



NVLAP LAB CODE 200707-0



FCC PART 15.247

MEASUREMENT AND TEST REPORT

For

Audex Telecom Industrial Co., Ltd.

4/F., Chuangye Center, Kangle Rd., Zhongshan Torch Hi-Tech Industrial Zone,

Zhongshan, China

FCC ID: P68SPB28081F88
Model: SPB-2808

Report Type: Original Report	Product Type: Handfree Car Kit
Test Engineer: <u>Bruce Zhang</u>	<i>Bruce Zhang</i>
Report Number: <u>RSZ09081101</u>	
Report Date: <u>2009-08-28</u>	
Reviewed By: <u>EMC Engineer</u>	<i>Merry Zhao</i>
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Shenzhen). This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, NIST, or any agency of the Federal Government.

* This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk “*” (Rev. 2)

TABLE OF CONTENTS

GENERAL INFORMATION.....	4
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
OBJECTIVE	4
RELATED SUBMITTAL(S)/GRANT(S).....	4
TEST METHODOLOGY	4
TEST FACILITY	4
SYSTEM TEST CONFIGURATION.....	6
DESCRIPTION OF TEST CONFIGURATION	6
EQUIPMENT MODIFICATIONS	6
HOST SYSTEM CONFIGURATION LIST AND DETAILS	6
LOCAL SUPPORT EQUIPMENT LIST AND DETAILS	6
EXTERNAL I/O CABLE.....	6
CONFIGURATION OF TEST SETUP	7
BLOCK DIAGRAM OF TEST SETUP	7
SUMMARY OF TEST RESULTS	8
CFR47 §15.247 (i), §1.1307 (b) (1) & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)	9
STANDARD APPLICABLE	9
TEST DATA	9
CFR47 §15.203 – ANTENNA REQUIREMENT	11
STANDARD APPLICABLE	11
ANTENNA CONNECTOR CONSTRUCTION	11
CFR47 §15.207 (a) & §15.107- CONDUCTED EMISSIONS	12
APPLICABLE STANDARD	12
MEASUREMENT UNCERTAINTY.....	12
EUT SETUP	12
EMI TEST RECEIVER SETUP.....	13
TEST EQUIPMENT LIST AND DETAILS.....	13
TEST PROCEDURE	13
TEST RESULTS SUMMARY	13
TEST DATA	13
CFR47 §15.205, §15.209, §15.109 & §15.247 – RADIATED EMISSIONS.....	16
APPLICABLE STANDARD	16
MEASUREMENT UNCERTAINTY.....	16
EUT SETUP	16
EMI TEST RECEIVER & SPECTRUM ANALYZER SETUP	17
TEST EQUIPMENT LIST AND DETAILS.....	17
TEST PROCEDURE	17
CORRECTED AMPLITUDE & MARGIN CALCULATION	17
TEST RESULTS SUMMARY	18
TEST DATA	18
CFR47 §15.247(a) (1)-CHANNEL SEPARATION TEST	24
APPLICABLE STANDARD	24
TEST EQUIPMENT LIST AND DETAILS.....	24
TEST PROCEDURE	24

TEST DATA	24
CFR47 §15.247(a) (1) – 20 dB BANDWIDTH TESTING	29
APPLICABLE STANDARD	29
TEST EQUIPMENT LIST AND DETAILS.....	29
TEST PROCEDURE	29
TEST DATA	29
CFR47 §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL TEST	34
APPLICABLE STANDARD	34
TEST EQUIPMENT LIST AND DETAILS.....	34
TEST PROCEDURE	34
TEST DATA	34
CFR47 §15.247(a) (1) (iii) -TIME OF OCCUPANCY (DWELL TIME).....	37
APPLICABLE STANDARD	37
TEST EQUIPMENT LIST AND DETAILS.....	37
TEST PROCEDURE	37
TEST DATA	37
CFR47 §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT	49
APPLICABLE STANDARD	49
TEST EQUIPMENT LIST AND DETAILS.....	49
TEST PROCEDURE	49
TEST DATA	49
CFR47 §15.247(d) - BAND EDGES TESTING	54
APPLICABLE STANDARD	54
TEST EQUIPMENT LIST AND DETAILS.....	54
TEST PROCEDURE	54
TEST DATA	55

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The Audex Telecom Industrial Co., Ltd.'s product, model number: *SPB-2808 (FCC ID: P68SPB28081F88)* or the "EUT" as referred to in this report is a *Handfree Car Kit*, which measures approximately: 9.1 cm L x 5.1 cm W x 1.1 cm H, rated input voltage: DC 3.7V Lithium battery.

All measurement and test data in this report was gathered from production sample serial number: 0908012(Assigned by BACL, Shenzhen). The EUT was received on 2009-08-11.

Objective

This Type approval report is prepared on behalf of Audex Telecom Industrial Co., Ltd. in accordance with Part 2, Subpart J, Part 15, Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.107, 15.209, 15.109 and 15.247 rules.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 21,

2007. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Equipment Modifications

No modification was made to the unit tested.

Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
Intel	Motherboard	D865GKD	11S19R1949ZJ1WCB46J1K8	DoC
IBM	Power	HIPRO-A2307F3T	11S49P2191ZJ1TAR472225	DoC
Maxtor	Hard Disk	6Y080L0	Y23QNXTE	DoC
ALPS	3.5' Floppy	06P5226	11S06P5226ZJ1W25373957	DoC
Lite-ON	CD-Rom	LTN-489S	11S71P7366ZJ1SYC130015	DoC
ProMOS	Memory	V826616J24SATG-C0	D61A2605H	N/A
Intel	CPU	Pentium4 2800MHz	N/A	N/A
Intel	Ethernet	PRO 10/100 VE	N/A	DoC

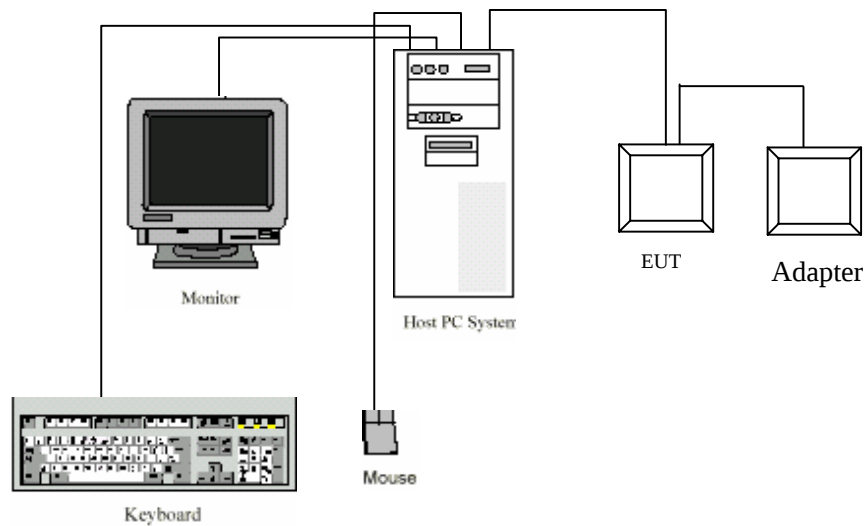
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
IBM	PC	ThinkCentre A50	99Y5469	DoC
DELL	Keyboard	L100	CNORH656658907BL05DC	DoC
DELL	Mouse	MOC5UO	G1900NKD	DoC
DELL	LCD Monitor	1505FP	CN-OY4287-71618-574-GBSH	DoC

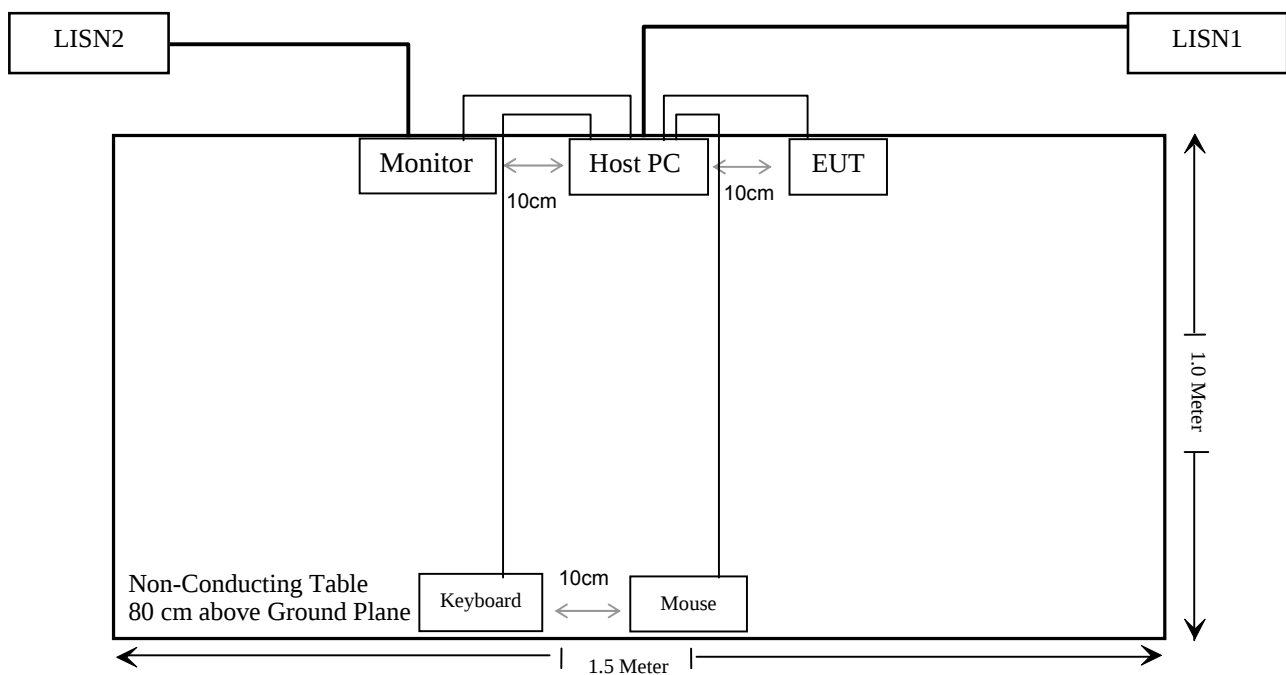
External I/O Cable

Cable Description	Length (M)	From/Port	To
Shielded Detachable K/B Cable	1.50	K/B Port / Host	K/B
Shielded Detachable Mouse Cable	1.50	PS/2 Port / Host	Mouse
Shielded Detachable VGA Cable	1.50	VGA Port / Host	Monitor
Shielded Detachable Serial Cable	1.20	Serial Port / Host	Modem
Unshielded Detachable USB Power Line	1.00	Adapter	EUT

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b)(1), §2.1091	Maximum Permissible Exposure (MPE)	Compliant
§15.203	Antenna Requirement	Compliant
§15.207 (a), §15.107	Conducted Emissions	Compliant
§15.205, §15.209, §15.109, §15.247(d)	Radiated Emissions	Compliant
§15.247 (a)(1)	20 dB Bandwidth	Compliant
§15.247(a)(1)	Channel Separation Test	Compliant
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliant
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliant
§15.247(b)(1)	Peak Output Power Measurement	Compliant
§15.247(d)	Band Edges	Compliant

CFR47 §15.247 (i), §1.1307 (b) (1) & §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Standard Applicable

According to subpart 15.247 (i) and subpart 1.1307 (b)(1), 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mw/cm ²)	Averaging Time (Minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Test Data

Predication of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally **numeric** gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For BDR:

Maximum peak output power at antenna input terminal: 3.08 (dBm)

Maximum peak output power at antenna input terminal: 2.03 (mW)

Prediction distance: 20 (cm);

Predication frequency: 2441 (MHz);

Antenna Gain (typical): 2.0 (dBi);

Antenna Gain (typical): 1.58 (numeric);

For EDR:

Maximum peak output power at antenna input terminal: 2.49(dBm)

Maximum peak output power at antenna input terminal: 1.77(mW)

Prediction distance: 20 (cm);

Predication frequency: 2441 (MHz);

Antenna Gain (typical): 2.0 (dBi);

Antenna Gain (typical): 1.58(numeric);

Calculated Data:

The worst case is power density at predication frequency at 20 cm:

0.00064 (mW/cm²) (for BDR);

0.00056 (mW/cm²) (for EDR)

MPE limit for General Population/Uncontrolled exposure at prediction frequency: 1.0 (mW/cm²)

Result:

The predicted power density level at 20 cm is 0.00064 mw/cm² for BDR and 0.00056 mw/cm² for EDR which is below the uncontrolled exposure limit of 1.0 mw/cm², The EUT is used at least 20 cm away from user's body. It is determined as mobile equipment and complies with the MPE limit.

CFR47 §15.203 – ANTENNA REQUIREMENT

Standard Applicable

According to CFR47 § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

The EUT has an integral PCB antenna, which in accordance to section 15.203, the maximum gain is 2 dBi; please refer to the internal photos.

Result: Compliant.

CFR47 §15.207 (a) & §15.107- CONDUCTED EMISSIONS

Applicable Standard

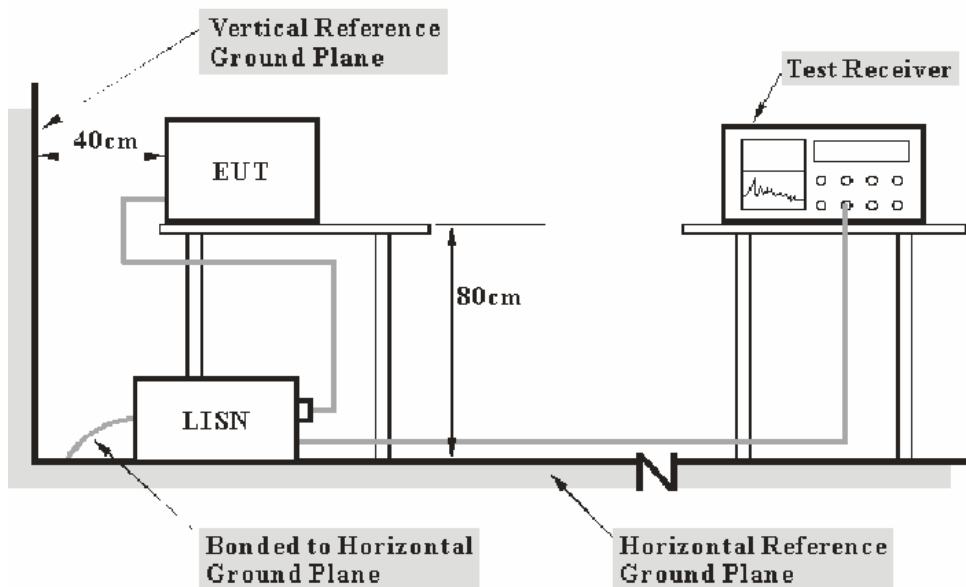
CFR47 §15.207, §15.107.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratory Corp. (Shenzhen) is ± 2.4 dB.

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120V 60Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<u>Frequency Range</u>	<u>IF B/W</u>
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2009-04-28	2010-04-27
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2009-04-28	2010-04-27

* Com-Power's LISN were used as the supporting equipment.

* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, 15.107, with the worst margin reading of:

Charging mode: 17.74 dB at 3.6969 MHz in the Line conductor mode

Charging mode: 16.73 dB at 0.1812 MHz in the Neutral conductor mode

Test Data

Environmental Conditions

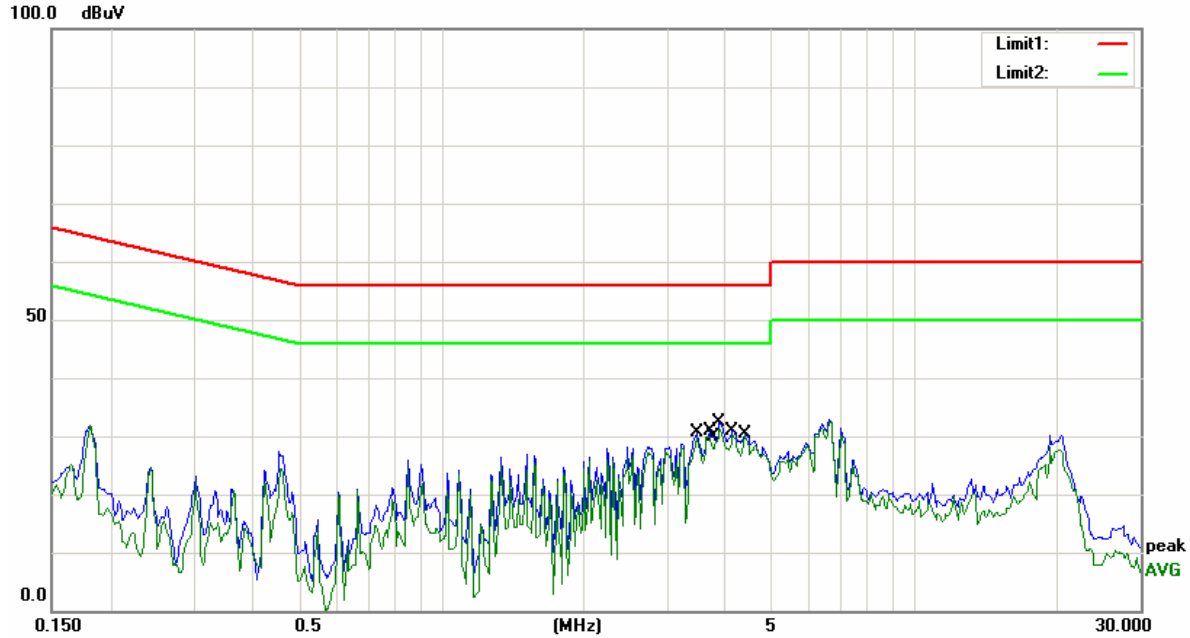
Temperature:	25 ° C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

* The testing was performed by Bruce Zhang on 2009-08-28.

Test Mode: Charging

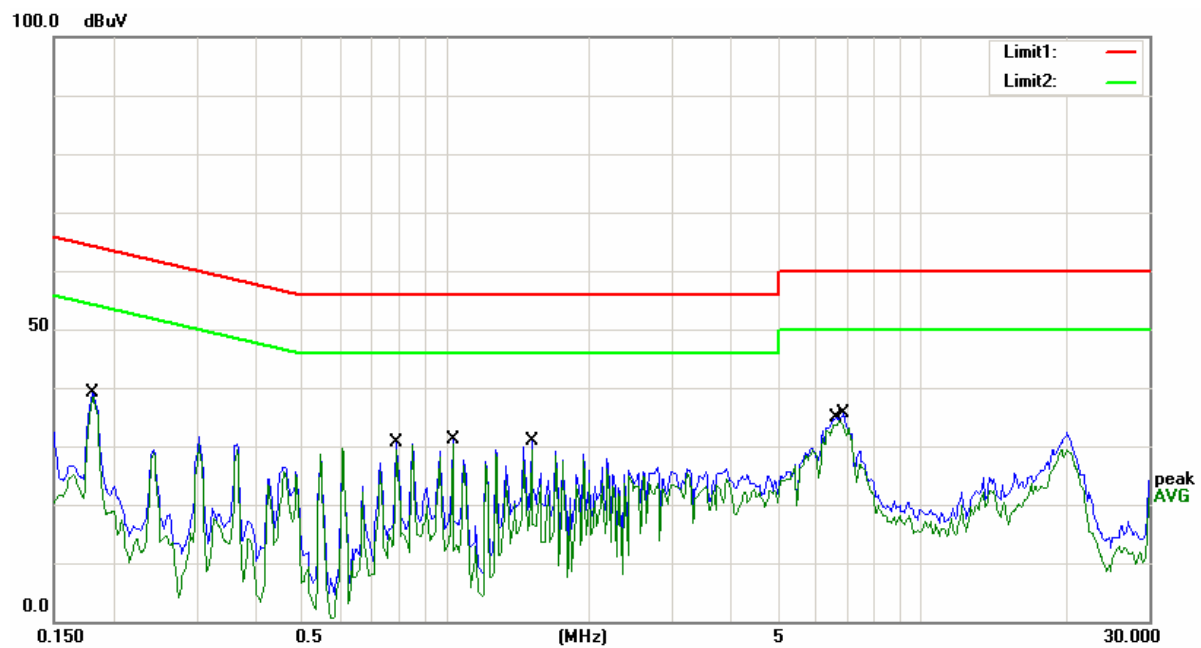
Line:

Conducted Emission				FCC Part 15.107		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
3.6969	18.09	10.17	28.26	46.00	17.74	AV
4.1227	17.80	10.18	27.98	46.00	18.02	AV
4.3648	17.60	10.19	27.79	46.00	18.21	AV
3.8805	17.29	10.18	27.47	46.00	18.53	AV
3.7594	14.99	10.17	25.16	46.00	20.84	AV
4.3648	19.70	10.19	29.89	56.00	26.11	QP
3.8805	19.68	10.18	29.86	56.00	26.14	QP
4.1227	19.62	10.18	29.80	56.00	26.20	QP
3.6969	19.39	10.17	29.56	56.00	26.44	QP
3.7594	17.65	10.17	27.82	56.00	28.18	QP
3.4664	-0.44	10.17	9.73	46.00	36.27	AV
3.4664	5.11	10.17	15.28	56.00	40.72	QP



Neutral:

Conducted Emission				FCC Part 15.107		
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
0.1812	27.60	10.10	37.70	54.43	16.73	AV
0.7867	19.05	10.11	29.16	46.00	16.84	AV
1.0328	18.54	10.12	28.66	46.00	17.34	AV
1.5172	17.36	10.13	27.49	46.00	18.51	AV
0.7867	20.02	10.11	30.13	56.00	25.87	QP
0.1812	28.15	10.10	38.25	64.43	26.18	QP
1.0328	19.31	10.12	29.43	56.00	26.57	QP
1.5172	18.86	10.13	28.99	56.00	27.01	QP
6.8609	18.30	10.21	28.51	60.00	31.49	QP
6.6188	15.51	10.21	25.72	60.00	34.28	QP
6.8609	5.27	10.21	15.48	50.00	34.52	AV
6.6188	2.72	10.21	12.93	50.00	37.07	AV



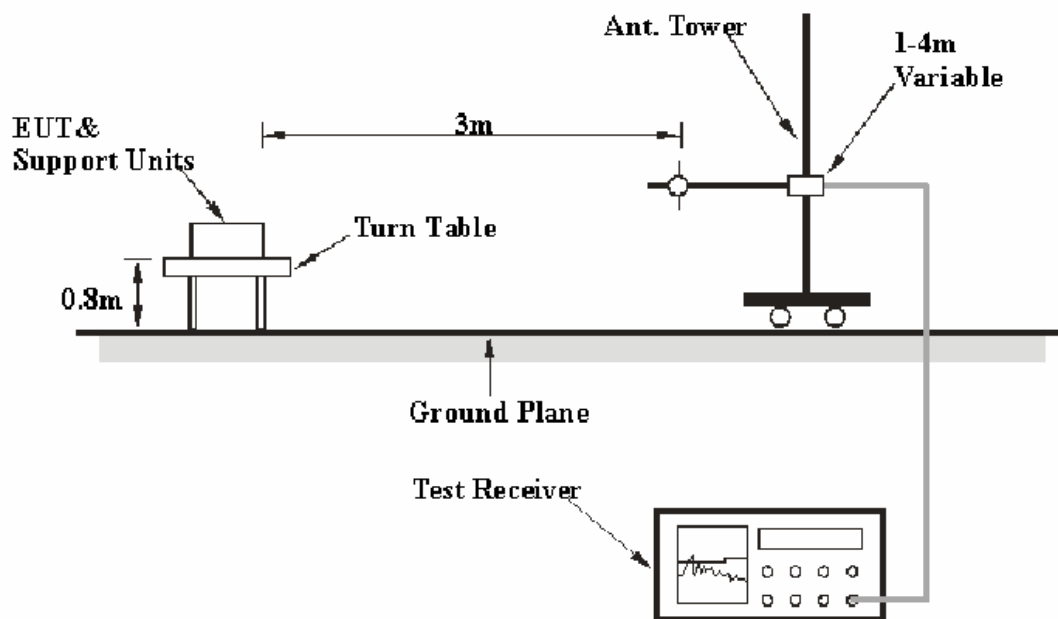
CFR47 §15.205, §15.209, §15.109 & §15.247 – RADIATED EMISSIONS**Applicable Standard**

CFR47 §15.205; §15.209; §15.109; §15.247 (d)

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 4.0 dB.

EUT Setup

The radiated emission tests were performed in the 3 meters chamber B test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209, FCC 15.109 and FCC 15.247 limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>
30MHz – 1000 MHz	100 kHz	300 kHz
1000 MHz – 25 GHz	1 MHz	3 MHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447D	2944A09795	2009-08-02	2010-08-02
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2009-03-11	2010-03-11
HP	Amplifier	8449B	3008A00277	2008-09-12	2009-09-11
Sunol Sciences	Horn Antenna	DRH-118	A052604	2008-09-25	2009-09-25
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2008-08-28	2009-08-27

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

For the radiated emissions test, the adapter was connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz and peak and Average detection modes for frequencies above 1GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, Part15.205, 15.109, 15.209 and 15.247, with the worst margin reading of:

Below 1GHz:

Charging mode: 6.6 dB at 63.047000 MHz in the Vertical polarization
Transmitting mode: 15.1 dB at 432.058500 MHz in the Horizontal polarization, BDR
Transmitting mode: 17.1 dB at 31.706750 MHz in the Vertical polarization, EDR

Above 1 GHz:

For BDR:

Transmitting mode: 7.47 dB at 4804 MHz in the Horizontal polarization (Low Channel)
Transmitting mode: 4.27 dB at 4882 MHz in the Horizontal polarization (Middle Channel)
Transmitting mode: 8.91 dB at 4960 MHz in the Horizontal polarization (High Channel)

For EDR:

Transmitting mode: 3.20 dB at 4804 MHz in the Horizontal polarization (Low Channel)
Transmitting mode: 3.69 dB at 4882 MHz in the Horizontal polarization (Middle Channel)
Transmitting mode: 4.70 dB at 4960 MHz in the Horizontal polarization (High Channel)

Test Data

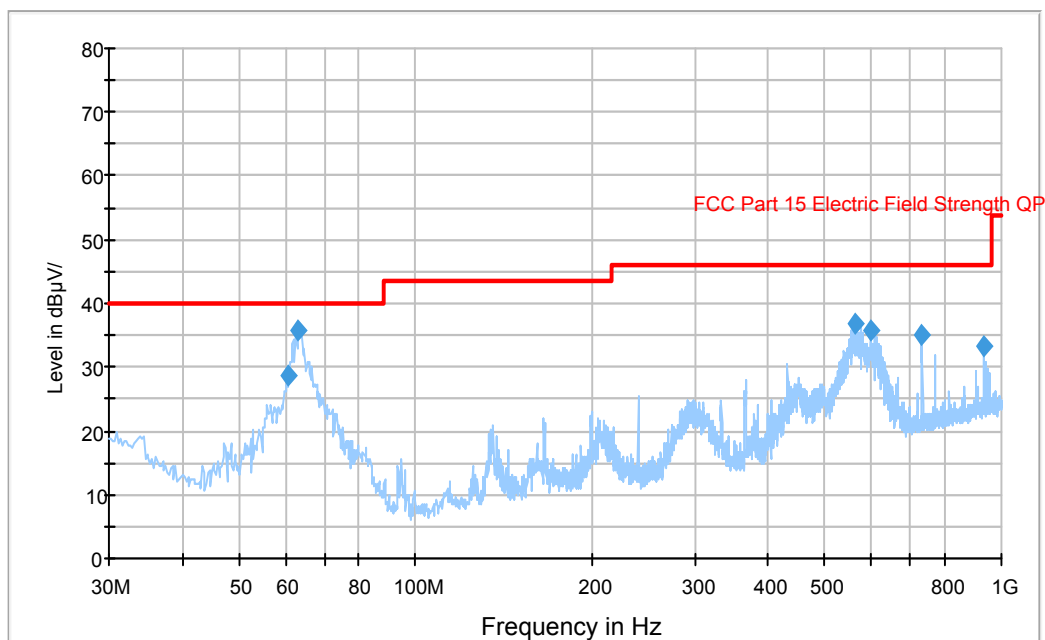
Environmental Conditions

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

** The testing was performed by Bruce Zhang on 2009-08-26.*

Test Mode: Charging (below 1 GHz)

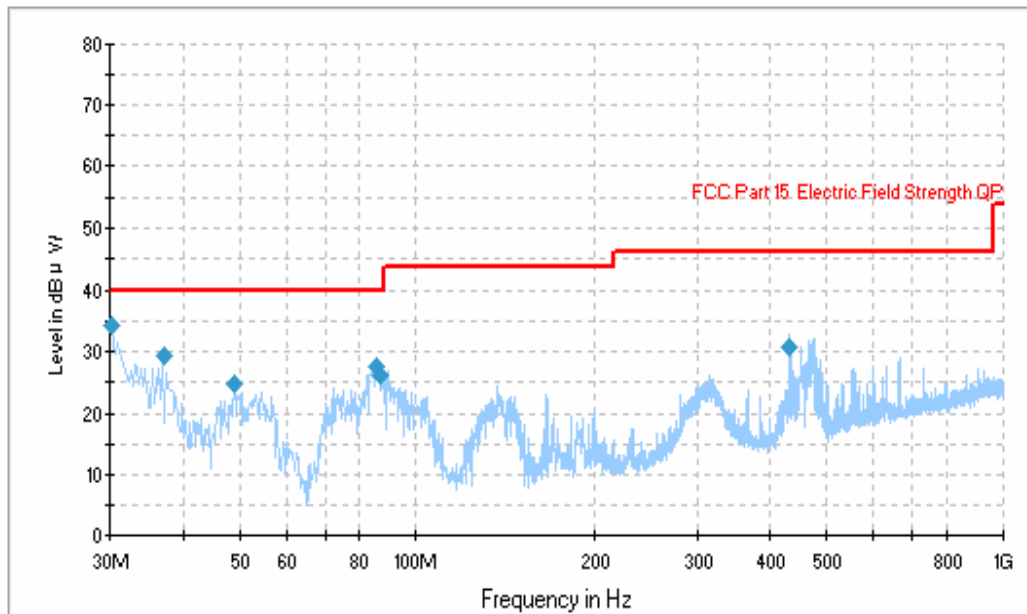
Auto Test(FCC 15 Class B)



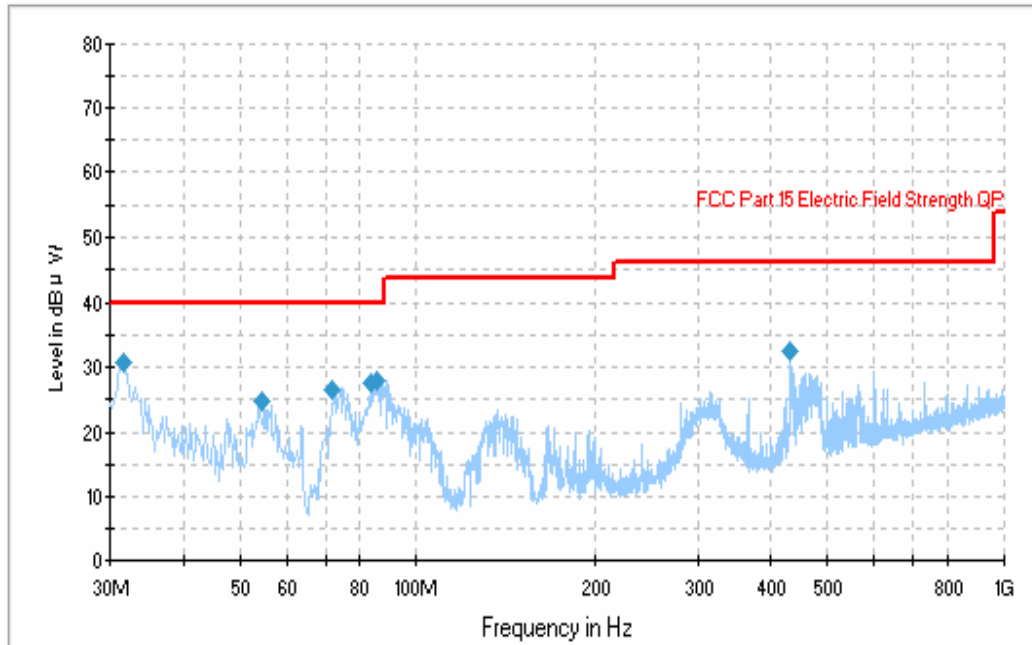
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
63.047000	35.7	261.0	V	57.0	-21.9	40.0	6.6
732.935750	35.2	138.0	H	344.0	-6.2	46.0	10.8
935.882000	33.4	135.0	H	99.0	-3.4	46.0	12.6
60.583500	28.7	164.0	V	157.0	-21.7	40.0	13.1
598.634250	35.8	206.0	H	0.0	-8.8	46.0	14.2
562.281000	36.8	99.0	V	4.0	-9.6	46.0	26.3

Test Mode: Transmitting (below 1 GHz)

BDR:



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
432.058500	30.9	99.0	H	43.0	-11.8	46.0	15.1
30.241684	34.2	400.0	V	2.0	-8.7	40.0	15.8
86.829750	26.3	97.0	V	69.0	-22.1	40.0	17.7
85.905500	27.6	100.0	V	42.0	-22.2	40.0	18.4
37.123750	29.3	117.0	V	261.0	-13.4	40.0	22.7
49.031000	24.7	126.0	V	206.0	-19.8	40.0	27.3

EDR:

Frequency (MHz)	Corrected Amplitude (dB μ V/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dB μ V/m)	Margin (dB)
31.706750	30.7	310.0	V	224.0	-9.8	40.0	17.1
432.001250	32.6	193.0	V	198.0	-11.8	46.0	17.2
85.927250	27.9	111.0	V	311.0	-22.2	40.0	17.7
83.963250	27.5	123.0	V	338.0	-22.2	40.0	18.5
71.666250	26.5	365.0	H	125.0	-22.1	40.0	20.1
54.617750	24.9	178.0	V	237.0	-21.3	40.0	24.6

Test Mode: Transmitting (Above 1 GHz, BDR)

Frequency (MHz)	S.A. Reading (dBμV/m)	Detector PK/QP/AV	Direction Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/209		
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Remarks
Low Channel												
4804	37.98	AV	52	1.86	H	33.8	8.45	33.7	46.53	54	7.47	harmonic
4804	37.23	AV	215	1.90	V	33.5	8.45	33.7	45.48	54	8.52	harmonic
4804	55.93	PK	52	1.86	H	33.8	8.45	33.7	64.48	74	9.52	harmonic
4804	54.52	PK	215	1.90	V	33.5	8.45	33.7	62.77	74	11.23	harmonic
2334.5	32.09	AV	260	1.68	V	29.1	6.22	31.83	35.58	54	18.42	spurious
2311.4	32.05	AV	125	1.50	H	28.9	6.22	31.83	35.34	54	18.66	spurious
1066.5	37.49	AV	0	1.33	V	23.6	3.88	31.72	33.25	54	20.75	spurious
2334.5	46.89	PK	260	1.68	V	29.1	6.22	31.83	50.38	74	23.62	spurious
2311.4	46.88	PK	125	1.50	H	28.9	6.22	31.83	50.17	74	23.83	spurious
1066.5	53.83	PK	0	1.33	V	23.6	3.88	31.72	49.59	74	24.41	spurious
1066.5	33.04	AV	190	1.52	H	23.6	3.88	31.72	28.80	54	25.2	spurious
1066.5	50.25	PK	190	1.52	H	23.6	3.88	31.72	46.01	74	27.99	spurious
Middle Channel												
4882	41.18	AV	53	1.88	H	33.8	8.45	33.7	49.73	54	4.27	harmonic
4882	40.21	AV	198	2.00	V	33.5	8.45	33.7	48.46	54	5.54	harmonic
4882	56.98	PK	53	1.88	H	33.8	8.45	33.7	65.53	74	8.47	harmonic
4882	55.55	PK	198	2.00	V	33.5	8.45	33.70	63.80	74	10.20	harmonic
1062.2	38.33	AV	0	1.35	V	23.6	3.88	31.72	34.09	54	19.91	spurious
1062.2	32.97	AV	190	1.55	H	23.6	3.88	31.72	28.73	54	25.27	spurious
1062.2	52.60	PK	0	1.35	V	23.6	3.88	31.72	48.36	74	25.64	spurious
1062.2	48.20	PK	190	1.55	H	23.6	3.88	31.72	43.96	74	30.04	spurious
High Channel												
4960	36.54	AV	49	2.0	H	33.8	8.45	33.7	45.09	54	8.91	harmonic
4960	36.61	AV	22	2.0	V	33.5	8.45	33.7	44.86	54	9.14	harmonic
4960	52.88	PK	49	2.0	H	33.8	8.45	33.7	61.43	74	12.57	harmonic
4960	53.14	PK	22	2.0	V	33.5	8.45	33.7	61.39	74	12.61	harmonic
2493.4	32.02	AV	360	2.0	H	28.9	5.89	30.58	36.23	54	17.77	spurious
2497.6	31.68	AV	275	1.50	V	29.1	5.89	30.58	36.09	54	17.91	spurious
1066.2	37.17	AV	0	2.0	V	23.6	3.88	31.72	32.93	54	21.07	spurious
2497.6	46.51	PK	275	1.50	V	29.1	5.89	30.58	50.92	74	23.08	spurious
2493.4	46.63	PK	360	2.0	H	28.9	5.89	30.58	50.84	74	23.16	spurious
1066.2	53.28	PK	0	2.0	V	23.6	3.88	31.72	49.04	74	24.96	spurious
1066.2	32.88	AV	256	1.5	H	23.6	3.88	31.72	28.64	54	25.36	spurious
1066.2	49.78	PK	256	1.5	H	23.6	3.88	31.72	45.54	74	28.46	spurious

Test Mode: Transmitting (Above 1 GHz, EDR)

Frequency (MHz)	S.A. Reading (dBμV/m)	Detector PK/QP/AV	Direction Degree	Test Antenna			Cable Loss (dB)	Pre- Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/209		
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Remarks
Low Channel												
4804	42.25	AV	300	1.86	H	33.8	8.45	33.7	50.8	54	3.20	harmonic
4804	39.89	AV	95	1.80	V	33.5	8.45	33.7	48.14	54	5.86	harmonic
4804	58.72	PK	300	1.86	H	33.8	8.45	33.7	67.27	74	6.73	harmonic
4804	54.46	PK	95	1.80	V	33.5	8.45	33.7	62.71	74	11.29	harmonic
2328.8	31.85	AV	150	1.68	V	29.1	6.22	31.83	35.34	54	18.66	spurious
2329.4	32.03	AV	210	1.56	H	28.9	6.22	31.83	35.32	54	18.68	spurious
1091.5	39.21	AV	100	1.40	V	23.6	3.88	31.72	34.97	54	19.03	spurious
1091.5	56.10	PK	100	1.40	V	23.6	3.88	31.72	51.86	74	22.14	spurious
2329.4	46.85	PK	210	1.56	H	28.9	6.22	31.83	50.14	74	23.86	spurious
2328.8	46.29	PK	150	1.68	V	29.1	6.22	31.83	49.78	74	24.22	spurious
1064.1	32.75	AV	110	1.47	H	23.6	3.88	31.72	28.51	54	25.49	spurious
1064.1	49.86	PK	110	1.47	H	23.6	3.88	31.72	45.62	74	28.38	spurious
Middle Channel												
4882	41.76	AV	305	1.88	H	33.8	8.45	33.7	50.31	54	3.69	harmonic
4882	39.24	AV	98	2.0	V	33.5	8.45	33.7	47.49	54	6.51	harmonic
4882	56.16	PK	305	1.88	H	33.8	8.45	33.7	64.71	74	9.29	harmonic
4882	54.10	PK	98	2.0	V	33.5	8.45	33.7	62.35	74	11.65	harmonic
1082.2	34.45	AV	100	1.35	V	23.6	3.88	31.72	30.21	54	23.79	spurious
1082.2	52.33	PK	100	1.35	V	23.6	3.88	31.72	48.09	74	25.91	spurious
1064.2	31.39	AV	190	1.55	H	23.6	3.88	31.72	27.15	54	26.85	spurious
1064.2	49.20	PK	190	1.55	H	23.6	3.88	31.72	44.96	74	29.04	spurious
High Channel												
4960	40.75	AV	149	2.0	H	33.8	8.45	33.7	49.3	54	4.70	harmonic
4960	39.47	AV	220	2.0	V	33.5	8.45	33.7	47.72	54	6.28	harmonic
4960	55.31	PK	149	2.0	H	33.8	8.45	33.7	63.86	74	10.14	harmonic
4960	53.75	PK	220	2.0	V	33.5	8.45	33.7	62	74	12.00	harmonic
2488.9	32.21	AV	260	2.0	H	28.9	5.89	30.58	36.42	54	17.58	spurious
2488.9	31.82	AV	205	1.50	V	29.1	5.89	30.58	36.23	54	17.77	spurious
1066.2	37.17	AV	80	2.0	V	23.6	3.88	31.72	32.93	54	21.07	spurious
2488.9	47.12	PK	260	2.0	H	28.9	5.89	30.58	51.33	74	22.67	spurious
2488.9	46.91	PK	205	1.50	V	29.1	5.89	30.58	51.32	74	22.68	spurious
1066.2	53.28	PK	80	2.0	V	23.6	3.88	31.72	49.04	74	24.96	spurious
1066.2	32.88	AV	256	1.5	H	23.6	3.88	31.72	28.64	54	25.36	spurious
1066.2	49.78	PK	256	1.5	H	23.6	3.88	31.72	45.54	74	28.46	spurious

CFR47 §15.247(a) (1)-CHANNEL SEPARATION TEST

Applicable Standard

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Set the EUT in transmitting mode, spectrum Bandwidth was set at 100 kHz, maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another truce
3. Measure the channel separation.

Test Data

Environmental Conditions

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

** The testing was performed by Bruce Zhang on 2009-08-27.*

Test Result: Compliant.

Please refer to following tables and plots

Test Mode: Transmitting (BDR)

Channel	Channel Frequency (MHz)	Channel Separation (MHz)	Limit (MHz)	Result
Low Channel	2402	1.000	0.5560	Pass
Adjacent Channel	2403			
Mid Channel	2441	1.006	0.5547	Pass
Adjacent Channel	2442			
High Channel	2480	1.004	0.5547	Pass
Adjacent Channel	2479			

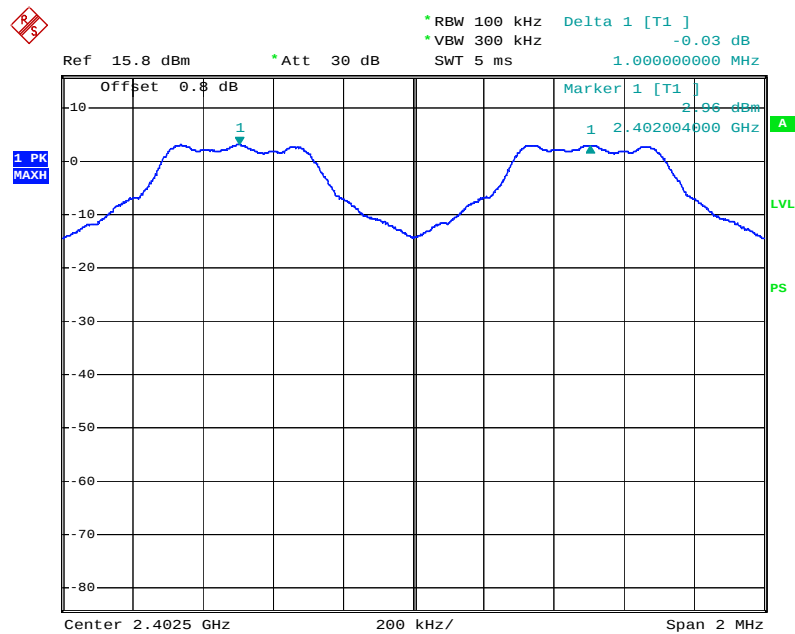
Test Mode: Transmitting (EDR)

Channel	Channel Frequency (MHz)	Channel Separation (MHz)	Limit (MHz)	Result
Low Channel	2402	1.005	0.852	Pass
Adjacent Channel	2403			
Mid Channel	2441	1.000	0.842	Pass
Adjacent Channel	2442			
High Channel	2480	1.000	0.838	Pass
Adjacent Channel	2479			

Please refer to the following plots.

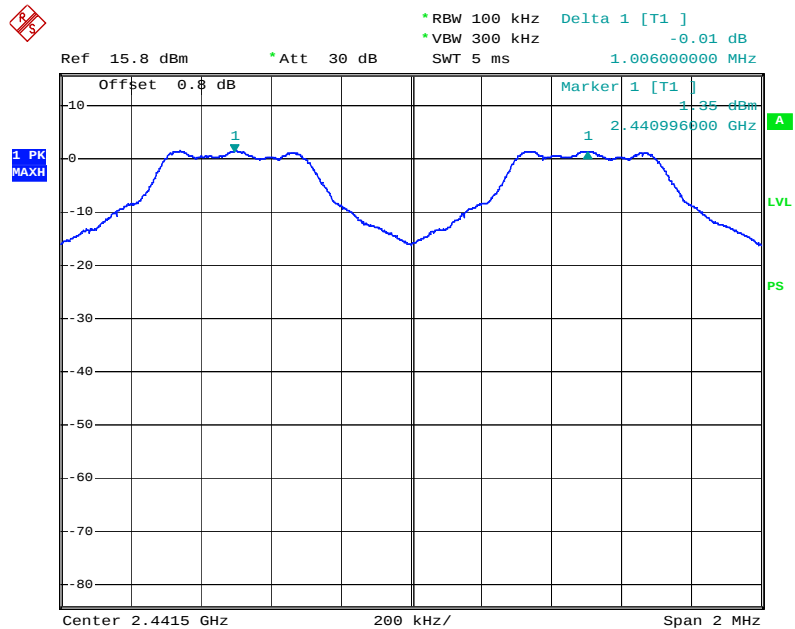
BDR:

Low Channel

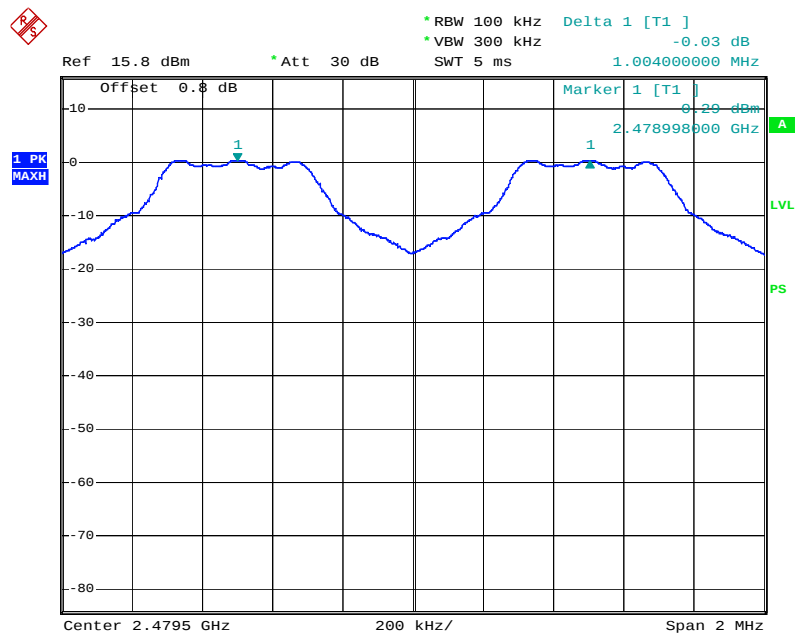


Date: 27.AUG.2009 10:18:36

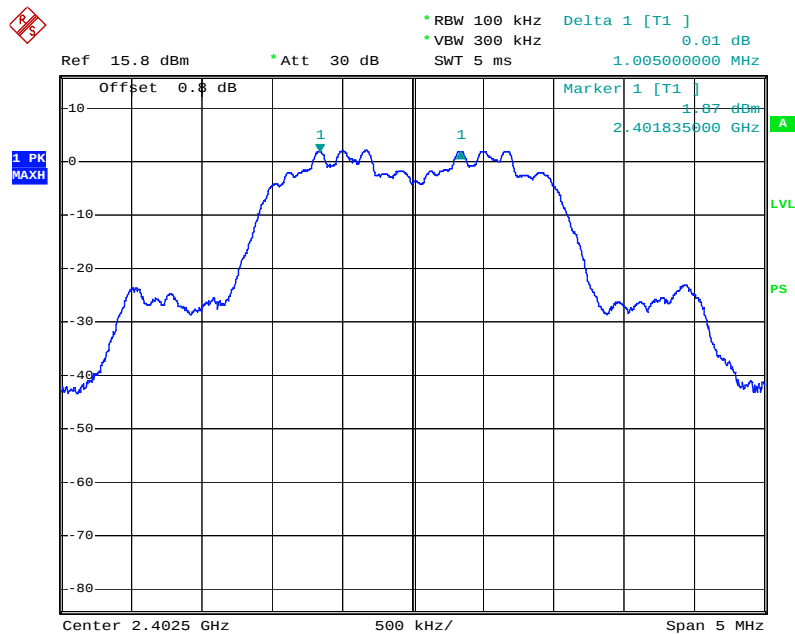
Middle Channel



Date: 27.AUG.2009 10:19:22

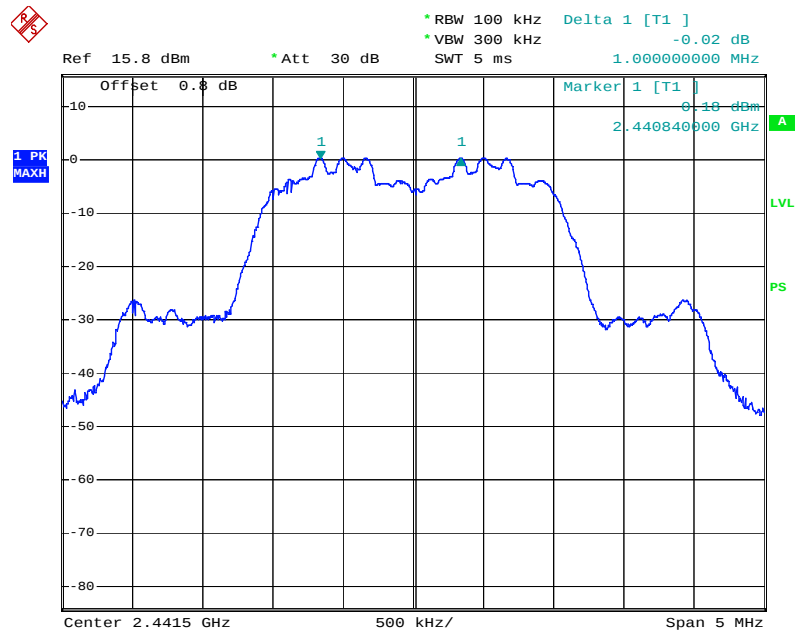
High Channel

Date: 27.AUG.2009 10:20:50

EDR:**Low Channel**

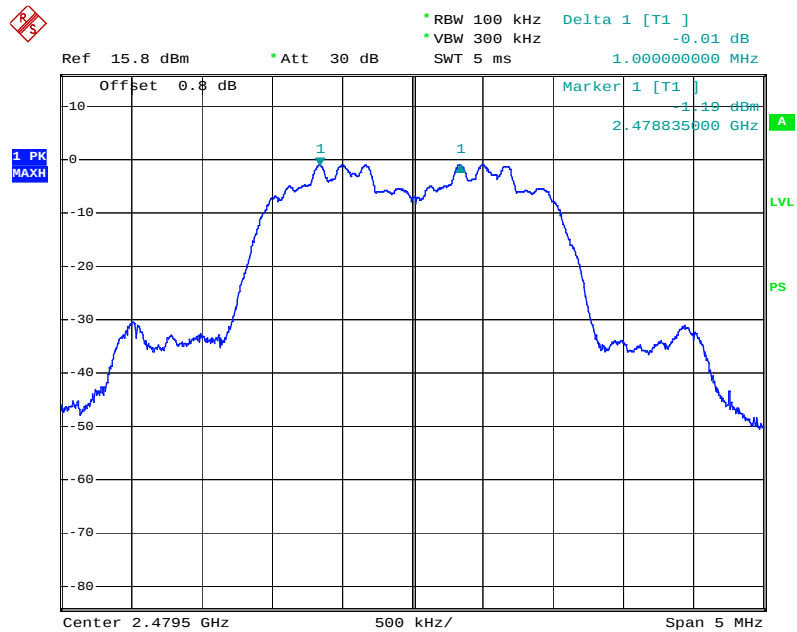
Date: 27.AUG.2009 11:22:45

Middle Channel



Date: 27.AUG.2009 11:19:59

High Channel



Date: 27.AUG.2009 11:21:13

CFR47 §15.247(a) (1) – 20 dB BANDWIDTH TESTING**Applicable Standard**

Alternatively, frequency hopping systems operating in the 2400–2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125mW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Data**Environmental Conditions**

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

* The testing was performed by Bruce Zhang on 2009-08-27.

Test Result: Compliant.

Please refer to following tables and plots

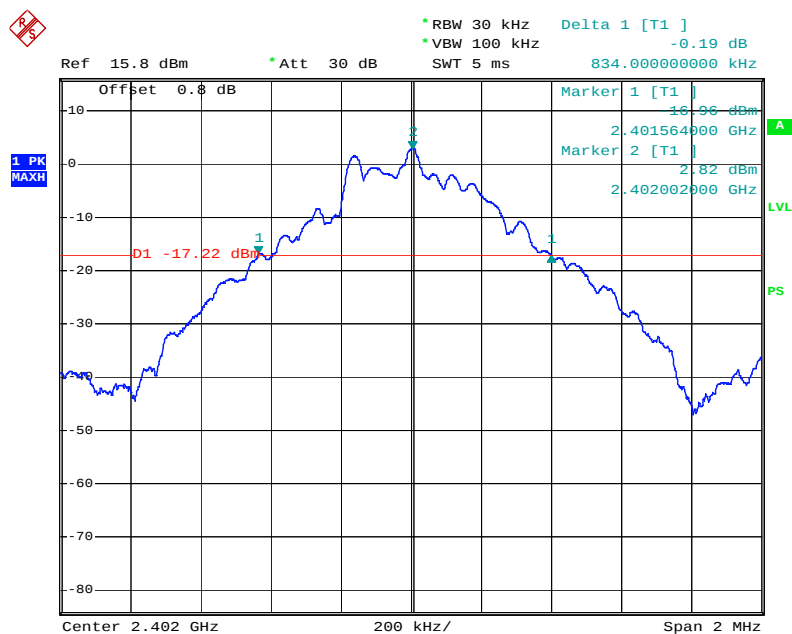
Test Mode: Transmitting (BDR)

Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2402	0.834
Middle	2441	0.832
High	2480	0.832

Test Mode: Transmitting (EDR)

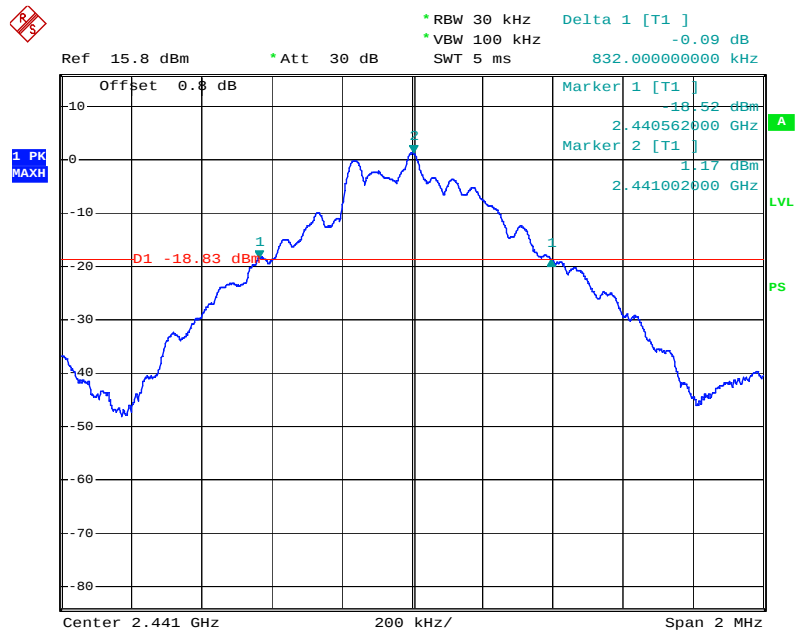
Channel	Frequency (MHz)	20 dB Bandwidth (MHz)
Low	2402	1.278
Middle	2441	1.263
High	2480	1.257

Please refer to the following plots.

BDR:**Low Channel**

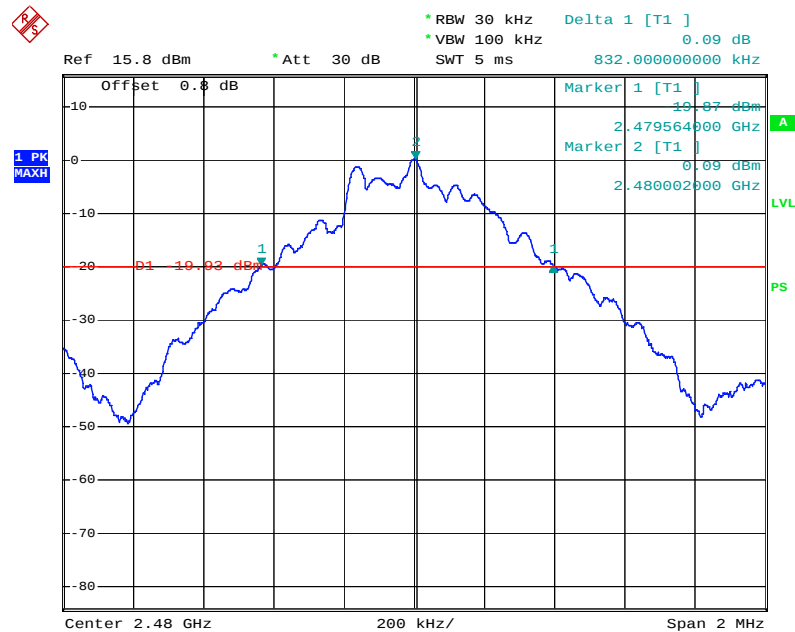
Date: 27.AUG.2009 10:09:50

Middle Channel



Date: 27.AUG.2009 10:07:59

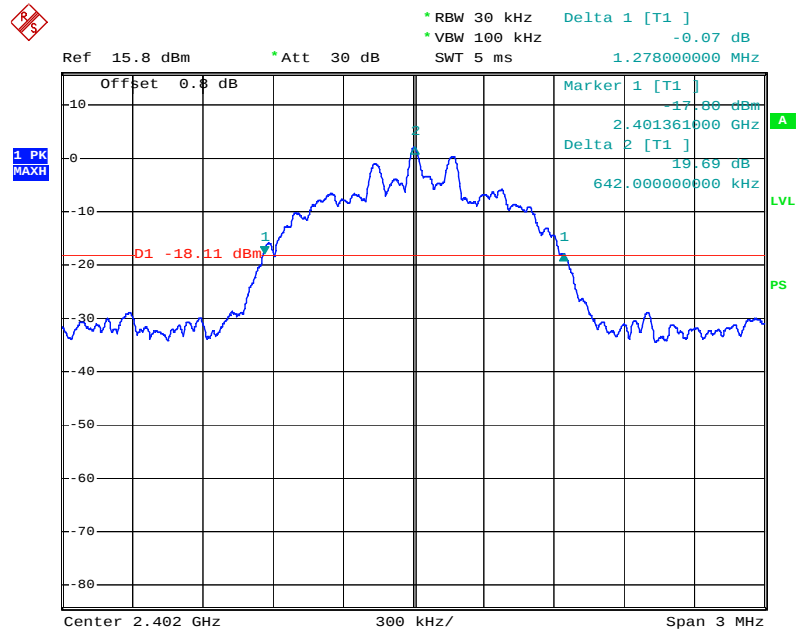
High Channel



Date: 27.AUG.2009 10:12:19

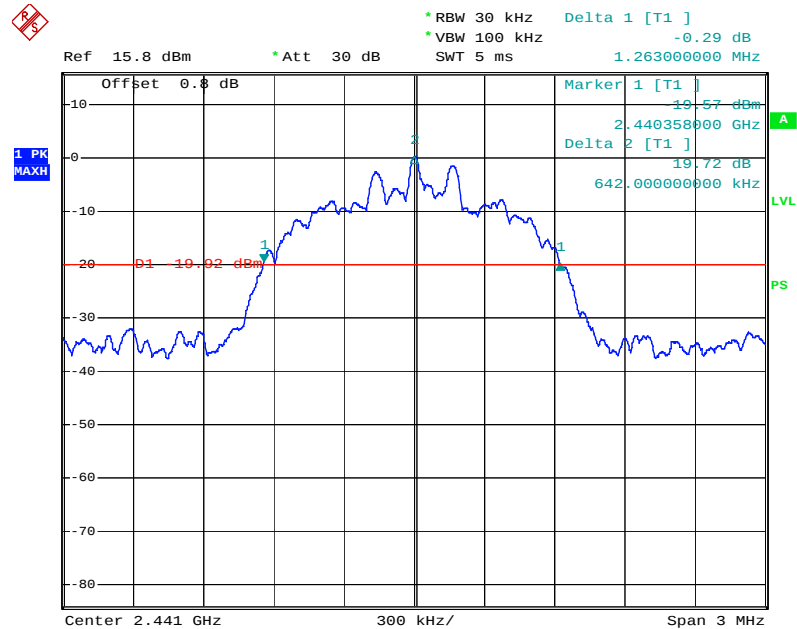
EDR:

Low Channel



Date: 27.AUG.2009 11:07:09

Middle Channel



Date: 27.AUG.2009 11:08:52

1 PK MAXH

Offset 0.0 dB

Att 30 dB

RBW 30 kHz

VBW 100 kHz

SWT 5 ms

Delta 1 [T1]

0.21 dB

1.257000000 MHz

Marker 1 [T1]

20.00 dBm

2.479361000 GHz

Delta 2 [T1]

19.59 dB

639.000000000 kHz

d1 -21.29 dBm

Center 2.48 GHz

300 kHz/

Span 3 MHz

FCC Part15.247 Test Report

CFR47 §15.247(a) (1) (iii)-QUANTITY OF HOPPING CHANNEL TEST**Applicable Standard**

Frequency hopping systems in the 2400–2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Set the EUT in hopping mode from first channel to last.
3. By using the Max-Hold function record the Quantity of the channel.

Test Data**Environmental Conditions**

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

The testing was performed by Bruce Zhang on 2009-08-27.

Test Result: Compliant.

Please refer to following tables and plots

Test Mode: Transmitting (BDR)

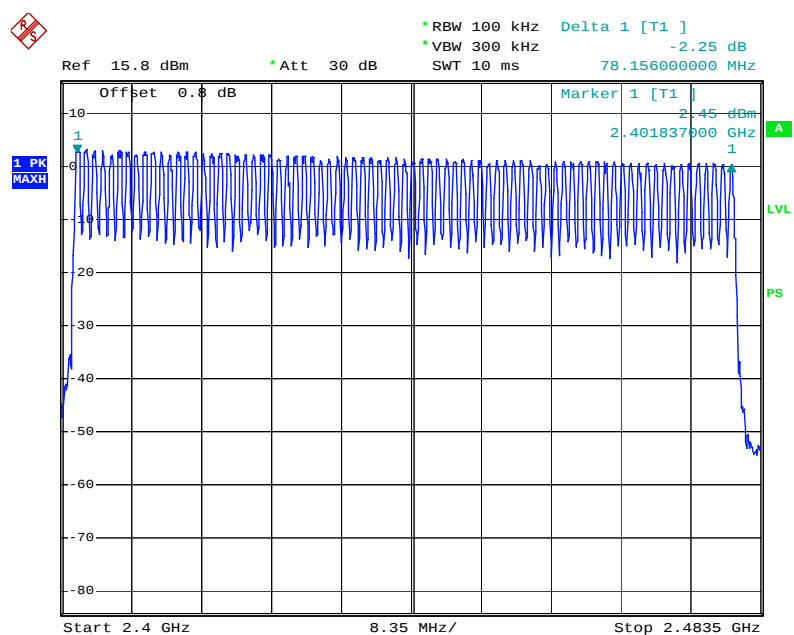
Frequency Range (MHz)	Number of Hopping Channel	Limit
2400-2480	79	≥ 15

Test Mode: Transmitting (EDR)

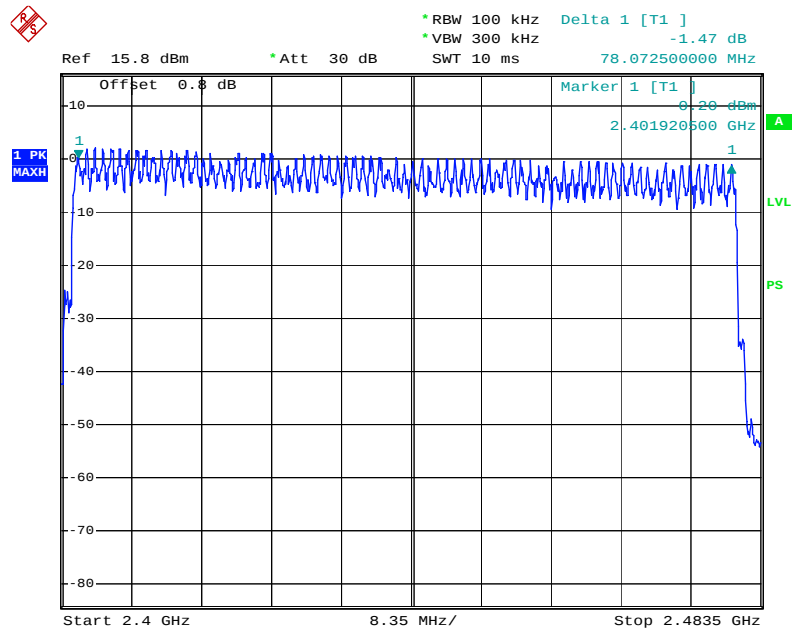
Frequency Range (MHz)	Number of Hopping Channel	Limit
2400-2480	79	≥ 15

Number of Hopping Channels

BDR:



Date: 27.AUG.2009 10:26:41

EDR:

Date: 27.AUG.2009 11:28:16

CFR47 §15.247(a) (1) (iii) -TIME OF OCCUPANCY (DWELL TIME)

Applicable Standard

Frequency hopping systems in the 2400-2483.5 MHz shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The EUT was worked in channel hopping; Spectrum SPAN was set as 0. Sweep was set as 0.4 X channel no. (s), the quantity of pulse was get from single sweep. In addition, the time of single pulses was tested.

Dwell Time= time slot length * hope rate/ number of hopping channels * 31.6s
Hop rate=1600/s

Test Data

Environmental Conditions

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

* The testing was performed by Bruce Zhang on 2009-08-27 to 2009-08-28.

Test Result: Compliant.

Please refer to following tables and plots

Test Mode: Transmitting (BDR)

DH 1 Mode:

Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	0.532	0.17024	0.4	Pass
Middle	0.532	0.17024	0.4	Pass
High	0.532	0.17024	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 2 $\div$ 79) $\times$ 31.6 Second

DH 3 Mode:

Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	1.805	0.2888	0.4	Pass
Middle	1.805	0.2888	0.4	Pass
High	1.805	0.2888	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 4 $\div$ 79) $\times$ 31.6 Second

DH 5 Mode:

Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	3.056	0.326	0.4	Pass
Middle	3.056	0.326	0.4	Pass
High	3.056	0.326	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 6 $\div$ 79) $\times$ 31.6 Second

*Test Mode: Transmitting (EDR)***DH 1 Mode:**

Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	0.532	0.17024	0.4	Pass
Middle	0.532	0.17024	0.4	Pass
High	0.532	0.17024	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 2 $\div$ 79) $\times$ 31.6 Second

DH 3 Mode:

Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	1.805	0.2888	0.4	Pass
Middle	1.805	0.2888	0.4	Pass
High	1.805	0.2888	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 4 $\div$ 79) $\times$ 31.6 Second

DH 5 Mode:

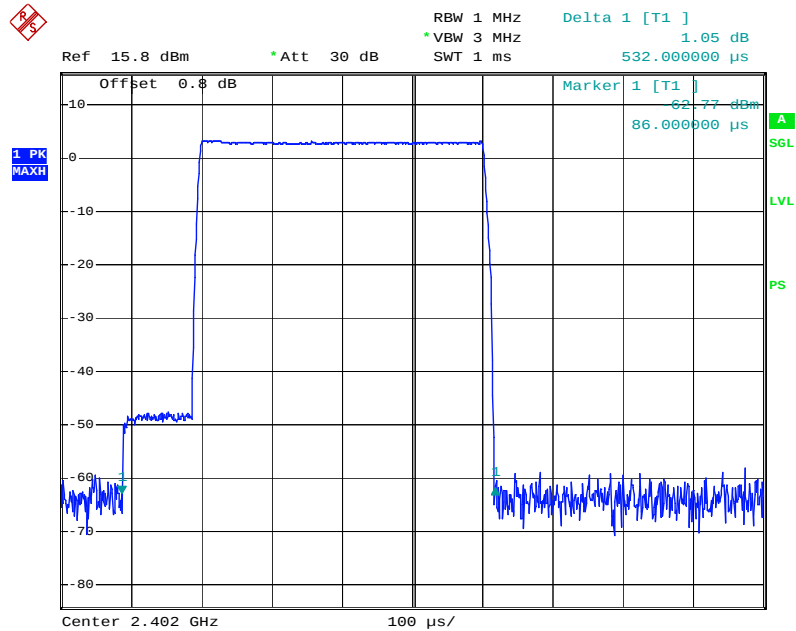
Channel	Pulse Width (ms)	Dwell Time (Sec)	Limit (Sec)	Result
Low	3.056	0.326	0.4	Pass
Middle	3.064	0.327	0.4	Pass
High	3.064	0.327	0.4	Pass

Note: Dwell time=Pulse width (ms) $\times$ (1600 $\div$ 6 $\div$ 79) $\times$ 31.6 Second

Please refer to the following plots.

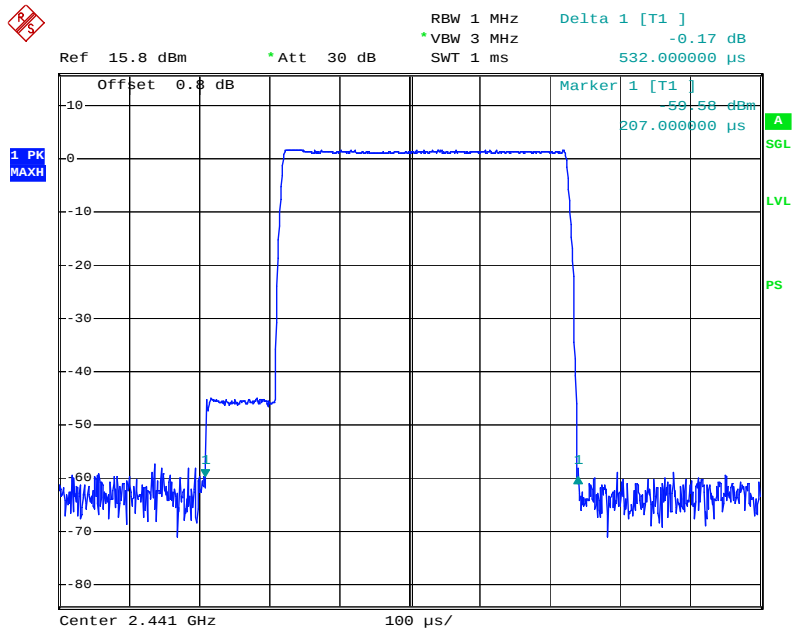
BDR:

Low Channel for DH1

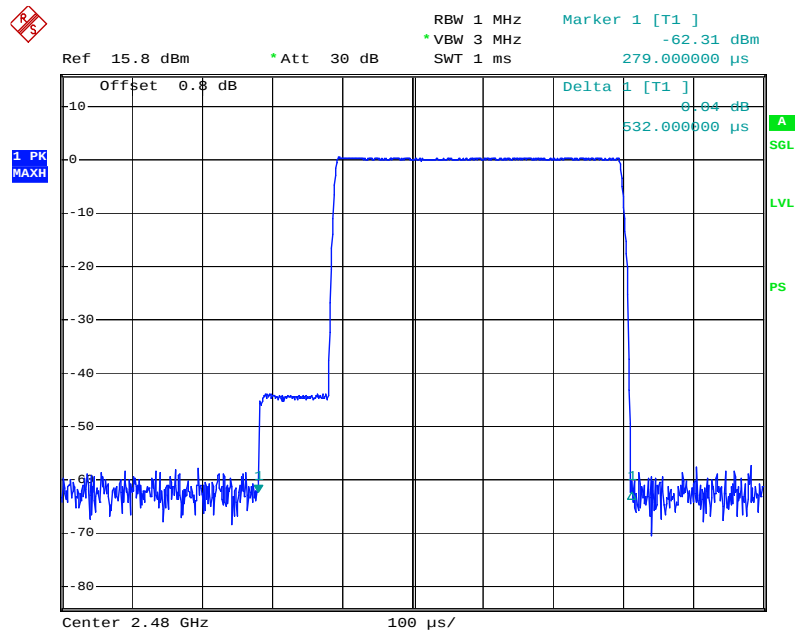


Date: 27.AUG.2009 10:46:27

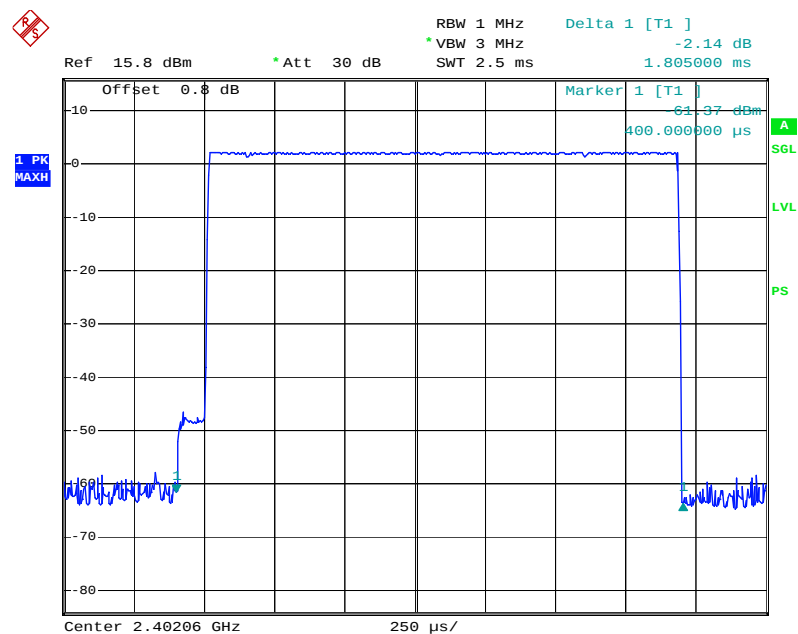
Middle Channel for DH1



Date: 27.AUG.2009 10:45:30

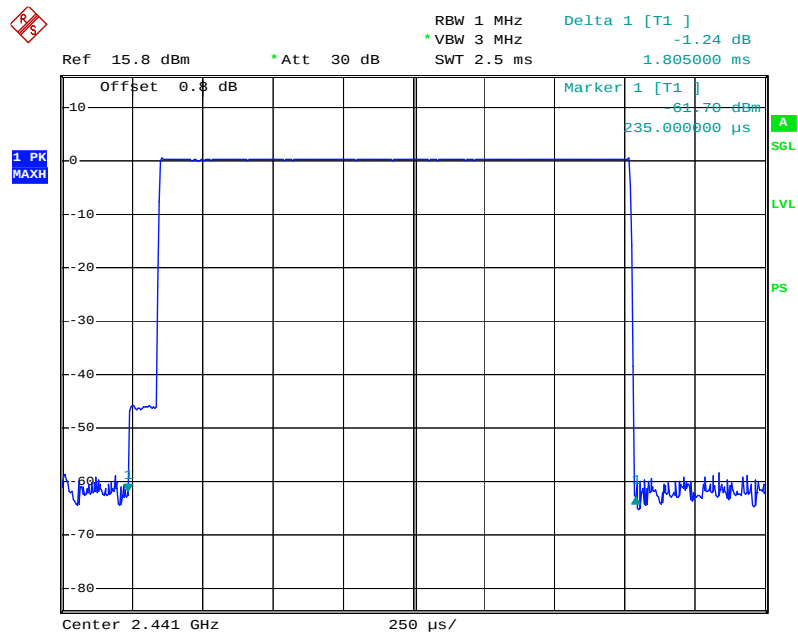
High Channel for DH1

Date: 27.AUG.2009 10:44:20

Low Channel for DH3

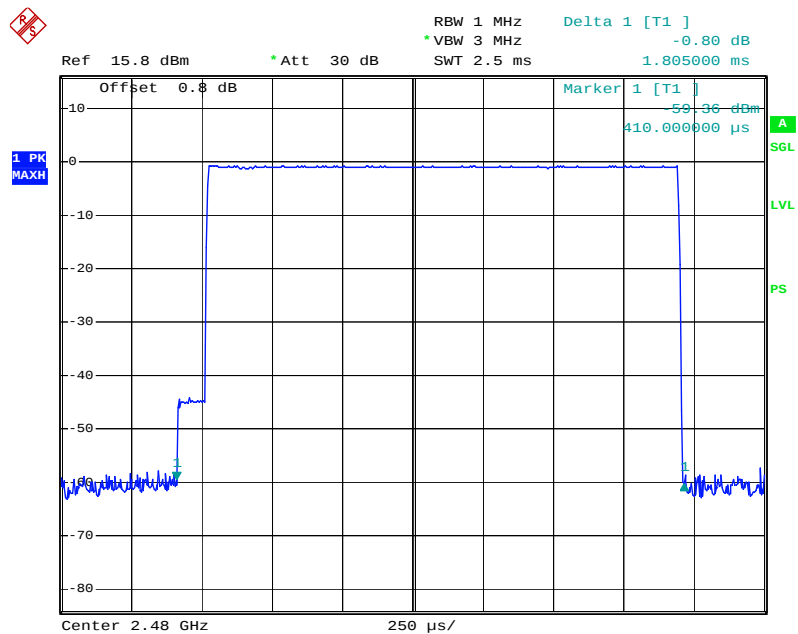
Date: 28.AUG.2009 13:55:43

Middle Channel for DH3



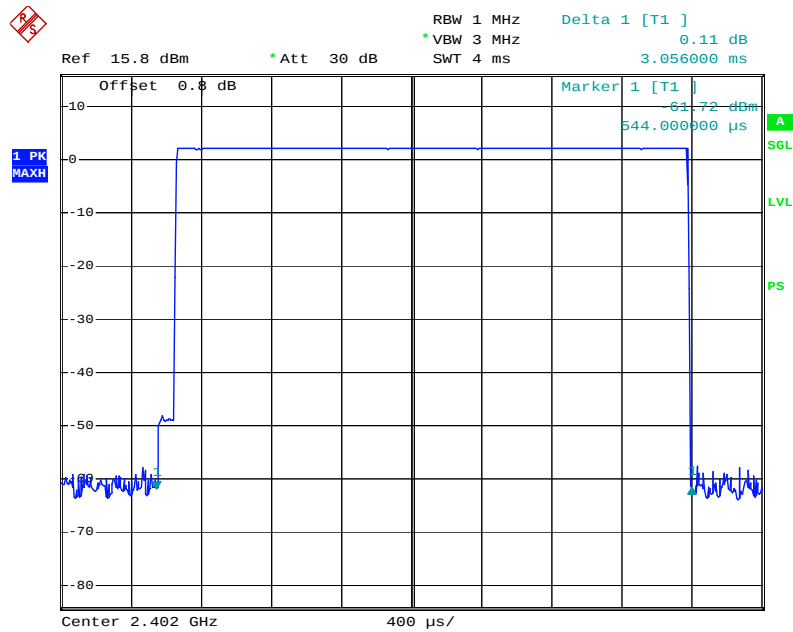
Date: 28.AUG.2009 13:56:32

High Channel for DH3



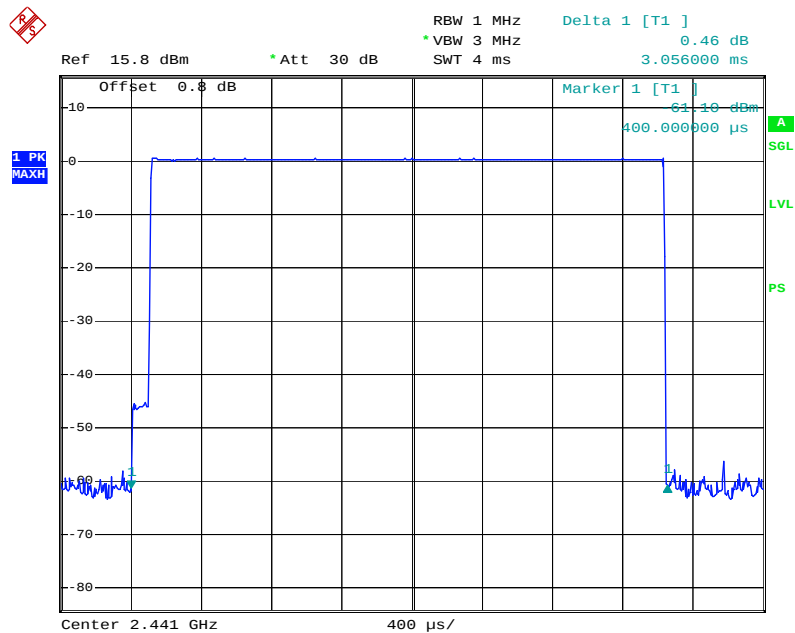
Date: 28.AUG.2009 13:57:16

Low Channel for DH5

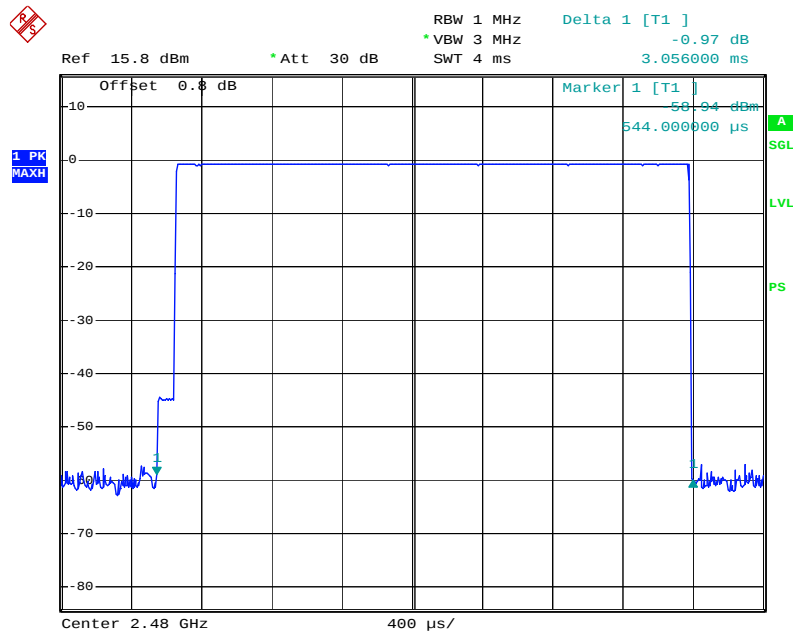


Date: 28.AUG.2009 13:59:51

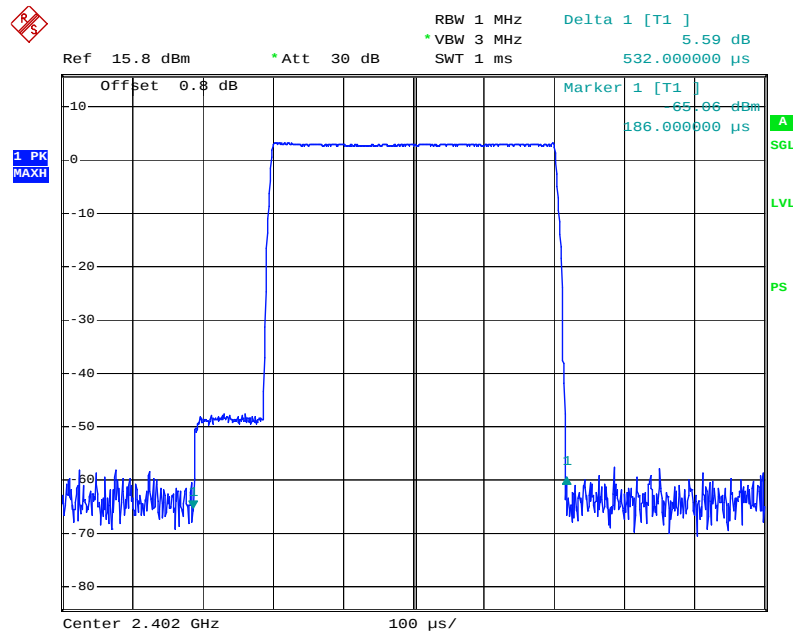
Middle Channel for DH5



Date: 28.AUG.2009 13:59:09

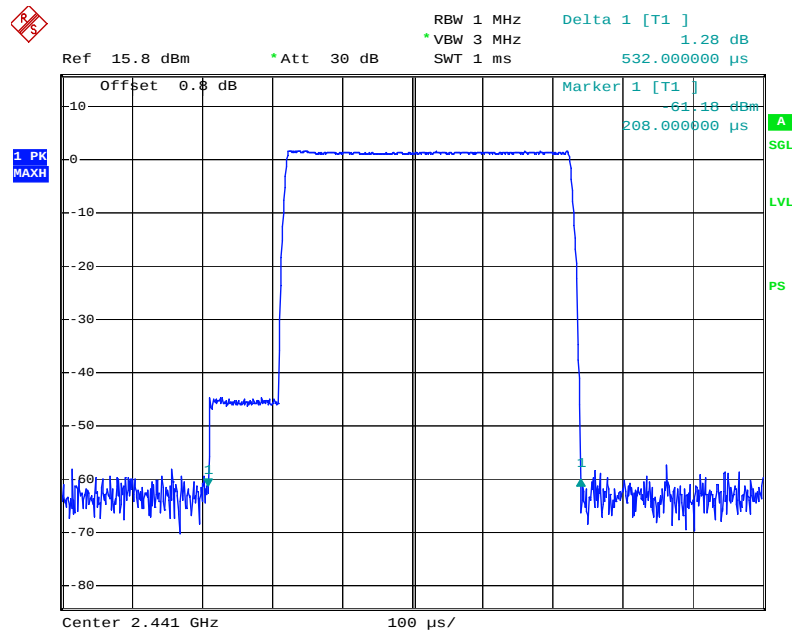
High Channel for DH5

Date: 28.AUG.2009 13:58:19

EDR:**Low Channel for DH1**

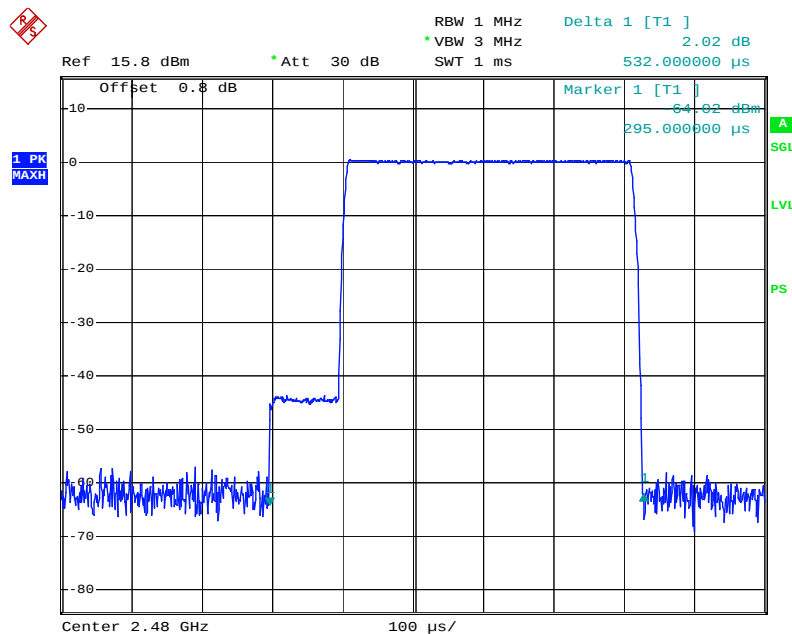
Date: 27.AUG.2009 11:32:14

Middle Channel for DH1



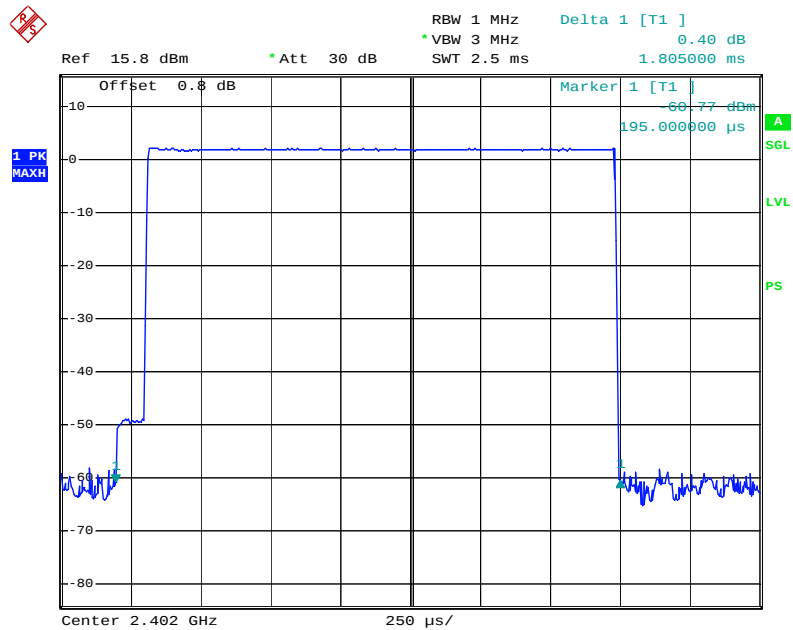
Date: 27.AUG.2009 11:33:52

High Channel for DH1



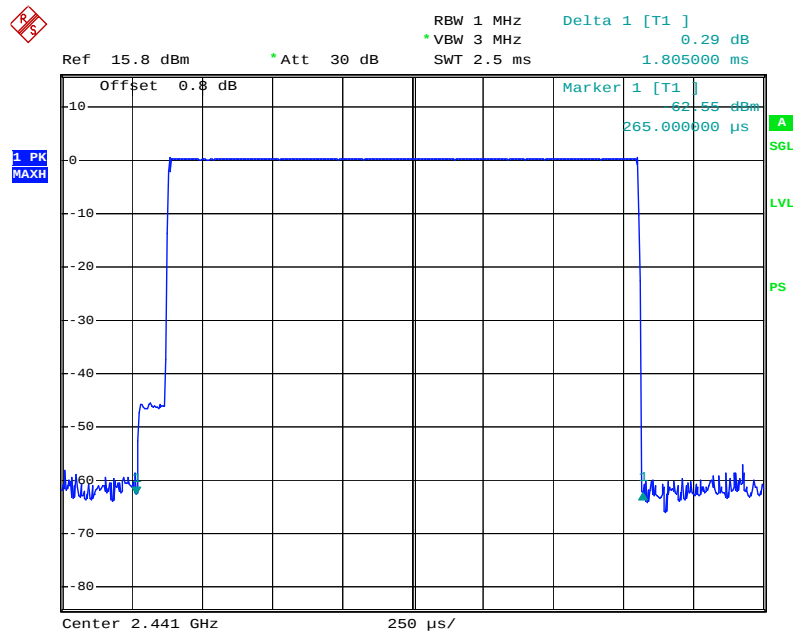
Date: 27.AUG.2009 11:35:11

Low Channel for DH3



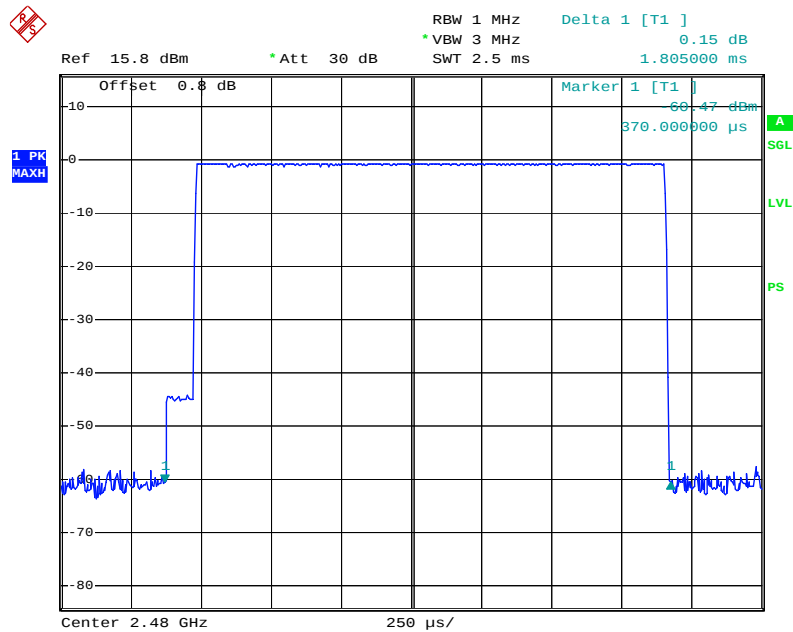
Date: 28.AUG.2009 14:05:19

Middle Channel for DH3



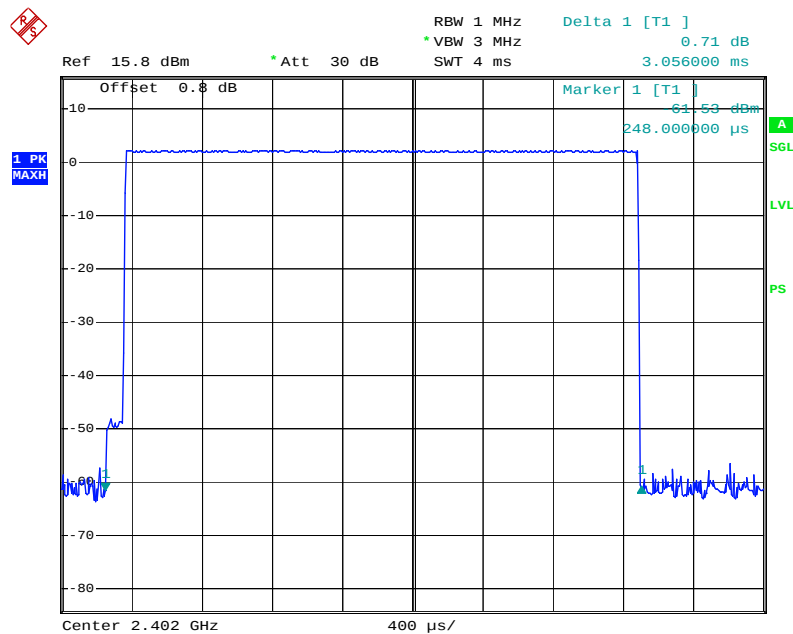
Date: 28.AUG.2009 14:04:34

High Channel for DH3



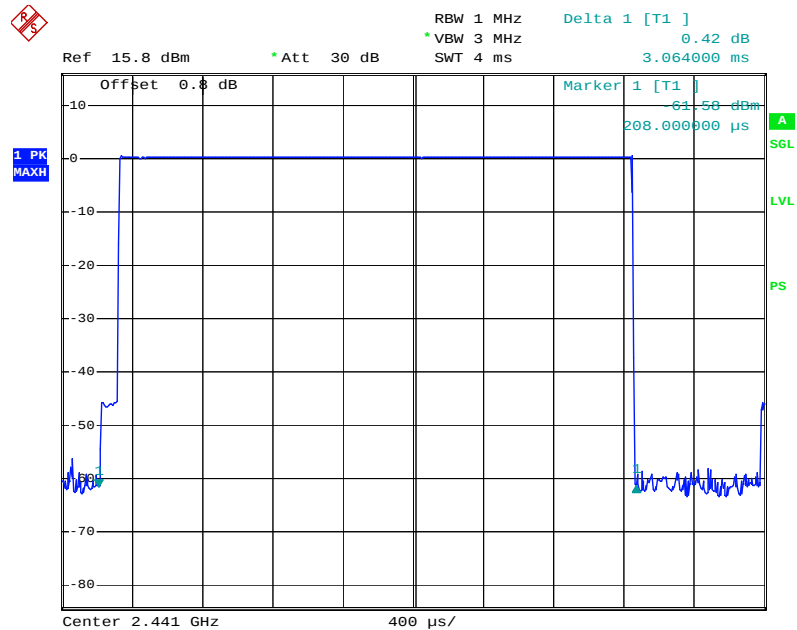
Date: 28.AUG.2009 14:03:44

Low Channel for DH5



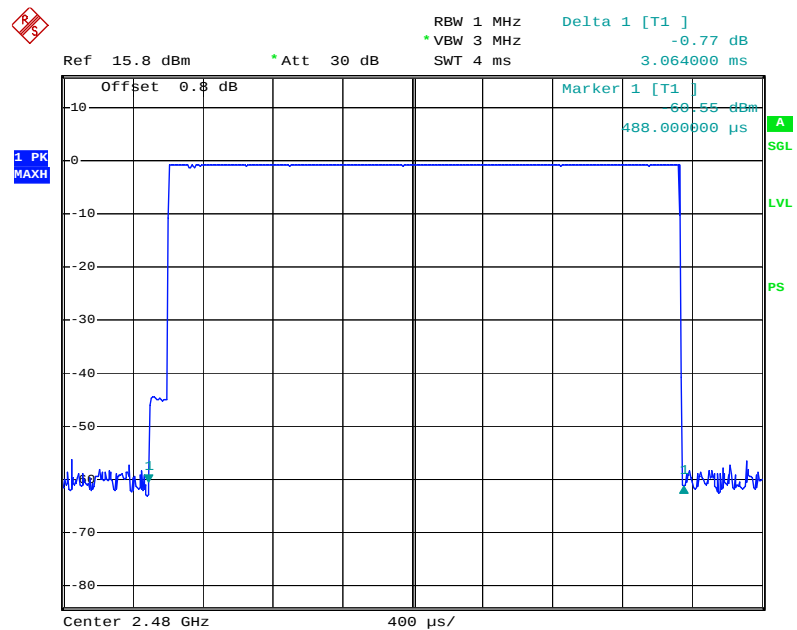
Date: 28.AUG.2009 14:00:46

Middle Channel for DH5



Date: 28.AUG.2009 14:01:31

High Channel for DH5



Date: 28.AUG.2009 14:02:26

CFR47 §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT**Applicable Standard**

According to §15.247(b) (1), for frequency hopping systems operating in the 2400–2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725–5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

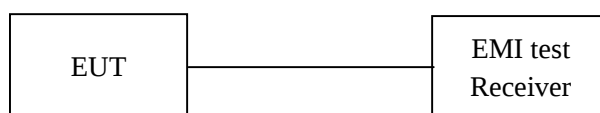
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Place the EUT on a bench and set in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI test receiver.
3. Add a correction factor to the display.

**Test Data****Environmental Conditions**

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

* The testing was performed by Bruce Zhang on 2009-08-27.

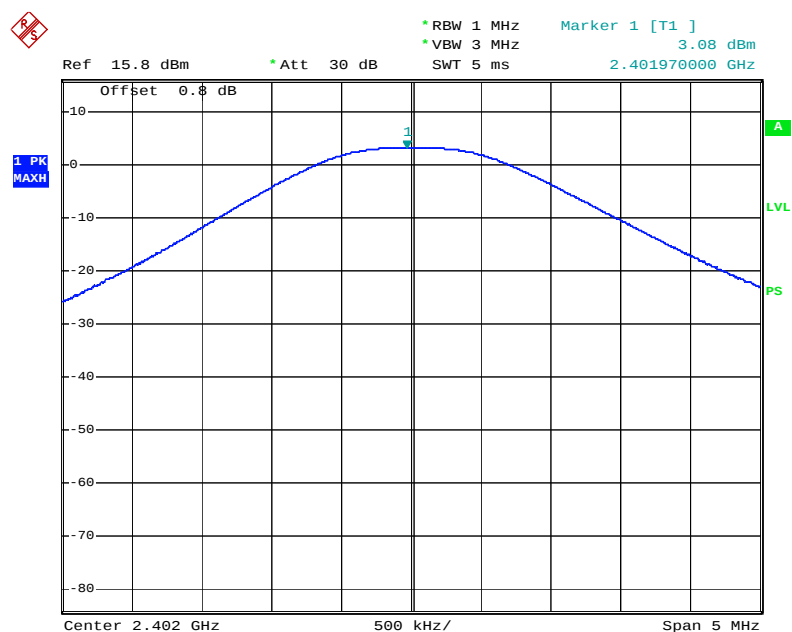
Test Result: Compliant.

Test Mode: Transmitting (BDR)

Channel	Frequency (MHz)	Output power (dBm)	Limit (dBm)
Low	2402	3.08	30
Middle	2441	1.53	30
High	2480	0.38	30

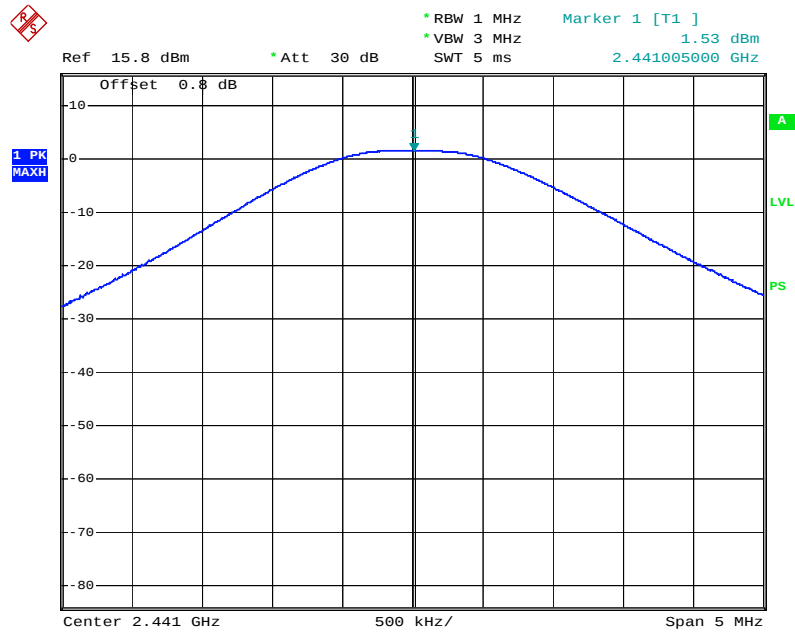
Test Mode: Transmitting (EDR)

Channel	Frequency (MHz)	Output power (dBm)	Limit (dBm)
Low	2402	2.49	30
Middle	2441	0.88	30
High	2480	-0.38	30

BDR:**Low Channel**

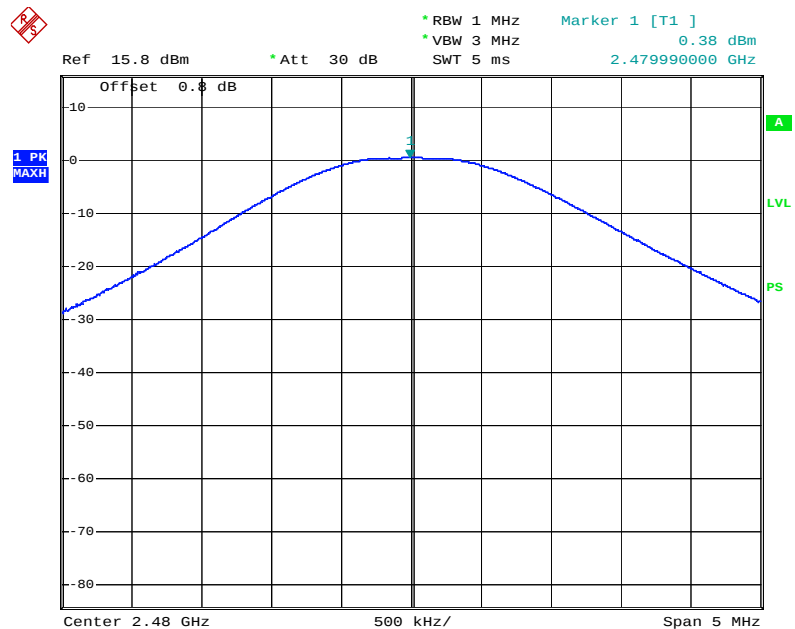
Date: 27.AUG.2009 10:15:04

Middle Channel

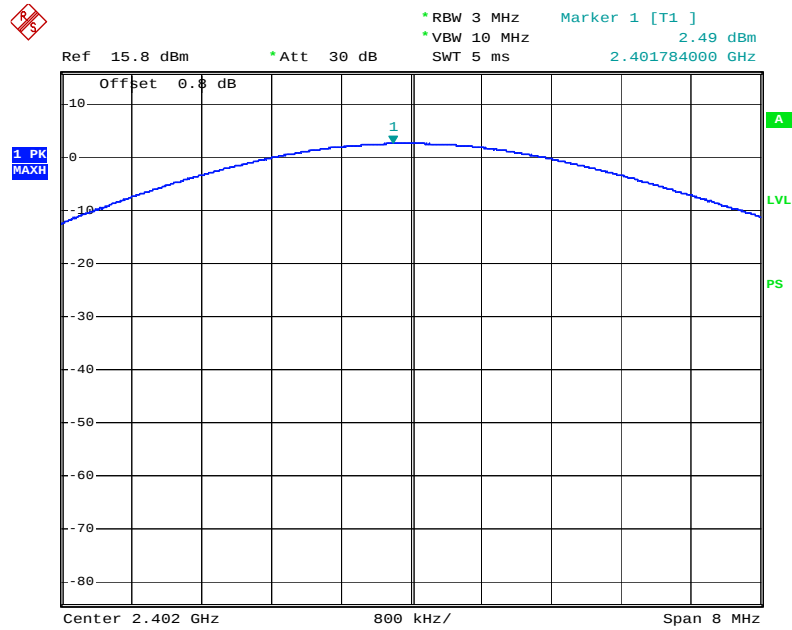


Date: 27.AUG.2009 10:14:32

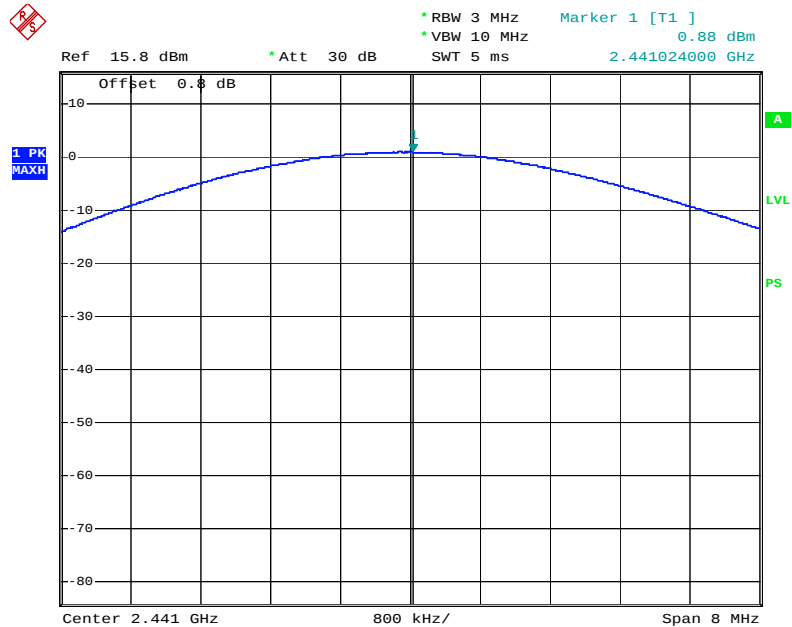
High Channel



Date: 27.AUG.2009 10:13:46

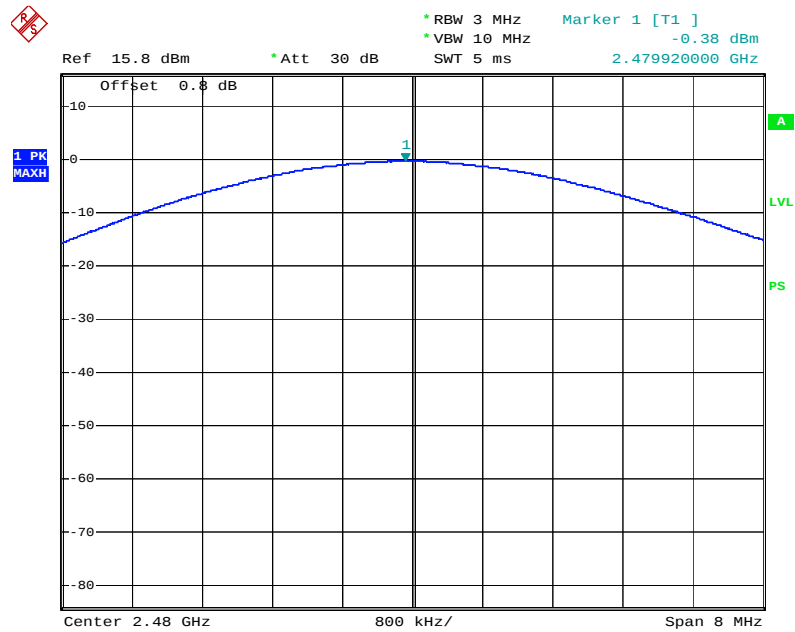
BDR:**Low Channel**

Date: 27.AUG.2009 11:15:07

Middle Channel

Date: 27.AUG.2009 11:14:20

High Chanel



Date: 27.AUG.2009 11:13:26

CFR47 §15.247(d) - BAND EDGES TESTING

Applicable Standard

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 §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2008-11-07	2009-11-06

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Remove the antenna from the EUT and then connect to a low loss RF cable from the antenna port to a EMI test receiver, then turn on the EUT and make it operate in transmitting mode. Then set it to Low Channel and High Channel within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge, for Radiated emissions restricted band RBW=1MHz, VBW=3MHz.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data**Environmental Conditions**

Temperature:	26 °C
Relative Humidity:	56 %
ATM Pressure:	100.9 kPa

**The testing was performed by Bruce Zhang on 2009-08-27.*

Test Result: Compliant

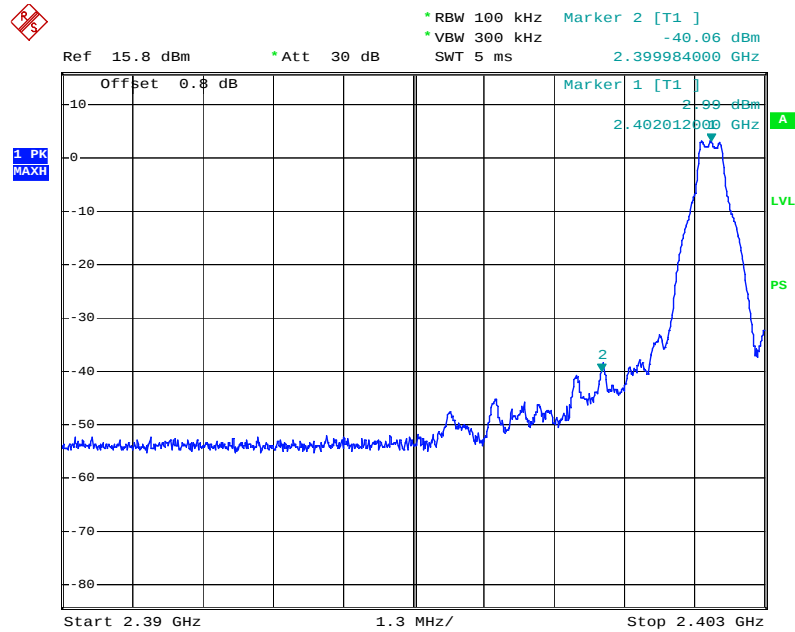
Test Mode: Transmitting (BDR)

Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)
2399.984	43.05	20
2483.998	48.93	20

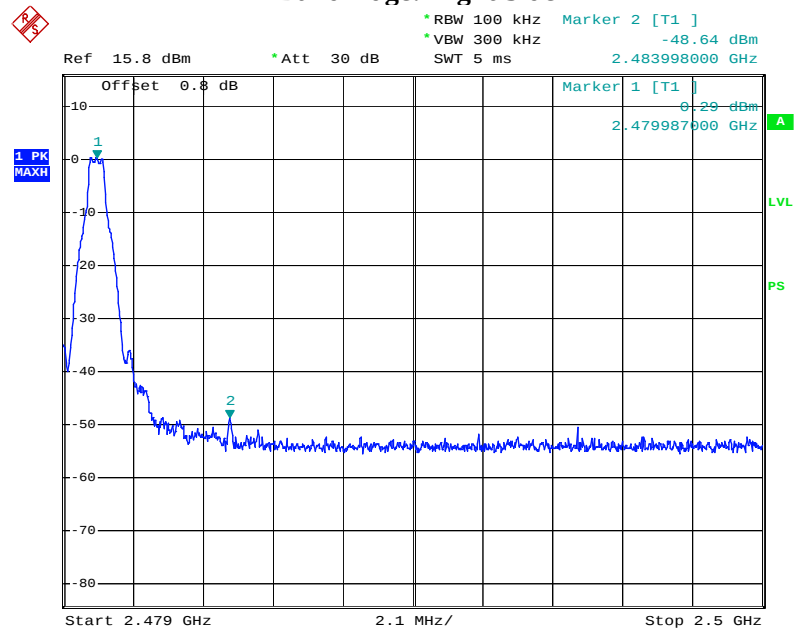
Test Mode: Transmitting (EDR)

Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)
2399.776	40.58	20
2483.977	48.45	20

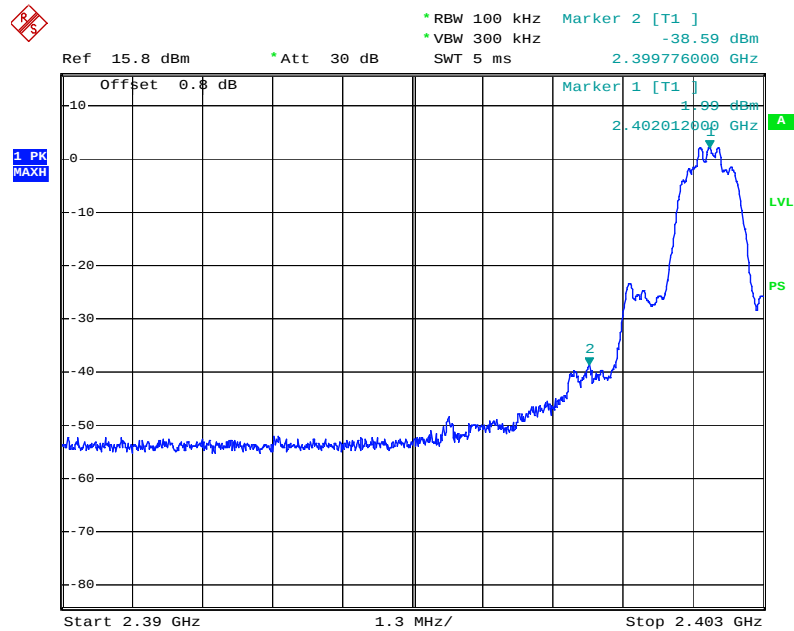
Please refer to follow plots:

BDR:**Band Edge: Left Side**

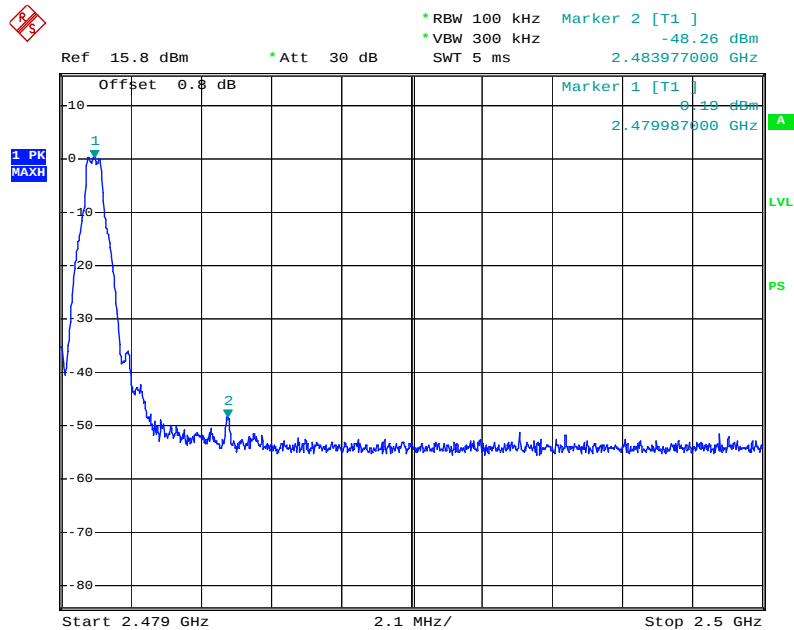
Date: 27.AUG.2009 10:36:30

Band Edge: Right Side

Date: 27.AUG.2009 10:38:14

EDR:**Band Edge: Left Side**

Date: 27.AUG.2009 11:47:05

Band Edge: Right Side

Date: 27.AUG.2009 11:53:57

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