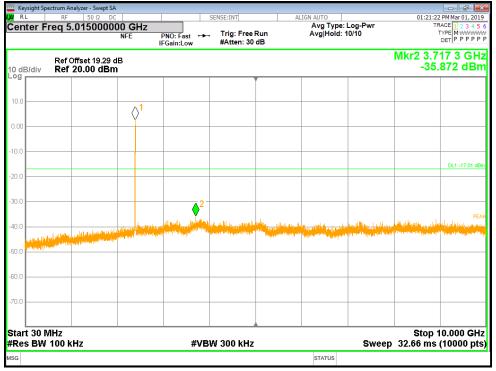
# LOW CH BANDEDGE





# LOW CH SPURIOUS EMISSIONS REFERENCE

### LOW CH SPURIOUS EMISSIONS 30M-10G





#### Keysight Spectrum Anal 01:21:32 PM Mar 01, 2019 Center Freq 18.000000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 TYPE M Trig: Free Run #Atten: 30 dB PNO: Fast IFGain:Low NFE -DETPPPPF Mkr1 25.668 8 GHz Ref Offset 19.29 dB Ref 20.00 dBm -33.762 dBm 10 dB/div Log 10.0 0.00 DL1 -17.01 d 20.0 30.0 40 C 50.1 60. 70. Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 51.99 ms (10000 pts) STATUS

# LOW CH SPURIOUS EMISSIONS 10G-26G

### MID CH SPURIOUS EMISSIONS REFERENCE





### MID CH SPURIOUS EMISSIONS 30M-10G

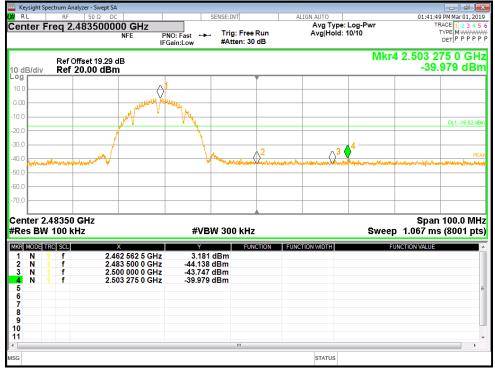


### MID CH SPURIOUS EMISSIONS 10G-26G





# HIGH CH BANDEDGE



# HIGH CH SPURIOUS EMISSIONS REFERENCE

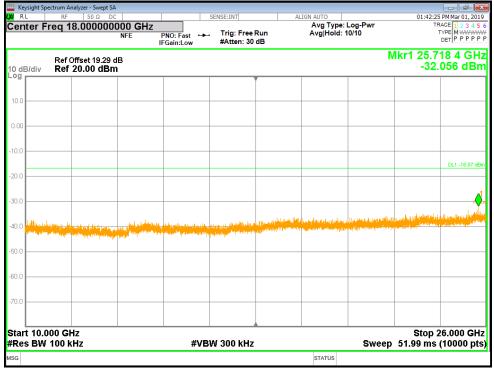




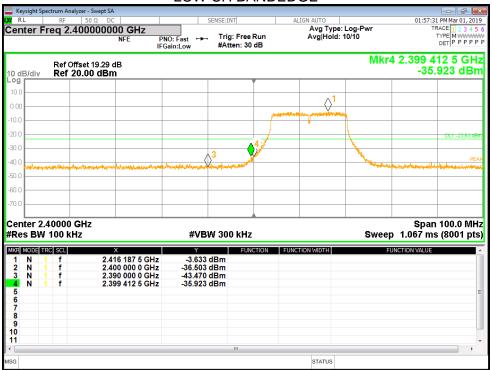
#### Keysigh RI 01:42:16 PM Mar 01, 2019 Avg Type: Log-Pwr Avg|Hold: 10/10 Center Freq 5.015000000 GHz TRACE 1 2 3 4 5 TYPE M WWWW DET P P P P P PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB -----Mkr2 3.765 1 GHz -35.136 dBm Ref Offset 19.29 dB Ref 20.00 dBm 10 dB/div Log $\langle \rangle$ 0.00 10.0 20.1 30. ٥ 40.0 to a state of the state 50 C 60.1 Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 32.66 ms (10000 pts) ISG STATUS

# HIGH CH SPURIOUS EMISSIONS 30M-10G

# HIGH CH SPURIOUS EMISSIONS 10G-26G

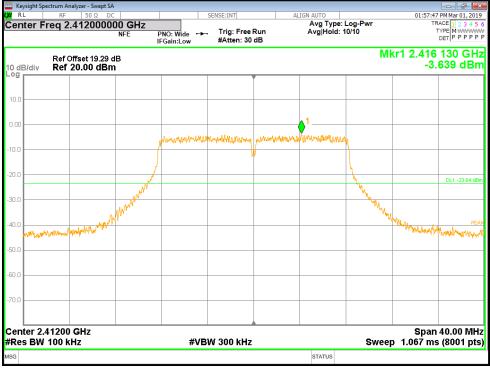


# 8.5.2. 802.11g MODE



LOW CH BANDEDGE

# LOW CH SPURIOUS EMISSIONS REFERENCE

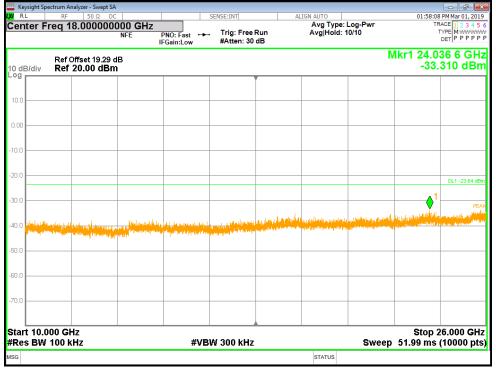






# LOW CH SPURIOUS EMISSIONS 30M-10G

### LOW CH SPURIOUS EMISSIONS 10G-26G







# MID CH SPURIOUS EMISSIONS REFERENCE

### MID CH SPURIOUS EMISSIONS 30M-10G

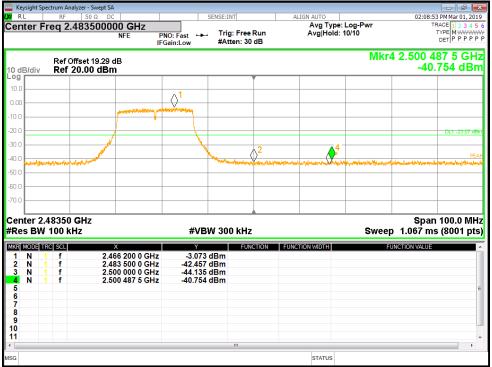




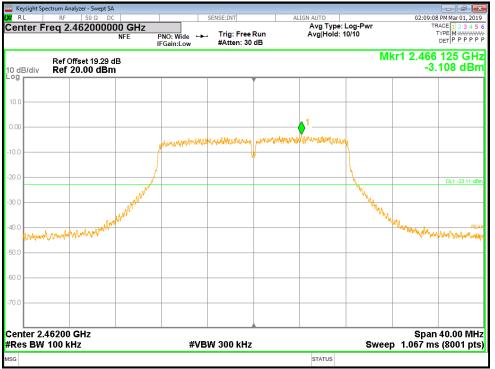
# MID CH SPURIOUS EMISSIONS 10G-26G

Ref Offset 19.29 dB         Mkr1 25,966 4 GH           0 dB/div         Ref 20.00 dBm         -33.634 dB           0.00         -33.634 dB         -33.634 dB           0.01         -33.634 dB         -33.634 dB <tr< th=""><th>Keysight Spectrum Analyzer - Swept SA</th><th></th><th></th><th></th><th></th><th>- 6 <b>-</b></th></tr<>	Keysight Spectrum Analyzer - Swept SA					- 6 <b>-</b>
Ref Offset 19:29 dB         Mkr1 25.966 4 G H F           0 dB/div         Ref 20:00 dBm         -33.634 dB           00         00         0         0         0           00         00         0         0         0         0           00         000         0         0         0         0         0           00         000         0         0         0         0         0         0           000         0			SENSE:INT		1 D	02:05:17 PM Mar 01, 2019
0.0 B/div       Ref 20.00 dBm       -33.634 dBi         0.0 B/div       Ref 20.00 GHz       Ref 20.00 GHz         Ref 20.00 GHz       #VBW 300 KHz       Sweep 51.99 ms (10000 pt	Center Freq 18.000000	NFE PNO: Fas		in Avg Hold:	10/10	DET P P P P
10.0       10.0					Mkr	1 25.966 4 GH -33.634 dBn
10.0	10.0					
20.0	0.00					
0.0       0	10.0					
40.0         40.0 <td< td=""><td>20.0</td><td></td><td></td><td></td><td></td><td>DL1 -22.98 dE</td></td<>	20.0					DL1 -22.98 dE
50.0 60.0 70.0 Start 10.000 GHz Res BW 100 kHz #VBW 300 kHz Sweep 51.99 ms (10000 pt				a is no behald more large a const		PE
50.0 50.0 70.0 tart 10.000 GHz Res BW 100 kHz #VBW 300 kHz Sweep 51.99 ms (10000 pt	40.0 All the state of the second state of the		in the second second from the line of the second	A STATE OF THE REPORT OF THE PARTY OF THE REPORT OF THE PARTY OF THE P	a de la capacita de la	and a state of the s
70.0 Start 10.000 GHz Res BW 100 kHz <b>Xex BW 100 kHz</b> <b>Xex BW </b>						
Start 10.000 GHz Stop 26.000 GH Res BW 100 kHz #VBW 300 kHz Sweep 51.99 ms (10000 pt	60.0					
Res BW 100 kHz #VBW 300 kHz Sweep 51.99 ms (10000 pt	70.0					
SG STATUS	Start 10.000 GHz #Res BW 100 kHz		#VBW 300 kHz		Sweep 51	Stop 26.000 GH .99 ms (10000 pts
	ISG			STATUS		

### HIGH CH BANDEDGE

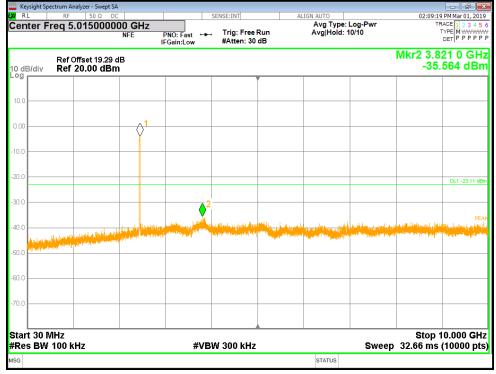






### HIGH CH SPURIOUS EMISSIONS REFERENCE

### HIGH CH SPURIOUS EMISSIONS 30M-10G



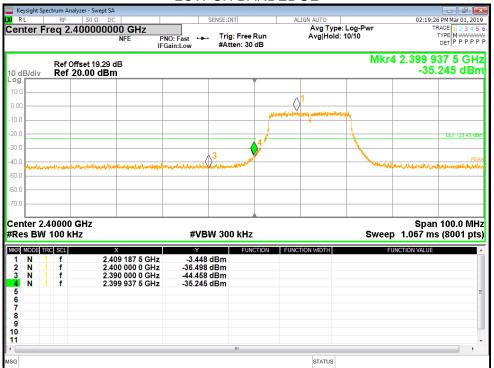


# HIGH CH SPURIOUS EMISSIONS 10G-26G

Start 10.00 #Res BW 1			#VI	BW 300 kHz			Sweep	Stop 3 51.99 ms	26.000 GHz (10000 pts
70.0									
60.0									
50.0									
40.0 <mark>10.0 (10.0 10.0</mark>	Anna an Anna an Anna Anna Anna Anna Ann		(Lauth), airth (Launa, a) Mar Tarith (Launa), a			n an an hAll a try political a f		the subgroup of the state of th	a loanti, and some faith and a state
						. استان من م والما وال	والمتقافين وراجا بالترويقا فاررا	unut contrations	PE.
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20.0									DL1 -23.11 dB
10.0									
).00									
10.0									
0 dB/div	Ref 20.00							-32	.785 dBn
	Ref Offset 19	29 48	IFGain:Low	#Atten: 30	ав		N		59 2 GH
enter Fr	eq 18.000	000000 GHz	PNO: Fast ↔	Trig: Free #Atten: 30		Avg Type: Avg Hold: 1			RACE 1 2 3 4 5 TYPE M WWW DET P P P P P
RL	RF 50 Ω			SENSE:INT	AL	IGN AUTO			9 PM Mar 01, 2019



# 8.5.3. 802.11n HT20 MODE



### LOW CH BANDEDGE

# LOW CH SPURIOUS EMISSIONS REFERENCE





#### Keysight Spectrum Analyzer 02:19:52 PM Mar 01, 2019 Center Freq 5.015000000 GHz Avg Type: Log-Pwr Avg|Hold: 10/10 RACE TYPE MWWW DET P P P P P Trig: Free Run #Atten: 30 dB PNO: Fast NFE **→**→ IFGain:Low Mkr2 3.883 8 GHz Ref Offset 19.29 dB Ref 20.00 dBm -36.238 dBm 10 dB/div Log 10.0 0.0 10.C -20.0 -30.0 ۲ -40.0 فالتعر الع -50.0 Stop 10.000 GHz Sweep 32.66 ms (10000 pts) Start 30 MHz #Res BW 100 kHz #VBW 300 kHz STATUS sG

# LOW CH SPURIOUS EMISSIONS 30M-10G

# LOW CH SPURIOUS EMISSIONS 10G-26G

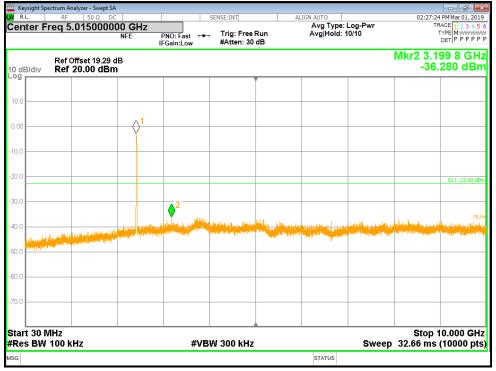






# MID CH SPURIOUS EMISSIONS REFERENCE

### MID CH SPURIOUS EMISSIONS 30M-10G

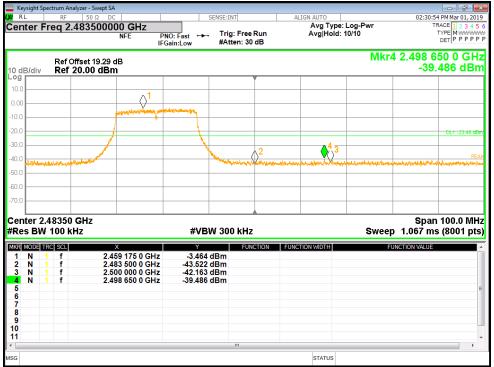




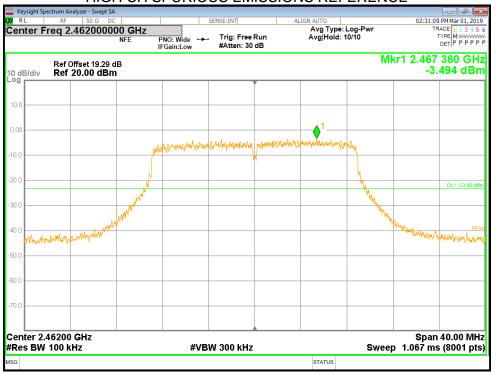
# MID CH SPURIOUS EMISSIONS 10G-26G

	ctrum Analyzer - Swept								- F
RL				SENSE:INT	AL	IGN AUTO Avg Type:	Log-Pwr		B PM Mar 01, 2019 RACE 1 2 3 4 5
enter Fr	req 18.00000	NFE	PNO: Fast ↔ IFGain:Low	Trig: Free #Atten: 30		Avg Hold:	10/10		
0 dB/div	Ref Offset 19.29 Ref 20.00 dB						N	lkr1 25.5 -32.	64 8 GH 556 dBr
10.0									
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0.0									
0.0									
0.0									
tart 10.00 Res BW			#VE	BW 300 kHz			Sweep	Stop 2 51.99 ms	26.000 GH (10000 pt

### HIGH CH BANDEDGE

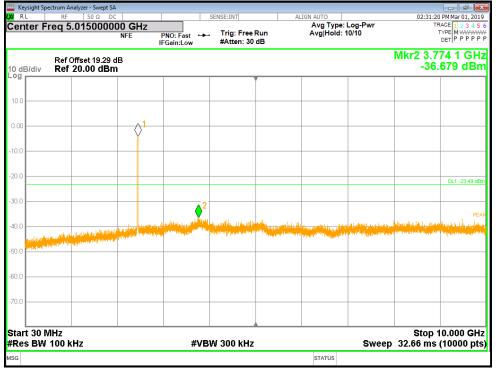






# HIGH CH SPURIOUS EMISSIONS REFERENCE

# HIGH CH SPURIOUS EMISSIONS 30M-10G





# HIGH CH SPURIOUS EMISSIONS 10G-26G

	ctrum Analyzer - Swep								- F 💌
RL		DC		SENSE:INT	AL	LIGN AUTO			1 PM Mar 01, 2019
enter Fr	eq 18.0000	NFE	PNO: Fast ↔ IFGain:Low	→ Trig: Free #Atten: 30		Avg Type: Avg Hold: 1	10/10		DET P P P P P
0 dB/div	Ref Offset 19.2 Ref 20.00 de						N		612 8 GH: .790 dBn
10.0									
0.00									
10.0									
20.0									DL1 -23.49 dB
30.0			a dala da serila si a la seri				n, missin Jan Hilblard		All and a solution
and all the own	and the second s						Laboration and the	Tendenin and the second	l I waayna addal yadadd
50.0									
:0.0									
70.0									
tart 10.0 Res BW			#VI	BW 300 kHz	<u> </u>	<u> </u>	Sweep		26.000 GHz (10000 pts
SG						STATUS			



# 9. RADIATED TEST RESULTS

### LIMITS

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

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)		
Frequency (MHZ)	Peak	Average	
Above 1000	74	54	

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

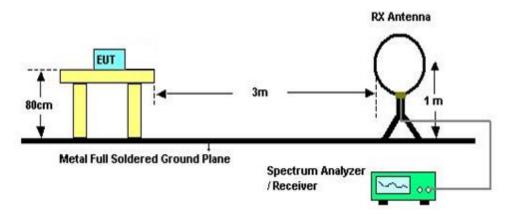
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
<sup>1</sup> 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
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- <mark>1</mark> 56.9	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	( <sup>2</sup> )
13.36-13.41			

Note: <sup>1</sup>Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. <sup>2</sup>Above 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.

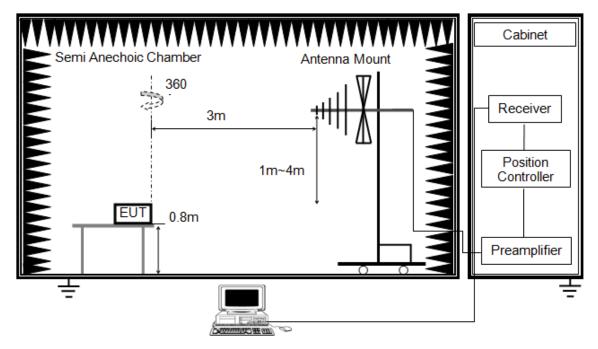
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the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

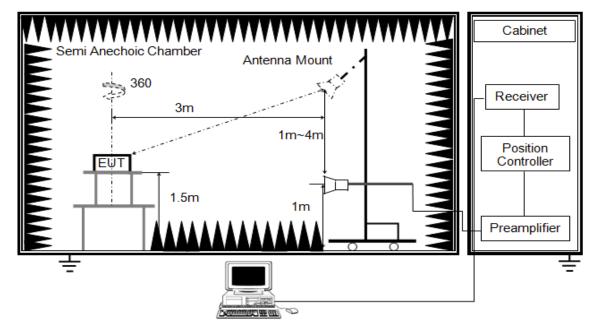
3. The EUT was placed on a turntable with 0.8 meter above ground.

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.

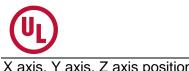
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

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.

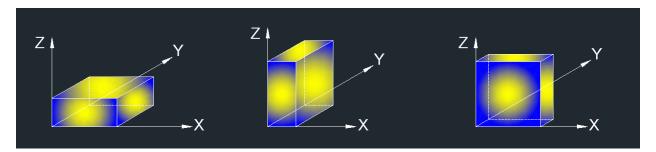
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video

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.



# X axis, Y axis, Z axis positions:



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

### **TEST ENVIRONMENT**

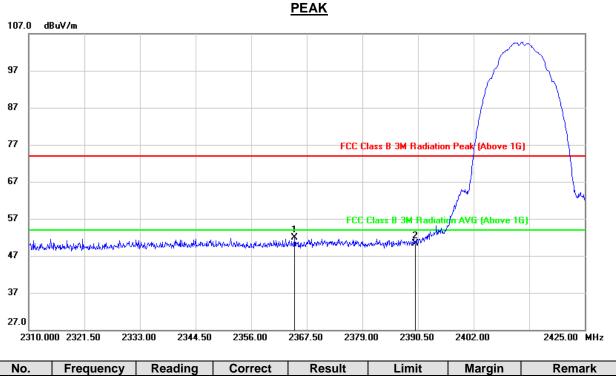
Temperature	22.1°C	Relative Humidity	49%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V,60Hz



8WY-A806ST-Q1Z

# 9.1.1. 802.11b MODE

### **RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)**



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2364.970	18.97	32.86	51.83	74.00	-22.17	peak
2	2390.000	17.44	32.94	50.38	74.00	-23.62	peak

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

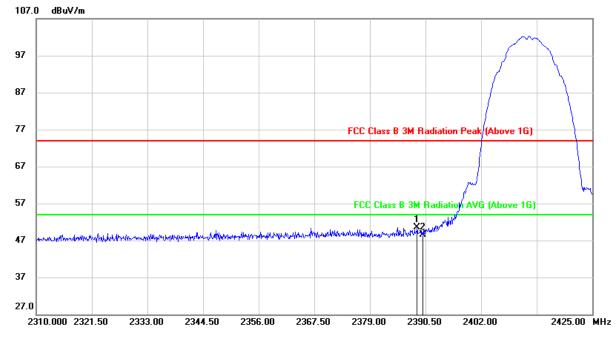
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



### **RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.775	17.66	32.94	50.60	74.00	-23.40	peak
2	2390.000	15.66	32.94	48.60	74.00	-25.40	peak

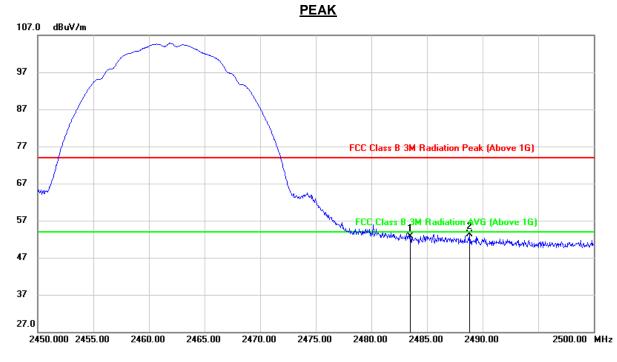
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



### **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	19.05	33.58	52.63	74.00	-21.37	peak
2	2488.850	19.72	33.62	53.34	74.00	-20.66	peak

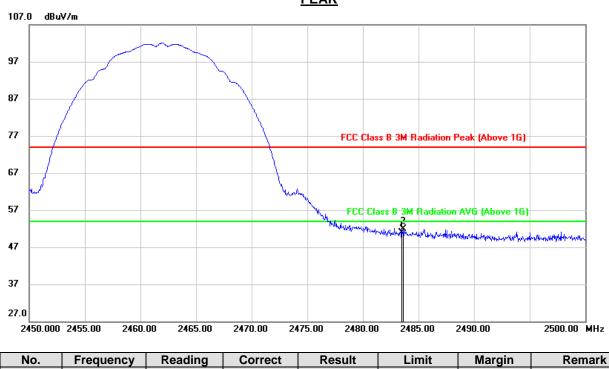
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



### **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	17.39	33.58	50.97	74.00	-23.03	peak
2	2483.650	18.24	33.58	51.82	74.00	-22.18	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.

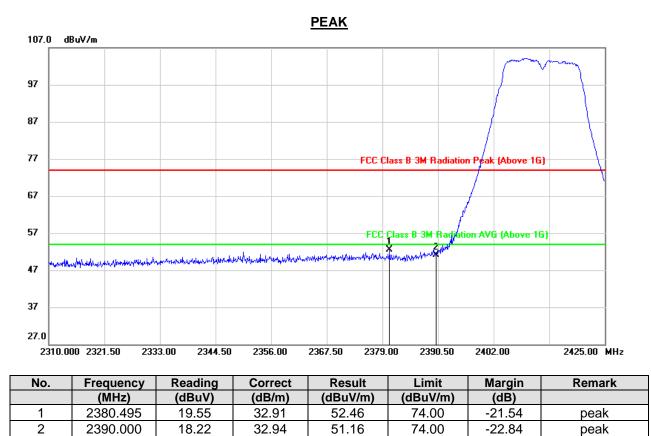
3. Peak: Peak detector.

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>



# 9.1.2. 802.11g MODE



### **RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)**

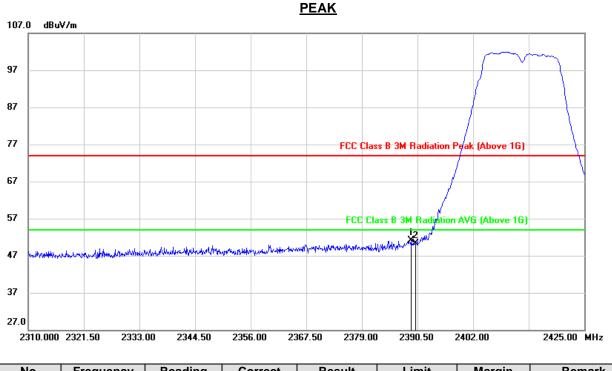
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



### **RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)**



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2389.235	18.11	32.94	51.05	74.00	-22.95	peak
2	2390.000	17.33	32.94	50.27	74.00	-23.73	peak

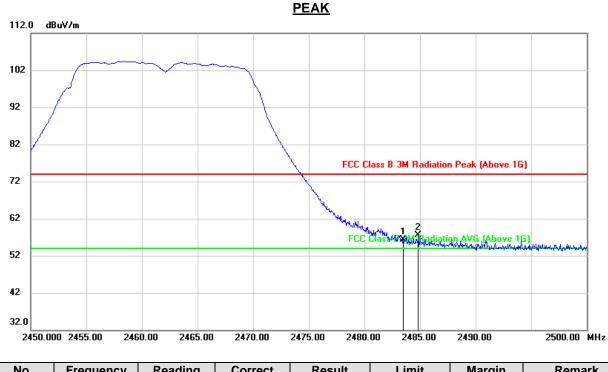
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



### **RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)**

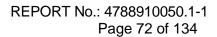


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	22.66	33.58	56.24	74.00	-17.76	peak
2	2484.850	23.83	33.59	57.42	74.00	-16.58	peak

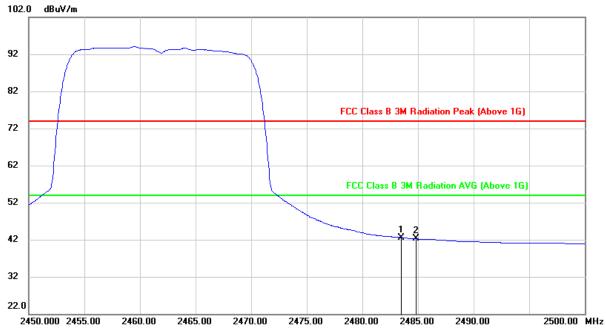
Note: 1. Measurement = Reading Level + Correct Factor.

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	2483.500	9.01	33.58	42.59	54.00	-11.41	AVG
2	2484.850	8.69	33.59	42.28	54.00	-11.72	AVG

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

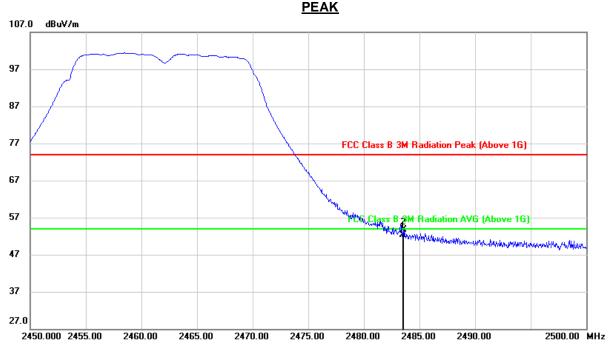
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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)**



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.64	33.58	52.22	74.00	-21.78	peak
2	2483.550	20.10	33.58	53.68	74.00	-20.32	peak

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

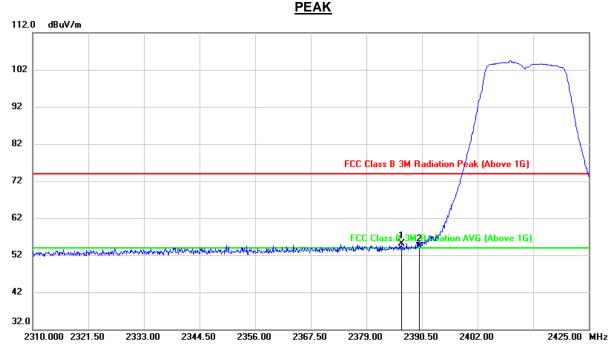
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.



9.1.3. 802.11n HT20 MODE

#### **RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)**



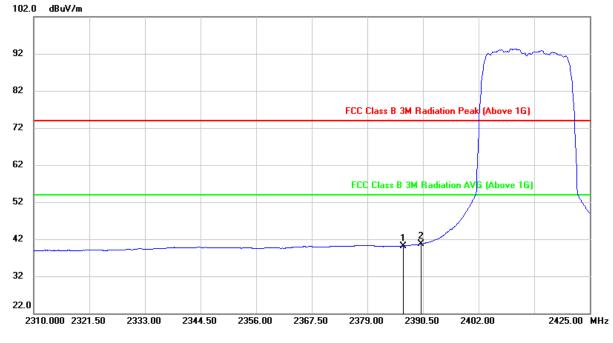
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2386.245	22.07	32.94	55.01	74.00	-18.99	peak
2	2390.000	21.43	32.94	54.37	74.00	-19.63	peak

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.

AVG



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2386.245	7.25	32.94	40.19	54.00	-13.81	AVG
2	2390.000	7.77	32.94	40.71	54.00	-13.29	AVG

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

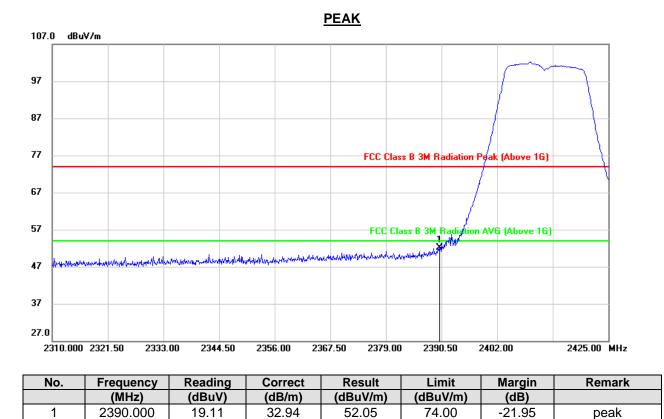
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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)**



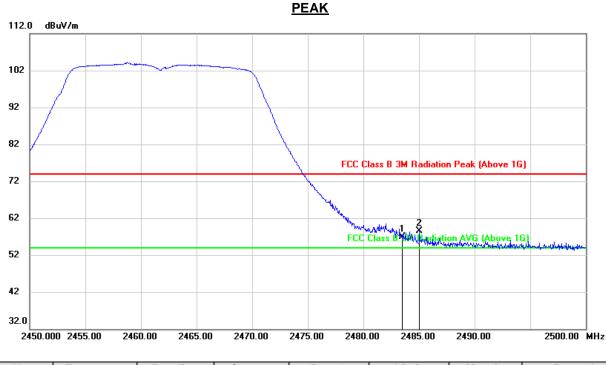
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



#### **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	23.28	33.58	56.86	74.00	-17.14	peak
2	2485.050	24.88	33.59	58.47	74.00	-15.53	peak

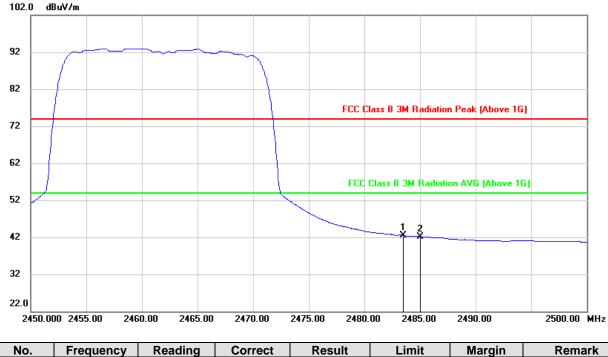
Note: 1. Measurement = Reading Level + Correct Factor.

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	2483.500	8.93	33.58	42.51	54.00	-11.49	AVG
2	2485.050	8.56	33.59	42.15	54.00	-11.85	AVG

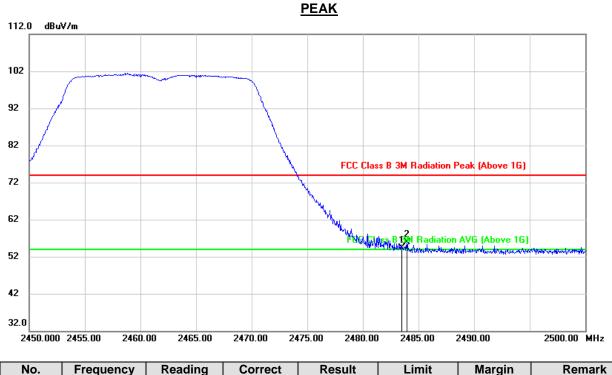
Note: 1. Measurement = Reading Level + Correct Factor.

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)**



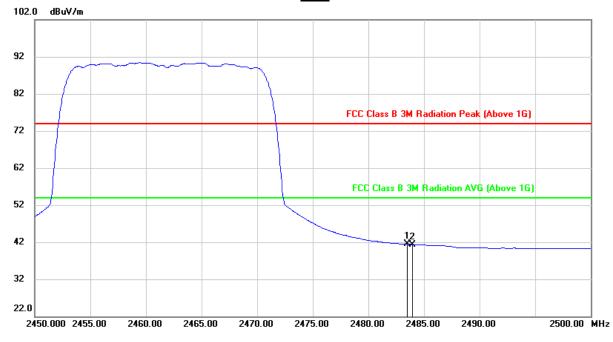
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	20.63	33.58	54.21	74.00	-19.79	peak
2	2483.950	22.34	33.58	55.92	74.00	-18.08	peak

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.

AVG



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	7.91	33.58	41.49	54.00	-12.51	AVG
2	2483.950	7.76	33.58	41.34	54.00	-12.66	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.

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

Note: All models have been tested, only the worst data record in the report

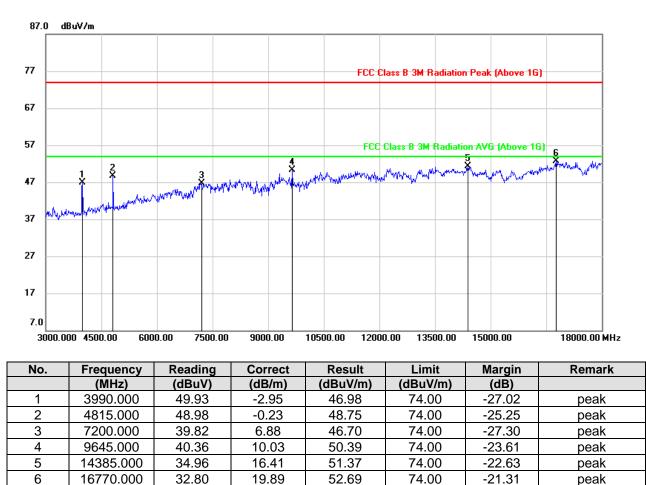


# 9.2. SPURIOUS EMISSIONS (3~18GHz)

# 8WY-A806ST-Q1Z

### 9.2.1. 802.11b MODE

#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

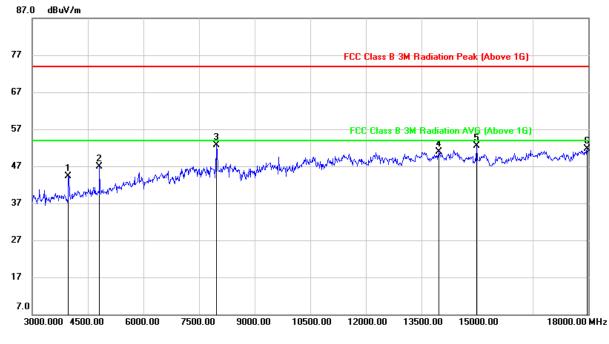


Note: 1. Measurement = Reading Level + Correct Factor.

- 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	3990.000	47.55	-2.95	44.60	74.00	-29.40	peak
2	7965.000	44.66	8.26	52.92	74.00	-21.08	peak
3	11460.000	35.83	13.79	49.62	74.00	-24.38	peak
4	14460.000	34.97	16.35	51.32	74.00	-22.68	peak
5	14970.000	35.33	15.48	50.81	74.00	-23.19	peak
6	17805.000	29.33	23.22	52.55	74.00	-21.45	peak

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

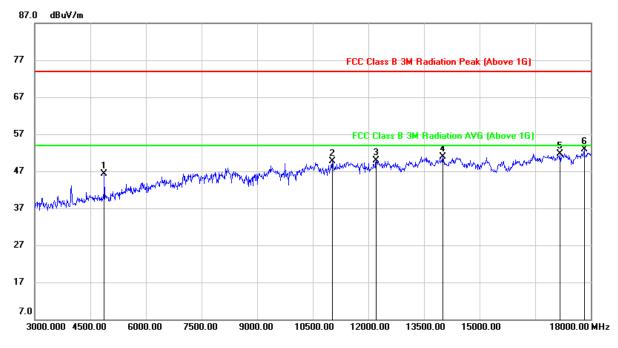
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	46.38	-0.12	46.26	74.00	-27.74	peak
2	11025.000	36.53	13.27	49.80	74.00	-24.20	peak
3	12210.000	35.58	14.25	49.83	74.00	-24.17	peak
4	14010.000	34.59	16.34	50.93	74.00	-23.07	peak
5	17175.000	30.82	20.94	51.76	74.00	-22.24	peak
6	17820.000	29.70	23.21	52.91	74.00	-21.09	peak

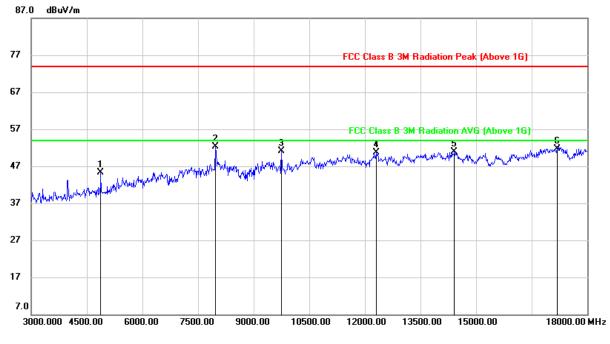
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



#### 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	45.46	-0.12	45.34	74.00	-28.66	peak
2	7965.000	44.10	8.26	52.36	74.00	-21.64	peak
3	9750.000	40.87	10.14	51.01	74.00	-22.99	peak
4	12300.000	36.24	14.39	50.63	74.00	-23.37	peak
5	14415.000	34.40	16.41	50.81	74.00	-23.19	peak
6	17190.000	30.66	20.99	51.65	74.00	-22.35	peak

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

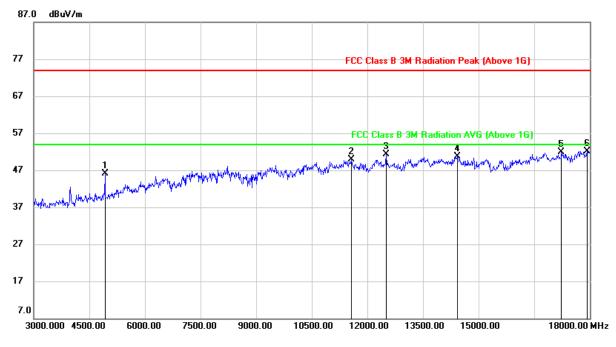
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

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	46.12	0.02	46.14	74.00	-27.86	peak
2	11565.000	35.69	14.14	49.83	74.00	-24.17	peak
3	12510.000	36.52	14.76	51.28	74.00	-22.72	peak
4	14430.000	34.23	16.39	50.62	74.00	-23.38	peak
5	17235.000	30.57	21.32	51.89	74.00	-22.11	peak
6	17925.000	28.97	23.18	52.15	74.00	-21.85	peak

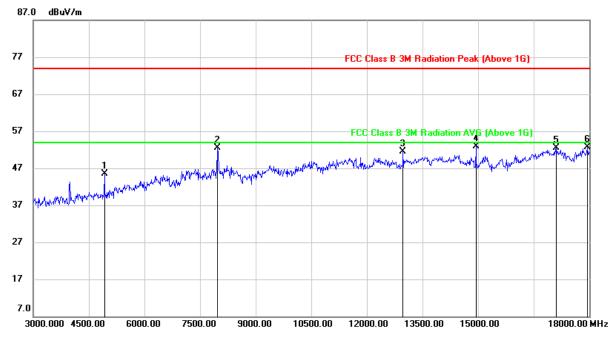
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4920.000	45.45	0.02	45.47	74.00	-28.53	peak
2	7965.000	44.16	8.26	52.42	74.00	-21.58	peak
3	12975.000	36.72	14.71	51.43	74.00	-22.57	peak
4	14940.000	37.50	15.50	53.00	74.00	-21.00	peak
5	17115.000	31.64	20.81	52.45	74.00	-21.55	peak
6	17955.000	29.49	23.23	52.72	74.00	-21.28	peak

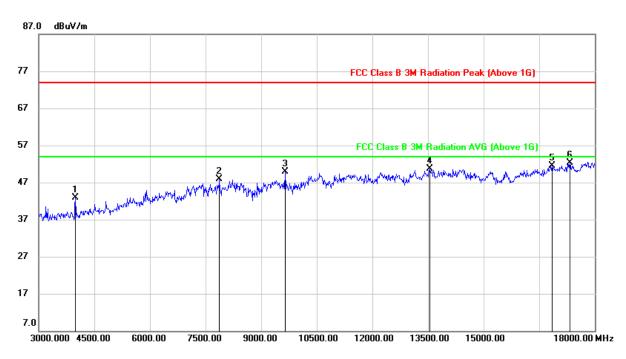
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



# 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	3990.000	45.95	-2.95	43.00	74.00	-31.00	peak
2	7875.000	39.26	8.55	47.81	74.00	-26.19	peak
3	9645.000	39.80	10.03	49.83	74.00	-24.17	peak
4	13545.000	34.81	15.85	50.66	74.00	-23.34	peak
5	16845.000	31.51	19.92	51.43	74.00	-22.57	peak
6	17325.000	30.57	21.80	52.37	74.00	-21.63	peak

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

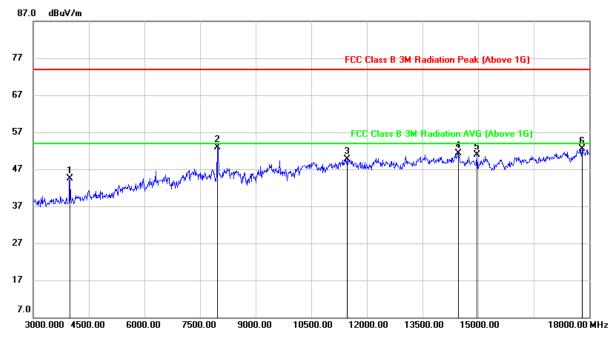
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The 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	3990.000	47.55	-2.95	44.60	74.00	-29.40	peak
2	7965.000	44.66	8.26	52.92	74.00	-21.08	peak
3	11460.000	35.83	13.79	49.62	74.00	-24.38	peak
4	14460.000	34.97	16.35	51.32	74.00	-22.68	peak
5	14970.000	35.33	15.48	50.81	74.00	-23.19	peak
6	17805.000	29.33	23.22	52.55	74.00	-21.45	peak

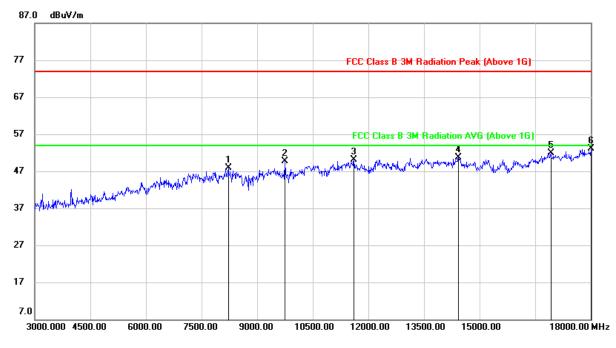
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	8220.000	38.49	9.40	47.89	74.00	-26.11	peak
2	9750.000	39.49	10.14	49.63	74.00	-24.37	peak
3	11610.000	35.90	14.12	50.02	74.00	-23.98	peak
4	14430.000	34.27	16.39	50.66	74.00	-23.34	peak
5	16920.000	31.93	20.01	51.94	74.00	-22.06	peak
6	18000.000	29.86	23.27	53.13	74.00	-20.87	peak

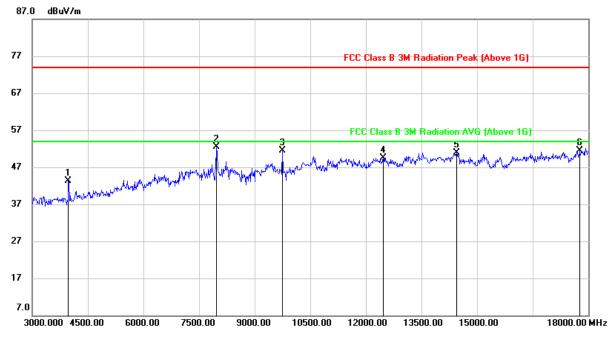
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



#### 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	3975.000	46.22	-2.98	43.24	74.00	-30.76	peak
2	7965.000	44.16	8.26	52.42	74.00	-21.58	peak
3	9750.000	41.44	10.14	51.58	74.00	-22.42	peak
4	12465.000	34.95	14.65	49.60	74.00	-24.40	peak
5	14445.000	34.61	16.37	50.98	74.00	-23.02	peak
6	17775.000	28.48	22.97	51.45	74.00	-22.55	peak

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

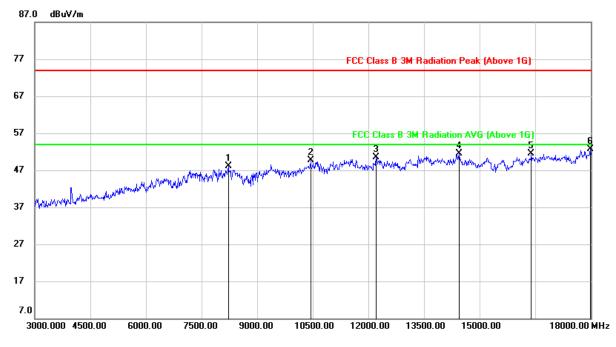
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. The 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	8220.000	38.67	9.40	48.07	74.00	-25.93	peak
2	10440.000	38.01	11.60	49.61	74.00	-24.39	peak
3	12210.000	36.17	14.25	50.42	74.00	-23.58	peak
4	14445.000	35.07	16.37	51.44	74.00	-22.56	peak
5	16395.000	32.88	18.55	51.43	74.00	-22.57	peak
6	17985.000	29.48	23.25	52.73	74.00	-21.27	peak

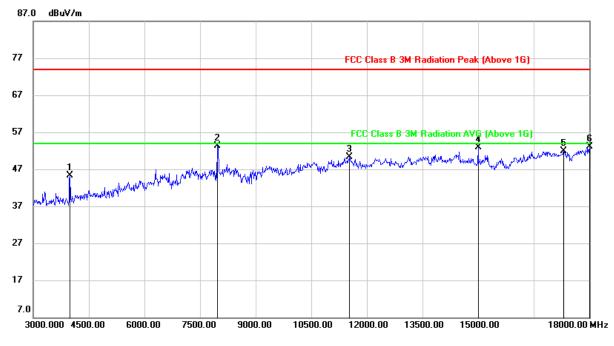
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







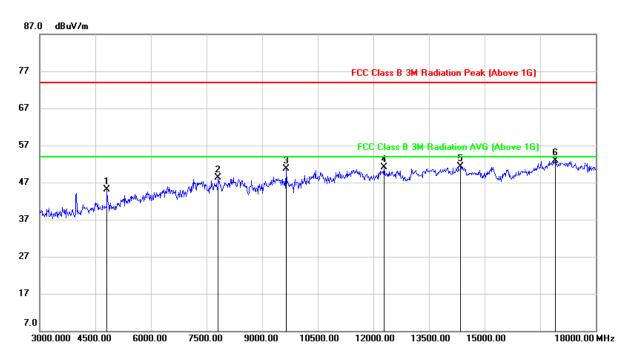
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	48.23	-2.95	45.28	74.00	-28.72	peak
2	7965.000	45.10	8.26	53.36	74.00	-20.64	peak
3	11535.000	36.28	14.10	50.38	74.00	-23.62	peak
4	15000.000	37.37	15.47	52.84	74.00	-21.16	peak
5	17310.000	30.13	21.86	51.99	74.00	-22.01	peak
6	18000.000	29.90	23.27	53.17	74.00	-20.83	peak

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

3. Peak: Peak detector.

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

# 9.2.3. 802.11n HT20 MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)
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No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	45.35	-0.23	45.12	74.00	-28.88	peak
2	7815.000	39.49	8.81	48.30	74.00	-25.70	peak
3	9645.000	40.64	10.03	50.67	74.00	-23.33	peak
4	12285.000	36.66	14.37	51.03	74.00	-22.97	peak
5	14355.000	35.00	16.38	51.38	74.00	-22.62	peak
6	16905.000	32.95	19.95	52.90	74.00	-21.10	peak

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

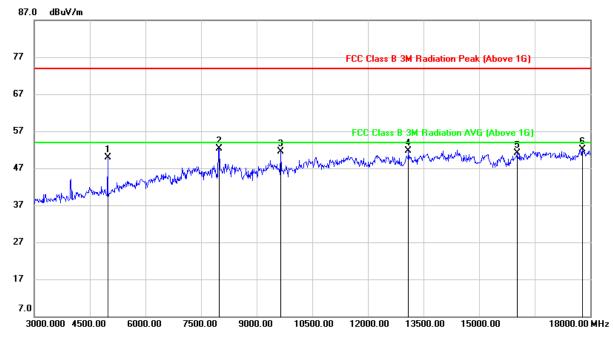
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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	4980.000	49.54	0.37	49.91	74.00	-24.09	peak
2	7995.000	44.08	8.16	52.24	74.00	-21.76	peak
3	9645.000	41.46	10.03	51.49	74.00	-22.51	peak
4	13095.000	36.79	14.97	51.76	74.00	-22.24	peak
5	16020.000	33.80	17.28	51.08	74.00	-22.92	peak
6	17790.000	29.01	23.12	52.13	74.00	-21.87	peak

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

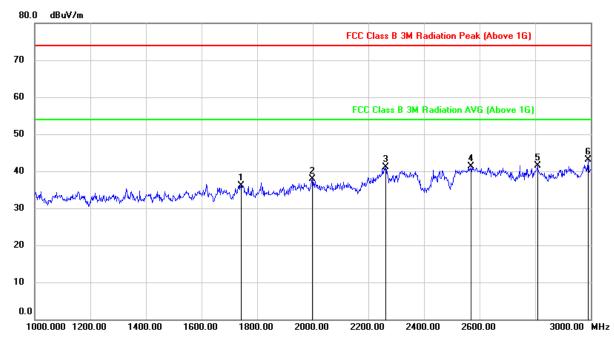
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. 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	1742.000	46.33	-10.16	36.17	74.00	-37.83	peak
2	1998.000	47.58	-9.77	37.81	74.00	-36.19	peak
3	2262.000	49.03	-7.86	41.17	74.00	-32.83	peak
4	2570.000	48.00	-6.66	41.34	74.00	-32.66	peak
5	2808.000	46.72	-5.19	41.53	74.00	-32.47	peak
6	2990.000	47.69	-4.65	43.04	74.00	-30.96	peak

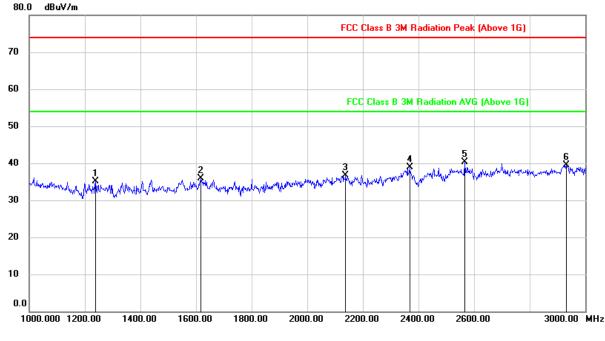
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



# 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	1238.000	47.02	-11.97	35.05	74.00	-38.95	peak
2	1618.000	46.43	-10.62	35.81	74.00	-38.19	peak
3	2138.000	45.13	-8.36	36.77	74.00	-37.23	peak
4	2368.000	46.23	-7.23	39.00	74.00	-35.00	peak
5	2566.000	47.02	-6.64	40.38	74.00	-33.62	peak
6	2932.000	44.52	-4.97	39.55	74.00	-34.45	peak

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

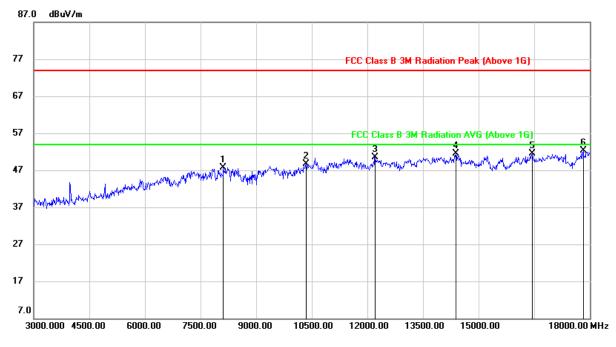
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	8115.000	38.58	9.12	47.70	74.00	-26.30	peak
2	10350.000	37.23	11.56	48.79	74.00	-25.21	peak
3	12210.000	36.33	14.25	50.58	74.00	-23.42	peak
4	14385.000	35.01	16.41	51.42	74.00	-22.58	peak
5	16455.000	32.73	18.75	51.48	74.00	-22.52	peak
6	17820.000	29.04	23.21	52.25	74.00	-21.75	peak

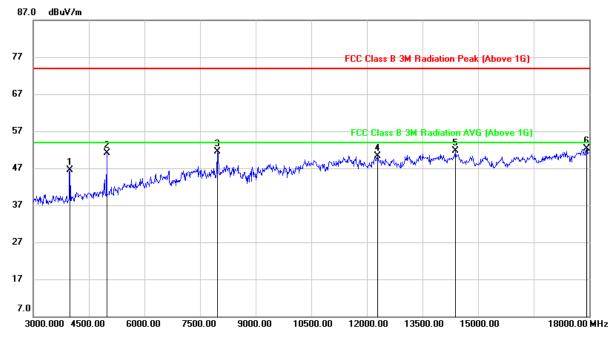
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	49.42	-2.95	46.47	74.00	-27.53	peak
2	4980.000	50.66	0.37	51.03	74.00	-22.97	peak
3	7965.000	43.27	8.26	51.53	74.00	-22.47	peak
4	12285.000	35.95	14.37	50.32	74.00	-23.68	peak
5	14385.000	35.29	16.41	51.70	74.00	-22.30	peak
6	17925.000	29.05	23.18	52.23	74.00	-21.77	peak

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

3. Peak: Peak detector.

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

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All models have been tested, only the worst data record in the report

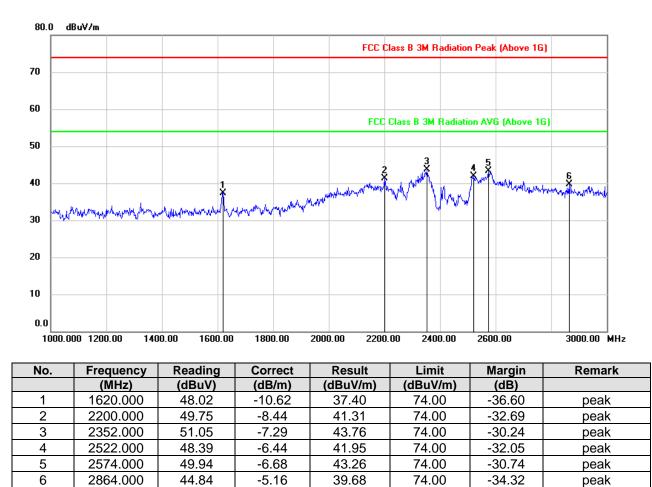


# 9.3. SPURIOUS EMISSIONS (1~3GHz)

# 8WY-A806ST-Q1Z

## 9.3.1. 802.11b MODE

#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



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

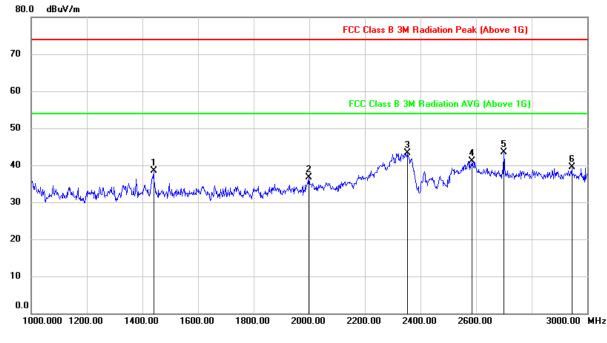
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 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	1440.000	50.27	-11.79	38.48	74.00	-35.52	peak
2	1998.000	46.42	-9.77	36.65	74.00	-37.35	peak
3	2354.000	50.51	-7.28	43.23	74.00	-30.77	peak
4	2586.000	47.76	-6.73	41.03	74.00	-32.97	peak
5	2700.000	50.92	-7.42	43.50	74.00	-30.50	peak
6	2944.000	44.48	-4.90	39.58	74.00	-34.42	peak

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

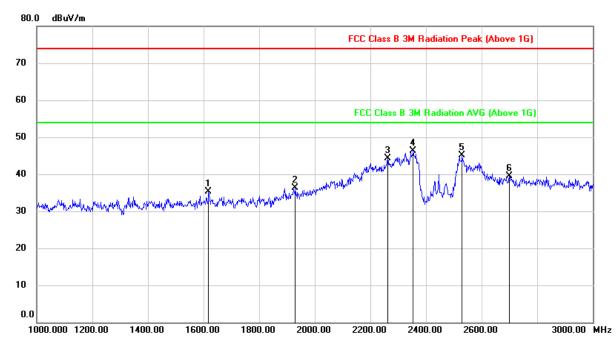
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1618.000	45.91	-10.62	35.29	74.00	-38.71	peak
2	1930.000	45.80	-9.45	36.35	74.00	-37.65	peak
3	2262.000	52.07	-7.86	44.21	74.00	-29.79	peak
4	2354.000	53.61	-7.28	46.33	74.00	-27.67	peak
5	2530.000	51.51	-6.47	45.04	74.00	-28.96	peak
6	2700.000	47.01	-7.42	39.59	74.00	-34.41	peak

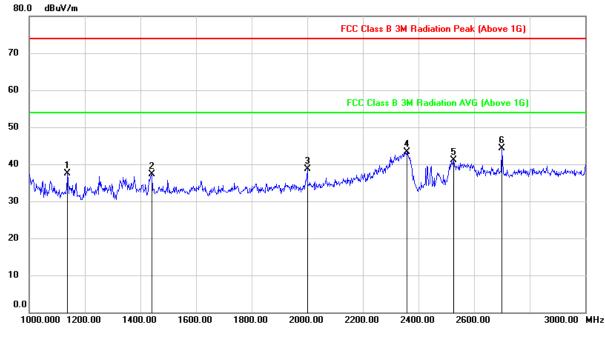
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 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	1138.000	50.05	-12.53	37.52	74.00	-36.48	peak
2	1440.000	49.08	-11.79	37.29	74.00	-36.71	peak
3	2000.000	48.41	-9.78	38.63	74.00	-35.37	peak
4	2358.000	50.51	-7.27	43.24	74.00	-30.76	peak
5	2526.000	47.63	-6.46	41.17	74.00	-32.83	peak
6	2700.000	51.80	-7.42	44.38	74.00	-29.62	peak

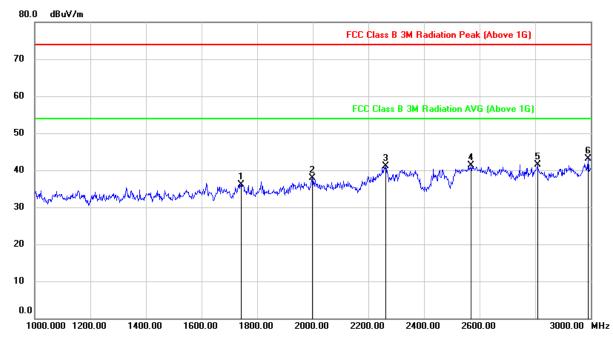
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

# 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	1742.000	46.33	-10.16	36.17	74.00	-37.83	peak
2	1998.000	47.58	-9.77	37.81	74.00	-36.19	peak
3	2262.000	49.03	-7.86	41.17	74.00	-32.83	peak
4	2570.000	48.00	-6.66	41.34	74.00	-32.66	peak
5	2808.000	46.72	-5.19	41.53	74.00	-32.47	peak
6	2990.000	47.69	-4.65	43.04	74.00	-30.96	peak

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

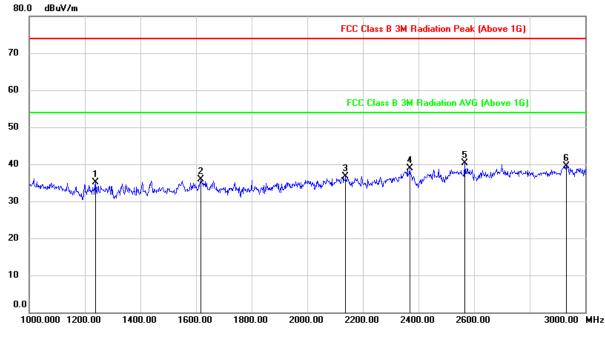
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 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	1238.000	47.02	-11.97	35.05	74.00	-38.95	peak
2	1618.000	46.43	-10.62	35.81	74.00	-38.19	peak
3	2138.000	45.13	-8.36	36.77	74.00	-37.23	peak
4	2368.000	46.23	-7.23	39.00	74.00	-35.00	peak
5	2566.000	47.02	-6.64	40.38	74.00	-33.62	peak
6	2932.000	44.52	-4.97	39.55	74.00	-34.45	peak

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

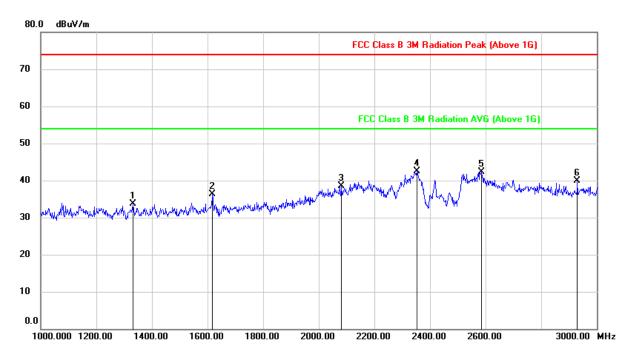
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 9.3.2. 802.11g MODE



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1332.000	45.21	-11.43	33.78	74.00	-40.22	peak
2	1618.000	47.01	-10.62	36.39	74.00	-37.61	peak
3	2082.000	47.13	-8.58	38.55	74.00	-35.45	peak
4	2354.000	49.79	-7.28	42.51	74.00	-31.49	peak
5	2584.000	48.94	-6.73	42.21	74.00	-31.79	peak
6	2930.000	44.87	-4.97	39.90	74.00	-34.10	peak

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

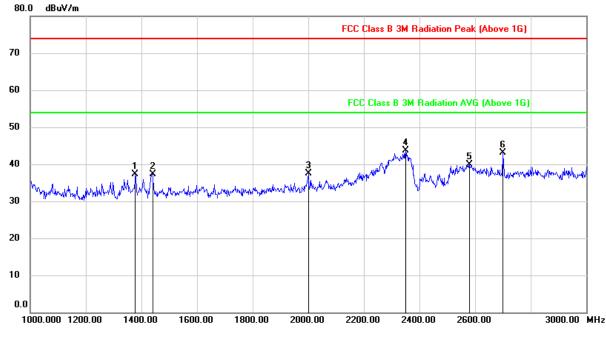
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 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	1378.000	49.05	-11.77	37.28	74.00	-36.72	peak
2	1440.000	49.19	-11.79	37.40	74.00	-36.60	peak
3	2000.000	47.23	-9.78	37.45	74.00	-36.55	peak
4	2350.000	51.08	-7.30	43.78	74.00	-30.22	peak
5	2580.000	46.59	-6.71	39.88	74.00	-34.12	peak
6	2700.000	50.57	-7.42	43.15	74.00	-30.85	peak

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

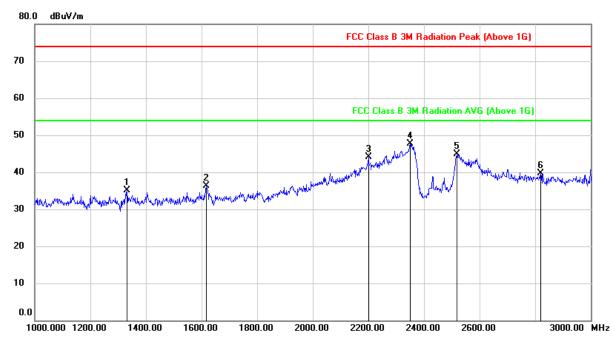
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1332.000	46.63	-11.43	35.20	74.00	-38.80	peak
2	1616.000	46.95	-10.63	36.32	74.00	-37.68	peak
3	2200.000	52.60	-8.44	44.16	74.00	-29.84	peak
4	2350.000	55.03	-7.30	47.73	74.00	-26.27	peak
5	2518.000	51.33	-6.42	44.91	74.00	-29.09	peak
6	2820.000	44.98	-5.19	39.79	74.00	-34.21	peak

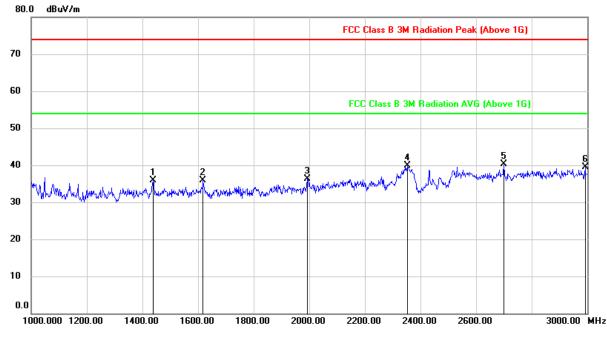
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



# 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	1438.000	47.65	-11.79	35.86	74.00	-38.14	peak
2	1618.000	46.46	-10.62	35.84	74.00	-38.16	peak
3	1994.000	46.06	-9.75	36.31	74.00	-37.69	peak
4	2352.000	47.18	-7.29	39.89	74.00	-34.11	peak
5	2700.000	47.70	-7.42	40.28	74.00	-33.72	peak
6	2992.000	44.13	-4.64	39.49	74.00	-34.51	peak

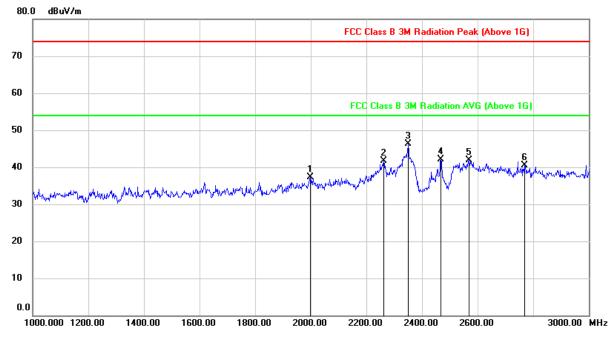
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

### 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	1998.000	47.08	-9.77	37.31	74.00	-36.69	peak
2	2262.000	49.53	-7.86	41.67	74.00	-32.33	peak
3	2350.000	53.58	-7.30	46.28	74.00	-27.72	peak
4	2468.000	48.70	-6.59	42.11	74.00	-31.89	peak
5	2570.000	48.50	-6.66	41.84	74.00	-32.16	peak
6	2768.000	46.44	-5.91	40.53	74.00	-33.47	peak

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

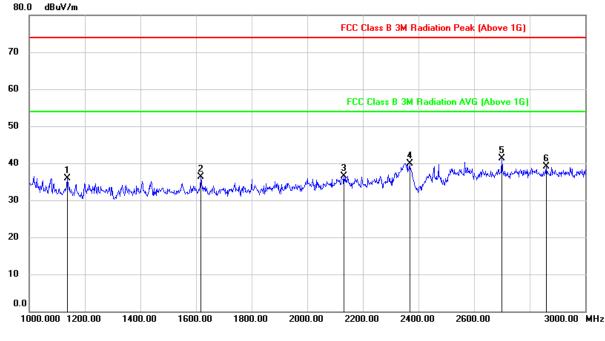
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



### 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	1136.000	48.50	-12.54	35.96	74.00	-38.04	peak
2	1618.000	46.93	-10.62	36.31	74.00	-37.69	peak
3	2132.000	44.89	-8.35	36.54	74.00	-37.46	peak
4	2368.000	47.23	-7.23	40.00	74.00	-34.00	peak
5	2700.000	48.80	-7.42	41.38	74.00	-32.62	peak
6	2860.000	44.24	-5.16	39.08	74.00	-34.92	peak

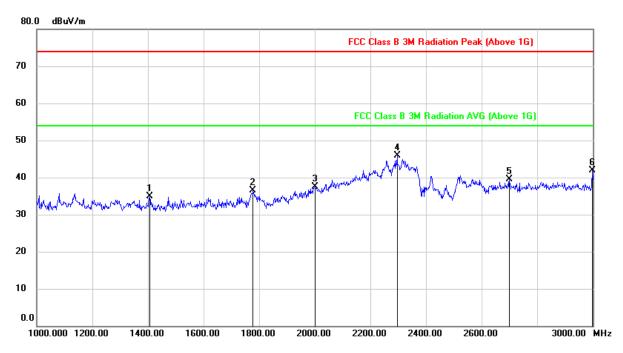
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

## 9.3.3. 802.11n HT20 MODE



#### HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1406.000	46.75	-11.90	34.85	74.00	-39.15	peak
2	1778.000	46.25	-9.70	36.55	74.00	-37.45	peak
3	2000.000	47.30	-9.78	37.52	74.00	-36.48	peak
4	2296.000	53.50	-7.53	45.97	74.00	-28.03	peak
5	2700.000	46.89	-7.42	39.47	74.00	-34.53	peak
6	2998.000	46.44	-4.60	41.84	74.00	-32.16	peak

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

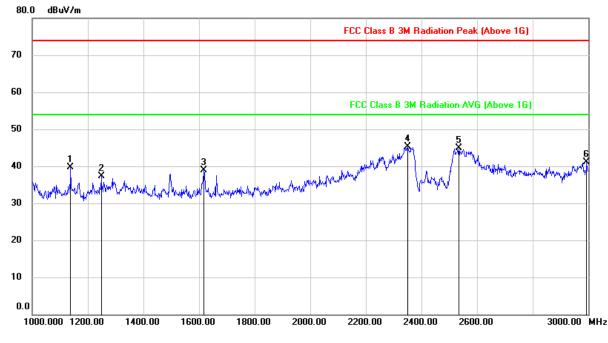
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



#### 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	1138.000	52.16	-12.53	39.63	74.00	-34.37	peak
2	1248.000	49.08	-11.84	37.24	74.00	-36.76	peak
3	1618.000	49.60	-10.62	38.98	74.00	-35.02	peak
4	2350.000	52.70	-7.30	45.40	74.00	-28.60	peak
5	2534.000	51.38	-6.50	44.88	74.00	-29.12	peak
6	2994.000	45.69	-4.62	41.07	74.00	-32.93	peak

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

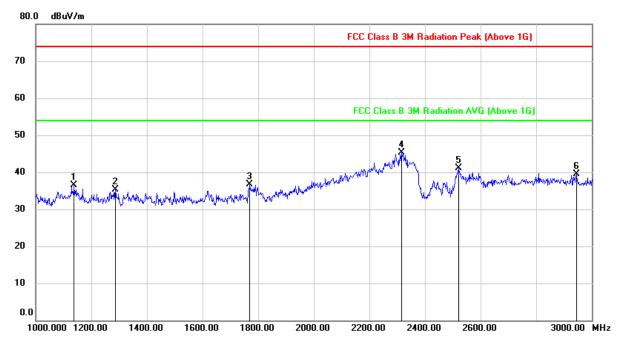
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1138.000	48.98	-12.53	36.45	74.00	-37.55	peak
2	1286.000	46.79	-11.39	35.40	74.00	-38.60	peak
3	1770.000	46.45	-9.81	36.64	74.00	-37.36	peak
4	2316.000	52.75	-7.43	45.32	74.00	-28.68	peak
5	2520.000	47.59	-6.43	41.16	74.00	-32.84	peak
6	2944.000	44.31	-4.90	39.41	74.00	-34.59	peak

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

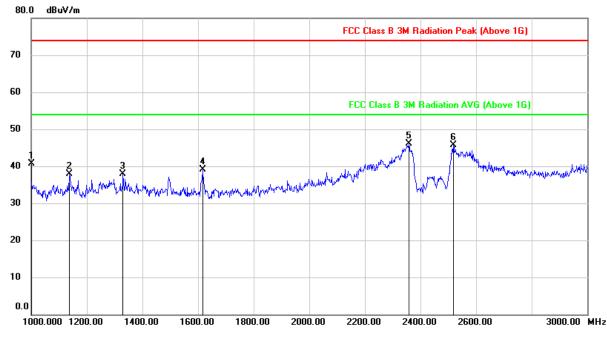
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



#### 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	1000.0000	53.78	-13.11	40.67	74.00	-33.33	peak
2	1138.000	50.37	-12.53	37.84	74.00	-36.16	peak
3	1330.000	49.29	-11.42	37.87	74.00	-36.13	peak
4	1616.000	49.75	-10.63	39.12	74.00	-34.88	peak
5	2358.000	53.43	-7.27	46.16	74.00	-27.84	peak
6	2518.000	52.10	-6.42	45.68	74.00	-28.32	peak

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

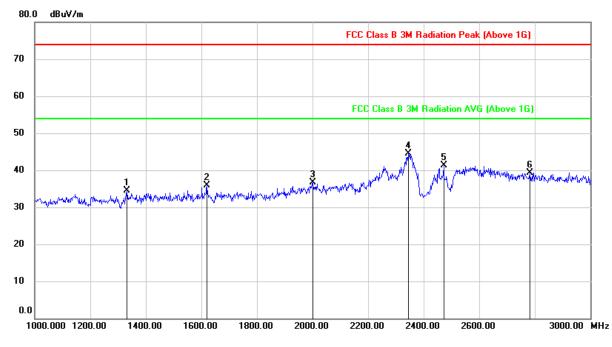
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.



#### 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	1332.000	45.92	-11.43	34.49	74.00	-39.51	peak
2	1620.000	46.54	-10.62	35.92	74.00	-38.08	peak
3	2000.000	46.46	-9.78	36.68	74.00	-37.32	peak
4	2346.000	51.92	-7.32	44.60	74.00	-29.40	peak
5	2472.000	47.85	-6.56	41.29	74.00	-32.71	peak
6	2782.000	44.89	-5.59	39.30	74.00	-34.70	peak

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

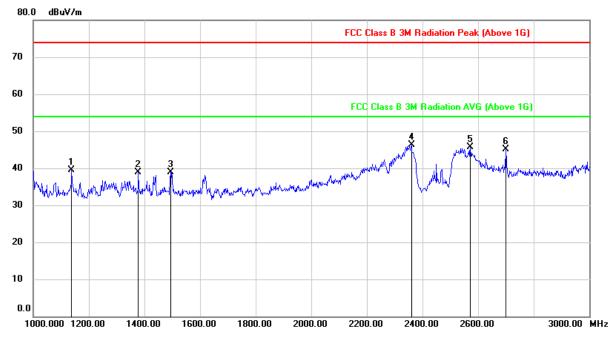
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1138.000	52.08	-12.53	39.55	74.00	-34.45	peak
2	1378.000	50.67	-11.77	38.90	74.00	-35.10	peak
3	1494.000	50.53	-11.62	38.91	74.00	-35.09	peak
4	2360.000	53.50	-7.26	46.24	74.00	-27.76	peak
5	2572.000	52.44	-6.67	45.77	74.00	-28.23	peak
6	2700.000	52.45	-7.42	45.03	74.00	-28.97	peak

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

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

3. Peak: Peak detector.

4. Filter losses were only considered in then spurious frequency bands and the authorized band was not corrected for BRF losses.

5. Proper operation of the transmitter prior to adding the filter to the measurement chain.

Note: All models have been tested, only the worst data record in the report

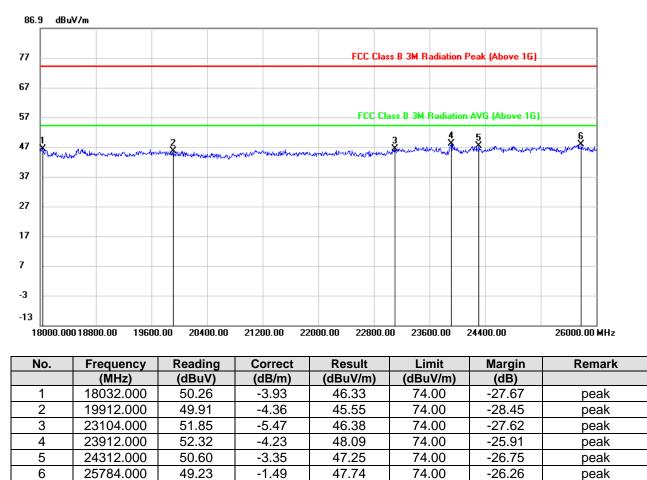


## 9.4. SPURIOUS EMISSIONS (18~26GHz)

### 8WY-A806ST-Q1Z

### 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.
- 4. Proper operation of the transmitter prior to adding the filter to the measurement chain.



#### dBu∀/m 86.9 FCC Class B 3M Radiation Peak (Above 1G) 77 67 FCC Class B 3M Radiation AVG (Above 1G) 57 ê 3 47 37 27 17 7 -3 -13 18000.00018800.00 19600.00 20400.00 21200.00 22000.00 22800.00 23600.00 24400.00 26000.00 MHz

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18784.000	50.55	-4.84	45.71	74.00	-28.29	peak
2	20192.000	49.37	-4.76	44.61	74.00	-29.39	peak
3	21848.000	51.76	-5.95	45.81	74.00	-28.19	peak
4	23512.000	51.51	-4.76	46.75	74.00	-27.25	peak
5	24688.000	48.89	-2.11	46.78	74.00	-27.22	peak
6	25784.000	49.08	-1.49	47.59	74.00	-26.41	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. Proper operation of the transmitter prior to adding the filter to the measurement chain.

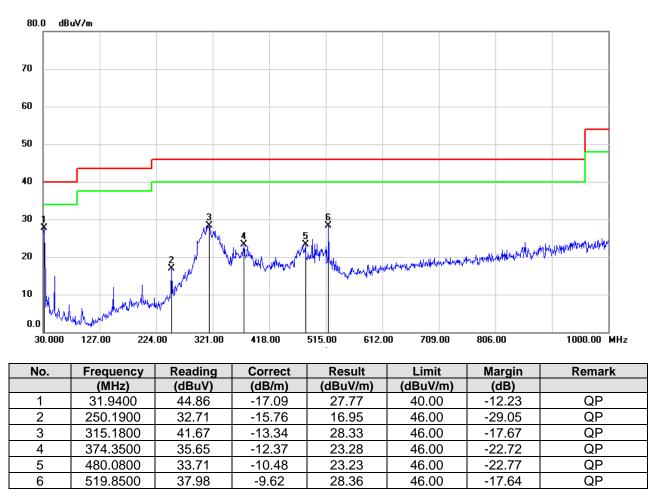
Note: All models have been tested, only the worst data record in the report



## 9.5. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

## 9.5.1. 802.11b MODE for 8WY-A806ST-Q1R

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

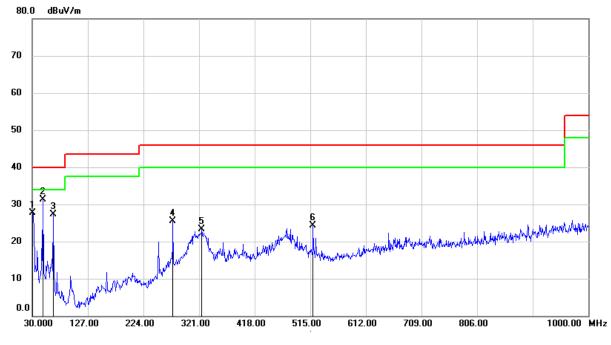


Note: 1. Result Level = Read Level + Correct Factor.

- 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)

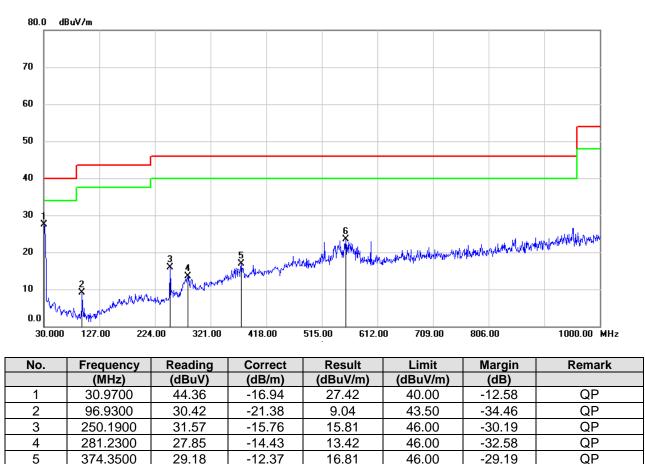


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.9700	44.59	-16.94	27.65	40.00	-12.35	QP
2	48.4300	49.36	-18.10	31.26	40.00	-8.74	QP
3	66.8600	46.93	-19.69	27.24	40.00	-12.76	QP
4	275.4100	40.24	-14.69	25.55	46.00	-20.45	QP
5	325.8500	36.57	-13.23	23.34	46.00	-22.66	QP
6	519.8500	34.01	-9.62	24.39	46.00	-21.61	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

## 9.5.2. 802.11b MODE for 8WY-A806ST-Q1Z



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

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

29.18

32.53

374.3500

556.7100

6

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

16.81

23.53

46.00

46.00

-29.19

-22.47

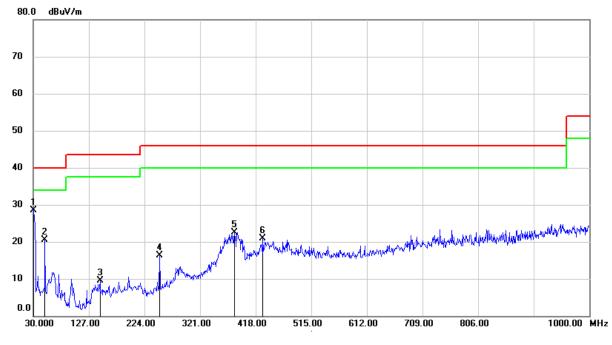
QP

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

-9.00



### 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	30.9700	45.54	-16.94	28.60	40.00	-11.40	QP
2	50.3700	38.58	-18.17	20.41	40.00	-19.59	QP
3	146.4000	27.79	-18.28	9.51	43.50	-33.99	QP
4	250.1900	32.11	-15.76	16.35	46.00	-29.65	QP
5	381.1400	34.83	-12.28	22.55	46.00	-23.45	QP
6	430.6100	32.37	-11.37	21.00	46.00	-25.00	QP

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

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

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

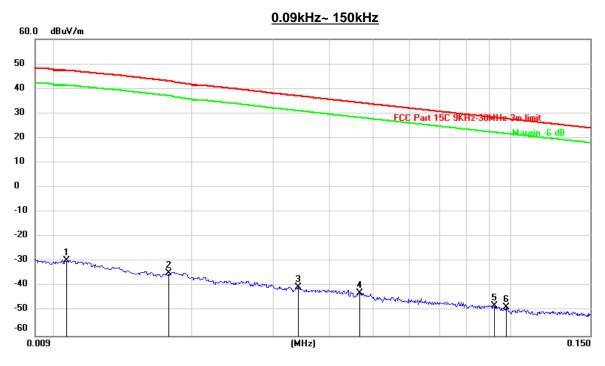


## 9.6. SPURIOUS EMISSIONS BELOW 30M

#### 8WY-A806ST-Q1Z

### 9.6.1. 802.11b MODE

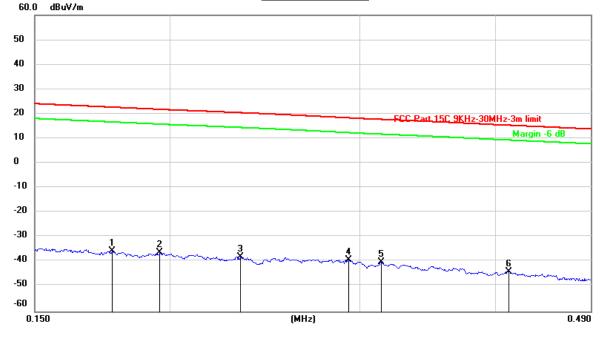
#### SPURIOUS EMISSIONS (MID CHANNEL, WORST-CASE CONFIGURATION, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0106	71.71	-101.39	-29.68	47.24	-76.92	peak
2	0.0177	66.85	-101.35	-34.50	42.96	-77.46	peak
3	0.0342	60.93	-101.41	-40.48	37.01	-77.49	peak
4	0.0466	58.80	-101.46	-42.66	34.28	-76.94	peak
5	0.0922	53.91	-101.74	-47.83	28.32	-76.15	peak
6	0.0980	53.37	-101.78	-48.41	27.78	-76.19	peak

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

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

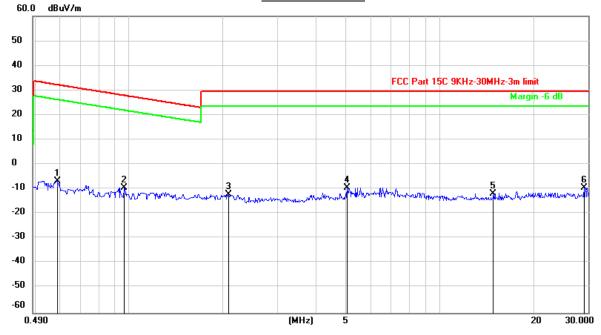


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1768	66.05	-101.68	-35.63	22.66	-58.29	peak
2	0.1958	65.48	-101.71	-36.23	21.77	-58.00	peak
3	0.2326	63.72	-101.77	-38.05	20.43	-58.48	peak
4	0.2928	62.79	-101.85	-39.06	18.31	-57.37	peak
5	0.3139	61.74	-101.87	-40.13	17.71	-57.84	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>

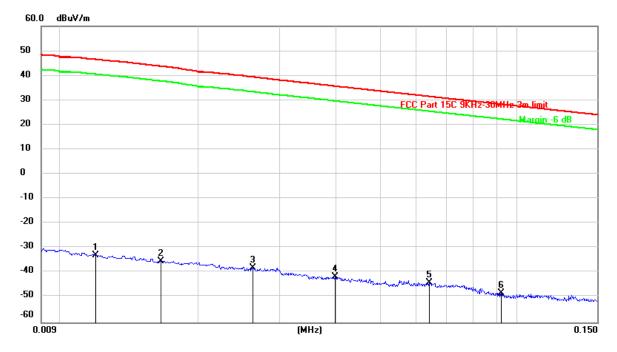


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5872	55.24	-62.08	-6.84	32.24	-39.08	peak
2	0.9622	52.78	-62.24	-9.46	27.95	-37.41	peak
3	2.0939	49.53	-61.79	-12.26	29.54	-41.80	peak
4	5.0345	52.06	-61.49	-9.43	29.54	-38.97	peak
5	14.8612	49.26	-61.02	-11.76	29.54	-41.30	peak
6	29.0557	50.66	-60.06	-9.40	29.54	-38.94	peak

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



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

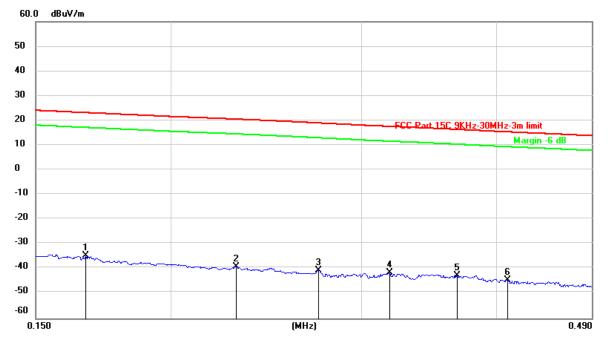


<u>0.09~ 150kHz</u>

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0119	68.66	-101.39	-32.73	46.46	-79.19	peak
2	0.0165	66.14	-101.37	-35.23	43.69	-78.92	peak
3	0.0263	63.42	-101.37	-37.95	39.36	-77.31	peak
4	0.0398	59.86	-101.43	-41.57	35.61	-77.18	peak
5	0.0641	57.46	-101.54	-44.08	31.49	-75.57	peak
6	0.0922	53.51	-101.74	-48.23	28.32	-76.55	peak

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

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

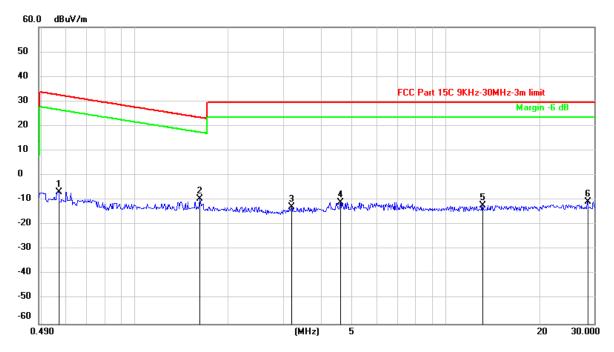


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1669	67.15	-101.66	-34.51	23.16	-57.67	peak
2	0.2298	62.55	-101.77	-39.22	20.53	-59.75	peak
3	0.2736	61.08	-101.83	-40.75	18.99	-59.74	peak
4	0.3190	60.29	-101.88	-41.59	17.58	-59.17	peak
5	0.3679	59.23	-101.93	-42.70	16.36	-59.06	peak
6	0.4097	57.52	-101.97	-44.45	15.37	-59.82	peak

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



<sup>&</sup>lt;u>490kHz ~ 30MHz</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5682	55.37	-62.07	-6.70	32.55	-39.25	peak
2	1.6155	52.62	-62.00	-9.38	23.44	-32.82	peak
3	3.1859	48.72	-61.53	-12.81	29.54	-42.35	peak
4	4.5918	50.52	-61.43	-10.91	29.54	-40.45	peak
5	13.1498	48.72	-60.94	-12.22	29.54	-41.76	peak
6	28.6128	49.37	-60.10	-10.73	29.54	-40.27	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.

Note: All models have been tested, only the worst data record in the report



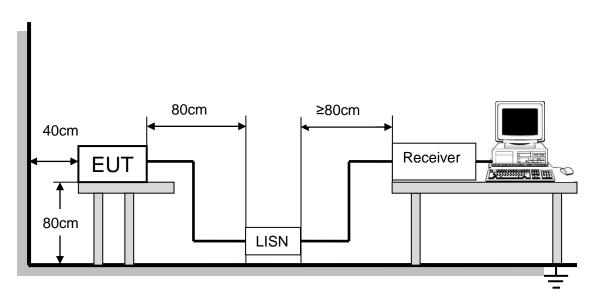
# **10. AC POWER LINE CONDUCTED EMISSIONS**

### LIMITS

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

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

### TEST SETUP AND PROCEDURE



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 6.2 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.

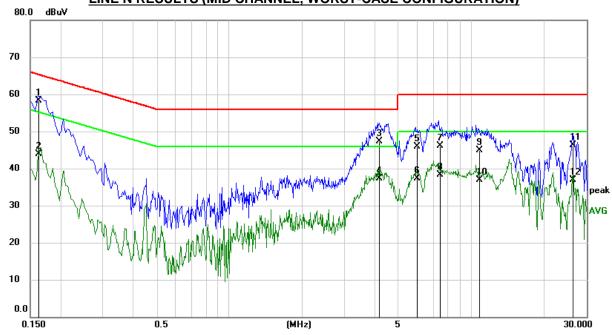
#### TEST ENVIRONMENT

Temperature	22.5°C	Relative Humidity	53%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V,60Hz

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## 10.1. 802.11b MODE 8WY-A806ST-Q1R



LINE N RESULTS	(MID CHANNEL	WORST-CASE	CONFIGURATION)

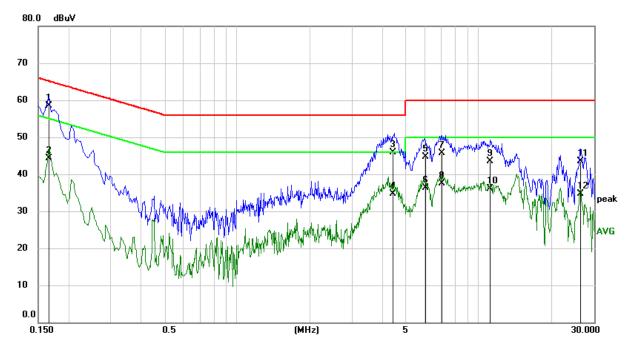
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1631	48.76	9.60	58.36	65.30	-6.94	QP
2	0.1631	34.40	9.60	44.00	55.30	-11.30	AVG
3	4.1934	37.58	9.66	47.24	56.00	-8.76	QP
4	4.1934	27.69	9.66	37.35	46.00	-8.65	AVG
5	5.9603	36.28	9.70	45.98	60.00	-14.02	QP
6	5.9603	27.59	9.70	37.29	50.00	-12.71	AVG
7	7.4093	36.34	9.72	46.06	60.00	-13.94	QP
8	7.4093	28.51	9.72	38.23	50.00	-11.77	AVG
9	10.8790	35.10	9.78	44.88	60.00	-15.12	QP
10	10.8790	27.21	9.78	36.99	50.00	-13.01	AVG
11	26.3200	36.19	10.02	46.21	60.00	-13.79	QP
12	26.3200	26.80	10.02	36.82	50.00	-13.18	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.



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



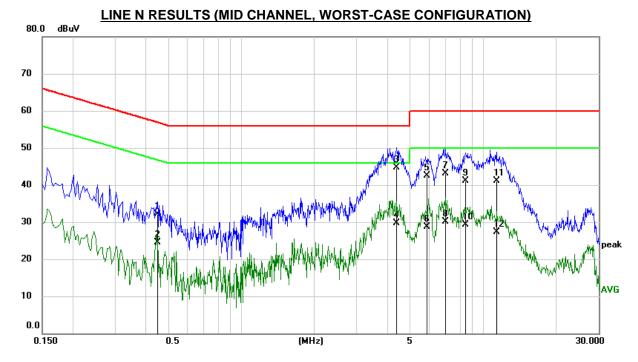
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1651	48.98	9.61	58.59	65.20	-6.61	QP
2	0.1651	34.67	9.61	44.28	55.20	-10.92	AVG
3	4.3893	36.23	9.66	45.89	56.00	-10.11	QP
4	4.3893	25.09	9.66	34.75	46.00	-11.25	AVG
5	6.0393	35.03	9.71	44.74	60.00	-15.26	QP
6	6.0393	26.63	9.71	36.34	50.00	-13.66	AVG
7	7.0801	35.95	9.71	45.66	60.00	-14.34	QP
8	7.0801	27.82	9.71	37.53	50.00	-12.47	AVG
9	11.1598	33.84	9.76	43.60	60.00	-16.40	QP
10	11.1598	26.38	9.76	36.14	50.00	-13.86	AVG
11	26.2800	33.64	9.92	43.56	60.00	-16.44	QP
12	26.2800	24.74	9.92	34.66	50.00	-15.34	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.



## 10.2. 802.11b MODE 8WY-A806ST-Q1Z



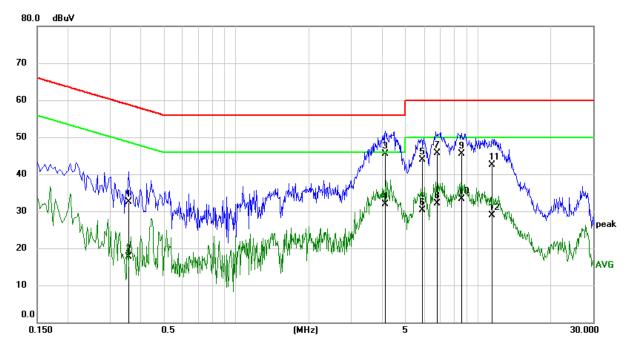
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.4473	22.53	9.60	32.13	56.93	-24.80	QP
2	0.4473	14.81	9.60	24.41	46.93	-22.52	AVG
3	4.4098	35.04	9.66	44.70	56.00	-11.30	QP
4	4.4098	19.96	9.66	29.62	46.00	-16.38	AVG
5	5.8484	32.81	9.70	42.51	60.00	-17.49	QP
6	5.8484	19.08	9.70	28.78	50.00	-21.22	AVG
7	6.9820	33.38	9.71	43.09	60.00	-16.91	QP
8	6.9820	20.42	9.71	30.13	50.00	-19.87	AVG
9	8.4951	31.36	9.73	41.09	60.00	-18.91	QP
10	8.4951	19.56	9.73	29.29	50.00	-20.71	AVG
11	11.3333	31.24	9.79	41.03	60.00	-18.97	QP
12	11.3333	17.56	9.79	27.35	50.00	-22.65	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.



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



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.3560	22.82	9.60	32.42	58.82	-26.40	QP
2	0.3560	8.06	9.60	17.66	48.82	-31.16	AVG
3	4.1147	35.89	9.66	45.55	56.00	-10.45	QP
4	4.1147	22.18	9.66	31.84	46.00	-14.16	AVG
5	5.8955	34.15	9.70	43.85	60.00	-16.15	QP
6	5.8955	20.70	9.70	30.40	50.00	-19.60	AVG
7	6.7502	36.05	9.71	45.76	60.00	-14.24	QP
8	6.7502	22.39	9.71	32.10	50.00	-17.90	AVG
9	8.6184	35.80	9.73	45.53	60.00	-14.47	QP
10	8.6184	23.50	9.73	33.23	50.00	-16.77	AVG
11	11.4647	32.71	9.77	42.48	60.00	-17.52	QP
12	11.4647	19.20	9.77	28.97	50.00	-21.03	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.

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



# 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**