



CFR 47 FCC PART 15 SUBPART C

CERTIFICATION TEST REPORT

For

SWITCH

MODEL NUMBER: HSA11FWB

FCC ID: 2AB2QHSA11FWB

REPORT NUMBER: 4789572661-3

ISSUE DATE: August 26, 2020

LEEDARSON LIGHTING CO.,Ltd. XINGDA RD, XINGTAI INDUSTRIAL ZONE, CHANGTAI COUNTY, ZHANGZHOU, FUJIAN, 363900, CHINA

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone, Dongguan, People's Republic of China Tel: +86 769-22038881 Fax: +86 769 33244054 Website: www.ul.com

The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.



Revision History

Rev.	Issue Date	Revisions	Revised By
V0	08/26/2020	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	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
Note: 1.This test report is only published to and used by the applicant, and it is not for evidence purpose in China.			

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



TABLE OF CONTENTS

1.	AT	TESTATION OF TEST RESULTS	6
2.	TE	ST METHODOLOGY	7
3.	FA	CILITIES AND ACCREDITATION	7
4.	СА	LIBRATION AND UNCERTAINTY	8
	1 .1.	MEASURING INSTRUMENT CALIBRATION	
4	4.2.	MEASUREMENT UNCERTAINTY	
5.	EQ	UIPMENT UNDER TEST	9
5	5.1.	DESCRIPTION OF EUT	9
5	5.2.	MAXIMUM OUTPUT POWER	9
Ę	5.3.	CHANNEL LIST	9
5	5.4.	TEST CHANNEL CONFIGURATION	.10
Ę	5.5.	THE WORSE CASE POWER SETTING PARAMETER	.10
5	5.6.	THE WORSE CASE CONFIGURATIONS	.10
5	5.7.	DESCRIPTION OF AVAILABLE ANTENNAS	.11
Ę	5.8.	TEST ENVIRONMENT	.11
,	5.9.	DESCRIPTION OF TEST SETUP	12
5).9.		. 12
6.	-	ASURING INSTRUMENT AND SOFTWARE USED	
-	ME		.13
6. 7.	ME	ASURING INSTRUMENT AND SOFTWARE USED	.13 .14
6. 7.	ME AN	ASURING INSTRUMENT AND SOFTWARE USED	.13 .14 .14
6. 7. 7	ME AN 7. 1.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE	.13 .14 .14 .15
6. 7. 7	ME AN 7.1. 7.2.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE	.13 .14 .14 .15 .17
6. 7. 7 7	ME AN 7.1. 7.2. 7.3.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER.	.13 .14 .14 .15 .17 .19
6. 7. 7 7	ME AN 7. 1. 7. 2. 7. 3. 7. 4. 7. 5.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH	.13 .14 .15 .17 .19 .20
6. 7. 7 7 7 7 7 7 8.	ME AN 7. 1. 7. 2. 7. 3. 7. 4. 7. 5.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER. POWER SPECTRAL DENSITY. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS.	.13 .14 .14 .15 .17 .19 .20 .20
6. 7. 7 7 7 7 7 7 8.	ME AN 7.1. 7.2. 7.3. 7.4. 7.5. RA 3.1. 8.1	ASURING INSTRUMENT AND SOFTWARE USED	.13 .14 .14 .15 .17 .19 .20 .20 .28 .28
6. 7. 7 7 7 7 7 7 8.	ME AN 7.1. 7.2. 7.3. 7.4. 7.5. RA 3.1.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS DIATED TEST RESULTS RESTRICTED BANDEDGE .1 802.11b MODE .2 802.11g MODE	.13 .14 .15 .17 .19 .20 .28 .28 .28 .36
6. 7. 7 7 7 7 7 7 8.	ME AN 7.1. 7.2. 7.3. 7.5. 7.5. 8.1 8.1 8.1	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS DIATED TEST RESULTS RESTRICTED BANDEDGE .1 802.11b MODE .3 802.11n HT20 MODE	.13 .14 .15 .17 .19 .20 .28 .28 .36 .44
6. 7. 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ME AN 7. 1. 7. 2. 7. 3. 7. 4. 7. 5. 8. 1. 8. 1 8. 1 8. 1 8. 1 8. 1 8. 1 8.	EASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER. POWER SPECTRAL DENSITY. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS. DIATED TEST RESULTS <i>RESTRICTED BANDEDGE</i> .1 802.11b MODE .2 802.11g MODE .3 802.11n HT20 MODE .4 802.11n HT40 MODE <i>SPURIOUS EMISSIONS (3~18GHz)</i>	.13 .14 .15 .17 .19 .20 .28 .28 .28 .36 .44 .52 .60
6. 7. 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ME AN 7. 1. 7. 2. 7. 3. 7. 4. 7. 5. 8. 1. 8. 1 8. 1 8. 1 8. 1 8. 1 8. 2. 8. 2	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS DIATED TEST RESULTS RESTRICTED BANDEDGE .1 802.11b MODE .3 802.11n HT20 MODE .4 802.11n HT40 MODE .5 SPURIOUS EMISSIONS (3~18GHz) .1 802.11b MODE	.13 .14 .15 .17 .19 .20 .28 .28 .28 .28 .36 .44 .52 .60 .60
6. 7. 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ME AN 7. 1. 7. 2. 7. 3. 7. 4. 7. 5. 8. 1. 8. 1 8. 1 8. 1 8. 1 8. 1 8. 1 8.	ASURING INSTRUMENT AND SOFTWARE USED TENNA PORT TEST RESULTS ON TIME AND DUTY CYCLE 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH CONDUCTED OUTPUT POWER POWER SPECTRAL DENSITY CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS DIATED TEST RESULTS RESTRICTED BANDEDGE .1 802.11b MODE .3 802.11n HT20 MODE .4 802.11n HT40 MODE .5 SPURIOUS EMISSIONS (3~18GHz) .1 802.11b MODE .2 802.11b MODE	.13 .14 .15 .17 .19 .20 .28 .28 .28 .28 .28 .28 .36 .44 .52 .60 .60 .60 .60 .60



8.3. SPURIOUS EMISSIONS (1~3GHz)	
8.3.1. 802.11b MODE 8.3.2. 802.11g MODE	
8.3.2. 802.11g MODE 8.3.3. 802.11n HT20 MODE	
8.3.4. 802.11n HT40 MODE	
8.4. SPURIOUS EMISSIONS (18~26GHz)	108
8.4.1. 802.11b MODE	
8.5. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)	
8.5.1. 802.11b MODE	
8.6. SPURIOUS EMISSIONS BELOW 30M	
8.6.1. 802.11b MODE	
9. AC POWER LINE CONDUCTED EMISSIONS	115
9.1. 802.11b MODE	116
10. ANTENNA REQUIREMENTS	440
11. Appendix	119
11.1. Appendix A: Duty Cycle	119
11.1.1. Test Result	
11.1.2. Test Graphs	
11.2. Appendix B: DTS Bandwidth	
11.2.1. Test Result	
11.2.2. Test Graphs	
11.3. Appendix C: Occupied Channel Bandwidth	
11.3.1. Test Result 11.3.2. Test Graphs	
11.4. Appendix D: Maximum conducted output power	
11.4.1. Test Result	
11.5. Appendix E: Maximum power spectral density	
11.5.1. Test Result	
11.5.2. Test Graphs	
11.6. Appendix F: Band edge measurements	
11.6.1.Test Result11.6.2.Test Graphs	
11.7. Appendix G: Conducted Spurious Emission 11.7.1. Test Result	
11.7.1. Test Result	



1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	LEEDARSON LIGHTING CO.,Ltd.
Address:	XINGDA RD, XINGTAI INDUSTRIAL ZONE, CHANGTAI COUNTY,
	ZHANGZHOU, FUJIAN, 363900, CHINA

Manufacturer Information

Company Name:	LEEDARSON LIGHTING CO.,Ltd.
Address:	XINGDA RD, XINGTAI INDUSTRIAL ZONE, CHANGTAI COUNTY,
	ZHANGZHOU, FUJIAN, 363900, CHINA

EUT Information

SWITCH
HSA11FWB
Normal
3220786
July 29, 2020
July 29, 2020~ August 7, 2020

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

Prepared By:

Kebo. zhong.

Checked By:

Sheme lies

Shawn Wen Laboratory Leader

Kebo Zhang Project Engineer

Approved By:

Aephenbus

Stephen Guo Laboratory Manager



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 558074 D01 15.247 Meas Guidance v05r02, 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	 A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Delcaration of Conformity (DoC) and Certification rules ISED(Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320. VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
	Facility Name:
	Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011

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

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

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



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-18GHz)	
	5.23dB (18GHz-26GHz)	
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

Equipment	SWITCH		
Model Name	HSA11FWB		
Radio Technology	IEEE802.11b/g/n HT20/n HT40		
Operation frequency	IEEE 802.11b: 2412MHz—2462MHz IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz		
Modulation	IEEE 802.11b: DSSS(CCK) IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20: OFDM (64QAM, 16QAM, QPSK,BPSK) IEEE 802.11n HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)		
Rated Input	AC120V,60Hz		

5.2. MAXIMUM OUTPUT POWER

Number of Transmit Chains (NTX)	IEE Std. 802.11	Frequency (MHz)	Channel Number	Max AV Conducted Power (dBm)
1	IEEE 802.11b	2412-2462	1-11[11]	17.26
1	IEEE 802.11g	2412-2462	1-11[11]	15.87
1	IEEE 802.11nHT20	2412-2462	1-11[11]	13.36
1	IEEE 802.11nHT40	2422-2452	3-9[7]	12.46

5.3. CHANNEL LIST

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

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



5.4. TEST CHANNEL CONFIGURATION

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

5.5. THE WORSE CASE POWER SETTING PARAMETER

The W	The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band									
Test Softw	vare		ESP_RF_test_tool_v1.1.0							
	Transmit		Test Software setting value							
Modulation Mode	Antenna	NCB: 20MHz			NCB: 40MHz					
Widde	Number	CH 1	CH 6	CH 11	CH 3	CH 6	CH 9			
802.11b	1	Default	Default	Default	· · ·					
802.11g	1	7	7	7	/					
802.11n HT20 1		14	14	14	1					
802.11n HT40	1		/		22	22	22			

5.6. THE WORSE CASE CONFIGURATIONS

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

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



5.7. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2412-2462	PCB antenna	-1.7

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

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

5.8. TEST ENVIRONMENT

Environment Parameter	Selected Va	ues During Tests			
Relative Humidity	45 ~ 70%				
Atmospheric Pressure:	1025Pa				
Temperature	TN	22 ~ 28°C			
	VL	N/A			
Voltage :	VN	AC120V,60Hz			
	VH	N/A			

Note: VL= Lower Extreme Test Voltage

VN= Nominal Voltage

VH= Upper Extreme Test Voltage

TN= Normal Temperature



5.9. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Item	Equipment	Brand Name	Model Name	Remarks
1	Laptop	ThinkPad	X230i	/
2	USB TO UART	/	/	/
3	LED Lamp	/	/	100W

I/O CABLES

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

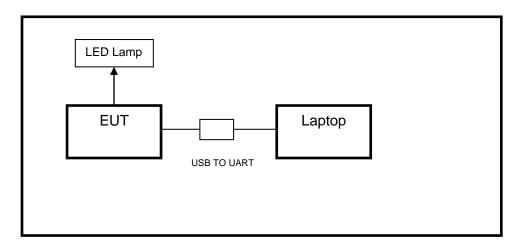
ACCESSORY

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

TEST SETUP

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

SETUP DIAGRAM FOR TEST



6. MEASURING INSTRUMENT AND SOFTWARE USED

	Conducted Emissions									
Instrument										
Used	Equipment	Manufacturer	Model No.			Seria	l No.	Last Cal.	Next Cal.	
V	EMI Test Receiver	R&S		ES	R3		101	961	Dec.05,2019	Dec.05,2020
	Two-Line V- Network	R&S		EN\	/216		101	983	Dec.05,2019	Dec.05,2020
V	Artificial Mains Networks	Schwarzbeck	I	NSLK	8126		8126	6465	Dec.05,2019	Dec.05,2020
Software										
Used		Description	1				Manufa	acturer	Name	Version
	Test Softwa	re for Conduct	ted dis	turba	nce		Fa	rad	EZ-EMC	Ver. UL-3A1
	Radiated Emissions									
Instrument										
Used	Equipment	Manufacturer		Mode	el No.		Seria	l No.	Last Cal.	Next Cal.
	MXE EMI Receiver	KESIGHT	N9038A			MY564	00036	Dec.06,2019	Dec.05,2020	
	Hybrid Log Periodic Antenna	TDK	HLP-3003C			130960		Sep.17,2018	Sep.17,2021	
	Preamplifier	HP	8447D			2944A09099		Dec.05,2019	Dec.05,2020	
V	EMI Measurement Receiver	R&S	ESR26			101	377	Dec.05,2019	Dec.05,2020	
	Horn Antenna	TDK		HRN	-0118		130	939	Sep.17,2018	Sep.17,2021
V	High Gain Horn Antenna	Schwarzbeck	E	BBHA	-9170		69		Aug.11,2018	Aug.11,2021
V	Preamplifier	TDK	F	PA-02	2-0118		TRS- 000)67	Dec.05,2019	Dec.05,2020
	Preamplifier	TDK		PA-	02-2		TRS- 000	-307-)03	Dec.05,2019	Dec.05,2020
	Loop antenna	Schwarzbeck			19B		000	800	Jan.07,2019	Jan.07,2022
V	Band Reject Filter	Wainwright	2483	.5-25	2350-24 33.5-40	SS	2	1	Dec.05,2019	Dec.05,2020
V	High Pass Filter	Wi			2700-30)-40SS	00-	2	3	Dec.05,2019	Dec.05,2020
				Sof	tware					
Used	De	scription			Man	ufact	turer		Name	Version
	Test Software for	Radiated dist	urbanc	e		arac	d l		EZ-EMC	Ver. UL-3A1
			Oth	ner in	istrume	ents				
Used	Equipment	Manufac	turer	Mod	lel No.	S	erial No	э.	Last Cal.	Next Cal.
\checkmark	Spectrum Analyz	, ,	ght	N9	030A	MY	554105	512 D	ec.06,2019	Dec.05,2020
\checkmark	Power sensor, Pov Meter	R&S	5	OS	P120		100921	0	ec.06,2019	Dec.06,2020

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



7. ANTENNA PORT TEST RESULTS

7.1. ON TIME AND DUTY CYCLE

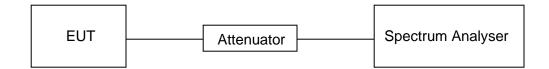
<u>LIMITS</u>

None; for reporting purposes only

PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method

TEST SETUP



TEST ENVIRONMENT

Temperature	25.5°C	Relative Humidity	60.9%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix A.

7.2. 6 dB DTS BANDWIDTH AND 99% OCCUPIED BANDWIDTH

<u>LIMITS</u>

CFR 47 FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2				
Section Test Item Limit Frequency Range (MHz)				
CFR 47 FCC 15.247(a)(2) ISED RSS-247 5.2 (a)	6 dB Bandwidth	≥ 500KHz	2400-2483.5	
ISED RSS-Gen Clause 6.7	99% Occupied Bandwidth	For reporting purposes only.	2400-2483.5	

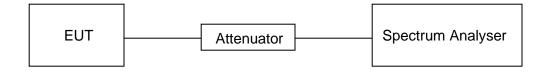
TEST PROCEDURE

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

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

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

TEST SETUP





TEST ENVIRONMENT

Temperature	25.5°C	Relative Humidity	60.9%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix B and C.



7.3. CONDUCTED OUTPUT POWER

LIMITS

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

TEST PROCEDURE

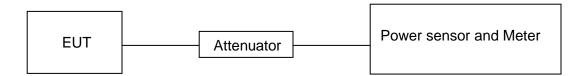
Place the EUT on the table and set it in the transmitting mode.

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

Measure peak power each channel.

AVG Detector use for AVG result.

TEST SETUP



TEST ENVIRONMENT

Temperature	25.5°C	Relative Humidity	60.9%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz



RESULTS

Please refer to appendix D.



7.4. POWER SPECTRAL DENSITY

LIMITS

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

TEST PROCEDURE

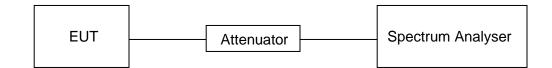
Connect the UUT to the spectrum analyser and use the following settings:

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	25.5°C	Relative Humidity	60.9%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

<u>RESULTS</u>

Please refer to appendix E.



7.5. CONDUCTED BANDEDGE AND SPURIOUS EMISSIONS

LIMITS

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

TEST PROCEDURE

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	100kHz
VBW	≥3 × RBW
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

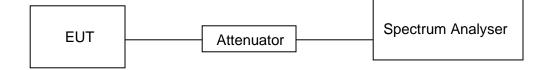
Use the peak marker function to determine the maximum PSD level.

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100kHz
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	25.5°C	Relative Humidity	60.9%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz

RESULTS

Please refer to appendix F and G.



8. RADIATED TEST RESULTS

<u>LIMITS</u>

Please refer to CFR 47 FCC §15.205 and §15.209

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

Emissions radiated outside of the specified frequency bands above 30MHz						
Frequency Range	Field Strength Limit	Field Strength Limit (dBuV/m) at 3 m				
(MHz)	(uV/m) at 3 m					
		Quasi-Peak				
30 - 88	100	40				
88 - 216	150	43.5				
216 - 960	200	46				
Above 960	500	54				
Above 1000	500	Peak	Average			
Above 1000	300	74	54			

FCC Emissions radiated outside of the specified frequency bands below 30MHz						
Frequency (MHz)Field strength (microvolts/meter)Measurement distance (meters)						
0.009-0.490	2400/F(kHz)	300				
0.490-1.705	24000/F(kHz)	30				
1.705-30.0	30	30				



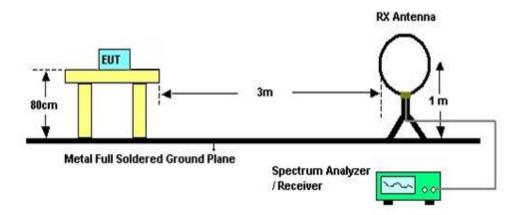
FCC Restricted bands of operation refer to FCC §15.205 (a):

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

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

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, Face-on and Face-off 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 1 meter height antenna tower.

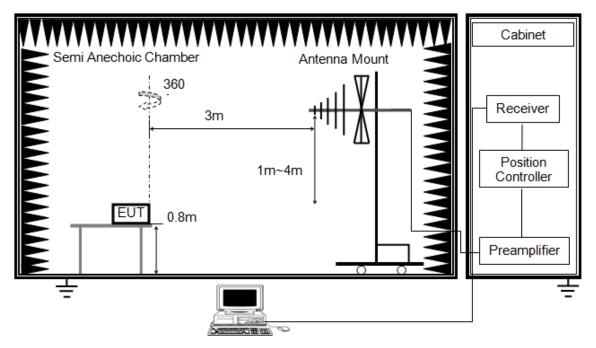
5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the 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	120kHz
VBW	300kHz
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.

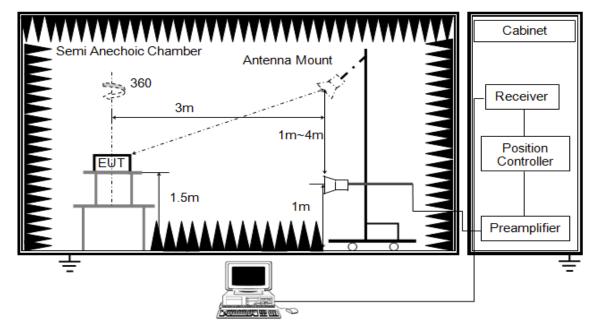
3. The EUT was placed on a turntable with 0.8 meter above ground.

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	1MHz
IV BVV	PEAK: 3MHz 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.

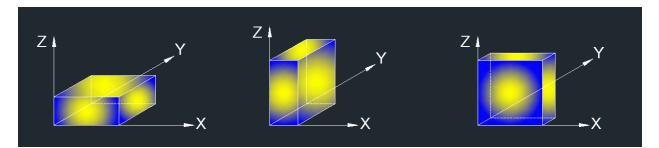
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

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 7.1.ON TIME AND DUTY CYCLE.



X axis, Y axis, Z axis positions:



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

TEST ENVIRONMENT

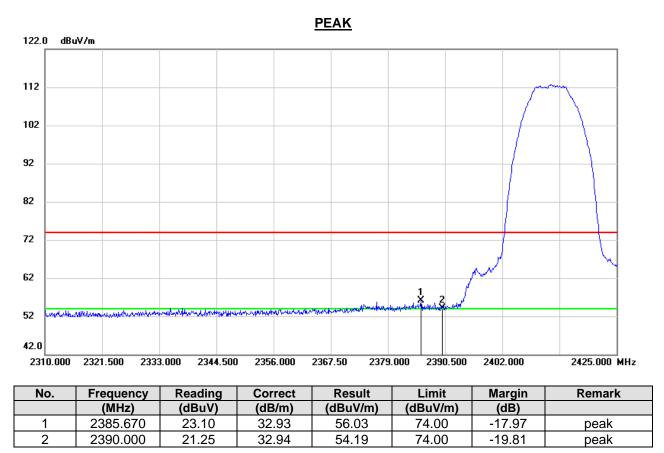
Temperature	23.2°C	Relative Humidity	58%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz



8.1. RESTRICTED BANDEDGE

8.1.1. 802.11b MODE

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

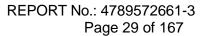


Note: 1. Measurement = Reading Level + Correct Factor.

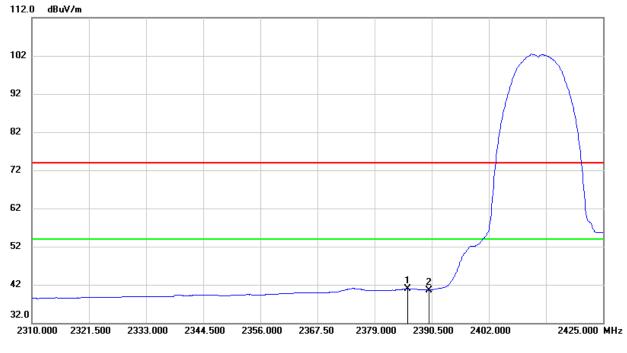
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2385.670	7.98	32.93	40.91	54.00	-13.09	AVG
2	2390.000	7.63	32.94	40.57	54.00	-13.43	AVG

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

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

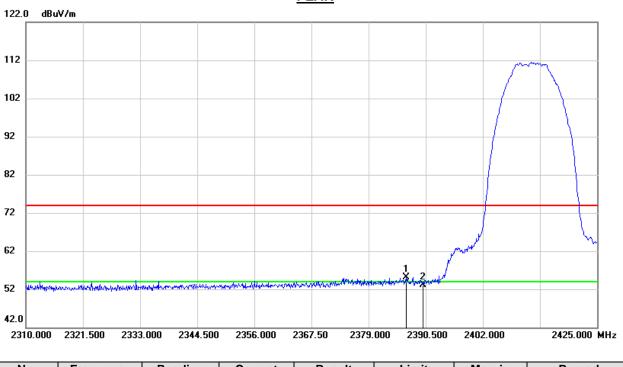
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2386.590	22.18	32.94	55.12	74.00	-18.88	peak
2	2390.000	20.09	32.94	53.03	74.00	-20.97	peak

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

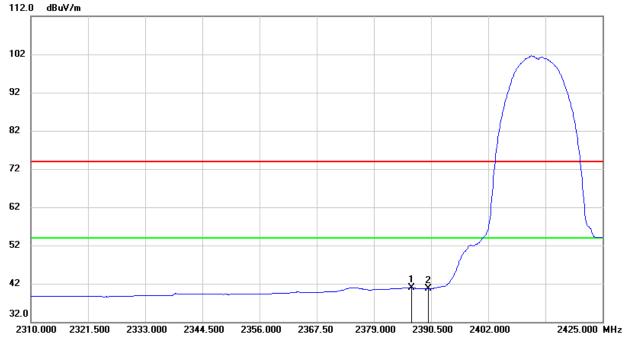
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. 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>

AVG



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2386.590	8.01	32.94	40.95	54.00	-13.05	AVG
2	2390.000	7.66	32.94	40.60	54.00	-13.40	AVG

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

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

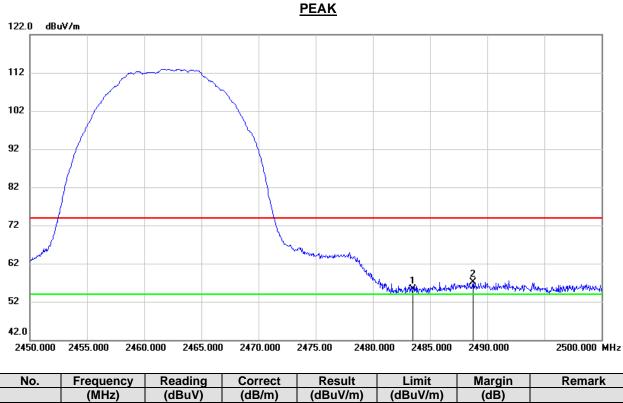
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	21.80	33.58	55.38	74.00	-18.62	peak
2	2488.750	23.55	33.62	57.17	74.00	-16.83	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.



112.0 dBuV/m 102 92 82 72 62 52 1 42 32.0 2450.000 2455.000 2460.000 2465.000 2470.000 2475.00 2480.000 2485.000 2490.000 2500.000 MHz

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	8.74	33.58	42.32	54.00	-11.68	AVG
2	2488.750	9.79	33.62	43.41	54.00	-10.59	AVG

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

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

3. Peak: Peak detector.

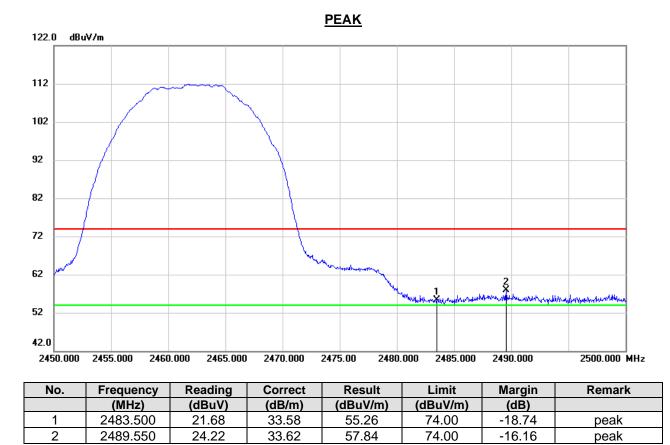
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

AVG

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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

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

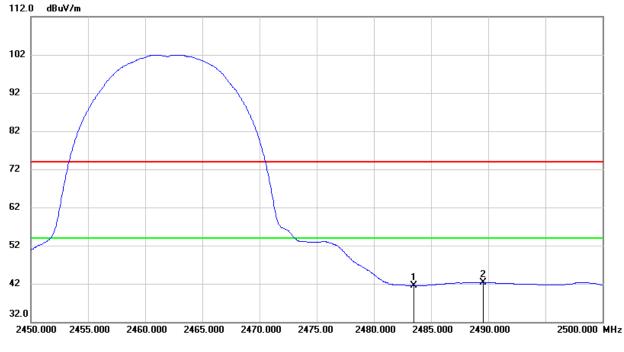
3. Peak: Peak detector.

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

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	7.98	33.58	41.56	54.00	-12.44	AVG
2	2489.550	8.63	33.62	42.25	54.00	-11.75	AVG

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

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

3. Peak: Peak detector.

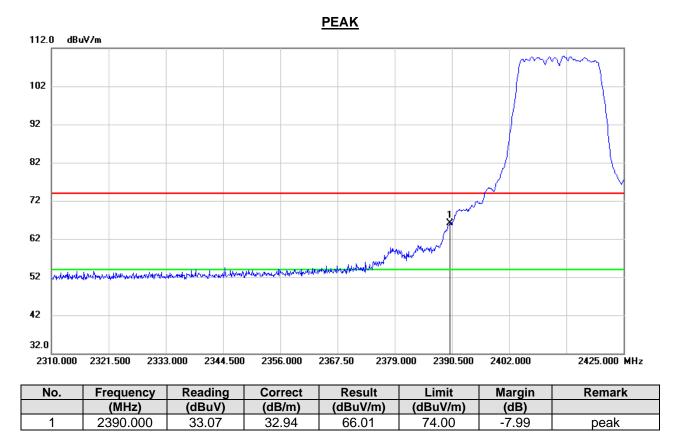
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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



8.1.2. 802.11g MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

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

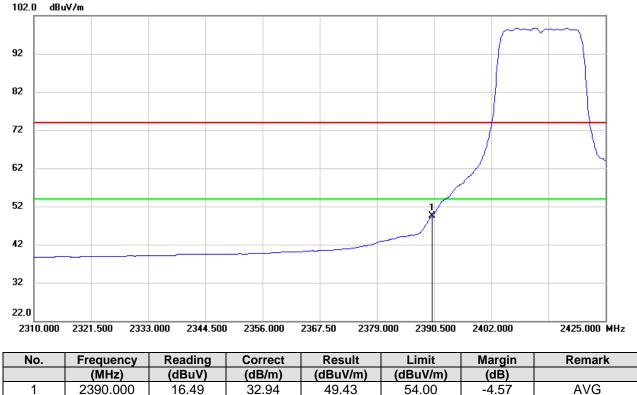
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







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

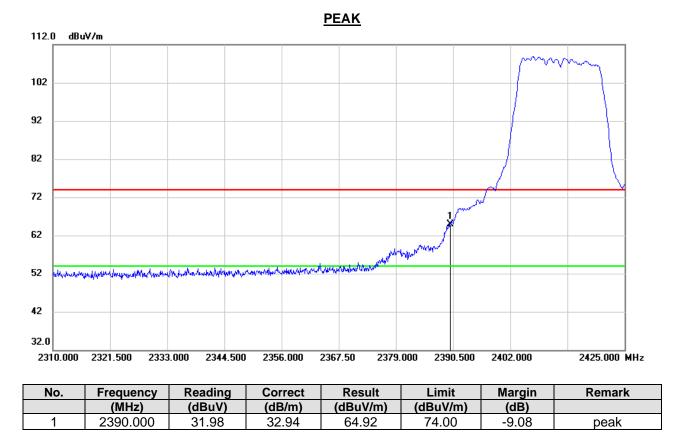
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



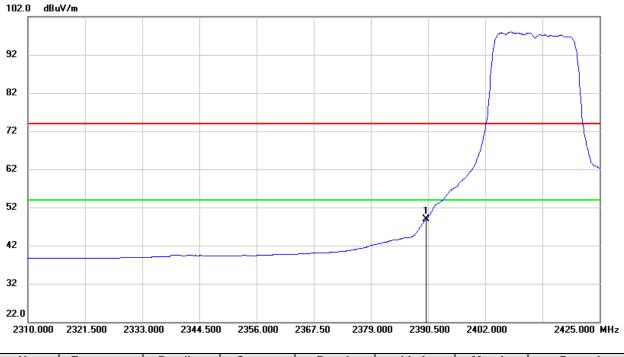
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	15.97	32.94	48.91	54.00	-5.09	AVG

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

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

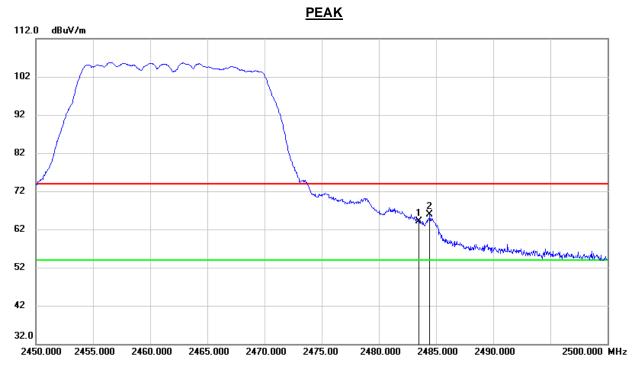
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.



RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



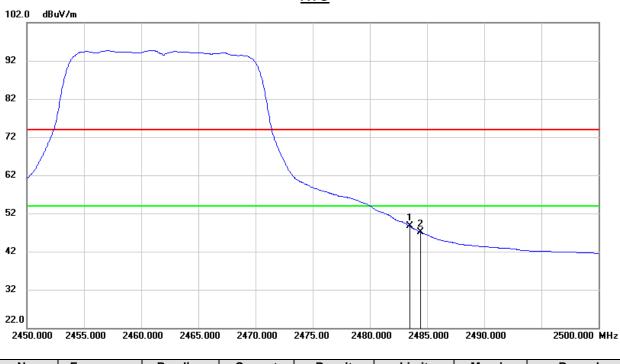
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	30.59	33.58	64.17	74.00	-9.83	peak
2	2484.450	32.23	33.59	65.82	74.00	-8.18	peak

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.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	15.10	33.58	48.68	54.00	-5.32	AVG
2	2484.450	13.49	33.59	47.08	54.00	-6.92	AVG

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

3. Peak: Peak detector.

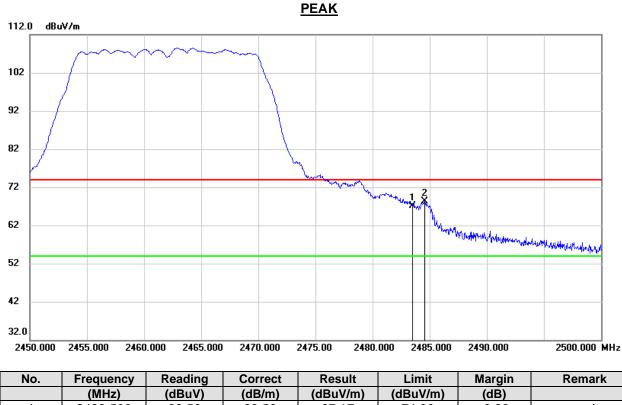
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

AVG

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	33.59	33.58	67.17	74.00	-6.83	peak
2	2484.550	34.73	33.59	68.32	74.00	-5.68	peak

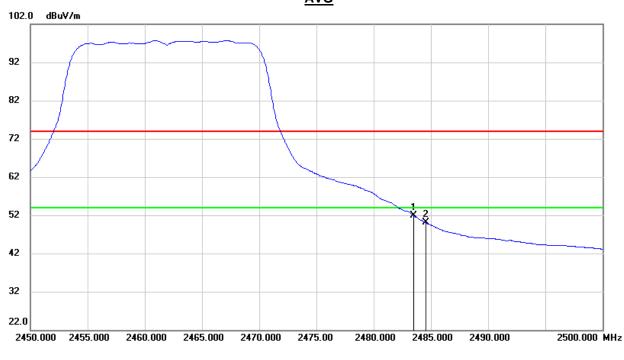
Note: 1. Measurement = Reading Level + Correct Factor.

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.

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.32	33.58	51.90	54.00	-2.10	AVG
2	2484.550	16.47	33.59	50.06	54.00	-3.94	AVG

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

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

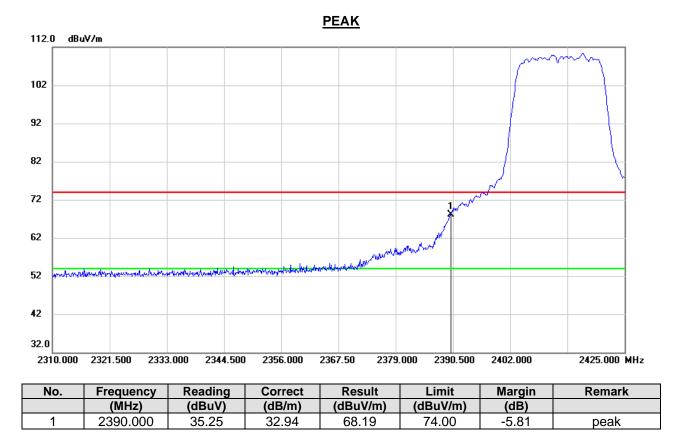
5. For the transmitting duration, please refer to clause 7.1.

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

AVG



8.1.3. 802.11n HT20 MODE



RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

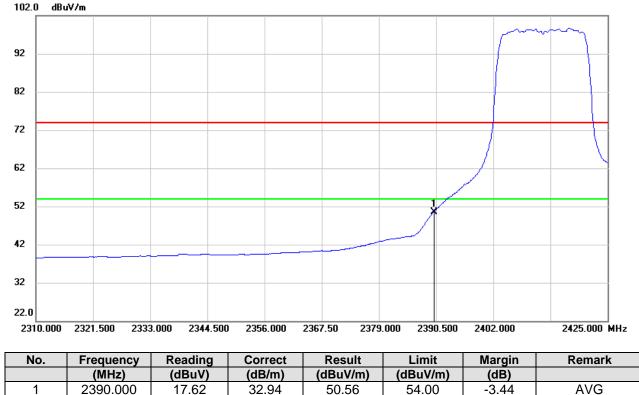
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.







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

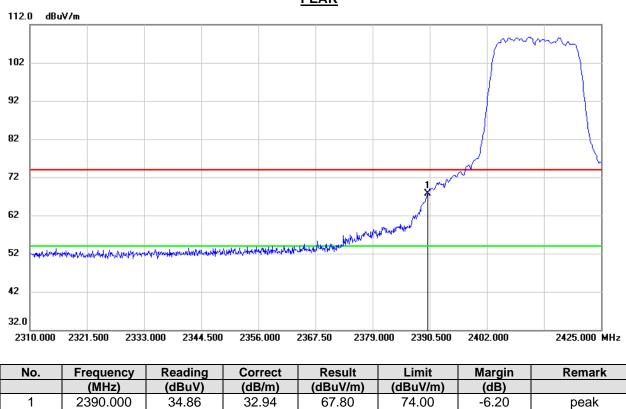
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



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

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

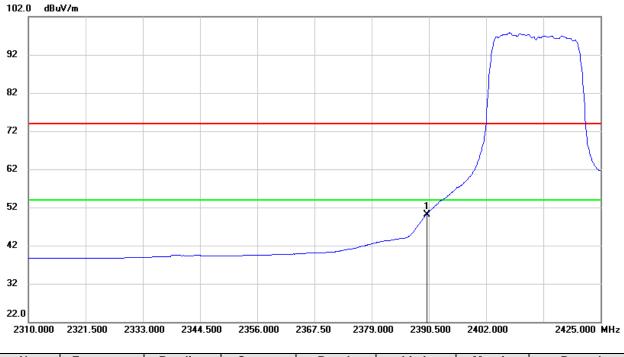
3. Peak: Peak detector.

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

<u>PEAK</u>



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	17.26	32.94	50.20	54.00	-3.80	AVG

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

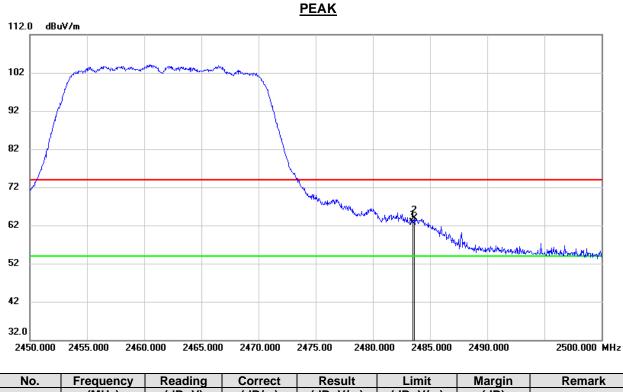
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



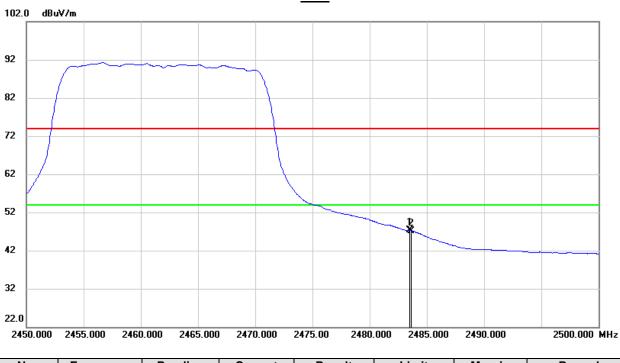
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	29.10	33.58	62.68	74.00	-11.32	peak
2	2483.650	30.38	33.58	63.96	74.00	-10.04	peak

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	13.68	33.58	47.26	54.00	-6.74	AVG
2	2483.650	13.52	33.58	47.10	54.00	-6.90	AVG

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

3. Peak: Peak detector.

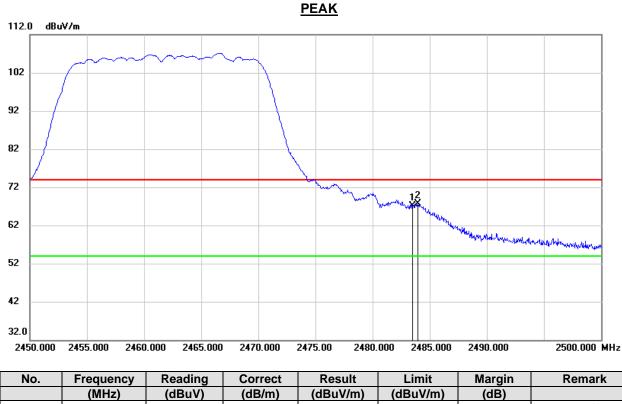
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

AVG

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



	((42)	
1	2483.500	33.51	33.58	67.09	74.00	-6.91	peak
2	2483.950	34.14	33.58	67.72	74.00	-6.28	peak

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

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

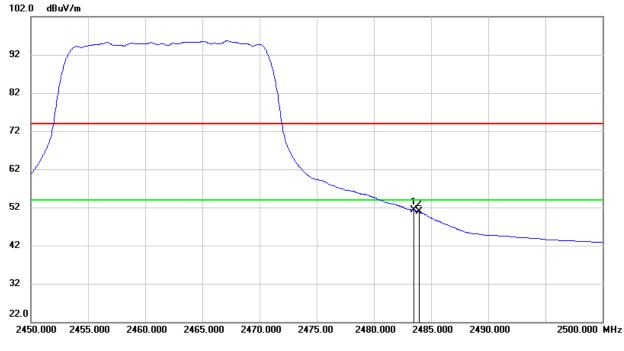
3. Peak: Peak detector.

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

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	17.64	33.58	51.22	54.00	-2.78	AVG
2	2483.950	17.34	33.58	50.92	54.00	-3.08	AVG

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

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

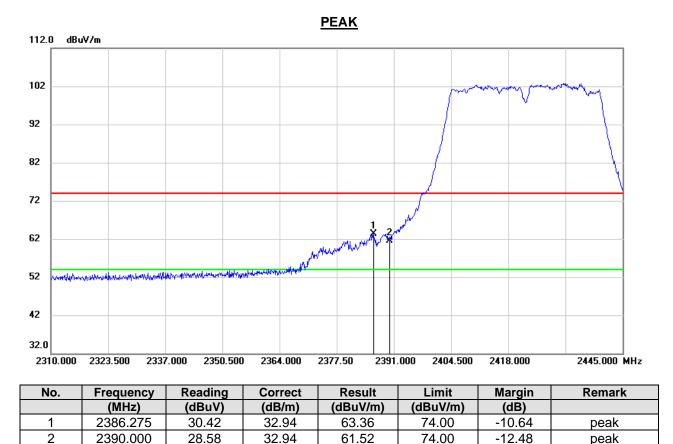
3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.



8.1.4. 802.11n HT40 MODE

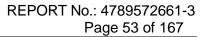


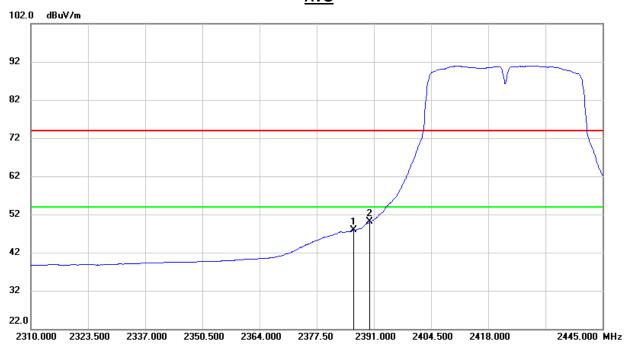
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

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

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

3. Peak: Peak detector.





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2386.275	14.92	32.94	47.86	54.00	-6.14	AVG
2	2390.000	17.10	32.94	50.04	54.00	-3.96	AVG

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

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

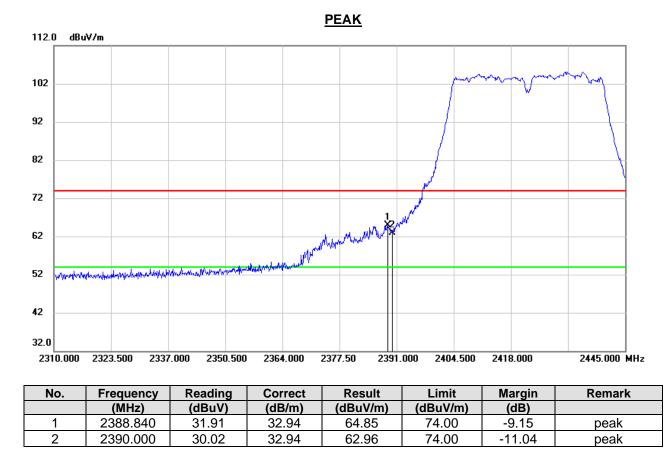
5. For the transmitting duration, please refer to clause 7.1.

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

AVG



RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



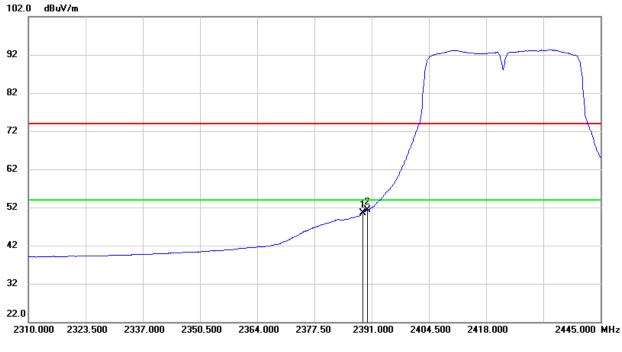
Note: 1. Measurement = Reading Level + Correct Factor.

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

3. Peak: Peak detector.



<u>AVG</u>



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2388.840	17.66	32.94	50.60	54.00	-3.40	AVG
2	2390.000	18.44	32.94	51.38	54.00	-2.62	AVG

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

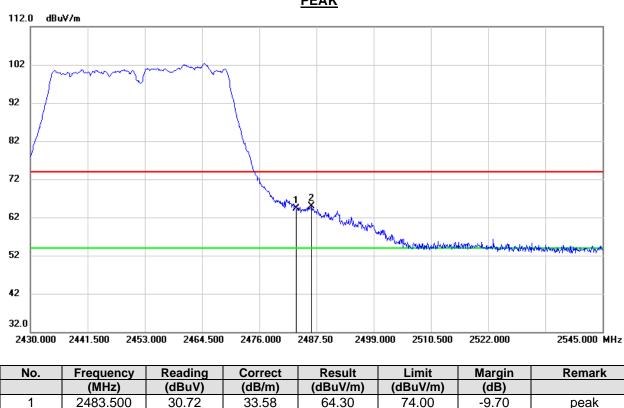
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



2	2486.465	31.23	33.61	64.84	74.00

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.

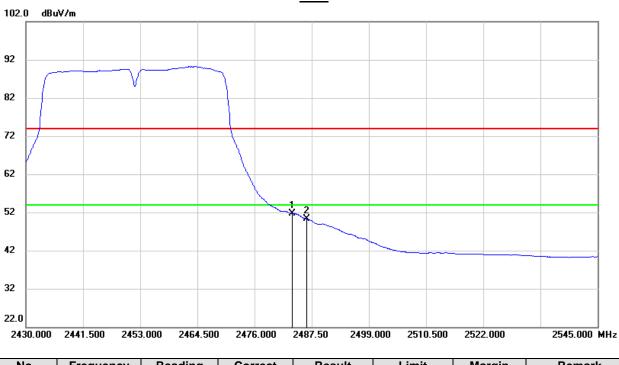
4. Only the worst case emission was recorded, if it complies with the limit, the other emissions deemed to comply with the limit.

-9.16

peak

PEAK





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.19	33.58	51.77	54.00	-2.23	AVG
2	2486.465	16.66	33.61	50.27	54.00	-3.73	AVG

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

3. Peak: Peak detector.

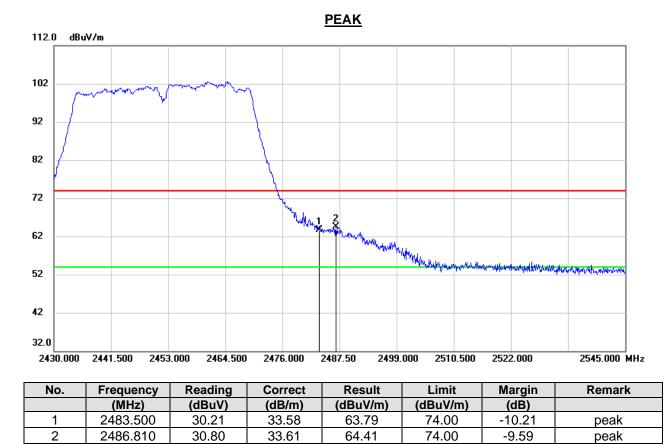
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

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

<u>AVG</u>

RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



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

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

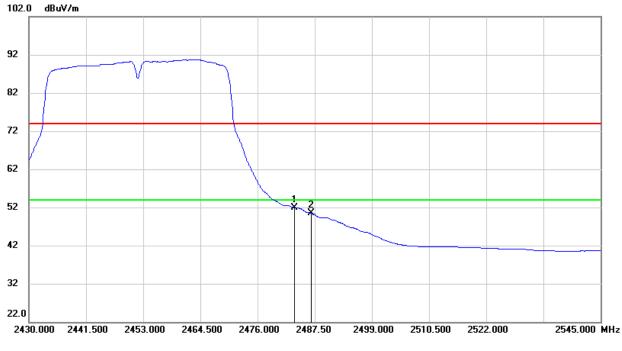
3. Peak: Peak detector.

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

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.



AVG



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	18.38	33.58	51.96	54.00	-2.04	AVG
2	2486.810	16.85	33.61	50.46	54.00	-3.54	AVG

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

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

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

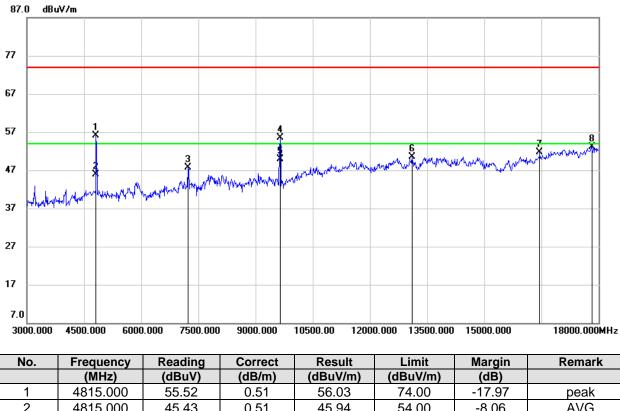
5. For the transmitting duration, please refer to clause 7.1.



8.2. SPURIOUS EMISSIONS (3~18GHz)

8.2.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	55.52	0.51	56.03	74.00	-17.97	peak
2	4815.000	45.43	0.51	45.94	54.00	-8.06	AVG
3	7230.000	41.76	5.89	47.65	74.00	-26.35	peak
4	9645.000	45.82	9.66	55.48	74.00	-18.52	peak
5	9645.000	40.33	9.66	49.99	54.00	-4.01	AVG
6	13110.000	35.41	15.19	50.60	74.00	-23.40	peak
7	16455.000	32.66	19.00	51.66	74.00	-22.34	peak
8	17820.000	29.82	23.30	53.12	74.00	-20.88	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

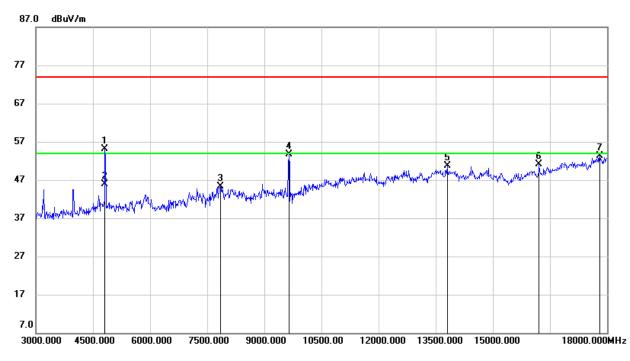
6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.

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

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch This report shall not be reproduced except in full, without the written approval of UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	54.60	0.51	55.11	74.00	-18.89	peak
2	4815.000	45.33	0.51	45.84	54.00	-8.16	AVG
3	7845.000	37.77	7.62	45.39	74.00	-28.61	peak
4	9645.000	44.02	9.66	53.68	74.00	-20.32	peak
5	13800.000	33.66	17.10	50.76	74.00	-23.24	peak
6	16215.000	32.56	18.48	51.04	74.00	-22.96	peak
7	17805.000	29.96	23.31	53.27	74.00	-20.73	peak

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

3. Peak: Peak detector.

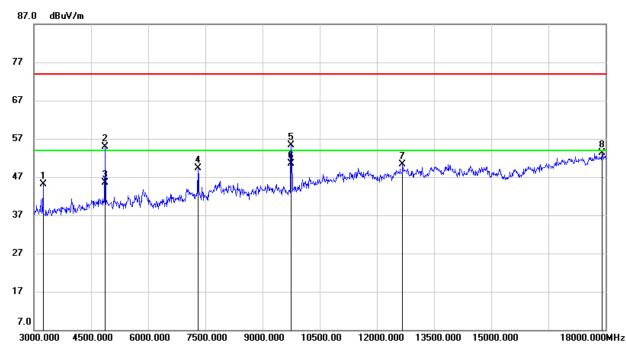
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3240.000	49.45	-4.37	45.08	74.00	-28.92	peak
2	4875.000	54.14	0.76	54.90	74.00	-19.10	peak
3	4875.000	44.73	0.76	45.49	54.00	-8.51	AVG
4	7305.000	43.30	6.08	49.38	74.00	-24.62	peak
5	9750.000	45.70	9.68	55.38	74.00	-18.62	peak
6	9750.000	40.90	9.68	50.58	54.00	-3.42	AVG
7	12675.000	36.00	14.21	50.21	74.00	-23.79	peak
8	17910.000	29.87	23.35	53.22	74.00	-20.78	peak

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

3. Peak: Peak detector.

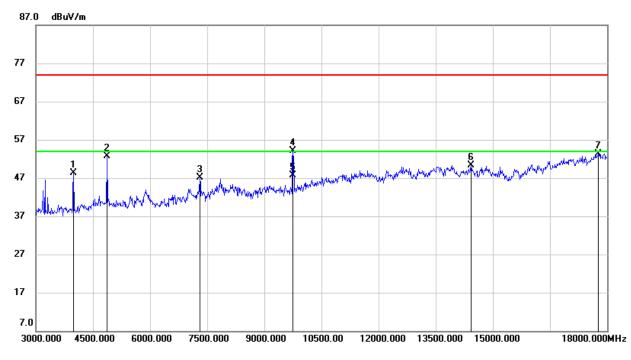
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	51.15	-2.89	48.26	74.00	-25.74	peak
2	4875.000	51.89	0.76	52.65	74.00	-21.35	peak
3	7305.000	41.02	6.08	47.10	74.00	-26.90	peak
4	9750.000	44.52	9.68	54.20	74.00	-19.80	peak
5	9750.000	38.03	9.68	47.71	54.00	-6.29	AVG
6	14430.000	34.02	16.35	50.37	74.00	-23.63	peak
7	17760.000	30.26	22.95	53.21	74.00	-20.79	peak

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

3. Peak: Peak detector.

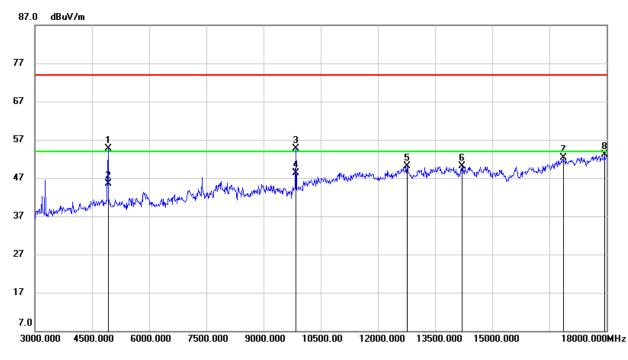
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4920.000	53.78	0.96	54.74	74.00	-19.26	peak
2	4920.000	44.51	0.96	45.47	54.00	-8.53	AVG
3	9840.000	44.77	9.86	54.63	74.00	-19.37	peak
4	9840.000	38.47	9.86	48.33	54.00	-5.67	AVG
5	12765.000	34.89	15.18	50.07	74.00	-23.93	peak
6	14205.000	33.66	16.36	50.02	74.00	-23.98	peak
7	16860.000	32.28	19.95	52.23	74.00	-21.77	peak
8	17940.000	29.76	23.39	53.15	74.00	-20.85	peak

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

3. Peak: Peak detector.

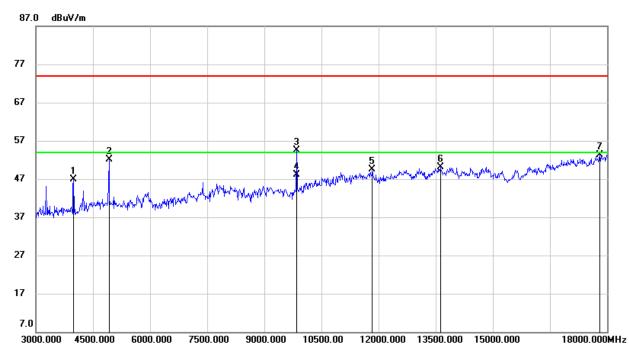
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	49.82	-2.89	46.93	74.00	-27.07	peak
2	4920.000	51.13	0.96	52.09	74.00	-21.91	peak
3	9840.000	44.58	9.86	54.44	74.00	-19.56	peak
4	9840.000	38.16	9.86	48.02	54.00	-5.98	AVG
5	11835.000	36.21	13.21	49.42	74.00	-24.58	peak
6	13620.000	34.03	15.99	50.02	74.00	-23.98	peak
7	17805.000	29.95	23.31	53.26	74.00	-20.74	peak

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

3. Peak: Peak detector.

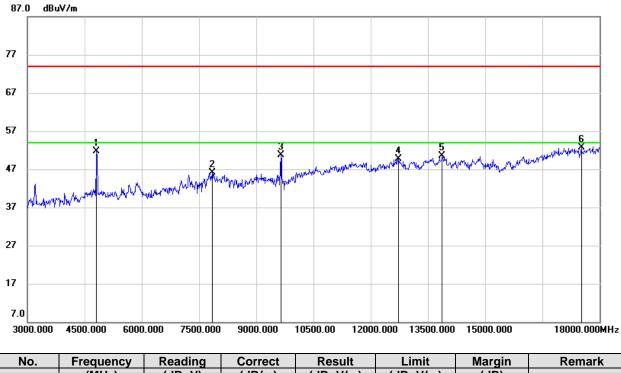
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



8.2.2. 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	4815.000	51.20	0.51	51.71	74.00	-22.29	peak
2	7845.000	38.39	7.62	46.01	74.00	-27.99	peak
3	9645.000	40.97	9.66	50.63	74.00	-23.37	peak
4	12735.000	34.99	14.77	49.76	74.00	-24.24	peak
5	13875.000	34.01	16.44	50.45	74.00	-23.55	peak
6	17520.000	31.20	21.44	52.64	74.00	-21.36	peak

Note: 1. Peak Result = Reading Level + Correct Factor.

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

3. Peak: Peak detector.

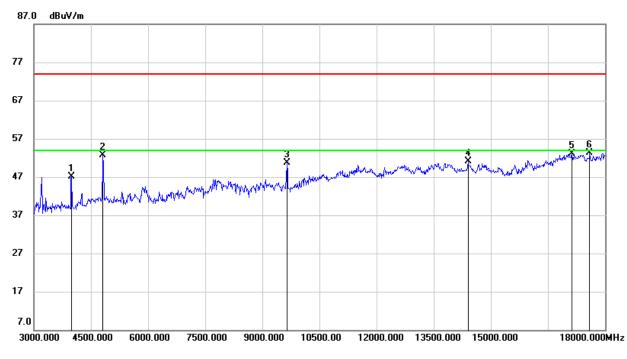
4. AVG: VBW=1/Ton, where: Ton is the transmitting duration.

5. For the transmitting duration, please refer to clause 7.1.

6. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	50.04	-2.89	47.15	74.00	-26.85	peak
2	4815.000	52.22	0.51	52.73	74.00	-21.27	peak
3	9645.000	40.98	9.66	50.64	74.00	-23.36	peak
4	14400.000	34.67	16.35	51.02	74.00	-22.98	peak
5	17130.000	32.39	20.72	53.11	74.00	-20.89	peak
6	17595.000	31.55	21.77	53.32	74.00	-20.68	peak

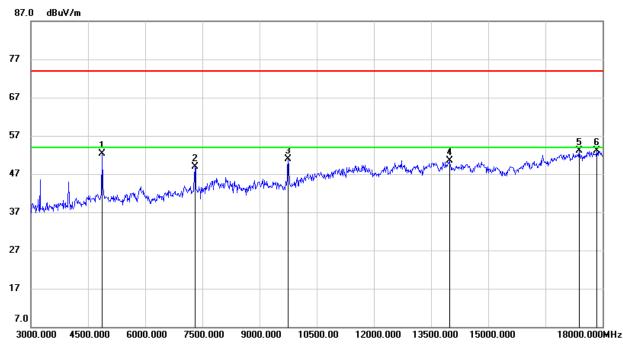
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	51.54	0.76	52.30	74.00	-21.70	peak
2	7305.000	42.80	6.08	48.88	74.00	-25.12	peak
3	9750.000	41.26	9.68	50.94	74.00	-23.06	peak
4	13980.000	34.50	16.07	50.57	74.00	-23.43	peak
5	17385.000	31.70	21.46	53.16	74.00	-20.84	peak
6	17850.000	29.86	23.32	53.18	74.00	-20.82	peak

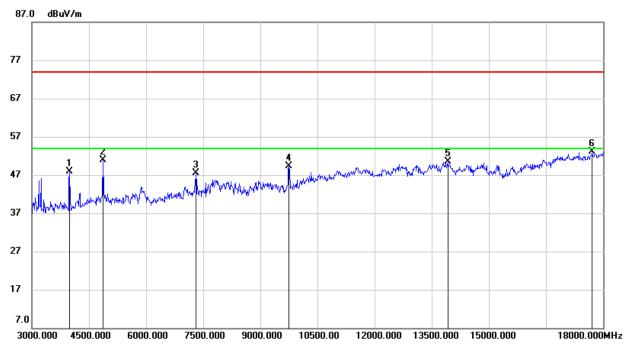
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	50.78	-2.89	47.89	74.00	-26.11	peak
2	4860.000	50.13	0.70	50.83	74.00	-23.17	peak
3	7305.000	41.41	6.08	47.49	74.00	-26.51	peak
4	9750.000	39.58	9.68	49.26	74.00	-24.74	peak
5	13920.000	34.31	16.17	50.48	74.00	-23.52	peak
6	17715.000	30.55	22.56	53.11	74.00	-20.89	peak

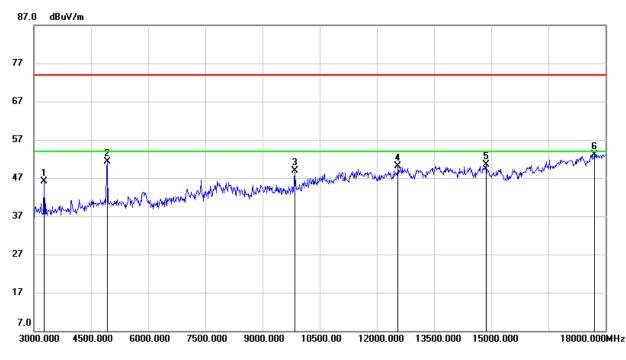
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3270.000	50.45	-4.29	46.16	74.00	-27.84	peak
2	4920.000	50.33	0.96	51.29	74.00	-22.71	peak
3	9840.000	39.07	9.86	48.93	74.00	-25.07	peak
4	12555.000	35.78	14.24	50.02	74.00	-23.98	peak
5	14865.000	34.54	15.98	50.52	74.00	-23.48	peak
6	17715.000	30.64	22.56	53.20	74.00	-20.80	peak

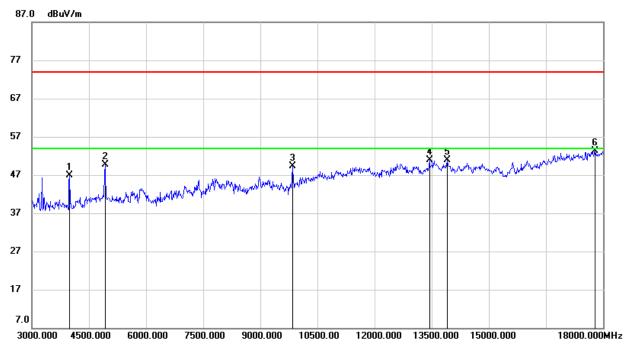
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







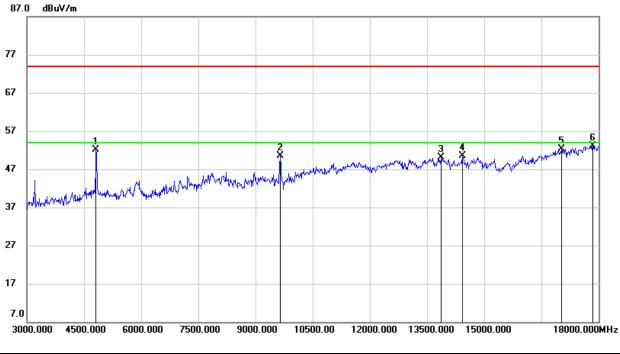
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	49.84	-2.89	46.95	74.00	-27.05	peak
2	4920.000	48.66	0.96	49.62	74.00	-24.38	peak
3	9840.000	39.48	9.86	49.34	74.00	-24.66	peak
4	13440.000	34.91	15.98	50.89	74.00	-23.11	peak
5	13905.000	34.73	16.20	50.93	74.00	-23.07	peak
6	17790.000	30.18	23.22	53.40	74.00	-20.60	peak

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

3. Peak: Peak detector.

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

8.2.3. 802.11n HT20 MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4815.000	51.59	0.51	52.10	74.00	-21.90	peak
2	9645.000	40.93	9.66	50.59	74.00	-23.41	peak
3	13875.000	33.69	16.44	50.13	74.00	-23.87	peak
4	14430.000	34.13	16.35	50.48	74.00	-23.52	peak
5	17025.000	31.88	20.46	52.34	74.00	-21.66	peak
6	17850.000	29.74	23.32	53.06	74.00	-20.94	peak

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

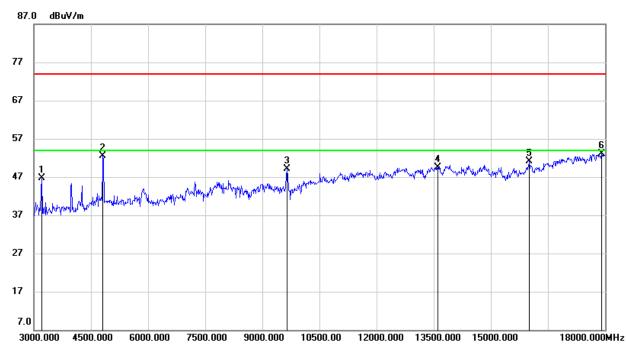
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







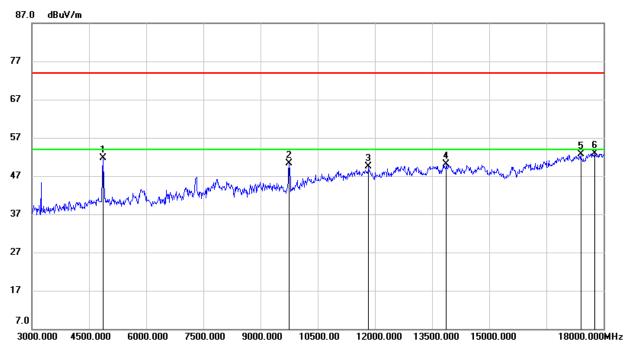
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3210.000	51.14	-4.43	46.71	74.00	-27.29	peak
2	4815.000	52.03	0.51	52.54	74.00	-21.46	peak
3	9645.000	39.47	9.66	49.13	74.00	-24.87	peak
4	13605.000	33.44	16.02	49.46	74.00	-24.54	peak
5	16005.000	33.42	17.71	51.13	74.00	-22.87	peak
6	17910.000	29.84	23.35	53.19	74.00	-20.81	peak

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

3. Peak: Peak detector.

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





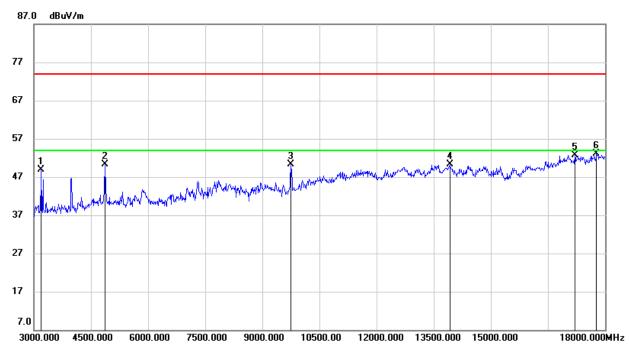
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4860.000	51.07	0.70	51.77	74.00	-22.23	peak
2	9750.000	40.67	9.68	50.35	74.00	-23.65	peak
3	11835.000	36.22	13.21	49.43	74.00	-24.57	peak
4	13875.000	33.61	16.44	50.05	74.00	-23.95	peak
5	17400.000	31.29	21.41	52.70	74.00	-21.30	peak
6	17775.000	29.80	23.09	52.89	74.00	-21.11	peak

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

3. Peak: Peak detector.

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





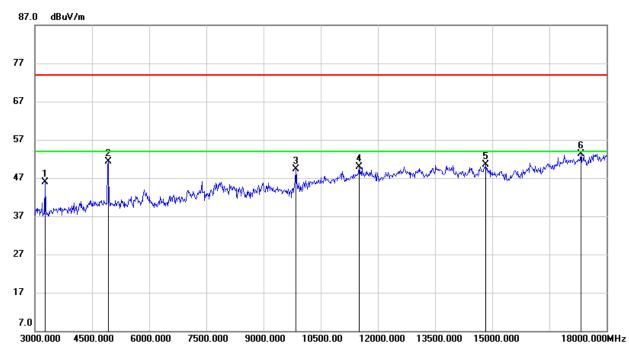
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3195.000	53.41	-4.42	48.99	74.00	-25.01	peak
2	4860.000	49.52	0.70	50.22	74.00	-23.78	peak
3	9750.000	40.53	9.68	50.21	74.00	-23.79	peak
4	13920.000	34.06	16.17	50.23	74.00	-23.77	peak
5	17205.000	31.80	20.95	52.75	74.00	-21.25	peak
6	17775.000	30.07	23.09	53.16	74.00	-20.84	peak

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

3. Peak: Peak detector.

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





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3270.000	50.17	-4.29	45.88	74.00	-28.12	peak
2	4920.000	50.25	0.96	51.21	74.00	-22.79	peak
3	9855.000	39.47	9.92	49.39	74.00	-24.61	peak
4	11505.000	36.50	13.42	49.92	74.00	-24.08	peak
5	14835.000	34.59	15.95	50.54	74.00	-23.46	peak
6	17325.000	31.67	21.67	53.34	74.00	-20.66	peak

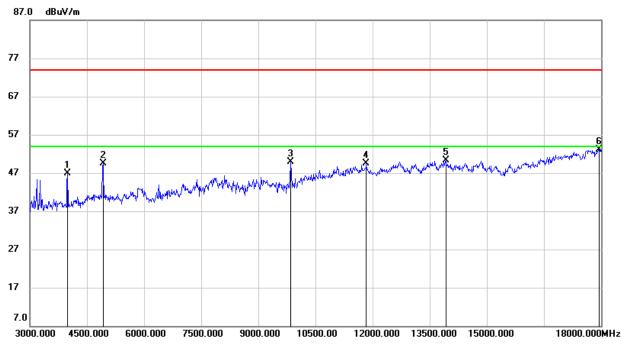
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	49.79	-2.89	46.90	74.00	-27.10	peak
2	4920.000	48.57	0.96	49.53	74.00	-24.47	peak
3	9855.000	40.05	9.92	49.97	74.00	-24.03	peak
4	11835.000	36.20	13.21	49.41	74.00	-24.59	peak
5	13920.000	34.13	16.17	50.30	74.00	-23.70	peak
6	17940.000	29.67	23.39	53.06	74.00	-20.94	peak

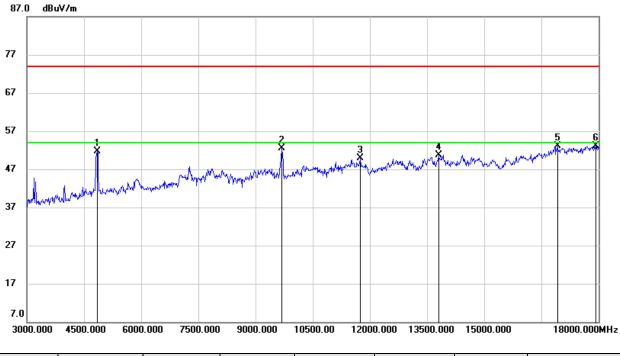
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



8.2.4. 802.11n HT40 MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4845.000	51.12	0.64	51.76	74.00	-22.24	peak
2	9690.000	42.92	9.63	52.55	74.00	-21.45	peak
3	11745.000	36.78	13.05	49.83	74.00	-24.17	peak
4	13800.000	33.66	17.10	50.76	74.00	-23.24	peak
5	16920.000	33.00	20.06	53.06	74.00	-20.94	peak
6	17925.000	29.81	23.37	53.18	74.00	-20.82	peak

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

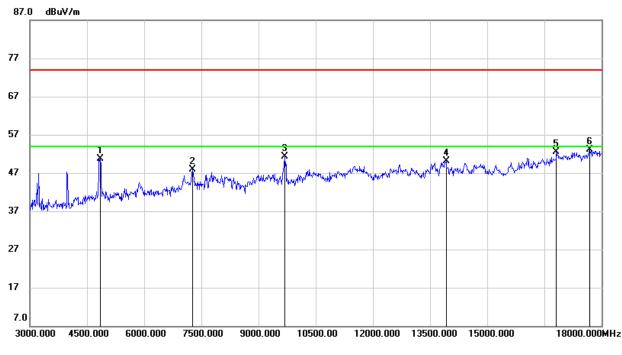
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







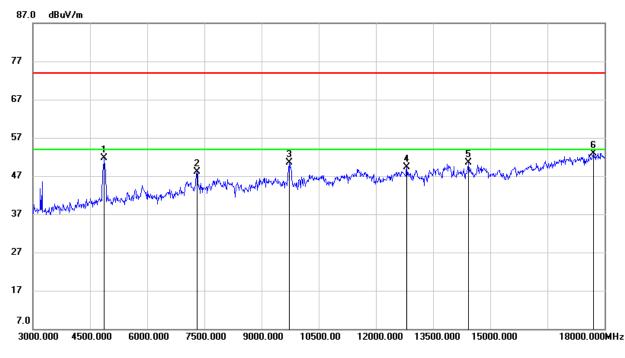
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4845.000	50.16	0.64	50.80	74.00	-23.20	peak
2	7275.000	41.86	6.00	47.86	74.00	-26.14	peak
3	9690.000	41.58	9.63	51.21	74.00	-22.79	peak
4	13920.000	33.88	16.17	50.05	74.00	-23.95	peak
5	16815.000	32.49	19.96	52.45	74.00	-21.55	peak
6	17685.000	30.73	22.33	53.06	74.00	-20.94	peak

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

3. Peak: Peak detector.

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





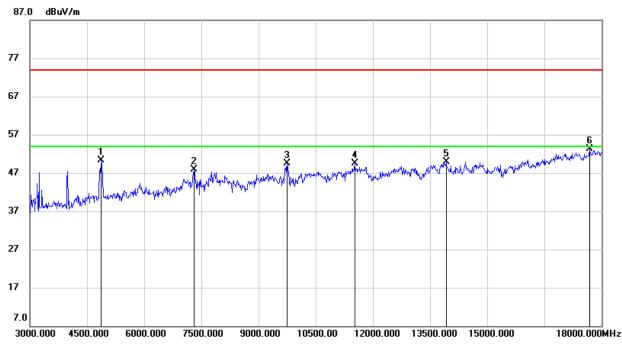
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	51.00	0.76	51.76	74.00	-22.24	peak
2	7305.000	42.01	6.08	48.09	74.00	-25.91	peak
3	9720.000	40.80	9.64	50.44	74.00	-23.56	peak
4	12810.000	33.73	15.59	49.32	74.00	-24.68	peak
5	14430.000	34.09	16.35	50.44	74.00	-23.56	peak
6	17700.000	30.52	22.43	52.95	74.00	-21.05	peak

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

3. Peak: Peak detector.

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





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4875.000	49.54	0.76	50.30	74.00	-23.70	peak
2	7305.000	41.87	6.08	47.95	74.00	-26.05	peak
3	9750.000	39.86	9.68	49.54	74.00	-24.46	peak
4	11520.000	36.19	13.38	49.57	74.00	-24.43	peak
5	13920.000	33.83	16.17	50.00	74.00	-24.00	peak
6	17685.000	31.03	22.33	53.36	74.00	-20.64	peak

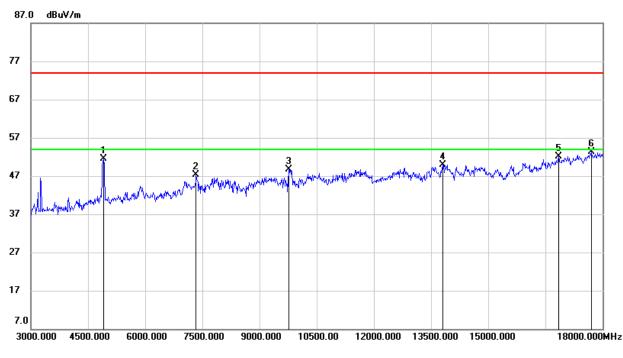
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







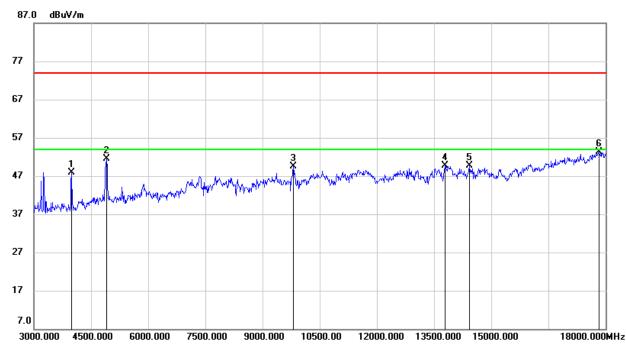
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	4905.000	50.72	0.88	51.60	74.00	-22.40	peak
2	7335.000	41.03	6.21	47.24	74.00	-26.76	peak
3	9765.000	39.09	9.69	48.78	74.00	-25.22	peak
4	13815.000	32.95	16.97	49.92	74.00	-24.08	peak
5	16845.000	32.06	19.96	52.02	74.00	-21.98	peak
6	17700.000	30.91	22.43	53.34	74.00	-20.66	peak

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

3. Peak: Peak detector.

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





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	3990.000	50.86	-2.89	47.97	74.00	-26.03	peak
2	4905.000	50.56	0.88	51.44	74.00	-22.56	peak
3	9810.000	39.84	9.76	49.60	74.00	-24.40	peak
4	13785.000	32.71	16.91	49.62	74.00	-24.38	peak
5	14430.000	33.27	16.35	49.62	74.00	-24.38	peak
6	17820.000	30.02	23.30	53.32	74.00	-20.68	peak

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

3. Peak: Peak detector.

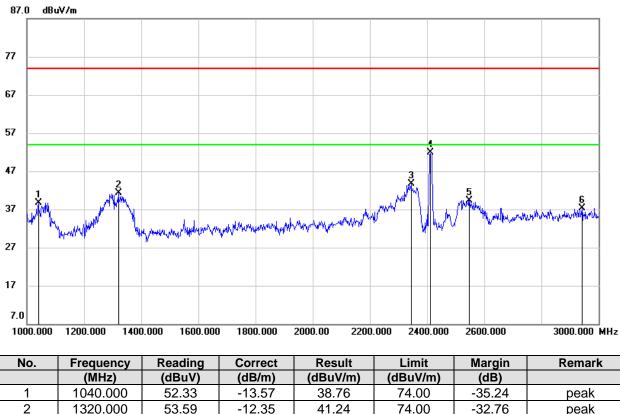
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for High Pass Filter losses.



8.3. SPURIOUS EMISSIONS (1~3GHz)

8.3.1. 802.11b MODE

HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)



	1040.000	52.33	-13.57	38.70	74.00	-35.24	реак
2	1320.000	53.59	-12.35	41.24	74.00	-32.76	peak
3	2344.000	51.68	-8.05	43.63	74.00	-30.37	peak
4	2412.000	59.71	-7.77	51.94	/	/	fundamental
5	2548.000	46.69	-7.43	39.26	74.00	-34.74	peak
6	2942.000	42.73	-5.43	37.30	74.00	-36.70	peak

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

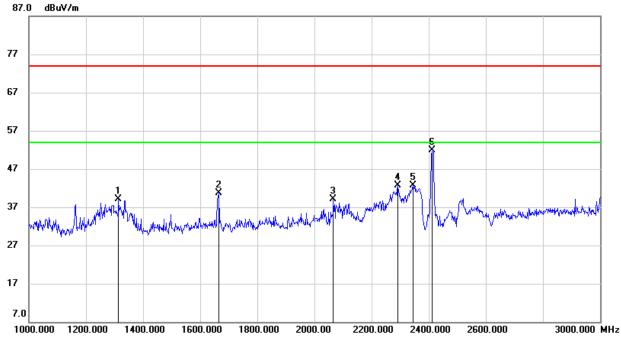
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1314.000	51.39	-12.35	39.04	74.00	-34.96	peak
2	1666.000	51.84	-11.07	40.77	74.00	-33.23	peak
3	2066.000	48.49	-9.39	39.10	74.00	-34.90	peak
4	2292.000	51.02	-8.23	42.79	74.00	-31.21	peak
5	2344.000	50.85	-8.05	42.80	74.00	-31.20	peak
6	2412.000	59.71	-7.77	51.94	/	/	fundamental

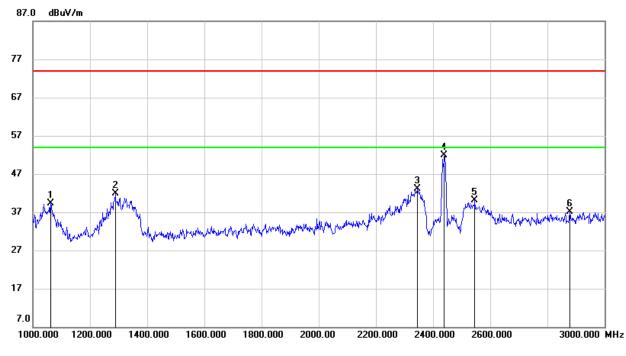
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







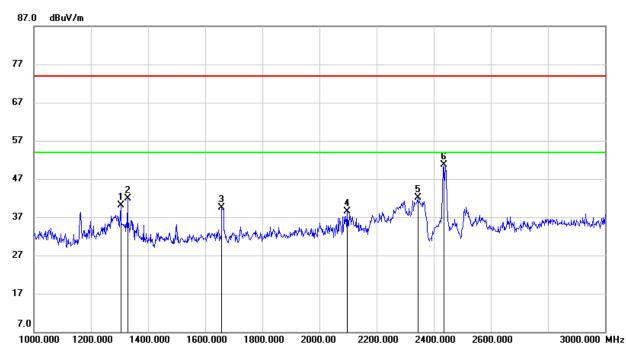
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1062.000	52.81	-13.55	39.26	74.00	-34.74	peak
2	1288.000	54.22	-12.38	41.84	74.00	-32.16	peak
3	2344.000	51.13	-8.05	43.08	74.00	-30.92	peak
4	2437.000	59.41	-7.60	51.81	/	/	fundamental
5	2546.000	47.50	-7.41	40.09	74.00	-33.91	peak
6	2878.000	42.80	-5.64	37.16	74.00	-36.84	peak

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

3. Peak: Peak detector.

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





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	1304.000	52.37	-12.34	40.03	74.00	-33.97	peak
2	1328.000	54.20	-12.36	41.84	74.00	-32.16	peak
3	1658.000	50.53	-11.11	39.42	74.00	-34.58	peak
4	2096.000	47.66	-9.19	38.47	74.00	-35.53	peak
5	2344.000	50.10	-8.05	42.05	74.00	-31.95	peak
6	2437.000	58.31	-7.60	50.71	/	/	fundamental

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

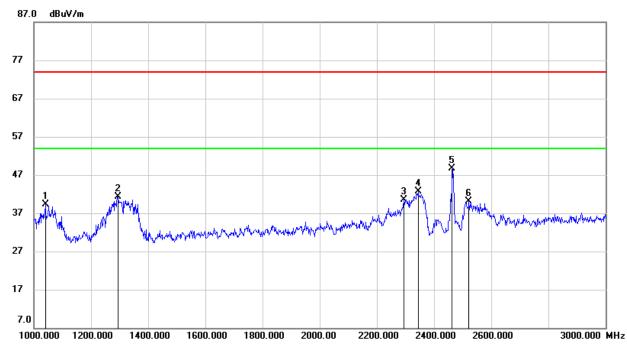
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1040.000	52.83	-13.57	39.26	74.00	-34.74	peak
2	1294.000	53.67	-12.36	41.31	74.00	-32.69	peak
3	2294.000	48.76	-8.21	40.55	74.00	-33.45	peak
4	2344.000	50.66	-8.05	42.61	74.00	-31.39	peak
5	2462.000	56.06	-7.43	48.63	/	/	fundamental
6	2522.000	47.37	-7.28	40.09	74.00	-33.91	peak

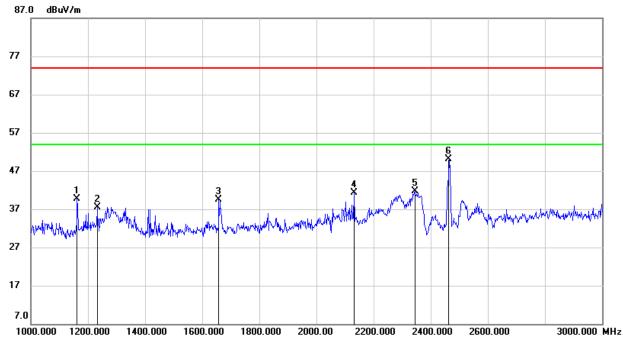
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1162.000	52.62	-13.00	39.62	74.00	-34.38	peak
2	1232.000	50.12	-12.57	37.55	74.00	-36.45	peak
3	1658.000	50.55	-11.11	39.44	74.00	-34.56	peak
4	2132.000	50.22	-9.00	41.22	74.00	-32.78	peak
5	2344.000	49.73	-8.05	41.68	74.00	-32.32	peak
6	2462.000	57.51	-7.43	50.08	/	/	fundamental

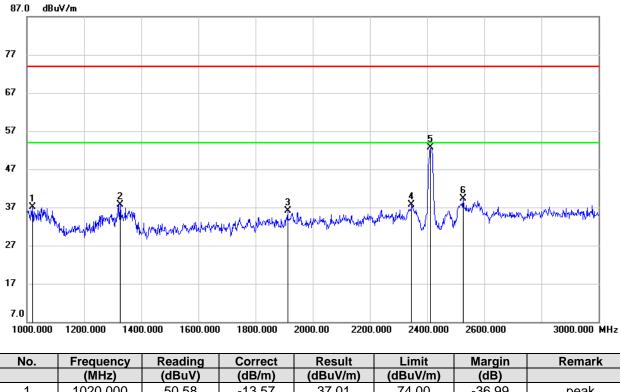
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



8.3.2. 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	1020.000	50.58	-13.57	37.01	74.00	-36.99	peak
2	1326.000	50.00	-12.35	37.65	74.00	-36.35	peak
3	1912.000	46.13	-9.93	36.20	74.00	-37.80	peak
4	2346.000	45.68	-8.04	37.64	74.00	-36.36	peak
5	2412.000	60.56	-7.77	52.79	/	/	fundamental
6	2526.000	46.65	-7.31	39.34	74.00	-34.66	peak

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

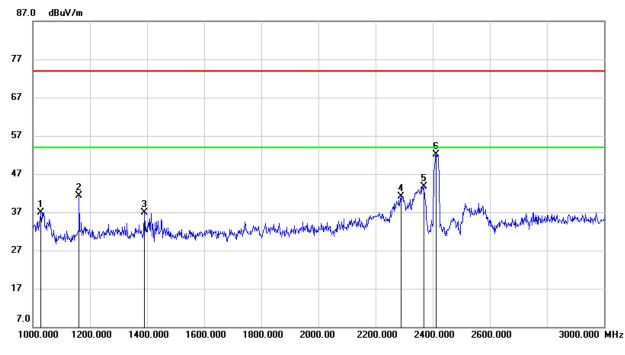
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1028.000	50.42	-13.58	36.84	74.00	-37.16	peak
2	1162.000	54.23	-13.00	41.23	74.00	-32.77	peak
3	1390.000	49.28	-12.38	36.90	74.00	-37.10	peak
4	2288.000	49.42	-8.25	41.17	74.00	-32.83	peak
5	2368.000	51.65	-7.96	43.69	74.00	-30.31	peak
6	2412.000	59.97	-7.77	52.20	/	/	fundamental

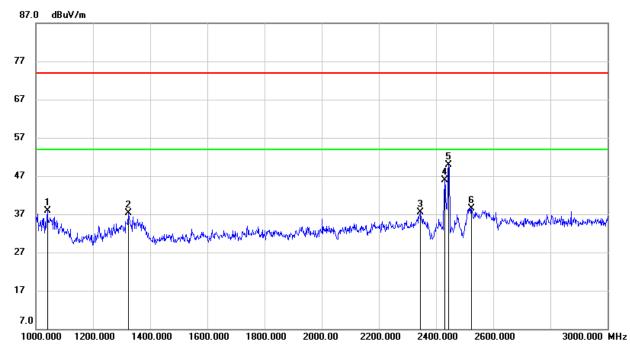
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1040.000	51.39	-13.57	37.82	74.00	-36.18	peak
2	1324.000	49.59	-12.36	37.23	74.00	-36.77	peak
3	2346.000	45.53	-8.04	37.49	74.00	-36.51	peak
4	2430.000	53.62	-7.65	45.97	74.00	-28.03	peak
5	2437.000	57.40	-7.55	49.85	/	/	fundamental
6	2524.000	45.80	-7.29	38.51	74.00	-35.49	peak

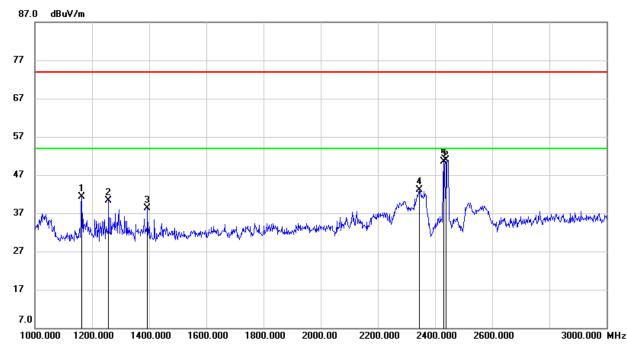
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1164.000	54.30	-12.97	41.33	74.00	-32.67	peak
2	1258.000	52.79	-12.49	40.30	74.00	-33.70	peak
3	1394.000	50.72	-12.38	38.34	74.00	-35.66	peak
4	2344.000	51.11	-8.05	43.06	74.00	-30.94	peak
5	2430.000	58.11	-7.65	50.46	74.00	-23.54	peak
6	2437.000	58.52	-7.60	50.92	/	/	fundamental

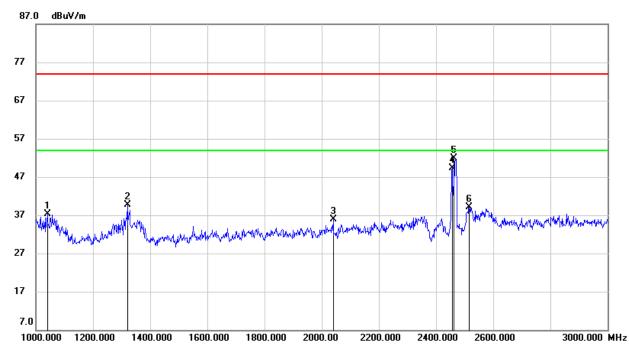
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1040.000	50.89	-13.57	37.32	74.00	-36.68	peak
2	1320.000	52.01	-12.35	39.66	74.00	-34.34	peak
3	2040.000	45.45	-9.56	35.89	74.00	-38.11	peak
4	2456.000	56.87	-7.47	49.40	74.00	-24.60	peak
5	2462.000	59.30	-7.43	51.87	/	/	fundamental
6	2516.000	46.31	-7.25	39.06	74.00	-34.94	peak

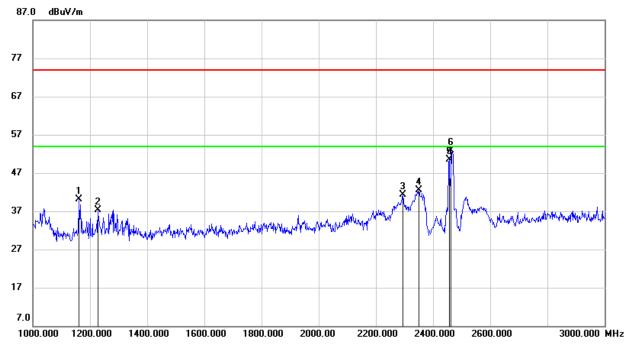
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1162.000	53.18	-13.00	40.18	74.00	-33.82	peak
2	1228.000	49.94	-12.58	37.36	74.00	-36.64	peak
3	2294.000	49.48	-8.21	41.27	74.00	-32.73	peak
4	2350.000	50.61	-8.02	42.59	74.00	-31.41	peak
5	2456.000	57.92	-7.47	50.45	74.00	-23.55	peak
6	2462.000	60.35	-7.43	52.92	/	/	fundamental

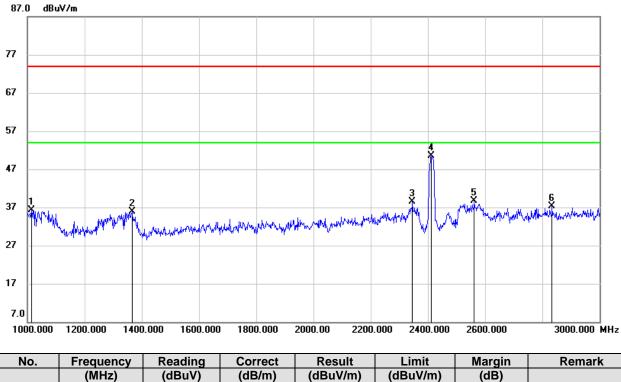
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



8.3.3. 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	1014.000	49.97	-13.57	36.40	74.00	-37.60	peak
2	1366.000	48.32	-12.37	35.95	74.00	-38.05	peak
3	2346.000	46.63	-8.04	38.59	74.00	-35.41	peak
4	2412.000	58.29	-7.77	50.52	/	/	fundamental
5	2562.000	46.25	-7.50	38.75	74.00	-35.25	peak
6	2834.000	43.18	-5.88	37.30	74.00	-36.70	peak

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

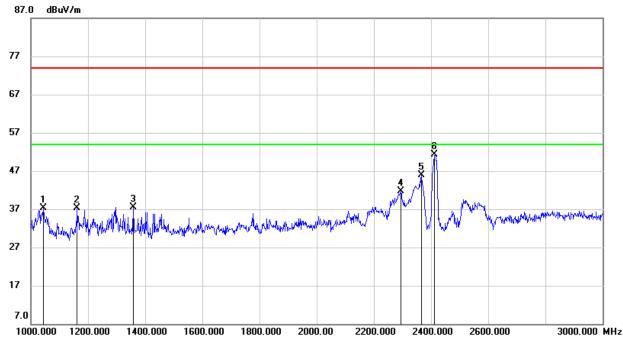
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1044.000	50.96	-13.56	37.40	74.00	-36.60	peak
2	1162.000	50.35	-13.00	37.35	74.00	-36.65	peak
3	1358.000	49.93	-12.37	37.56	74.00	-36.44	peak
4	2294.000	49.91	-8.21	41.70	74.00	-32.30	peak
5	2366.000	53.92	-7.97	45.95	74.00	-28.05	peak
6	2412.000	59.09	-7.77	51.32	/	/	fundamental

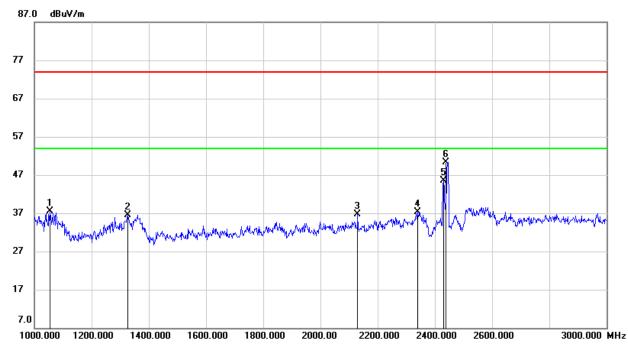
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1054.000	51.01	-13.55	37.46	74.00	-36.54	peak
2	1326.000	48.84	-12.35	36.49	74.00	-37.51	peak
3	2130.000	45.78	-9.01	36.77	74.00	-37.23	peak
4	2340.000	45.29	-8.06	37.23	74.00	-36.77	peak
5	2430.000	53.06	-7.65	45.41	74.00	-28.59	peak
6	2437.000	57.97	-7.60	50.37	/	/	fundamental

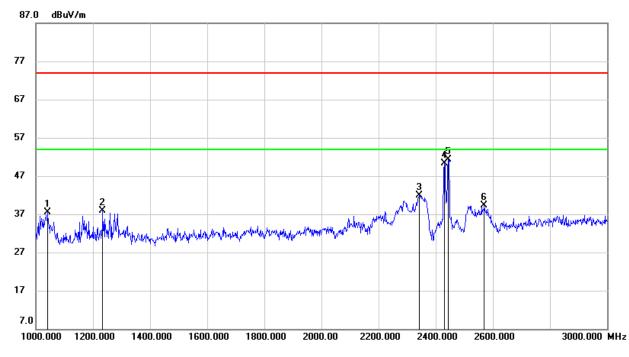
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







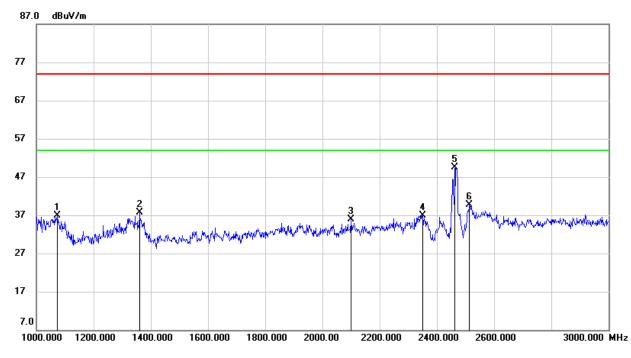
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1042.000	51.14	-13.56	37.58	74.00	-36.42	peak
2	1234.000	50.50	-12.56	37.94	74.00	-36.06	peak
3	2342.000	50.02	-8.05	41.97	74.00	-32.03	peak
4	2430.000	57.93	-7.65	50.28	74.00	-23.72	peak
5	2437.000	58.92	-7.55	51.37	/	/	fundamental
6	2570.000	46.79	-7.54	39.25	74.00	-34.75	peak

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

3. Peak: Peak detector.

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





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1074.000	50.51	-13.54	36.97	74.00	-37.03	peak
2	1360.000	50.02	-12.36	37.66	74.00	-36.34	peak
3	2100.000	45.01	-9.16	35.85	74.00	-38.15	peak
4	2350.000	44.98	-8.02	36.96	74.00	-37.04	peak
5	2462.000	56.90	-7.43	49.47	/	/	fundamental
6	2514.000	46.85	-7.24	39.61	74.00	-34.39	peak

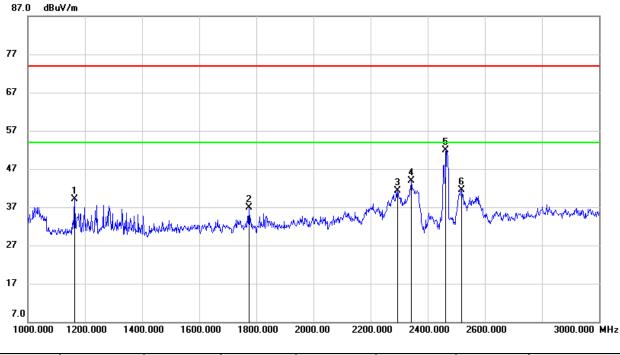
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1164.000	52.13	-12.97	39.16	74.00	-34.84	peak
2	1774.000	46.98	-10.17	36.81	74.00	-37.19	peak
3	2294.000	49.56	-8.21	41.35	74.00	-32.65	peak
4	2342.000	51.99	-8.05	43.94	74.00	-30.06	peak
5	2462.000	59.26	-7.43	51.83	/	/	fundamental
6	2518.000	48.85	-7.27	41.58	74.00	-32.42	peak

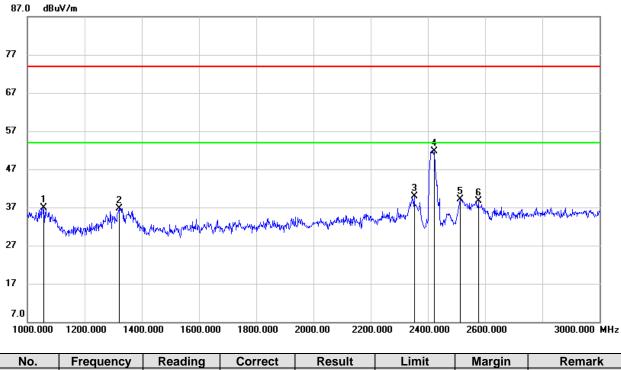
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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



8.3.4. 802.11n HT40 MODE



HARMONICS AND SPURIOUS EMISSIONS (LOW CHANNEL, HORIZONTAL)

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1058.000	50.49	-13.55	36.94	74.00	-37.06	peak
2	1320.000	49.14	-12.35	36.79	74.00	-37.21	peak
3	2352.000	47.88	-8.02	39.86	74.00	-34.14	peak
4	2422.000	59.51	-7.71	51.80	/	/	fundamental
5	2514.000	46.39	-7.24	39.15	74.00	-34.85	peak
6	2576.000	46.23	-7.57	38.66	74.00	-35.34	peak

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

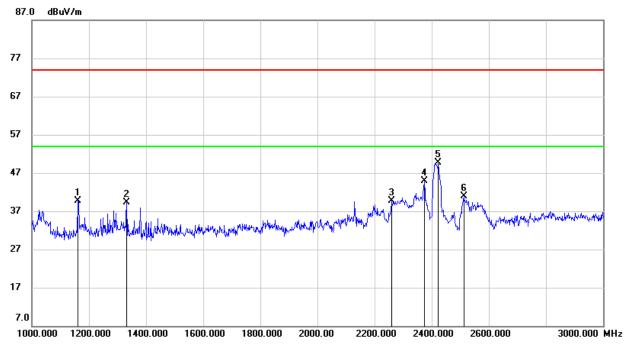
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







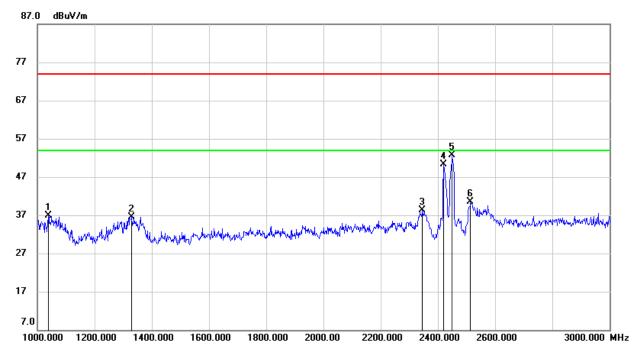
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1160.000	52.72	-13.01	39.71	74.00	-34.29	peak
2	1332.000	51.65	-12.35	39.30	74.00	-34.70	peak
3	2260.000	48.16	-8.38	39.78	74.00	-34.22	peak
4	2374.000	52.85	-7.95	44.90	74.00	-29.10	peak
5	2422.000	57.32	-7.71	49.61	/	/	fundamental
6	2512.000	48.13	-7.23	40.90	74.00	-33.10	peak

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

3. Peak: Peak detector.

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





No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1038.000	50.51	-13.56	36.95	74.00	-37.05	peak
2	1330.000	48.96	-12.36	36.60	74.00	-37.40	peak
3	2346.000	46.35	-8.04	38.31	74.00	-35.69	peak
4	2420.000	57.99	-7.72	50.27	74.00	-23.73	peak
5	2437.000	60.15	-7.51	52.64	/	/	fundamental
6	2514.000	47.76	-7.24	40.52	74.00	-33.48	peak

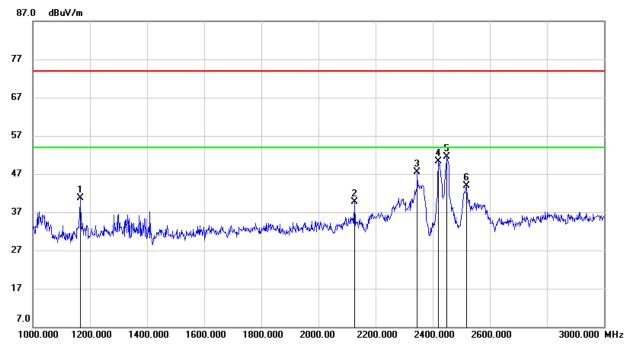
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1166.000	53.74	-12.96	40.78	74.00	-33.22	peak
2	2126.000	48.75	-9.02	39.73	74.00	-34.27	peak
3	2346.000	55.58	-8.04	47.54	74.00	-26.46	peak
4	2420.000	58.03	-7.72	50.31	74.00	-23.69	peak
5	2437.000	59.04	-7.51	51.53	/	/	fundamental
6	2518.000	51.13	-7.27	43.86	74.00	-30.14	peak

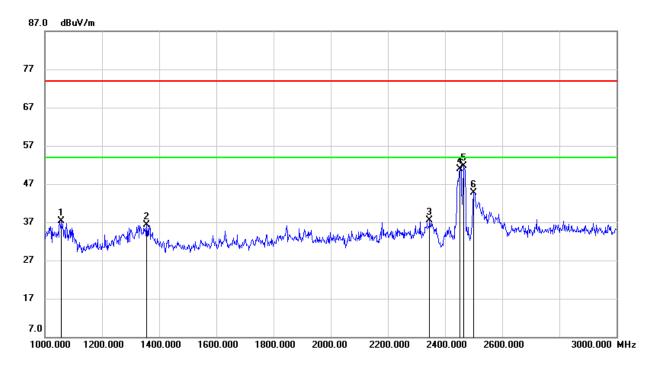
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1056.000	50.90	-13.55	37.35	74.00	-36.65	peak
2	1356.000	48.75	-12.36	36.39	74.00	-37.61	peak
3	2346.000	45.51	-8.04	37.47	74.00	-36.53	peak
4	2452.000	58.41	-7.50	50.91	/	/	fundamental
5	2466.000	59.18	-7.40	51.78	74.00	-22.22	peak
6	2500.000	51.95	-7.17	44.78	74.00	-29.22	peak

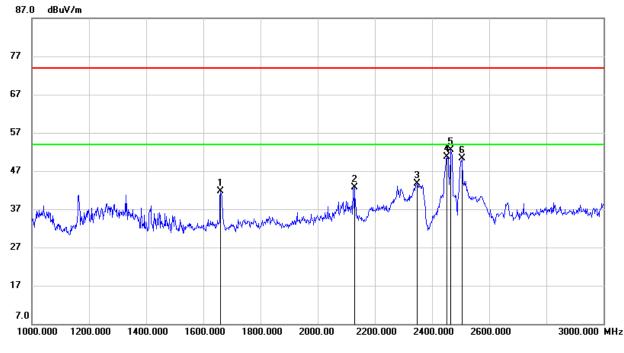
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Peak: Peak detector.

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







No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	1660.000	52.73	-11.10	41.63	74.00	-32.37	peak
2	2128.000	51.73	-9.02	42.71	74.00	-31.29	peak
3	2348.000	51.81	-8.03	43.78	74.00	-30.22	peak
4	2452.000	58.20	-7.50	50.70	/	/	fundamental
5	2466.000	59.81	-7.40	52.41	74.00	-21.59	peak
6	2506.000	57.57	-7.20	50.37	74.00	-23.63	peak

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

3. Peak: Peak detector.

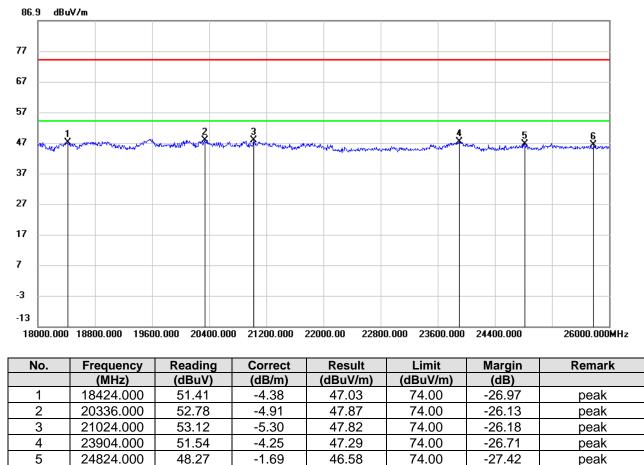
4. Filter losses were only considered in the spurious frequency bands and the authorized band was not corrected for Band Reject Filter losses.



8.4. SPURIOUS EMISSIONS (18~26GHz)

8.4.1. 802.11b MODE

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



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

-1.49

47.73

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

46.24

74.00

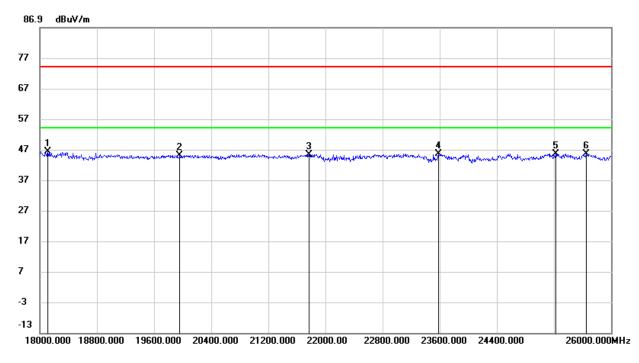
-27.76

peak

3. Peak: Peak detector.

25784.000

6



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

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	18112.000	50.35	-4.10	46.25	74.00	-27.75	peak
2	19960.000	49.52	-4.37	45.15	74.00	-28.85	peak
3	21768.000	51.17	-5.79	45.38	74.00	-28.62	peak
4	23584.000	50.15	-4.71	45.44	74.00	-28.56	peak
5	25224.000	46.65	-1.17	45.48	74.00	-28.52	peak
6	25648.000	47.12	-1.53	45.59	74.00	-28.41	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.

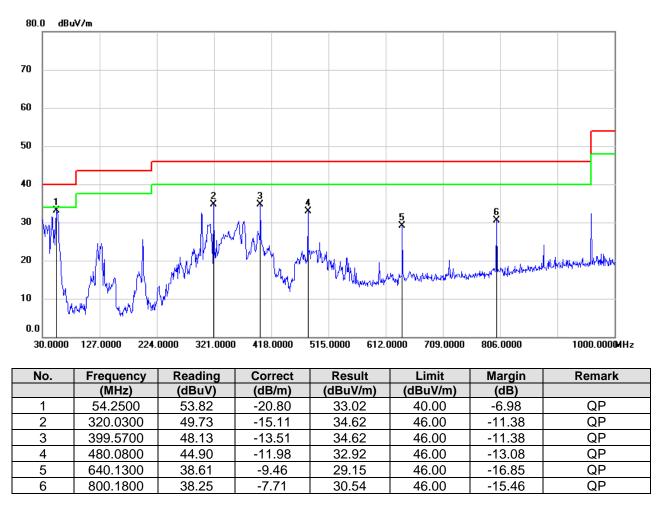
3. Peak: Peak detector.



8.5. SPURIOUS EMISSIONS (0.03 ~ 1 GHz)

8.5.1. 802.11b MODE

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



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

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



80.0 dBuV/m 70 60 50 40 30 20 10 0.0 30.0000 127.0000 224.0000 321.0000 418.0000 515.0000 612.0000 709.0000 806.0000 1000.0000MHz

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

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	38.7300	53.66	-19.92	33.74	40.00	-6.26	QP
2	61.0400	53.39	-20.58	32.81	40.00	-7.19	QP
3	320.0300	51.81	-15.11	36.70	46.00	-9.30	QP
4	365.6200	54.01	-14.17	39.84	46.00	-6.16	QP
5	480.0800	42.89	-11.98	30.91	46.00	-15.09	QP
6	640.1300	38.12	-9.46	28.66	46.00	-17.34	QP

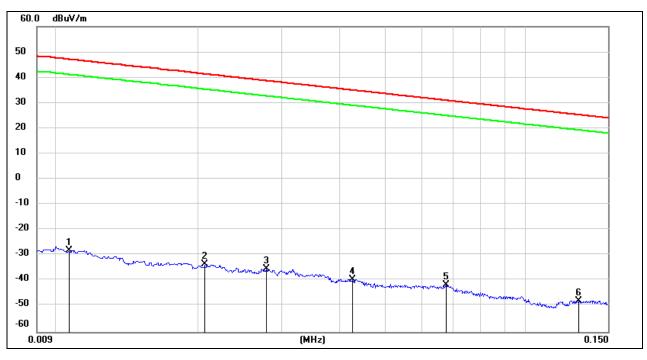
Note: 1. Result Level = Read Level + Correct Factor. 2. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.



8.6. SPURIOUS EMISSIONS BELOW 30M

8.6.1. 802.11b MODE

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



<u>9kHz~ 150kHz</u>

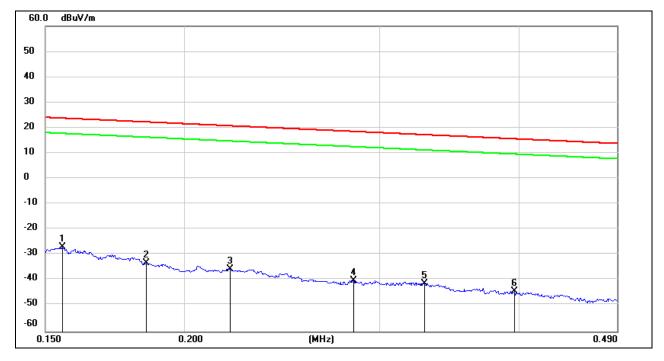
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.0106	73.38	-101.39	-28.01	47.09	-75.10	peak
2	0.0206	67.92	-101.35	-33.43	41.32	-74.75	peak
3	0.0279	66.17	-101.38	-35.21	38.69	-73.90	peak
4	0.0427	62.14	-101.45	-39.31	34.99	-74.30	peak
5	0.0675	60.14	-101.56	-41.42	31.02	-72.44	peak
6	0.1300	53.93	-101.70	-47.77	25.33	-73.10	peak

Note:

1. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

2. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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



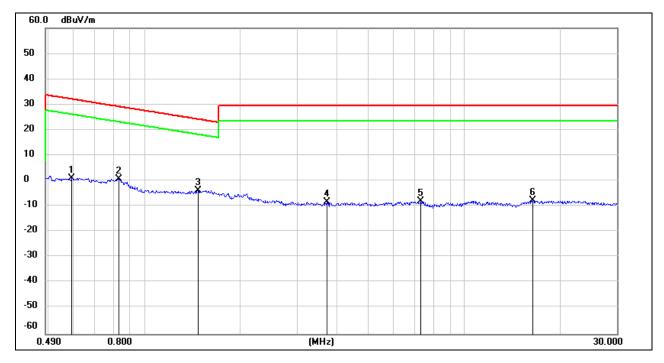
No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1554	74.77	-101.65	-26.88	23.77	-50.65	peak
2	0.1847	68.61	-101.70	-33.09	22.28	-55.37	peak
3	0.2200	66.24	-101.75	-35.51	20.75	-56.26	peak
4	0.2837	61.72	-101.83	-40.11	18.54	-58.65	peak
5	0.3286	60.71	-101.88	-41.17	17.27	-58.44	peak
6	0.3966	57.68	-101.96	-44.28	15.63	-59.91	peak

Note:

1. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

2. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.

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



No.	Frequency	Reading	Correct	FCC Result	FCC Limit	Margin	Remark
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.5917	63.24	-62.08	1.16	32.16	-31.00	peak
2	0.8296	62.94	-62.17	0.77	29.23	-28.46	peak
3	1.4700	58.39	-62.05	-3.66	24.26	-27.92	peak
4	3.7100	53.20	-61.41	-8.21	29.54	-37.75	peak
5	7.3361	53.08	-61.17	-8.09	29.54	-37.63	peak
6	16.3959	53.17	-60.96	-7.79	29.54	-37.33	peak

Note:

1. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

2. All 3 polarizations(Horizontal, Face-on and Face-off) of the loop antenna had been tested, but only the worst data recorded in the report.



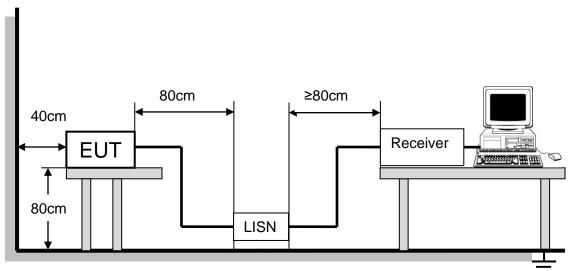
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

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

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

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 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.

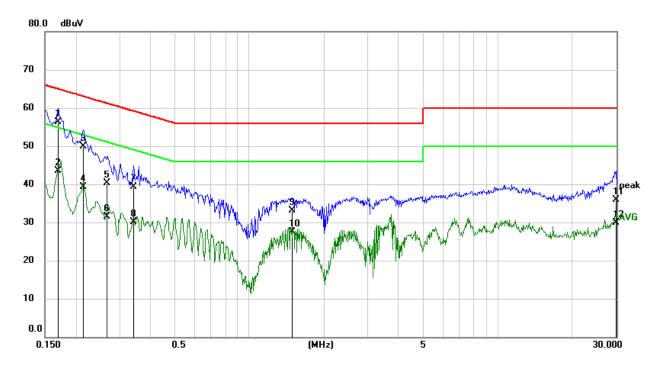
TEST ENVIRONMENT

Temperature	24.7°C	Relative Humidity	59%
Atmosphere Pressure	101kPa	Test Voltage	AC 120V, 60Hz



TEST RESULTS

9.1. 802.11b MODE



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

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1700	46.65	9.60	56.25	64.96	-8.71	QP
2	0.1700	33.89	9.60	43.49	54.96	-11.47	AVG
3	0.2139	40.22	9.60	49.82	63.05	-13.23	QP
4	0.2139	29.64	9.60	39.24	53.05	-13.81	AVG
5	0.2671	30.68	9.60	40.28	61.21	-20.93	QP
6	0.2671	21.87	9.60	31.47	51.21	-19.74	AVG
7	0.3420	29.62	9.60	39.22	59.15	-19.93	QP
8	0.3420	20.47	9.60	30.07	49.15	-19.08	AVG
9	1.4939	23.58	9.61	33.19	56.00	-22.81	QP
10	1.4939	17.85	9.61	27.46	46.00	-18.54	AVG
11	29.8460	25.94	9.88	35.82	60.00	-24.18	QP
12	29.8460	20.08	9.88	29.96	50.00	-20.04	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.

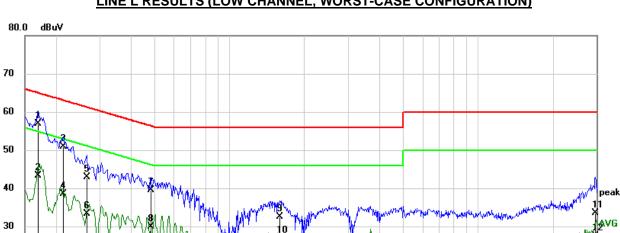


20

10

0.0 0.150

30.000



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

No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1693	47.26	9.61	56.87	64.99	-8.12	QP
2	0.1693	33.67	9.61	43.28	54.99	-11.71	AVG
3	0.2139	41.29	9.60	50.89	63.05	-12.16	QP
4	0.2139	28.89	9.60	38.49	53.05	-14.56	AVG
5	0.2657	33.28	9.60	42.88	61.25	-18.37	QP
6	0.2657	23.68	9.60	33.28	51.25	-17.97	AVG
7	0.4812	29.87	9.60	39.47	56.32	-16.85	QP
8	0.4812	20.25	9.60	29.85	46.32	-16.47	AVG
9	1.5933	22.85	9.62	32.47	56.00	-23.53	QP
10	1.5933	17.23	9.62	26.85	46.00	-19.15	AVG
11	29.6838	23.70	9.79	33.49	60.00	-26.51	QP
12	29.6838	17.69	9.79	27.48	50.00	-22.52	AVG

(MHz)

5

Note: 1. Result = Reading +Correct Factor.

0.5

- 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. 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.

<u>RESULTS</u>

Complies



11. Appendix

11.1. Appendix A: Duty Cycle 11.1.1. Test Result

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	100	100	1.0	100	0	0.01	0.02
11g	100	100	1.0	100	0	0.01	0.02
11n HT20	100	100	1.0	100	0	0.01	0.02
11n HT40	100	100	1.0	100	0	0.01	0.02

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. For all the test mode, the duty cycle is greater than 98%, so it can set VBW to 10Hz.



11.1.2. Test Graphs



	11n20SISC	_Ant1_2437		
Keusiaht Spectrum dart and				- 0 - ×
Keysight Spectrum Analyzer -	Swept SA 0 Ω DC SENSE:INT		08:59:52 AM Jul 31, 2020	1
Center Freq 2.437	000000 GHz	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW	Frequency
	NFE PNO: Fast +++ Trig: Free Run IFGain:Low #Atten: 40 dB		DET PAAAA	
	IFGain:Low #Atten: 40 0D			Auto Tune
Ref Offset	19.79 dB	Δ	Mkr3 100.1 ms	
10 dB/div Ref 35.0	0 dBm		-1.83 dB	
25.0			_3∆4	Center Freq
15.0 Laterial way a laterial	eredeend not our instantion of some the state of the stat	profession from the sector of		2.437000000 GHz
				2.437000000 GH2
5.00				
-5.00				Start Freq
-15.0				2.437000000 GHz
-25.0				
-35.0				
-45.0				Stop Freq
-55.0				2.437000000 GHz
Center 2.43700000) GHz		Span 0 Hz	CF Step
Res BW 8 MHz	#VBW 50 MHz	Sweep 13	30.0 ms (1001 pts)	8.000000 MHz
MKR MODE TRC SCL	X	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Man
1 Δ2 1 t (Δ)	99.97 ms (Δ) -2.00 dB			
3 Δ4 1 t (Δ)	12.87 ms 22.17 dBm 100.1 ms (Δ) -1.83 dB			Freq Offset
4 F 1 t	12.87 ms 22.17 dBm			0 Hz
5			E	
7 8				Scale Type
9				l scale rype
10 11				Log <u>Lin</u>
<pre></pre>	m		*	
MSG		STATUS		
	11n40SISC	Ant1 2437		
Keysight Spectrum Analyzer -		_Ant1_2437		
	Swept SA	ALIGN AUTO	09:01:42 AM Jul 31, 2020	1
Keysight Spectrum Analyzer	Swept SA 0 Ω DC SENSE:INT 0000000 GHz		TRACE 1 2 3 4 5 6	Frequency
KI RF 5	Swept SA	ALIGN AUTO	09:01:42 AM Jul 31, 2020 TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A	Frequency
Center Freq 2.437	Swept SA Ω DC SENSE:INT 0000000 GHz NFE PN0: Fast ↔ Trig: Free Run IFGain:Low #Atten: 40 dB	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6	1
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A	Frequency
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWW DET P A A A A A Mkr3 100.1 ms	Frequency Auto Tune Center Freq
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.437000000 GHz
Center Freq 2.437	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq
Rt RF S5 Center Freq 2.437 Ref Offset 10 dB/dlv Ref Offset 250	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.437000000 GHz
MR.L RF IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref Offset 250	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq
WR.L RF S Center Freq 2.437 10 dB/div Ref Offset 250	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 123456 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq
Rt RF IS Center Freq 2.437 Ref Offset Ref St.0 10 dB/div Ref 35.0 Ref 35.0 250	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 123456 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.437000000 GHz
WR.L RF S Center Freq 2.437 10 dB/div Ref Offset 250	Swept SA SENSE:INT 0.0 DC SENSE:INT 0000000 GHz Trig: Free Run NFE PNO: Fast →→ Trig: Free Run IFGaint.ow #Atten: 40 dB 19.79 dB Sense:	ALIGN AUTO #Avg Type: RMS	TRACE 123456 TYPE WWWWWW DET P A A A A A Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.437000000 GHz Stop Freq
Rt RF 5 Center Freq 2.437 10 dB/div Ref Offset Ref 35.0 25.0	Singt SA 3 65 56:052:101 OCOODOO CH2 Trig: Free Run IFGainLow Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 64:052:001	ALIGN AUTO #Avg Type: RMS	Mkr3 100.1 ms -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz 2.43700000 GHz 2.437000000 GHz
Rt RF IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref Offset 250	Seep 5A a DC	#Aug Type: RMS	Mkr3 100.1 ms 0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz Stop Freq 2.43700000 GHz CF Step
Rt RF IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref Offset 250	Seep 5A ag DC	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz 2.43700000 GHz 2.437000000 GHz
Ret Ref State 10 dB/dlv Ref Offset 25.0 25.0 500 25.0 500 25.0 500 25.0 500 25.0 500 25.0 600 25.0 500 25.0 25.0 25.0	Sings 5A 30 a CC SENSE:INT 000000 GHz NFE PRO:Fast → #Atten: 40 dB 19.79 dB 0 dBm 0 dB	#Aug Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz Stop Freq 2.43700000 GHz CF Step 8.00000 MHz
Rt RF IS Center Freq 2.437 Ref Offset Solution 10 dB/div Ref Offset Solution 250	Singt SA 0.0 DC 0.000000 GHz NFE PN0:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dB	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz 2.43700000 GHz 2.43700000 GHz CF Step 8.000000 MHz Auto Man
Rt Ref 5 Center Freq 2.437 Ref Offset 10 dB/div Ref 35.0 250	Sings 5A 30 a CC SENSE:INT 000000 GHz NFE PRO:Fast → #Atten: 40 dB 19.79 dB 0 dBm 0 dB	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz 2.437000000 GHz 2.437000000 GHz 2.437000000 GHz 2.437000000 GHz 8.00000 MHz 8.00000 MHz Auto Man
Ret Ref Si Center Freq 2.437 Ref Offset 10 dB/dlv Ref offset 500	Singe SA 30 a CC 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz 2.43700000 GHz 2.43700000 GHz CF Step 8.000000 MHz Auto Man
Rt RF IS Center Freq 2.437 10 dB/dlv Ref Offset 250	Singe SA 30 a CC 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.43700000 GHz B.000000 MHz Auto Man Freq Offset 0 Hz
Ret Ref IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref 35.0 250 250 150 250 350 350 450 350 550 250 Center 2.43700000 Res BW 8 MHz 12 F t 34 A t 36 4 5 3 34 t 5 8	Singe SA 30 a CC 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz 2.437000000 GHz 2.437000000 GHz 2.437000000 GHz 2.437000000 GHz 8.00000 MHz 8.00000 MHz Auto Man
Ret Ref IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref 35.0 250	Singe SA 30 a CC 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [23456] DEI PAAAA Mkr3 100.1 ms -0.46 dB -0.46 dB	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz Stop Freq 2.43700000 GHz CF Step 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type
Rt RF IS Center Freq 2.437 10 dB/dlv Ref Offset 250	Singe SA 20 DC SENSE:INT 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [123450 DEF FAAAA DEF FAAAAA 	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.437000000 GHz Stop Freq 2.43700000 GHz B.000000 MHz Auto Man Freq Offset 0 Hz
Ret Ref IS Center Freq 2.437 Ref Offset 10 dB/dlv Ref 35.0 250	Singe SA 20 DC SENSE:INT 000000 GHz NFE PRO:Fast → Trig: Free Run #Atten: 40 dB 19.79 dB 0 dBm 0 dBm	ALIGN AUTO #Avg Type: RMS	TRACE [23456 Tree [23456] DEF AAAA - 0.46 dB - 304 - 3	Frequency Auto Tune Center Freq 2.43700000 GHz Start Freq 2.43700000 GHz Stop Freq 2.43700000 GHz CF Step 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type

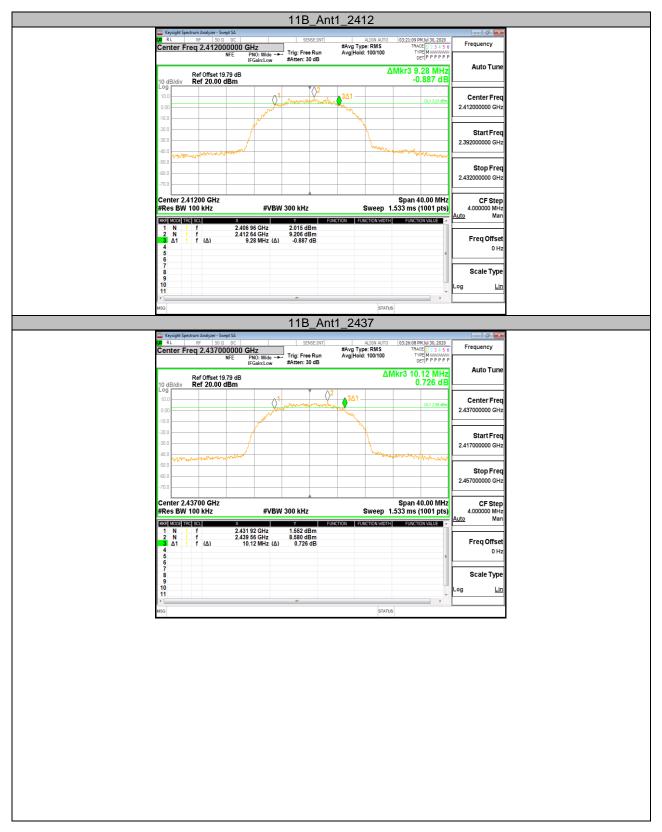


11.2. Appendix B: DTS Bandwidth 11.2.1. Test Result

Test Mode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
		2412	9.280	2406.960	2416.240	0.5	PASS
11B	Ant1	2437	10.120	2431.920	2442.040	0.5	PASS
		2462	10.320	2456.800	2467.120	0.5	PASS
		2412	16.440	2403.760	2420.200	0.5	PASS
11G	Ant1	2437	16.440	2428.760	2445.200	0.5	PASS
		2462	16.440	2453.760	2470.200	0.5	PASS
		2412	17.400	2403.400	2420.800	0.5	PASS
11N20SISO	Ant1	2437	17.400	2428.400	2445.800	0.5	PASS
		2462	17.400	2453.400	2470.800	0.5	PASS
		2422	36.480	2403.760	2440.240	0.5	PASS
11N40SISO	Ant1	2437	36.480	2418.760	2455.240	0.5	PASS
		2452	36.480	2433.760	2470.240	0.5	PASS



11.2.2. Test Graphs





11B_Ar	nt1_2462	
weight Spectrum Analyzer - Swept SA		- 2 💌
Center Freq 2.46200000 GHz NFE PNC: Wide → Trig: Free Run IFGain.dow #Atten: 30 dB	ALIGN AUTO 03:31:11 PM Jul 30, 2020 #Avg Type: RMS TRACE 1, 23 4 5 6 Avg Hold: 100/100 TYPE M	Frequency
Ref Offset 19.79 dB 10 dB/div Ref 20.00 dBm	ΔMkr3 10.32 MHz -1.099 dB	Auto Tune
100 0.00 -10.0	3∆1 0.1.0.37 dBm	Center Freq 2.462000000 GHz
		Start Freq 2.442000000 GHz
-50.0	under Werner Werner with	Stop Freq 2.482000000 GHz
700 Center 2.46200 GHz #Res BW 100 kHz #VBW 300 kHz	Span 40.00 MHz Sweep 1.533 ms (1001 pts)	CF Step 4.000000 MHz
1 N 1 f 2.456 80 GHz -0.376 dBm 2 N 1 f 2.462 92 GHz 5.626 dBm 3 Δ1 1 f (Δ) 10.32 MHz (Δ) -1.099 dB	UNCTION FUNCTION WIDTH FUNCTION VALUE	Auto Man Freq Offset
4 6 6 7 8	E	0 Hz Scale Type
9 10 11 *	•	Log <u>Lin</u>
۵۵۵ 11G_Ar	status nt1_2412	
Keysight Spectrum Analyzer - Swept SA		- 2 ×
Image: NFE S0 0, DC SENSE:INT Center Freq 2.412000000 GHz Trig: Free Run Trig: Free Run NFE FRGain:Low #Atten: 30 dB	ALIGN AUTO 03:37:15 PM Jul 30, 2020 #Avg Type: RMS TRACE [1] 23 4 5 6 Avg[Hold: 100/100 DET P P P P P	Frequency
Ref Offset 19.79 dB 10 dB/div Ref 20.00 dBm	ΔMkr3 16.44 MHz 0.361 dB	Auto Tune
10.0 0.00 10.0	0€1-269 dBn	Center Freq 2.412000000 GHz
-20.0 -30.0 -40.0	home and a support	Start Freq 2.392000000 GHz
50.0 		Stop Freq 2.432000000 GHz
Center 2.41200 GHz #Res BW 100 kHz #VBW 300 kHz	Span 40.00 MHz Sweep 1.533 ms (1001 pts)	CF Step 4.000000 MHz Auto Man
1 N 1 f 2.403 76 GHz -3.344 dBm 2 N 1 f 2.418 88 GHz 3.309 dBm 3 Δ1 1 f (Δ) 16.44 MHz (Δ) 0.361 dB	UNCTION FUNCTION WIDTH FUNCTION VALUE	Freq Offset
6 6 7 8		Scale Type
9		B
	status	Log <u>Lin</u>



		11G_Ant1	2437		
Veri	ght Spectrum Analyzer - Swept SA				- 2 🗙
LXCI RL	RF 50 Ω DC RF 50 Ω DC Pr Freq 2.437000000 GHz NFE PNO: Wide ←	📑 Trig: Free Run	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	03:45:05 PM Jul 30, 2020 TRACE 1 2 3 4 5 6 TYPE M WWWWW	Frequency
	IFGain:Low Ref Offset 19.79 dB	#Atten: 30 dB		Ikr3 16.44 MHz 0.229 dB	Auto Tune
10 dB/ Log 10.0	div Ref 20.00 dBm		² ³ ³ ³ ¹		Center Freq 2.437000000 GHz
-10.0 -20.0				DU1 -3.89 dBm	Start Freq
-30.0	North Marth Mart		Michael March	an homber hard and here were	2.417000000 GHz
-50.0 -60.0 -70.0					Stop Freq 2.457000000 GHz
Cente #Res	er 2.43700 GHz BW 100 kHz #VB	V 300 kHz	Sweep 1.	Span 40.00 MHz 533 ms (1001 pts)	CF Step 4.000000 MHz
1 Ν 2 Ν 3 Δ 4	1 f 2.443 88 GHz	-4.214 dBm 2.111 dBm	ON FUNCTION WIDTH	FUNCTION VALUE	Auto Man Freq Offset 0 Hz
5 6 7 8				E	Scale Type
9 10 11		ш		· · ·	Log <u>Lin</u>
MSG		11G_Ant1	status		
Keysig	ght Spectrum Analyzer - Swept SA				- 3 🏊
Cente	RF 50Ω DC er Freq 2.462000000 GHz NFE PNO: Wide ™ IFGain:Low	SENSE:INT Trig: Free Run #Atten: 30 dB	ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	03:50:32 PMJul 30, 2020 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P	Frequency
10 dB/	Ref Offset 19.79 dB div Ref 20.00 dBm	ŢŢŢŢŢŢŢŢŢ	ΔM	lkr3 16.44 MHz 0.251 dB	Auto Tune
10.0 0.00 -10.0	1 Carobian	and the second second second	2 3∆1	DL1 -4.42 dBm	Center Freq 2.462000000 GHz
-20.0 -30.0	and and the second seco		- h	Summer Japan	Start Freq 2.442000000 GHz
-60.0 -	mander the deal of the deal				Stop Freq 2.482000000 GHz
	er 2.46200 GHz BW 100 kHz #VBI	V 300 kHz	Sweep 1.	Span 40.00 MHz 533 ms (1001 pts)	CF Step 4.000000 MHz
	DE TRC SCL X 1 f 2.453 76 GHz 1 f 2.468 88 GHz	Y FUNCT -4.892 dBm 1.585 dBm	ON FUNCTION WIDTH		Auto Man Freq Offset
4 5 6 7 8				E	0 Hz Scale Type
9 10 11					Log <u>Lin</u>
			STATUS	1	



11N20SIS	O_Ant1_2412	
Keysight Spectrum Analyzer - Swept SA		- 6 -
Center Freq 2.412000000 GHz SENSE:NT Center Freq 2.412000000 GHz Trig: Free Run NFE PNO: Wide →→→ Trig: Free Run #Atten: 30 dB	#Avg Type: RMS TRACE 1 2 3 4 5 6	Frequency
Ref Offset 19.79 dB 10 dB/div Ref 20.00 dBm	ΔMkr3 17.40 MHz 0.356 dB	Auto Tune
	Δ3Δ1	Center Freq
-10.0	Aperican well American Way DL1-3.44 (BB)	2.412000000 GHz
-20.0 -30.0 -40.0 10 10 10 10 10 10 10 10 10 10 10 10 10	The and a start of the second se	Start Freq 2.392000000 GHz
-60.0		Stop Freq 2.432000000 GHz
-70.0 Center 2.41200 GHz	Span 40.00 MHz	CF Step
	Sweep 1.533 ms (1001 pts) FUNCTION FUNCTION WIDTH FUNCTION VALUE	4.000000 MHz <u>Auto</u> Man
2 N 1 f 2.411 60 GHz 2.561 dBm 3 Δ1 1 f (Δ) 17.40 MHz (Δ) 0.356 dB 4 5	E	Freq Offset 0 Hz
6 7 8 9		Scale Type
10 11 <		Log <u>Lin</u>
MSG	STATUS	
	O_Ant1_2437	
Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω SENSE:INT Center Freq 2.437000000 GHz Jain Free Data	#Avg Type: RMS TRACE 1 2 3 4 5 6	Frequency
NFE PNO: Wide +++ Trig: Free Run IFGain:Low #Atten: 30 dB Ref Offset 19.79 dB	ΔMkr3 17.40 MHz	Auto Tune
10 dB/div Ref 20.00 dBm	-0.647 dB	Center Freq
10.0		2.437000000 GHz
-20.0 -30.0 -40.0	how way how way how how	Start Freq 2.417000000 GHz
-40.0 A A A A A A A A A A A A A A A A A A		Stop Freq 2.457000000 GHz
-70.0 Center 2.43700 GHz	Span 40.00 MHz	CF Step
#Res BW 100 kHz #VBW 300 kHz	Sweep 1.533 ms (1001 pts) FUNCTION FUNCTION WIDTH FUNCTION VALUE	4.000000 MHz <u>Auto</u> Man
1 N 1 f 2.428 40 GHz -4.839 dBm 2 N 1 f 2.431 60 GHz 1.988 dBm 3 Δ1 1 f (Δ) 17.40 MHz (Δ) -0.647 dB 4		Freq Offset 0 Hz
5		
5 6 7 8 9		Scale Type
6 7	status	Scale Type Log <u>Lin</u>



REPORT No.: 4789572661-3 Page 127 of 167

11N20SISO_Ant1_2462
Reversitive Advertise Section Advertise Control for the section advertise Rt. Revisit State Section Advertise Section Advertise Frequency Rt. Revisit State Section Advertise Section Advertise Frequency Rt. Revisit State Section Advertise Section Advertise Frequency Center Freq 2.462000000 GHz The Freq Run Advertiseds (50000) The Frequency
NEF PNO: Wide ++ mg. nee Kun Avginou. too too
Auto Tuno
Ref Offset 19.79 dB
Log
100 Center Freq
0.00 Δ462000000 GHz
StattFreq
-60.0 Stop Freq 2.48200000 GHz
Center 2.46200 GHz Span 40.00 MHz CF Step
#Res BW 100 kHz #VBW 300 kHz Sweep 1.533 ms (1001 pts) 4.000000 MHz
MRR MODELTRC SCL X Y FUNCTION FUNCTION WOTH FUNCTION VALUE
1 N 1 f 2.453 40 GHz -6.003 dBm 2 N 1 f 2.462 60 GHz 0.851 dBm
Δ1 1 f Δ1 f Gal Gal Freq Offset Offset O Hz O Hz
6 0 114
7 Scale Type
9
NSG STATUS
11N40SISO_Ant1_2422
D RL RF 50.0. DC SENSE:INT ALIGN AUTO 04:14:36 PMJul 30, 2020
VEF PN0: Fast
Auto Tuno
Ref Offset 19.79 dB
Log
100 Center Freq
0.00 1 1 2.422000000 GHz
Start Freq
300
-60.0 Stop Freq 2.462000000 GHz
Center 2.42200 GHz Span 80.00 MHz CF Step
#Res BW 100 kHz #VBW 300 kHz Sweep 3.000 ms (1001 pts) 8.000000 MHz
1 N 1 f 2.403 76 GHz -8.464 dBm 2 N 1 f 2.429 52 GHz -0.809 dBm 1 f (A) 36 48 MHz (A) 0.997 dB Freq Offset
4
7 8 Scale Type
9
10 Log Lin
11 *
11 · · · · · · · · · · · · · · · · · ·



		11N40SISO	_Ant1_2437	·		
In the second	Keysight Spectrum Analyzer - Swept SA		01		- 8 - 1	
121	RI RE 50.0 DC	SENSE:INT	ALIGN AUTO	04:22:56 PM Jul 30, 2020	1	
Ce	enter Freq 2.437000000 GHz	z	#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency	
	NFE PN	0: Fast ↔ Trig: Free Run ain:Low #Atten: 30 dB	Avg Hold: 100/100	TRACE 1 2 3 4 5 6 TYPE M DET P P P P P P		
	10	ani.cow			Auto Tune	
	Ref Offset 19.79 dB		ΔΙΜ	lkr3 36.48 MHz		
10	dB/div Ref 20.00 dBm			-0.264 dB		
Lo 10		The second secon				
10	1.0		\$ ²		Center Freq	
0.		and the second	-3∆1 -	DL1 -7.37 dBm	2.437000000 GHz	
-10	1.0			DCT-7.57 0Dm		
-20	u		\			
-30			N N		Start Freq	
	· · · · · · · · · · · · · · · · · · ·		A A A A A A A A A A A A A A A A A A A	warmellowerhannes .	2.397000000 GHz	
-40	1.0 John Martin and Anthony Party Martin			a survey of the second		
-50						
-60	1.0				Stop Freq	
-70					2.477000000 GHz	
-70						
C.	enter 2.43700 GHz	A		Span 80.00 MHz	CF Step	
	Res BW 100 kHz	#VBW 300 kHz	Sweep 3.	.000 ms (1001 pts)	8.000000 MHz	
					Auto Man	
148	R MODE TRC SCL X N 1 f 2.418 76		NCTION FUNCTION WIDTH	FUNCTION VALUE		
	2 N 1 f 2.44636	GHz -1.367 dBm				
	Δ1 1 f (Δ) 36.48	MHz (Δ) -0.264 dB			Freq Offset	
	5			E	0 Hz	
				1		
					Scale Type	
9	9				ecule Type	
10					Log <u>Lin</u>	
1						
(III				
- Internet in the second se	1	m	STATUS			
j∢ MSG	1	Π	STATUS			
MSC	1	11N40SISO				
	Keysight Spectrum Analyzer - Swept SA		_Ant1_2452	2		
	Keysight Spectrum Analyzer - Swept SA RL RF [50 Ω DC]	SENSE:INT	_Ant1_2452			
	Keysight Spectrum Analyzer - Swept SA RL RF ISO D D Pitter Free Z.452200000 GH2	SENSE:INT	_Ant1_2452		Frequency	
	Keysight Spectrum Analyzer - Swept SA RL RF S0 Ω DC Priter Freq 2.452000000 GH2 NFE PN	SENSE:INT	_Ant1_2452	2	Frequency	
	Keysight Spectrum Analyzer - Swept SA RL RF [So.0 DC] Inter Freq 2.45200000 GHJ NFE PM IFG	SENSE:INT Z 0: Fast +++ Trig: Free Run	Ant1_2452 ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	04:30:54 PM Juli 30, 2020 TRACE [] 2 3 4 5 6 TYPE M WWWWW DET P P P P P		
Ce 10	Keysight Spectrum Analyzer - Swept SA RL RF [5:0.0] DC Inter Freq 2:45200000 GPU IFG IFG Ref Offset 19:73 dB dSIGNiz Ref 20:00 dBm	SENSE:INT Z 0: Fast +++ Trig: Free Run	Ant1_2452 ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	04:30:54 PM Jul 30, 2020 TRACE [] 3 4 5 6 TYPE MWWWWW DET[P P P P P P Ikr3 36.48 MHz	Frequency	
C c	Keysight Spectrum Analyzer - Swept SA RL RF [5:0.0] DC Inter Freq 2:45200000 GPU IFG IFG Ref Offset 19:73 dB dSIGN: Ref 20:00 dBm	SENSE:INT Z 0: Fast +++ Trig: Free Run	Ant1_2452 ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	04:30:54 PM Juli 30, 2020 TRACE [] 2 3 4 5 6 TYPE M WWWWW DET P P P P P	Frequency	
Ce 10	Keysight Spectrum Analyzer - Swept SA RL RF [5:0:0:0:0] Inter Freq 2.452000000 GHz PRE NFE PN Ref Offset 19.79 dB dB/div GB/div Ref 20.00 dBm	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452 ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	04:30:54 PM Jul 30, 2020 TRACE [] 3 4 5 6 TYPE MWWWWW DET[P P P P P P Ikr3 36.48 MHz	Frequency Auto Tune	
2 Ce 10 10	Keysight Spectrum Analyzer - Swept SA RL RF [5:0:0:0:0] Inter Freq 2.452000000 GHz PRE NFE PN Ref Offset 19.79 dB dB/div GB/div Ref 20.00 dBm	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE [] 3 4 5 6 TYPE MWWWWW DET[P P P P P P Ikr3 36.48 MHz	Frequency Auto Tune Center Freq	
Сс Сс 10 1 1 2 8	Keysight Specthum Analyzer - Swegt SA RL RF [50:0] 0C Inter Freq 2.452000000 GH2 NFE PW ME Ref Offset 19.79 dB GB/div Ref 20.00 dBm G 0 0 0 0	SENSE-INT Z G:Fast	Ant1_2452 ALIGN AUTO #Avg Type: RMS Avg Hold: 100/100	04:30:54 PM Jul 30, 2020 TRACE [1:3 4 5 6 TYPE MWWWWW DET P P P P P P Ikr3 36.48 MHz	Frequency Auto Tune	
19 Lt 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Keysight Spectrum Analyzer - Swept SA RL RF [5 0:0 DC Inter Freq 2.452000000 GHJ. PR PR PR dBJdiv Ref Offset 19.79 dB B G 0	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq	
Сс Сс 10 1 1 2 8	Keysight Spectrum Analyzer - Swept SA RL RF [5 0:0 DC Inter Freq 2.452000000 GHJ. PR PR PR dBJdiv Ref Offset 19.79 dB B G 0	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz	
19 Lt 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Keysight Spectrum Analyzer - Swept SA RL RF [50:0] DC HTTER FREQ 2.452000000 GHT NFE Pro IFG0 BIO BIO BIO BIO BIO BIO BIO BIO BIO BIO	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq	
10 Ce 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA RL RF [5:0:0:0:0] OC Inter Freq 2.452000000 GHz NFE PN IFG BdIdiv Ref Offset 19.79 dB MFE PN Big Inter Freq 20.00 dBm IfG IfG Inter Freq 20.00 dBm IfG IfG IfG	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz	
Сс Сс 10 и и и и и и и и и и и и и и и и и и	Krysight Spectrum Analyzer - Singer Sa RL IP ISOB OC Inter Freq 2.45200000 GHz NE PW IPG dBIddiv Ref 0ffset 19.79 dB G IPG dBIddiv Ref 20.00 dBm IPG IPG 0 IPG IPG IPG	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq	
20 Ce 10 11 11 12 14 14 14 14 15 14 14 15 14 14 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Keyight Specthum Analyzer - Swegt SA RL RF [50:0:0:0] Inter Freq 2.452000000 GHz NF PN If G Ref 20.00 dBm If G g Image: Second and analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.41200000 GHz	
Сс Сс 10 и и и и и и и и и и и и и и и и и и	Keyight Specthum Analyzer - Swegt SA RL RF [50:0:0:0] Inter Freq 2.452000000 GHz NF PN If G Ref 20.00 dBm If G g Image: Second and analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA g Image: Second analyzer - Swegt SA Image: Second analyzer - Swegt SA	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.41200000 GHz Stop Freq	
20 Ce 10 11 11 12 14 14 14 14 15 14 14 15 14 14 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16	Keysight Spectrum Analyzer - Swept SA RL RF [5:0:0:0:0] Inter Freq 2.452000000 GH2 PR Ref Offset 19.79 dB GB dB/div Ref 20.00 dBm 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE 12 3:4 5 6 WHINTOWE DEF P P P P P Ikr3 36:48 MHz 0.709 dB	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.41200000 GHz	
20 Ce 10 11 11 12 32 34 34 34 34 34 34 34 34 34 34 34 34 34	Keyight Spectrum Analyzer - Swegt SA RL RF IS 0:0 DC Inter Freq 2.45200000 GH2 NFE PN PN dB/div Ref Coffset 18.79 dB GB	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE [1 2 3 4 5 6 TYPE [WWWWWW DET P P P P Ikr3 36.48 MHz 0.709 dB 0.1-607 ebs 0.1-607 ebs	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.41200000 GHz Stop Freq	
10 CC 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA RL RF [5:0:0:0:0:0] CH INFE: PN Ref Offset 19.79 dB dB/div Ref 20.00 dBm df 0	Z C): Fast	Ant1_2452	2 184-30-54 PMJul 30, 2020 184-25 [1 2 3 4 5 6 1999 PP PP 1847 3 36.48 MHz 0.709 dB 0.1-807 ebs 0.1-807 ebs 0.1-80	Frequency Auto Tune Center Freq 2.46200000 GHz Start Freq 2.41200000 GHz Stop Freq 2.49200000 GHz	
10 CC 10 10 10 10 10 10 10 10 10 10 10 10 10	Keyight Spectrum Analyzer - Swegt SA RL RF IS 0:0 DC Inter Freq 2.45200000 GH2 NFE PN PN dB/div Ref Coffset 18.79 dB GB	Z C: Fast Trig: Free Run #Atten: 30 dB	Ant1_2452	04:30:54 PM Jul 30, 2020 TRACE [1 2 3 4 5 6 TYPE [WWWWWW DET P P P P Ikr3 36.48 MHz 0.709 dB 0.1-607 ebs 0.1-607 ebs	Frequency Auto Tune Center Freq 2.45200000 GHz 2.41200000 GHz Start Freq 2.49200000 GHz CF Step 8.000000 MHz	
2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA Rt PF S0.0 DC Inter Freq 2.452000000 GHz PF PW PW Ref Offset 19.79 dB GB GB GB GB 0	Z C: Fast	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.46200000 GHz Start Freq 2.41200000 GHz Stop Freq 2.49200000 GHz	
2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA Rt FF ISO 0 OC Inter Freq 2.452000000 GHz Ref 075et 13.79 dB Miles Miles dB/div Ref 00fset 13.79 dB Miles Miles Miles dB/div Ref 00fset 13.79 dB Miles Miles Miles dB/div Ref 20.00 dBm Miles Miles Miles Miles dD Miles	Z C: Fast	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.45200000 GHz 2.41200000 GHz Start Freq 2.49200000 GHz CF Step 8.000000 MHz	
ت د د د د د د د د د د د د د د د د د د د	Keyight Spectrum Analyzer - Swept SA RL IF ISO 0 OC Inter Freq 2.452000000 GHz NFE PN ISO dB/div Ref Offset 18.79 dB GB	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Stop Stop Center Freq 2.45200000 GHz Start Freq 2.4200000 GHz Stop Freq 2.49200000 GHz CF Step 8.000000 MHz Auto Man	
2 2 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA Ref ISO DC NFE PW NFE PW Ref Offset 19.79 dB dB 0 </td <td>Z C: Fast</td> <td>Ant1_2452</td> <td>2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1</td> <td>Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.412000000 GHz Stop Freq 2.49200000 GHz 8.000000 MHz Auto Man Freq Offset</td> <td></td>	Z C: Fast	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.412000000 GHz Stop Freq 2.49200000 GHz 8.000000 MHz Auto Man Freq Offset	
ی د د د د د د د د د د د د د د د د د د	Krysight Spectrum Jaalyzer - Singer SA RL IP SO B OC Inter Freq 2.452000000 GHz PW IPG dBlddiv Ref 005set 19.79 dB GBlddiv Ref 20.00 dBm g	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Stop Stop Center Freq 2.45200000 GHz Start Freq 2.4200000 GHz Stop Freq 2.49200000 GHz CF Step 8.000000 MHz Auto Man	
ی د 10 11 11 11 11 11 12 12 14 11 11 12 12 14 11 11 12 11 11 11 11 11 11 11 11 11 11	Krysight Spectrum Jaalyzer - Singer SA RL IP SO B OC Inter Freq 2.452000000 GHz PW IPG dBlddiv Ref 005set 19.79 dB GBlddiv Ref 20.00 dBm g	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.45200000 GHz Start Freq 2.412000000 GHz Stop Freq 2.49200000 GHz 8.000000 MHz Auto Man Freq Offset	
د د د د د د د د د د د د د د د د د د	Krydight Spectrum Jaalyter - Singet SA RL IF [50:0] DC Inter Freq 2.452000000 GHz NE PW IFG dBldiv Ref Offset 19.79 dB Ref 20.00 dBm IfG IfG dBldiv Ref 20.00 dBm IfG IfG IfG IfG 0 IfG	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Start Freq 2.45200000 GHz 2.41200000 GHz 2.41200000 GHz 2.41200000 GHz Stop Freq 2.49200000 GHz B.000000 GHz CF Step B.000000 MHz Man Freq Offset 0 Hz	
ی د د 10 11 11 11 11 11 11 11 11 11 11 11 11	Register Sector Analyser - Sect 5A RL FF [50 g = 00] Inter Freq 2.452000000 GHz NF PW dBIdiv Ref Offset 19.79 dB G 10 dBIdiv Ref 20.00 dBm 10 10 10 0 0 0 0 10 10 0 0 0 0 10 <td< td=""><td>Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm</td><td>Ant1_2452</td><td>2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1</td><td>Frequency Auto Tune Center Freq 2.45200000 GHz 2.412000000 GHz 2.49200000 GHz 2.49200000 GHz 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type</td><td></td></td<>	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.45200000 GHz 2.412000000 GHz 2.49200000 GHz 2.49200000 GHz 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type	
20 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Keysight Spectrum Analyzer - Swept SA RL FF [5 0 0 0 C] Inter Freq 2.452000000 GHz FE PN B Ref Offset 15.79 dB GU If an analyzer GB/div Ref 200.00 dBm If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 <t< td=""><td>Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm</td><td>Ant1_2452</td><td>2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1</td><td>Start Freq 2.45200000 GHz 2.41200000 GHz 2.41200000 GHz 2.41200000 GHz Stop Freq 2.49200000 GHz B.000000 GHz CF Step B.000000 MHz Man Freq Offset 0 Hz</td><td></td></t<>	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Start Freq 2.45200000 GHz 2.41200000 GHz 2.41200000 GHz 2.41200000 GHz Stop Freq 2.49200000 GHz B.000000 GHz CF Step B.000000 MHz Man Freq Offset 0 Hz	
2 C 10 11 11 11 11 11 11 11 11 11 11 11 11	Keysight Spectrum Analyzer - Swept SA RL FF [5 0 0 0 C] Inter Freq 2.452000000 GHz FE PN B Ref Offset 15.79 dB GU If an analyzer GB/div Ref 200.00 dBm If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 If an analyzer If an analyzer If an analyzer 0 <t< td=""><td>Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm</td><td>Ant1_2452</td><td>2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1</td><td>Frequency Auto Tune Center Freq 2.45200000 GHz 2.412000000 GHz 2.49200000 GHz 2.49200000 GHz 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type</td><td></td></t<>	Z Trig: Free Run #Atten: 30 dB #Atten: 30 dB #Atten: 30 dB #WBW 300 kHz #VBW 300 kHz GHz -9.116 dBm	Ant1_2452	2 178425 12 3 4 5 6 178425 12 3 4 5 6 17942 12 4 5 6 17942 1	Frequency Auto Tune Center Freq 2.45200000 GHz 2.412000000 GHz 2.49200000 GHz 2.49200000 GHz 8.00000 MHz Auto Man Freq Offset 0 Hz Scale Type	



11.3.1	. les	t Result				
Test Mode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Verdict
		2412	13.108	2405.445	2418.553	PASS
11B	Ant1	2437	13.037	2430.484	2443.521	PASS
		2462	13.036	2455.485	2468.521	PASS
		2412	16.578	2403.734	2420.312	PASS
11G	Ant1	2437	16.570	2428.739	2445.309	PASS
		2462	16.590	2453.726	2470.316	PASS
		2412	17.406	2403.320	2420.726	PASS
11N20SISO	Ant1	2437	17.367	2428.316	2445.683	PASS
		2462	17.384	2453.312	2470.696	PASS
		2422	36.401	2403.911	2440.312	PASS
11N40SISO	Ant1	2437	36.312	2418.908	2455.220	PASS
		2452	36.348	2433.907	2470.255	PASS

11.3. Appendix C: Occupied Channel Bandwidth 11.3.1. Test Result



11.3.2. Test Graphs





11B_Ant1_2462 Keylight Spectrum Avalyzer - Occupied BW R.< FF SD Q DC SENSE::NIT ALIGN AUTO 03:31:27 PM Juli	
KI I RE LND D DC I I SENSE-INTI ALTON ALTO 03/31/27 DM Id	
Center Freq: 2.452000000 GHz NFE #FGain:Low #Atten: 30 dB Radio Stat: Nor Radio Stat: No	BTS
Ref Offset 19.79 dB Mkr1 2.46244 10 dB/div Ref 20,00 dBm 13.402	
	Center Freq 2.46200000 GHz
50.0 50.0 60.0 70.0 70.0 70.0 Center 2.462 GHz Span 4/ #VBW 1.5 MHz Syan 4/) MHz 1 ms 4.00000 MHz
Occupied Bandwidth Total Power 23.1 dBm 13.036 MHz	Auto Man Freq Offset
Transmit Freq Error 3.435 kHz % of OBW Power 99.00 %	0 Hz
x dB Bandwidth 16.14 MHz x dB -26.00 dB	
MSG STATUS	
11G_Ant1_2412	
Keysight Spectrum Analyzer - Occupied BW N N F S0 0 OC SENSE::NT ALION AUTO 03:37:32 PM Juli Center Freq: 2.412000000 GHz Center Freq: 2.412000000 GHz Radio Std: No	
FFE Fig.FreeRun Avg Hold: 100/100 FFE FadinLow #Atten: 30 dB Avg Hold: 100/100 Radio Device: Ref Offset 19.79 dB Mkr1 2,41368	атя GHz
10 dB/div Ref 20.00 dBm 8.8175	Center Freq 2.41200000 GHz
-70.0	
Center 2.412 GHz Span 4 #Res BW 430 kHz #VBW 1.5 MHz Sweep	
Occupied Bandwidth Total Power 22.7 dBm 16.578 MHz	
Transmit Freq Error 23.489 kHz % of OBW Power 99.00 % x dB Bandwidth 19.87 MHz x dB -26.00 dB	Freq Offset 0 Hz
MSG STATUS	



	11G_Ant1_2437		
RL RF S0 A DC Center Freq 2.437000000 GHz WFE #FF WFE #F6aim Ref Offset 19.79 dB		03:45:21 PM.Jul 30, 2020 Radio Std: None Radio Device: BTS (r1 2.43888 GHz	Frequency
10 dB/div Ref 20.00 dBm	Manual Manager and Manager and Manager	9.0145 dBm	Center Freq 2.43700000 GHz
-100 200 300 400 400 400 700		Mar Marghung A Margin He	
Center 2.437 GHz #Res BW 430 kHz	#VBW 1.5 MHz	Span 40 MHz Sweep 1 ms	CF Step 4.000000 MHz
Occupied Bandwidth 16.570		.0 dBm	Auto Man Freq Offset
		99.00 % 6.00 dB	0 Hz
MSG	STA	rus	
	11G_Ant1_2462		
Krygdt Strachtum Andyra-Occupet BW RL 85 0 0 C Center Freq 2.46200000 GHz N ^{FE} #FGain Ref Offset 19.79 dB		Radio Std: None Radio Device: BTS (r1 2.46384 GHz	Frequency
10 dB/div Ref 20.00 dBm Log 100 000 -100		8.2976 dBm	Center Freq 2.462000000 GHz
-20.0 -30.0 -40.0 -50.0		nt in an and in the second	
Center 2.462 GHz #Res BW 430 KHz	#N/DW 1.5 MU7	Span 40 MHz	CF Step
Cccupied Bandwidth 0ccupied Bandwidth 16.590		Sweep 1 ms .2 dBm	4.000000 MHz <u>Auto Man</u>
Transmit Freq Error 21	.346 kHz % of OBW Power	99.00 % 6.00 dB	Freq Offset 0 Hz
MSG	STA	rus	