APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
Shenzhen Sungworld Electronics Co., LTD

MID
Model No.: M9XX, VX-S9300

FCC ID: WI3-VX-S9300

Prepared for	:	Shenzhen Sungworld Electronics Co., LTD
Address	:	4#, North District, Shangxue Industrial Park Bantian, Long Gang District, Shenzhen, China
Prepared by	:	ACCURATE TECHNOLOGY CO., LTD
Address	:	F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China
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Report No.	:	ATE20132328
Date of Test	:	Oct 30- Nov 13, 2013
Date of Report	:	Nov 13, 2013

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Description Page

Test Report Certification

Applicant : Shenzhen Sungworld Electronics Co., LTD

Manufacturer : Shenzhen Sungworld Electronics Co., LTD

EUT Description : MID

(A) MODEL NO.: M9XX, VX-S9300

(B) Trade Name.: /

(C) POWER SUPPLY: DC 3.7V (Powered by battery)or AC 120V/60Hz

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247
ANSI C63.4: 2009

The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Oct 30-Nov 13, 2013

Prepared by : Tim Zhang
(Tim.zhang, Engineer)

Approved & Authorized Signer :
(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	MID
Model Number	:	M9XX, VX-S9300
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
Antenna Gain	:	0 dBi
Type of Antenna	:	Integral Antenna
Power Supply	:	DC 3.7V (Powered by battery) or AC 120V/60Hz (Powered by adapter)
Data Rate	:	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: up to 150Mbps
Applicant	:	Shenzhen Sungworld Electronics Co., LTD
Address	:	4#, North District, Shangxue Industrial Park Bantian, Long Gang District, Shenzhen, China
Manufacturer	:	Shenzhen Sungworld Electronics Co., LTD
Address	:	4#, North District, Shangxue Industrial Park Bantian, Long Gang District, Shenzhen, China
Date of sample received	:	Oct 30, 2013
Date of Test	:	Oct 30-Nov 13, 2013

1.2.Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

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

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

1.3.Accessory and Auxiliary Equipment

N/A

1.4.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee for Laboratories
The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty	=	2.23dB, k=2
Radiated emission expanded uncertainty (9kHz-30MHz)	=	3.08dB, k=2
Radiated emission expanded uncertainty (30MHz-1000MHz)	=	4.42dB, k=2
Radiated emission expanded uncertainty (Above 1GHz)	=	4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 12, 2013	Jan. 11, 2014
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 12, 2013	Jan. 11, 2014
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 12, 2013	Jan. 11, 2014
Pre-Amplifier	Rohde&Schwarz	CBLU1183540-01	3791	Jan. 12, 2013	Jan. 11, 2014
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Feb. 06, 2013	Feb. 05, 2014
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Feb. 06, 2013	Feb. 05, 2014
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 12, 2013	Jan. 11, 2014
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 12, 2013	Jan. 11, 2014
Highpass Filter	Wainwright Instruments	WHKX3.6/18G-10SS	N/A	Jan. 12, 2013	Jan. 11, 2014
Band Reject Filter	Wainwright Instruments	WRCG2400/2485-2375/2510-60/11SS	N/A	Jan. 12, 2013	Jan. 11, 2014

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **1.802.11b Transmitting mode**
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

2.802.11g Transmitting mode
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

3.802.11n (20MHz) Transmitting mode
Low Channel: 2412MHz
Middle Channel: 2437MHz
High Channel: 2462MHz

4.802.11n (40MHz) Transmitting mode
Low Channel: 2422MHz
Middle Channel: 2437MHz
High Channel: 2452MHz

3.2.Configuration and peripherals

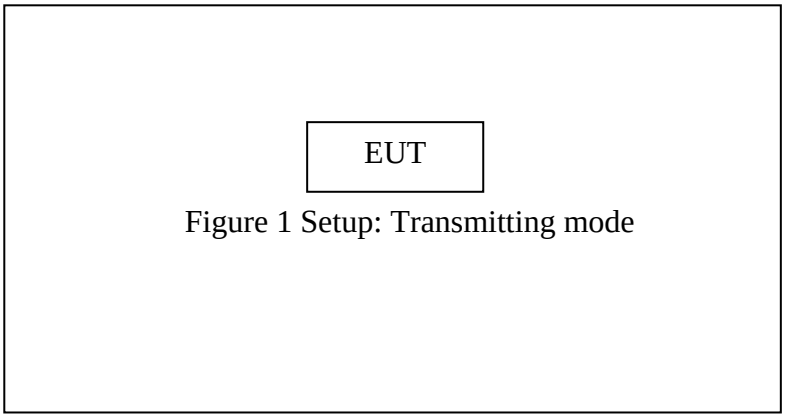


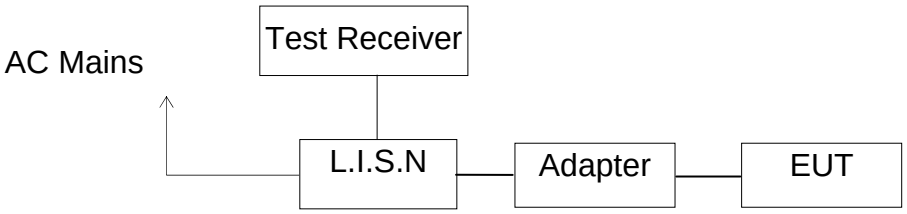
Figure 1 Setup: Transmitting mode

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.207	Power Line Conducted Emission	Compliant
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. POWER LINE CONDUCTED MEASUREMENT

5.1.Block Diagram of Test Setup



(EUT: MID)

5.2.Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0
NOTE1: The lower limit shall apply at the transition frequencies. NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.		

5.3.Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.4.Operating Condition of EUT

5.4.1.Setup the EUT and simulator as shown as Section 5.1.

5.4.2.Turn on the power of all equipment.

5.4.3.Let the EUT work in test mode and measure it.

5.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Measurement.
The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

5.6.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Test mode : Charging&communicating

MEASUREMENT RESULT: "H0D19_fin"

2013-11-5 14:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.462639	46.30	11.4	57	10.3	QP	L1	GND
2.505926	47.30	11.9	56	8.7	QP	L1	GND
3.880650	41.00	12.0	56	15.0	QP	L1	GND

MEASUREMENT RESULT: "H0D19_fin2"

2013-11-5 14:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.444969	29.50	11.4	47	17.5	AV	L1	GND
2.476079	34.40	11.9	46	11.6	AV	L1	GND
3.880650	29.10	12.0	46	16.9	AV	L1	GND

MEASUREMENT RESULT: "H0D18_fin"

2013-11-5 13:57

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.498615	39.30	11.5	56	16.7	QP	N	GND
2.490958	43.30	11.9	56	12.7	QP	N	GND
3.880650	37.10	12.0	56	18.9	QP	N	GND

MEASUREMENT RESULT: "H0D18_fin2"

2013-11-5 13:57

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.506139	28.60	11.5	46	17.4	AV	N	GND
2.490958	34.00	11.9	46	12.0	AV	N	GND
3.951028	28.90	12.0	46	17.1	AV	N	GND

Emissions attenuated more than 20 dB below the permissible value are not reported.

The spectral diagrams are attached as below.

ACCURATE TECHNOLOGY CO.,LTD

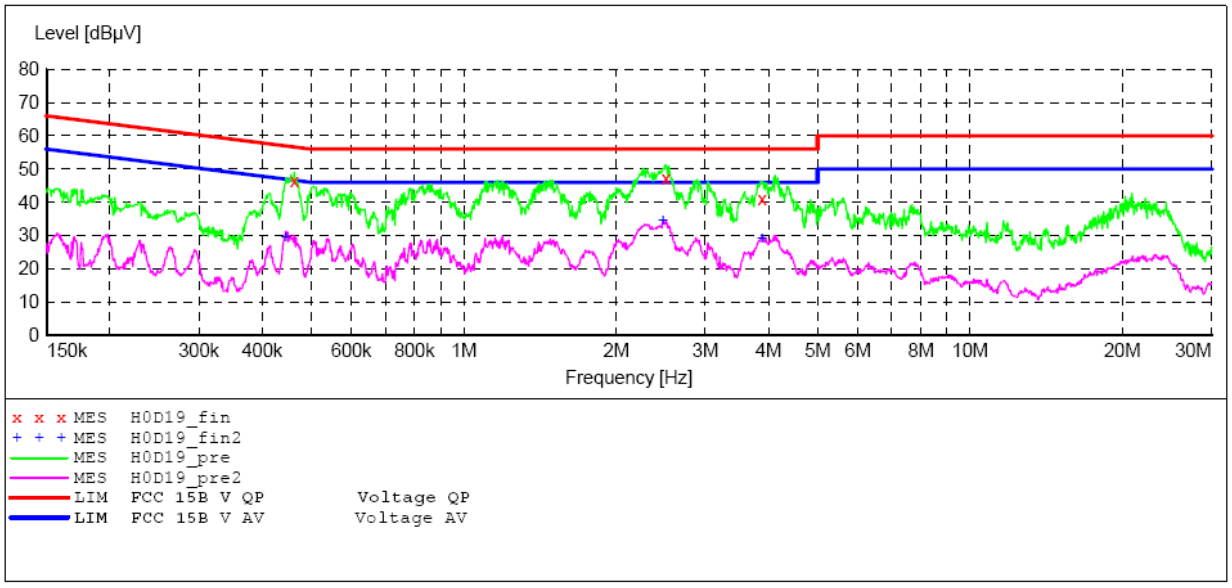
CONDUCTED EMISSION STANDARD FCC PART 15

EUT: MID M/N:M9XX
Manufacturer: Sungworld
Operating Condition: WIFI COMMUNICATING
Test Site: 2#Shielding Room
Operator: Star
Test Specification: L 120V/60Hz
Comment: Report No.:ATE20132328
Start of Test: 2013-11-5 / 13:57:51

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	0.4 %	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "H0D19_fin"

2013-11-5 14:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.462639	46.30	11.4	57	10.3	QP	L1	GND
2.505926	47.30	11.9	56	8.7	QP	L1	GND
3.880650	41.00	12.0	56	15.0	QP	L1	GND

MEASUREMENT RESULT: "H0D19_fin2"

2013-11-5 14:00

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.444969	29.50	11.4	47	17.5	AV	L1	GND
2.476079	34.40	11.9	46	11.6	AV	L1	GND
3.880650	29.10	12.0	46	16.9	AV	L1	GND

ACCURATE TECHNOLOGY CO.,LTD

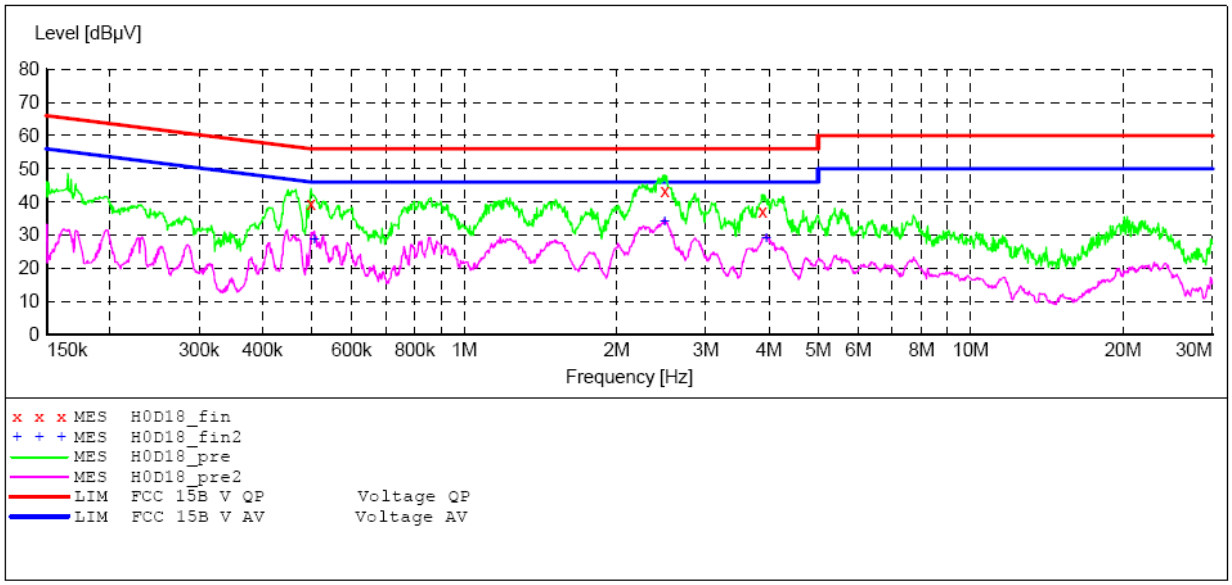
CONDUCTED EMISSION STANDARD FCC PART 15

EUT: MID M/N:M9XX
Manufacturer: Sungworld
Operating Condition: WIFI COMMUNICATING
Test Site: 2#Shielding Room
Operator: Star
Test Specification: N 120V/60Hz
Comment: Report No.:ATE20132328
Start of Test: 2013-11-5 / 13:55:21

SCAN TABLE: "V 150K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	30.0 MHz	0.4 %	QuasiPeak Average	1.0 s	9 kHz	LISN(ESH3-Z5)



MEASUREMENT RESULT: "H0D18_fin"

2013-11-5 13:57

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.498615	39.30	11.5	56	16.7	QP	N	GND
2.490958	43.30	11.9	56	12.7	QP	N	GND
3.880650	37.10	12.0	56	18.9	QP	N	GND

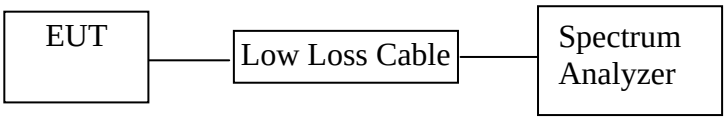
MEASUREMENT RESULT: "H0D18_fin2"

2013-11-5 13:57

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.506139	28.60	11.5	46	17.4	AV	N	GND
2.490958	34.00	11.9	46	12.0	AV	N	GND
3.951028	28.90	12.0	46	17.1	AV	N	GND

6. 6DB BANDWIDTH MEASUREMENT

6.1.Block Diagram of Test Setup



6.2.The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.3.EUT Configuration on Measurement

The equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4.Operating Condition of EUT

6.4.1.Setup the EUT and simulator as shown as Section 6.1.

6.4.2.Turn on the power of all equipment.

6.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5.Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	10.76	> 0.5MHz
Middle	2437	10.76	> 0.5MHz
High	2462	10.84	> 0.5MHz

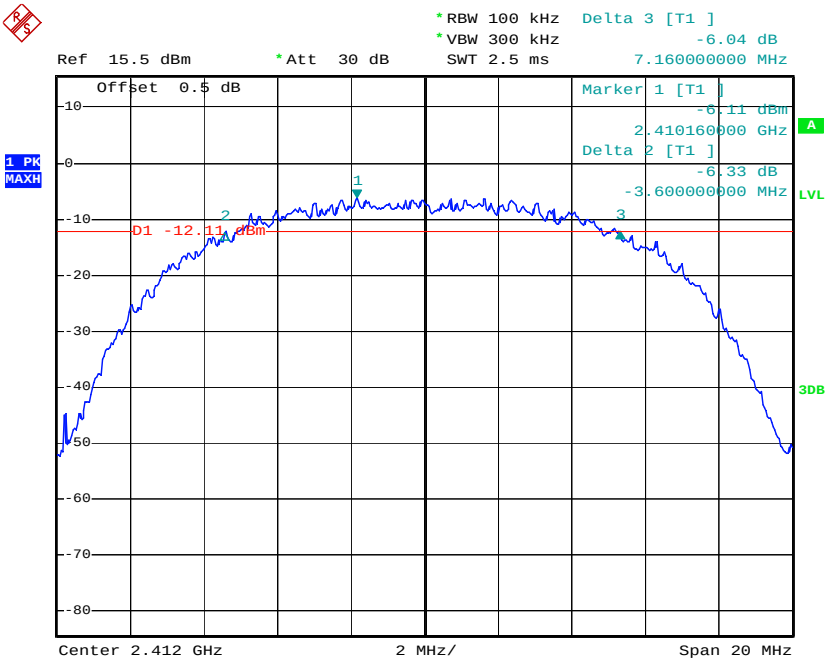
The test was performed with 802.11g			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	16.60	> 0.5MHz
Middle	2437	16.60	> 0.5MHz
High	2462	16.60	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 20 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	17.80	> 0.5MHz
Middle	2437	17.80	> 0.5MHz
High	2462	17.76	> 0.5MHz

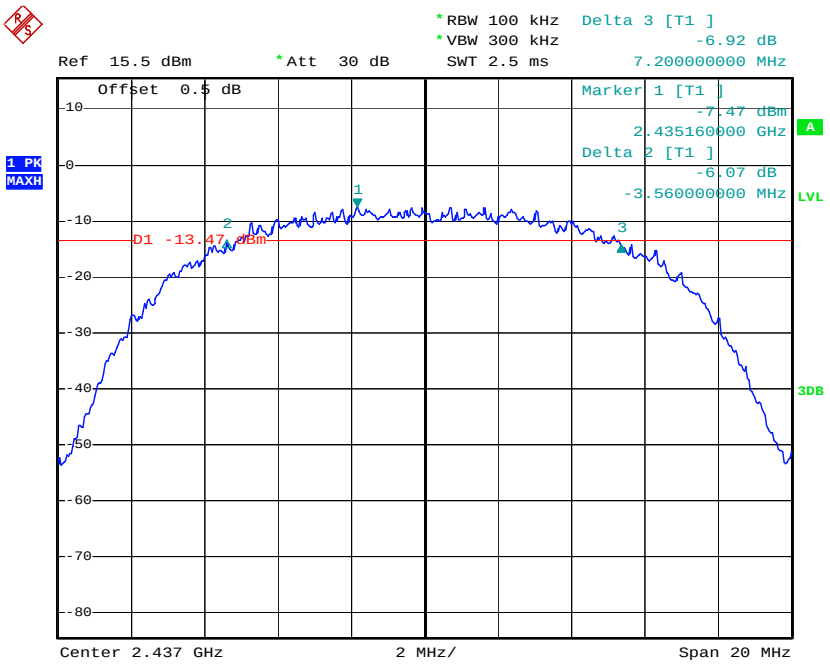
The test was performed with 802.11n (Bandwidth: 40 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2422	36.56	> 0.5MHz
Middle	2437	36.64	> 0.5MHz
High	2452	36.56	> 0.5MHz

The spectrum analyzer plots are attached as below.

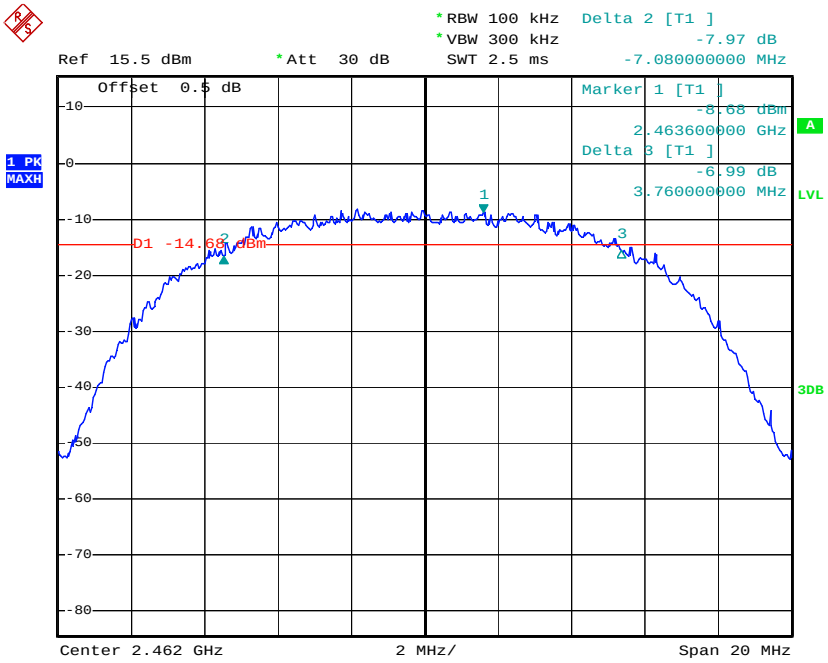
802.11b Channel Low 2412MHz



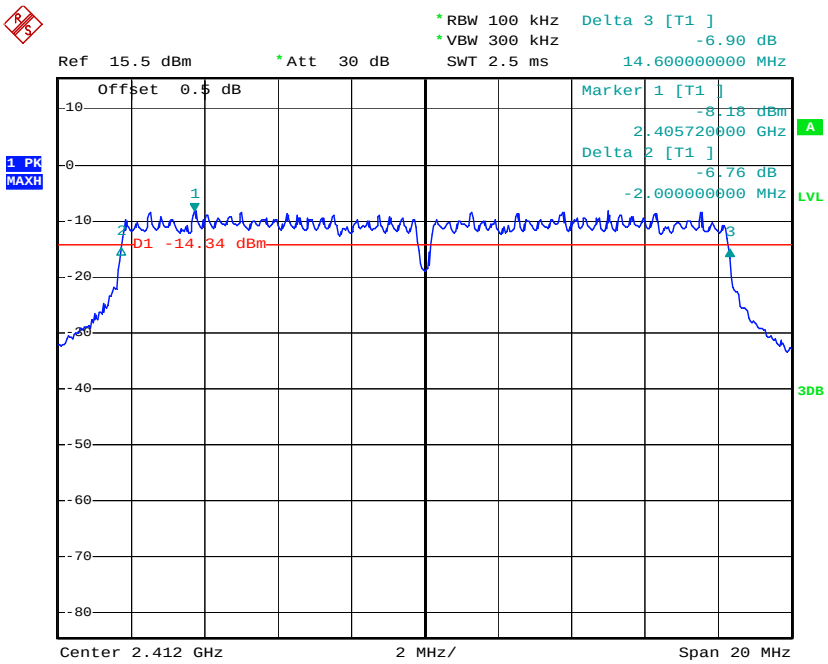
802.11b Channel Middle 2437MHz



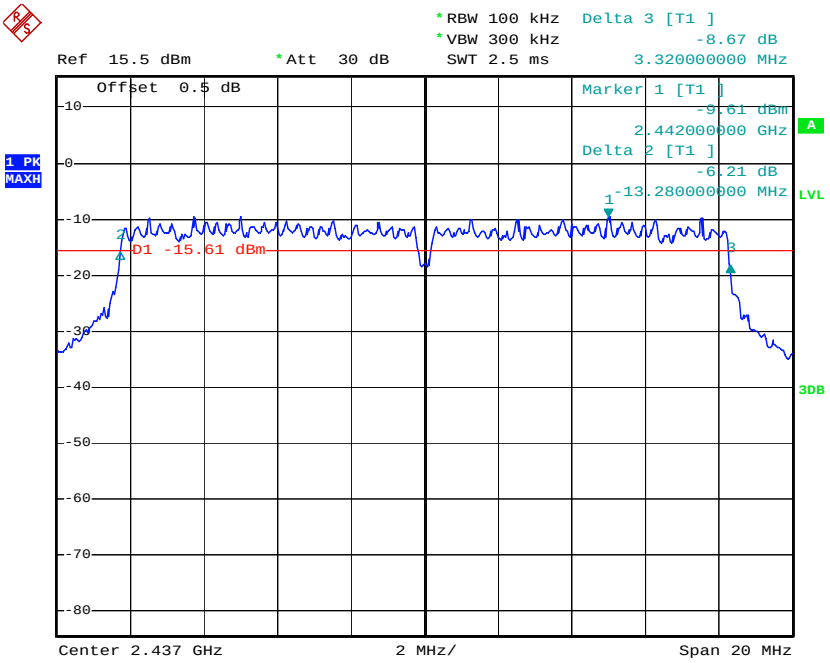
802.11b Channel High 2462MHz



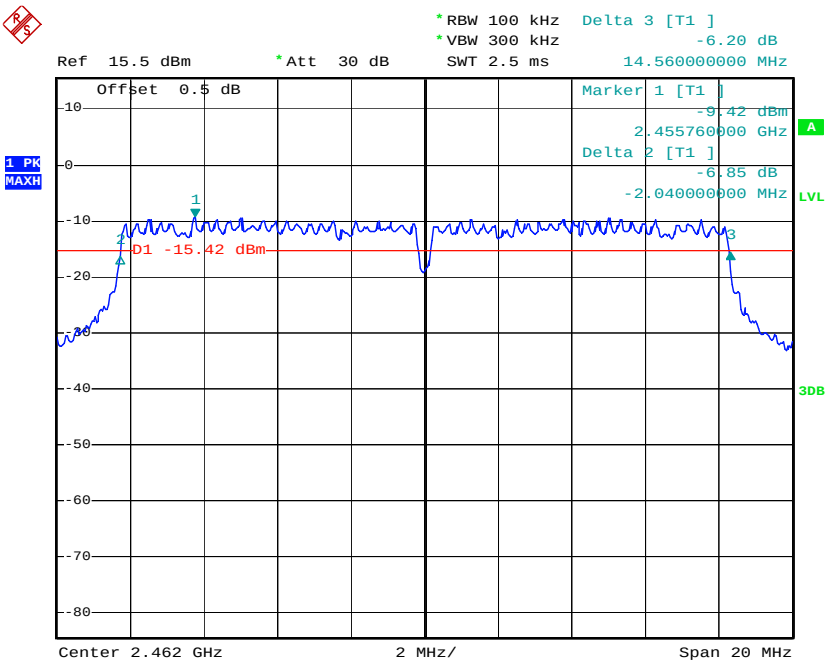
802.11g Channel Low 2412MHz



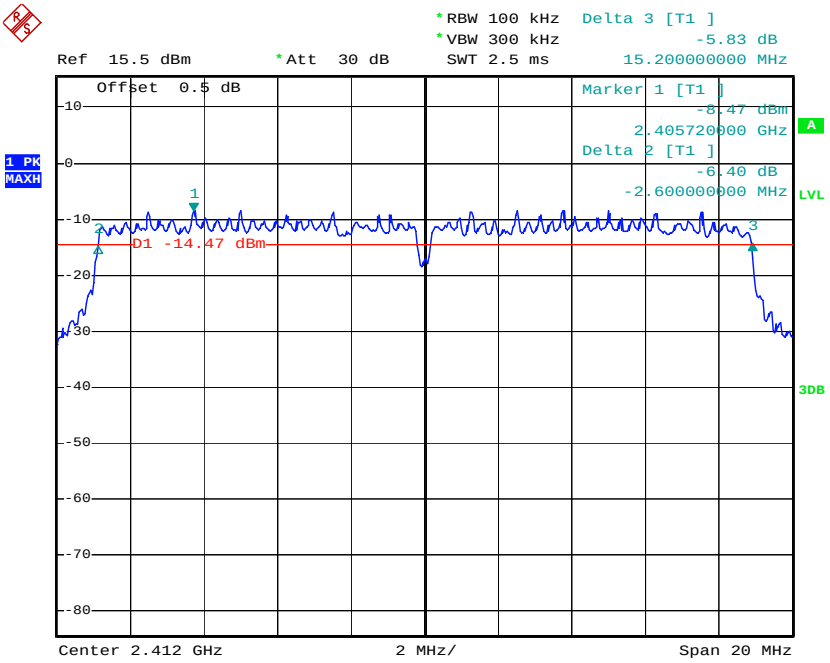
802.11g Channel Middle 2437MHz



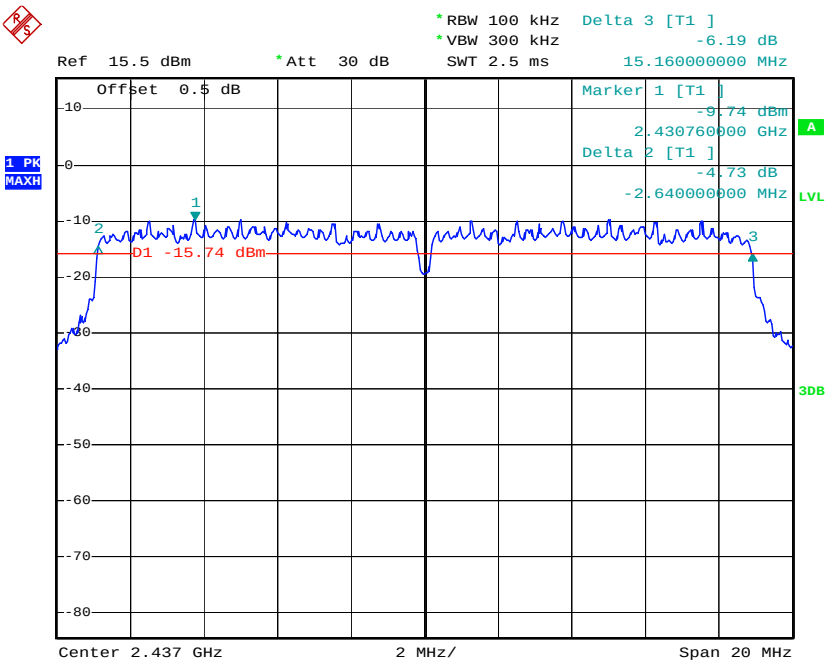
802.11g Channel High 2462MHz



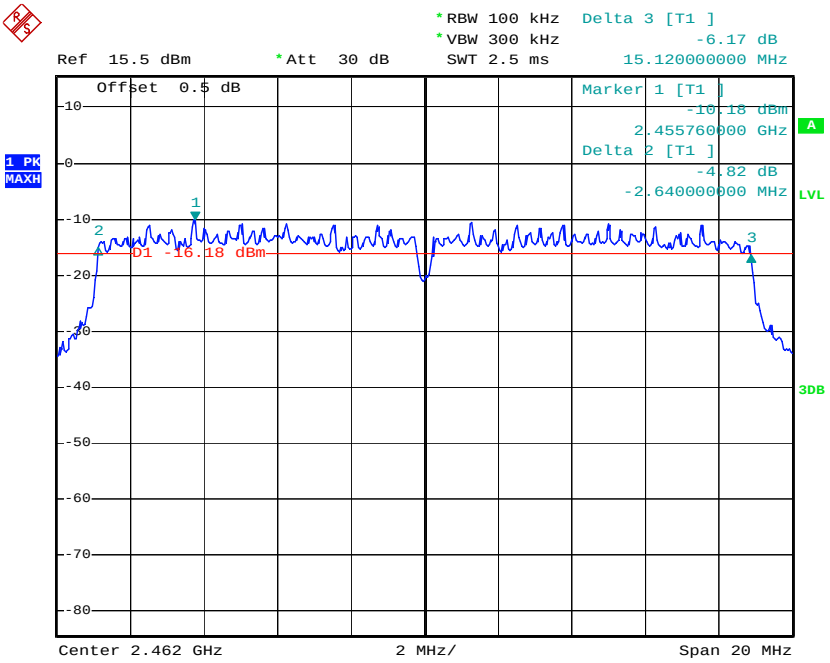
802.11n Channel Low 2412MHz (20MHz)



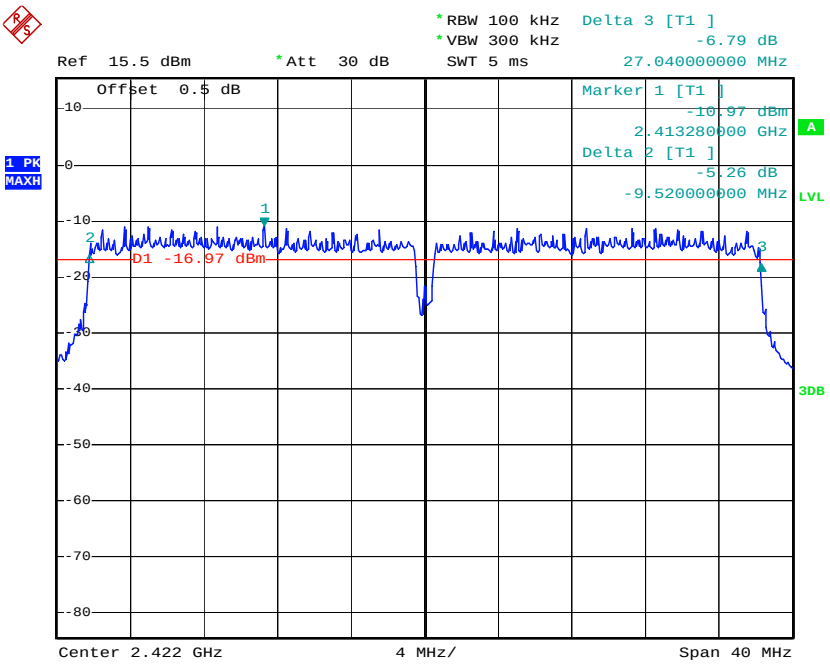
802.11n Channel Middle 2437MHz(20MHz)



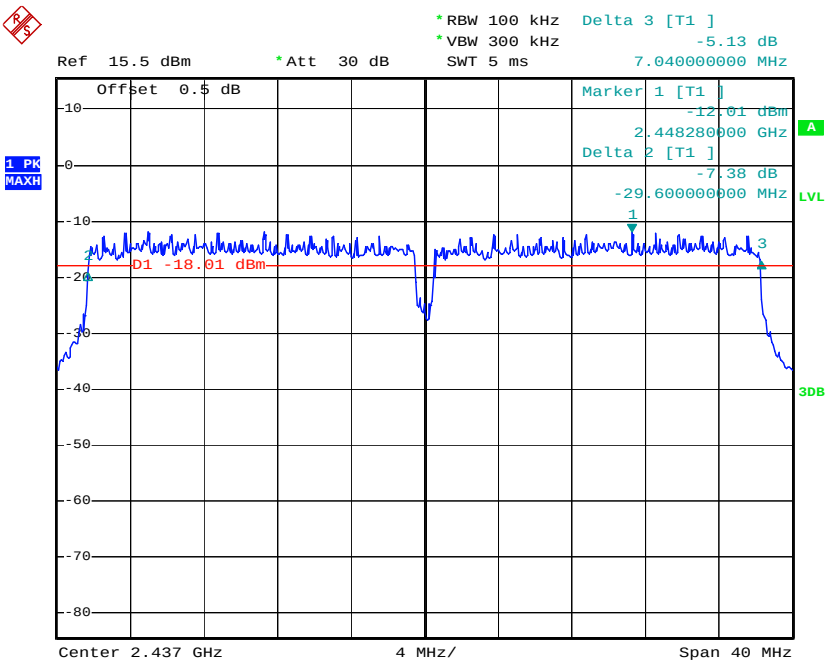
802.11n Channel High 2462MHz(20MHz)



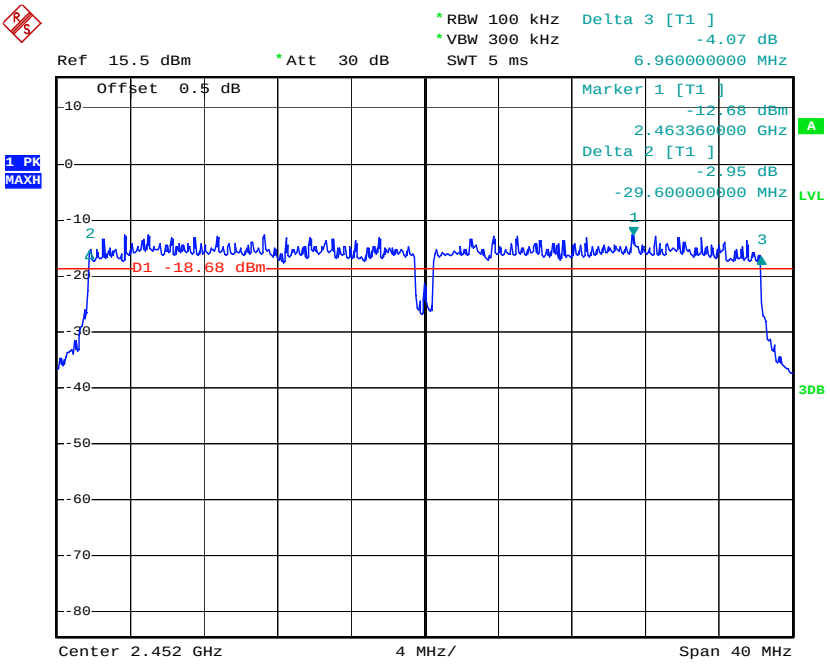
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)

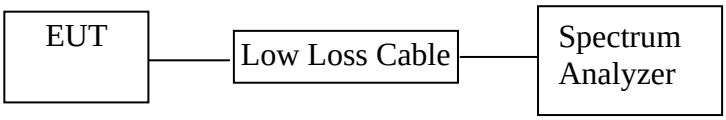


802.11n Channel High 2452MHz(40MHz)



7. MAXIMUM PEAK OUTPUT POWER

7.1.Block Diagram of Test Setup



7.2.The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.4.Operating Condition of EUT

7.4.1.Setup the EUT and simulator as shown as Section 7.1.

7.4.2.Turn on the power of all equipment.

7.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.5.Test Procedure

7.5.1.The EUT was tested according to DTS test procedure of April 09, 2013 KDB558074 D01 DTS Meas Guidance v03 for compliance to FCC 47CFR 15.247 requirements.

7.5.2.The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.3.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.

7.5.4.Measurement the maximum peak output power.

7.6.Test Result

The test was performed with 802.11b				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	9.50	8.91	30 dBm / 1 W
Middle	2437	8.44	6.98	30 dBm / 1 W
High	2462	7.49	5.61	30 dBm / 1 W

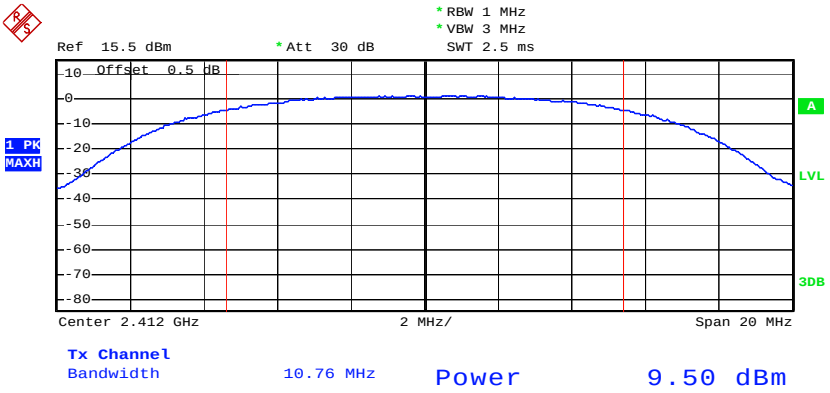
The test was performed with 802.11g				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	7.38	5.47	30 dBm / 1 W
Middle	2437	7.25	5.31	30 dBm / 1 W
High	2462	7.45	5.56	30 dBm / 1 W

The test was performed with 802.11n (20MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	6.71	4.69	30 dBm / 1 W
Middle	2437	6.56	4.53	30 dBm / 1 W
High	2462	6.39	4.36	30 dBm / 1 W

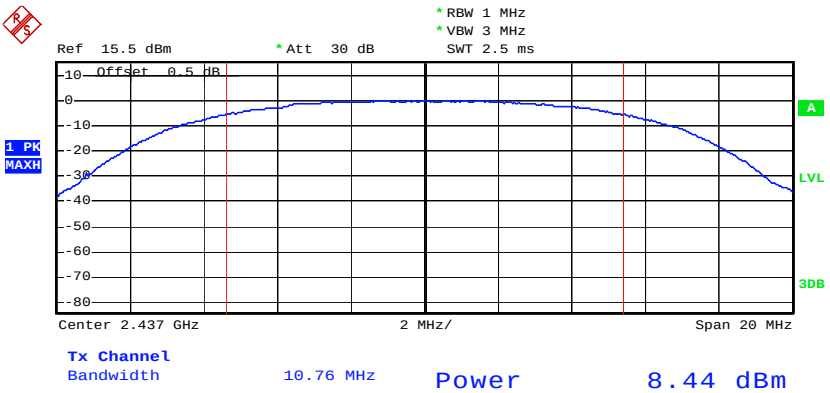
The test was performed with 802.11n (40MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2422	7.08	5.11	30 dBm / 1 W
Middle	2437	6.80	4.79	30 dBm / 1 W
High	2452	6.48	4.45	30 dBm / 1 W

The spectrum analyzer plots are attached as below.

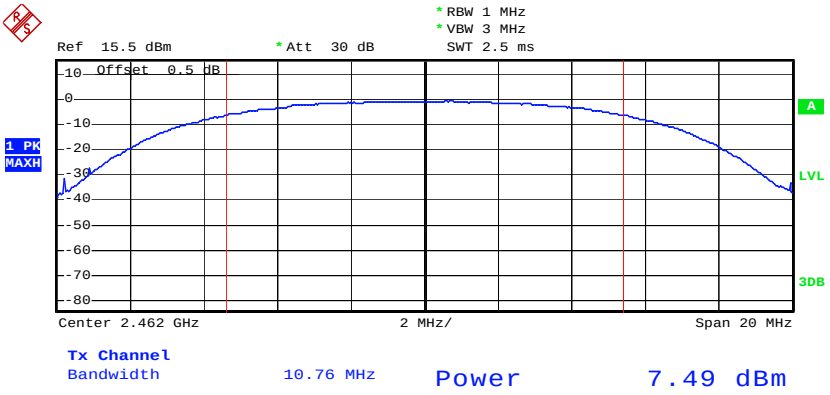
802.11b Channel Low 2412MHz



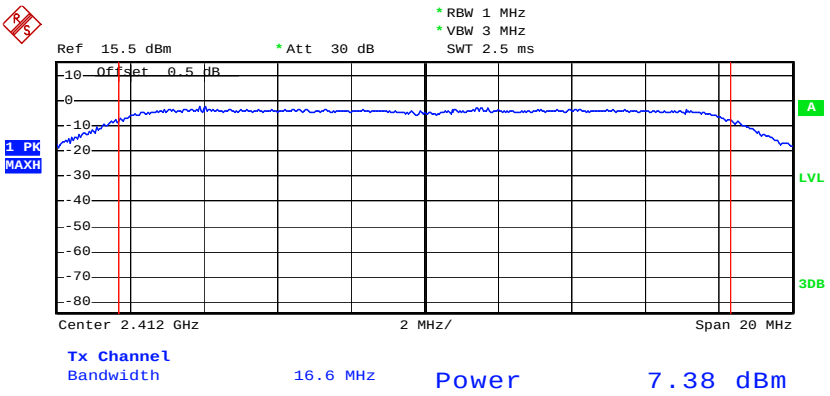
802.11b Channel Middle 2437MHz



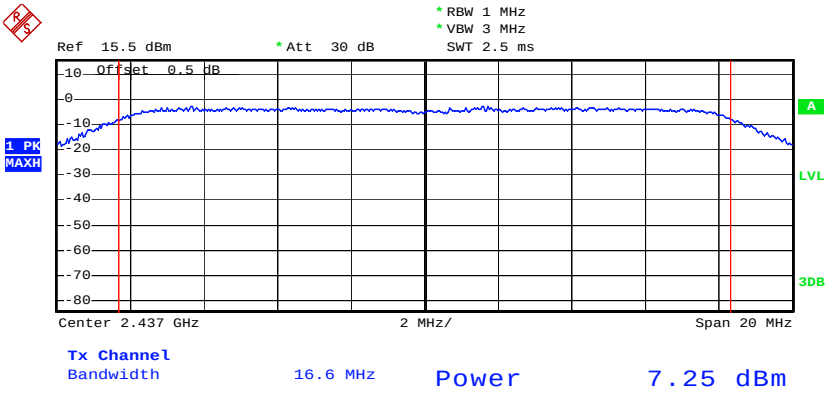
802.11b Channel High 2462MHz



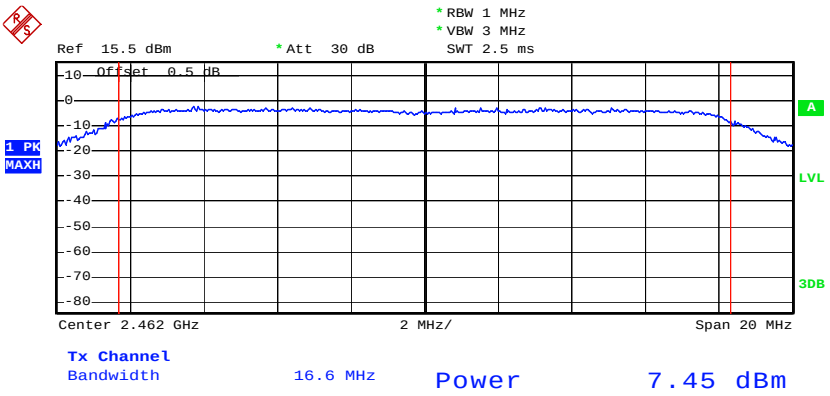
802.11g Channel Low 2412MHz



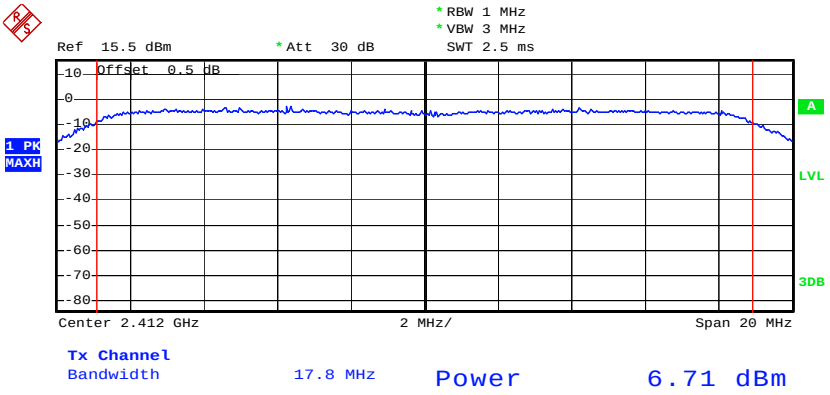
802.11g Channel Middle 2437MHz



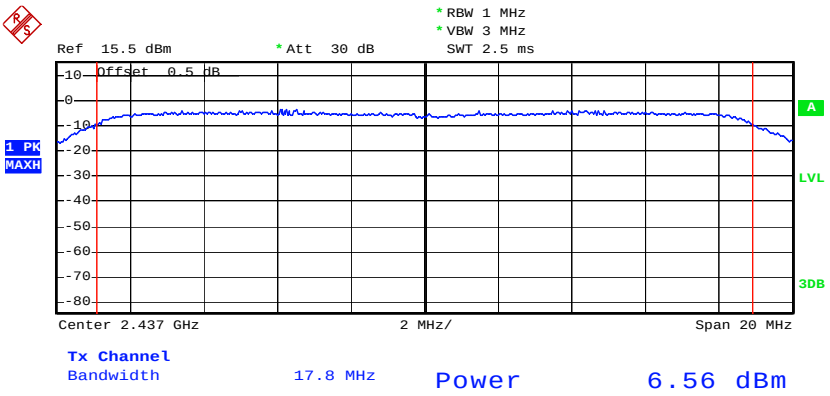
802.11g Channel High 2462MHz



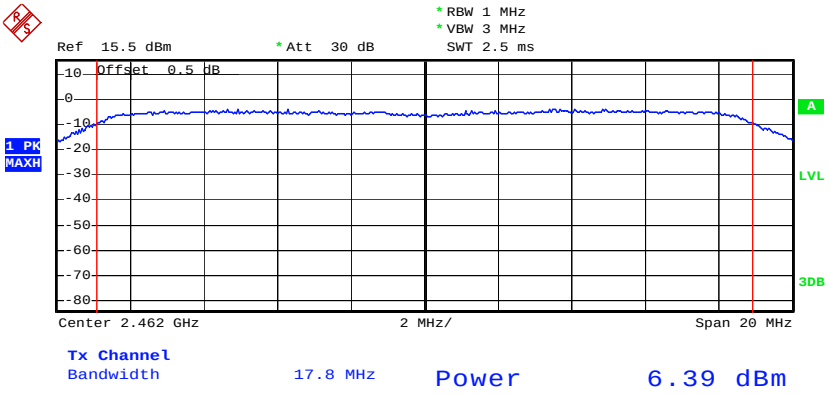
802.11n Channel Low 2412MHz (20MHz)



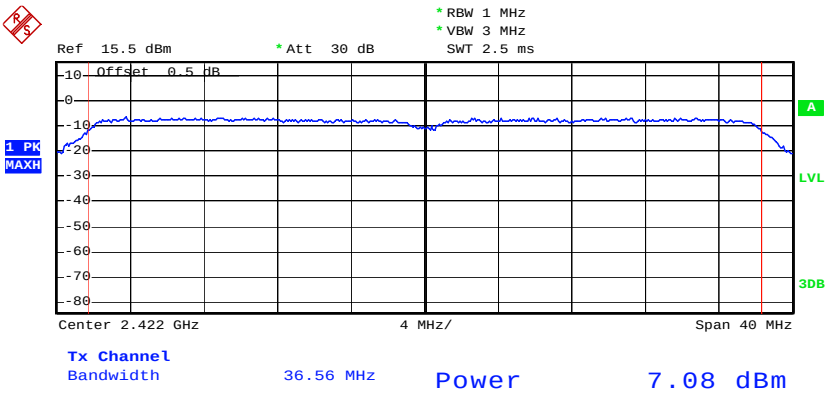
802.11n Channel Middle 2437MHz (20MHz)



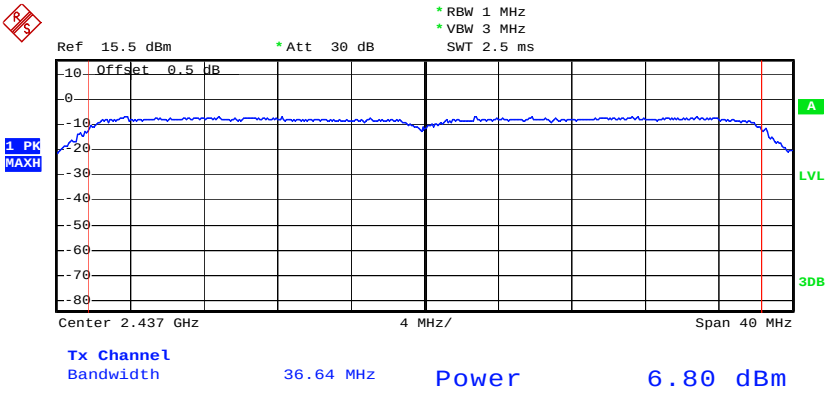
802.11n Channel High 2462MHz (20MHz)



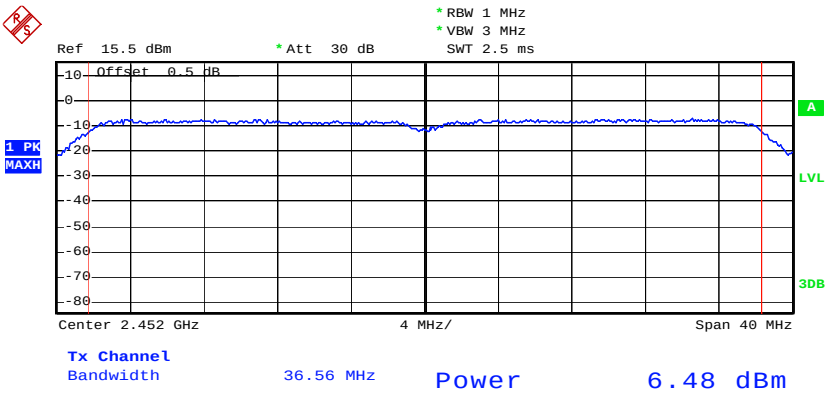
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz (40MHz)

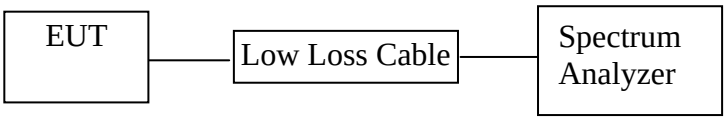


802.11n Channel High 2452MHz (40MHz)



8. POWER SPECTRAL DENSITY MEASUREMENT

8.1.Block Diagram of Test Setup



8.2.The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

8.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.4.Operating Condition of EUT

8.4.1.Setup the EUT and simulator as shown as Section 8.1.

8.4.2.Turn on the power of all equipment.

8.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

8.5.Test Procedure

8.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2.Measurement Procedure PKPSD:

This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.

3. Set the RBW 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.5.3.Measurement the maximum power spectral density.

8.6.Test Result

The test was performed with 802.11b			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-17.09	8 dBm
Middle	2437	-18.19	8 dBm
High	2462	-19.50	8 dBm

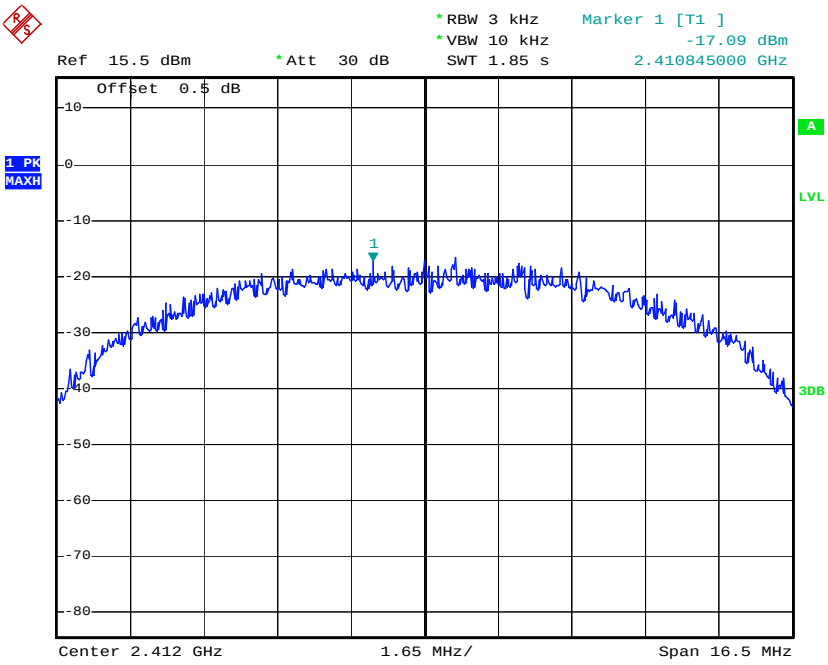
The test was performed with 802.11g			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-18.64	8 dBm
Middle	2437	-19.92	8 dBm
High	2462	-21.98	8 dBm

The test was performed with 802.11n (20MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2412	-18.86	8 dBm
Middle	2437	-20.19	8 dBm
High	2462	-21.55	8 dBm

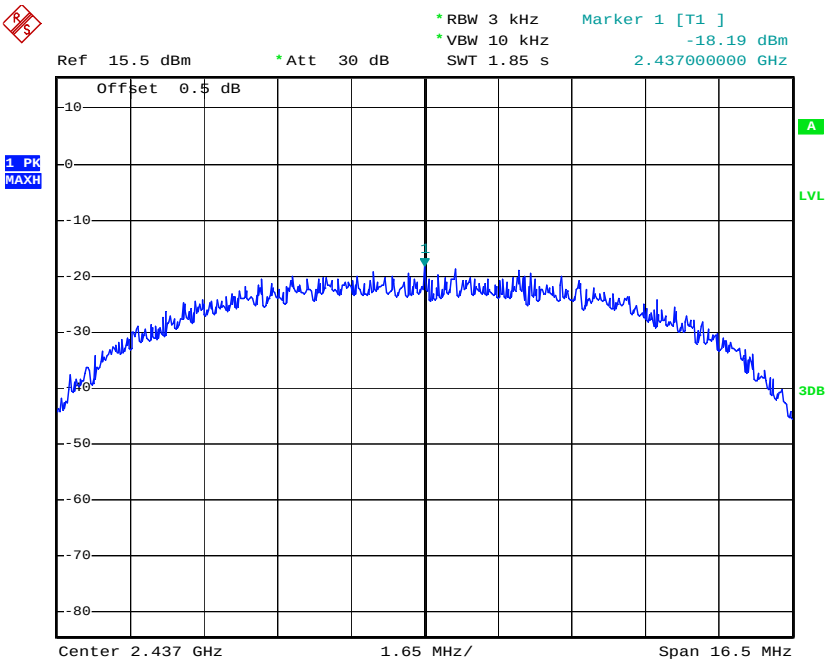
The test was performed with 802.11n (40MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)
Low	2422	-20.91	8 dBm
Middle	2437	-21.93	8 dBm
High	2452	-22.21	8 dBm

The spectrum analyzer plots are attached as below.

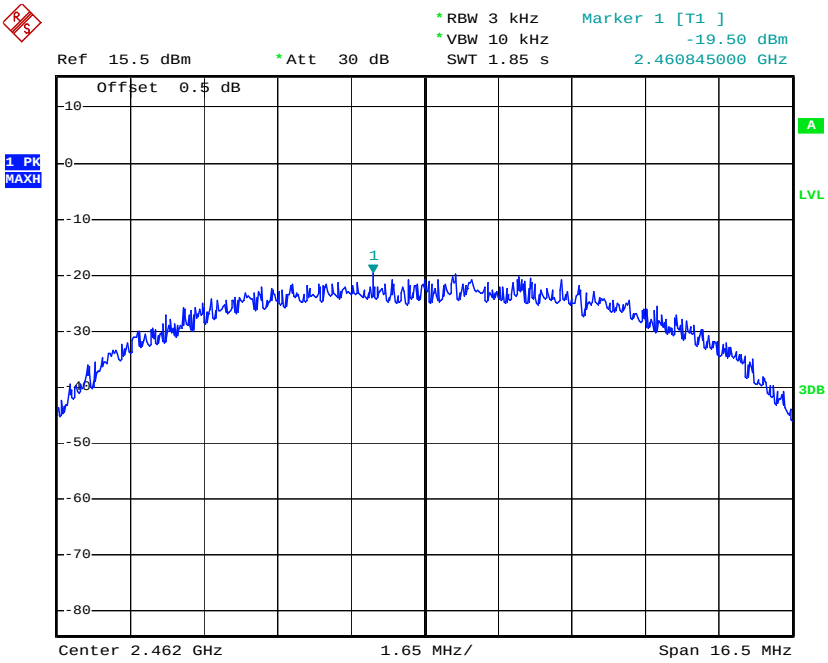
802.11b Channel Low 2412MHz



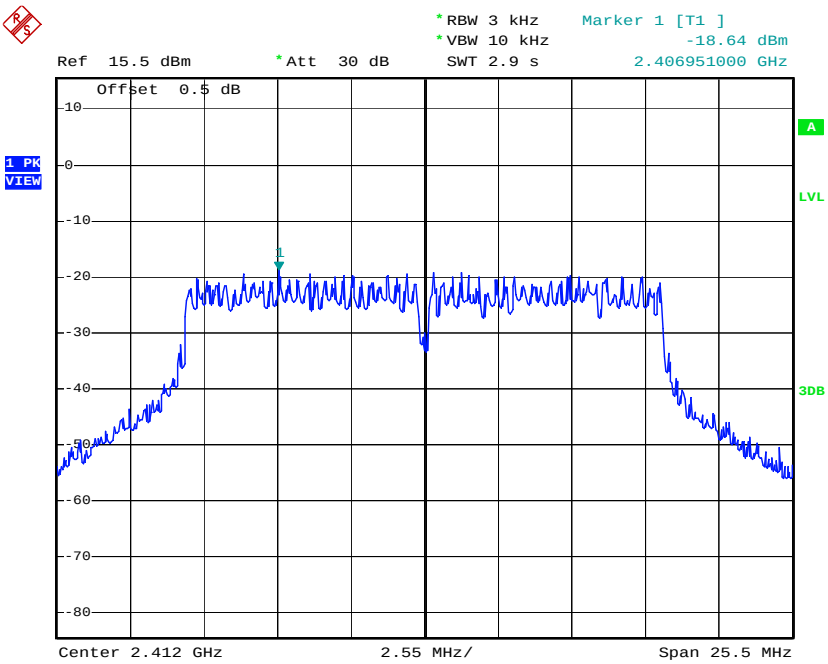
802.11b Channel Middle 2437MHz



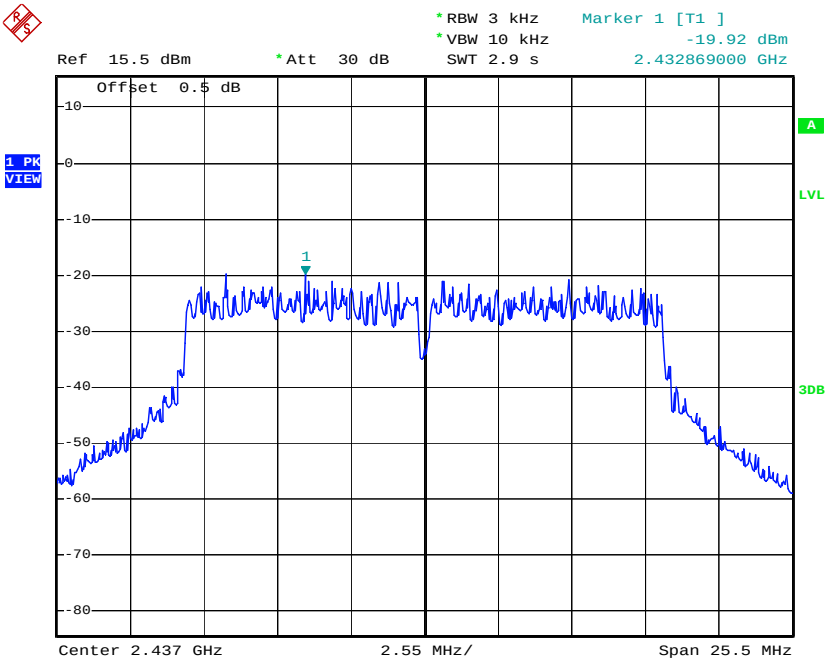
802.11b Channel High 2462MHz



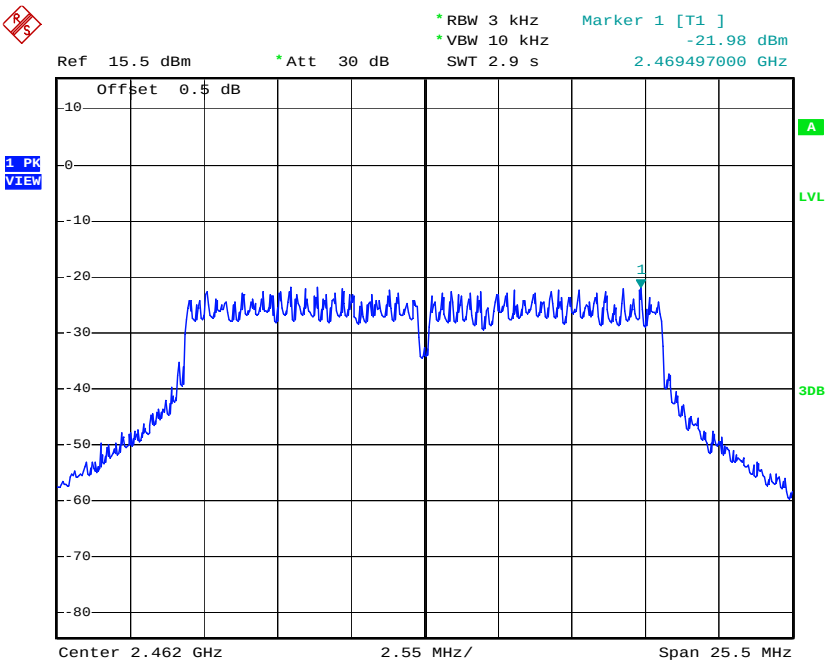
802.11g Channel Low 2412MHz



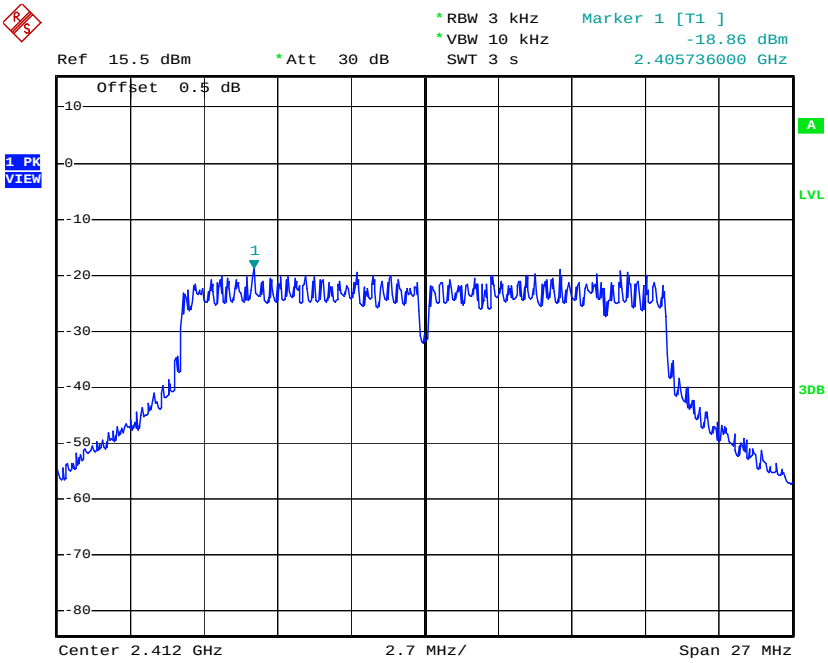
802.11g Channel Middle 2437MHz



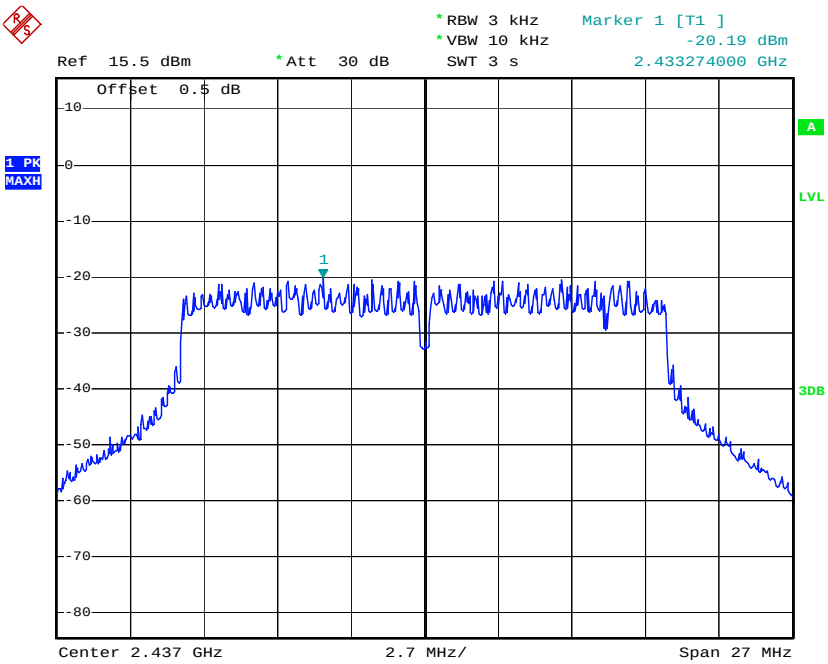
802.11g Channel High 2462MHz



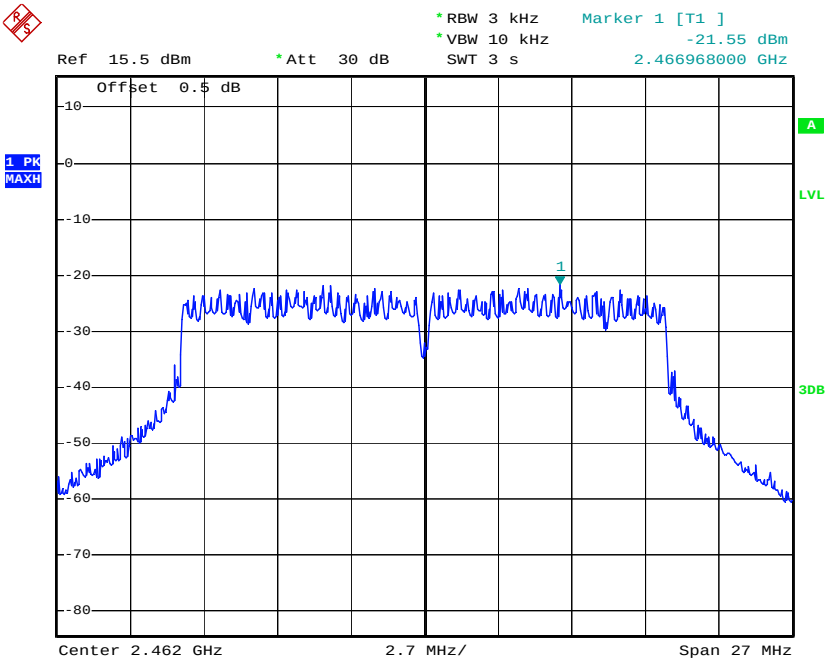
802.11n Channel Low 2412MHz (20MHz)



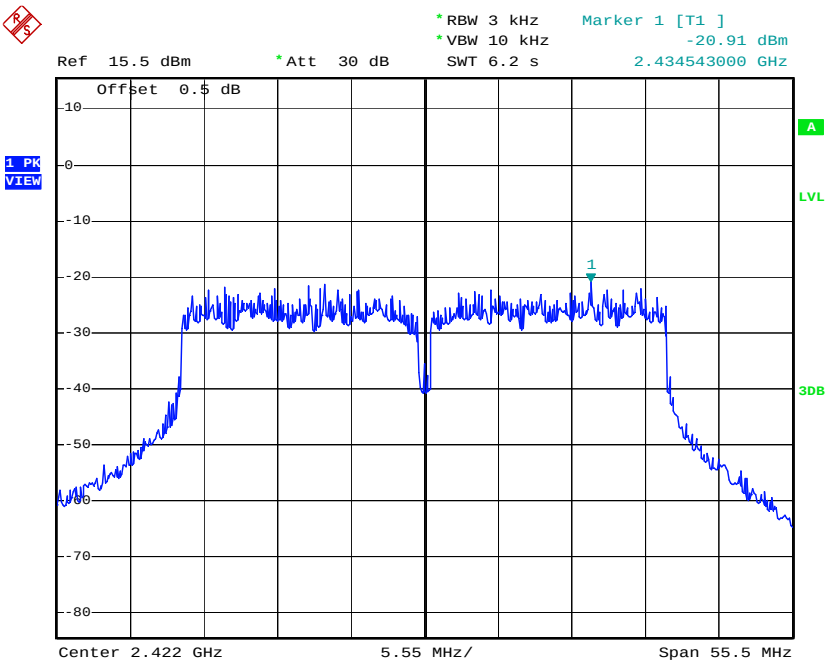
802.11n Channel Middle 2437MHz (20MHz)



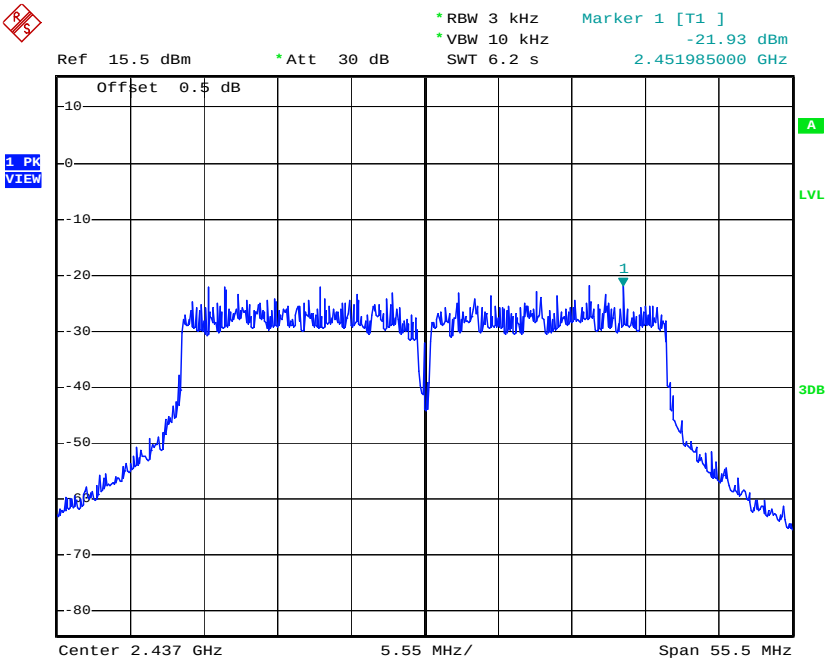
802.11n Channel High 2462MHz(20MHz)



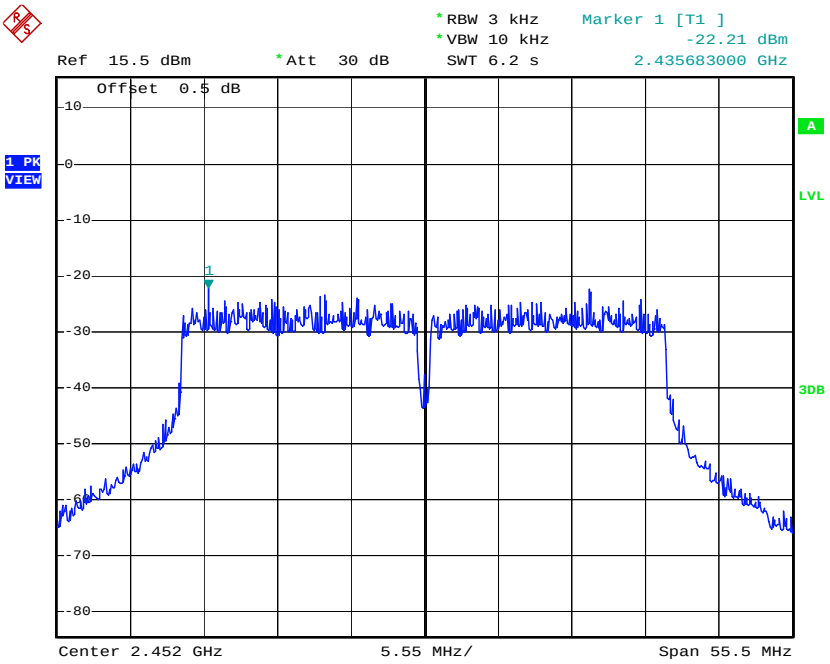
802.11n Channel Low 2422MHz (40MHz)



802.11n Channel Middle 2437MHz(40MHz)

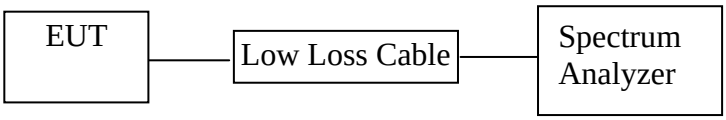


802.11n Channel High 2452MHz(40MHz)



9. BAND EDGE COMPLIANCE TEST

9.1.Block Diagram of Test Setup



9.2.The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

9.3.EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4.Operating Condition of EUT

9.4.1.Setup the EUT and simulator as shown as Section 9.1.

9.4.2.Turn on the power of all equipment.

9.4.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

9.5.Test Procedure

Conducted Band Edge:

9.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

9.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz.

Radiate Band Edge:

9.5.3.The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

9.5.4.The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.5.5.EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.5.6.Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.5.7.RBW=1MHz, VBW=1MHz

9.5.8.The band edges was measured and recorded.

9.6.Test Result

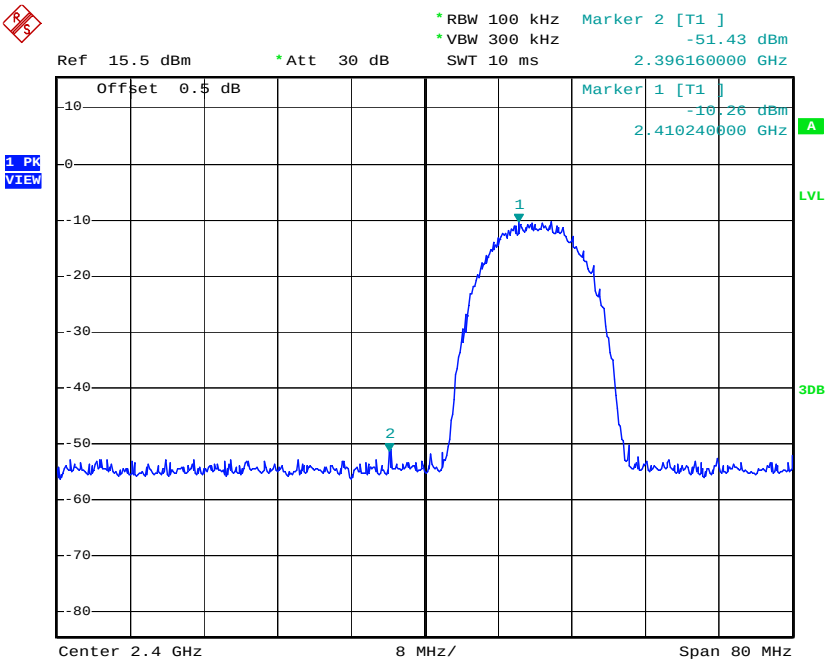
The test was performed with 802.11b		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	41.17	> 20dBc
2462	42.04	> 20dBc

The test was performed with 802.11g		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	31.39	> 20dBc
2462	40.37	> 20dBc

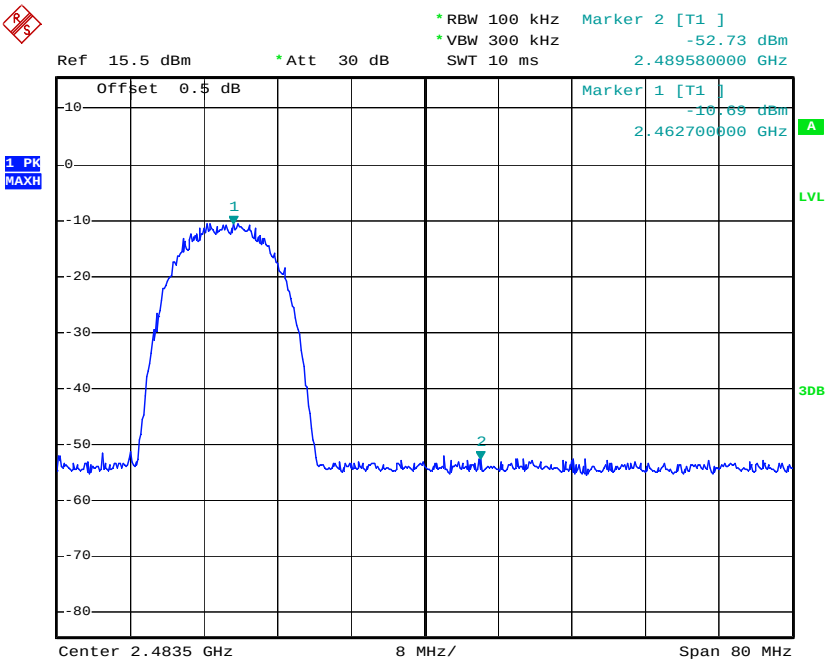
The test was performed with 802.11n (20MHz)		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	27.38	> 20dBc
2462	40.37	> 20dBc

The test was performed with 802.11n (40MHz)		
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2422	29.28	> 20dBc
2452	38.14	> 20dBc

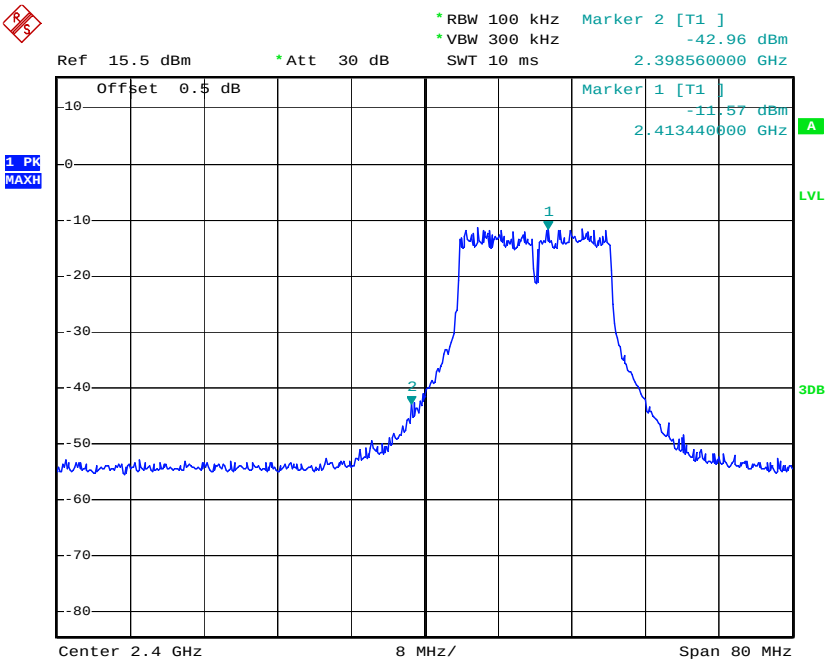
802.11b Channel Low 2412MHz



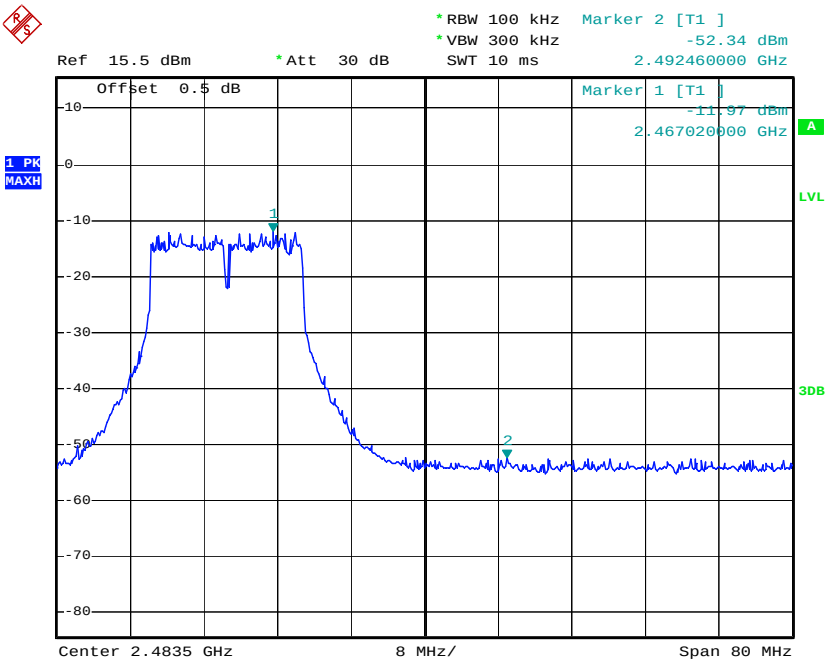
802.11b Channel High 2462MHz



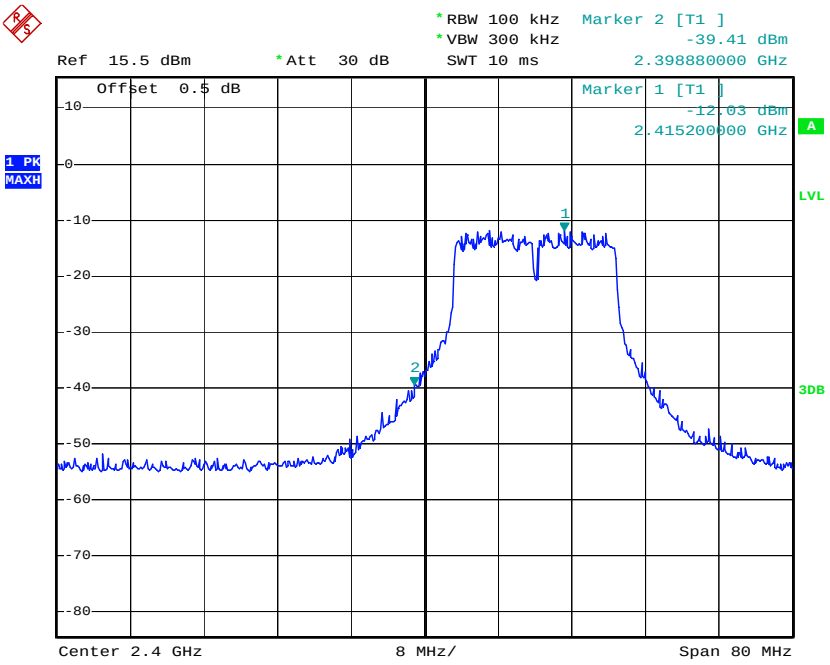
802.11g Channel Low 2412MHz



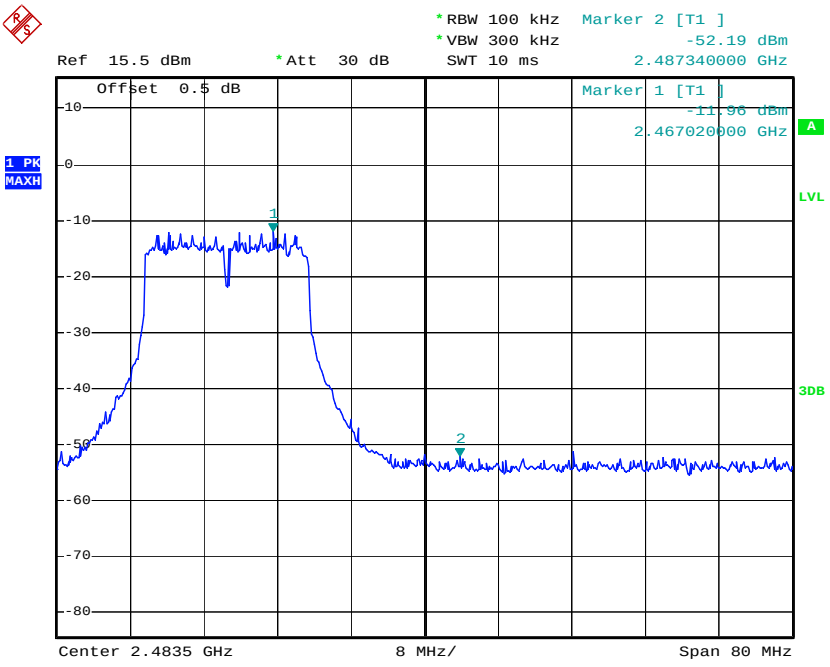
802.11g Channel High 2462MHz



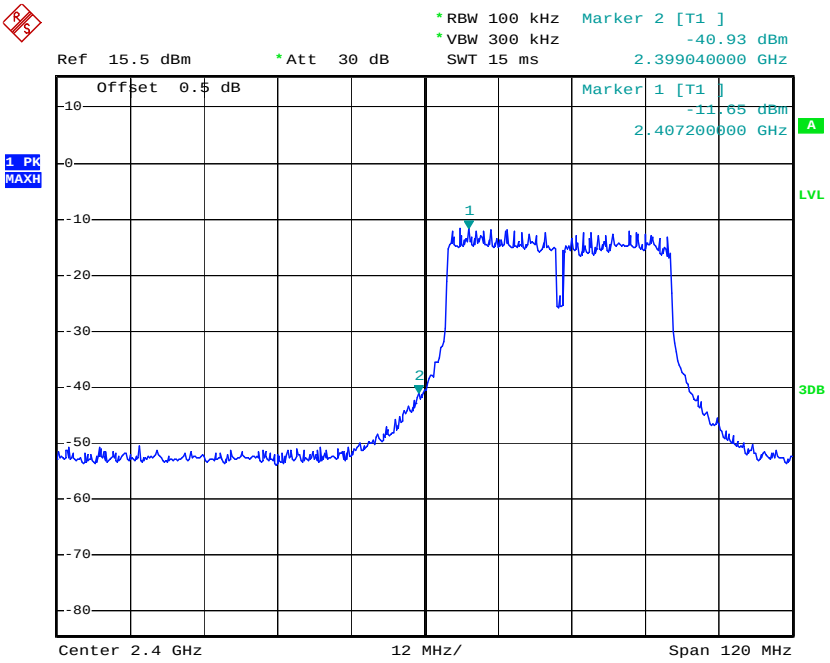
802.11n Channel Low 2412MHz (20MHz)



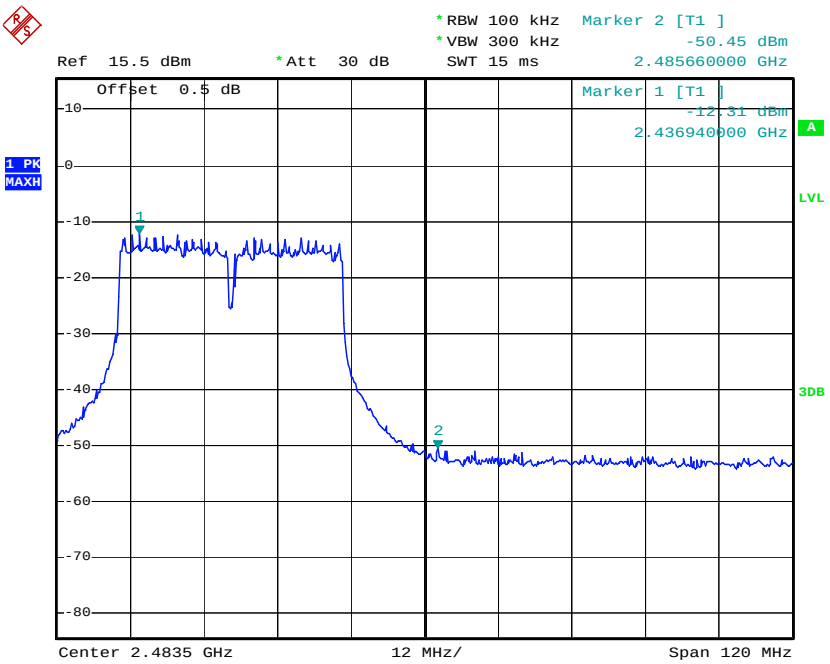
802.11n Channel High 2462MHz (20MHz)



802.11n Channel Low 2422MHz (40MHz)



802.11n Channel High 2452MHz (40MHz)



Radiated Band Edge Result

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

   Result = Reading + Corrected Factor
3. Display the measurement of peak values.

ACCURATE TECHNOLOGY CO., LTD.
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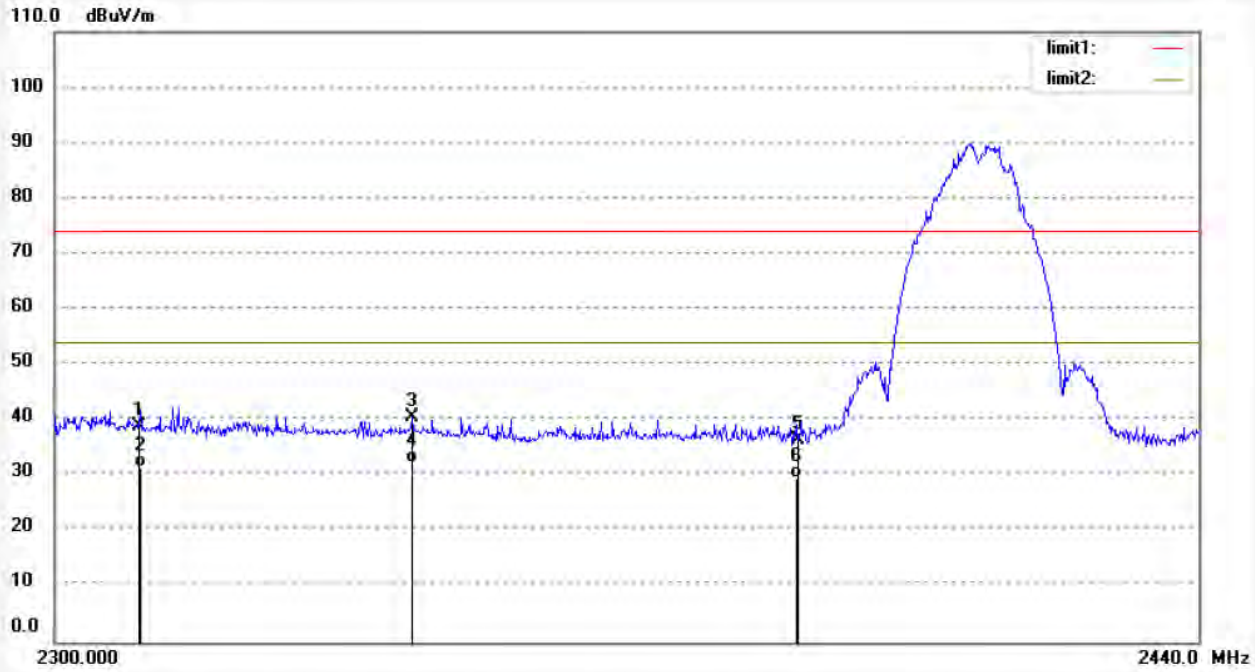
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2557
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/18/32
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



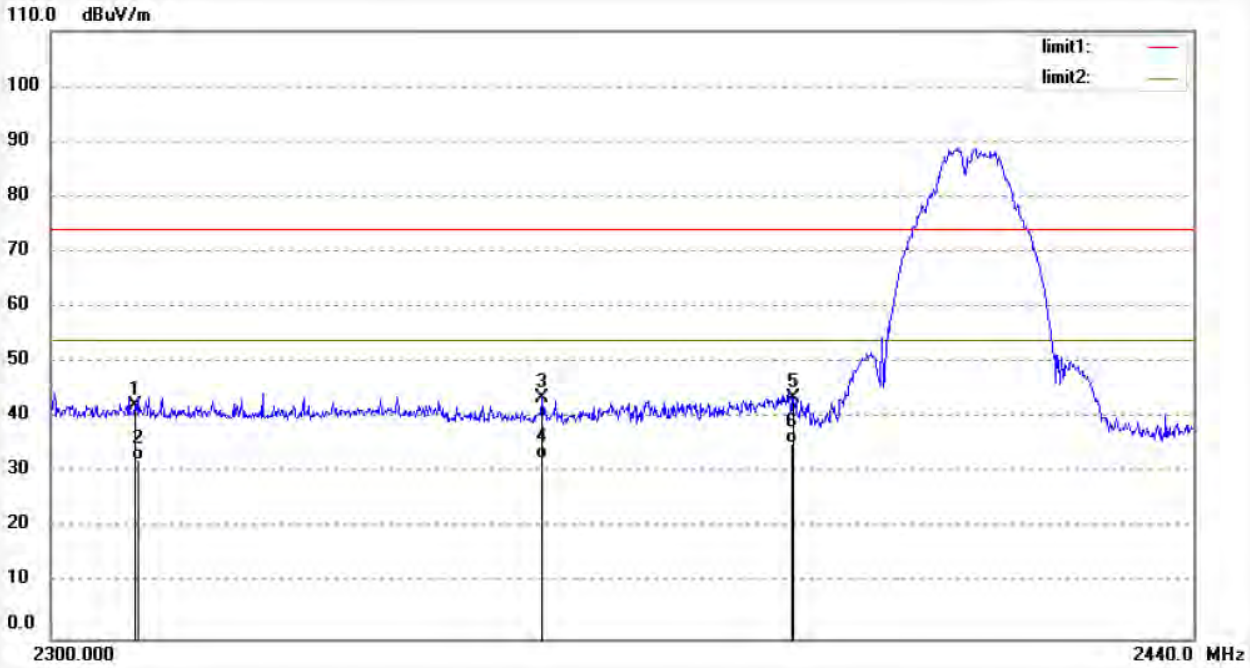
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	46.79	-7.81	38.98	74.00	-35.02	peak			
2	2310.000	39.18	-7.81	31.37	54.00	-22.63	AVG			
3	2342.882	48.46	-7.79	40.67	74.00	-33.33	peak			
4	2342.882	40.15	-7.79	32.36	54.00	-21.64	AVG			
5	2390.000	43.96	-7.53	36.43	74.00	-37.57	peak			
6	2390.000	36.99	-7.53	29.46	54.00	-24.54	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2558
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/22/34
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



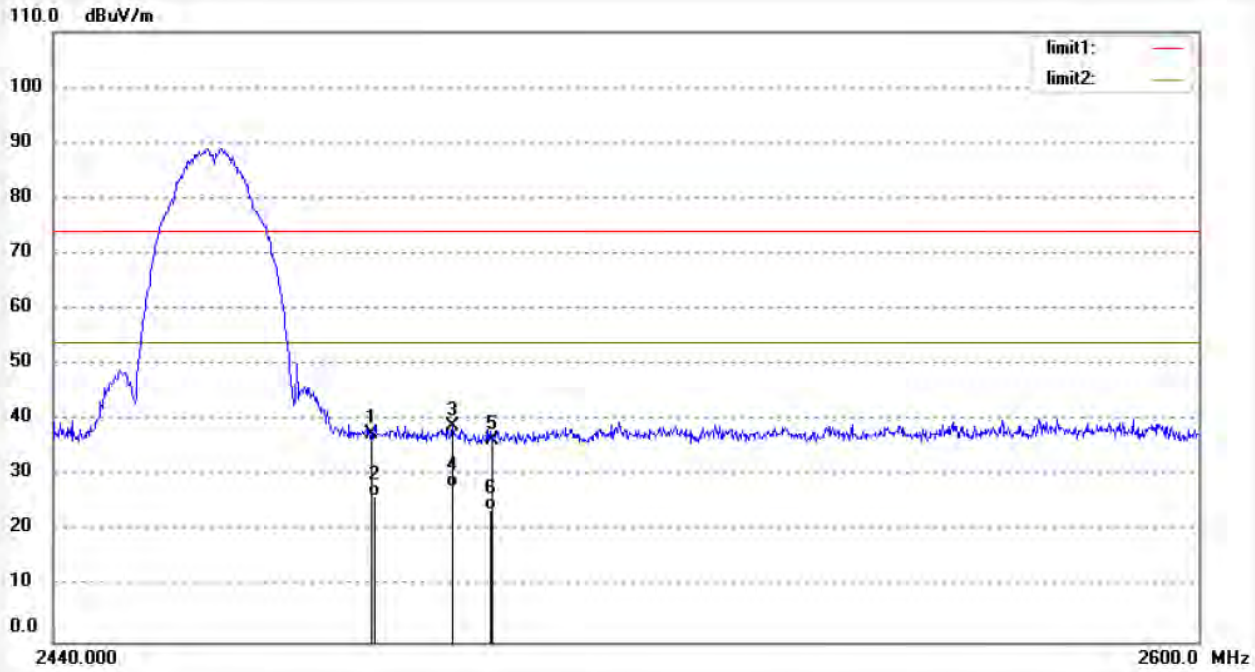
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg)	Remark
1	2310.000	49.97	-7.81	42.16	74.00	-31.84	peak			
2	2310.000	40.00	-7.81	32.19	54.00	-21.81	AVG			
3	2359.168	51.20	-7.73	43.47	74.00	-30.53	peak			
4	2359.168	40.28	-7.73	32.55	54.00	-21.45	AVG			
5	2390.000	51.04	-7.53	43.51	74.00	-30.49	peak			
6	2390.000	42.82	-7.53	35.29	54.00	-18.71	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2560
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/32/24
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



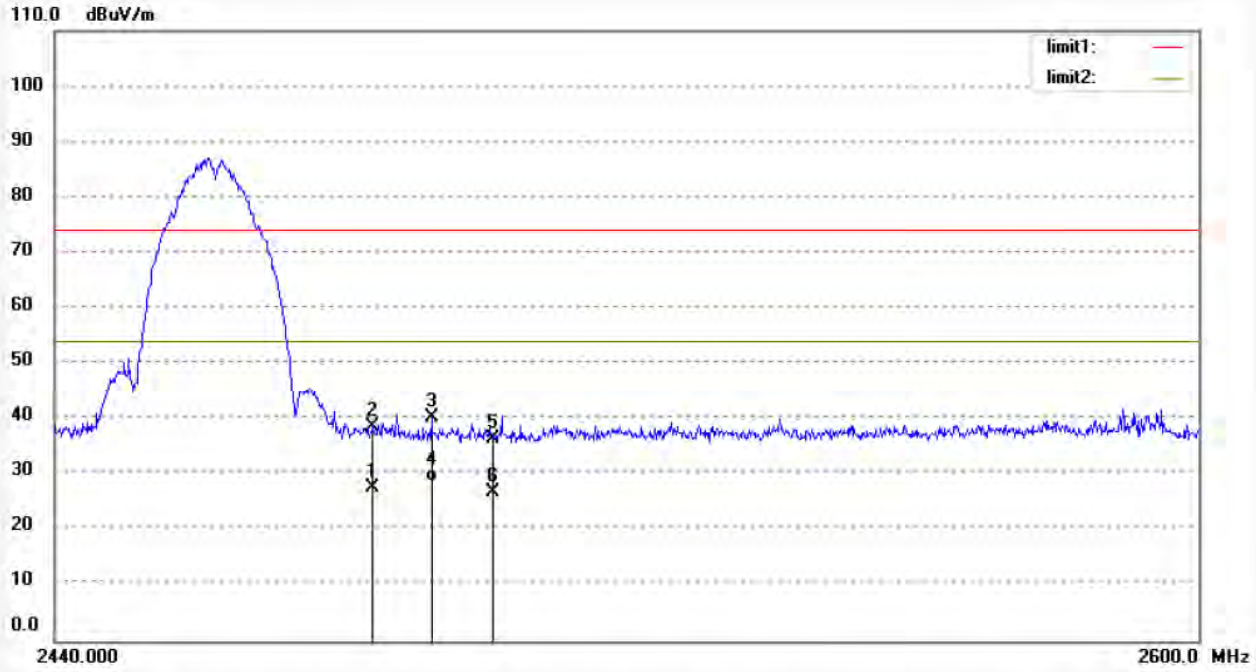
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.87	-7.37	37.50	74.00	-36.50	peak			
2	2483.500	33.69	-7.37	26.32	54.00	-27.68	AVG			
3	2494.641	46.34	-7.39	38.95	74.00	-35.05	peak			
4	2494.641	35.28	-7.39	27.89	54.00	-26.11	AVG			
5	2500.000	43.81	-7.40	36.41	74.00	-37.59	peak			
6	2500.000	31.28	-7.40	23.88	54.00	-30.12	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2559
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/27/41
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



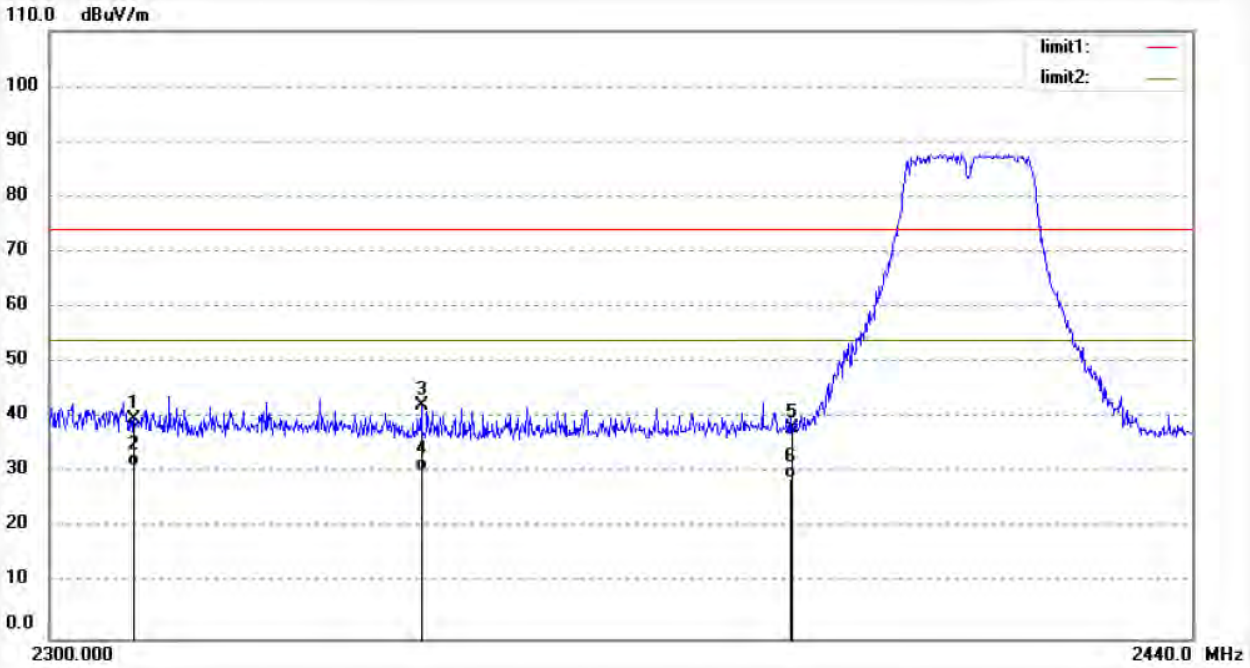
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.11	-7.37	27.74	74.00	-46.26	peak			
2	2483.500	45.88	-7.37	38.51	74.00	-35.49	peak			
3	2491.627	47.66	-7.39	40.27	74.00	-33.73	peak			
4	2491.627	36.18	-7.39	28.79	54.00	-25.21	AVG			
5	2500.000	43.96	-7.40	36.56	74.00	-37.44	peak			
6	2500.000	34.28	-7.40	26.88	74.00	-47.12	peak			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2565
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/52/31
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



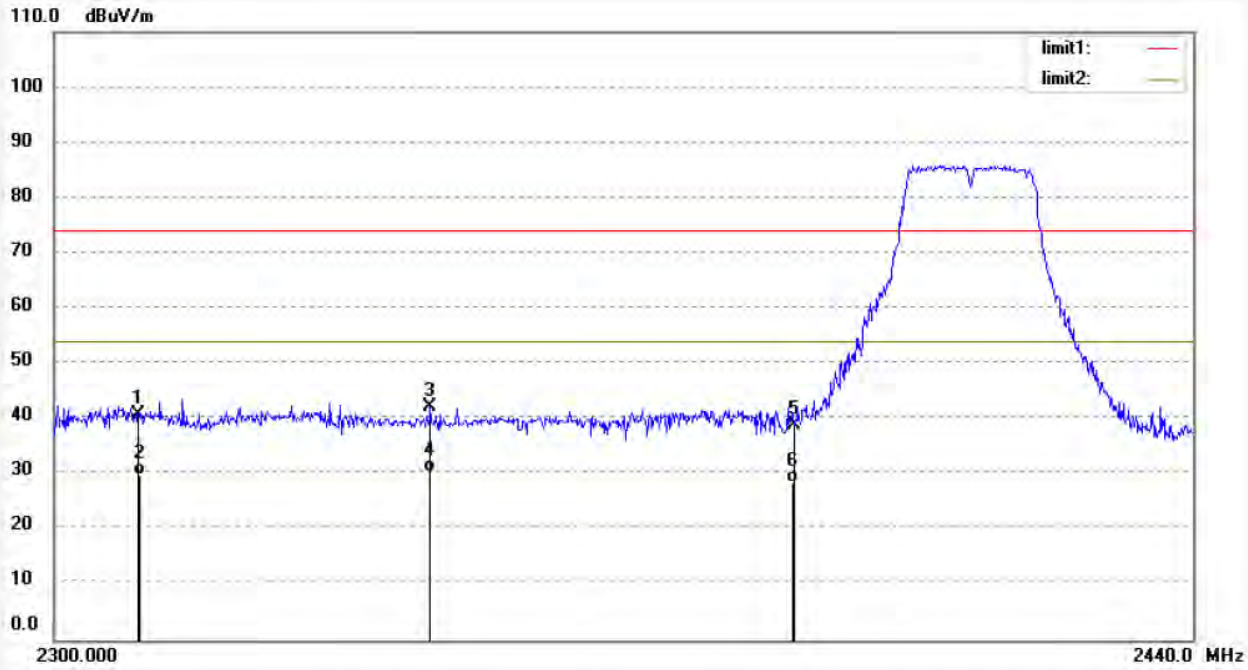
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	47.47	-7.81	39.66	74.00	-34.34	peak			
2	2310.000	38.91	-7.81	31.10	54.00	-22.90	AVG			
3	2344.686	49.93	-7.79	42.14	74.00	-31.86	peak			
4	2344.686	38.22	-7.79	30.43	54.00	-23.57	AVG			
5	2390.000	45.66	-7.53	38.13	74.00	-35.87	peak			
6	2390.000	36.43	-7.53	28.90	54.00	-25.10	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2564
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/48/54
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



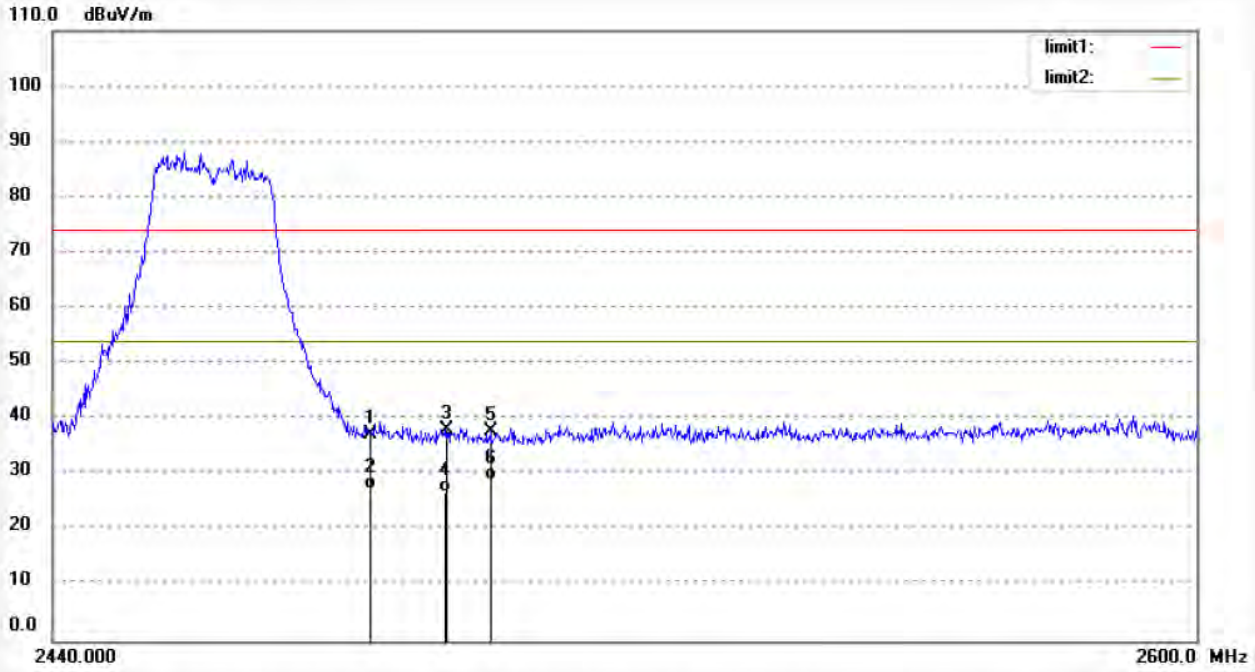
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	48.53	-7.81	40.72	74.00	-33.28	peak			
2	2310.000	37.61	-7.81	29.80	54.00	-24.20	AVG			
3	2345.380	50.02	-7.79	42.23	74.00	-31.77	peak			
4	2345.380	38.29	-7.79	30.50	54.00	-23.50	AVG			
5	2390.000	46.54	-7.53	39.01	74.00	-34.99	peak			
6	2390.000	35.91	-7.53	28.38	54.00	-25.62	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2562
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/38/10
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.50	-7.37	37.13	74.00	-36.87	peak			
2	2483.500	34.67	-7.37	27.30	54.00	-26.70	AVG			
3	2493.848	45.47	-7.40	38.07	74.00	-35.93	peak			
4	2493.848	34.19	-7.40	26.79	54.00	-27.21	AVG			
5	2500.000	45.21	-7.40	37.81	74.00	-36.19	peak			
6	2500.000	36.48	-7.40	29.08	54.00	-24.92	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
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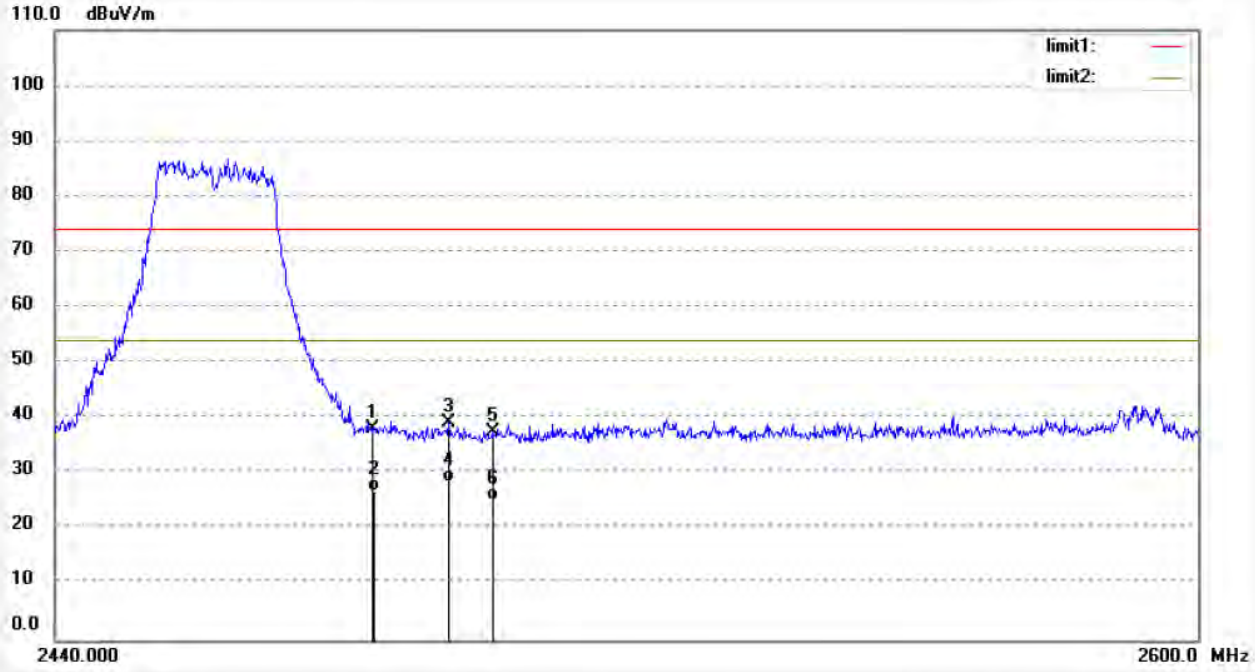
Fax:+86-0755-26503396

Job No.: star #2563
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/44/42
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



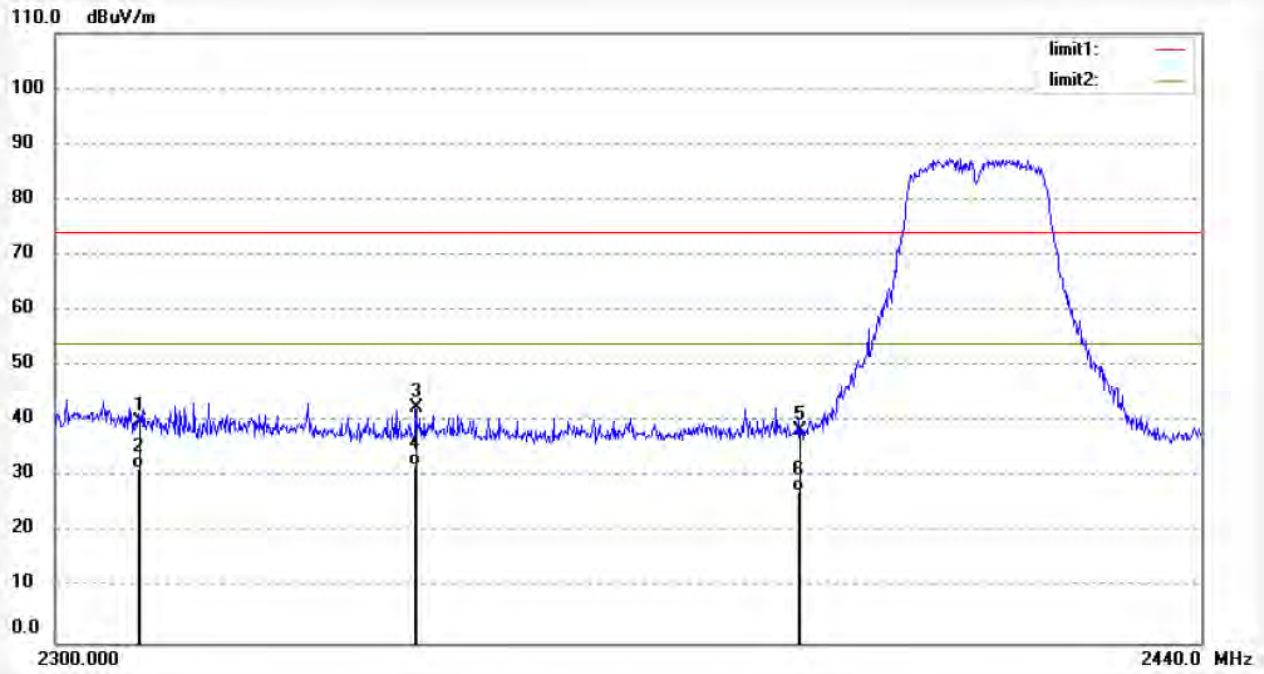
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.47	-7.37	38.10	74.00	-35.90	peak			
2	2483.500	34.17	-7.37	26.80	54.00	-27.20	AVG			
3	2494.006	46.64	-7.40	39.24	74.00	-34.76	peak			
4	2494.006	35.91	-7.40	28.51	54.00	-25.49	AVG			
5	2500.000	44.82	-7.40	37.42	74.00	-36.58	peak			
6	2500.000	32.58	-7.40	25.18	54.00	-28.82	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2566
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11n)20MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 13/58/23
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



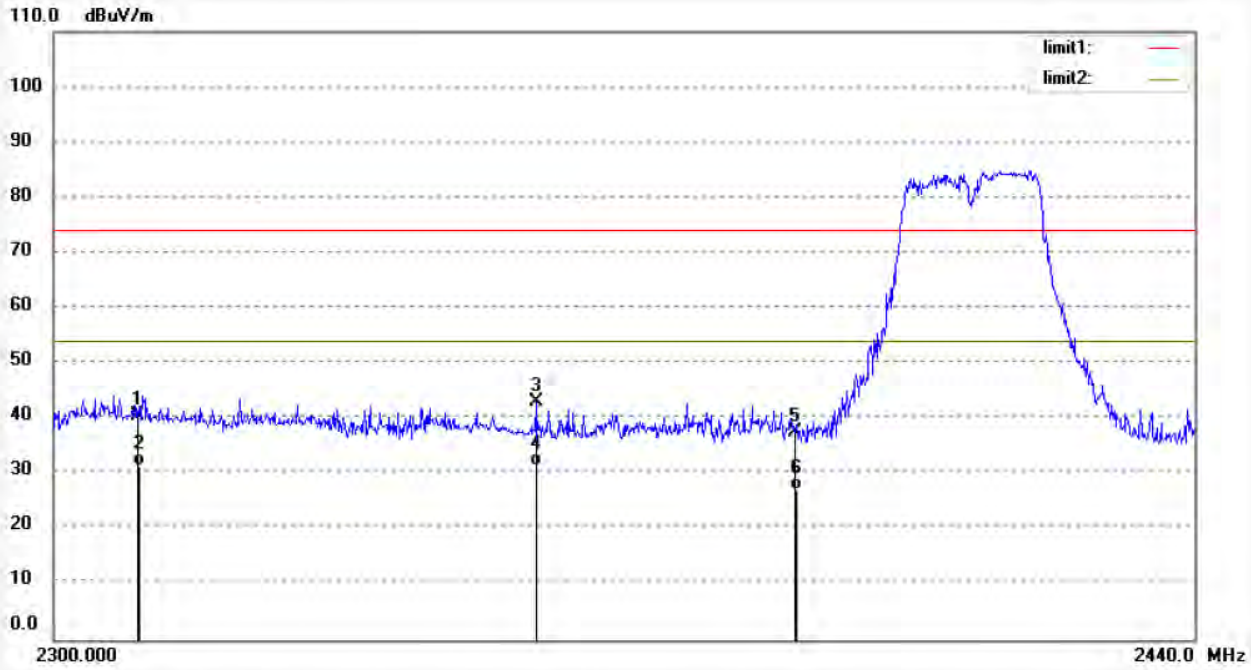
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	47.88	-7.81	40.07	74.00	-33.93	peak			
2	2310.000	39.24	-7.81	31.43	54.00	-22.57	AVG			
3	2343.160	50.17	-7.79	42.38	74.00	-31.62	peak			
4	2343.160	39.88	-7.79	32.09	54.00	-21.91	AVG			
5	2390.000	45.76	-7.53	38.23	74.00	-35.77	peak			
6	2390.000	34.81	-7.53	27.28	54.00	-26.72	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2567
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 1(802.11n)20MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/03/14
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



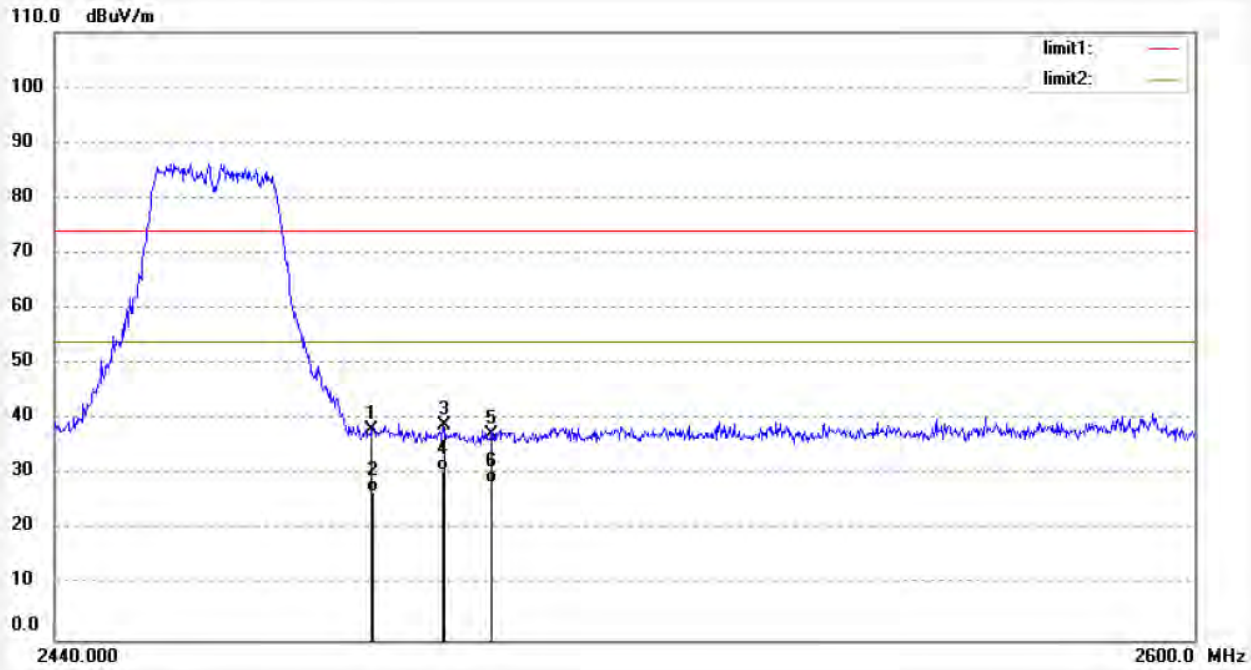
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	48.26	-7.81	40.45	74.00	-33.55	peak			
2	2310.000	39.33	-7.81	31.52	54.00	-22.48	AVG			
3	2358.191	50.86	-7.74	43.12	74.00	-30.88	peak			
4	2358.191	39.36	-7.74	31.62	54.00	-22.38	AVG			
5	2390.000	44.94	-7.53	37.41	74.00	-36.59	peak			
6	2390.000	34.58	-7.53	27.05	54.00	-26.95	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2569
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11n)20MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/15/12
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



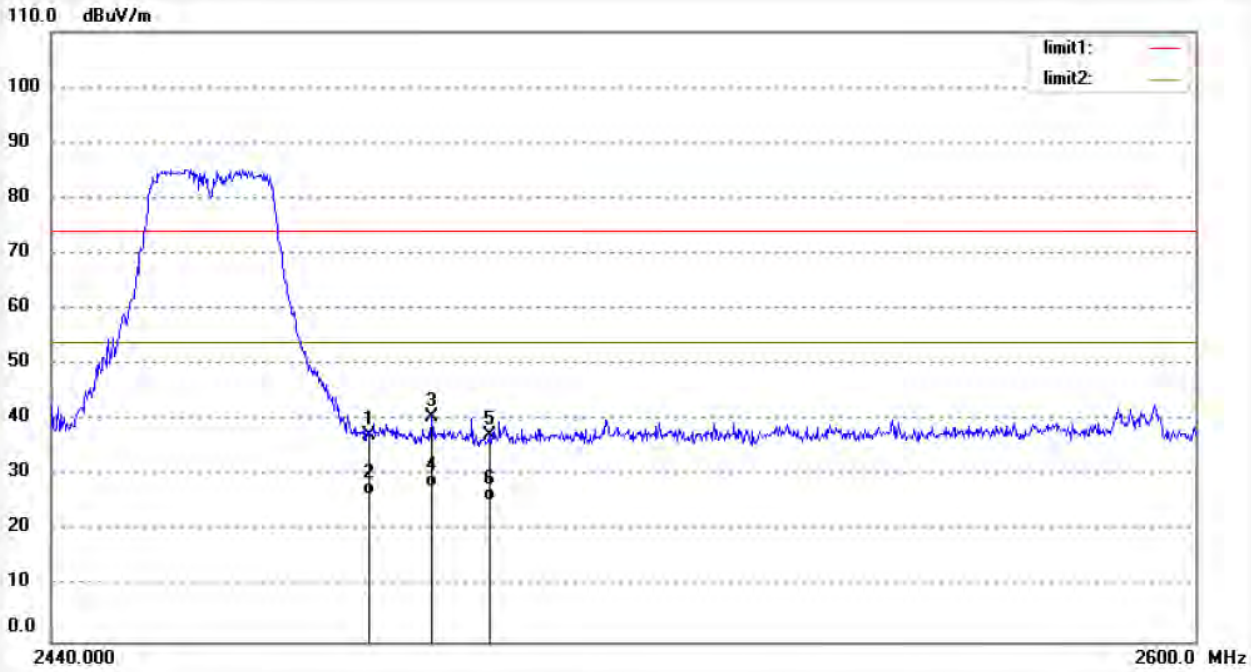
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.40	-7.37	38.03	74.00	-35.97	peak			
2	2483.500	34.28	-7.37	26.91	54.00	-27.09	AVG			
3	2493.372	46.17	-7.39	38.78	74.00	-35.22	peak			
4	2493.372	37.92	-7.39	30.53	54.00	-23.47	AVG			
5	2500.000	44.68	-7.40	37.28	74.00	-36.72	peak			
6	2500.000	35.91	-7.40	28.51	54.00	-25.49	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2568
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 11(802.11n)20MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/10/25
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



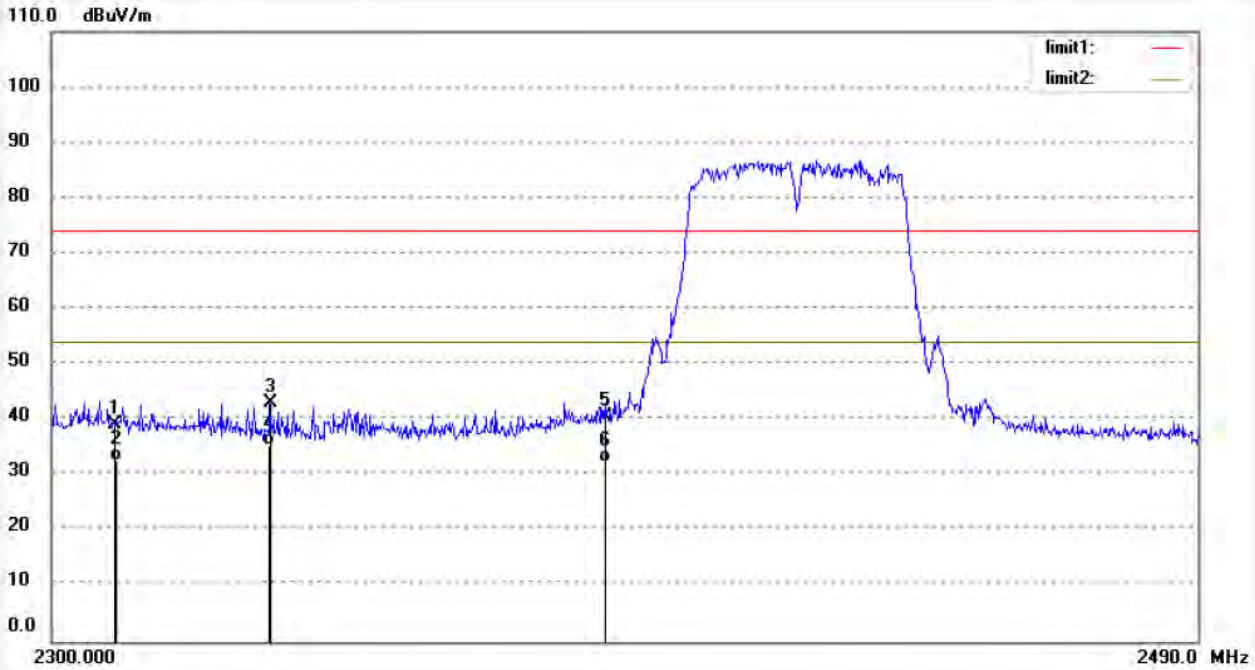
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.77	-7.37	37.40	74.00	-36.60	peak			
2	2483.500	33.80	-7.37	26.43	54.00	-27.57	AVG			
3	2492.102	48.02	-7.39	40.63	74.00	-33.37	peak			
4	2492.102	35.17	-7.39	27.78	54.00	-26.22	AVG			
5	2500.000	44.65	-7.40	37.25	74.00	-36.75	peak			
6	2500.000	32.93	-7.40	25.53	54.00	-28.47	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2573
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 3(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/39/42
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



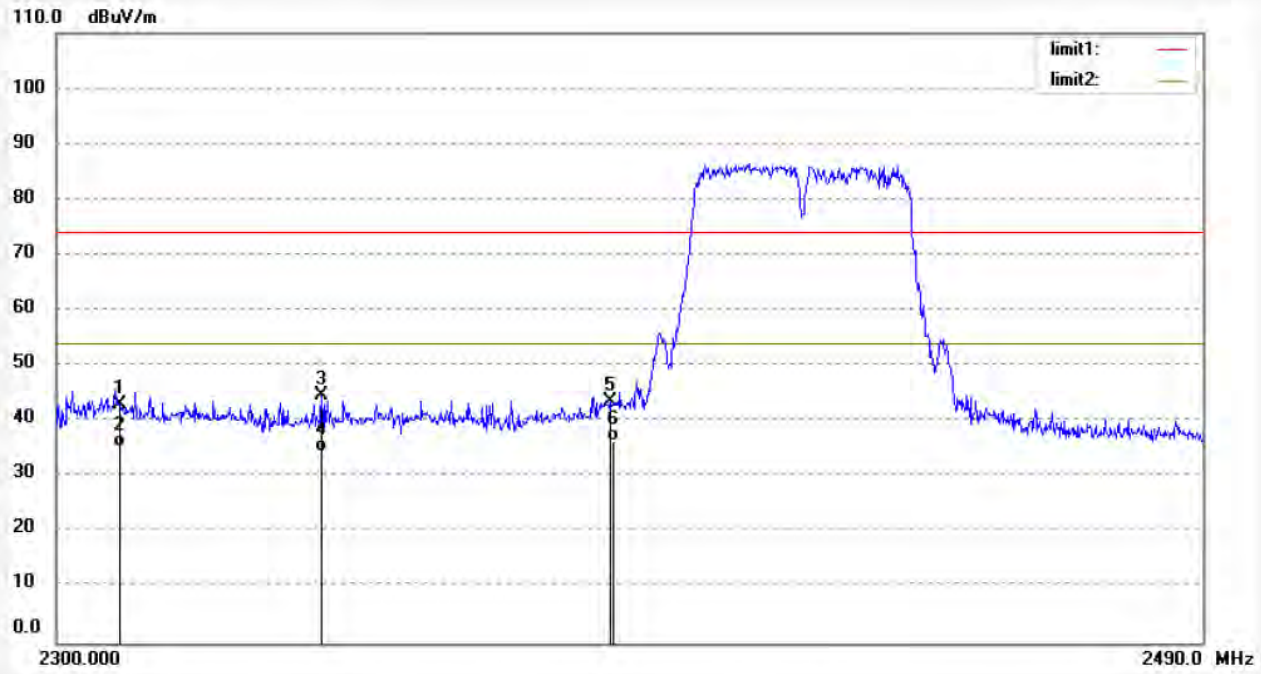
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	47.08	-7.81	39.27	74.00	-34.73	peak			
2	2310.000	40.28	-7.81	32.47	54.00	-21.53	AVG			
3	2335.020	50.71	-7.80	42.91	74.00	-31.09	peak			
4	2335.020	43.17	-7.80	35.37	54.00	-18.63	AVG			
5	2390.000	47.97	-7.53	40.44	74.00	-33.56	peak			
6	2390.000	39.83	-7.53	32.30	54.00	-21.70	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2572
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 3(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/33/52
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



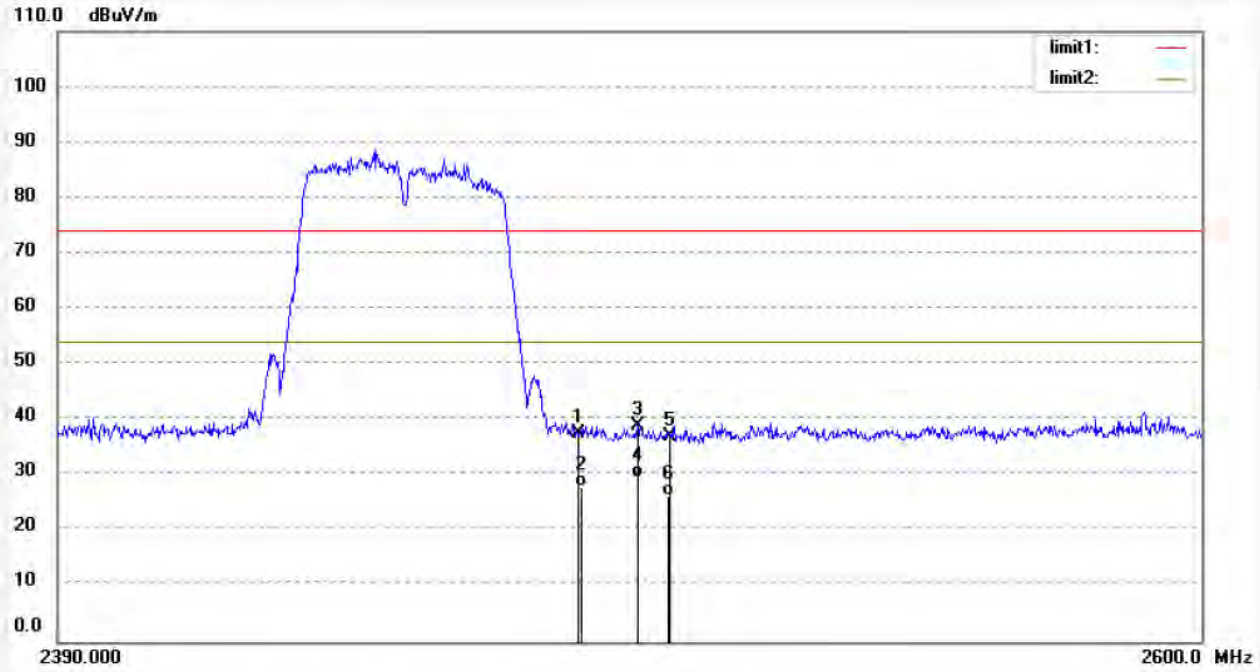
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2310.000	50.94	-7.81	43.13	74.00	-30.87	peak			
2	2310.000	43.08	-7.81	35.27	54.00	-18.73	AVG			
3	2342.646	52.49	-7.79	44.70	74.00	-29.30	peak			
4	2342.646	42.18	-7.79	34.39	54.00	-19.61	AVG			
5	2390.000	51.17	-7.53	43.64	74.00	-30.36	peak			
6	2390.000	43.99	-7.53	36.46	54.00	-17.54	AVG			

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 966 chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: star #2570
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 9(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/21/19
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.87	-7.37	37.50	74.00	-36.50	peak			
2	2483.500	35.17	-7.37	27.80	54.00	-26.20	AVG			
3	2494.262	46.29	-7.39	38.90	74.00	-35.10	peak			
4	2494.262	36.99	-7.39	29.60	54.00	-24.40	AVG			
5	2500.000	44.48	-7.40	37.08	74.00	-36.92	peak			
6	2500.000	33.55	-7.40	26.15	54.00	-27.85	AVG			

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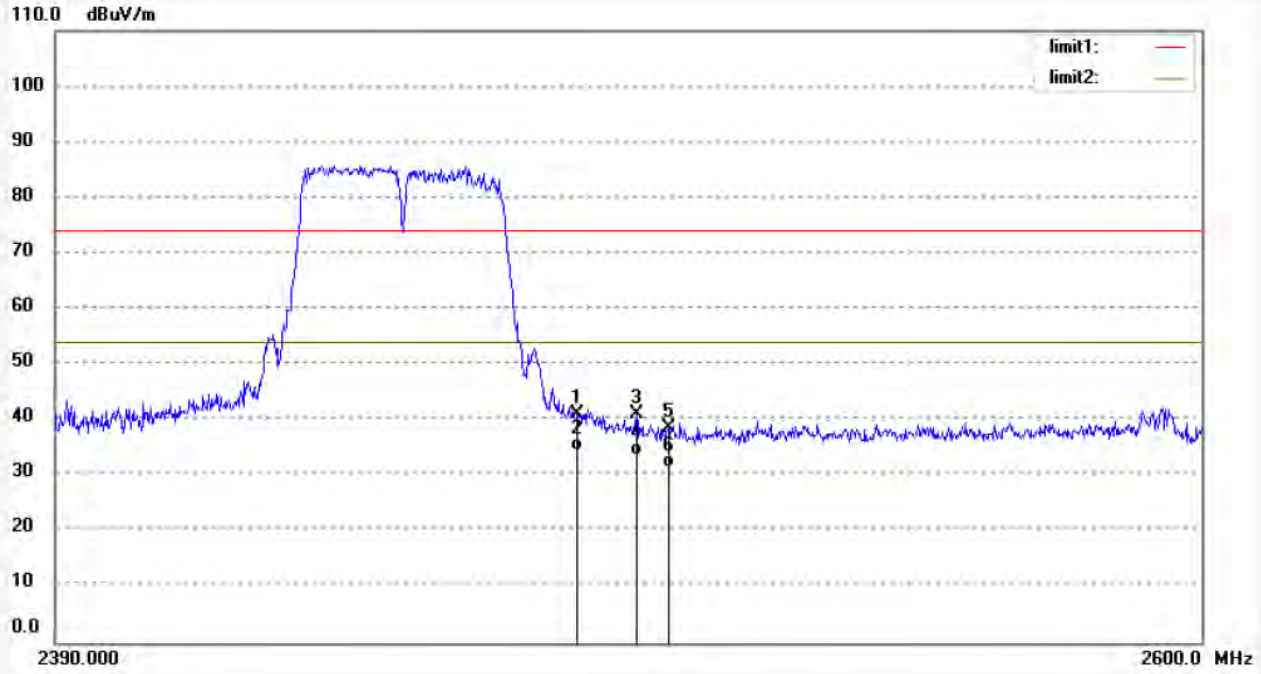
Job No.: star #2571
Standard: FCC 15C PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MID
Mode: TX Channel 9(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/06/
Time: 14/27/55
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	48.40	-7.37	41.03	74.00	-32.97	peak			
2	2483.500	41.89	-7.37	34.52	54.00	-19.48	AVG			
3	2494.262	48.52	-7.39	41.13	74.00	-32.87	peak			
4	2494.262	41.00	-7.39	33.61	54.00	-20.39	AVG			
5	2500.000	46.08	-7.40	38.68	74.00	-35.32	peak			
6	2500.000	38.91	-7.40	31.51	54.00	-22.49	AVG			

10.RADIATED SPURIOUS EMISSION TEST

10.1.Block Diagram of Test Setup

10.1.1.Block diagram of connection between the EUT and peripherals

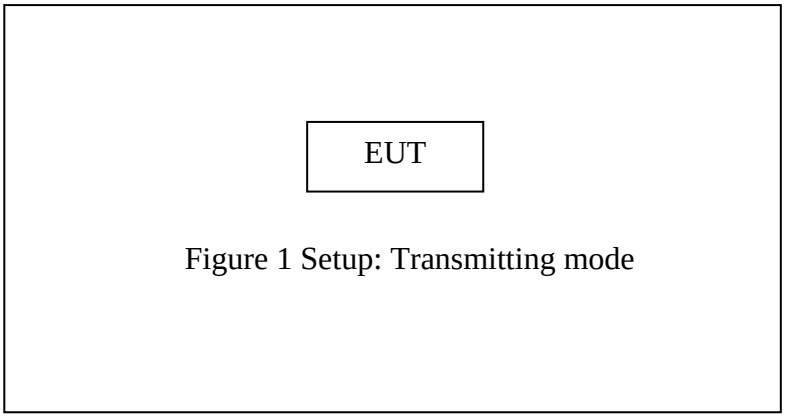
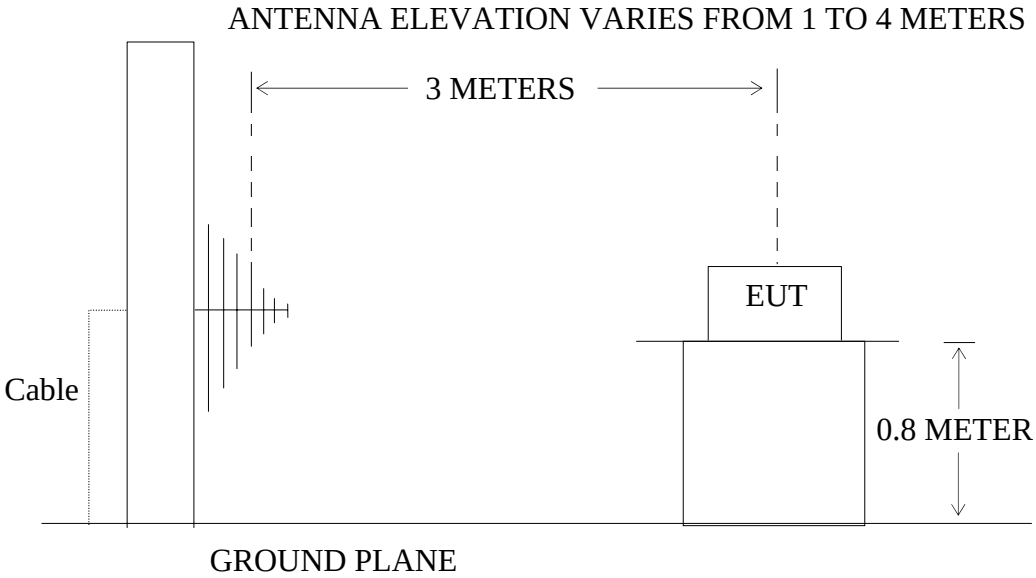


Figure 1 Setup: Transmitting mode

10.1.2.Semi-Anechoic Chamber Test Setup Diagram



10.2.The Limit For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the

transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

10.3.Restricted bands of operation

10.3.1.FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

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

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510
[2]Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4.Configuration of EUT on Measurement

The equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.5.Operating Condition of EUT

10.5.1.Setup the EUT and simulator as shown as Section 10.1.

10.5.2.Turn on the power of all equipment.

10.5.3.Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

10.6.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.
The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode and 150Mbps for 802.11n mode, based on previous with 802.11 WLAN product design architectures.

The bandwidth of test receiver is set at 9kHz in below 30MHz. and set at 120kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9kHz to 25GHz is checked.
The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.
The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:Result = Reading + Corrected Factor
Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

10.7.The Field Strength of Radiation Emission Measurement Results

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by Band Reject Filter in the attached plots.

4. The EUT is tested radiation emission at each test mode(802.11 b/g/n) in three axes. The worst emissions are reported in all test mode and channels.

5. The radiation emissions from 18-25GHz are not reported, because the test values lower than the limits of 20dB.

Below 1G

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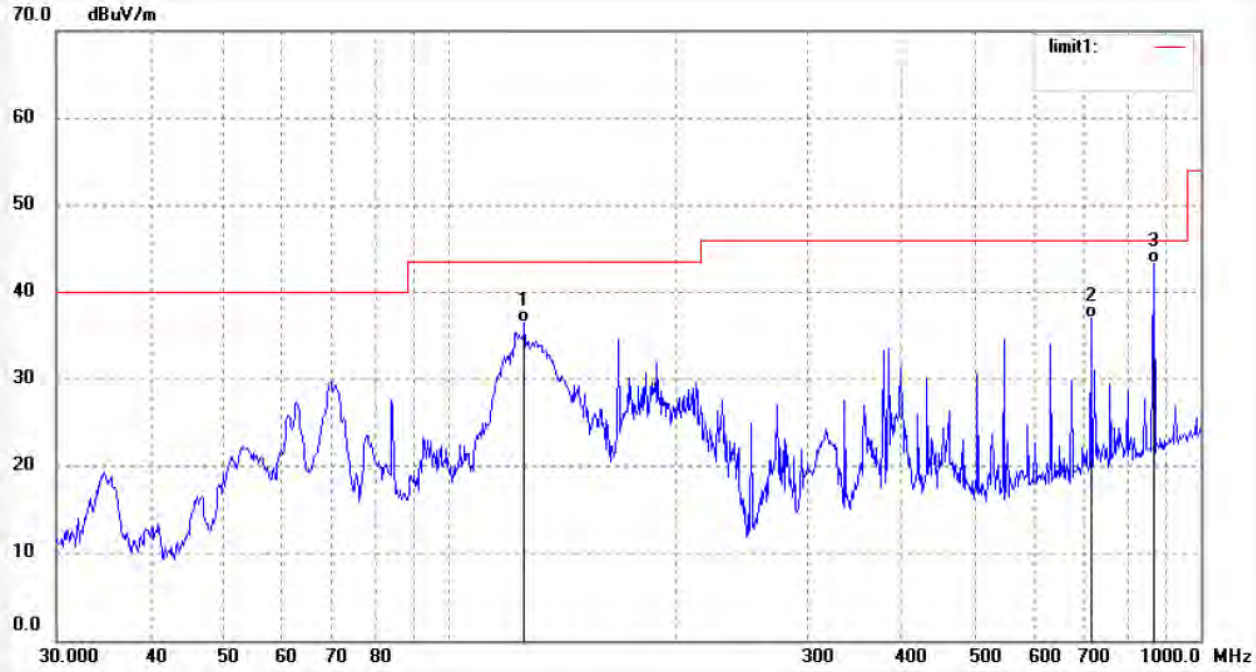
Job No.: STAR #3660
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/38/40
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	125.8864	59.34	-22.84	36.50	43.50	-7.00	QP			
2	714.1734	46.48	-9.46	37.02	46.00	-8.98	QP			
3	866.0878	50.02	-6.69	43.33	46.00	-2.67	QP			

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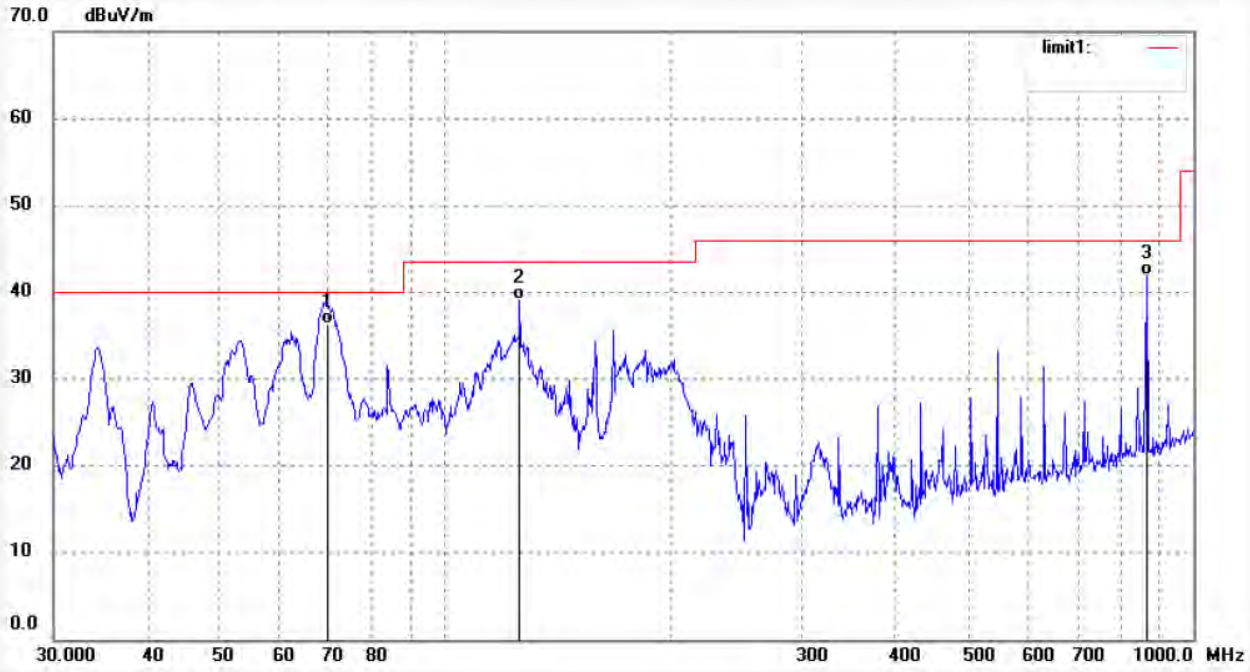
Job No.: STAR #3661
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/44/03
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	69.8449	57.64	-21.34	36.30	40.00	-3.70	QP			
2	125.8863	61.94	-22.84	39.10	43.50	-4.40	QP			
3	866.0878	48.60	-6.69	41.91	46.00	-4.09	QP			

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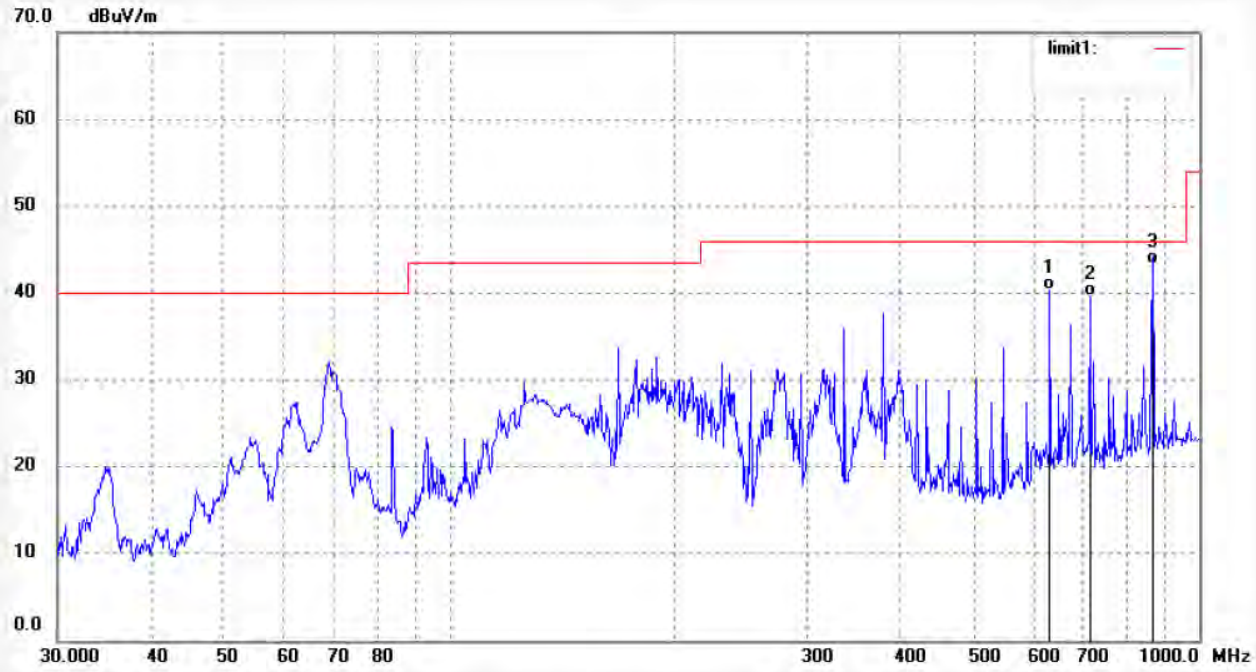
Job No.: STAR #3663
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/52/28
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	51.30	-11.02	40.28	46.00	-5.72	QP			
2	714.1734	49.18	-9.46	39.72	46.00	-6.28	QP			
3	866.0878	49.99	-6.69	43.30	46.00	-2.70	QP			

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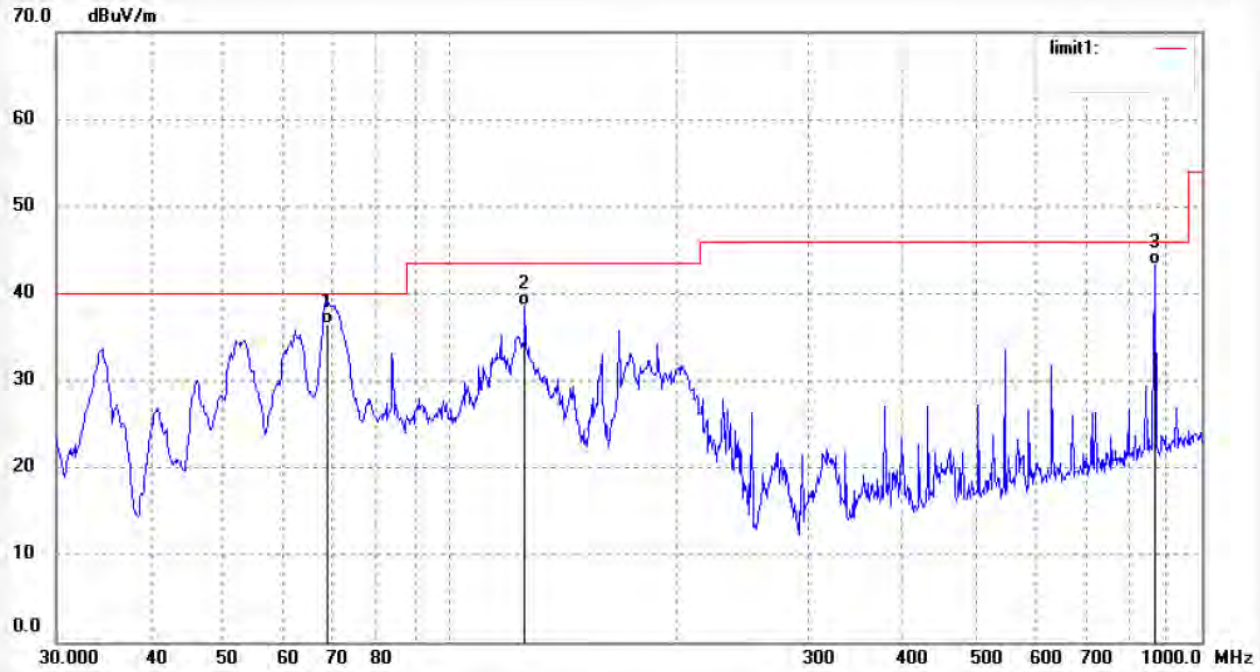
Job No.: STAR #3662
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/48/49
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	68.6310	57.80	-21.31	36.49	40.00	-3.51	QP			
2	125.8864	61.51	-22.84	38.67	43.50	-4.83	QP			
3	866.0879	49.99	-6.69	43.30	46.00	-2.70	QP			

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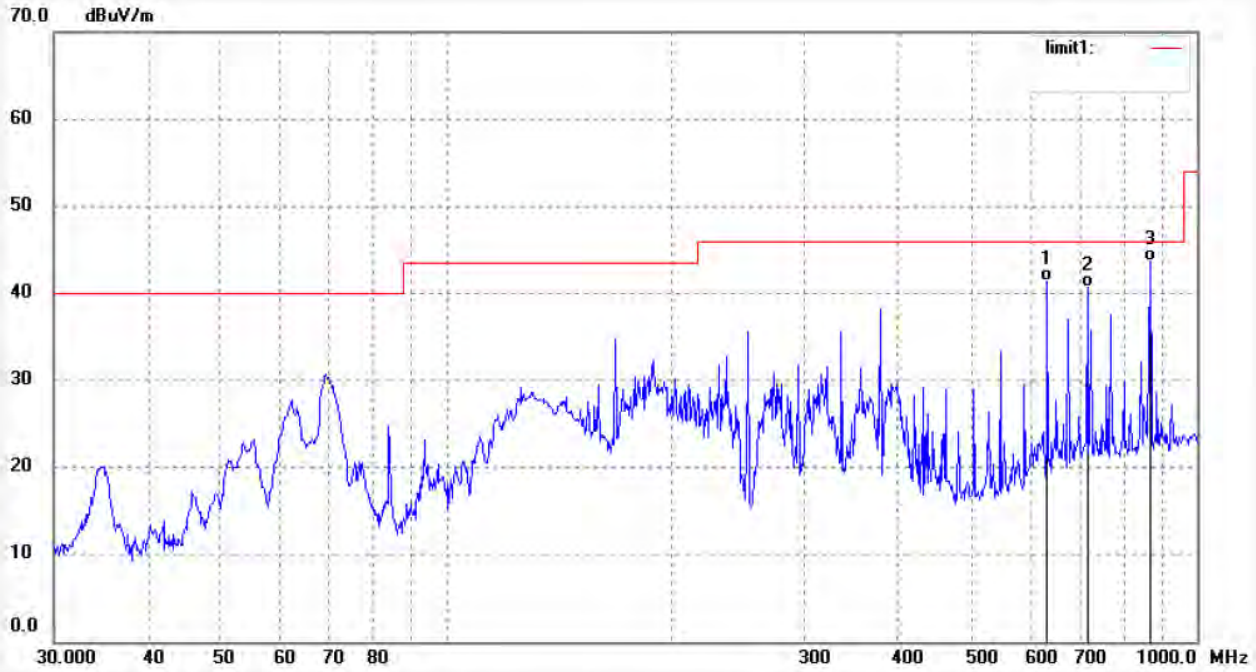
Job No.: STAR #3664
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/56/18
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	52.42	-11.02	41.40	46.00	-4.60	QP			
2	714.1734	50.20	-9.46	40.74	46.00	-5.26	QP			
3	866.0878	50.42	-6.69	43.73	46.00	-2.27	QP			

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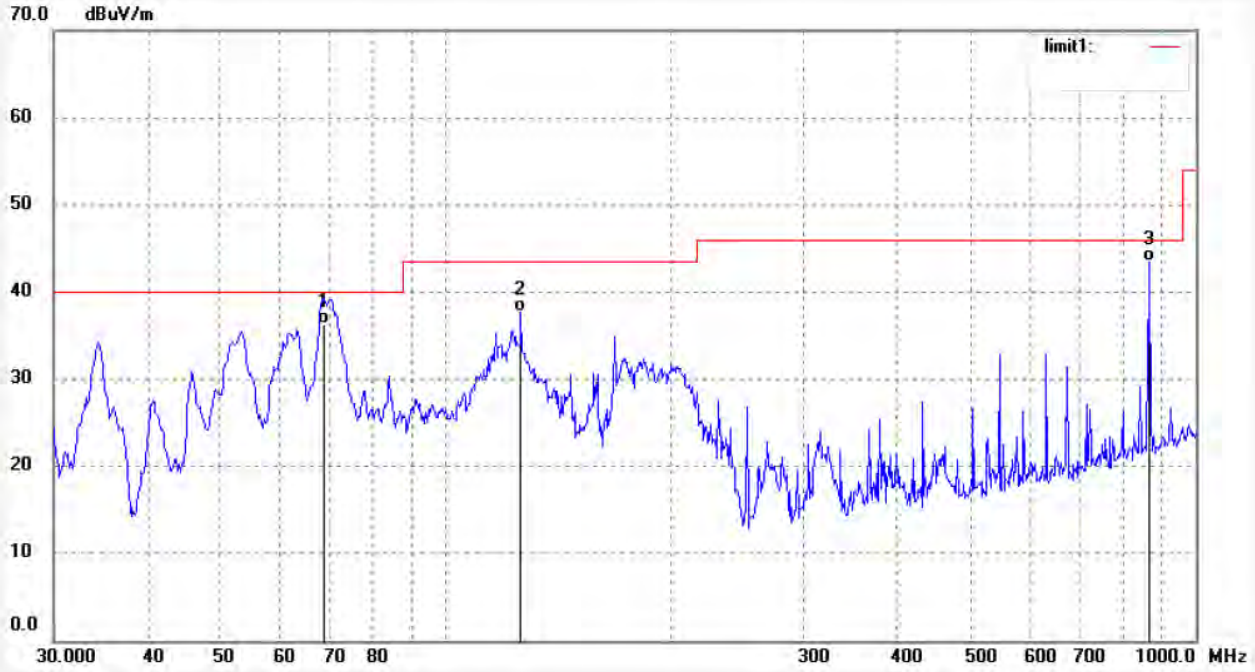
Job No.: STAR #3665
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11b)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 12/59/57
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	68.8721	57.58	-21.31	36.27	40.00	-3.73	QP			
2	125.8863	60.63	-22.84	37.79	43.50	-5.71	QP			
3	866.0878	50.22	-6.69	43.53	46.00	-2.47	QP			

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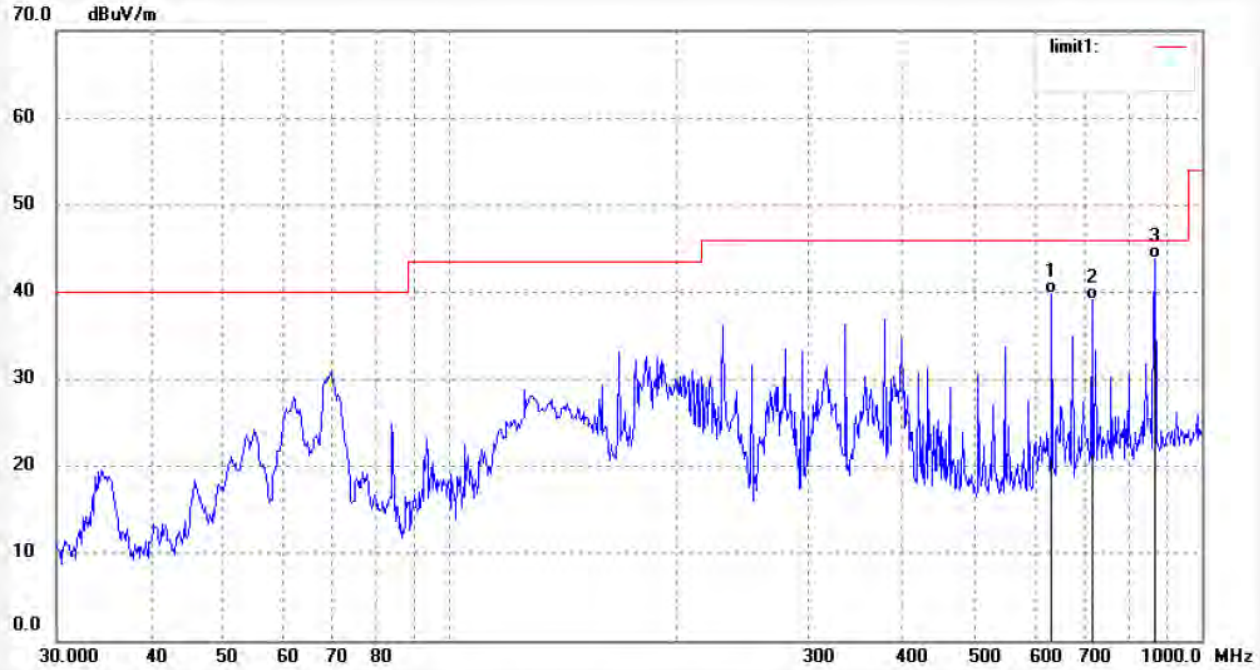
Job No.: STAR #3667
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/08/09
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	50.85	-11.02	39.83	46.00	-6.17	QP			
2	714.1734	48.65	-9.46	39.19	46.00	-6.81	QP			
3	866.0878	50.61	-6.69	43.92	46.00	-2.08	QP			

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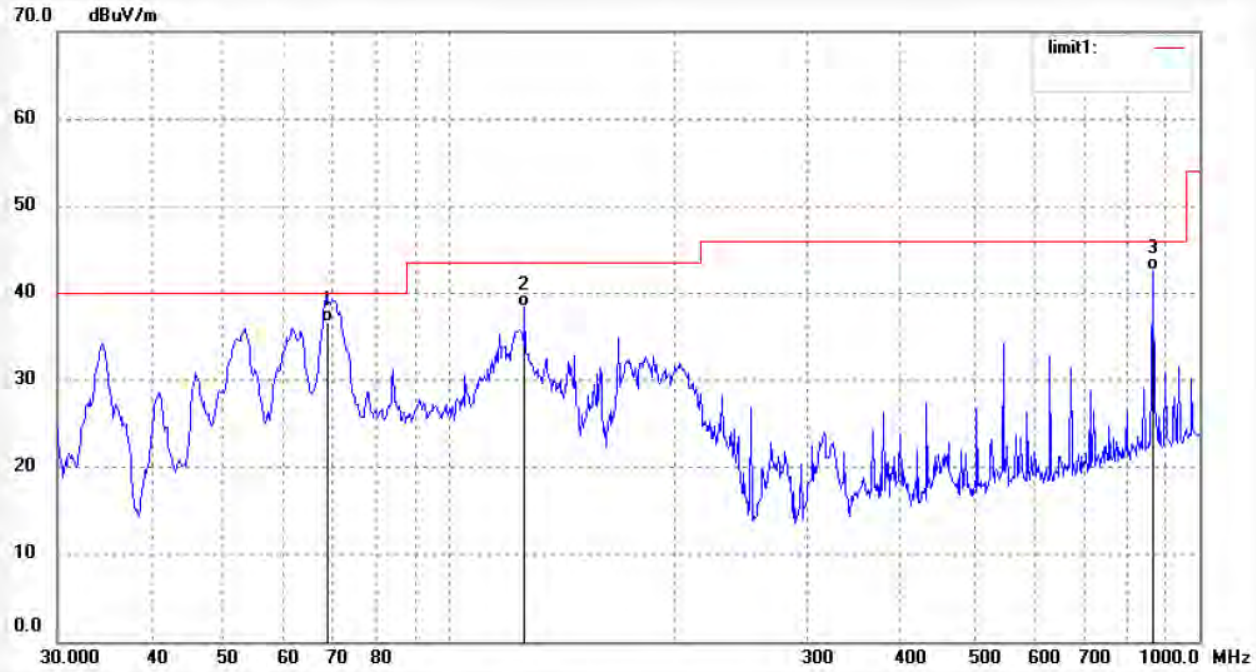
Job No.: STAR #3666
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/03/37
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	68.6310	57.90	-21.31	36.59	40.00	-3.41	QP			
2	125.8864	61.20	-22.84	38.36	43.50	-5.14	QP			
3	866.0879	49.22	-6.69	42.53	46.00	-3.47	QP			

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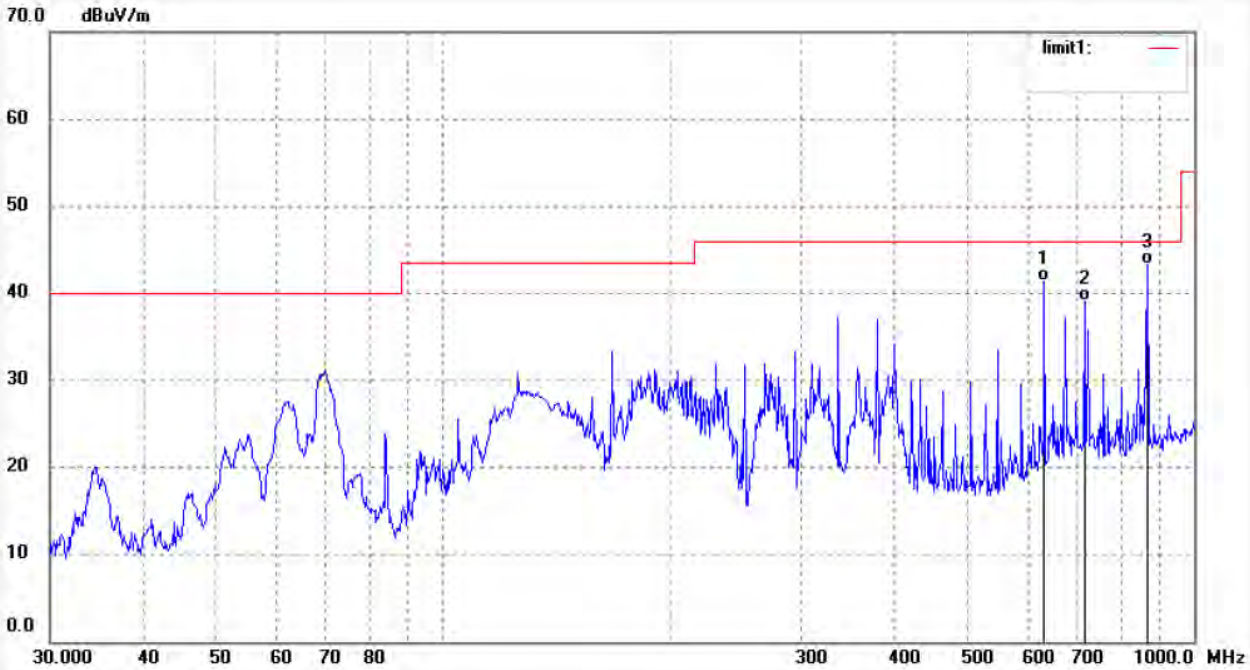
Job No.: STAR #3668
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/12/14
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	52.36	-11.02	41.34	46.00	-4.66	QP			
2	714.1734	48.57	-9.46	39.11	46.00	-6.89	QP			
3	866.0878	50.06	-6.69	43.37	46.00	-2.63	QP			

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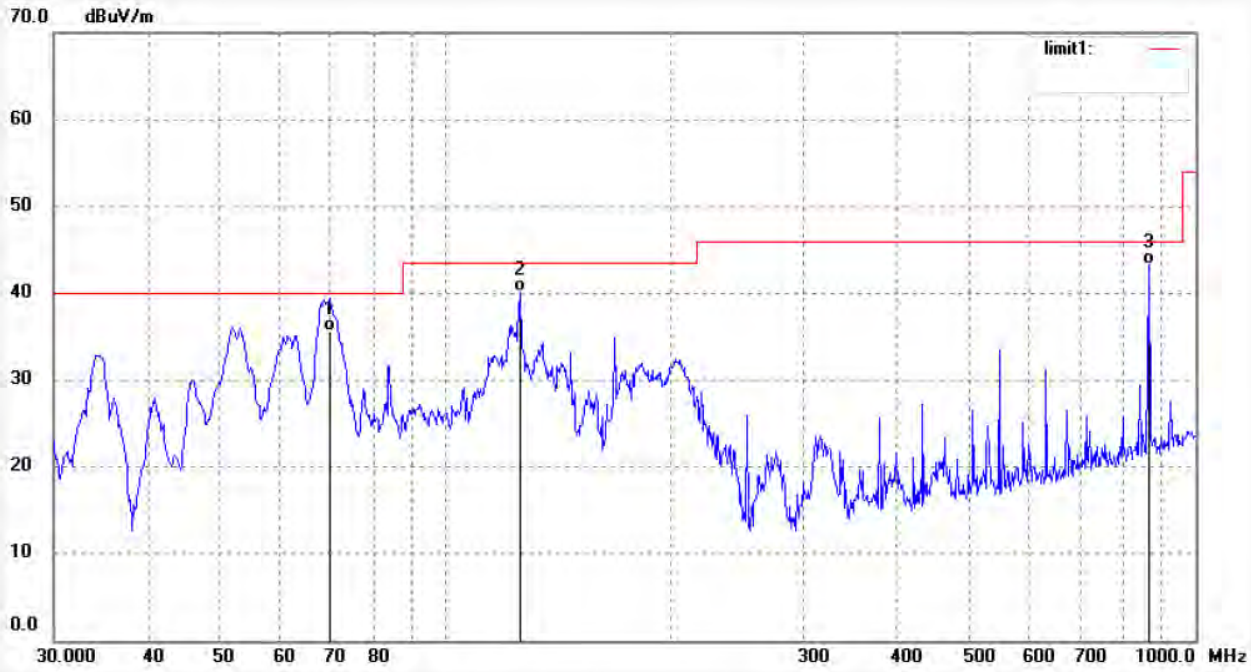
Job No.: STAR #3669
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/16/58
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	70.0902	56.98	-21.36	35.62	40.00	-4.38	QP			
2	125.8863	62.93	-22.84	40.09	43.50	-3.41	QP			
3	866.0878	50.07	-6.69	43.38	46.00	-2.62	QP			

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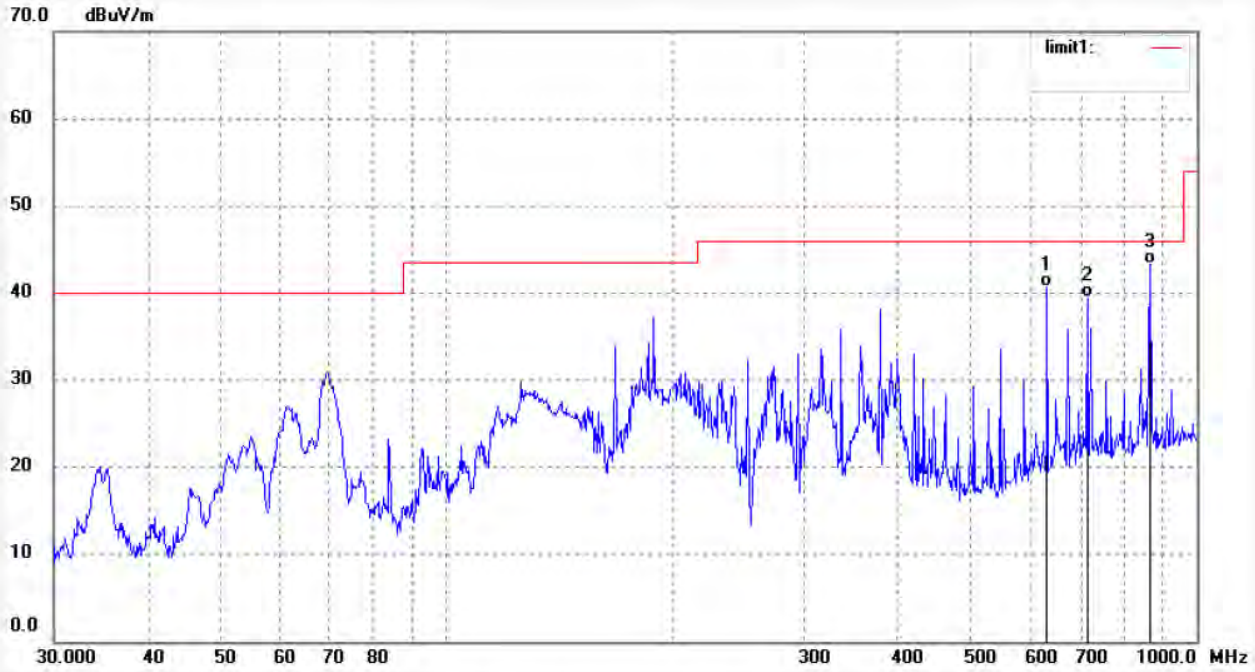
Job No.: STAR #3671
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/24/28
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	51.73	-11.02	40.71	46.00	-5.29	QP			
2	714.1734	48.98	-9.46	39.52	46.00	-6.48	QP			
3	866.0879	50.01	-6.69	43.32	46.00	-2.68	QP			

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Site: 1# Chamber
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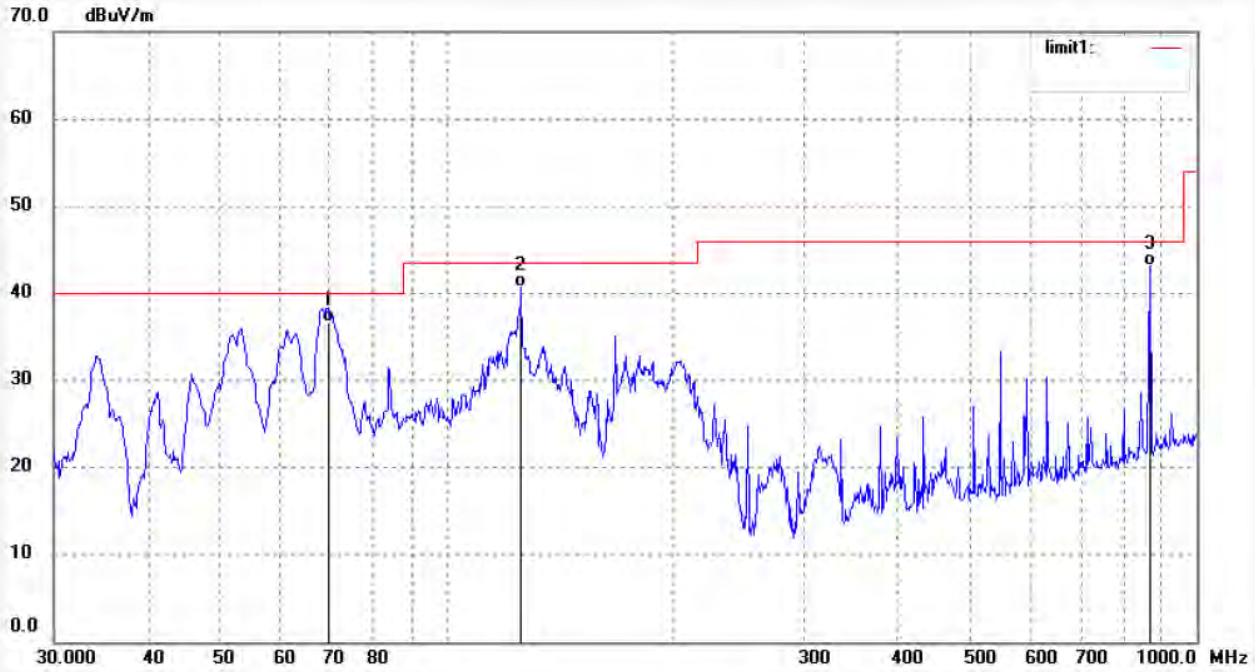
Fax:+86-0755-26503396

Job No.: STAR #3670
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11g)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/20/33
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	69.6004	57.99	-21.33	36.66	40.00	-3.34	QP			
2	125.8863	63.50	-22.84	40.66	43.50	-2.84	QP			
3	866.0878	49.83	-6.69	43.14	46.00	-2.86	QP			

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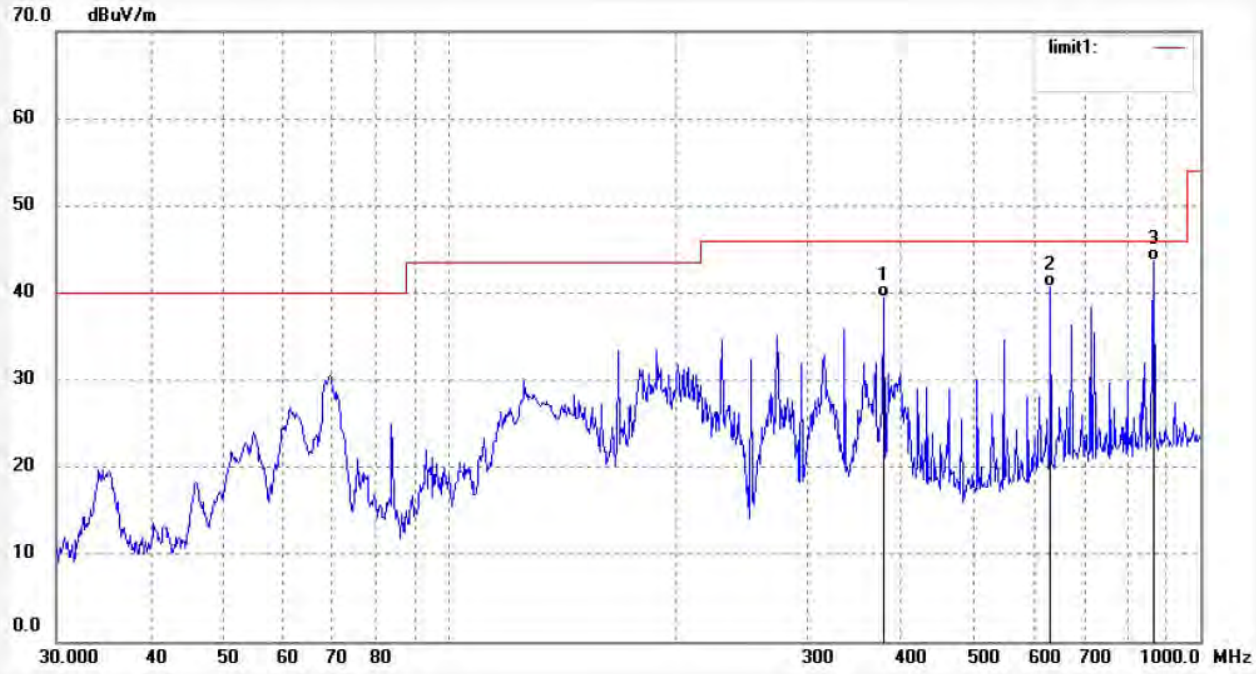
Job No.: STAR #3672
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/28/09
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	378.5842	55.30	-15.78	39.52	46.00	-6.48	QP			
2	631.6884	51.79	-11.02	40.77	46.00	-5.23	QP			
3	866.0878	50.34	-6.69	43.65	46.00	-2.35	QP			

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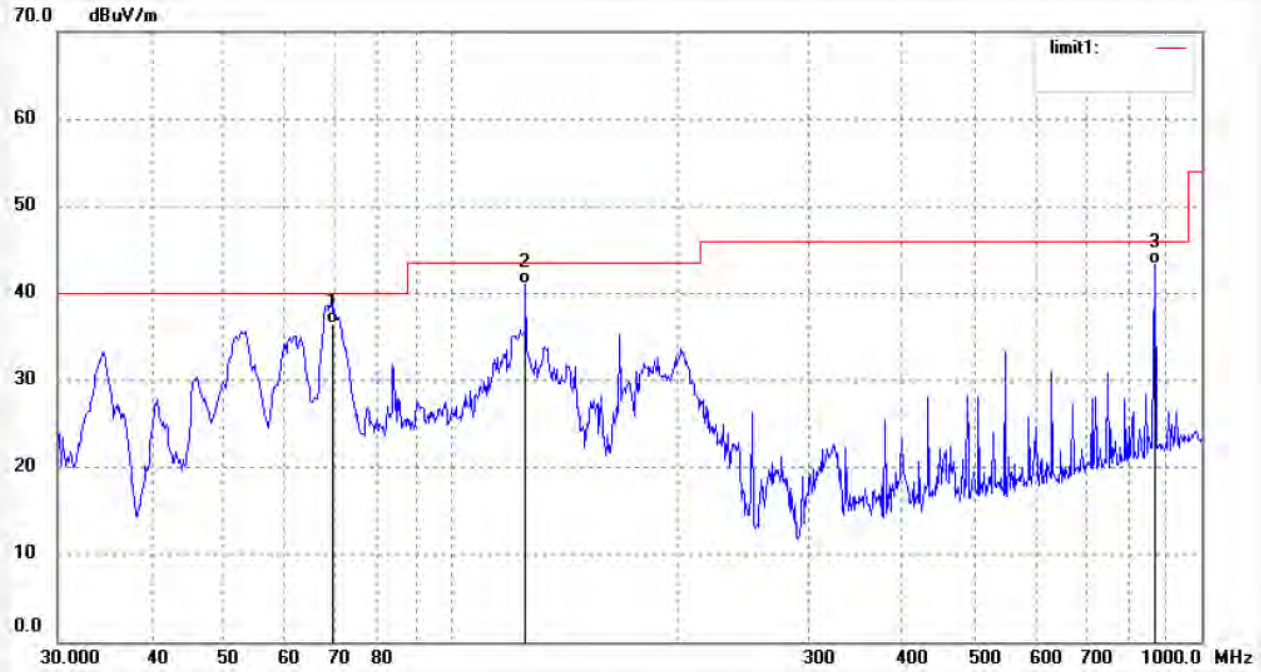
Job No.: STAR #3673
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 1(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/32/54
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	69.6004	57.90	-21.33	36.57	40.00	-3.43	QP			
2	125.8863	63.82	-22.84	40.98	43.50	-2.52	QP			
3	866.0878	50.04	-6.69	43.35	46.00	-2.65	QP			

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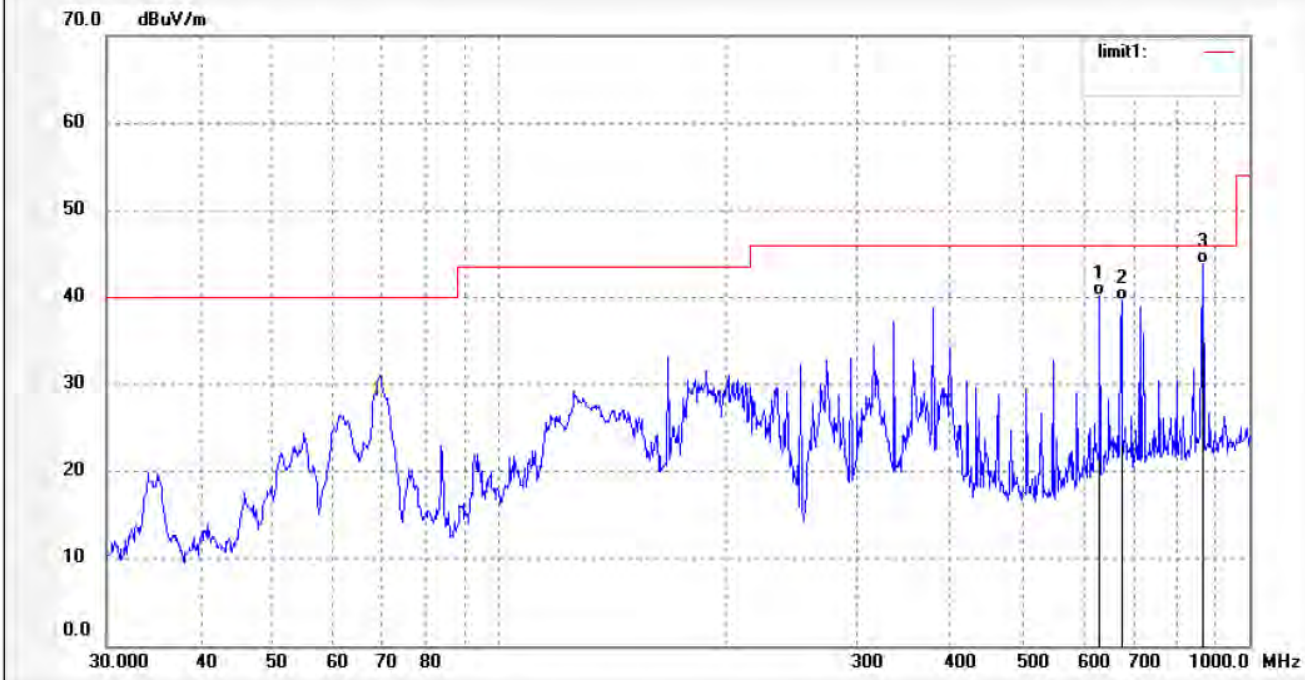
Job No.: STAR #3675
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/39/25
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	51.12	-11.02	40.10	46.00	-5.90	QP			
2	675.2078	49.83	-10.20	39.63	46.00	-6.37	QP			
3	866.0878	50.56	-6.69	43.87	46.00	-2.13	QP			

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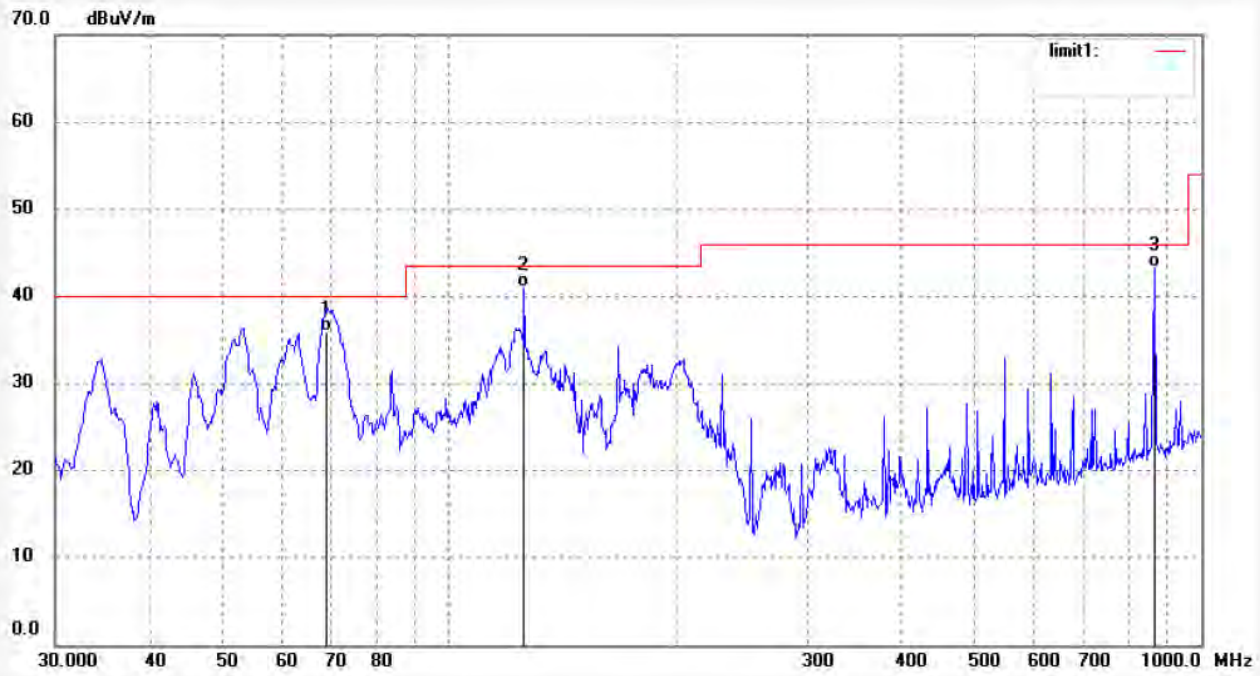
Job No.: STAR #3674
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/35/39
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	68.8721	57.35	-21.31	36.04	40.00	-3.96	QP			
2	125.8864	63.92	-22.84	41.08	43.50	-2.42	QP			
3	866.0879	50.02	-6.69	43.33	46.00	-2.67	QP			

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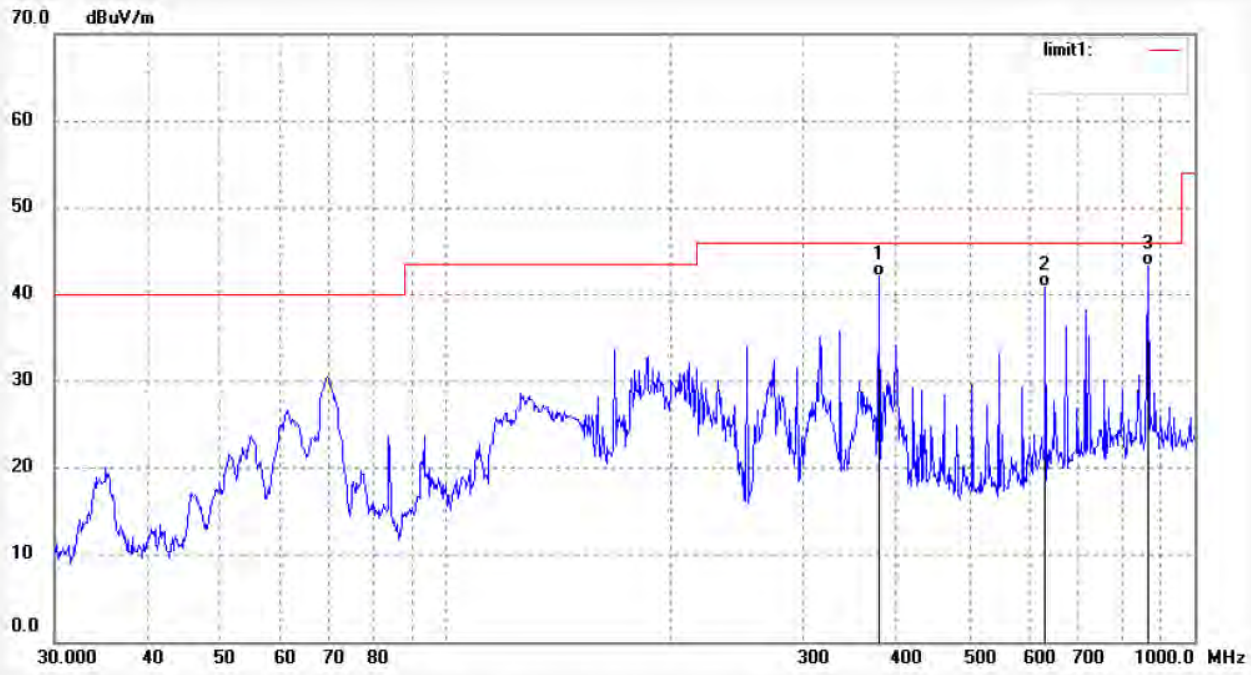
Job No.: STAR #3676
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/43/00
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	378.5843	57.80	-15.78	42.02	46.00	-3.98	QP			
2	631.6884	51.82	-11.02	40.80	46.00	-5.20	QP			
3	866.0879	49.93	-6.69	43.24	46.00	-2.76	QP			

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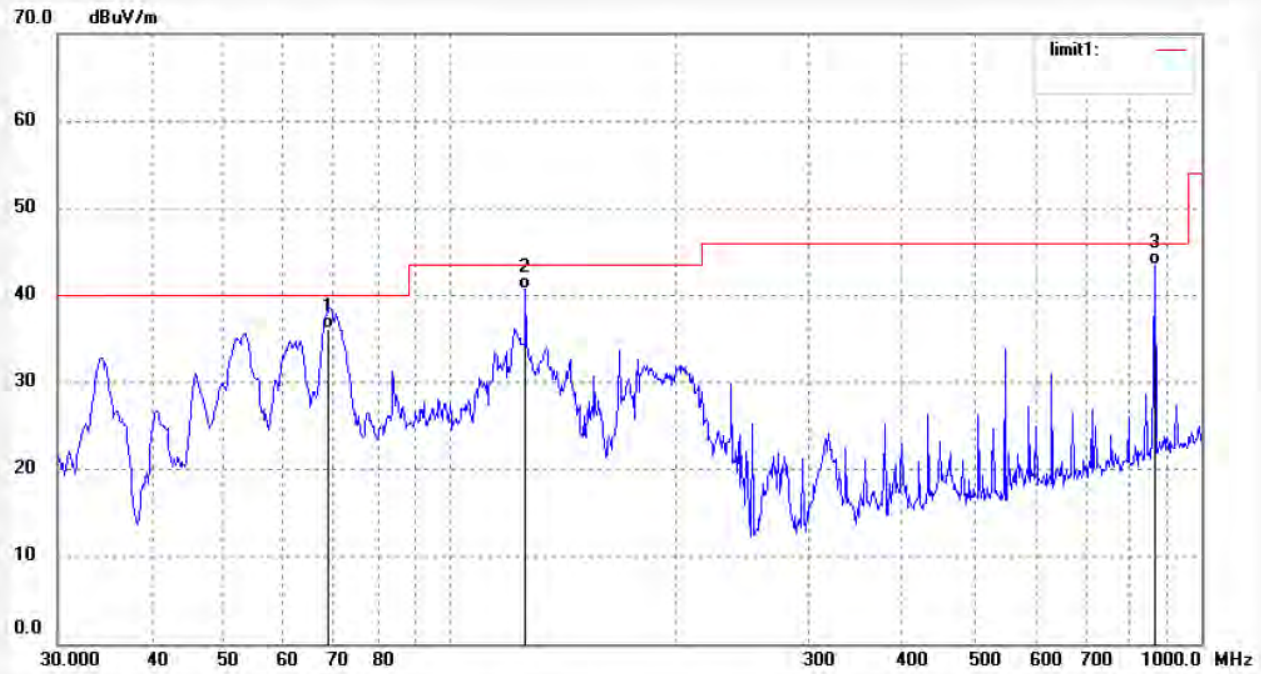
Fax:+86-0755-26503396

Job No.: STAR #3677
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 11(802.11n20)
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/46/42
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	68.8721	57.49	-21.31	36.18	40.00	-3.82	QP			
2	125.8864	63.61	-22.84	40.77	43.50	-2.73	QP			
3	866.0879	50.11	-6.69	43.42	46.00	-2.58	QP			

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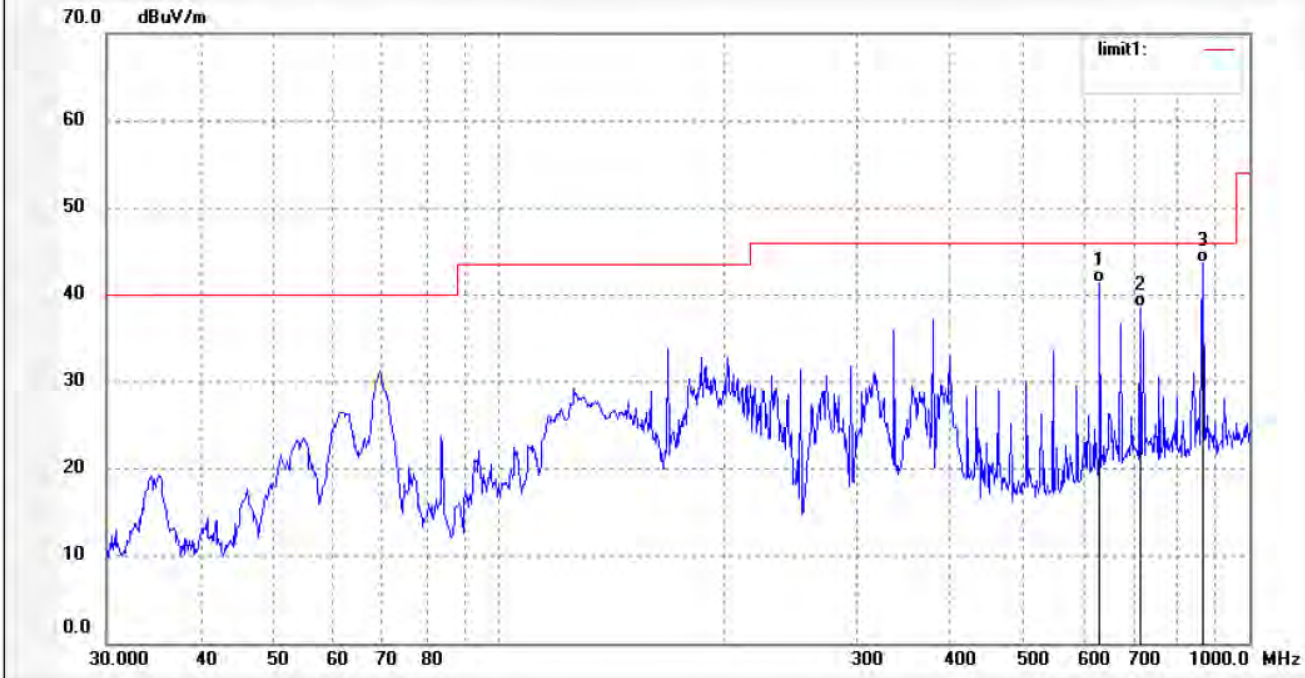
Job No.: STAR #3679
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 3(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/54/26
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	52.45	-11.02	41.43	46.00	-4.57	QP			
2	714.1734	48.06	-9.46	38.60	46.00	-7.40	QP			
3	866.0879	50.37	-6.69	43.68	46.00	-2.32	QP			

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Site: 1# Chamber
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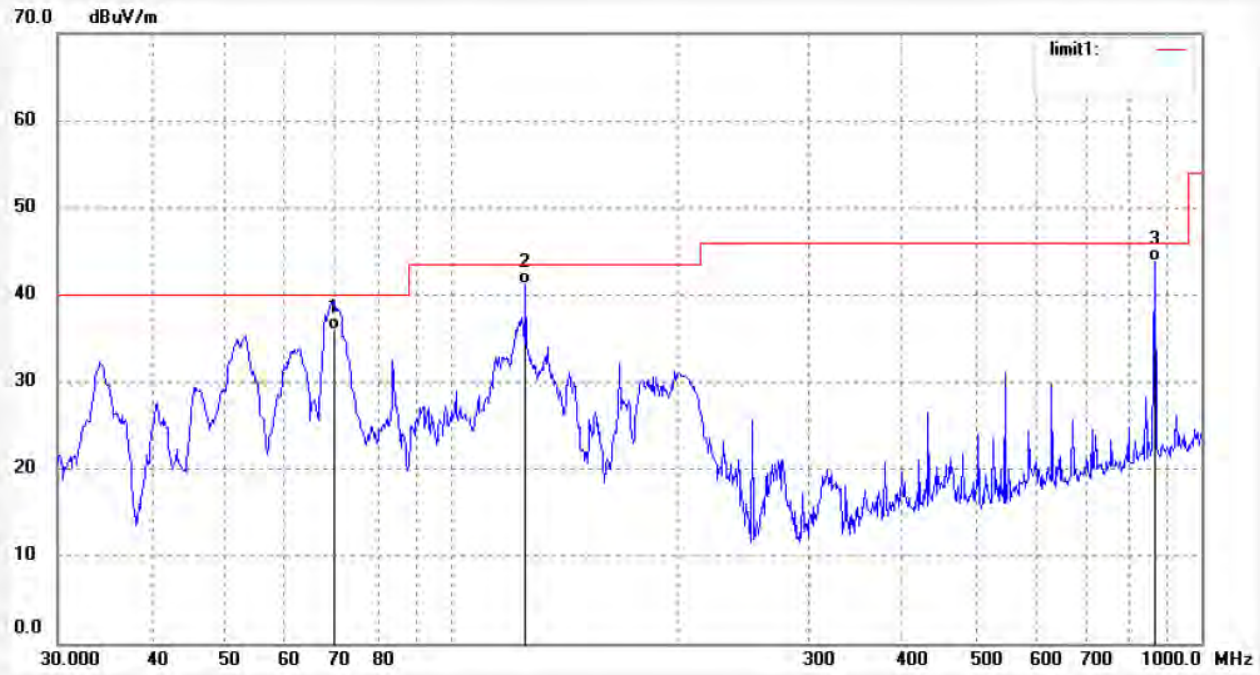
Job No.: STAR #3678
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 3(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 13/50/26
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	70.0903	57.29	-21.36	35.93	40.00	-4.07	QP			
2	125.8864	64.01	-22.84	41.17	43.50	-2.33	QP			
3	866.0879	50.61	-6.69	43.92	46.00	-2.08	QP			

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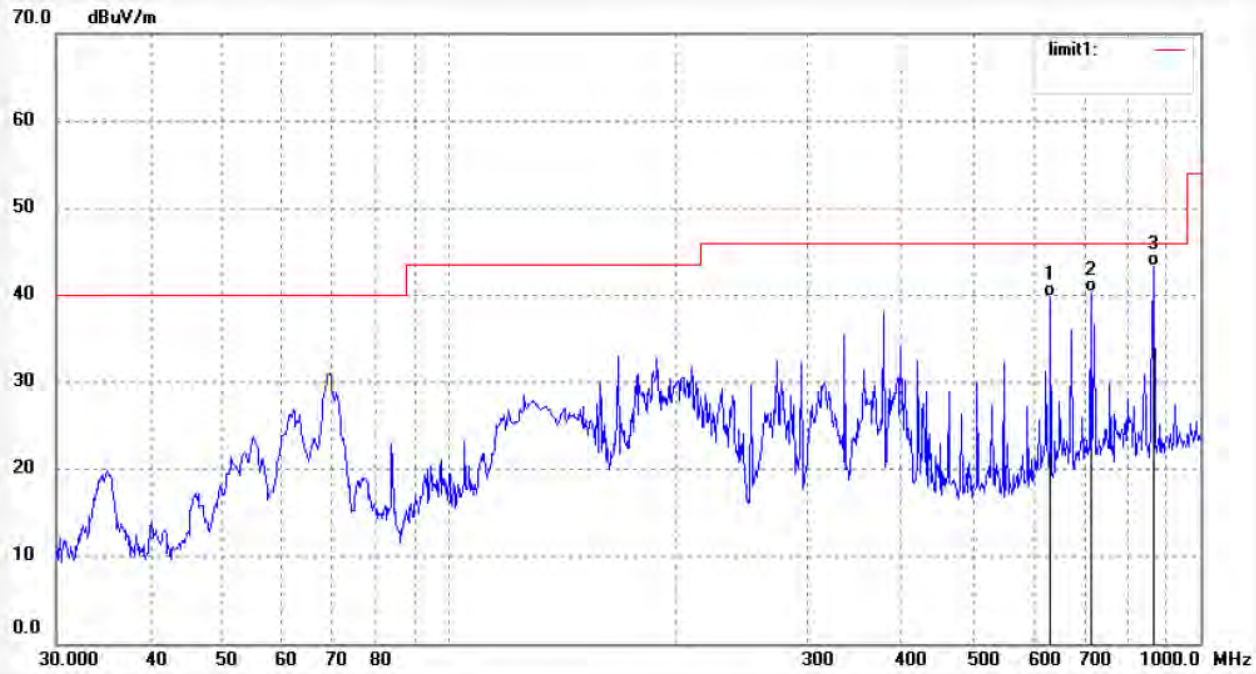
Fax:+86-0755-26503396

Job No.: STAR #3680
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 14/00/02
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	50.87	-11.02	39.85	46.00	-6.15	QP			
2	714.1734	49.76	-9.46	40.30	46.00	-5.70	QP			
3	866.0879	49.95	-6.69	43.26	46.00	-2.74	QP			

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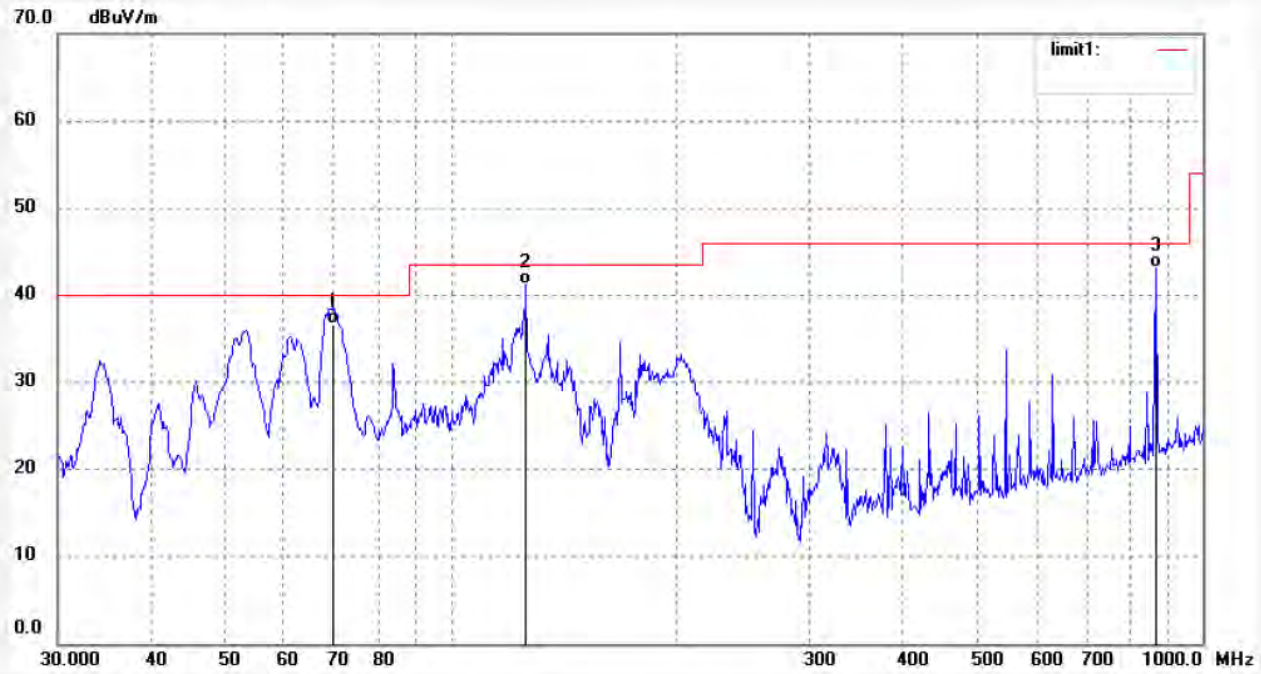
Job No.: STAR #3681
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 6(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 14/05/42
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	69.6004	57.93	-21.33	36.60	40.00	-3.40	QP			
2	125.8863	64.10	-22.84	41.26	43.50	-2.24	QP			
3	866.0878	49.81	-6.69	43.12	46.00	-2.88	QP			

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Site: 1# Chamber
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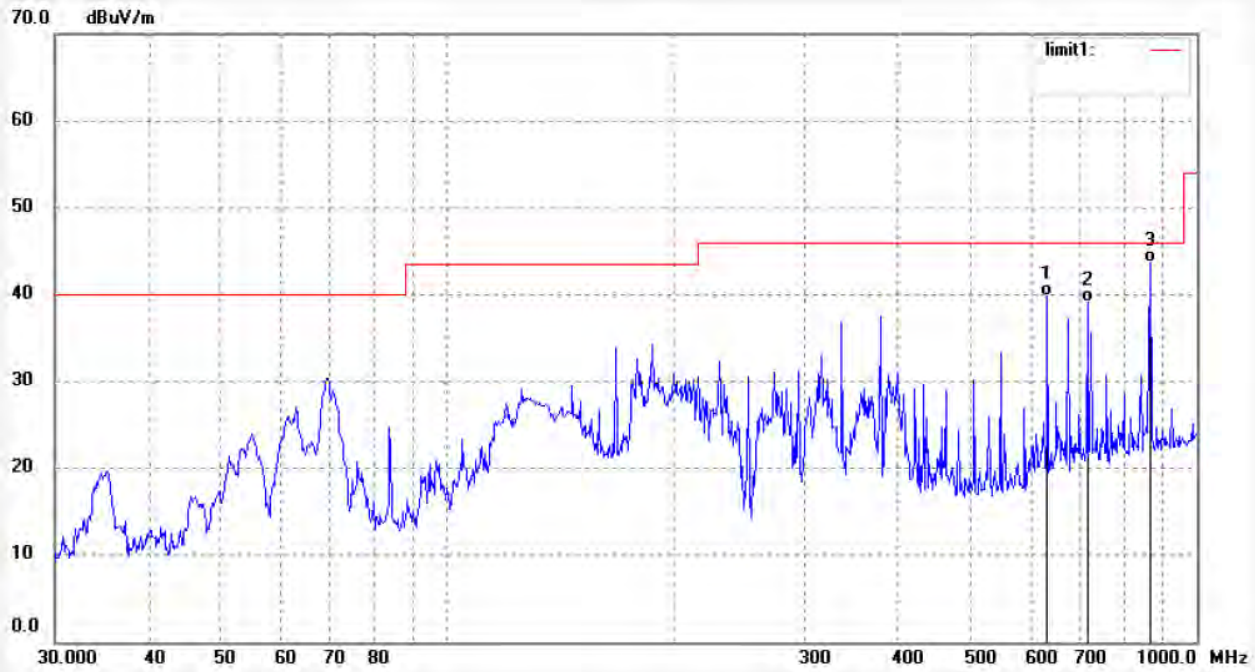
Fax:+86-0755-26503396

Job No.: STAR #3683
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 9(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 14/14/08
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	631.6884	50.92	-11.02	39.90	46.00	-6.10	QP			
2	714.1734	48.64	-9.46	39.18	46.00	-6.82	QP			
3	866.0879	50.36	-6.69	43.67	46.00	-2.33	QP			

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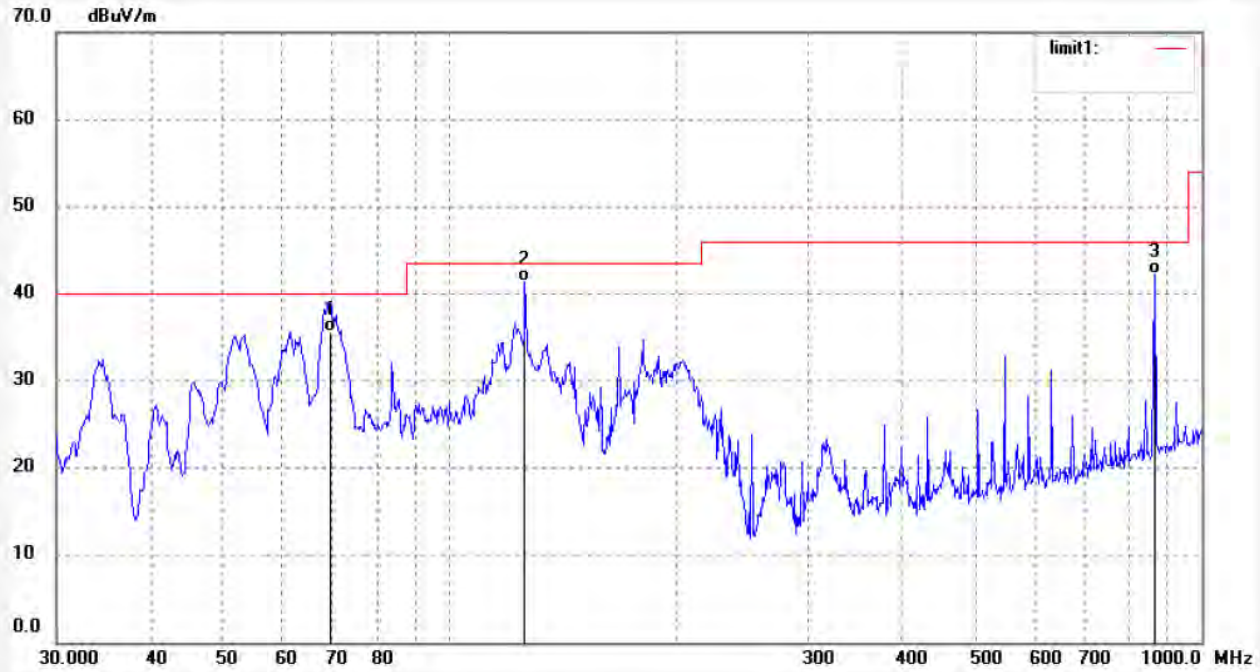
Job No.: STAR #3682
Standard: FCC Class B 3M Radiated
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: MID
Mode: TX Channel 9(802.11n)40MHz
Model: M9XX
Manufacturer: Sungworld

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/11/01/
Time: 14/10/22
Engineer Signature:
Distance: 3m

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	69.3568	57.00	-21.33	35.67	40.00	-4.33	QP			
2	125.8864	64.24	-22.84	41.40	43.50	-2.10	QP			
3	866.0879	48.94	-6.69	42.25	46.00	-3.75	QP			

Above 1G

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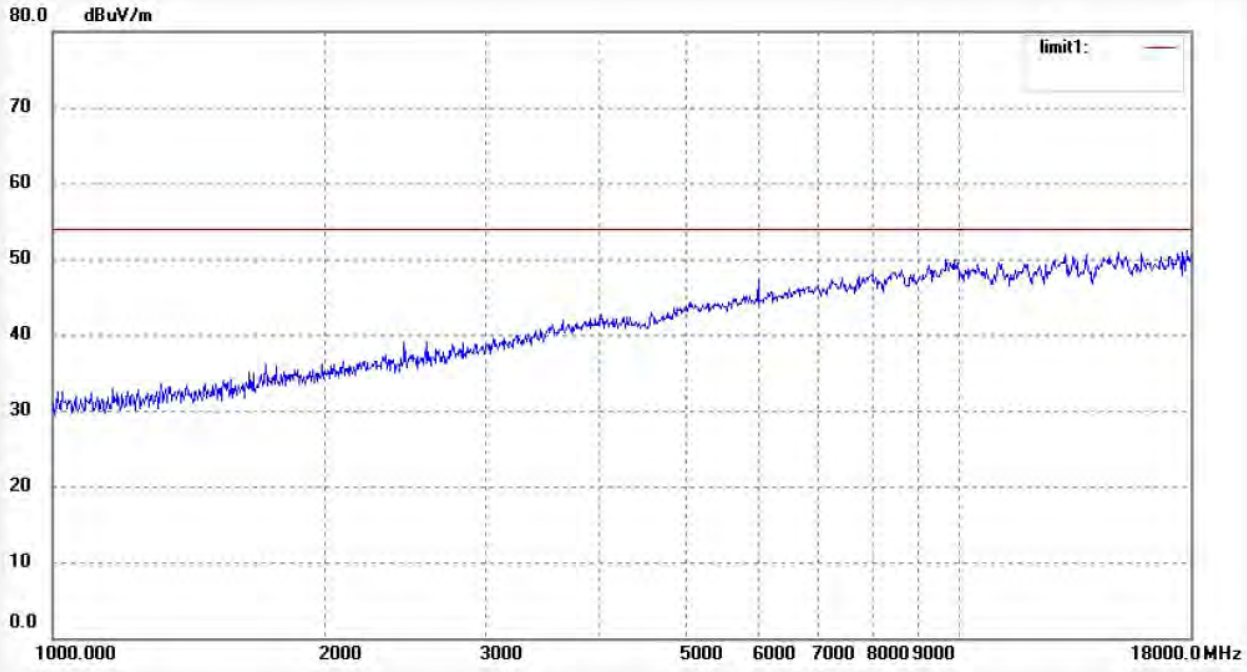
Job No.: STAR #3636	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/06/50
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

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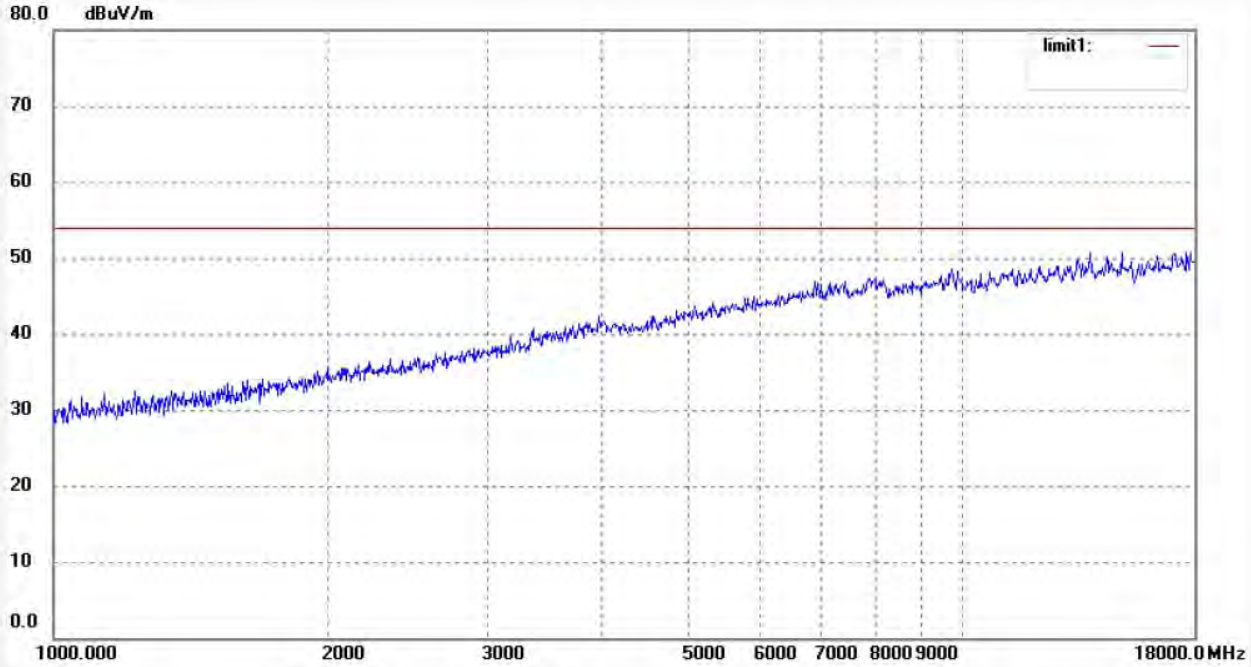
Job No.: STAR #3637	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/10/49
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

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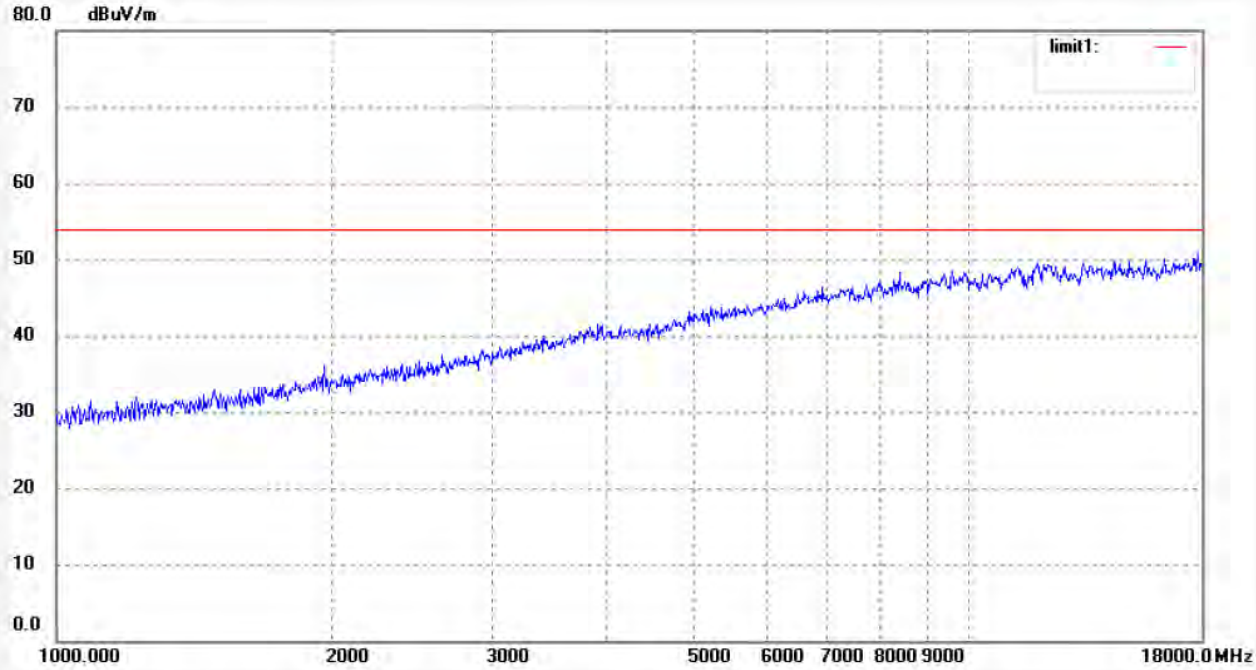
Job No.: STAR #3639	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/18/50
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

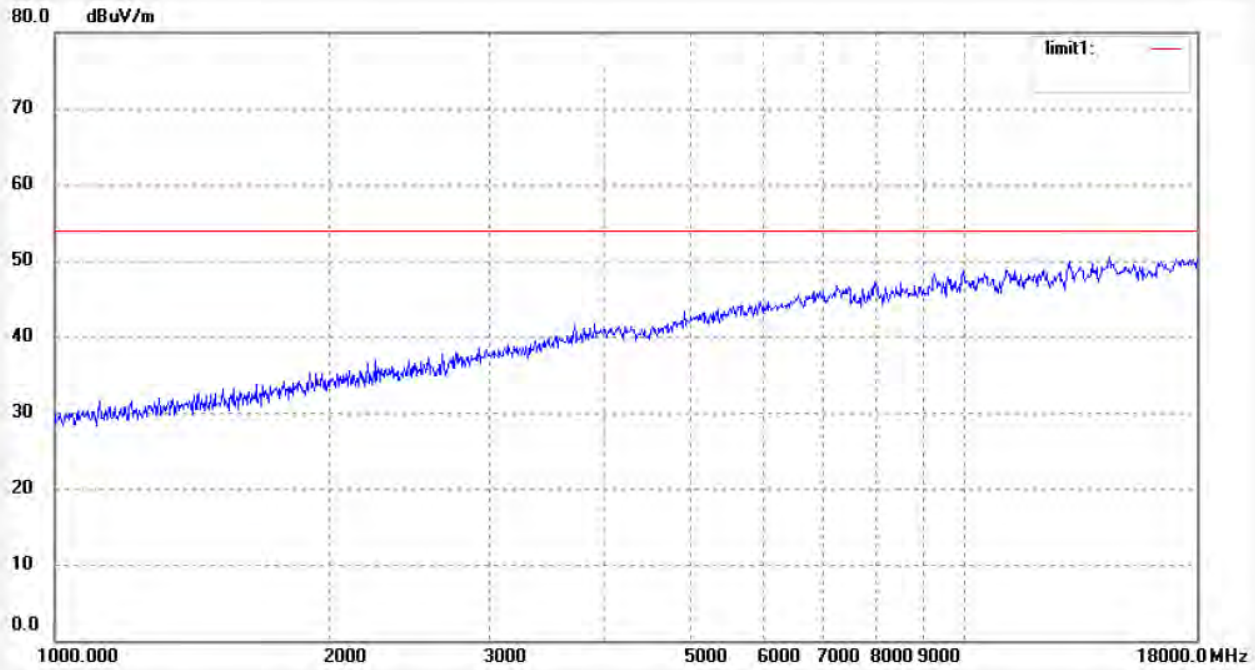


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3638	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/14/23
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

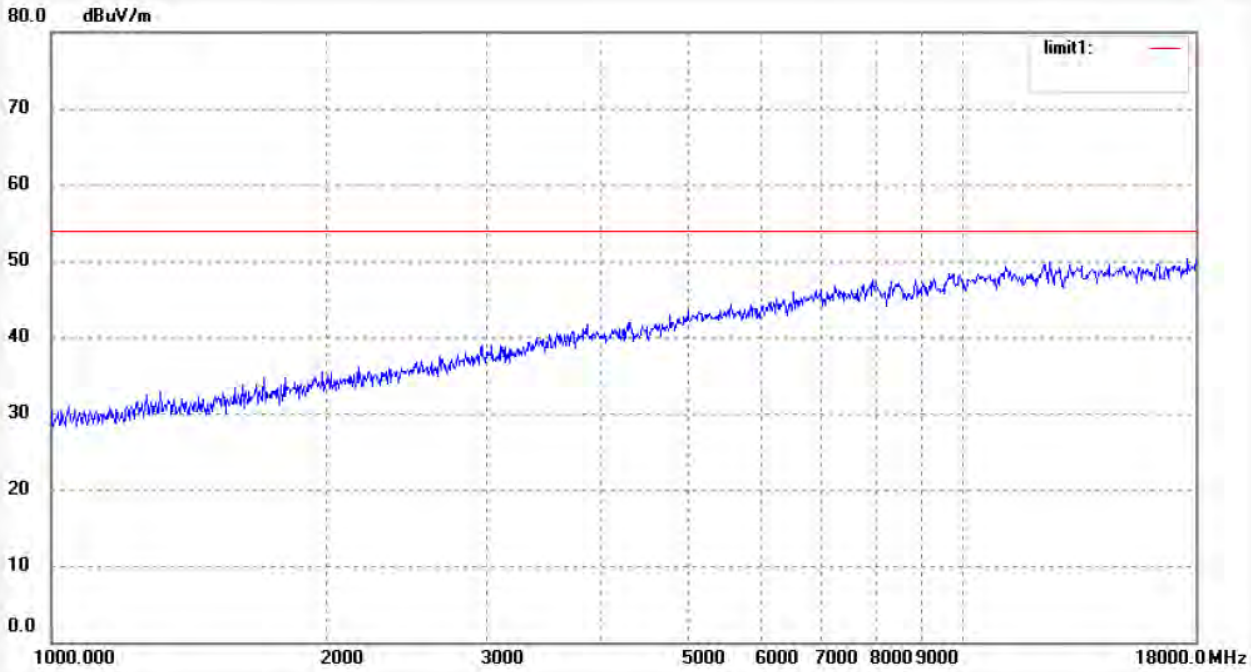


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3640	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/22/18
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

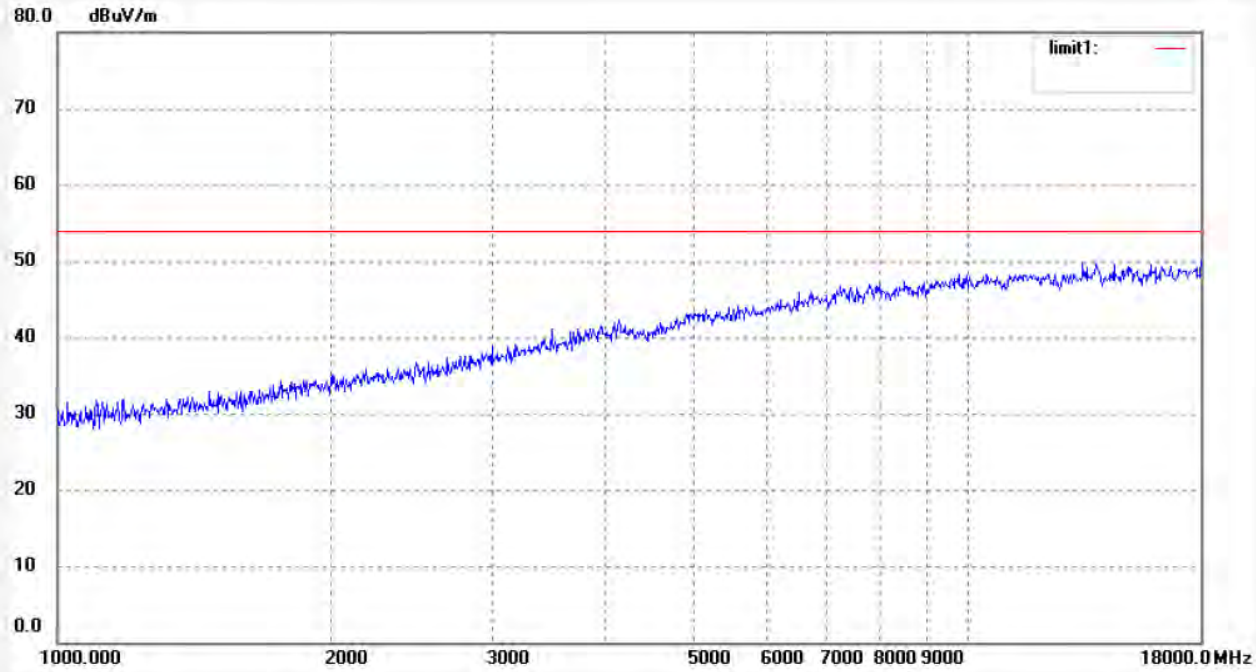


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3641	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/26/45
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11b)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

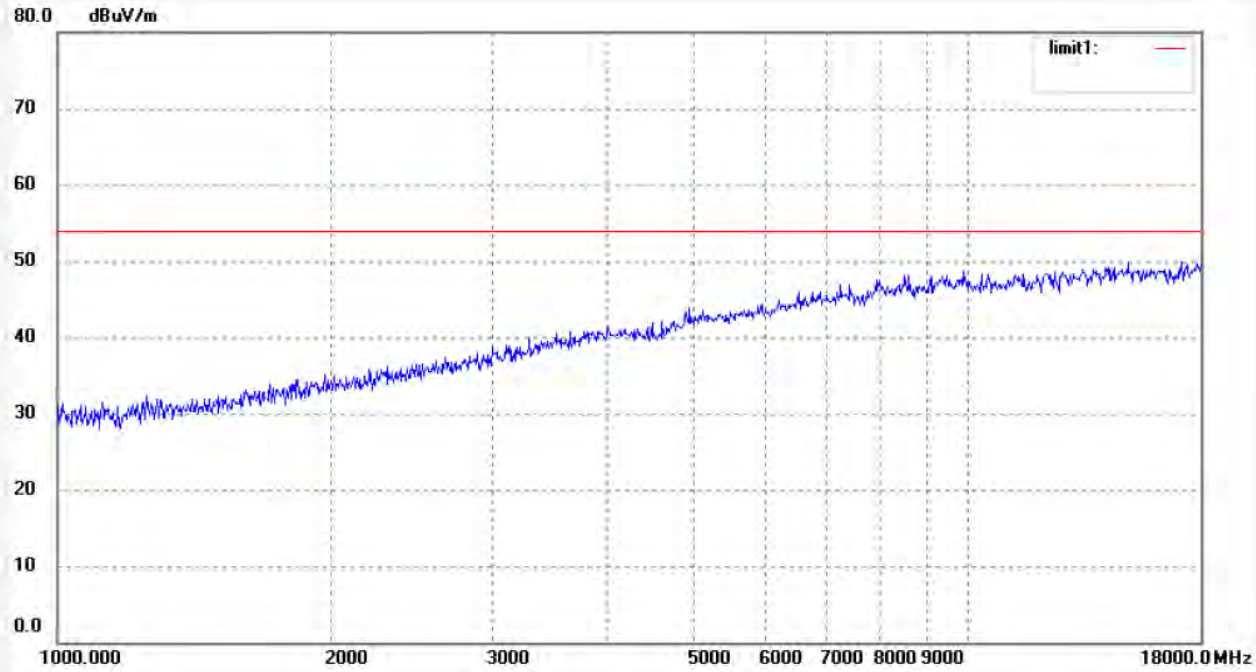


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3643	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/34/51
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

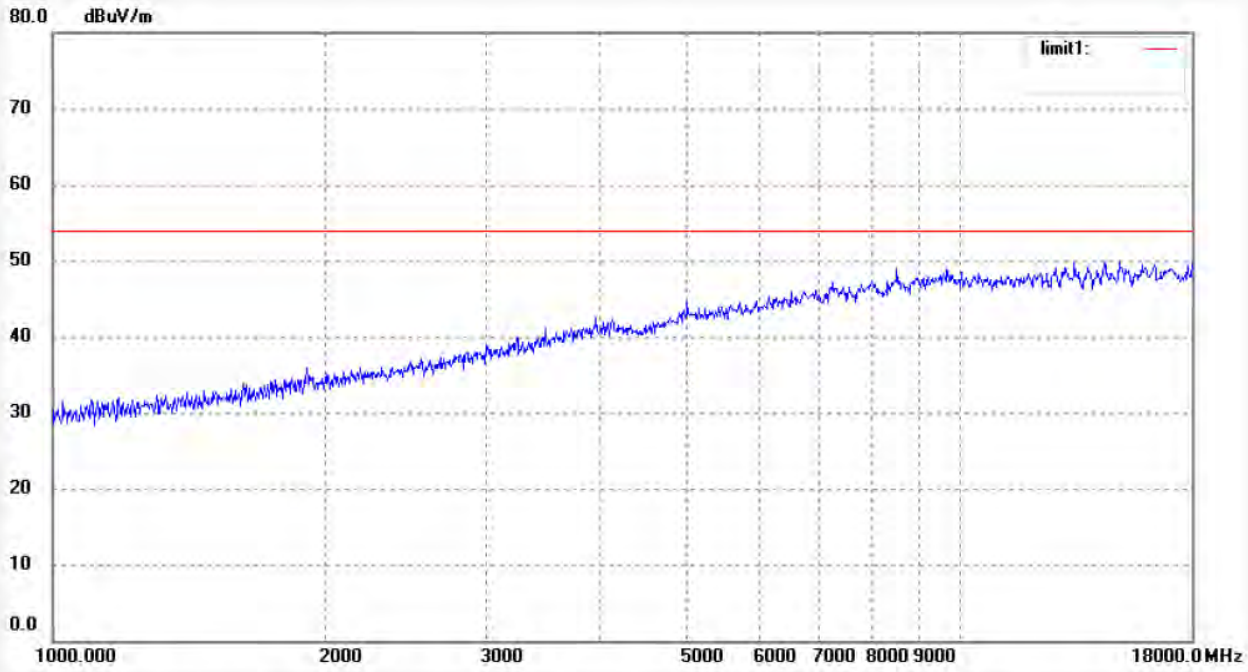


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3642	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/30/22
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

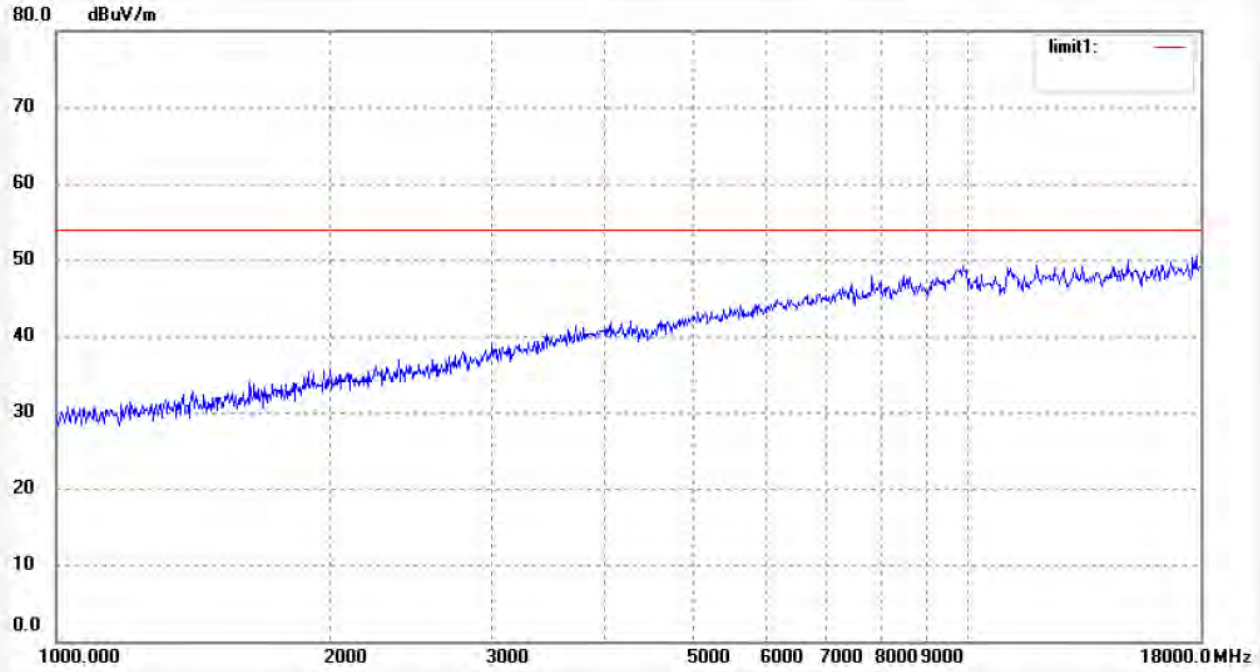


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3644	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/37/21
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

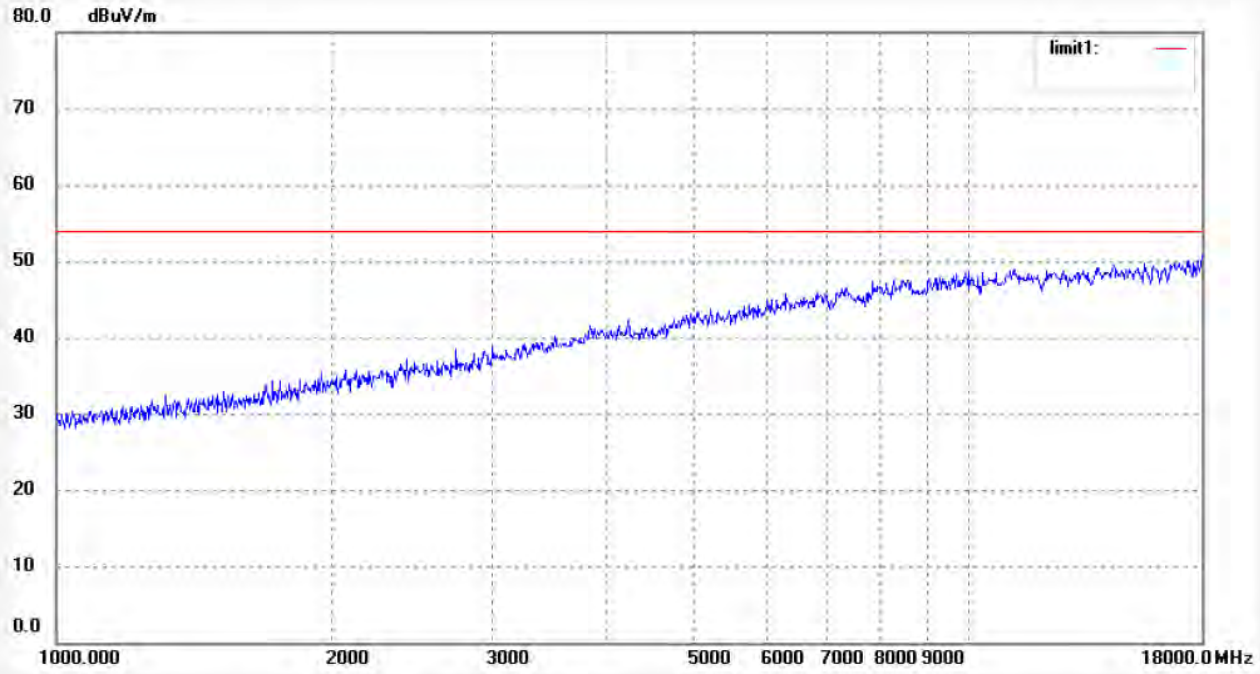


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3645	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/40/45
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

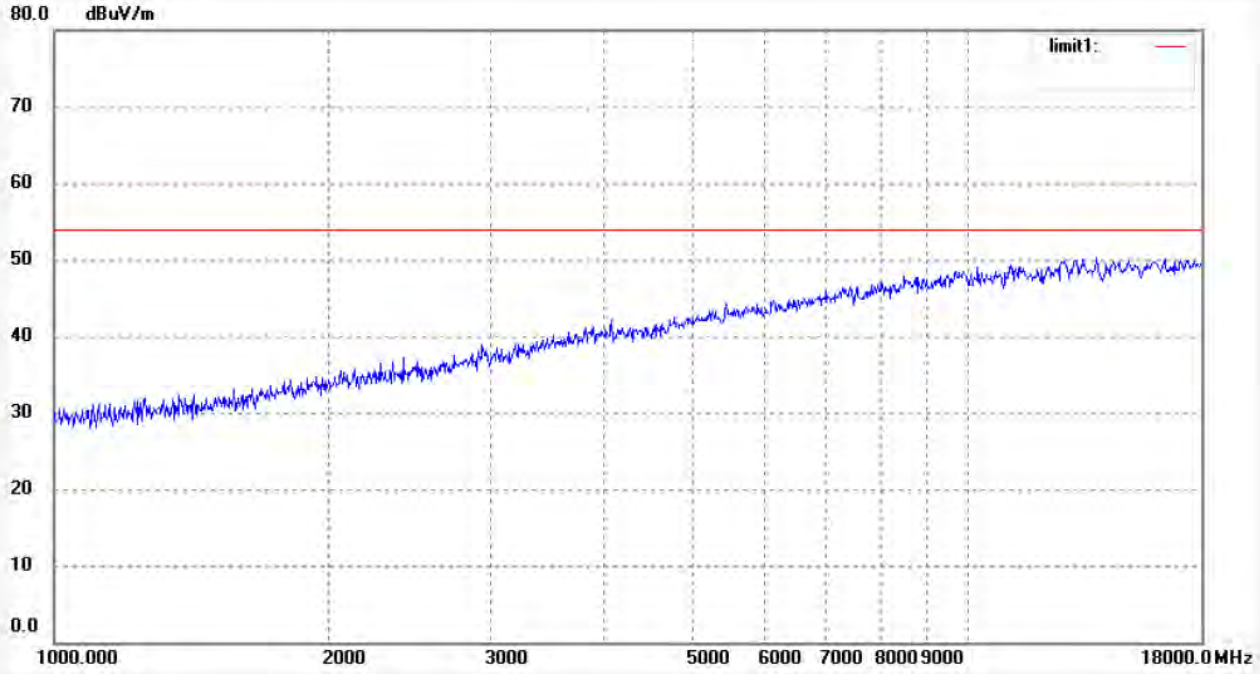


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3647	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/47/42
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

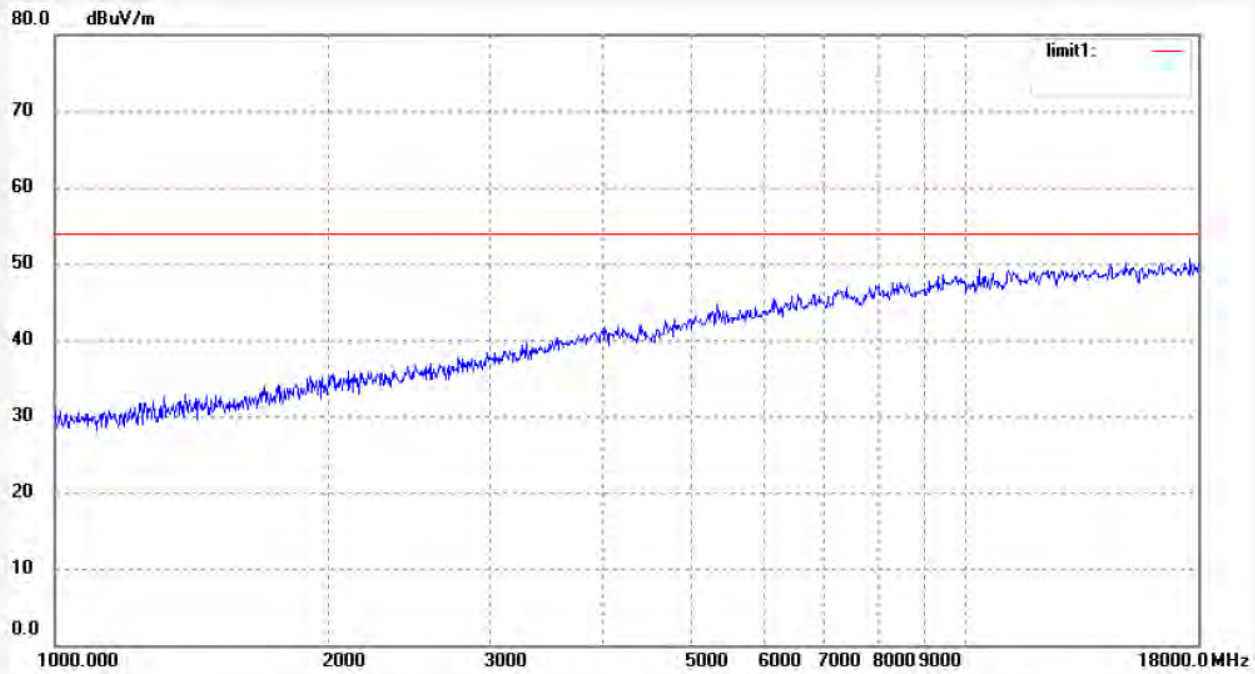


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3646	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/43/17
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11g)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

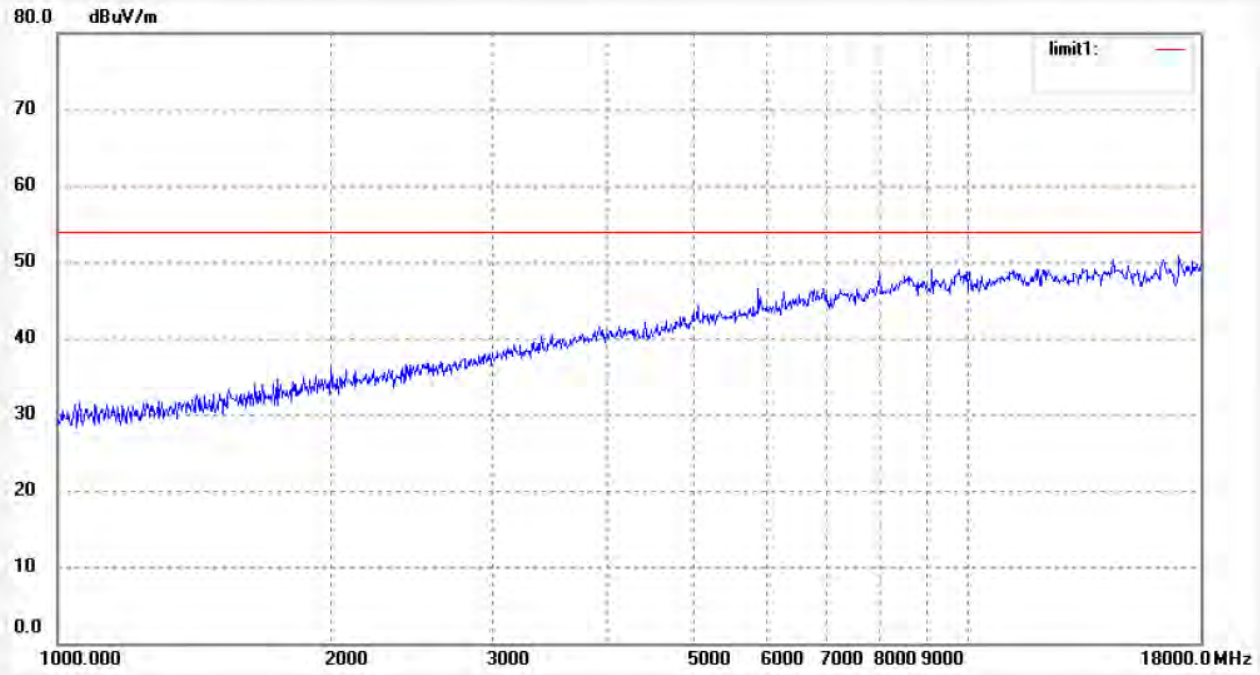


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3648	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/50/22
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

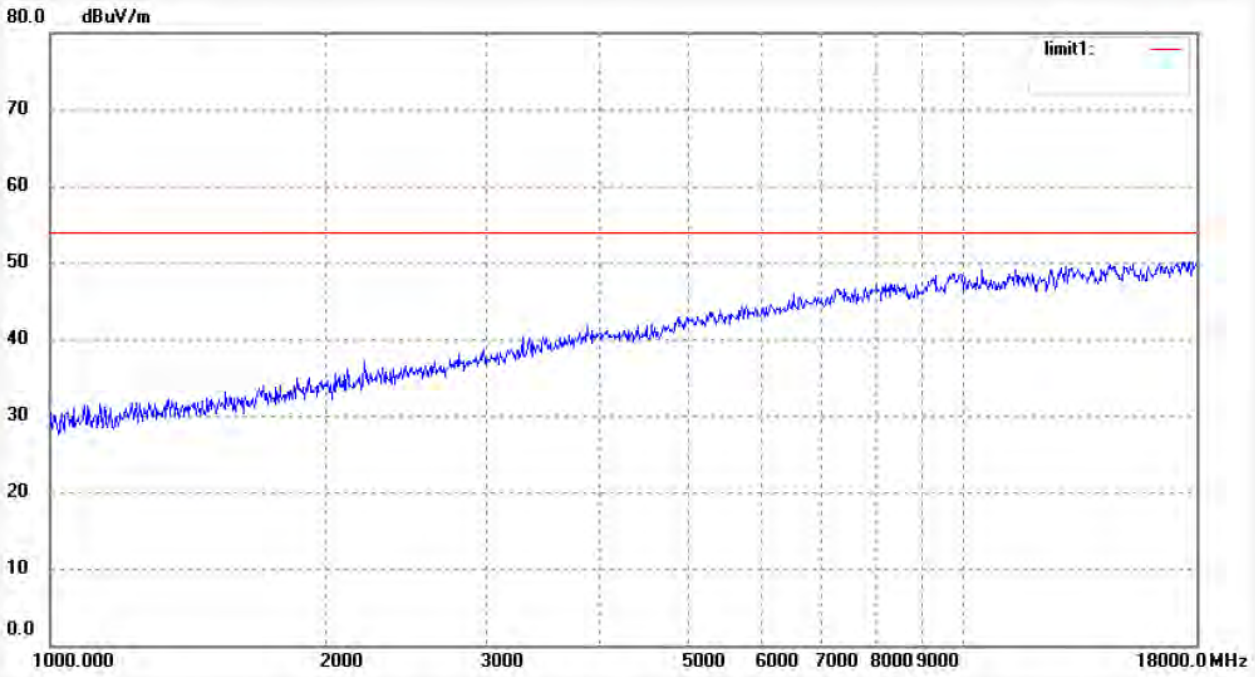


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3649	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/53/51
EUT: MID	Engineer Signature:
Mode: TX Channel 1(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

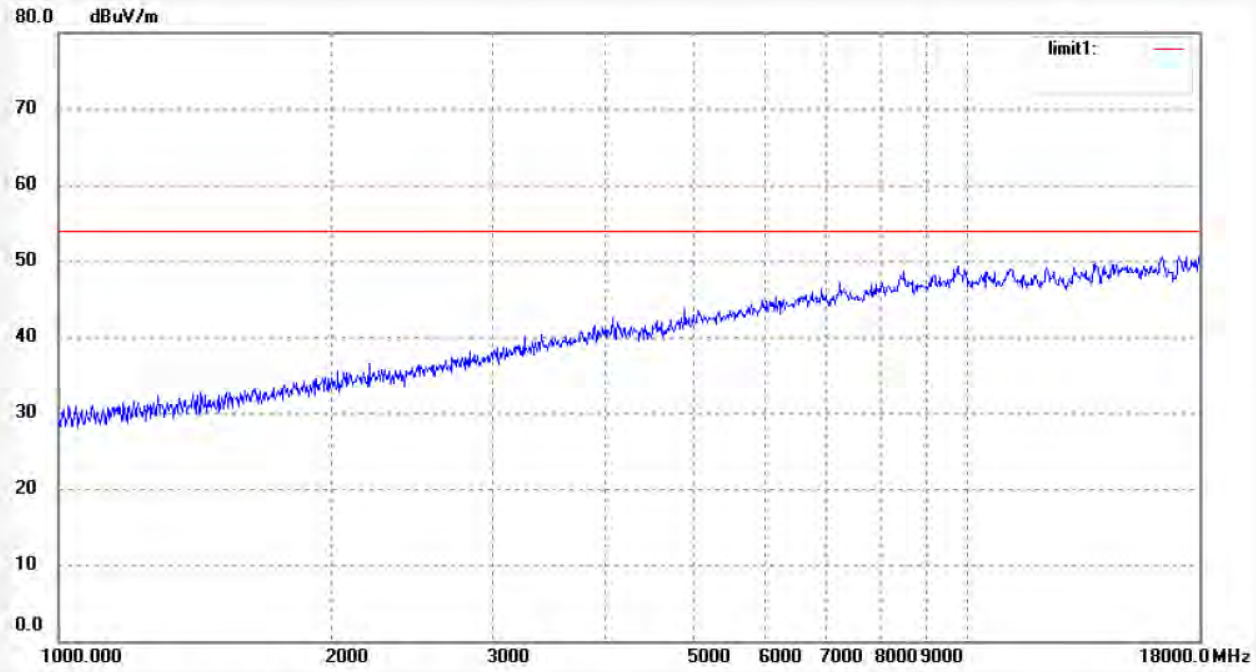


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3651	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/04/12
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

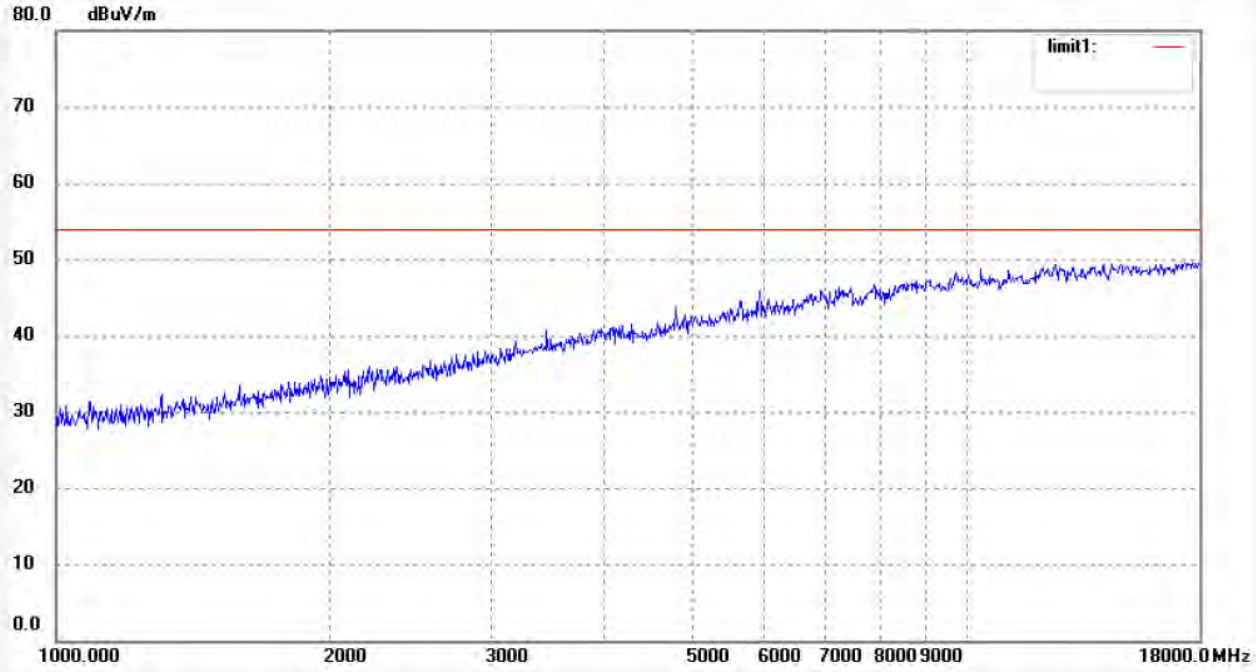


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3650	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 11/58/39
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

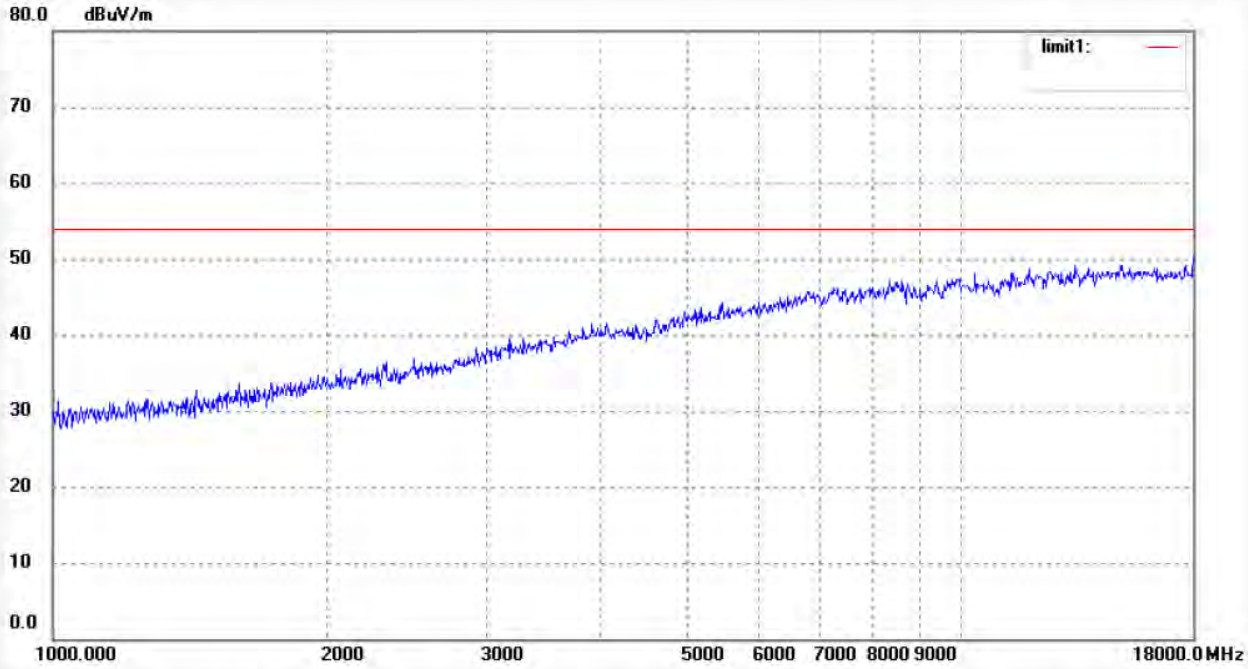


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3652	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/08/30
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

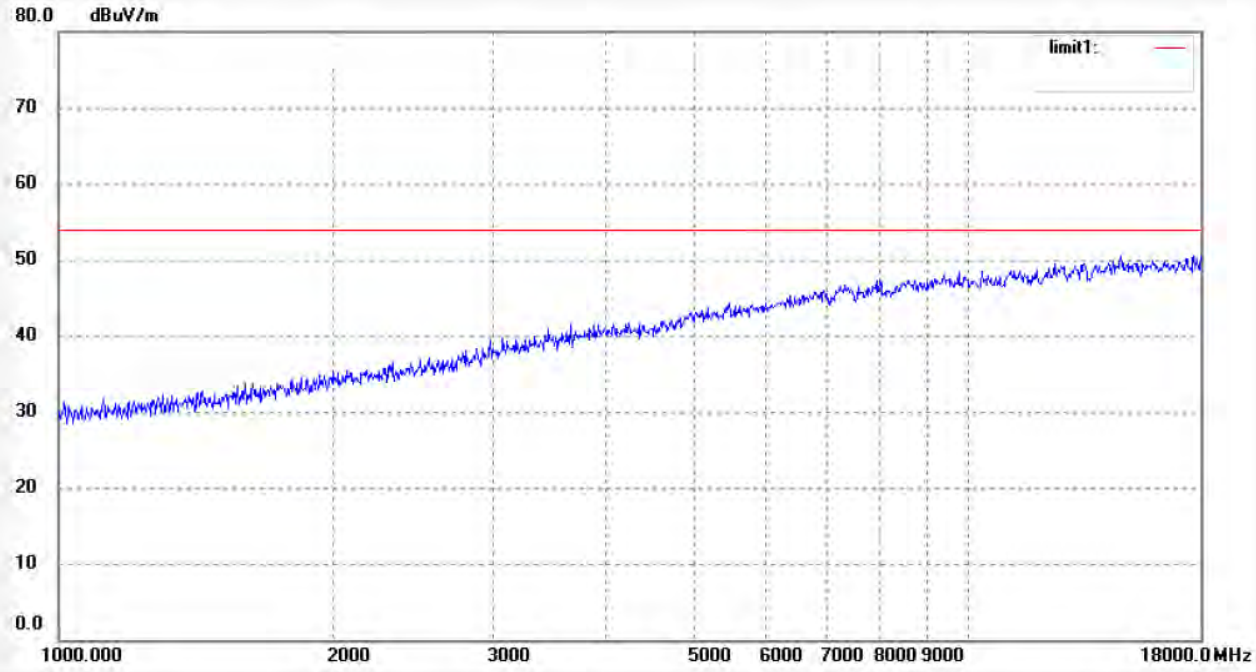


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3653	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/12/01
EUT: MID	Engineer Signature:
Mode: TX Channel 11(802.11n20)	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

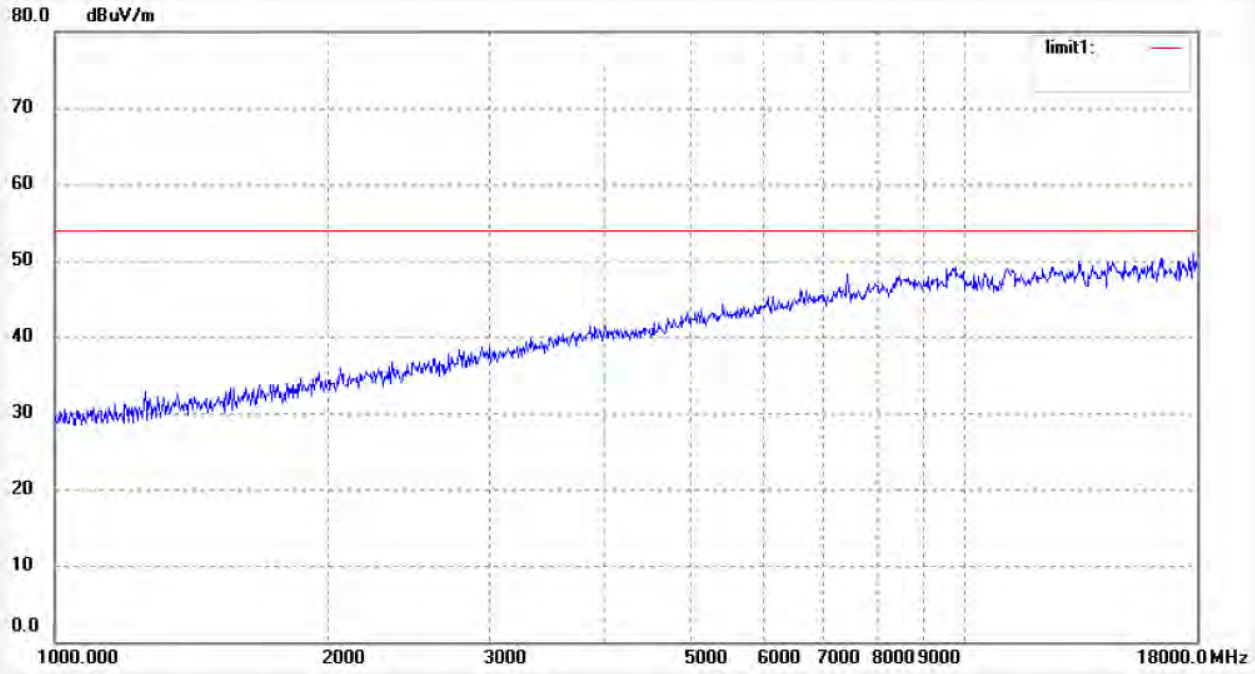


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3655	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/19/34
EUT: MID	Engineer Signature:
Mode: TX Channel 3(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

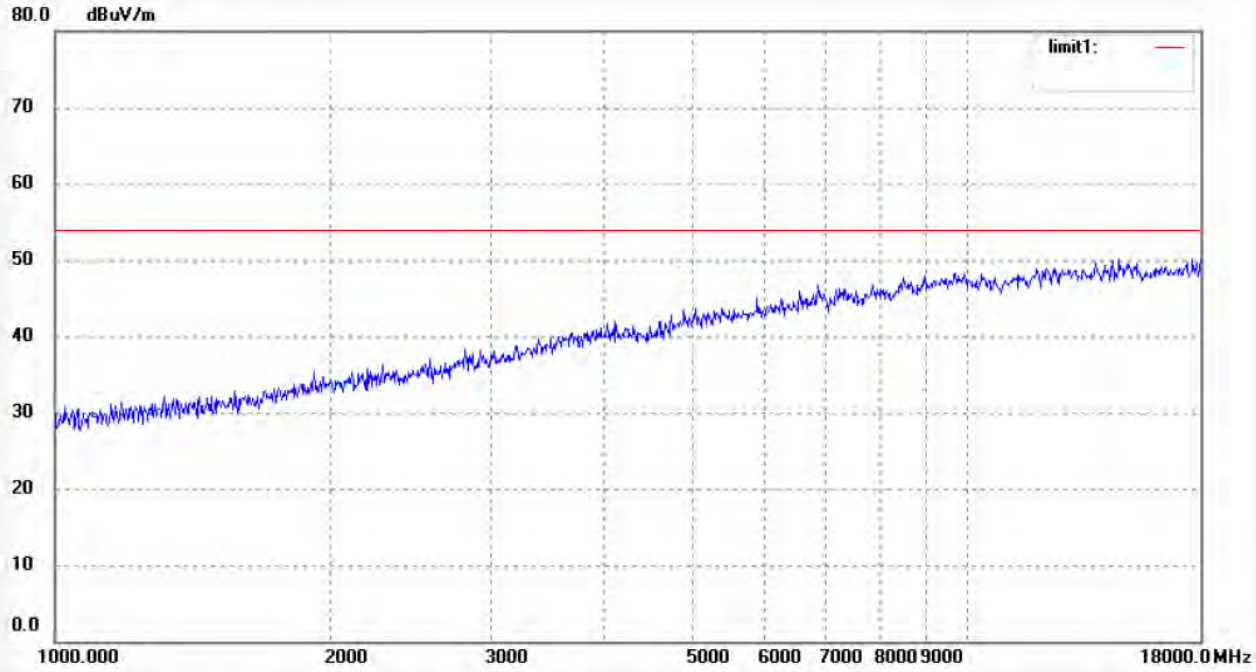


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3654	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/16/56
EUT: MID	Engineer Signature:
Mode: TX Channel 3(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

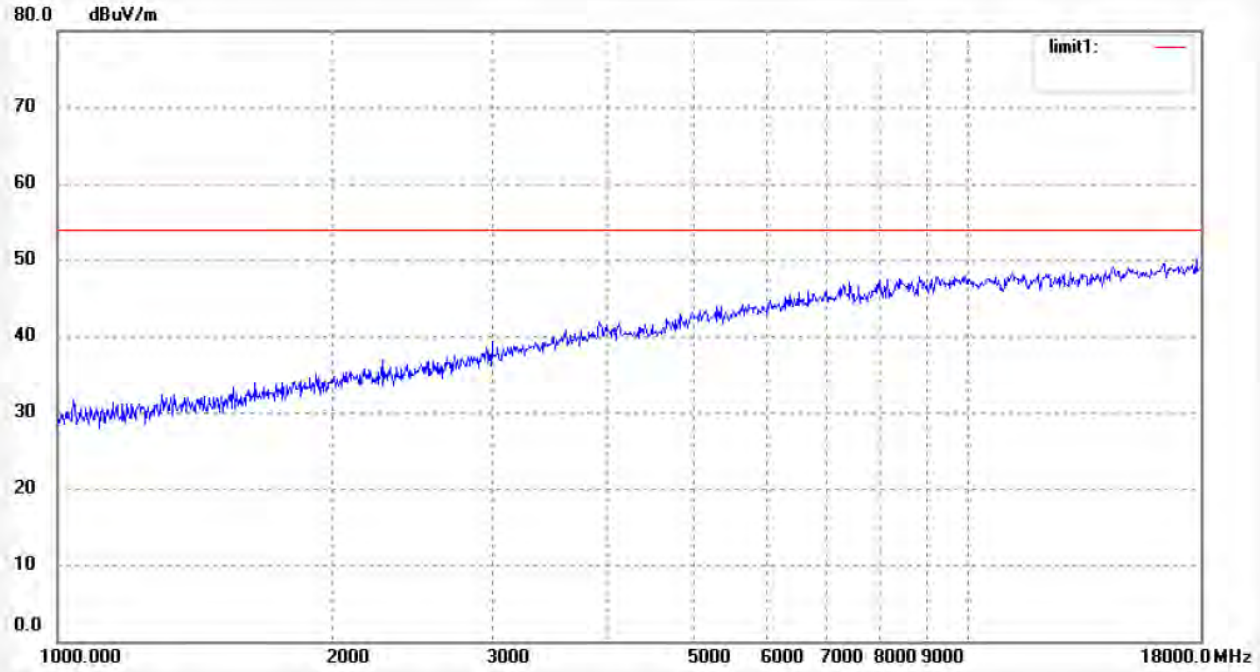


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3656	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/23/06
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

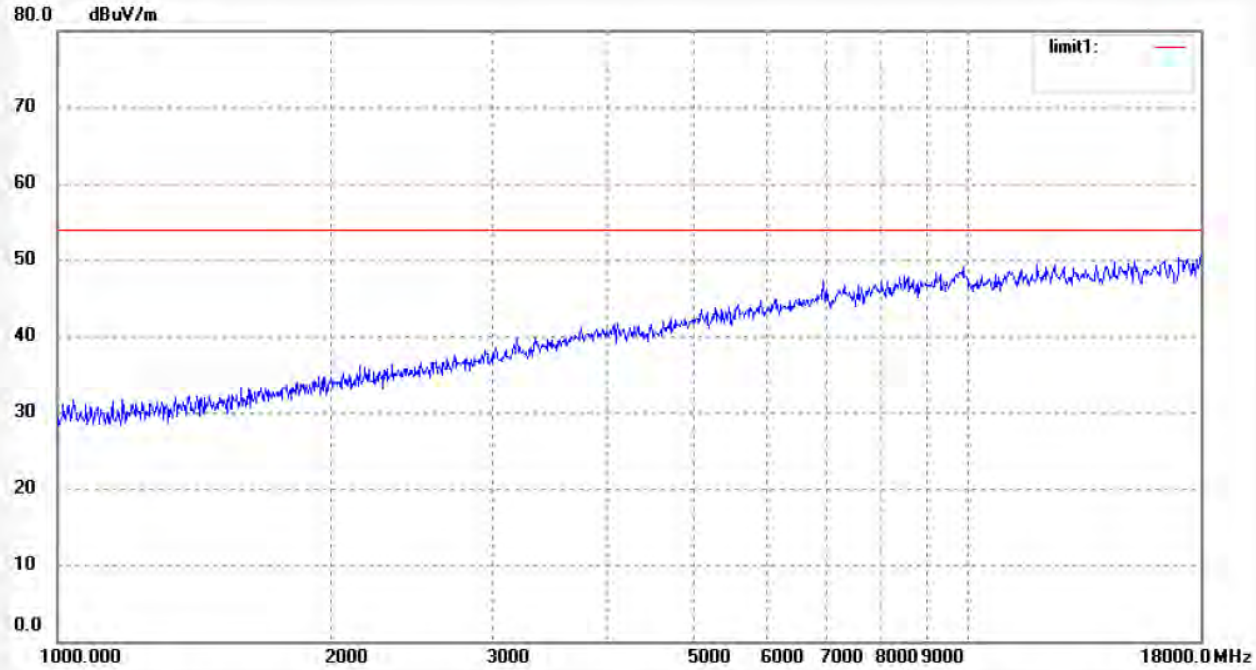


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3657	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/27/29
EUT: MID	Engineer Signature:
Mode: TX Channel 6(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

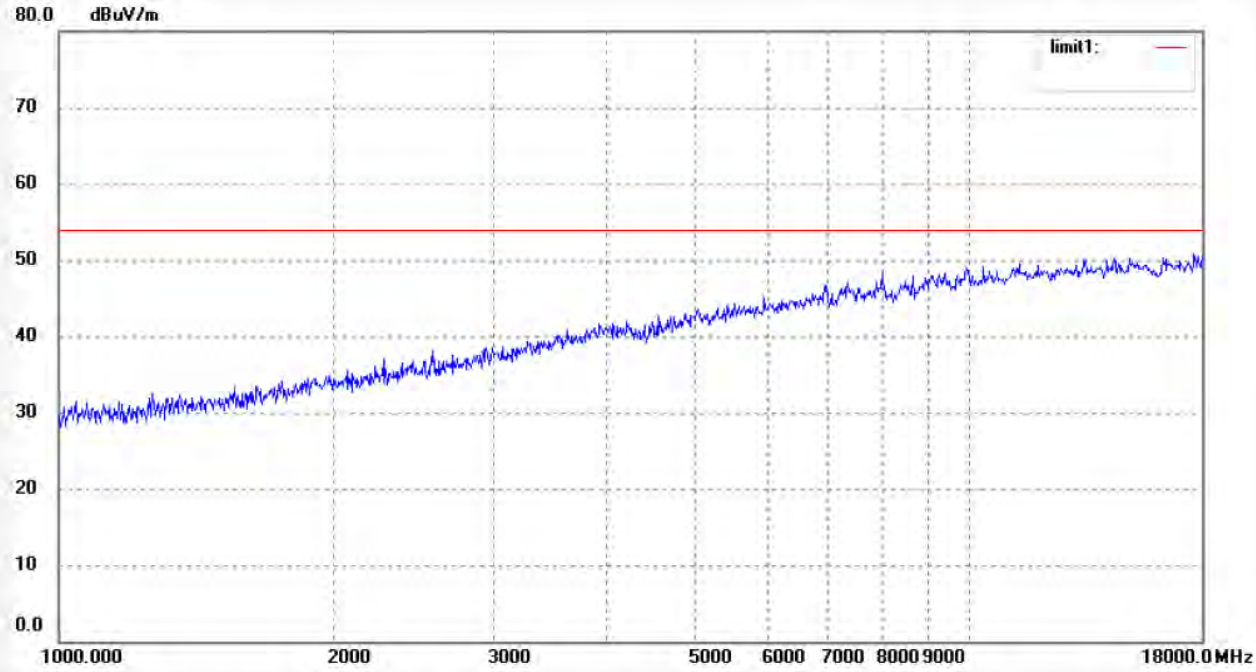


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3659	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/34/32
EUT: MID	Engineer Signature:
Mode: TX Channel 9(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

Note: Report No.:ATE20132328

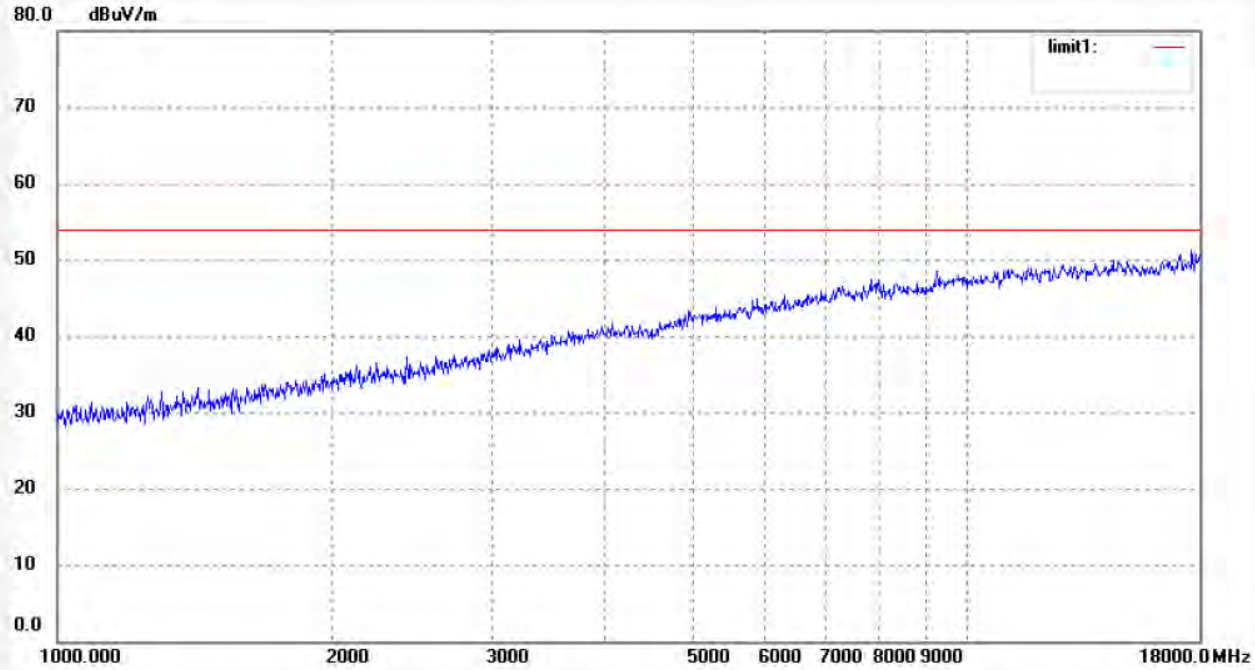


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

ACCURATE TECHNOLOGY CO., LTD.
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China
Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: STAR #3658	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/11/01/
Temp.(C)/Hum.(%) 25 C / 55 %	Time: 12/30/59
EUT: MID	Engineer Signature:
Mode: TX Channel 9(802.11n)40MHz	Distance: 3m
Model: M9XX	
Manufacturer: Sungworld	

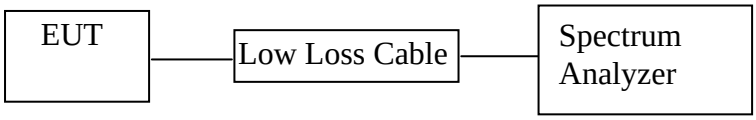
Note: Report No.:ATE20132328



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark

11. CONDUCTED SPURIOUS EMISSION COMPLIANCE TEST

11.1. Block Diagram of Test Setup



11.2. The Requirement For Section 15.247(d)

Section 15.247(d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

11.3. EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

11.4. Operating Condition of EUT

11.4.1. Setup the EUT and simulator as shown as Section 11.1.

11.4.2. Turn on the power of all equipment.

11.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

11.5.Test Procedure

11.5.1.The transmitter output was connected to the spectrum analyzer via a low loss cable.

11.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 300kHz (below 1GHz).

11.5.3.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz (above 1GHz).

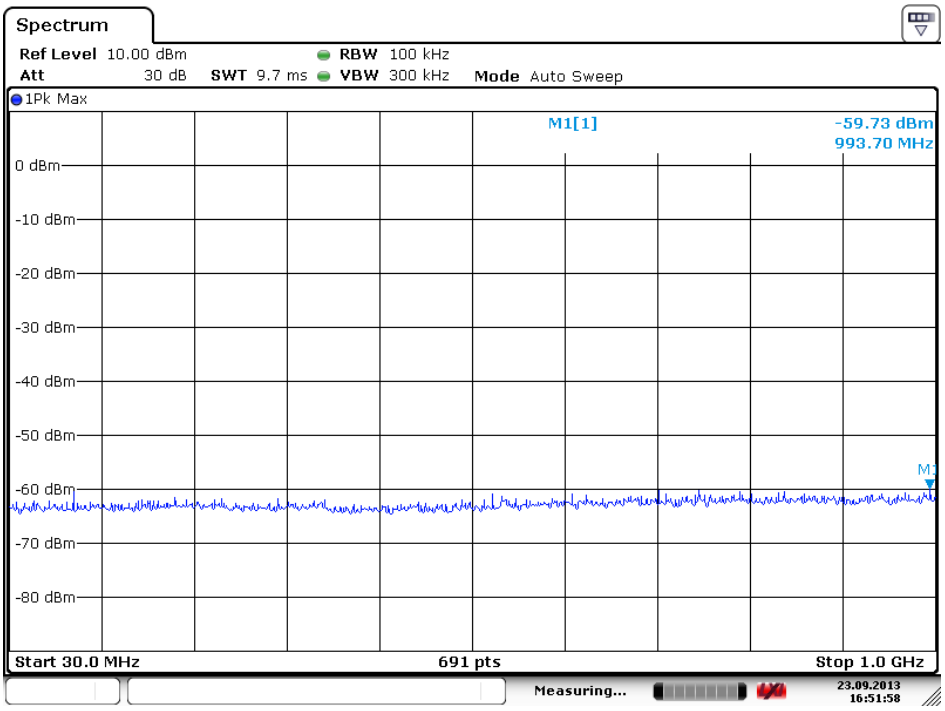
11.5.4.The Conducted Spurious Emission was measured and recorded.

11.6.Test Result

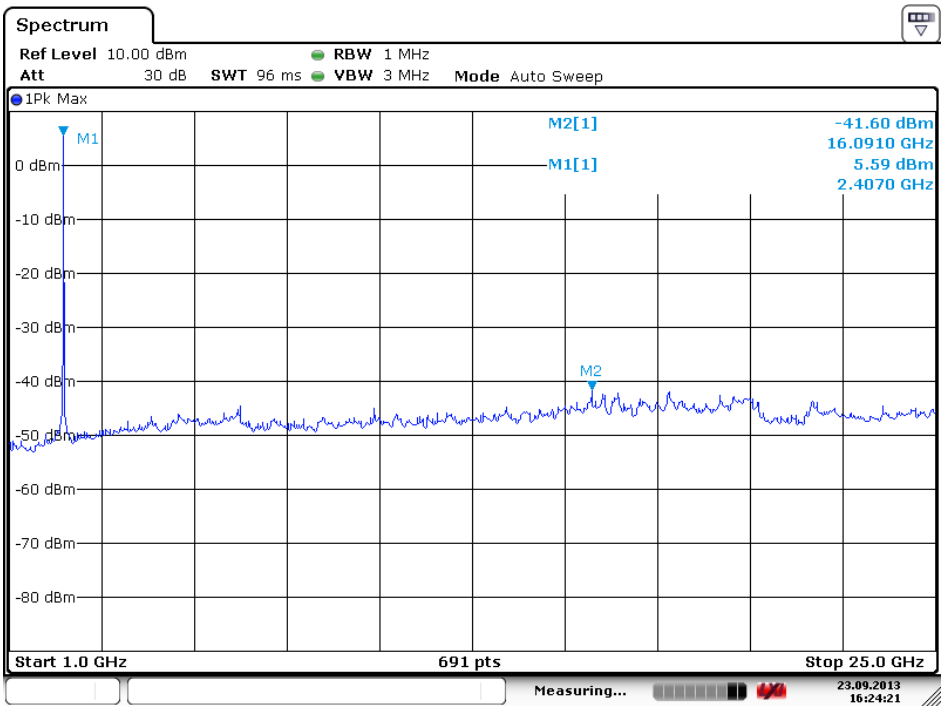
Pass.

The spectrum analyzer plots are attached as below.

TX 802.11b Channel Low 2412MHz

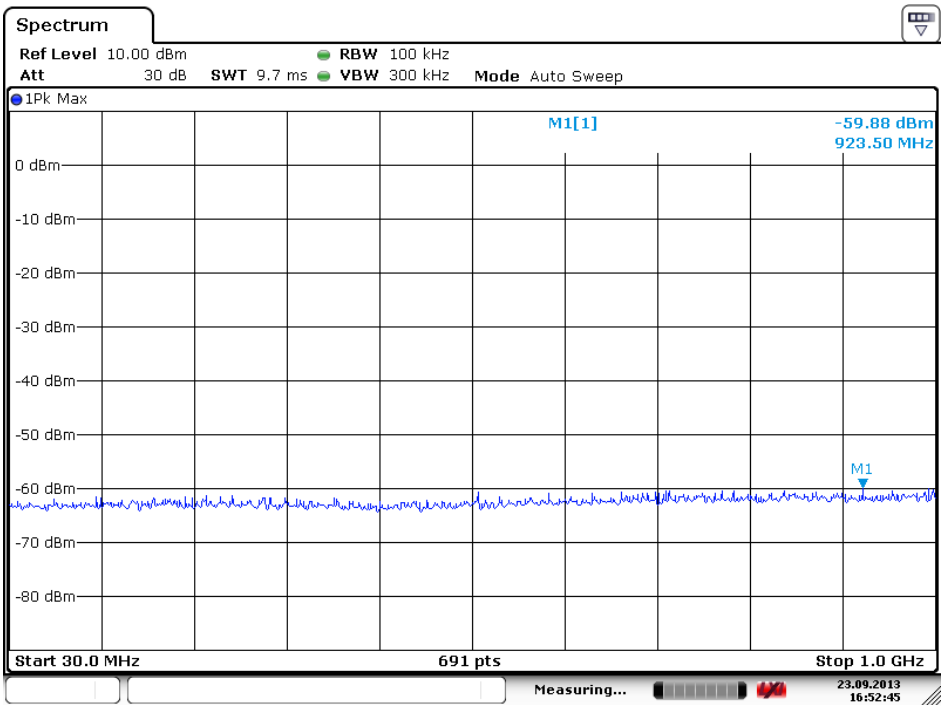


Date: 23.SEP.2013 16:51:58

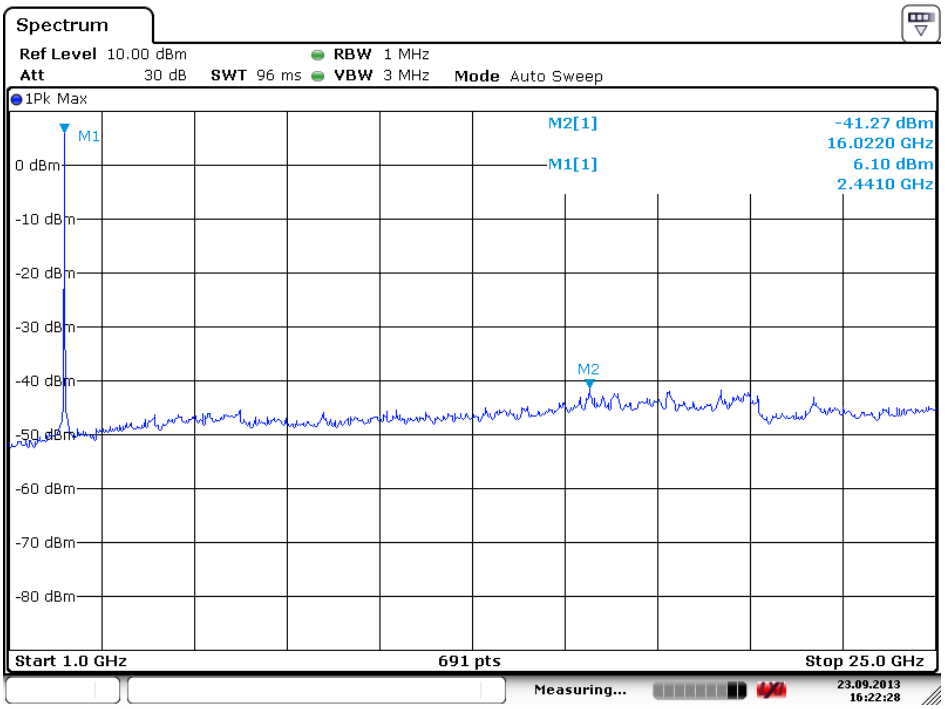


Date: 23.SEP.2013 16:24:21

TX 802.11b Channel Middle 2437MHz

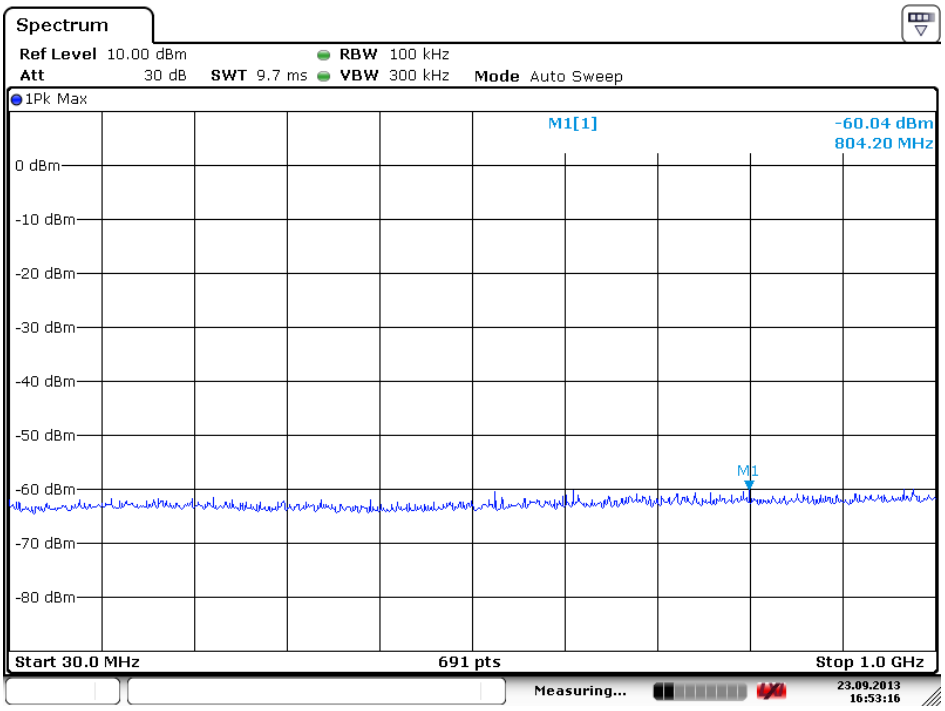


Date: 23.SEP.2013 16:52:45

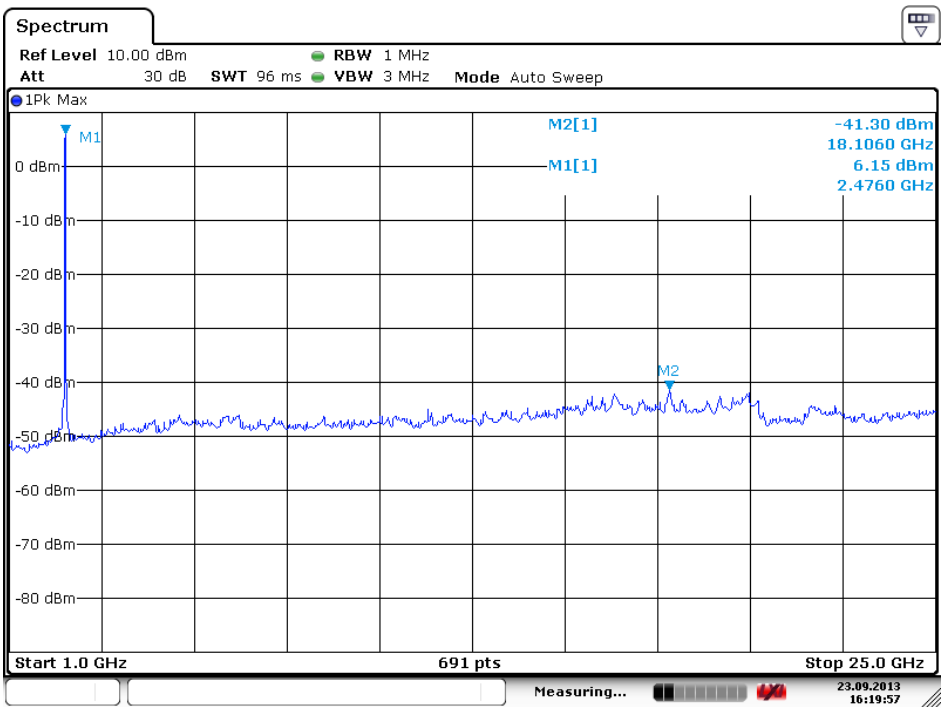


Date: 23.SEP.2013 16:22:28

TX 802.11b Channel High 2462MHz

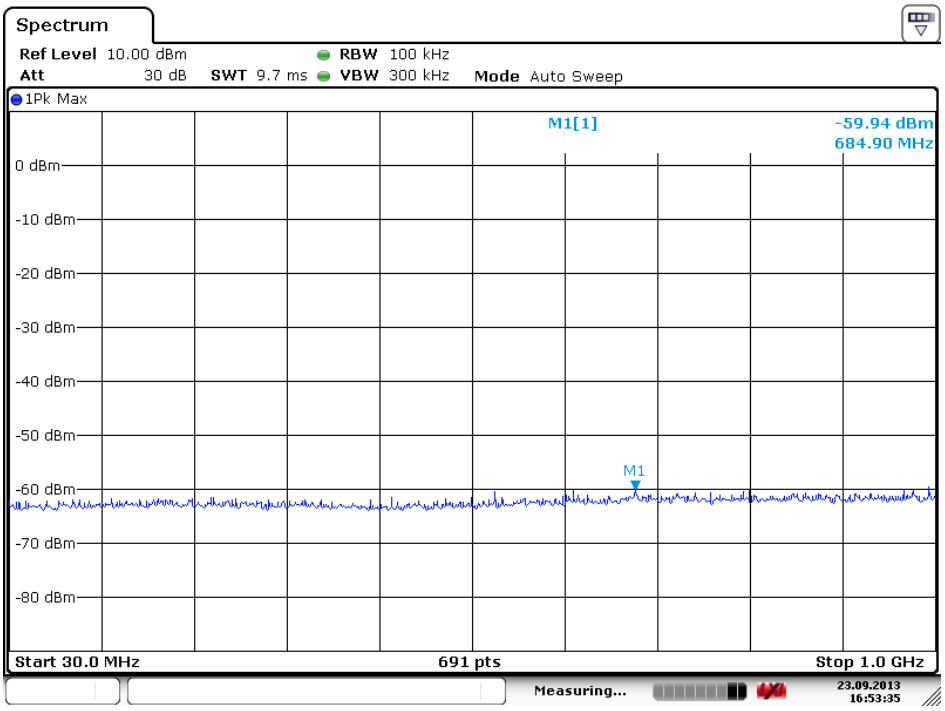


Date: 23.SEP.2013 16:53:16

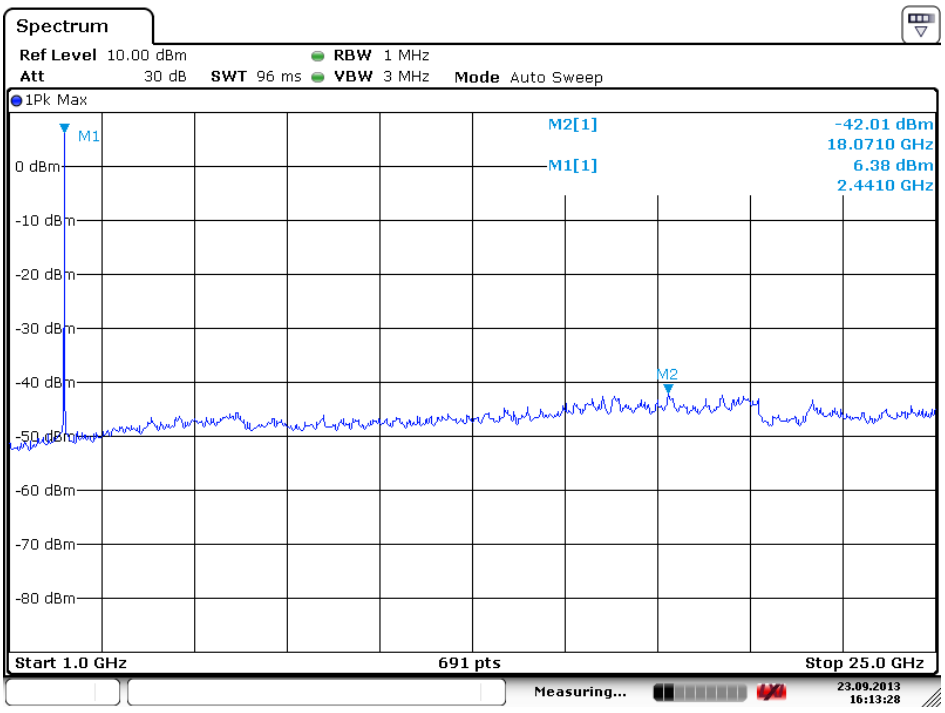


Date: 23.SEP.2013 16:19:57

TX 802.11g Channel Low 2412MHz

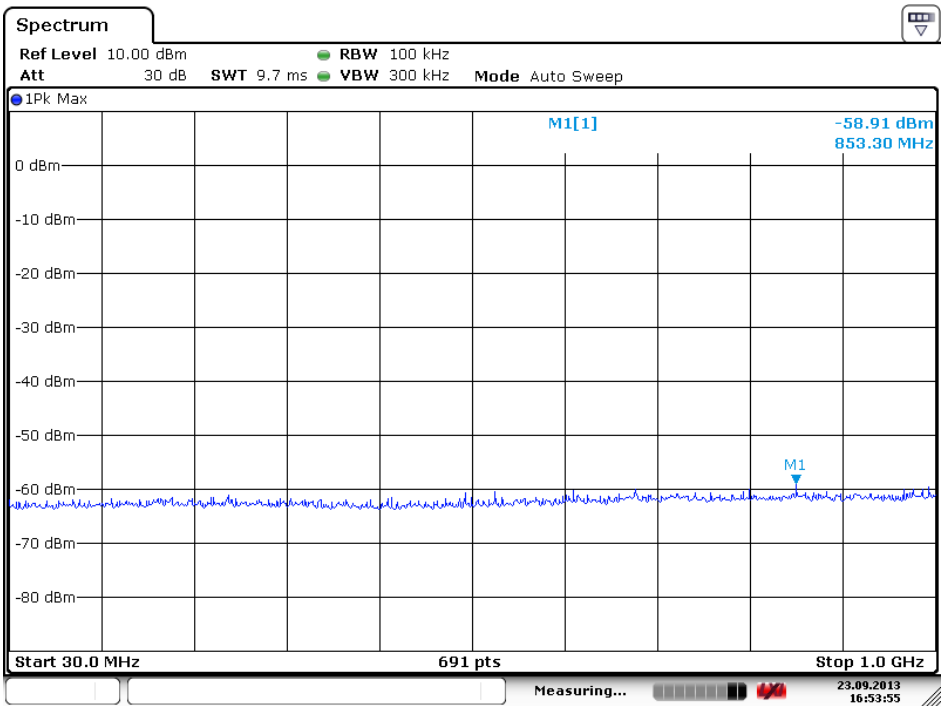


Date: 23.SEP.2013 16:53:35



Date: 23.SEP.2013 16:13:28

TX 802.11g Channel Middle 2437MHz



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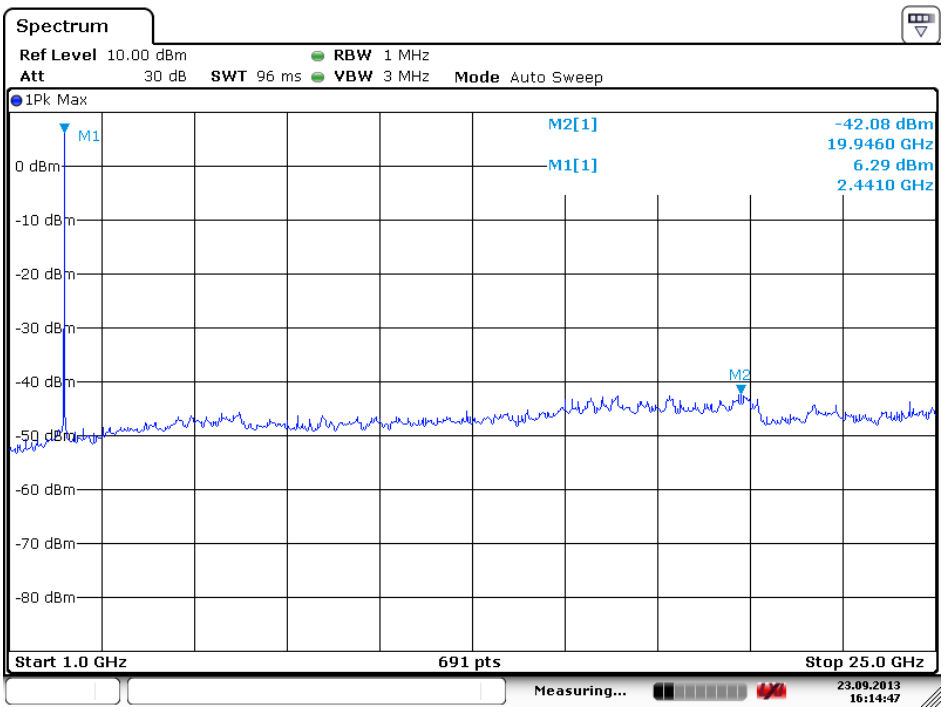
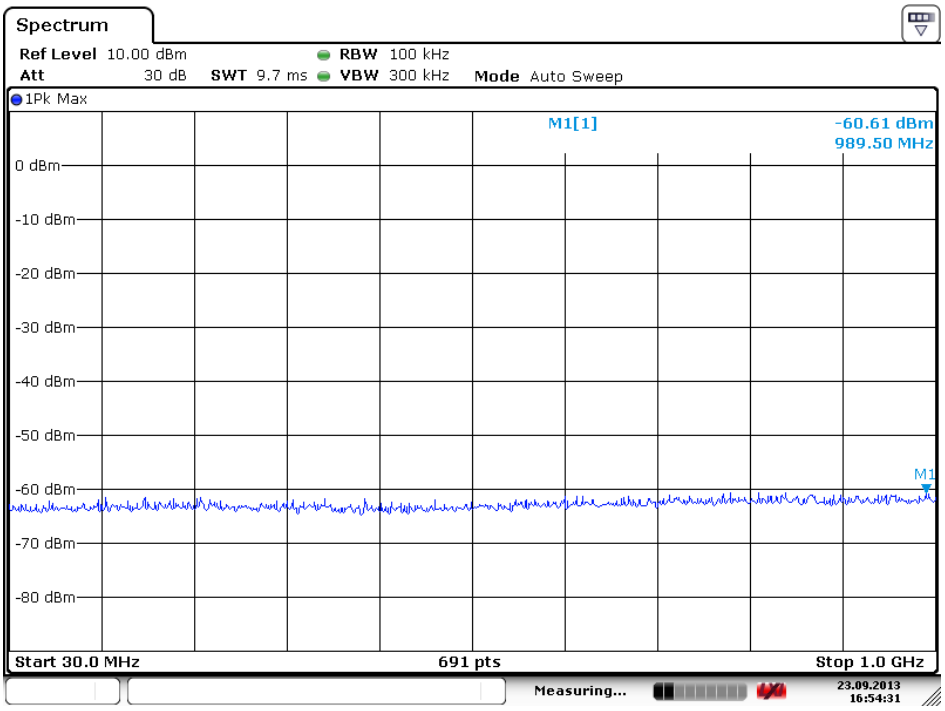


Date: 23.SEP.2013 16:14:47

TX 802.11g Channel High 2462MHz



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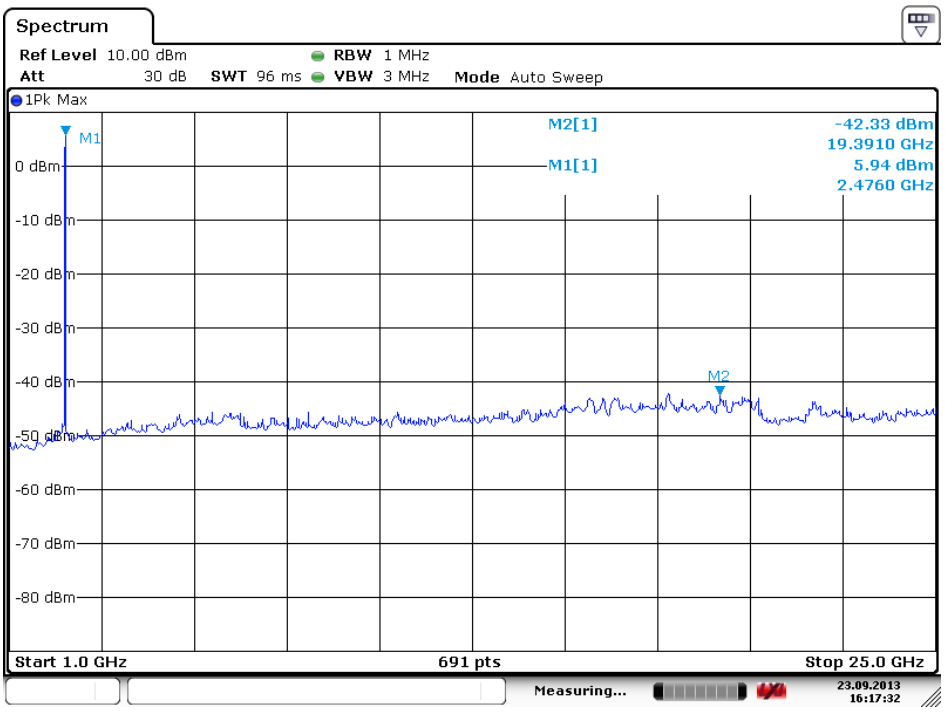

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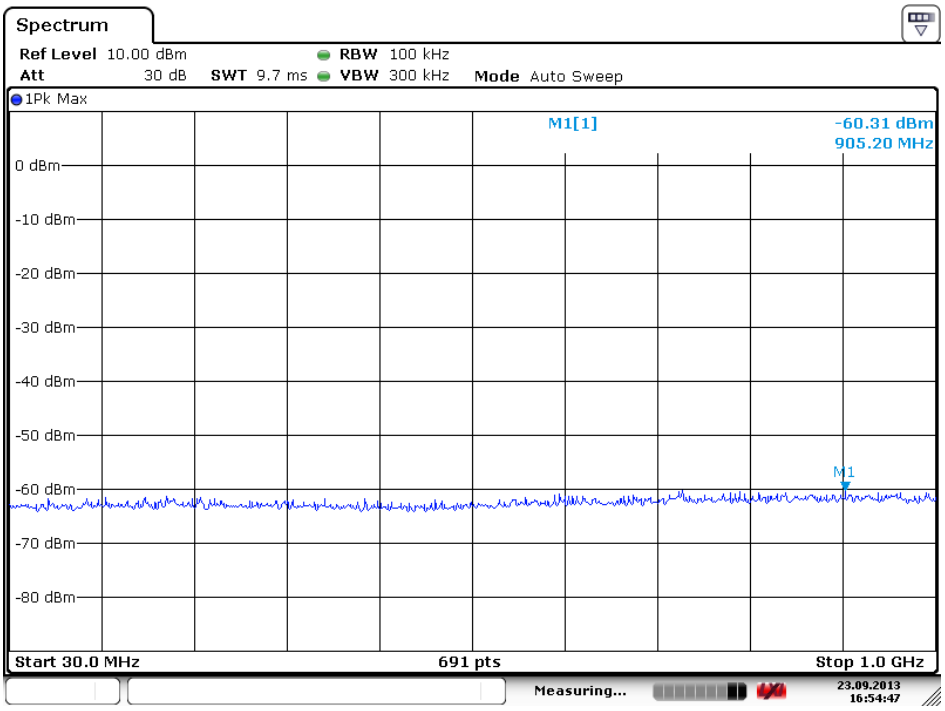
TX 802.11n Channel Low 2412MHz (20MHz)



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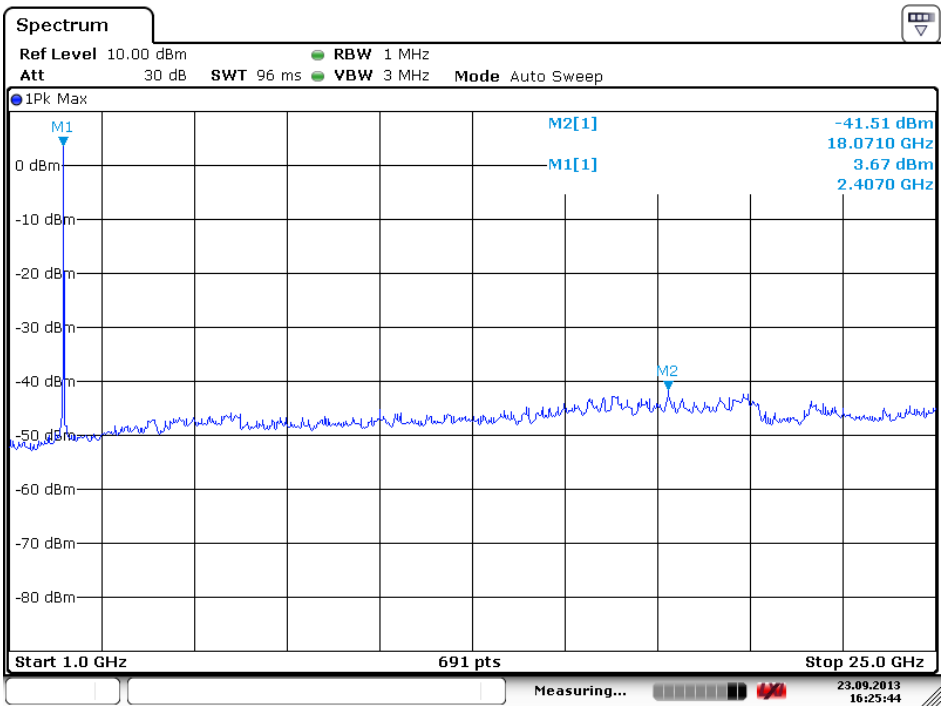
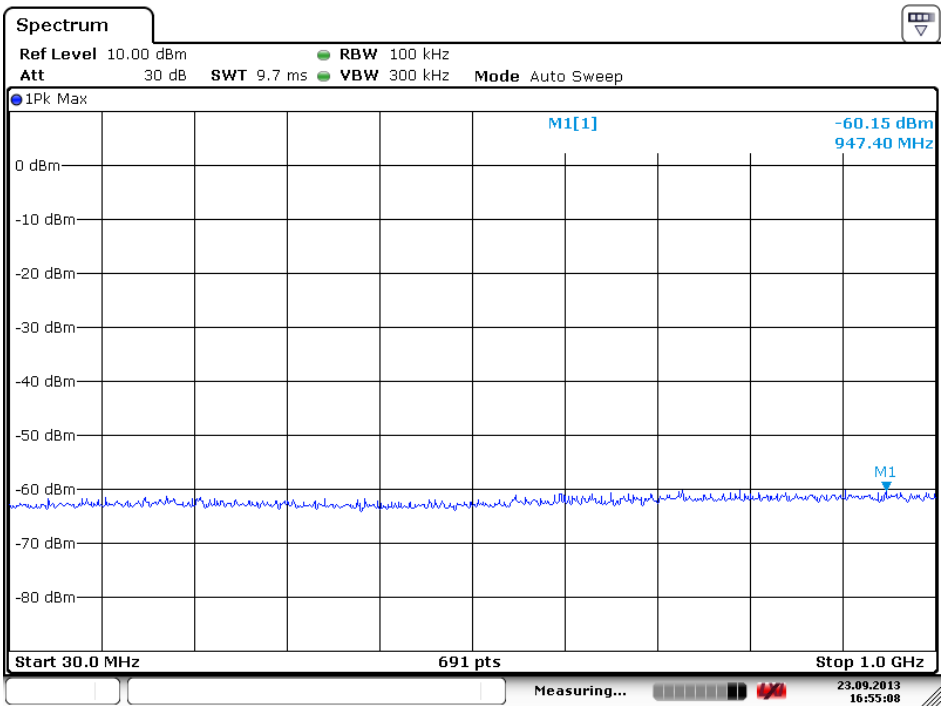


Date: 23.SEP.2013 16:25:44

TX 802.11n Channel Middle 2437MHz (20MHz)



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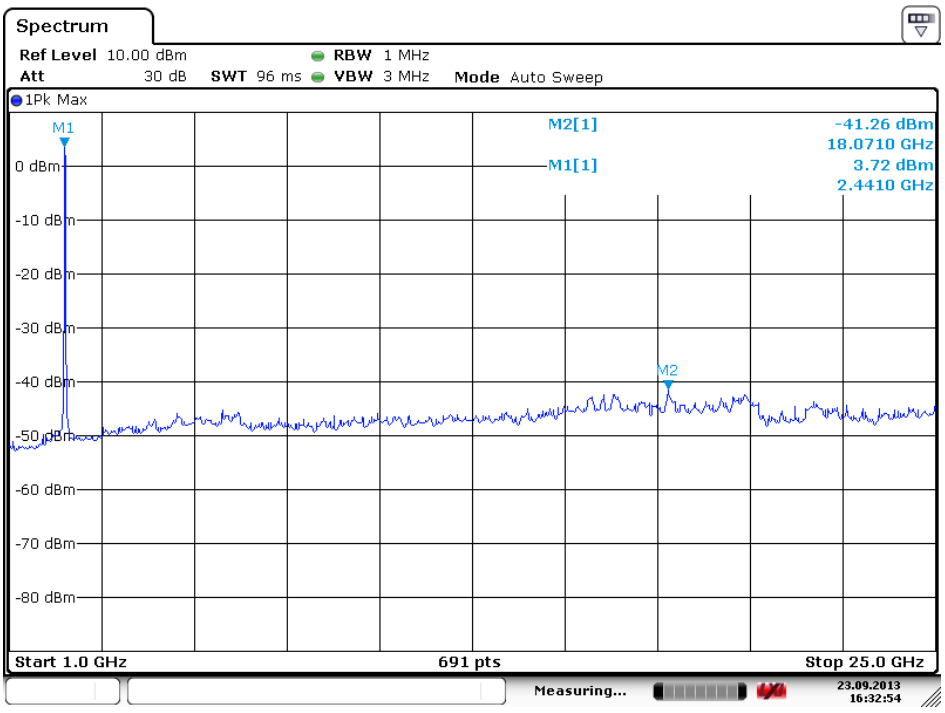
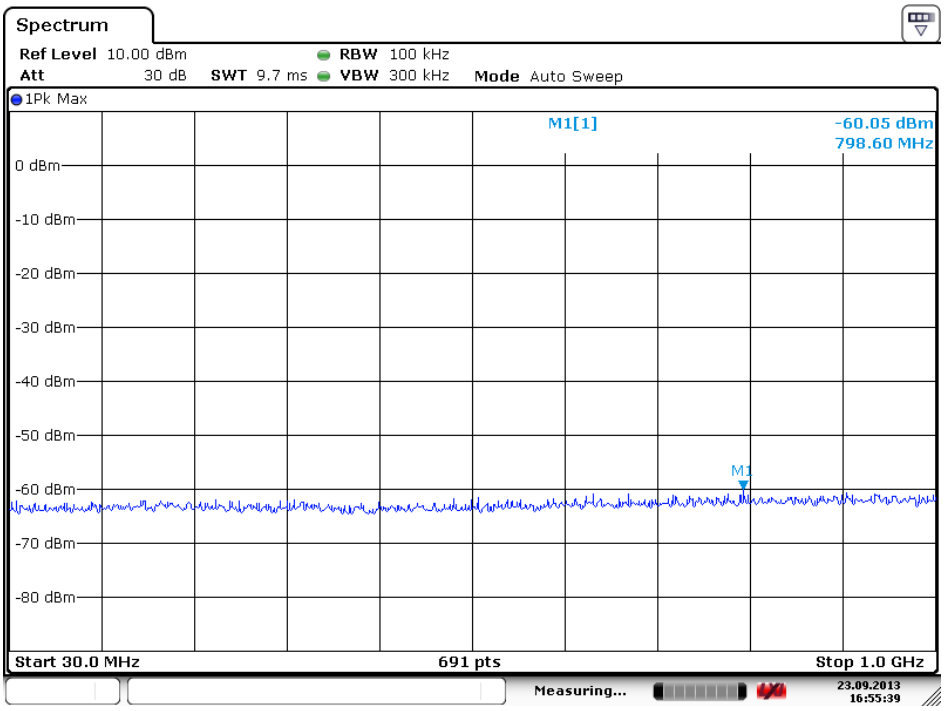


Date: 23.SEP.2013 16:32:54

TX 802.11n Channel High 2462MHz (20MHz)



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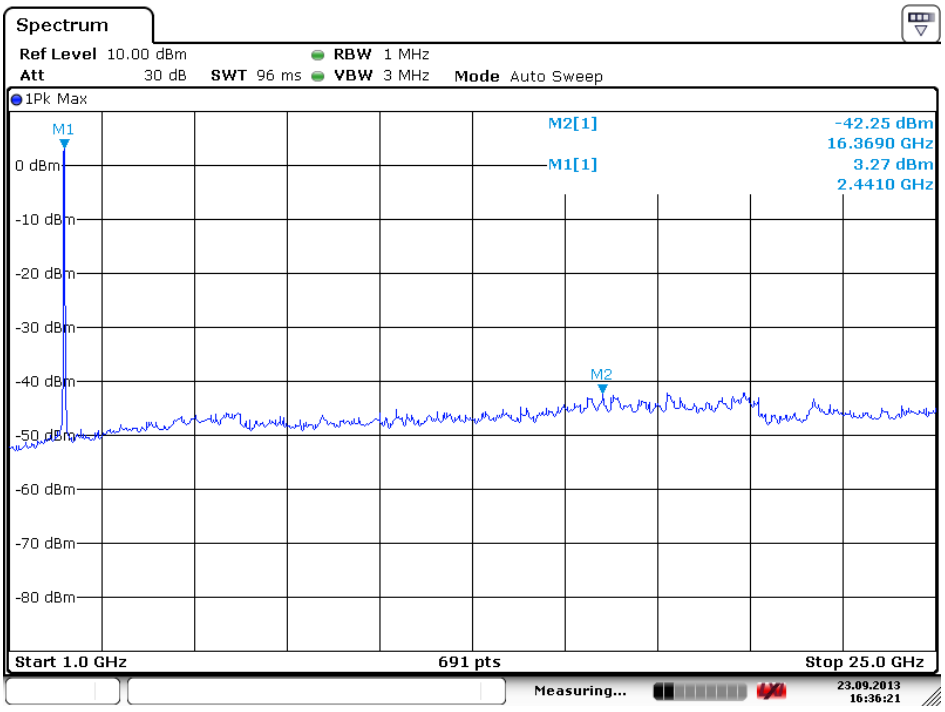

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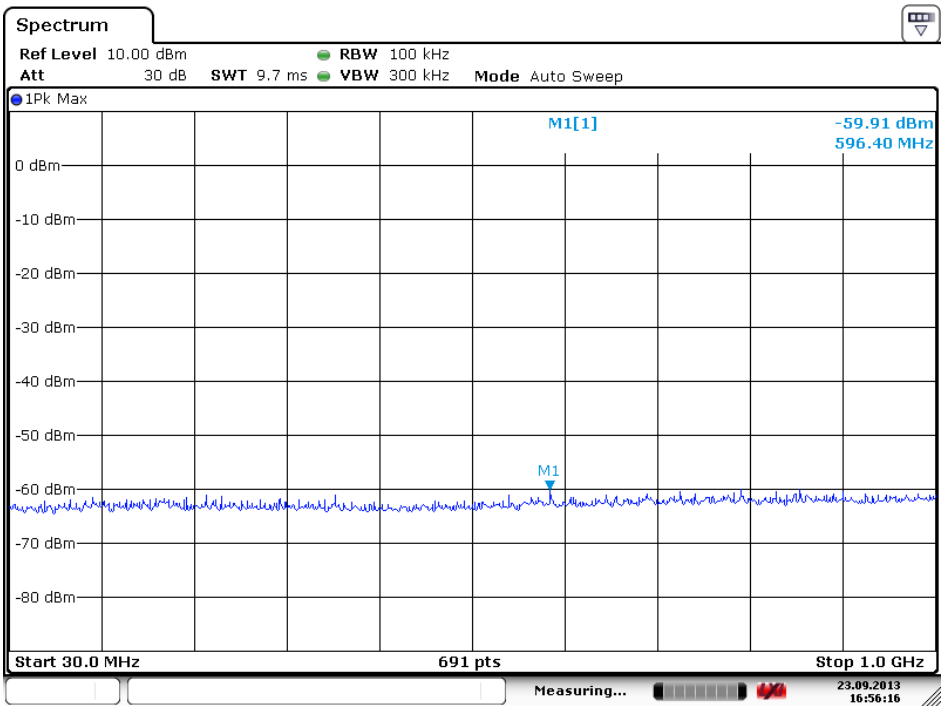
TX 802.11n Channel Low 2422MHz (40MHz)



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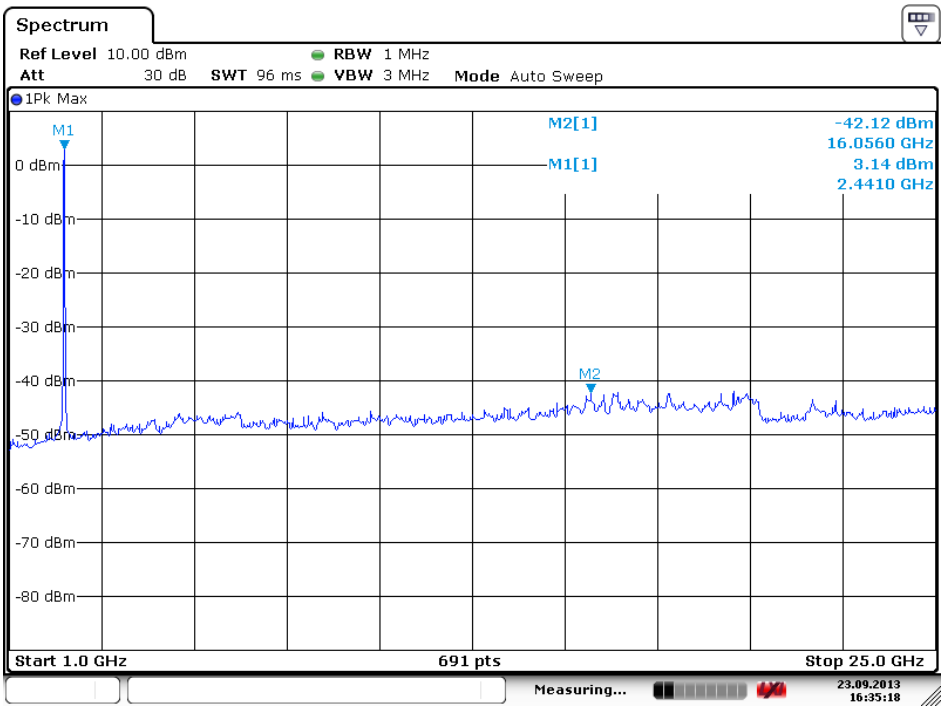
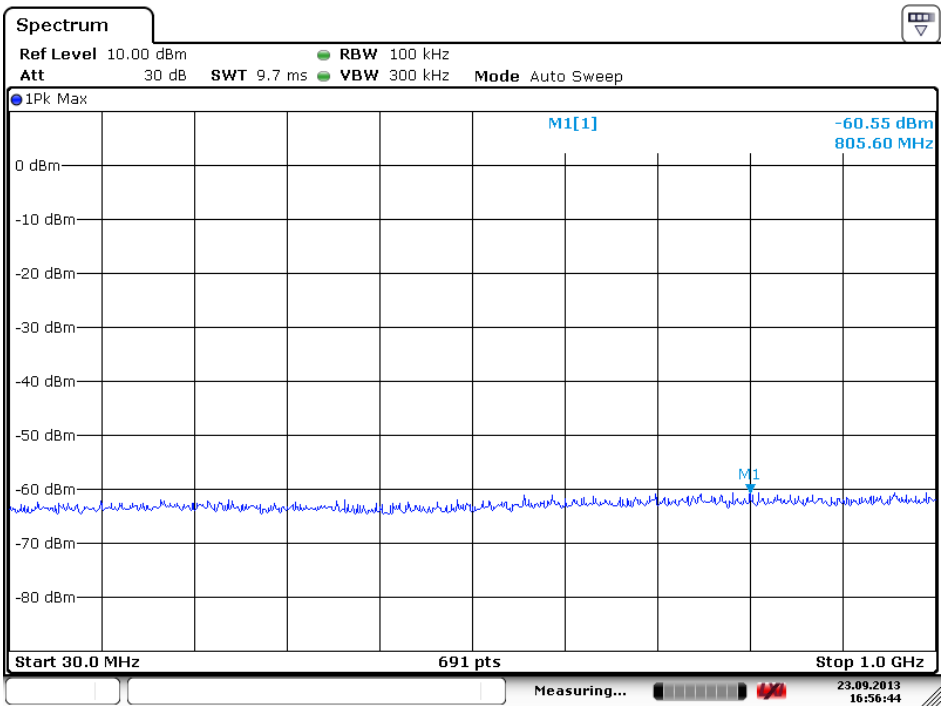


Date: 23.SEP.2013 16:35:18

TX 802.11n Channel Middle 2437MHz (40MHz)



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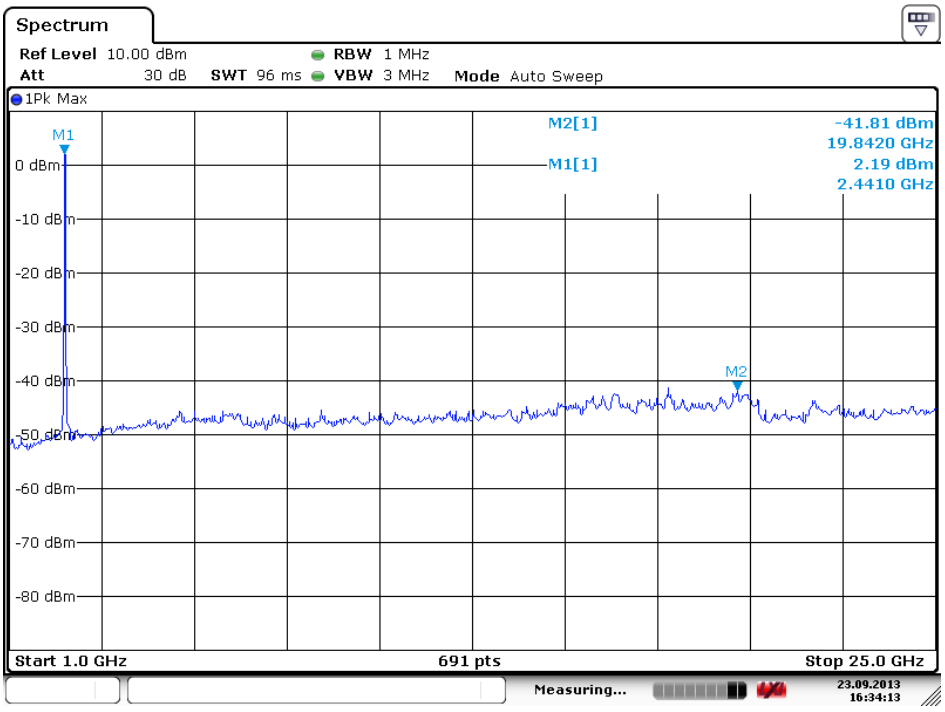
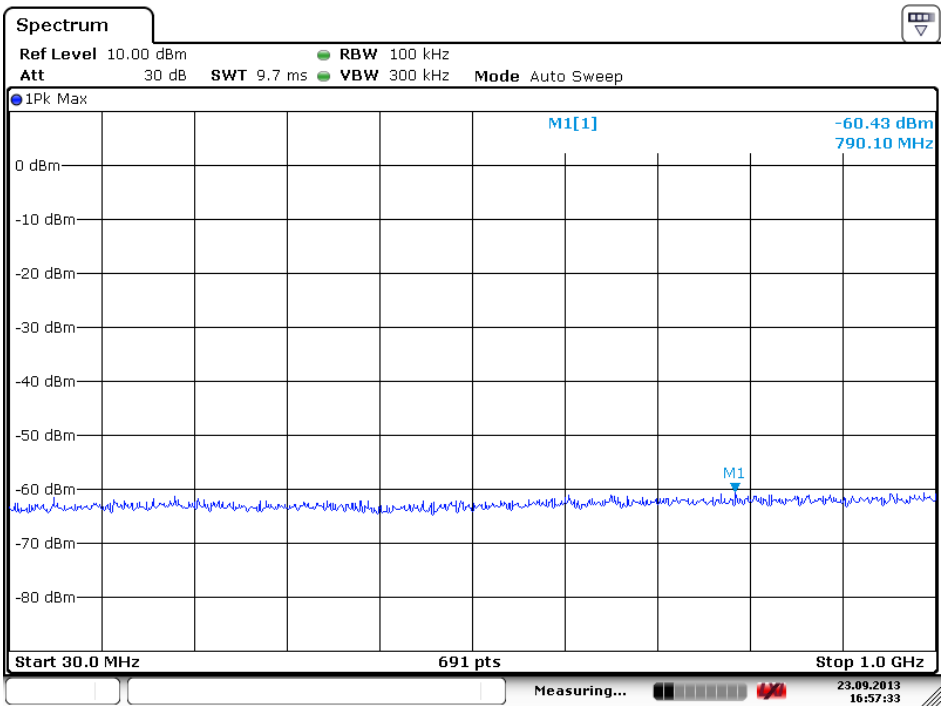


Date: 23.SEP.2013 16:34:13

TX 802.11n Channel High 2452MHz (40MHz)



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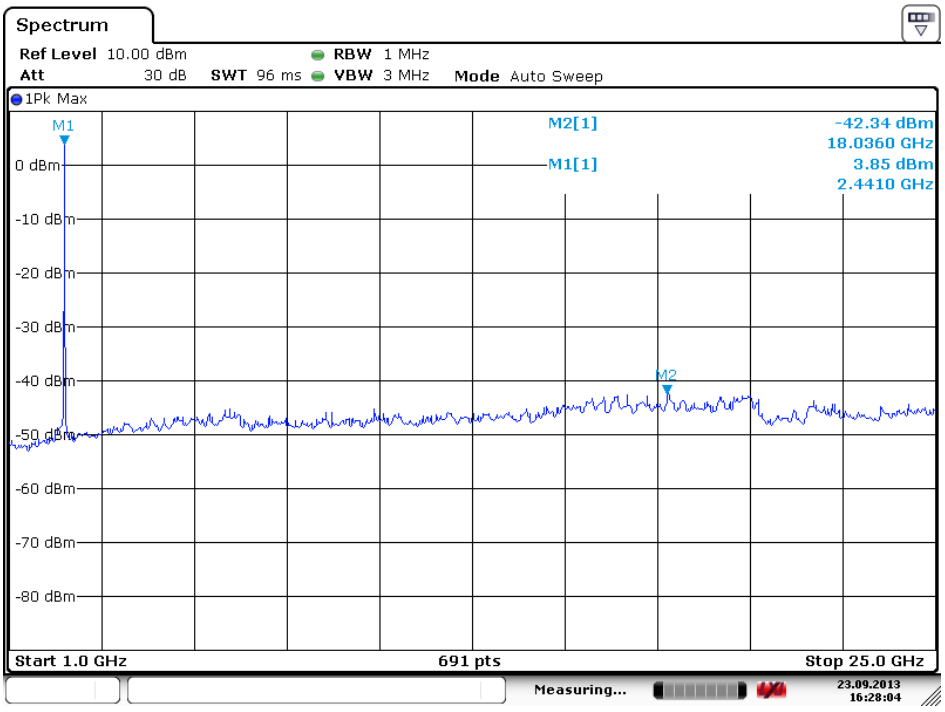

Date: 23.SEP.2013 16:28:04

12. ANTENNA REQUIREMENT

12.1. The Requirement

According to 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.

12.2. Antenna Construction

Device is equipped with Integral antenna, which isn't displaced by other antenna. Therefore, the equipment complies with the antenna requirement of Section 15.203.