

FCC Test Report

Report No: FCS202109025W01

Issued for

Applicant:	Netradyne, Inc.
Address:	9191 Towne Centre Drive Suite 200,San Diego, CA 92122
Product Name:	Mobile DVR
Brand Name:	NETRADYNE
Model Name:	NDDVR-300
Series Model:	N/A
FCC ID:	2AM8R-NDDVR-300
Add: Room 105 Floor Hi-T	By: Flux Compliance Service Laboratory Bao hao Technology Building 1 NO.15 Gong ye West Road ech Industrial, Song shan lake Dongguan (:769-27280901 http://www.FCS-lab.com



TEST RESULT CERTIFICATION

Applicant's Name:	Netradyne, Inc.
Address:	9191 Towne Centre Drive Suite 200,San Diego, CA 92122
Manufacture's Name:	FURTHER TECHNOLOGY (DONGGUAN) CO., LIMITED
Address:	Tangxia Road 120, Tangxia Town, Dongguan City, Guangdong Province, China
Product Description	
Product Name:	Mobile DVR
Brand Name	NETRADYNE
Model Name:	NDDVR-300
Series Model	N/A
Test Standards:	FCC Rules and Regulations Part 15 Subpart C, Section 247
Test Procedure:	ANSI C63.10-2013

This device described above has been tested by Flux Compliance Service Laboratory, the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test.....

Date (s) of performance of tests.: 10 Sep, 2021 ~ 26 Sep, 2021

:

1

Date of Issue..... 26 Sep, 2021

Test Result..... Pass

Tested by

Scott shen

(Scott Shen)

Reviewed by

(Duke Qian)

Dukelin

Approved by

(Kait Chen)



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Revision History

Rev.	Issue Date	Effect Page	Contents
00	26 Sep, 2021	All	Initial Issue

Flux Compliance Service Laboratory 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

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	Test Item	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)	Dedicted Countieurs Environieurs			
FCC 15.209	Radiated Spurious Emissions	PASS		
FCC 15.205				
FCC 15.247 (d)	Dedicted Dand 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 **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	Mobile DVR
Trade Name	NETRADYNE
Model Name	NDDVR-300
Series Model	N/A
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.
	IEEE 802.11b: 2412MHz-2462MHz
Operation frequency	IEEE 802.11g: 2412MHz-2462MHz
	IEEE 802.11n HT20: 2412MHz-2462MHz
	IEEE 802.11n HT40: 2422MHz-2452MHz
	IEEE 802.11b: DSSS (CCK, QPSK, BPSK)
Modulation:	IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK)
	IEEE 802.11b: 1, 2, 5.5, 11 Mbps
Transmitter rate:	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 12V
Hardware version number	V1.0
Software version number	V1.0
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)						
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	NA	GYRC	external Antenna	N/A	1.0	WIFI Antenna

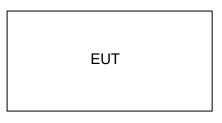


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2.2 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

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



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

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.

Item	Equipment	Mfr/Brand	Model/Type No.	Serial No.	Note
1	Adapter	HW	0789SK	N/A	This adapter is for testing only in report.

Necessary accessories

Support units

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

Note:

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



2.4 EQUIPMENTS LIST

Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESRP 3	FCS-E001	2021.05.26	2022.05.25
Signal Analyzer	R&S	FSV40-N	FCS-E012	2021.05.26	2022.05.25
Active loop Antenna	ZHINAN	ZN30900C	FCS-E013	2021.07.08	2022.07.07
Bilog Antenna	SCHWARZBECK	VULB 9168	FCS-E002	2021.08.26	2022.08.25
Horn Antenna	SCHWARZBECK	BBHA 9120D	FCS-E003	2021.08.26	2022.08.25
SHF-EHF Horn Antenna (18G-40GHz)	A-INFO	LB-180400-KF	FCS-E018	2021.05.26	2022.05.25
Pre-Amplifier(0.1M-3G Hz)	EMCI	EM330N	FCS-E004	2021.05.26	2022.05.25
Pre-Amplifier (1G-18GHz)	N/A	TSAMP-0518SE	FCS-E014	2021.05.26	2022.05.25
Pre-Amplifier (18G-40GHz)	TERA-MW	TRLA-0400	FCS-E019	2021.07.08	2022.07.07
Temperature & Humidity	HTC-1	victor	FCS-E005	2021.08.26	2022.08.25

Conduction Test equipment

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
EMI Test Receiver	R&S	ESPI	FCS-E020	2021.05.26	2022.05.25
LISN	R&S	ENV216	FCS-E007	2021.07.08	2022.07.07
LISN	ETS	3810/2NM	FCS-E009	2021.05.26	2022.05.25
Temperature & Humidity	HTC-1	victor	FCS-E008	2021.07.08	2022.07.07

RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Company No.	Last calibration	Calibrated until
MXA SIGNAL Analyzer	Keysight	N9020A	FCS-E015	2021.05.26	2022.05.25
Spectrum Analyzer	Agilent	E4447A	MY50180039	2021.07.08	2022.07.07
Spectrum Analyzer	R&S	FSV-40	101499	2021.08.26	2022.08.25
Power Sensor	Agilent	UX2021XA	FCS-E021	2021.05.26	2022.05.25

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3.6DB BANDWIDTH

3.1 Limit

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

3.2 Test Procedure

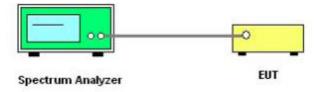
(1) Connect EUT's antenna output to spectrum analyzer by RF cable.

(2) Set the spectrum analyzer as follows

RBW:	100kHz
VBW:	300kHz
Detector Mode:	Pake
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



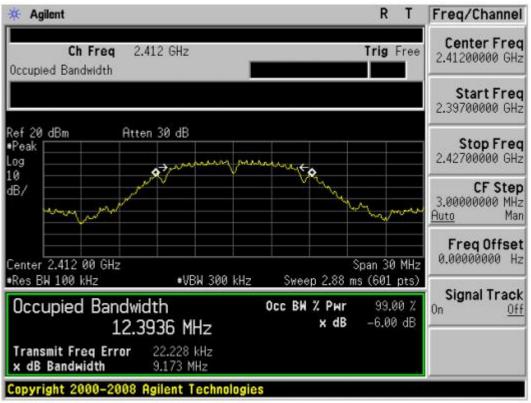


3.4 Test results

TestMode	Channel (MHz)	6dB Bandwidth (MHz)	Limit [MHz]	Verdict
802.11b	2412MHz	9.173	0.5	Pass
802.11b	2437MHz	9.107	0.5	Pass
802.11b	2462MHz	9.140	0.5	Pass
802.11g	2412MHz	16.379	0.5	Pass
802.11g	2437MHz	16.394	0.5	Pass
802.11g	2462MHz	16.381	0.5	Pass
802.11n 20	2412MHz	17.645	0.5	Pass
802.11n 20	2437MHz	17.658	0.5	Pass
802.11n 20	2462MHz	17.655	0.5	Pass
802.11n 40	2422MHz	36.268	0.5	Pass
802.11n 40	2437MHz	35.921	0.5	Pass
802.11n 40	2452MHz	36.056	0.5	Pass

3.5 Original Test Data

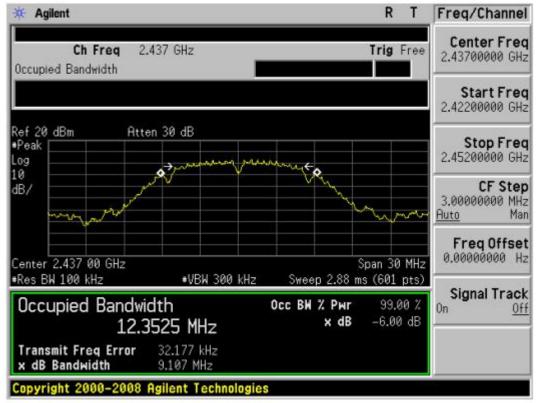




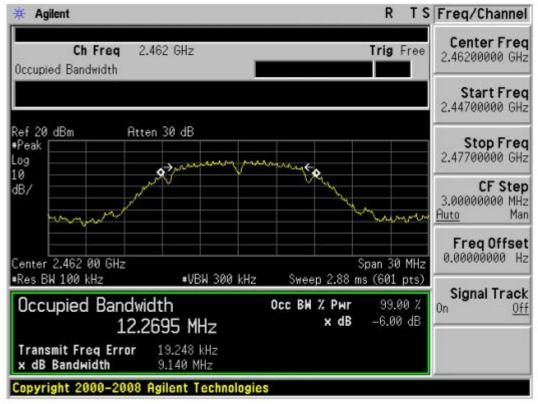


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802.11b-CH237MHZ



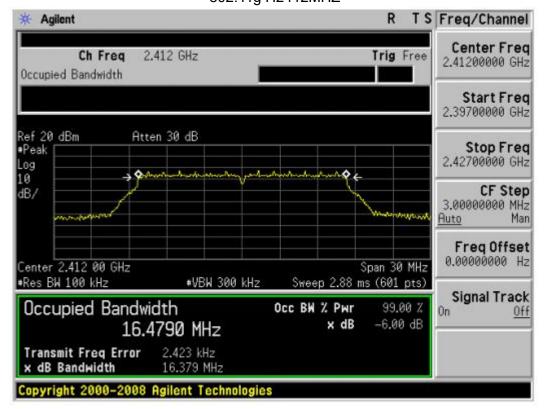
802.11b-CH2462MHZ



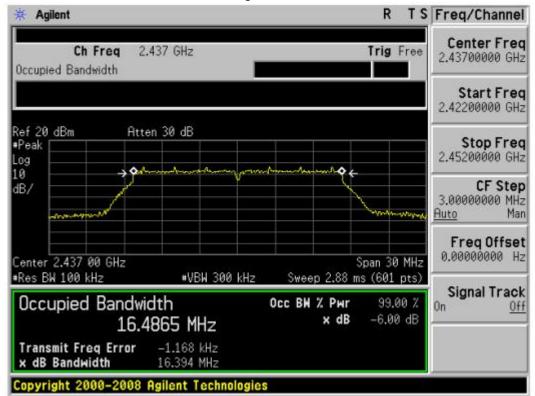


802.11g H2412MHZ

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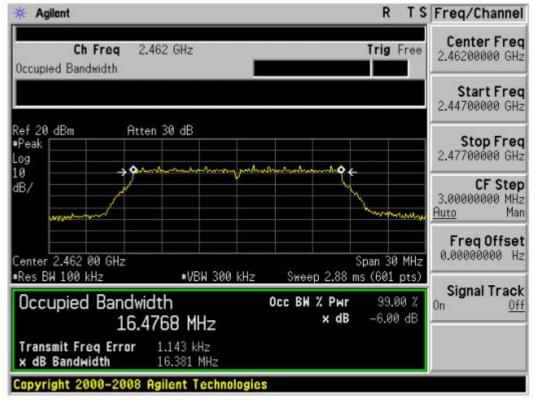
802.11g CH2437MHZ



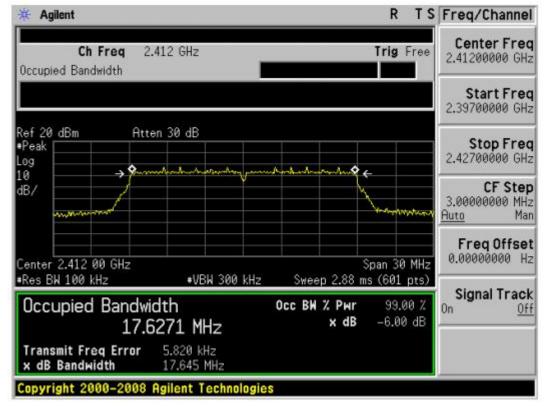


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802.11g CH2462MHZ



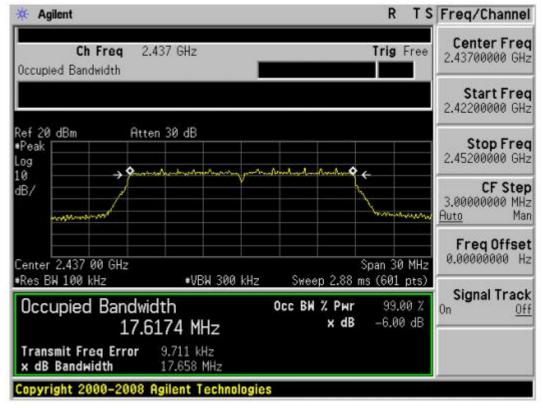
802.11n 20-2412MHz



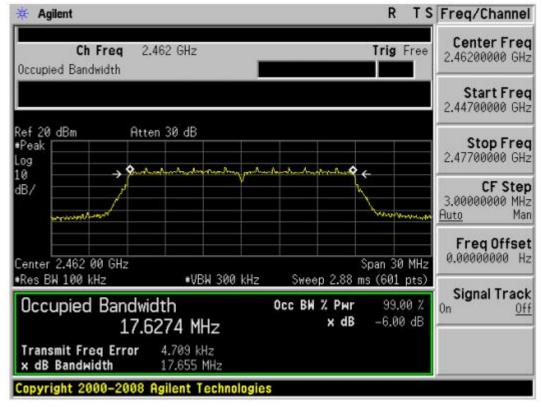


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802.11n 20-2437MHz



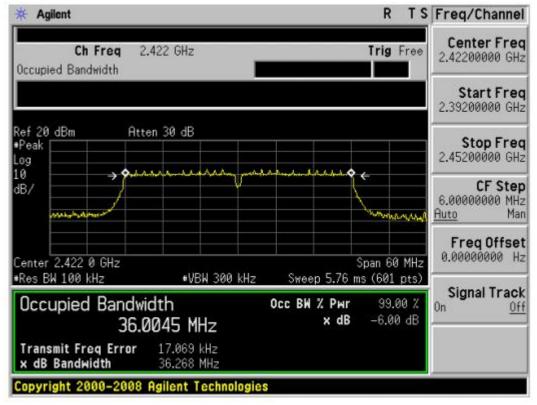
802.11n 20-2462MHz



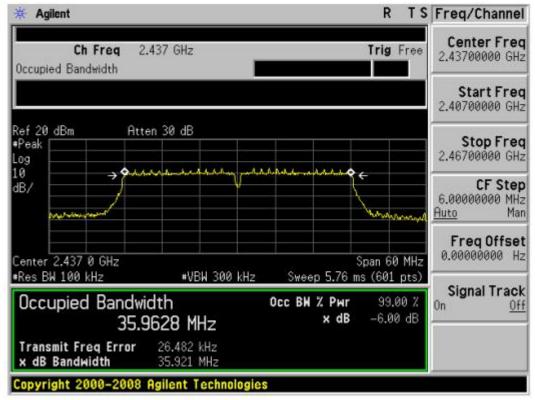


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802.11n 40-2422MHz



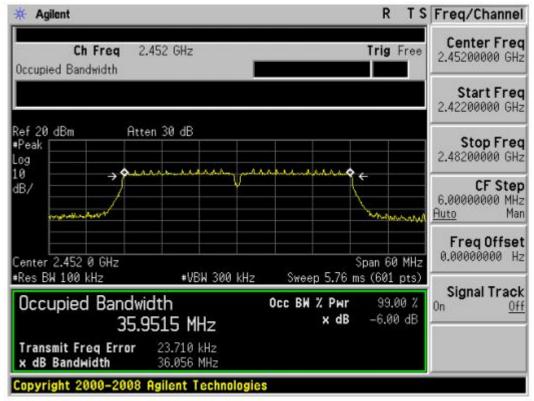
802.11n 40-2437MHz





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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.

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	9.63	30	Pass
802.11b	2437MHz	9.86	30	Pass
802.11b	2462MHz	9.64	30	Pass
802.11g	2412MHz	8.61	30	Pass
802.11g	2437MHz	9.34	30	Pass
802.11g	2462MHz	9.03	30	Pass
802.11n 20	2412MHz	8.49	30	Pass
802.11n 20	2437MHz	8.32	30	Pass
802.11n 20	2462MHz	8.27	30	Pass
802.11n 40	2422MHz	6.29	30	Pass
802.11n 40	2437MHz	7.35	30	Pass
802.11n 40	2452MHz	7.48	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 kHz ≤ RBW ≤ 100 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



Spectrum Analyzer

EUT



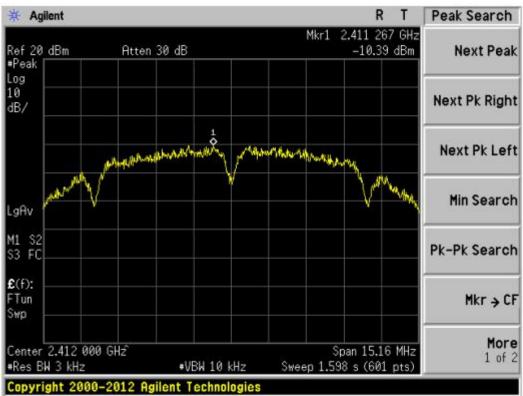
5.4 TEST RESULTS

TestMode	Channel (MHz)	Result (dBm/3KHz)	Limit (dBm/3KHz)	Verdict
802.11b	2412MHz	-10.39	8	Pass
802.11b	2437MHz	-10.25	8	Pass
802.11b	2462MHz	-10.53	8	Pass
802.11g	2412MHz	-11.71	8	Pass
802.11g	2437MHz	-12.17	8	Pass
802.11g	2462MHz	-11.36	8	Pass
802.11n 20	2412MHz	-12.23	8	Pass
802.11n 20	2437MHz	-12.69	8	Pass
802.11n 20	2462MHz	-12.10	8	Pass
802.11n 40	2422MHz	-15.84	8	Pass
802.11n 40	2437MHz	-16.11	8	Pass
802.11n 40	2452MHz	-15.88	8	Pass



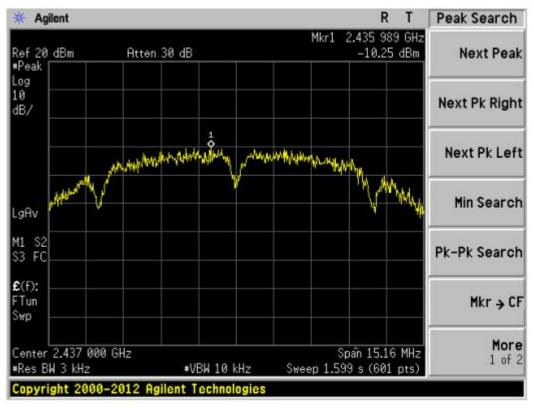


5.5 original test data



802.11b-2412MHz

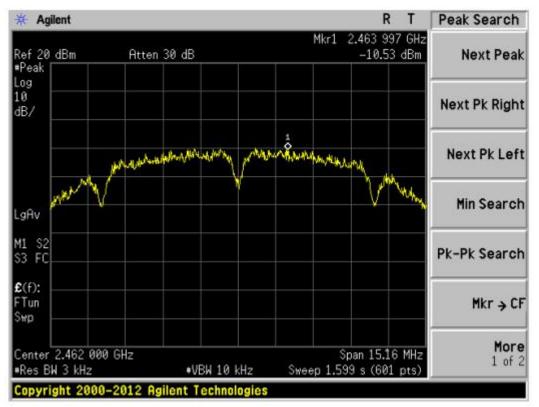
802.11b-2437MHz



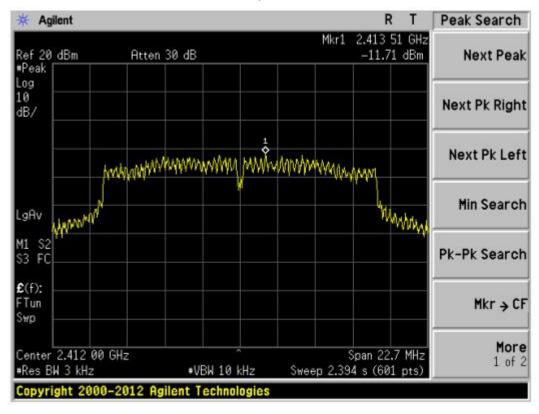


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802.11b-2462MHz



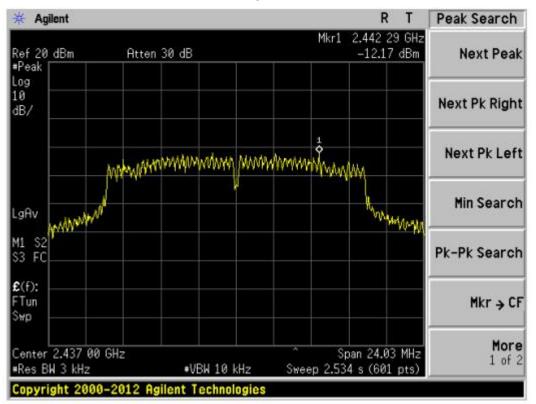
802.11g-2412MHz



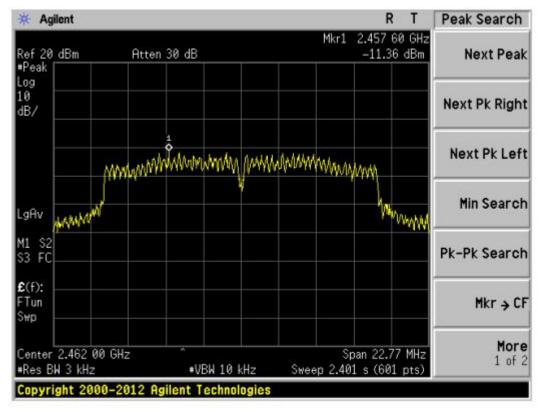


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802.11g-2437MHz



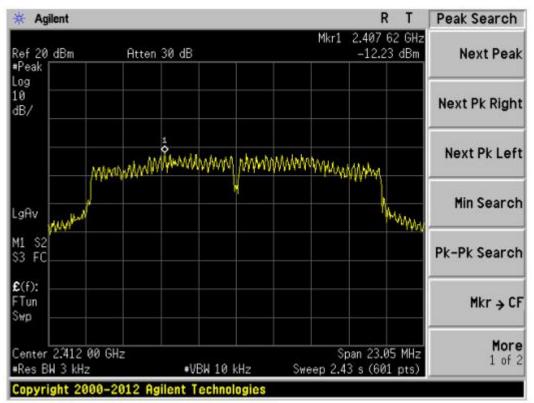
802.11g-2462MHz



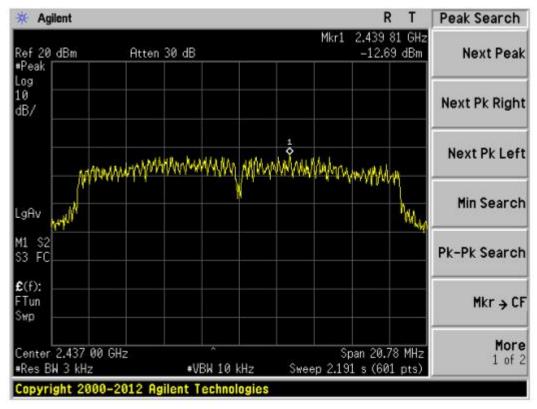


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802.11n 20-2412MHz



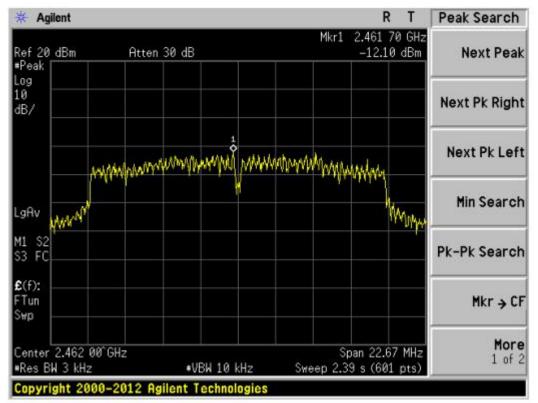
802.11n 20-2437MHz



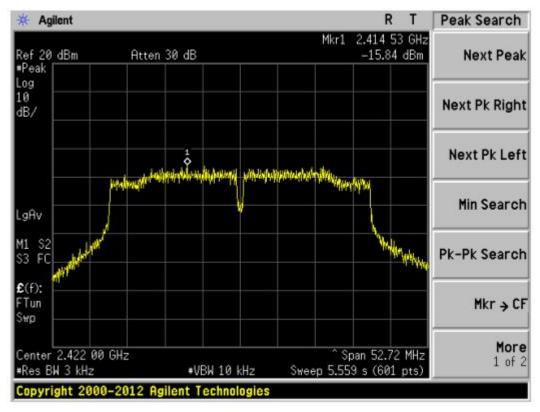


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802.11n 20-2462MHz



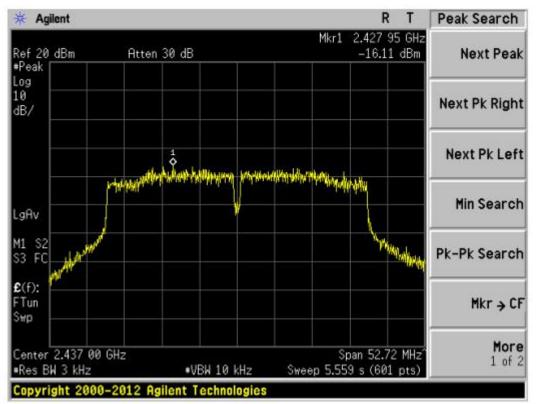
802.11n 40-2422MHz



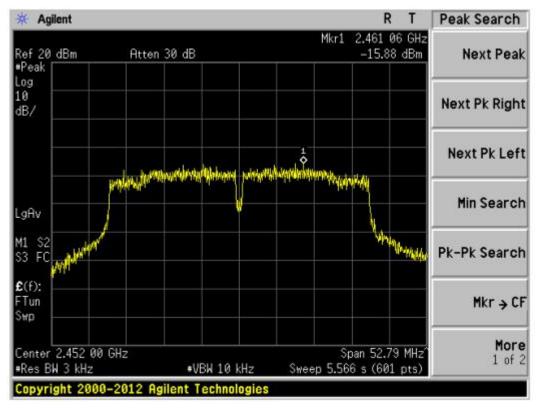


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802.11n 40-2437MHz



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:	Pake
Sweep time:	auto
Trace mode	Max hold

(3) Establish Allow the trace to stabilize, use the peak marker function to determine the maximum peak

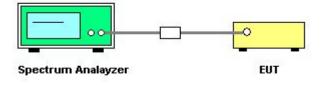
power level to establish the reference level.

(4) Set the spectrum analyzer as follows:

RBW:	100kHz
VBW:	300kHz
Span	Encompass frequency range to be
	measured
Number of measurement points	≥span/RBW
Detector Mode:	Pake
Sweep time:	auto
Trace mode	Max hold

(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

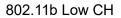


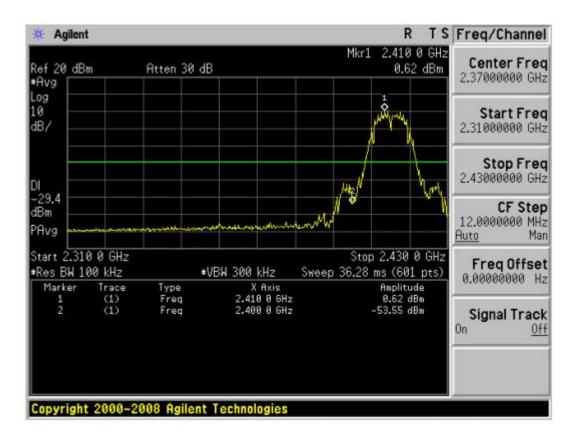


6.5 TEST RESULTS

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	СНЗ	Pass
	CH9	Pass

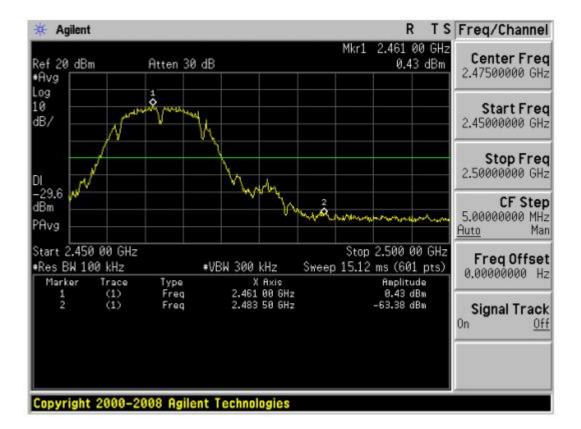
6.5 Original test data



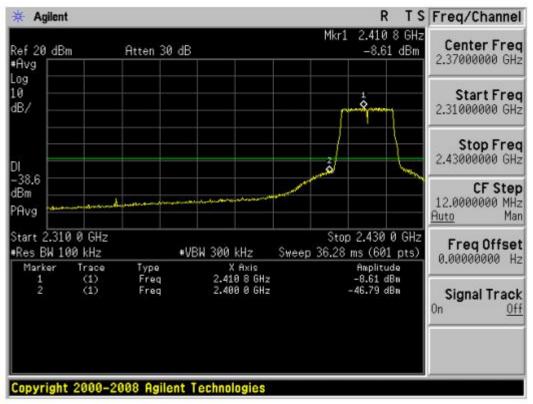




802.11b High CH

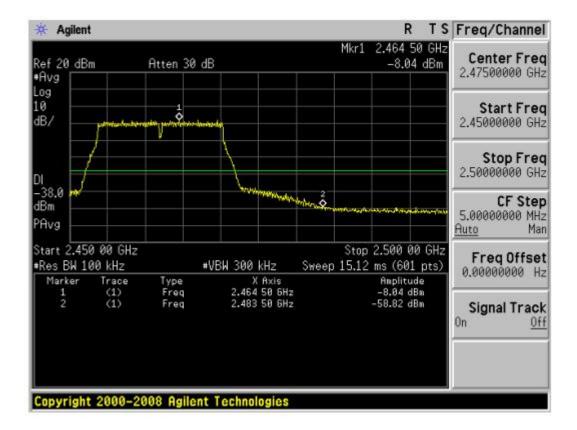


802.11g low CH

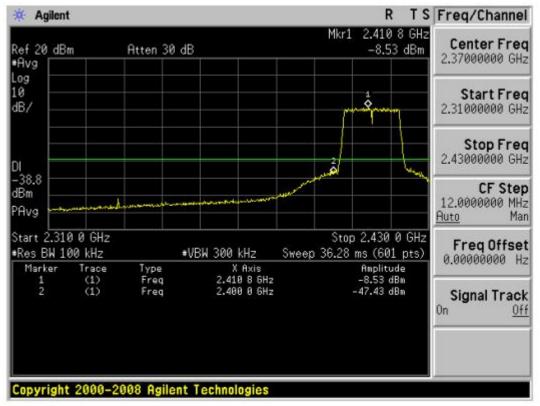




802.11g high CH



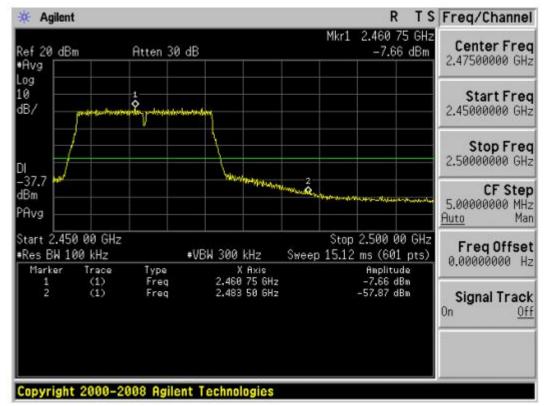
802.11n20 Low CH



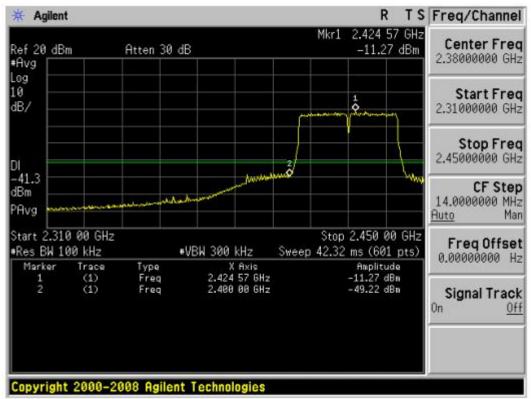
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802.11n20 High CH



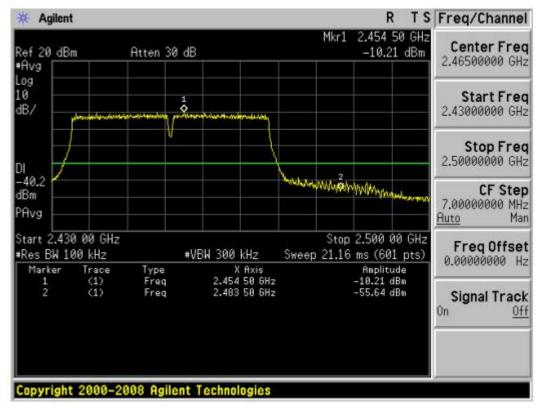
802.11n40 Low CH



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802.11n40 High CH

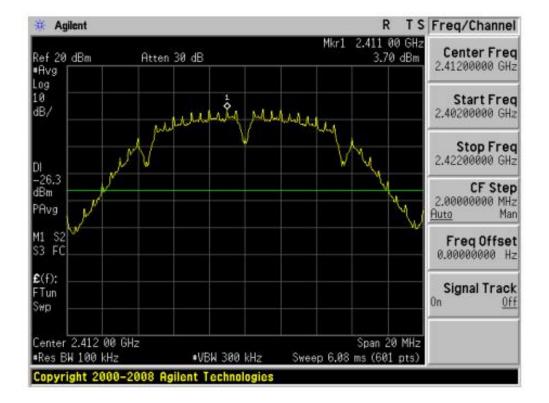




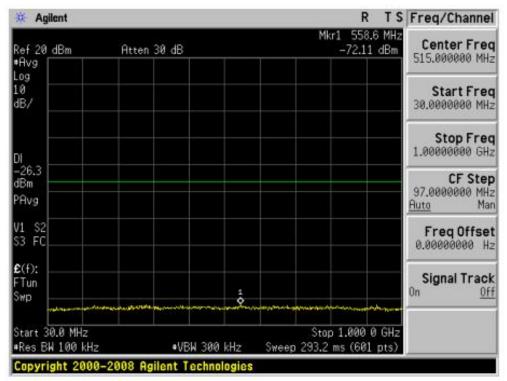
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Spurious emissions (802.11b)

802.11b low CH, 2412MHZ

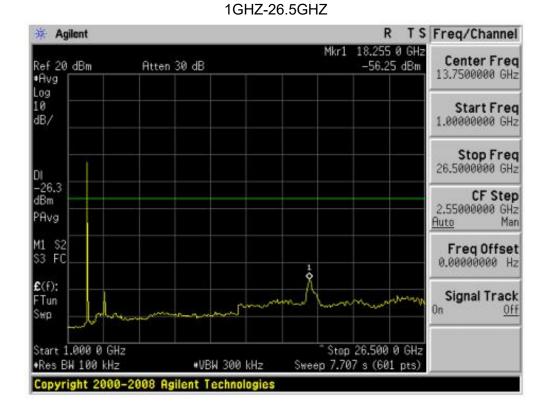


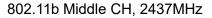
30MHZ-1GHZ

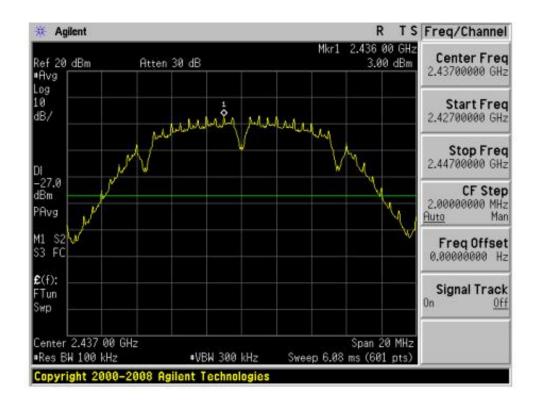


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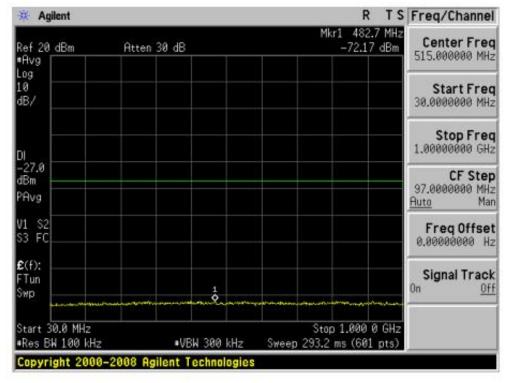




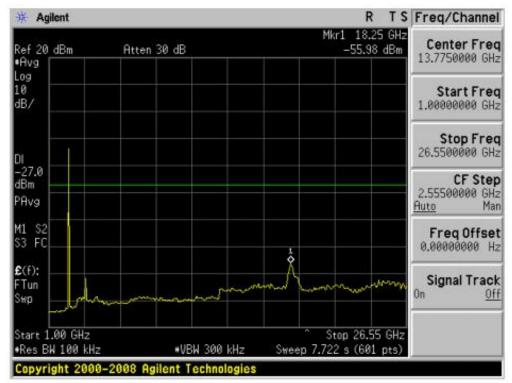
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30MHZ-1GHZ



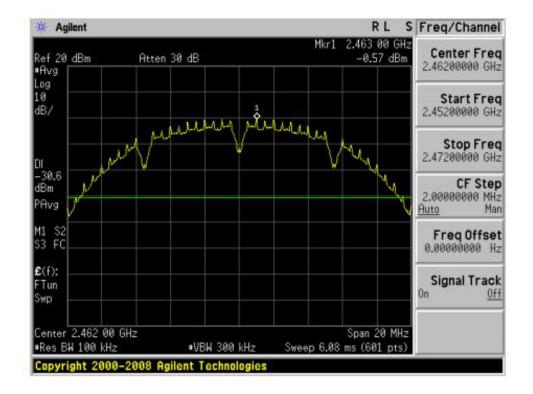
1GHZ-26.5GHZ



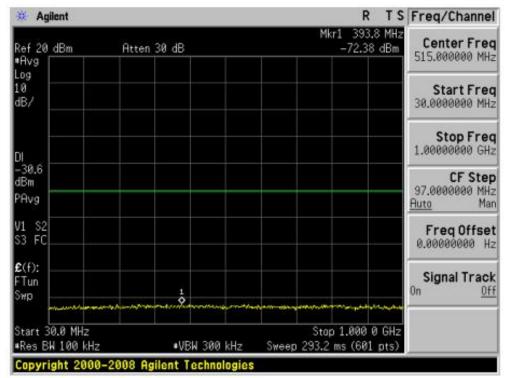


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802.11b High CH, 2462MHz

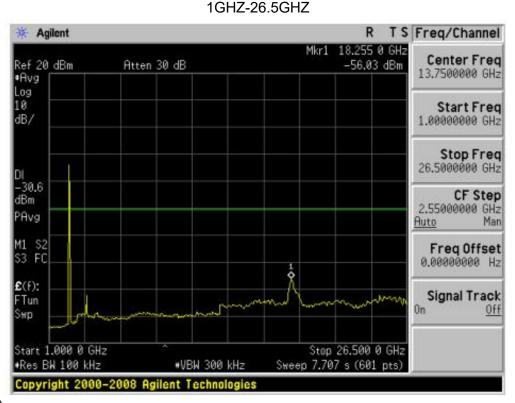


30MHZ-1GHZ

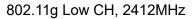


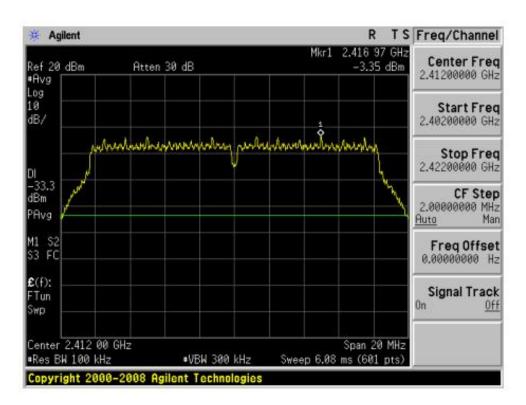
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(802.11g)



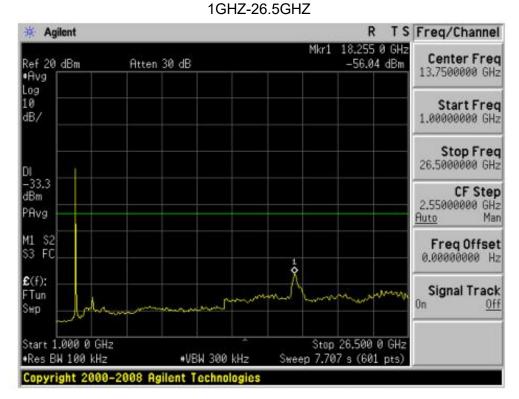


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💥 Agilent R T S Freq/Channel Mkr1 300.0 MHz **Center Freq** Ref 20 dBm Atten 30 dB -72.28 dBm 515.000000 MHz *Avg Log 10 Start Freq dB/ 30.0000000 MHz Stop Freq 1.00000000 GHz DL -33.3 **CF** Step dBm 97.0000000 MHz PAvg Auto Man V1 S2 S3 FC Freq Offset 0.00000000 Hz £(f): Signal Track FTun 0n 1 Off Swp Start 30.0 MHz Stop 1.000 0 GHz Res BH 100 kHz •VBW 300 kHz Sweep 293.2 ms (601 pts) Copyright 2000-2008 Agilent Technologies

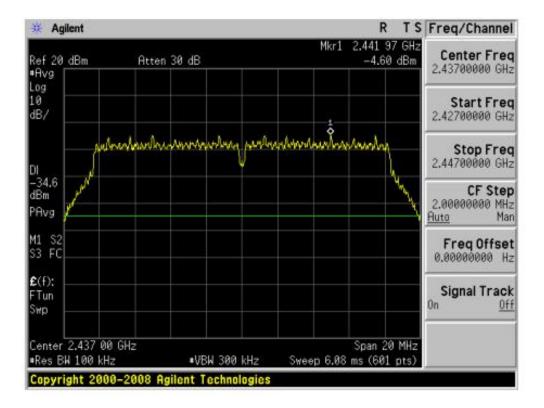
30MHZ-1GHZ



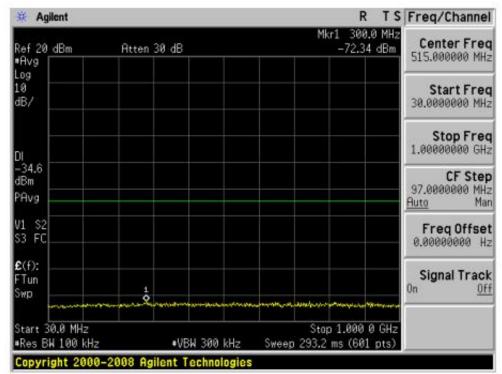


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802.11g Middle CH, 2437MHz



30MHZ-1GHZ



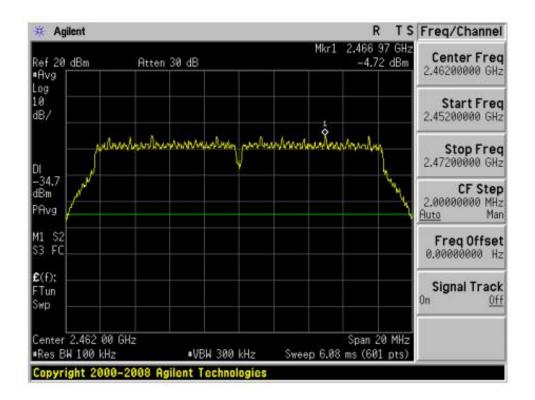
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R TS Freq/Channel 🔆 Agilent Mkr1 18.255 0 GHz **Center Freq** -56.21 dBm Ref 20 dBm Atten 30 dB 13,7500000 GHz +Avg Log 10 Start Freq dB/ 1.00000000 GHz Stop Freq 26.5000000 GHz DI -34.6 dBm **CF** Step 2.55000000 GHz PAvg Man Auto S2 FC M1 Freq Offset 0.00000000 Hz 1 £(f): Signal Track FTun .km 0n Off Sнр Start 1.000 0 GHz Stop 26.500 0 GHz Res BW 100 kHz *VBW 300 kHz Sweep 7.707 s (601 pts) Copyright 2000-2008 Agilent Technologies

1GHZ-26.5GHZ

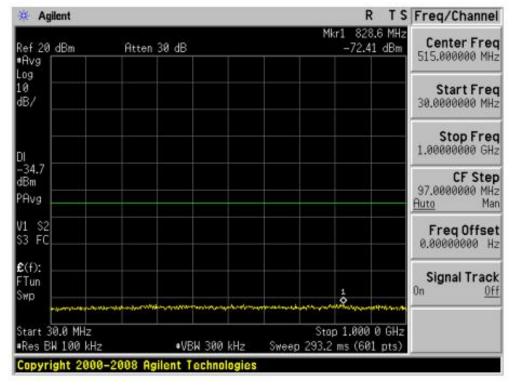
802.11g High CH, 2462MHz



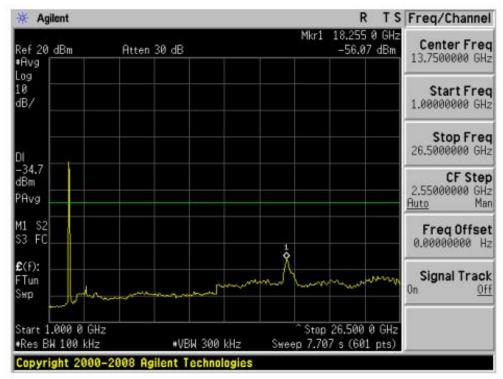
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30MHZ-1GHZ



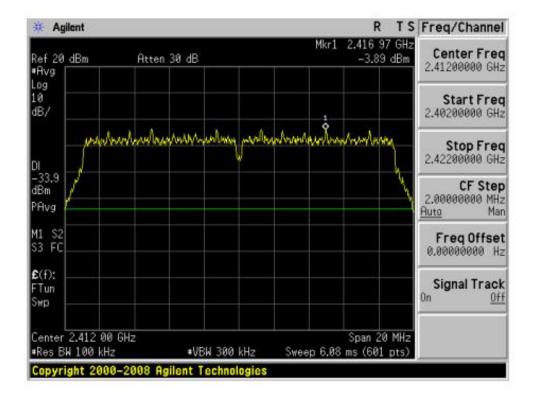
1GHZ-26.5GHZ



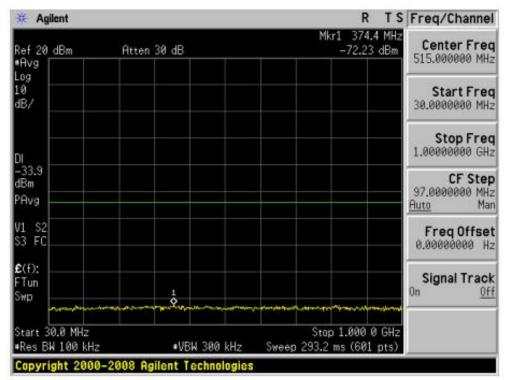


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802.11n 20 Low CH, 2412MHz

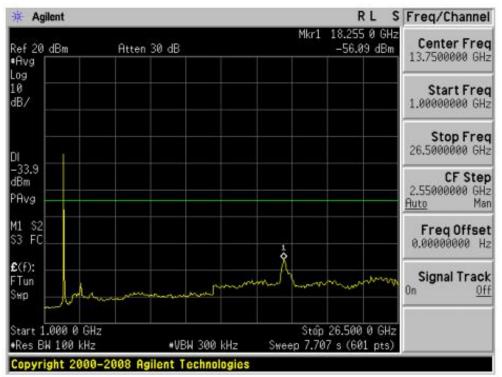


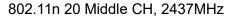
30MHZ-1GHZ

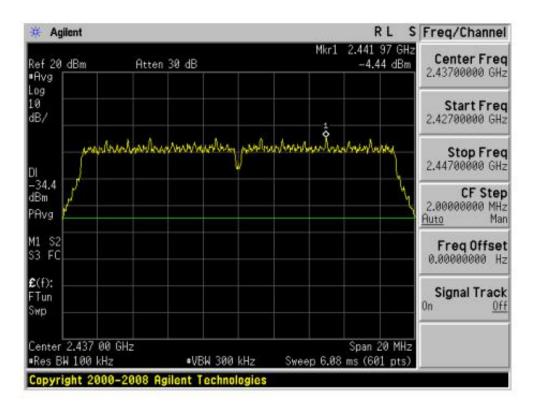


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1GHZ-26.5GHZ

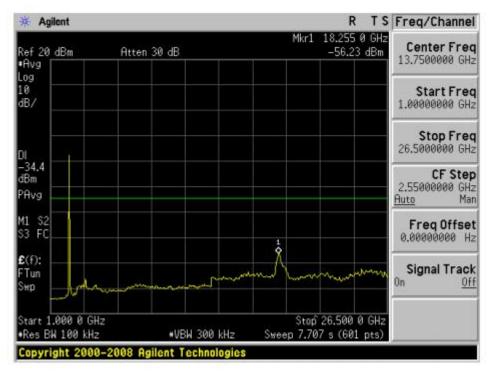
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💥 Agilent R TS Freq/Channel Mkr1 327.5 MHz **Center Freq** Ref 20 dBm Atten 30 dB -72.43 dBm 515.000000 MHz ■Avg Log 10 Start Freq dB/ 30.0000000 MHz Stop Freq 1.00000000 GHz DI -34.4 **CF** Step dBm 97.0000000 MHz PAvg Auto Man V1 S3 \$2 FC Freq Offset 0.00000000 Hz £(f): Signal Track FTun On Off Swp O Center 515.0 MHz Span 970 MHz Sweep 293.2 ms (601 pts) Res BW 100 kHz +VBW 300 kHz Copyright 2000-2008 Agilent Technologies

30MHZ-1GHZ

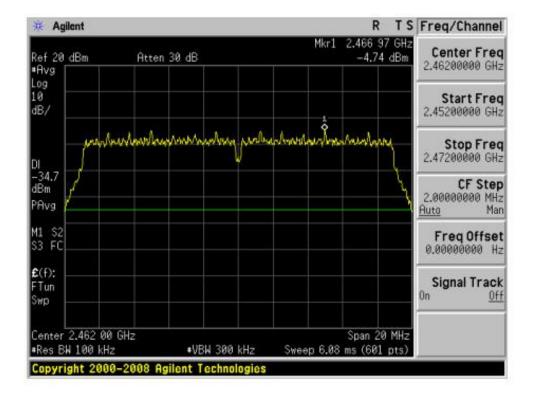
1GHZ-26.5GHZ



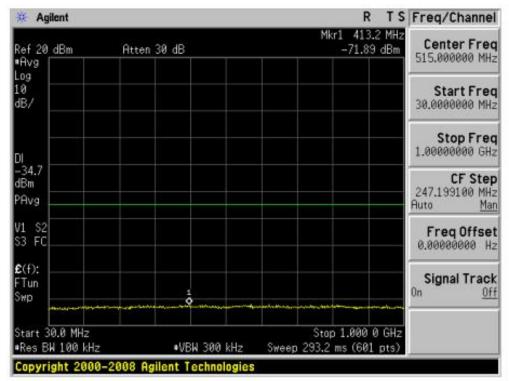


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802.11n 20 High CH, 2462MHz



30MHZ-1GHZ



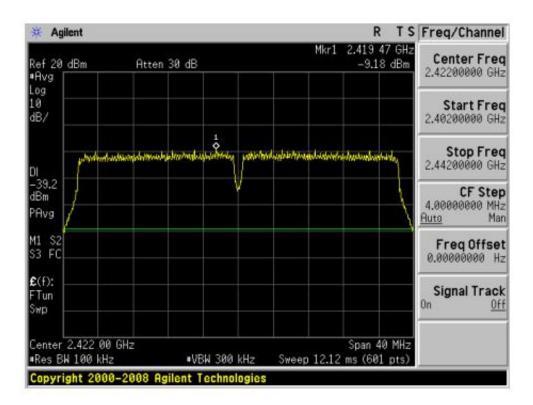
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1GHZ-26.5GHZ



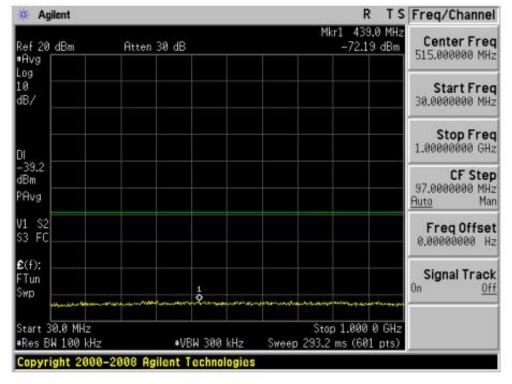




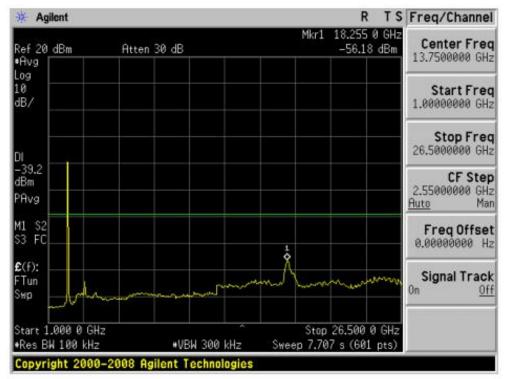
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30MHZ-1GHZ



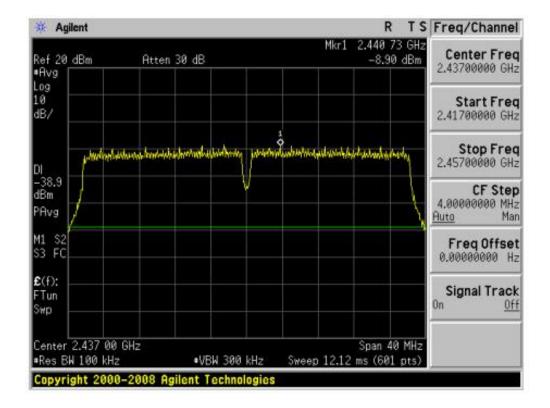
1GHZ-26.5GHZ



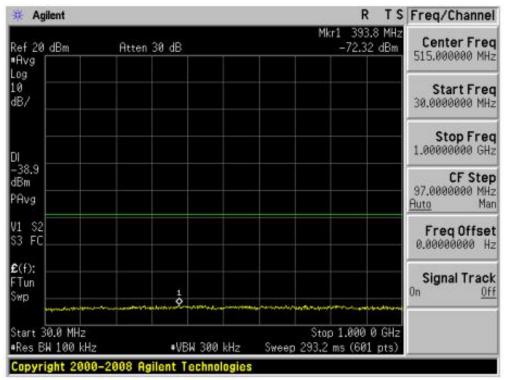
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802.11n 40 Middle CH, 2437MHz

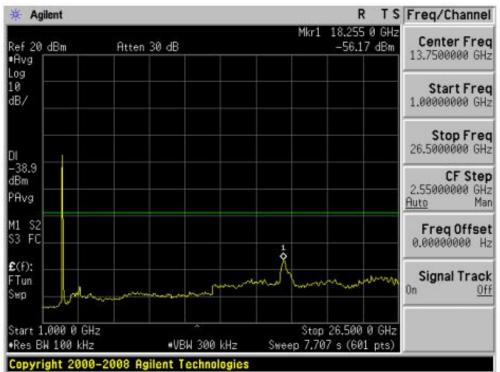


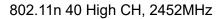
30MHZ-1GHZ

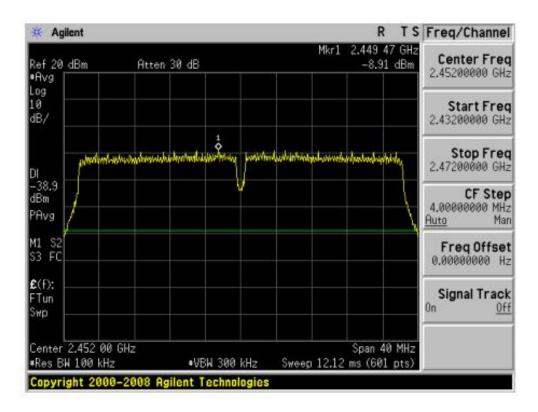


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1GHZ-26.5GHZ

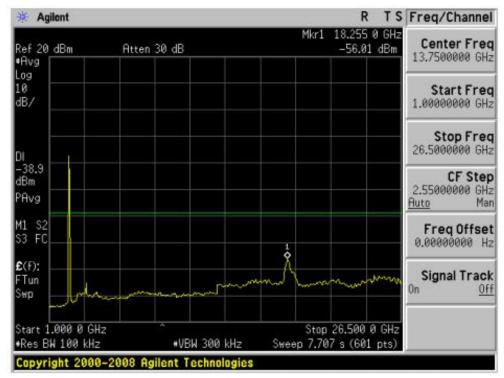
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💥 Agilent T S Freq/Channel R Mkr1 369.5 MHz **Center Freq** -72.21 dBm Ref 20 dBm Atten 30 dB 515.000000 MHz *Avg Log 10 Start Freq dB/ 30.0000000 MHz Stop Freq 1.00000000 GHz DI -38.9 **CF** Step dBm 97.0000000 MHz PAvg Man Auto V1 S2 Freq Offset \$3 FC 0.00000000 Hz £(f): Signal Track FTun 0n 10 Off Swp Start 30.0 MHz Stop 1.000 0 GHz Sweep 293.2 ms (601 pts) Res BW 100 kHz ♦VBW 300 kHz Copyright 2000-2008 Agilent Technologies

30MHZ-1GHZ

1GHZ-26.5GHZ





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)

FREQUENCY (MHz)	(dBuV/m) (at 3M)			
	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				
Stort/Ston Frequency	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

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:

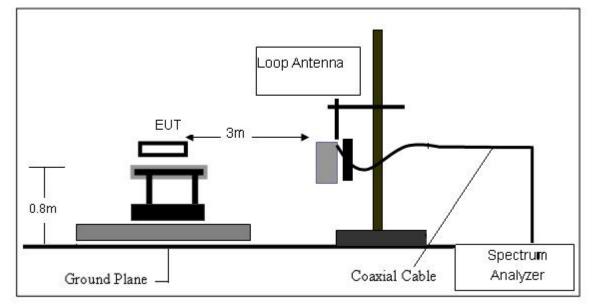
Both horizontal and vertical antenna polarities were tested

and performed pretest to three orthogonal axis. The worst case emissions were reported

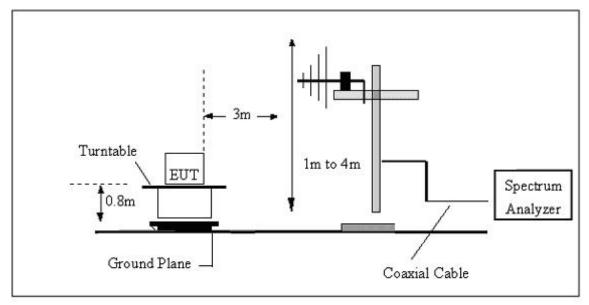


7.3 TESTSETUP

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



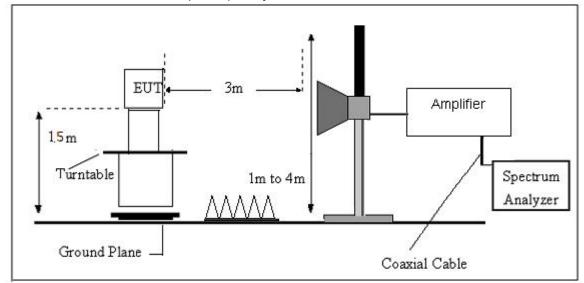
(B) Radiated Emission Test-Up Frequency 30MHz~1GHz





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





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	
(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)

2V I	Phase:	Horizontal		
1b(worst)				
		Limit1: — Margin: —		
	t the s			
Mar Mar Mar	Man Man	have seen and manufacture		

No.	Frequency	Reading	Correct	Correct Result Limit		Margin	Remark
	(MHz)	(dBuV)	Factor(dB/	(dBuV/m)	(dBuV/m)	(dB)	
			m)				
1	31.0703	50.24	-18.83	31.41	40.00	-8.59	QP
2	69.8450	51.95	-20.38	31.57	40.00	-8.43	QP
3	114.1136	48.91	-18.82	30.09	40.00	-9.91	QP
4	188.4122	59.41	-19.87	39.54	40.00	-0.46	QP
5	297.2241	57.10	-16.13	40.97	47.00	-6.03	QP
6	420.5803	47.98	-14.65	33.33	47.00	-13.67	QP

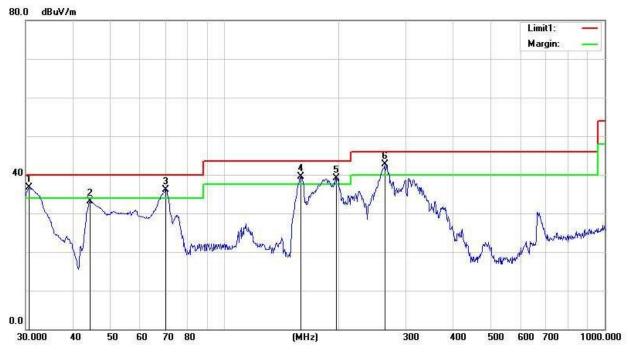
Note: 1. Margin = Result (Result = Reading + Factor)–Limit

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°C	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	30.6378	76.99	-40.24	36.75	40.00	-3.25	QP
2	44.2751	73.40	-40.24	33.16	40.00	-6.84	QP
3	70.0902	76.42	-40.24	36.18	40.00	-3.82	QP
4	158.6676	79.72	-40.24	39.48	43.50	-4.02	QP
5	196.5098	79.44	-40.24	39.20	43.50	-4.30	QP
6	263.8190	82.86	-40.24	42.62	46.00	-3.38	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.



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(1GHz~25GHz) Restricted band and Spurious emission Requirements

Peak value:	Read	Antenna	Cable	Preamp			Over	
Frequency (MHz)	Level (dBuV)	Factor (dB/m)	Loss (dB)	Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Limit (dB)	polarizatior
4824.00	41.30	31.78	8.60	32.09	49.59	74.00	-24.41	Vertical
7236.00	35.04	36.15	11.65	32.00	50.84	74.00	-23.16	Vertical
9648.00	33.84	37.95	14.14	31.62	54.31	74.00	-19.69	Vertical
12060.00	*					74.00		Vertical
14472.00	*					74.00		Vertical
16884.00	*					74.00		Vertical
4824.00	39.88	31.78	8.60	32.09	48.17	74.00	-25.83	Horizonta
7236.00	35.13	36.15	11.65	32.00	50.93	74.00	-23.07	Horizonta
9648.00	32.72	37.95	14.14	31.62	53.19	74.00	-20.81	Horizonta
12060.00	*					74.00		Horizonta
14472.00	*					74.00		Horizonta
16884.00	*					74.00		Horizonta
Average val	ue:				(4)	9 Desteration - An 9.	265	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4824.00	30.38	31.78	8.60	32.09	38.67	54.00	-15.33	Vertical
7236.00	23.91	36.15	11.65	32.00	39.71	54.00	-14.29	Vertical
9648.00	24.19	37.95	14.14	31.62	44.66	54.00	-9.34	Vertical
12060.00	*					54.00		Vertical
14472.00	*				14	54.00	1.0	Vertical
16884.00	*]	54.00		Vertica
4824.00	29.41	31.78	8.60	32.09	37.70	54.00	-16.30	Horizonta
7236.00	23.71	36.15	11.65	32.00	39.51	54.00	-14.49	Horizonta
9648.00	22.47	37.95	14.14	31.62	42.94	54.00	-11.06	Horizonta
12060.00	*					54.00		Horizonta
14472.00	*					54.00		Horizonta
and a research of the second second	*	1.						

802.11b(Worst)-Low



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	40.34	31.85	8.67	32.12	48.74	74.00	-25.26	Vertical
7311.00	35.10	36.37	11.72	31.89	51.30	74.00	-22.70	Vertical
9748.00	34.86	38.35	14.25	31.62	55.84	74.00	-18.16	Vertical
12185.00	*				5. 13	74.00		Vertical
14622.00	*					74.00		Vertical
17059.00	*					74.00		Vertical
4874.00	40.73	31.85	8.67	32.12	49.13	74.00	-24.87	Horizontal
7311.00	34.09	36.37	11.72	31.89	50.29	74.00	-23.71	Horizontal
9748.00	34.04	38.35	14.25	31.62	55.02	74.00	-18.98	Horizontal
12185.00	*					74.00		Horizontal
14622.00	*					74.00		Horizontal
17059.00	*				4	74.00		Horizontal

.

802.11b(Worst)-Middle

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
4874.00	31.19	31.85	8.67	32.12	39.59	54.00	-14.41	Vertical
7311.00	23.42	36.37	11.72	31.89	39.62	54.00	-14.38	Vertical
9748.00	24.11	38.35	14.25	31.62	45.09	54.00	-8.91	Vertical
12185.00	*	4				54.00		Vertical
14622.00	*					54.00		Vertical
17059.00	*					54.00		Vertical
4874.00	30.84	31.85	8.67	32.12	39.24	54.00	-14.76	Horizontal
7311.00	23.18	36.37	11.72	31.89	39.38	54.00	-14.62	Horizontal
9748.00	23.76	38.35	14.25	31.62	44.74	54.00	-9.26	Horizontal
12185.00	*					54.00		Horizontal
14622.00	*					54.00		Horizontal
17059.00	*	4. X				54.00		Horizontal



802.11b(Worst)-High

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
4944.00	45.91	31.93	8.73	32.16	54.41	74.00	-19.59	Vertical
7416.00	35.80	36.59	11.79	31.78	52.40	74.00	-21.60	Vertical
9888.00	38.17	38.81	14.38	31.88	59.48	74.00	-14.52	Vertical
12360.00	*					74.00		Vertical
14832.00	*					74.00		Vertical
17304.00	*		9			74.00		Vertical
4944.00	45.12	31.93	8.73	32.16	53.62	74.00	-20.38	Horizontal
7416.00	35.05	36.59	11.79	31.78	51.65	74.00	-22.35	Horizontal
9888.00	33.64	38.81	14.38	31.88	54.95	74.00	-19.05	Horizontal
12360.00	*					74.00		Horizontal
14832.00	*					74.00		Horizontal
17304.00	*					74.00		Horizonta

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
4944.00	36.82	31.93	8.73	32.16	45.32	54.00	-8.68	Vertical
7416.00	25.72	36.59	11.79	31.78	42.32	54.00	-11.68	Vertical
9888.00	26.67	38.81	14.38	31.88	47.98	54.00	-6.02	Vertical
12360.00	*	2 0	왕. 8 장 왕			54.00		Vertical
14832.00	*					54.00		Vertical
17304.00	*		j.			54.00		Vertical
4944.00	35.48	31.93	8.73	32.16	43.98	54.00	-10.02	Horizontal
7416.00	24.43	36.59	11.79	31.78	41.03	54.00	-12.97	Horizontal
9888.00	22.90	38.81	14.38	31.88	44.21	54.00	-9.79	Horizontal
12360.00	*					54.00		Horizontal
14832.00	*	No.	Se			54.00		Horizontal
17304.00	*	2	2) 		i de la companya de l	54.00		Horizontal





Radiated Band Edge data

Remark: All restriction band have been tested, and only the worst case is shown in report

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	52.82	27.59	5.38	34.01	51.78	74.00	-22.22	Horizonta
2400.00	61.64	27.58	5.39	34.01	60.60	74.00	-13.40	Horizonta
2390.00	54.66	27.59	5.38	34.01	53.62	74.00	-20.38	Vertical
2400.00	63.65	27.58	5.39	34.01	62.61	74.00	-11.39	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	39.49	27.59	5.38	34.01	38.45	54.00	-15.55	Horizonta
2400.00	47.89	27.58	5.39	34.01	46.85	54.00	-7.15	Horizonta
2390.00	41.06	27.59	5.38	34.01	40.02	54.00	-13.98	Vertical
2400.00	49.08	27.58	5.39	34.01	48.04	54.00	-5.96	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	53.33	27.53	5.47	33.92	52.41	74.00	-21.59	Horizontal
2500.00	49.35	27.55	5.49	29.93	52.46	74.00	-21.54	Horizonta
2483.50	55.68	27.53	5.47	33.92	54.76	74.00	-19,24	Vertical
2500.00	52.01	27.55	5.49	29.93	55.12	74.00	-18.88	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
2483.50	39.76	27.53	5.47	33.92	38.84	54.00	-15.16	Horizonta
2500.00	35.94	27.55	5.49	29.93	39.05	54.00	-14.95	Horizonta
2483.50	41.97	27.53	5.47	33.92	41.05	54.00	-12.95	Vertical
2500.00	37.65	27.55	5.49	29.93	40.76	54.00	-13.24	Vertical



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802.11 g 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	51.14	27.59	5.38	34.01	50.10	74.00	-23.90	Horizonta
2400.00	60.02	27.58	5.39	34.01	58.98	74.00	-15.02	Horizontal
2390.00	53.18	27.59	5.38	34.01	52.14	74.00	-21.86	Vertical
2400.00	61.97	27.58	5.39	34.01	60.93	74.00	-13.07	Vertical
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
2390.00	38.56	27.59	5.38	34.01	37.52	54.00	-16.48	Horizontal
2400.00	47.08	27.58	5.39	34.01	46.04	54.00	-7.96	Horizontal
2390.00	40.10	27.59	5.38	34.01	39.06	54.00	-14.95	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	51.22	27.53	5.47	33.92	50.30	74.00	-23.70	Horizonta
2500.00	47.63	27.55	5.49	29.93	50.74	74.00	-23.26	Horizonta
2483.50	53.28	27.53	5.47	33.92	52.36	74.00	-21.64	Vertical
2500.00	50.02	27.55	5.49	29.93	53.13	74.00	-20.88	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
2483.50	38.42	27.53	5.47	33.92	37.50	54.00	-16.50	Horizonta
2500.00	34.83	27.55	5.49	29.93	37.94	54.00	-16.06	Horizonta
2483.50	40.46	27.53	5.47	33.92	39.54	54.00	-14.46	Vertical
2500.00	36.53	27.55	5.49	29.93	39.64	54.00	-14.36	Vertical



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802.11 N 20 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	51.06	27.59	5.38	34.01	50.02	74.00	-23.98	Horizontal
2400.00	59.92	27.58	5.39	34.01	58.88	74.00	-15.12	Horizontal
2390.00	53.10	27.59	5.38	34.01	52.06	74.00	-21.94	Vertical
2400.00	61.84	27.58	5.39	34.01	60.80	74.00	-13.20	Vertical
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
2390.00	38.50	27.59	5.38	34.01	37.46	54.00	-16.54	Horizontal
2400.00	47.01	27.58	5.39	34.01	45.97	54.00	-8.03	Horizontal
2390.00	40.04	27.59	5.38	34.01	39.00	54.00	-15.01	Vertical
2400.00	47.32	27.58	5.39	34.01	46.28	54.00	-7.72	Vertica

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	51.10	27.53	5.47	33.92	50.18	74.00	-23.82	Horizonta
2500.00	47.55	27.55	5.49	29.93	50.66	74.00	-23.34	Horizonta
2483.50	53.15	27.53	5.47	33.92	52,23	74.00	-21.77	Vertical
2500.00	49.92	27.55	5.49	29.93	53.03	74.00	-20.98	Vertical
Average va	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
2483.50	38.35	27.53	5.47	33.92	37.43	54.00	-16.57	Horizonta
2500.00	34.78	27.55	5.49	29.93	37.89	54.00	-16.11	Horizonta
2483.50	40.38	27.53	5.47	33.92	39.46	54.00	-14.54	Vertical
2500.00	36.47	27.55	5.49	29.93	39.58	54.00	-14.42	Vertical



802.11 N 40 Low CH

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Leve l (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
2390.00	50.35	27.59	5.38	34.01	49.31	74.00	-24.69	Horizontal
2400.00	59.00	27.58	5.39	34.01	57.96	74.00	-16.04	Horizonta
2390.00	52.42	27.59	5.38	34.01	51.38	74.00	-22.62	Vertical
2400.00	60.78	27.58	5.39	34.01	59.74	74.00	-14.26	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	38.10	27.59	5.38	34.01	37.06	54.00	-16.94	Horizonta
2400.00	46.59	27.58	5.39	34.01	45.55	54.00	-8.45	Horizontal
2390.00	39.53	27.59	5.38	34.01	38.49	54.00	-15.52	Vertical
2400.00	46.69	27.58	5.39	34.01	45.65	54.00	-8.35	Vertical

802.11 N 40 High CH

Peak value:

Frequency (MHz)	Read Level (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	50.04	27.53	5.47	33.92	49.12	74.00	-24.88	Horizonta
2500.00	46.78	27.55	5.49	29.93	49.89	74.00	-24.11	Horizontal
2483.50	51.92	27.53	5.47	33.92	51.00	74.00	-23.00	Vertical
2500.00	49.02	27.55	5.49	29.93	52.13	74.00	-21.88	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
2483.50	37.76	27.53	5.47	33.92	36.84	54.00	-17.16	Horizonta
2500.00	34.36	27.55	5.49	29.93	37.47	54.00	-16.53	Horizontal
2483.50	39.76	27.53	5.47	33.92	38.84	54.00	-15.16	Vertical
2500.00	35.99	27.55	5.49	29.93	39.10	54.00	-14.90	Vertical



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.

	Conducted Emiss	sionlimit (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.

Vertical Reference Ground Plane EUT 40cm EUT 80cm 80cm Horizontal Reference Ground Plane

8.1.3 TEST SETUP

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

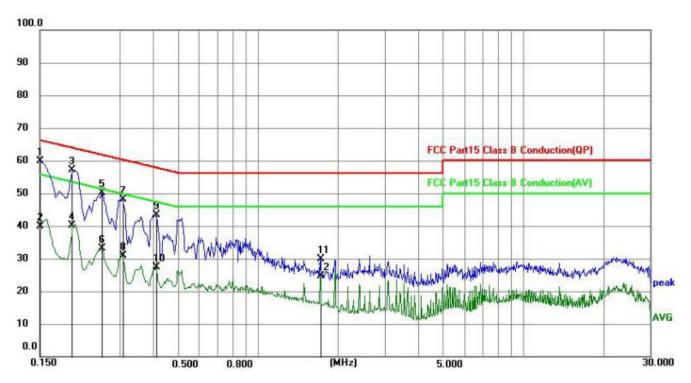
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

Flux Compliance Service Laboratory 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



8.1.4 TEST RESULT

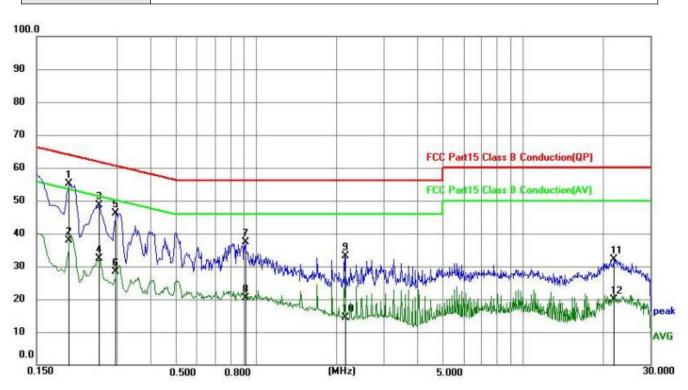
Temperature:	22.1 ℃	Relative Humidity:	56%
Test Voltage:	DC 12V	Phase:	L
Test Mode:	802.11b(worst)		



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	0.1500	49.99	9.78	59.77	66.00	6.23	QP
2	0.1500	29.99	9.78	39.77	56.00	16.23	AVG
3	0.1995	47.42	9.80	57.22	63.63	6.41	QP
4	0.1995	30.25	9.80	40.05	53.63	13.58	AVG
5	0.2580	40.40	9.82	50.22	61.50	11.28	QP
6	0.2580	23.40	9.82	33.22	51.50	18.28	AVG
7	0.3075	38.23	9.82	48.05	60.04	11.99	QP
8	0.3075	21.02	9.82	30.84	50.04	19.20	AVG
9	0.4110	33.54	9.85	43.39	57.63	14.24	QP
10	0.4110	17.63	9.85	27.48	47.63	20.15	AVG
11	1.7160	19.90	9.93	29.83	56.00	26.17	QP
12	1.7160	14.82	9.93	24.75	46.00	21.25	AVG



Temperature:	22.1 °C	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	0.1995	45.25	9.80	55.05	63.63	8.58	QP
2	0.1995	28.09	9.80	37.89	53.63	15.74	AVG
3	0.2580	38.93	9.82	48.75	61.50	12.75	QP
4	0.2580	22.49	9.82	32.31	51.50	19.19	AVG
5	0.2985	36.36	9.82	46.18	60.28	14.10	QP
6	0.2985	18.54	9.82	28.36	50.28	21.92	AVG
7	0.9105	27.44	9.91	37.35	56.00	18.65	QP
8	0.9105	10.51	9.91	20.42	46.00	25.58	AVG
9	2.1480	23.14	9.94	33.08	56.00	22.92	QP
10	2.1480	4.40	9.94	14.34	46.00	31.66	AVG
11	21.9345	21.75	10.27	32.02	60.00	27.98	QP
12	21.9345	9.64	10.27	19.91	50.00	30.09	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.

9.2 RESULT

The antennas used for this product are external antenna and no 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.
