

Issued for

Applicant:	SHENZHEN YOU LAI MI TECHNOLOGY CO LTD		
Address:	5th Floor Building C, Fu Tai Industrial Park Liaokeng, Shiyan Street Bao'an District Shenzhen City, China		
Product Name:	Smart LED Products		
Brand Name:	N/A		
Model Name:	WB5		
Series Model:	LM052,LM053,LM070,LM071,LM072,LM091,C01RF, C02RF,C03RF,C04RF,C05RF,C06RF,C07RF,C08RF, C01W,C02W,C03W,C04W,C05W,C06W,C07W,C08W		
FCC ID:	2A5UL-WB5		
Issued By: Flux Compliance Service Laboratory Add: Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan Tel: 769-27280901 Fax:769-27280901 http://www.FCS-lab.com			



TEST RESULT CERTIFICATION

	LST RESULT GERTIFICATION
Applicant's Name:	SHENZHEN YOU LAI MI TECHNOLOGY CO LTD
Address:	5th Floor Building C, Fu Tai Industrial Park Liaokeng, Shiyan Street Bao'an District Shenzhen City, China
Manufacture's Name:	SHENZHEN YOU LAI MI TECHNOLOGY CO LTD
Address:	5th Floor Building C, Fu Tai Industrial Park Liaokeng, Shiyan Street Bao'an District Shenzhen City, China
Product Description	
Product Name:	Smart LED Products
Model Name:	WB5
Series Model:	LM052,LM053,LM070,LM071,LM072,LM091,C01RF,C02RF,C03RF,C04RF,C05RF,C06RF,C07RF,C08RF,C01W,C02W,C03W,C04W,C05W,C06W,C07W,C08W
Test Standards:	FCC Rules and Regulations Part 15 Subpart C, Section 249
Test Procedure:	ANSI C63.10-2013
results show that the equipment u is applicable only to the tested sa This report shall not be reproduc Service Laboratory, this docum	been tested by Flux Compliance Service Laboratory, the test nder test (EUT) is in compliance with the FCC requirements. And i mple identified in the report. ed except in full, without the written approval of Flux Compliance ent may be altered or revised by Flux Compliance Service all be noted in the revision of the document
Date of Test:	
Date (s) of performance of tests :	10 Mar, 2022 ~ 21 Mar, 2022
Date of Issue:	21 Mar, 2022
Test Result::	Pass

Tested by	:	Scott shen
		(Scott Shen)
Reviewed by	:	Duke Oran
		(Duke Qian)
Approved by	:	3alisus
		(Jack Wang)



Table of Contents	Page
1. SUMMARY OF TEST RESULTS	6
1.1 TEST FACTORY	7
1.2 MEASUREMENT UNCERTAINTY	7
2. GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF THE EUT	8
2.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED	10
2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS	11
2.4 EQUIPMENTS LIST	12
3. 6DB BANDWIDTH	13
3.1 LIMIT	13
3.2 TEST PROCEDURE	13
3.3 TEST SETUP	13
3.4 TEST RESULTS	14
4 CONDUCTED OUTPUT POWER	21
4.1 LIMIT	21
4.2 TEST PROCEDURE	21
4.3 TEST SETUP	21
4.5 TEST RESULTS	21
5. POWER SPECTRAL DENSITY	22
5.1 LIMIT	22
5.2 TEST PROCEDURE	22
5.3 TEST SETUP	22
5.5 TEST RESULTS	23
5.6 ORIGINAL TEST DATA	24
6. BAND EDGE AND SPURIOUS(CONDUCTED)	31
6.1 LIMIT	31
6.2 TEST PROCEDURE	31
6.3 TEST SETUP	31
6.5 TEST RESULTS	32
6.5 ORIGINAL TEST DATA	32
7 RADIATED EMISSION MEASUREMENT	44







Table of Contents	Page
8 CONDUCTED EMISSION TEST	58
9. ANTENNA REQUIREMENT	62
9.1 STANDARD REQUIREMENT	62
9.2 RESULT	62

Page 5 of 62



Revision History

Report No.: FCS202203052W01

Rev.	Issue Date	Effect Page	Contents
00	09 Mar, 2022	All	Initial Issue



1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards: KDB 558074 D01 15.247 Meas Guidance v05r02

FCC Part 15.247,Subpart C						
Standard Section	Judgment	Remark				
FCC 15.247 (a) (2)	6dB Bandwidth	PASS				
FCC 15.247 (b) (3)	Conducted Output Power	PASS				
FCC 15.247 (e)	Power Spectral Density	PASS				
FCC 15.247 (d)	Band-edge and Spurious Emissions (Conducted)	PASS				
FCC 15.247 (d)	Dadiated Spurious Emissions					
FCC 15.209	Radiated Spurious Emissions	PASS				
FCC 15.205						
FCC 15.247 (d)	Dadiated Band Edge Compliance					
FCC 15.209	Radiated Band Edge Compliance	PASS				
FCC 15.205						
FCC 15.207	Power Line Conducted Emission	PASS				
FCC 15.203	Antenna requirement	PASS				
15.205	Restricted Band Edge Emission	PASS				

NOTE:

- (1)" N/A" denotes test is not applicable in this Test Report
- (2) All tests are according to ANSI C63.10-2013



1.1 TEST FACTORY

Company Name:	Flux Compliance Service Laboratory
Address:	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
Telephone:	+86-769-27280901
Fax:	+86-769-27280901

FCC Test Firm Registration Number: 514908

Designation number: CN0127

A2LA accreditation number: 5545.01

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $\mathbf{y} \pm \mathbf{U}$, where expended uncertainty \mathbf{U} is based on a standard uncertainty multiplied by a coverage factor of $\mathbf{k=2}$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	±0.71dB
2	Unwanted Emissions, conducted	±2.988 dB
3	Conducted Emission (9KHz-150KHz)	±4.13 dB
4	Conducted Emission (150KHz-30MHz)	±4.74 dB
5	All emissions,radiated(<1G) 30MHz-1000MHz	±5.2 dB
6	All emissions,radiated 1GHz -18GHz	±4.66 dB
7	All emissions,radiated 18GHz -40GHz	±4.31 dB



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	Smart LED Products		
Date of receipt of test sample	4th Mar. 2022		
Number of test sample	2		
Sample number	202203052-1, 202203052-2		
Trade Name	N/A		
Model Name	WB5		
Series Model	LM052,LM053,LM070,LM071,LM072,LM091,C01RF, C02RF,C03RF,C04RF,C05RF,C06RF,C07RF,C08RF, C01W,C02W,C03W,C04W,C05W,C06W,C07W,C08W		
Model Difference	The above product with same circuit, PCB layout, electrical parts, materials and wiring structures, Appearance shape, the materials of decorative accessories is same, only different color		
Channel List	Please refer to the Note 2.		
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, QPSK, BPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK)		
Transmitter rate:	IEEE 802.11b: 1, 2, 5.5, 11 Mbps IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps IEEE 802.11n HT20: up to 150 Mbps, HT40: up to 300Mbps		
Power supply	DC 12-24V		
Battery	N/A		
Hardware version number	V1.10		
Software version number	V1.10		
Connecting I/O Port(s)	Please refer to the User's Manual		

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2.

Channel List						
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
01	2412	05	2432	09	2452	
02	2417	06	2437	10	2457	
03	2422	07	2442	11	2462	
04	2427	08	2447			

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	VCBZ	PCB antenna	N/A	1.0	WIFI Antenna



2.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Block diagram	of EUT	configuration	for	test

EUT	

Test software: the FCC tool

The test softeware was used to control EUT work in continuous TX mode, and select test channel, Wireless mode as below table

Tested mode, channel, and data rate information					
Mode	Setting Tx Power	data rate (Mbps) (see Note)	Channel	Frequency (MHz)	
	8	1	LCH: CH1	2412	
IEEE 802.11b	8	1	MCH: CH6	2437	
	8	1	HCH: CH11	2462	
	20	6	LCH: CH1	2412	
IEEE 802.11g	20	6	MCH: CH6	2437	
	20	6	HCH: CH11	2462	
	20	MCS 8	LCH: CH1	2412	
IEEE 802.11n HT20	20	MCS 8	MCH: CH6	2437	
	20	MCS 8	HCH: CH11	2462	
	20	MCS 8	LCH: CH3	2422	
IEEE 802.11n HT40	20	MCS 8	MCH: CH6	2437	
	20	MCS 8	HCH: CH9	2452	

Note:

- (1) According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test,
- (2) During the test, the dutycycle>98%, the test voltage was tuned from 85% to 115% of the Nominal rate supply votage, and found that the worst case was the nominal rated supply condition, So the report just shows that condition's data



2.3 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note

Note:

- The support equipment was authorized by Declaration of Confirmation. (1)
- (2) For detachable type I/O cable should be specified the length in cm in Length column.
- "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core". (3)





2.4 EQUIPMENTS LIST

Radiation Test equipment

radiation rest equipm					
Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESRP 3	FCS-E001	2022.02.10	2023.02.09
Signal Analyzer	R&S	FSV40-N	FCS-E012	2022.02.10	2023.02.09
Active loop Antenna	ZHINAN	ZN30900C	FCS-E013	2022.02.10	2023.02.09
Bilog Antenna	SCHWARZBECK	VULB 9168	FCS-E002	2022.02.10	2023.02.09
Horn Antenna	SCHWARZBECK	BBHA 9120D	FCS-E003	2022.02.10	2023.02.09
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	FCS-E018	2022.02.10	2023.02.09
Pre-Amplifier(0.1M-3G Hz)	EMCI	EM330N	FCS-E004	2022.02.10	2023.02.09
Pre-Amplifier (1G-18GHz)	N/A	TSAMP-0518SE	FCS-E014	2022.02.10	2023.02.09
Pre-Amplifier (18G-40GHz)	TERA-MW	TRLA-0400	FCS-E019	2022.02.10	2023.02.09
Temperature & Humidity	HTC-1	victor	FCS-E005	2022.02.10	2023.02.09

Conduction Test equipment

Conduction root eq					
Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESPI	FCS-E020	2022.02.10	2023.02.09
LISN	R&S	ENV216	FCS-E007	2022.02.10	2023.02.09
LISN	ETS	3810/2NM	FCS-E009	2022.02.10	2023.02.09
Temperature &	HTC-1	victor	FCS-E008	2022.02.10	2023.02.09
Humidity					

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
MXA SIGNAL Analyzer	Keysight	N9020A	FCS-E015	2022.02.10	2023.02.09
Spectrum Analyzer	Agilent	E4447A	MY50180039	2022.02.10	2023.02.09
Spectrum Analyzer	R&S	FSV-40	101499	2022.02.10	2023.02.09
Power Sensor	Agilent	UX2021XA	FCS-E021	2022.02.10	2023.02.09



3. 6DB BANDWIDTH

3.1 Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500 kHz

3.2 Test Procedure

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Set the spectrum analyzer as follows

RBW: 100kHz
VBW: 300kHz
Detector Mode: Peak
Sweep time: auto
Trace mode Max hold

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

3.3 Test setup





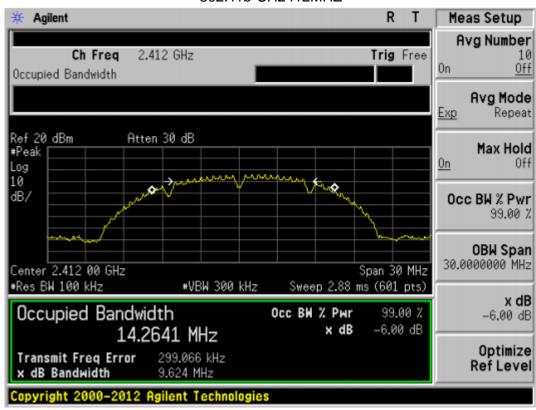
3.4 Test results

TestMode	Channel (MHz)	6dB Bandwidth (MHz)	Limit [MHz]	Verdict
802.11b	2412MHz	9.624	0.5	Pass
802.11b	2437MHz	9.652	0.5	Pass
802.11b	2462MHz	10.117	0.5	Pass
802.11g	2412MHz	15.815	0.5	Pass
802.11g	2437MHz	15.992	0.5	Pass
802.11g	2462MHz	16.227	0.5	Pass
802.11n 20	2412MHz	16.425	0.5	Pass
802.11n 20	2437MHz	17.257	0.5	Pass
802.11n 20	2462MHz	16.759	0.5	Pass
802.11n 40	2422MHz	35.170	0.5	Pass
802.11n 40	2437MHz	35.195	0.5	Pass
802.11n 40	2452MHz	35.155	0.5	Pass

Report No.: FCS202203052W01

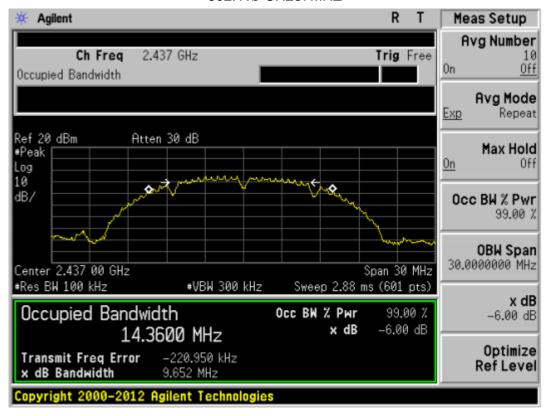
3.5 Original Test Data

802.11b-CH2412MHZ

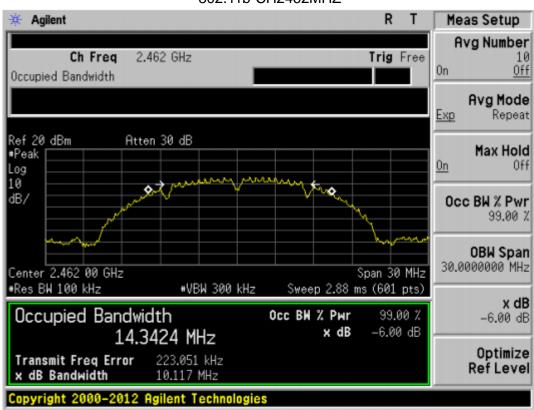




802.11b-CH237MHZ

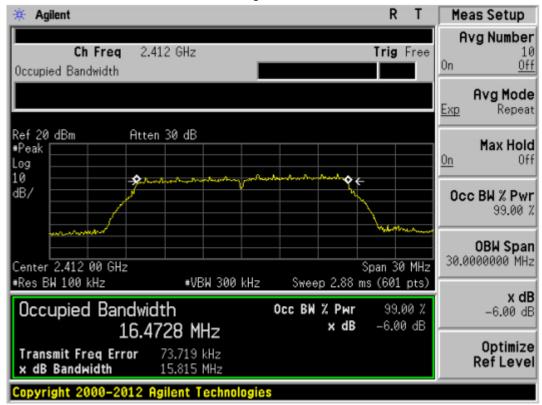


802.11b-CH2462MHZ

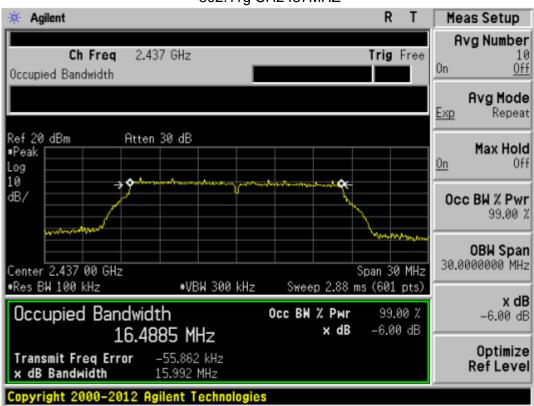




802.11g H2412MHZ

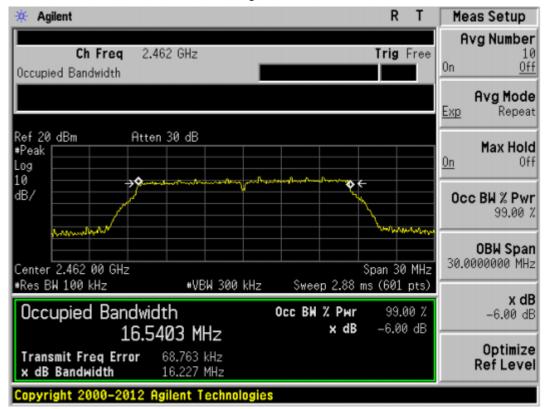


802.11g CH2437MHZ

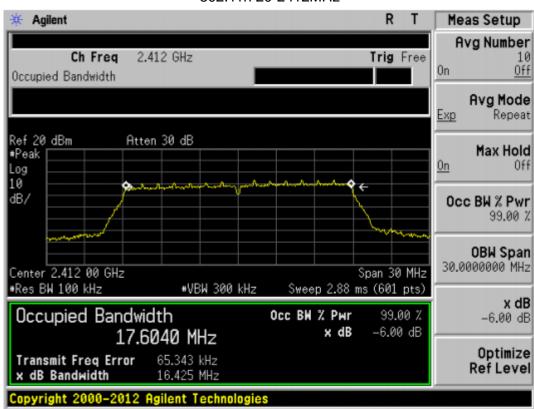




802.11g CH2462MHZ

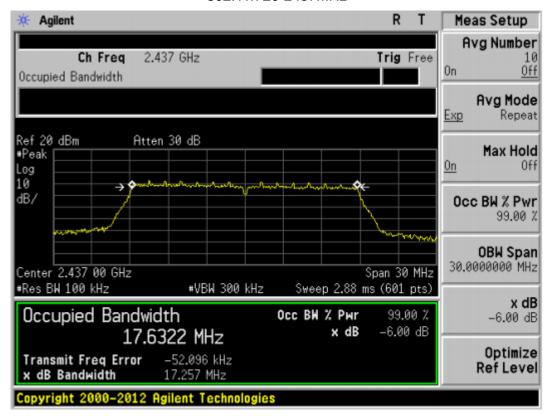


802.11n 20-2412MHz

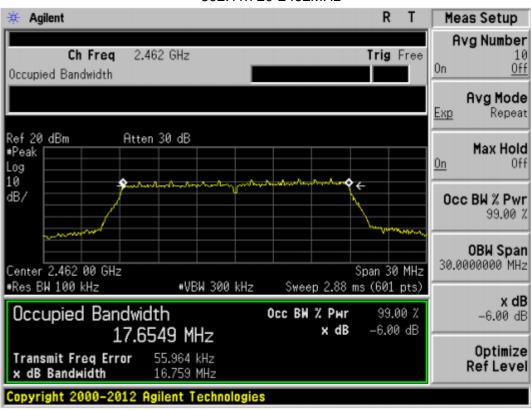




802.11n 20-2437MHz

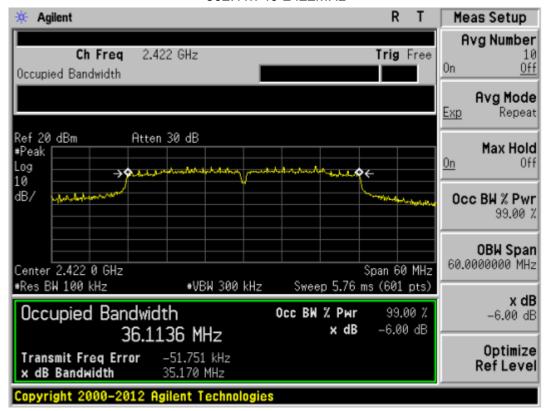


802.11n 20-2462MHz

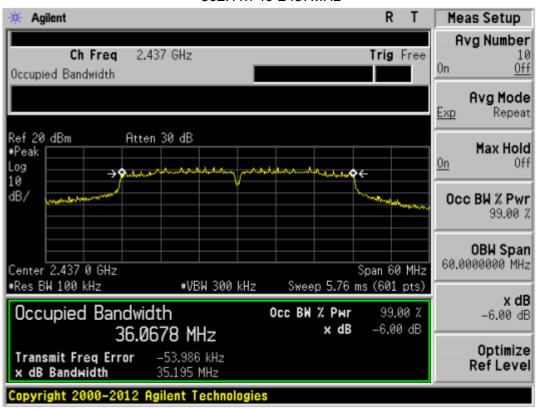




802.11n 40-2422MHz

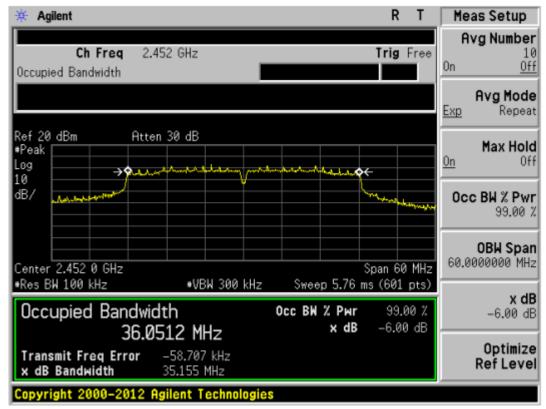


802.11n 40-2437MHz





802.11n 40-2452MHz





4 CONDUCTED OUTPUT POWER

4.1 limit

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. 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 as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Report No.: FCS202203052W01

4.2 test procedure

- a. Connect each EUT's antenna output to power sensor by RF cable and attenuator
- b. Measure the PK output power of each antenna port by power sensor.

4.3 TEST SETUP



4.5 test results

TestMode	Channel (MHz)	Result (dBm)	Limit (dBm)	Verdict
802.11b	2412MHz	5.38	30	Pass
802.11b	2437MHz	5.31	30	Pass
802.11b	2462MHz	5.67	30	Pass
802.11g	2412MHz	5.12	30	Pass
802.11g	2437MHz	5.34	30	Pass
802.11g	2462MHz	5.14	30	Pass
802.11n 20	2412MHz	4.89	30	Pass
802.11n 20	2437MHz	4.68	30	Pass
802.11n 20	2462MHz	4.35	30	Pass
802.11n 40	2422MHz	4.24	30	Pass
802.11n 40	2437MHz	4.29	30	Pass
802.11n 40	2452MHz	4.71	30	Pass



5. POWER SPECTRAL DENSITY

5.1 LIMIT

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 TEST PROCEDURE

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Set the spectrum analyzer as follows:

Center frequency DTS Channel center frequency

RBW: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$

VBW: ≥ 3RBW

Span 1.5 times the DTS bandwidth

Detector Mode: Pake
Sweep time: auto

Trace mode Max hold

- (3) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude level within the RBW
- (4) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 TEST SETUP





5.4 TEST RESULTS

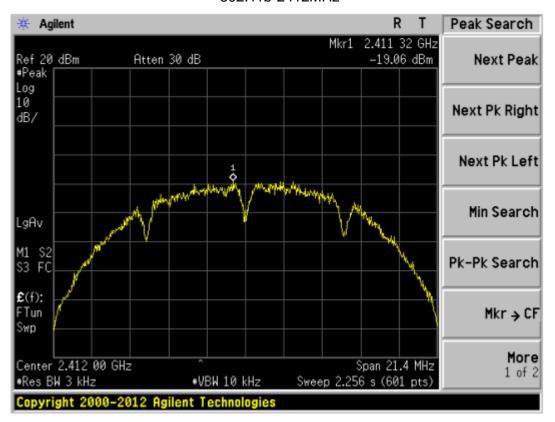
TestMode	Channel (MHz)	Result (dBm/3KHz)	Limit (dBm/3KHz)	Verdict
802.11b	2412MHz	-19.06	8	Pass
802.11b	2437MHz	-19.45	8	Pass
802.11b	2462MHz	-19.30	8	Pass
802.11g	2412MHz	-21.26	8	Pass
802.11g	2437MHz	-21.28	8	Pass
802.11g	2462MHz	-21.95	8	Pass
802.11n 20	2412MHz	-21.08	8	Pass
802.11n 20	2437MHz	-21.04	8	Pass
802.11n 20	2462MHz	-21.79	8	Pass
802.11n 40	2422MHz	-22.90	8	Pass
802.11n 40	2437MHz	-23.56	8	Pass
802.11n 40	2452MHz	-23.34	8	Pass



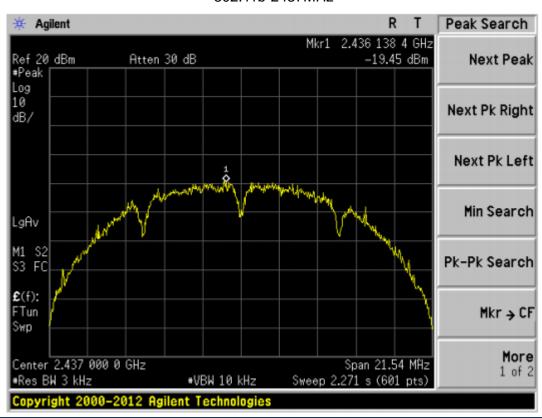
5.5 original test data

802.11b-2412MHz

Report No.: FCS202203052W01

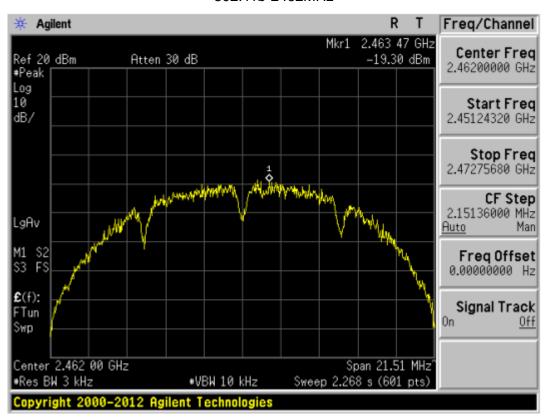


802.11b-2437MHz

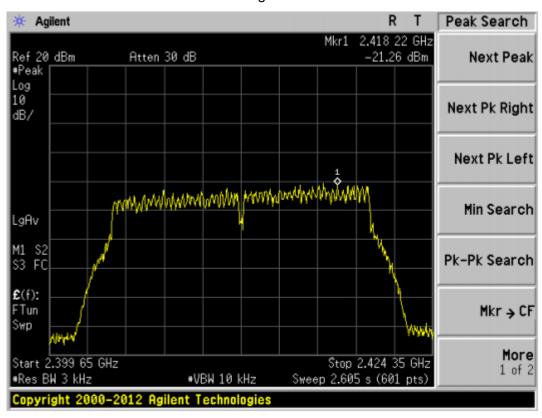




802.11b-2462MHz

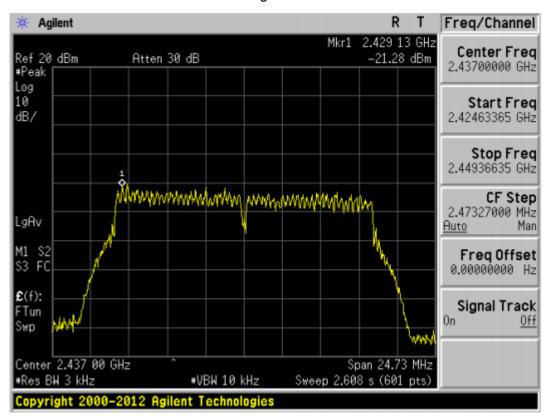


802.11g-2412MHz

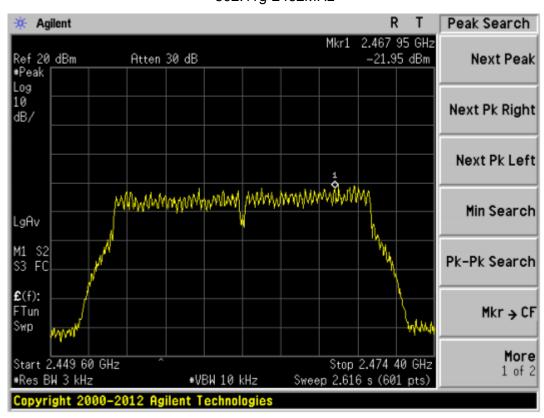




802.11g-2437MHz

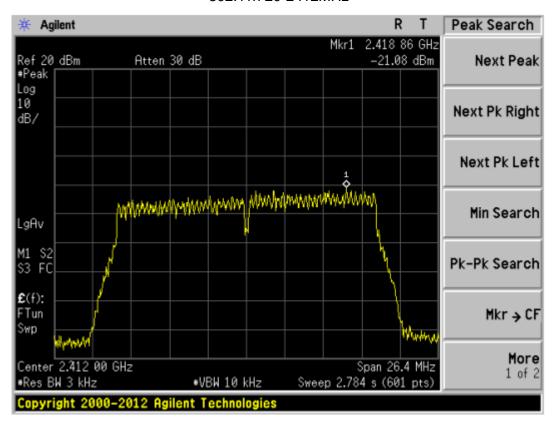


802.11g-2462MHz

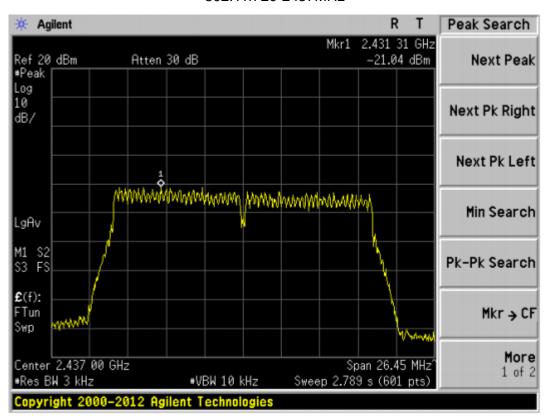




802.11n 20-2412MHz

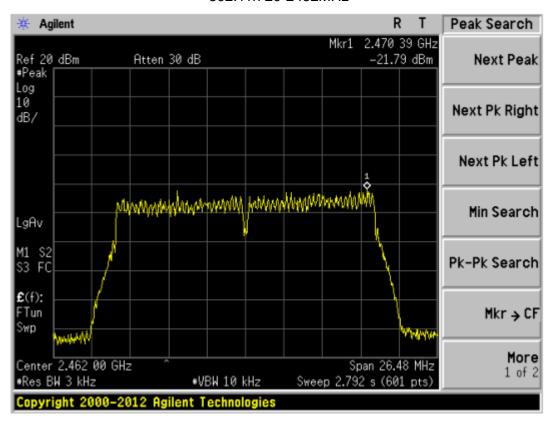


802.11n 20-2437MHz

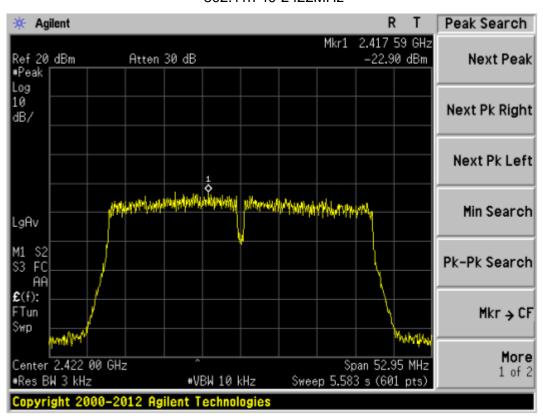




802.11n 20-2462MHz

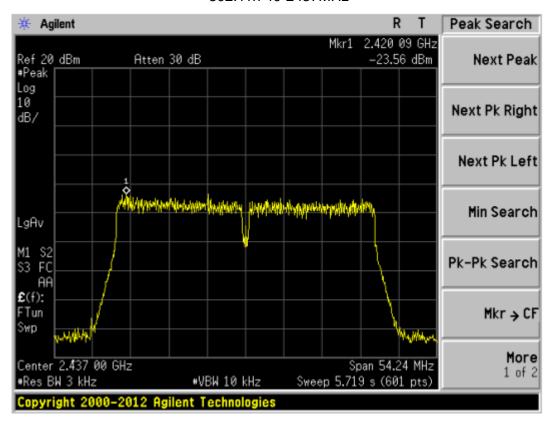


802.11n 40-2422MHz

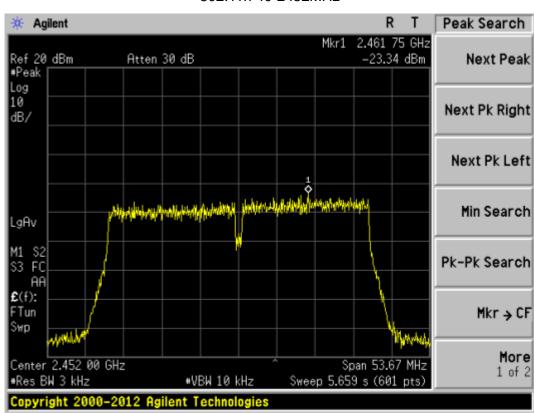




802.11n 40-2437MHz



802.11n 40-2452MHz









6. Band edge and spurious(conducted)

6.1 LIMIT

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 30dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

6.2 TEST PROCEDURE

- (1) Connect EUT's antenna output to spectrum analyzer by RF cable.
- (2) Establish a reference level by using the following procedure:

Center frequency DTS Channel center

frequency

RBW: 100kHz VBW: 300kHz

Span 1.5times the DTS bandwidth

Detector Mode: Peak
Sweep time: auto

Trace mode Max hold

- (3) Establish Allow the trace to stabilize, use the peak marker function to determine the maximum peak power level to establish the reference level.
- (4) Set the spectrum analyzer as follows:

RBW: 100kHz VBW: 300kHz

Span Encompass frequency range to be

measured

Max hold

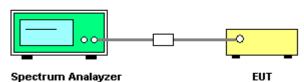
Number of measurement points ≥span/RBW

Detector Mode: Peak
Sweep time: auto

(5) Allow the trace to stabilize, use the peak marker function to determine the maximum amplitude of all unwanted emissions outside of the authorized frequency band

6.3 TEST SETUP

Trace mode



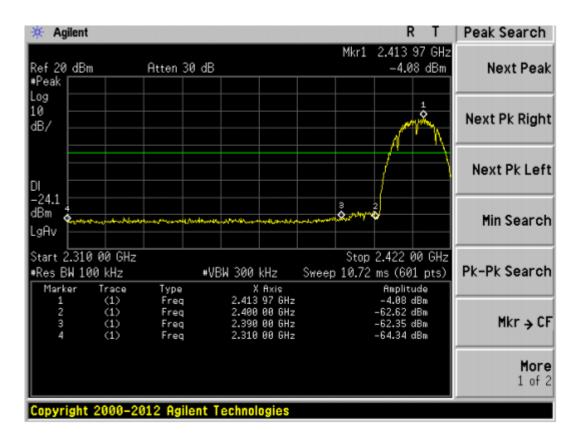


6.5 TEST RESULTS

Eut set mode	CH or Frequency	Result
802.11b	CH1	Pass
	CH11	Pass
802.11g	CH1	Pass
	CH11	Pass
802.11n 20	CH1	Pass
	CH11	Pass
802.11n 40	CH3	Pass
	CH9	Pass

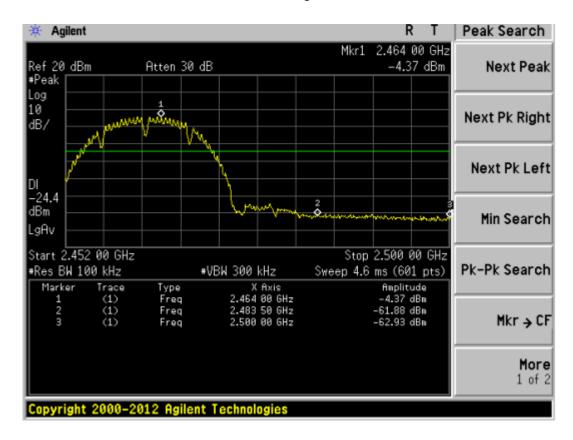
6.5 Original test data

802.11b Low CH

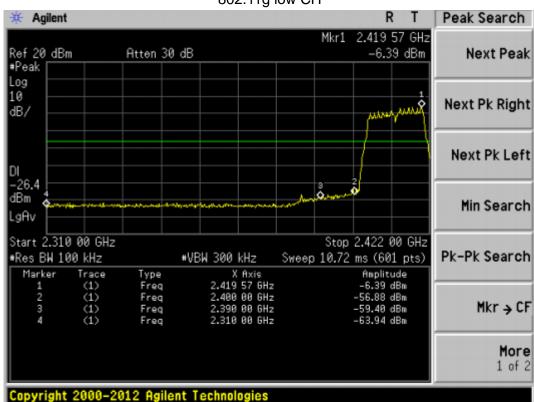




802.11b High CH

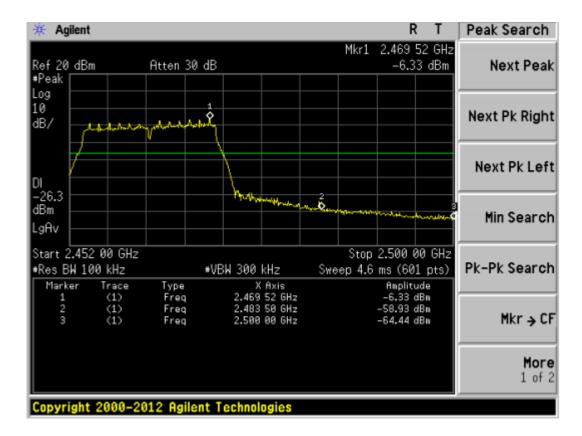


802.11g low CH

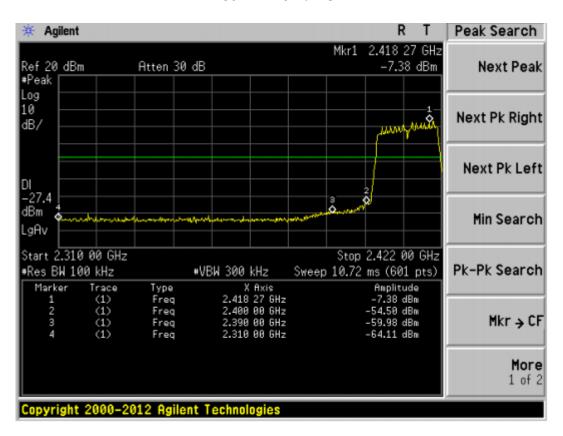




802.11g high CH

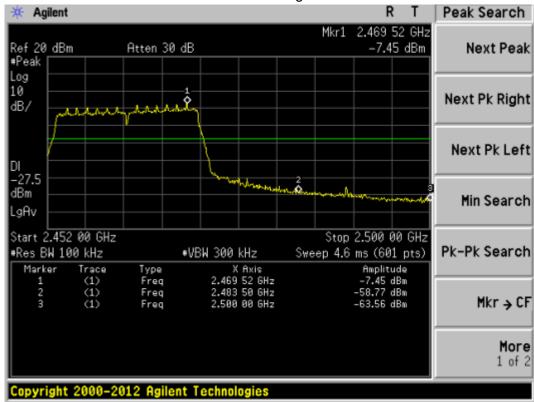


802.11n20 Low CH

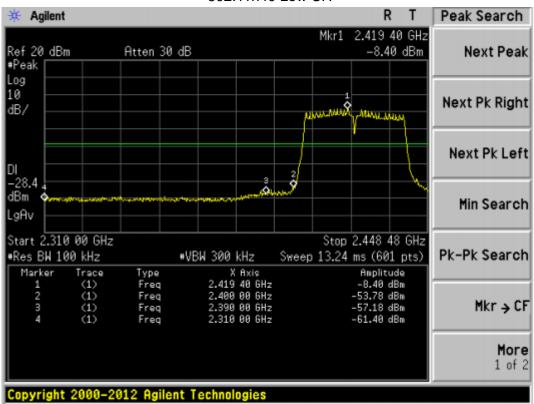




802.11n20 High CH

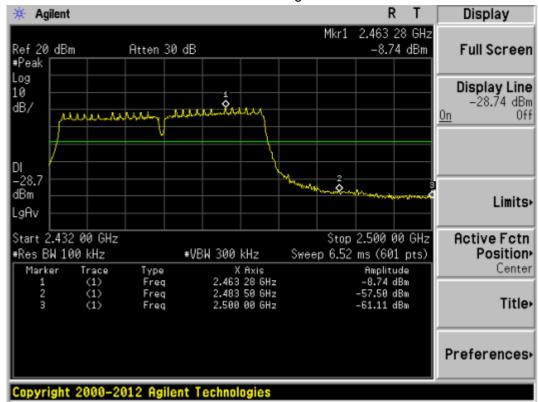


802.11n40 Low CH





802.11n40 High CH



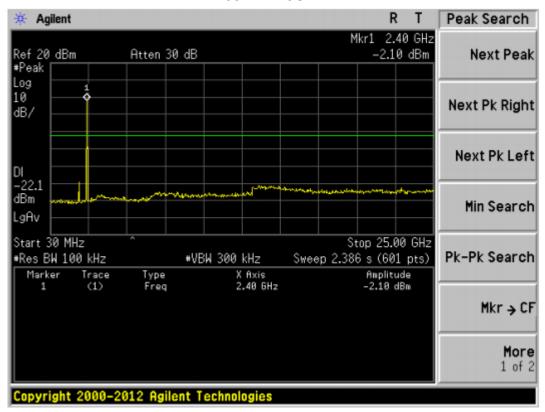




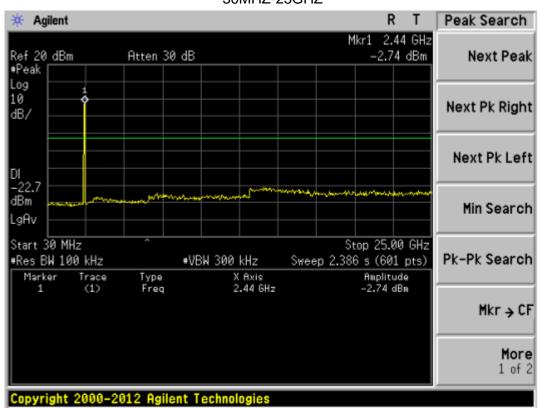
Spurious emissions (802.11b)

802.11b low CH, 2412MHZ 30MHZ-25GHZ

Report No.: FCS202203052W01



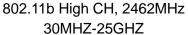
802.11b Middle CH, 2437MHz 30MHZ-25GHZ

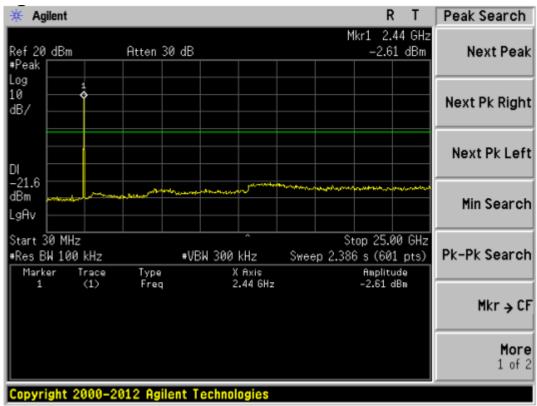




Report No.: FCS202203052W01

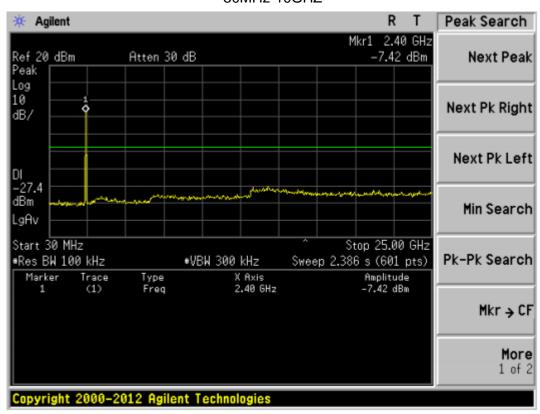






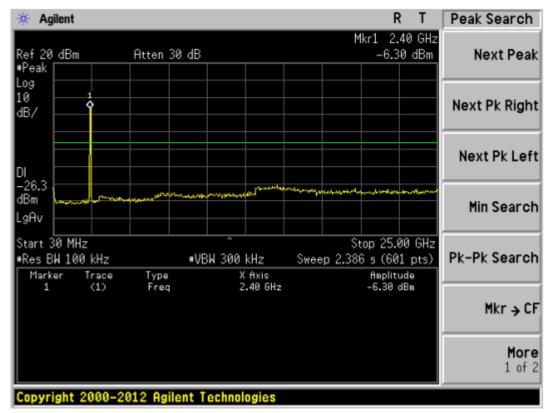
(802.11g)

802.11g Low CH, 2412MHz 30MHz-10GHZ





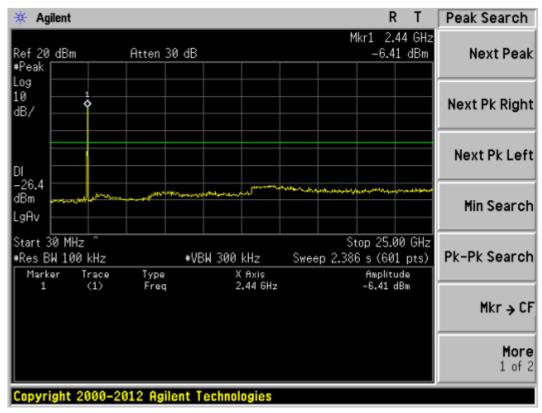
802.11g Middle CH, 2437MHz 30MHz-25GHZ



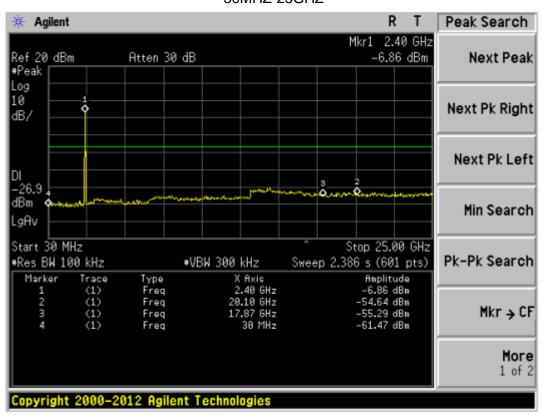


802.11g High CH, 2462MHz 30MHZ-25GHZ

Report No.: FCS202203052W01



802.11n 20 Low CH, 2412MHz 30MHZ-25GHZ

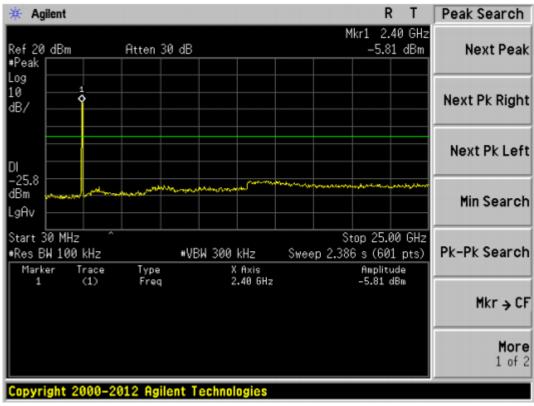




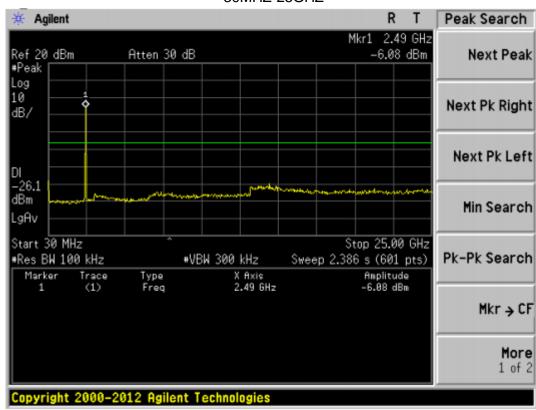




802.11n 20 Middle CH, 2437MHz 30MHZ-25GHZ



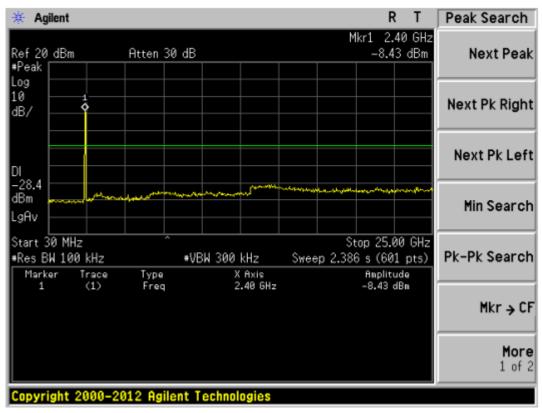
802.11n 20 High CH, 2462MHz 30MHZ-25GHZ



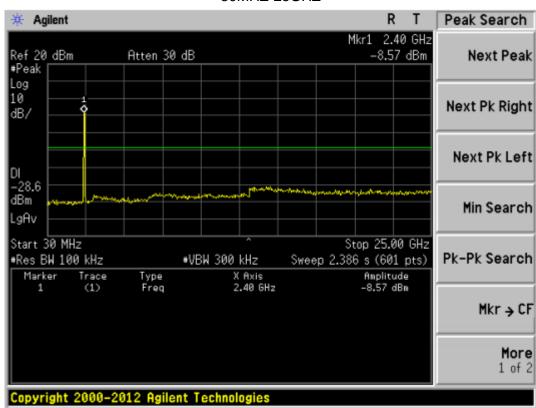


802.11n 40 Low CH, 2422MHz 30MHZ-25GHZ

Report No.: FCS202203052W01

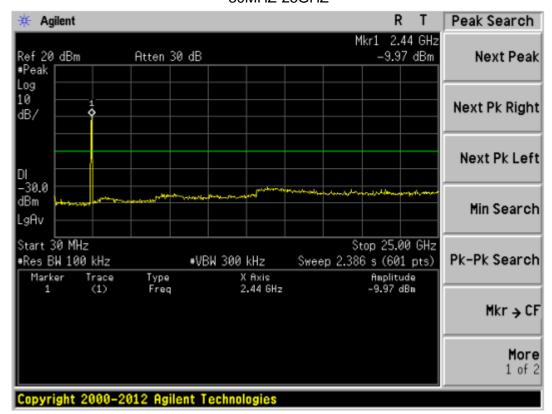


802.11n 40 Middle CH, 2437MHz 30MHZ-25GHZ





802.11n 40 High CH, 2452MHz 30MHZ-25GHZ





Report No.: FCS202203052W01

7 RADIATED EMISSION MEASUREMENT

7.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed

LIMITS OF RADIATED EMISSION MEASUREMENT (0.009MHz - 1000MHz)

Frequencies	Field Strength	Measurement Distance	
(MHz)	(micorvolts/meter)	(meters)	
0.009~0.490	2400/F(KHz)	300	
0.490~1.705	24000/F(KHz)	30	
1.705~30.0	30	30	
30~88	100	3	
88~216	150	3	
216~960	200	3	
Above 960	500	3	

LIMITS OF RADIATED EMISSION MEASUREMENT (1GHz-25 GHz)

	(dBuV/m) (at 3M)		
FREQUENCY (MHz)	PEAK	AVERAGE	
Above 1000	74	54	

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

For Radiated Emission

Spectrum Parameter	Setting		
Attenuation	Auto		
Detector	Peak/AV		
Start Frequency	1000 MHz(Peak/AV)		
Stop Frequency	10th carrier hamonic(Peak/AV)		
RB/VB (emission in restricted band)	PK=1MHz / 1MHz, AV=1 MHz /10 Hz		

For Band edge

Spectrum Parameter	Setting		
Detector	Peak/AV		
Start/Stan Eraguanay	Lower Band Edge: 2300 to 2403 MHz		
Start/Stop Frequency	Upper Band Edge: 2479 to 2500 MHz		
RB / VB (emission in restricted band)	PK=1MHz / 1MHz, AV=1 MHz / 10 Hz		



Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

Report No.: FCS202203052W01

7.2 TEST PROCEDURE

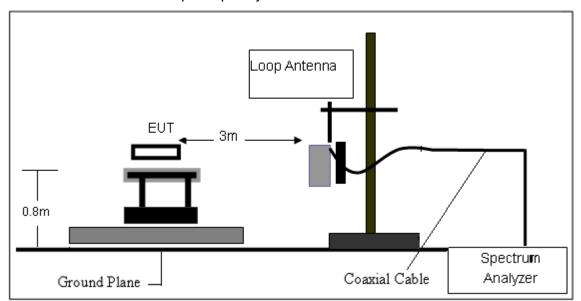
- a. The measuring distance of at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- b. The EUT was placed on the top of a rotating table 0.8 meters (above 1GHz is 1.5 m) above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment shall be 0.8 m(above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. 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 QuasiPeak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos. Note:

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

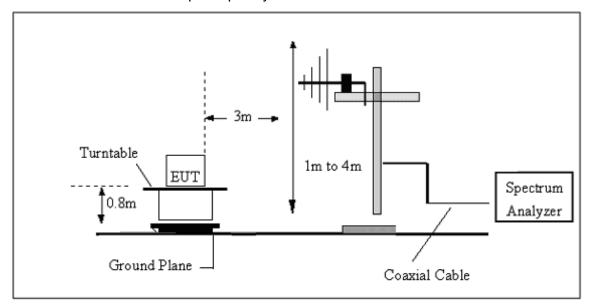


7.3 TESTSETUP

(A) Radiated Emission Test-Up Frequency Below 30MHz

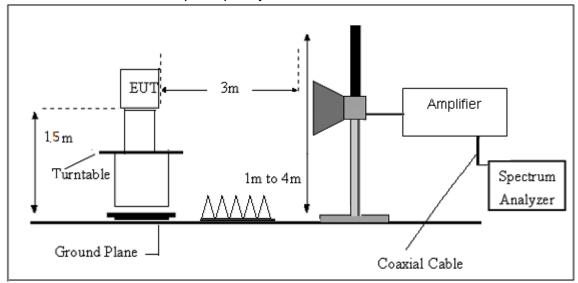


(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





(C) Radiated Emission Test-Up Frequency Above 1GHz





Report No.: FCS202203052W01

7.4. TEST RESULTS

(9KHz-30MHz)

Temperature:	22.7℃	Relative Humidity:	61%
Test Voltage:	DC 12V	Test Mode:	802.11b

Freq.	Reading	Limit	Margin	State	Toot Dooult
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F	Test Result
					PASS
					PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

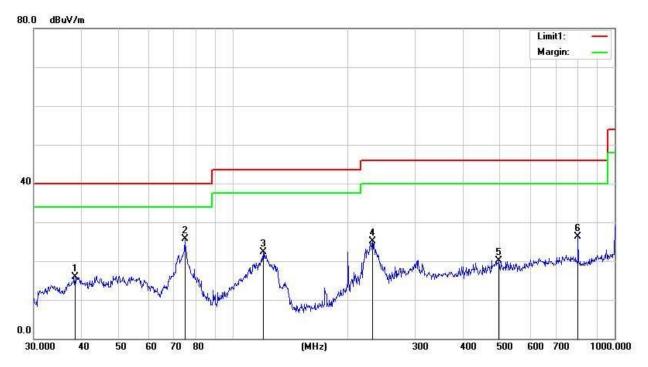
Distance extrapolation factor =40 log (specific distance/test distance)(dB);

Limit line = specific limits (dBuv) + distance extrapolation factor.



(30MHz-1000MHz)

Temperature:	24.7℃	Relative Humidity:	61%
Test Voltage:	DC 12V	Phase:	Horizontal
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result Limit		Margin	Remark
	(MHz)	(dBuV)	Factor(dB/	(dBuV/m)	(dBuV/m)	(dB)	
			m)				
1	38.4808	33.26	-17.34	15.92	40.00	-24.08	QP
2	74.6568	46.94	-21.14	25.80	40.00	-14.20	QP
3	119.8555	42.82	-20.60	22.22	43.50	-21.28	QP
4	231.7178	42.84	-17.81	25.03	46.00	-20.97	QP
5	497.6764	33.33	-13.19	20.14	46.00	-25.86	QP
6	801.7862	36.09	-9.82	26.27	46.00	-19.73	QP

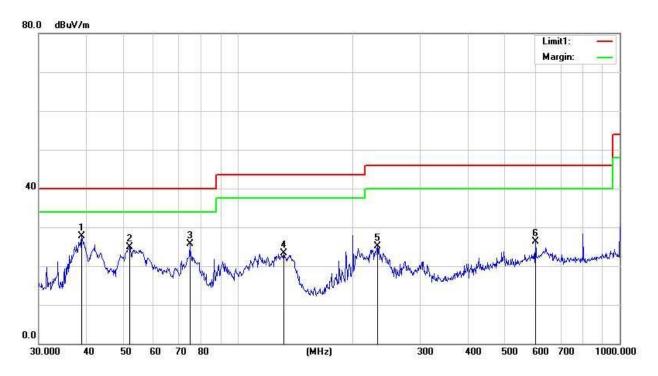
Note: 1. Margin = Result (Result = Reading + Factor)-Limit

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

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



Temperature:	22.7℃	Relative Humidity:	61%
Test Voltage:	DC 12V	Phase:	Vertical
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result Limit		Margin	Remark
	(MHz)	(dBuV)	Factor(dB/	(dBuV/m)	(dBuV/m)	(dB)	
			m)				
1	38.8880	67.97	-40.24	27.73	40.00	-12.27	QP
2	52.0251	65.19	-40.24	24.95	40.00	-15.05	QP
3	74.6568	66.04	-40.24	25.80	40.00	-14.20	QP
4	131.7576	63.61	-40.24	23.37	43.50	-20.13	QP
5	231.7178	65.27	-40.24	25.03	46.00	-20.97	QP
6	601.4265	66.51	-40.24	26.27	46.00	-19.73	QP

Note: 1. Margin = Result (Result = Reading + Factor)—Limit

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



(1GHz~25GHz) Restricted band and Spurious emission Requirements Remark: All restriction band have been tested, and only the worst case is shown in report

802.11b(Worst)-Low

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	39.80	31.79	8.62	32.10	48.11	74.00	-25.89	Vertical
7236.00	33.91	36.19	11.68	31.97	49.81	74.00	-24.19	Vertical
9648.00	32.49	38.07	14.16	31.56	53.16	74.00	-20.84	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	38.55	31.79	8.62	32.10	46.86	74.00	-27.14	Horizontal
7236.00	33.70	36.19	11.68	31.97	49.60	74.00	-24.40	Horizontal
9648.00	32.09	38.07	14.16	31.56	52.76	74.00	-21.24	Horizontal
12060.00	*					74.00		Horizontal
14472.00	*					74.00		Horizontal
16884.00	*					74.00		Horizontal

Average value:										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization		
4824.00	28.93	31.79	8.62	32.10	37.24	54.00	-16.76	Vertical		
7236.00	22.79	36.19	11.68	31.97	38.69	54.00	-15.31	Vertical		
9648.00	22.85	38.07	14.16	31.56	43.52	54.00	-10.48	Vertical		
12060.00	*					54.00		Vertical		
14472.00	*					54.00		Vertical		
16884.00	*					54.00		Vertical		
4824.00	28.11	31.79	8.62	32.10	36.42	54.00	-17.58	Horizontal		
7236.00	22.29	36.19	11.68	31.97	38.19	54.00	-15.81	Horizontal		
9648.00	21.84	38.07	14.16	31.56	42.51	54.00	-11.49	Horizontal		
12060.00	*					54.00		Horizontal		
14472.00	*					54.00		Horizontal		
16884.00	*					54.00		Horizontal		



802.11b(Worst)-Middle

Peak value:

reak value.								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	38.94	31.85	8.66	32.12	47.33	74.00	-26.67	Vertical
7311.00	34.03	36.37	11.71	31.91	50.20	74.00	-23.80	Vertical
9748.00	33.55	38.27	14.25	31.56	54.51	74.00	-19.49	Vertical
12185.00	*					74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	39.49	31.85	8.66	32.12	47.88	74.00	-26.12	Horizontal
7311.00	32.71	36.37	11.71	31.91	48.88	74.00	-25.12	Horizontal
9748.00	33.45	38.27	14.25	31.56	54.41	74.00	-19.59	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*					74.00		Horizontal

Average val	Average value:									
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization		
4874.00	29.83	31.85	8.66	32.12	38.22	54.00	-15.78	Vertical		
7311.00	22.36	36.37	11.71	31.91	38.53	54.00	-15.47	Vertical		
9748.00	22.81	38.27	14.25	31.56	43.77	54.00	-10.23	Vertical		
12185.00	*					54.00		Vertical		
14622.00	*					54.00		Vertical		
17059.00	*					54.00		Vertical		
4874.00	29.62	31.85	8.66	32.12	38.01	54.00	-15.99	Horizontal		
7311.00	21.80	36.37	11.71	31.91	37.97	54.00	-16.03	Horizontal		
9748.00	23.17	38.27	14.25	31.56	44.13	54.00	-9.87	Horizontal		
12185.00	*					54.00		Horizontal		
14622.00	*					54.00		Horizontal		
17059.00	*					54.00		Horizontal		



802.11b(Worst)-High

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	44.18	31.90	8.70	32.15	52.63	74.00	-21.37	Vertical
7386.00	34.52	36.49	11.76	31.83	50.94	74.00	-23.06	Vertical
9848.00	36.71	38.62	14.31	31.77	57.87	74.00	-16.13	Vertical
12310.00	*					74.00		Vertical
14772.00	*					74.00		Vertical
17234.00	*					74.00		Vertical
4924.00	43.59	31.90	8.70	32.15	52.04	74.00	-21.96	Horizontal
7386.00	33.48	36.49	11.76	31.83	49.90	74.00	-24.10	Horizontal
9848.00	32.91	38.62	14.31	31.77	54.07	74.00	-19.93	Horizontal
12310.00	*					74.00		Horizontal
14772.00	*					74.00		Horizontal
17234.00	*					74.00		Horizontal

Average val	ue:							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4924.00	35.15	31.90	8.70	32.15	43.60	54.00	-10.40	Vertical
7386.00	24.45	36.49	11.76	31.83	40.87	54.00	-13.13	Vertical
9848.00	25.23	38.62	14.31	31.77	46.39	54.00	-7.61	Vertical
12310.00	*					54.00		Vertical
14772.00	*					54.00		Vertical
17234.00	*					54.00		Vertical
4924.00	34.00	31.90	8.70	32.15	42.45	54.00	-11.55	Horizontal
7386.00	22.88	36.49	11.76	31.83	39.30	54.00	-14.70	Horizontal
9848.00	22.18	38.62	14.31	31.77	43.34	54.00	-10.66	Horizontal
12310.00	*					54.00		Horizontal
14772.00	*					54.00		Horizontal
17234.00	*					54.00		Horizontal



Radiated Band Edge data

802.11 b low CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	50.31	27.59	5.38	34.01	49.27	74.00	-24.73	Horizontal
2400.00	58.88	27.58	5.39	34.01	57.84	74.00	-16.16	Horizontal
2390.00	51.90	27.59	5.38	34.01	50.86	74.00	-23.14	Vertical
2400.00	60.32	27.58	5.39	34.01	59.28	74.00	-14.72	Vertical

Report No.: FCS202203052W01

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.46	27.59	5.38	34.01	36.42	54.00	-17.58	Horizontal
2400.00	45.61	27.58	5.39	34.01	44.57	54.00	-9.43	Horizontal
2390.00	39.17	27.59	5.38	34.01	38.13	54.00	-15.87	Vertical
2400.00	46.63	27.58	5.39	34.01	45.59	54.00	-8.41	Vertical

802.11 b High CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	50.40	27.53	5.47	33.92	49.48	74.00	- 24.52	Horizontal
2500.00	46.65	27.55	5.49	29.93	49.76	74.00	- 24.24	Horizontal
2483.50	52.38	27.53	5.47	33.92	51.46	74.00	-22.54	Vertical
2500.00	48.91	27.55	5.49	29.93	52.02	74.00	-21.98	Vertical

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.62	27.53	5.47	33.92	36.70	54.00	-17.30	Horizontal
2500.00	33.98	27.55	5.49	29.93	37.09	54.00	-16.91	Horizontal
2483.50	39.45	27.53	5.47	33.92	38.53	54.00	-15.47	Vertical
2500.00	35.81	27.55	5.49	29.93	38.92	54.00	-15.08	Vertical



Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	50.30	27.59	5.38	34.01	49.26	74.00	-24.74	Horizontal
2400.00	58.86	27.58	5.39	34.01	57.82	74.00	-16.18	Horizontal
2390.00	51.88	27.59	5.38	34.01	50.84	74.00	-23.16	Vertical
2400.00	60.29	27.58	5.39	34.01	59.25	74.00	-14.75	Vertical

Report No.: FCS202203052W01

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	37.45	27.59	5.38	34.01	36.41	54.00	-17.59	Horizontal
2400.00	45.60	27.58	5.39	34.01	44.56	54.00	-9.44	Horizontal
2390.00	39.16	27.59	5.38	34.01	38.12	54.00	-15.88	Vertical
2400.00	46.62	27.58	5.39	34.01	45.58	54.00	-8.42	Vertical

802.11 g High CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	50.37	27.53	5.47	33.92	49.45	74.00	-24.55	Horizontal
2500.00	46.63	27.55	5.49	29.93	49.74	74.00	-24.26	Horizontal
2483.50	52.36	27.53	5.47	33.92	51.44	74.00	-22.56	Vertical
2500.00	48.89	27.55	5.49	29.93	52.00	74.00	-22.00	Vertical

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.61	27.53	5.47	33.92	36.69	54.00	-17.31	Horizontal
2500.00	33.97	27.55	5.49	29.93	37.08	54.00	-16.92	Horizontal
2483.50	39.43	27.53	5.47	33.92	38.51	54.00	-15.49	Vertical
2500.00	35.80	27.55	5.49	29.93	38.91	54.00	-15.09	Vertical



Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	49.61	27.59	5.38	34.01	48.57	74.00	-25.43	Horizontal
2400.00	57.94	27.58	5.39	34.01	56.90	74.00	-17.10	Horizontal
2390.00	51.15	27.59	5.38	34.01	50.11	74.00	-23.89	Vertical
2400.00	59.19	27.58	5.39	34.01	58.15	74.00	-15.85	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	36.96	27.59	5.38	34.01	35.92	54.00	-18.08	Horizontal
2400.00	45.03	27.58	5.39	34.01	43.99	54.00	-10.01	Horizontal
2390.00	38.62	27.59	5.38	34.01	37.58	54.00	-16.42	Vertical
2400.00	46.00	27.58	5.39	34.01	44.96	54.00	-9.04	Vertical

802.11 N 20 High CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	49.39	27.53	5.47	33.92	48.47	74.00	-25.53	Horizontal
2500.00	45.87	27.55	5.49	29.93	48.98	74.00	- 25.02	Horizontal
2483.50	51.24	27.53	5.47	33.92	50.32	74.00	-23.68	Vertical
2500.00	48.00	27.55	5.49	29.93	51.11	74.00	- 22.89	Vertical

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
2483.50	37.02	27.53	5.47	33.92	36.10	54.00	-17.90	Horizontal	
2500.00	33.51	27.55	5.49	29.93	36.62	54.00	-17.38	Horizontal	
2483.50	38.78	27.53	5.47	33.92	37.86	54.00	-16.14	Vertical	
2500.00	35.31	27.55	5.49	29.93	38.42	54.00	-15.58	Vertical	



Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	38.61	27.61	5.38	34.01	37.59	74.00	-36.41	Horizontal
2400.00	51.32	27.59	5.40	34.01	50.30	74.00	-23.70	Horizontal
2310.00	38.82	27.61	5.38	34.01	37.80	74.00	-36.20	Vertical
2400.00	53.31	27.59	5.40	34.01	52.29	74.00	-21.71	Vertical

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2310.00	31.84	27.61	5.38	34.01	30.82	54.00	-23.18	Horizonta l
2400.00	37.94	27.59	5.40	34.01	36.92	54.00	- 17.08	Horizontal
2310.00	32.39	27.61	5.38	34.01	31.37	54.00	-22.63	Vertical
2400.00	39.67	27.59	5.40	34.01	38.65	54.00	- 15.35	Vertical

802.11 N 40 High CH

Peak value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	50.95	27.53	5.47	33.92	50.03	74.00	-23.97	Horizontal
2500.00	47.08	27.55	5.49	29.93	50.19	74.00	-23.81	Horizontal
2483.50	53.01	27.53	5.47	33.92	52.09	74.00	-21.91	Vertical
2500.00	49.41	27.55	5.49	29.93	52.52	74.00	-21.48	Vertical

Average value:

Frequency (MHz)	Read Leve l (dBuV)	Antenna Factor (dB/m)	Cab l e Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2483.50	37.96	27.53	5.47	33.92	37.04	54.00	-16.96	Horizonta l
2500.00	34.24	27.55	5.49	29.93	37.35	54.00	- 16.65	Horizonta l
2483.50	39.82	27.53	5.47	33.92	38.90	54.00	- 15.10	Vertical
2500.00	36.08	27.55	5.49	29.93	39.19	54.00	- 14.81	Vertical

Notes:

- 1. Final Level =Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



8 CONDUCTED EMISSION TEST

8.1.1 POWER LINE CONDUCTED EMISSION LIMITS

Operating frequency band. In case the emission fall within the restricted band specified on Part 207(a) limit in the table below has to be followed.

Report No.: FCS202203052W01

FDFOLIENCY (MILL-)	Conducted Emissionlimit (dBuV)				
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			

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

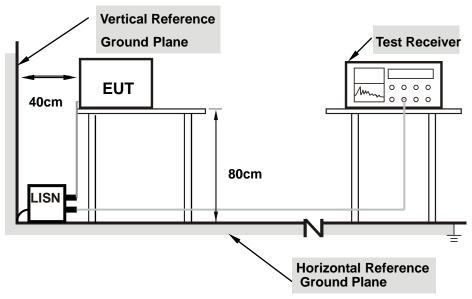
Receiver Parameters	Setting		
Attenuation	10 dB		
Start Frequency	0.15 MHz		
Stop Frequency	30 MHz		
IF Bandwidth	9 kHz		



8.1.2 TEST PROCEDURE

- a. The EUT was 0.8 meters from the horizontal ground plane and 0.4 meters from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

8.1.3 TEST SETUP



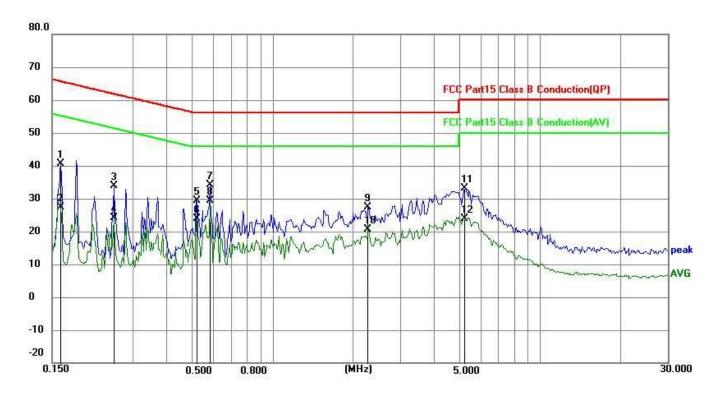
Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes



8.1.4 TEST RESULT

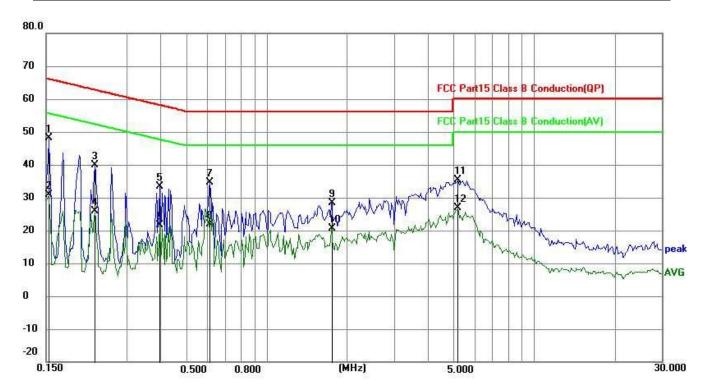
Temperature:	22.1 ℃	Relative Humidity:	56%
Test Voltage:	DC 12V	Phase:	L
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1617	30.76	9.78	40.54	65.38	24.84	QP
2	0.1617	17.70	9.78	27.48	55.38	27.90	AVG
3	0.2553	24.00	9.82	33.82	61.58	27.76	QP
4	0.2553	14.34	9.82	24.16	51.58	27.42	AVG
5	0.5205	19.50	9.87	29.37	56.00	26.63	QP
6	0.5205	13.96	9.87	23.83	46.00	22.17	AVG
7	0.5829	24.36	9.88	34.24	56.00	21.76	QP
8	0.5829	19.50	9.88	29.38	46.00	16.62	AVG
9	2.2833	17.36	9.94	27.30	56.00	28.70	QP
10	2.2833	10.66	9.94	20.60	46.00	25.40	AVG
11	5.2213	23.24	9.96	33.20	60.00	26.80	QP
12	5.2213	13.84	9.96	23.80	50.00	26.20	AVG



Temperature:	22.1 ℃	Relative Humidity:	56%
Test Voltage:	DC 12V	Phase:	N
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1539	38.48	9.77	48.25	65.79	17.54	QP
2	0.1539	21.18	9.77	30.95	55.79	24.84	AVG
3	0.2280	30.12	9.80	39.92	62.52	22.60	QP
4	0.2280	16.00	9.80	25.80	52.52	26.72	AVG
5	0.3996	23.60	9.85	33.45	57.86	24.41	QP
6	0.3996	11.82	9.85	21.67	47.86	26.19	AVG
7	0.6108	24.82	9.88	34.70	56.00	21.30	QP
8	0.6108	11.95	9.88	21.83	46.00	24.17	AVG
9	1.7529	18.54	9.93	28.47	56.00	27.53	QP
10	1.7529	10.66	9.93	20.59	46.00	25.41	AVG
11	5.1996	25.24	10.03	35.27	60.00	24.73	QP
12	5.1996	16.80	10.03	26.83	50.00	23.17	AVG



9. ANTENNA REQUIREMENT

9.1 STANDARD REQUIREMENT

For intentional device, according to FCC 47 CFR Section 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Report No.: FCS202203052W01

9.2 RESULT

The antennas used for this product are PCB antenna and other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is 1.0dBi.

* * * * * END OF THE REPORT * * * *