

**FCC PART 15.247
TEST REPORT**

For

Enet Times Technology Co., Ltd.

Unit24F, Block C, World Trade Plaza, Fuhong Road,
Shenzhen, Guangdong, China

FCC ID: YZQDG600

Report Type: Original Report	Product Type: GSM Dual Sim Dual Standby Mobile Phone
Test Engineer: <u>Tiger Ye</u> <i>Tiger Ye</i>	
Report Number: <u>RSZ111104003-00b</u>	
Report Date: <u>2011-11-28</u>	
Reviewed By: <u>EMC Engineer</u> <i>Merry Zhao</i>	
Test Laboratory: 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 www.baclcorp.com.cn	

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

* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Enet Times Technology Co., Ltd.*'s product, model number: *DG600 (FCC ID: YZQDG600)* or the "EUT" in this report was a *GSM Dual Sim Dual Standby Mobile Phone*, which was measured approximately: 11.2 cm (L) x 5.8 cm (W) x 1.1 cm (H), rated input voltage: DC 3.7 V battery or DC 5V adapter.

Adapter information:

Model: ALVO SLIM

Input: AC 100-240 V, 50/60Hz, 0.15A

Output: DC 5.0V, 500mA

Note: The series product, model DG600 and ALVO SLIM, we select DG600 to perform full test items. The difference between them is the model number, which was explained in the attached declaration letter.

** All measurement and test data in this report was gathered from production sample serial number: 1111005 (Assigned by BACL, Shenzhen). The EUT was received on 2011-11-04.*

Objective

This report is prepared on behalf of *Enet Times Technology 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, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

Part 15B JBP and Part 22H/24E PCE submission with FCC ID: YZQDG600

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2009, 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 on 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 December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

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 an ISO/IEC 17025 accredited laboratory, and is accredited by 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

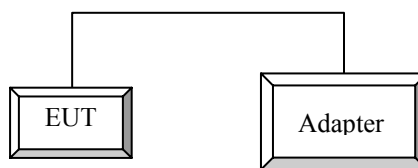
Description of Test Configuration

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

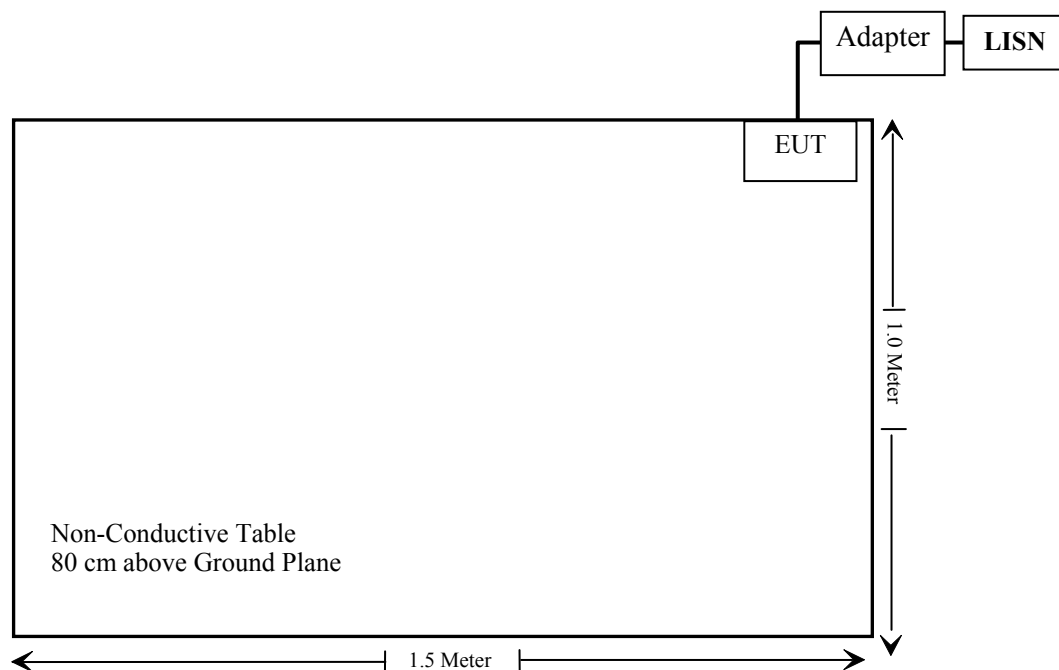
Equipment Modifications

No modification was made to the unit tested.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §2.1093	RF Exposure Information	Compliance
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209 & §15.247(d)	Radiated Emissions	Compliance
§15.247(a)(1)	20 dB Emission Bandwidth	Compliance
§15.247(a)(1)	Channel Separation Test	Compliance
§15.247(a)(1)(iii)	Time of Occupancy (Dwell Time)	Compliance
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliance
§15.247(b)(1)	Peak Output Power Measurement	Compliance
§15.247(d)	Band Edges	Compliance

FCC §15.247 (i) & §2.1093 – RF EXPOSURE INFORMATION

Applicable Standard

According to FCC §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Table 2 – Summary of SAR Evaluation Requirements for a Cell Phone with Multiple Transmitters

	Individual Transmitter	Simultaneous Transmission
Licensed Transmitters	<u>Routine evaluation required</u>	SAR not required: <u>Unlicensed only</u> <ul style="list-style-type: none"> when stand-alone 1-g SAR is not required and antenna is ≥ 5 cm from other antennas <u>Licensed & Unlicensed</u> <ul style="list-style-type: none"> when the sum of the 1-g SAR is < 1.6 W/kg for all simultaneous transmitting antennas when SAR to peak location separation ratio of simultaneous transmitting antenna pair is < 0.3 SAR required: <u>Licensed & Unlicensed</u> antenna pairs with SAR to peak location separation ratio ≥ 0.3 ; test is only required for the configuration that results in the highest SAR in stand-alone configuration for each wireless mode and exposure condition Note: simultaneous transmission exposure conditions for head and body can be different for different style phones; therefore, different test requirements may apply
Unlicensed Transmitters	<p><u>When there is no simultaneous transmission –</u></p> <ul style="list-style-type: none"> output ≤ 60 f: SAR not required output > 60 f: stand-alone SAR required <p><u>When there is simultaneous transmission –</u></p> <p><u>Stand-alone SAR not required when</u></p> <ul style="list-style-type: none"> output $\leq 2 \cdot P_{Ref}$ and antenna is ≥ 5.0 cm from other antennas output $\leq P_{Ref}$ and antenna is ≥ 2.5 cm from other antennas output $\leq P_{Ref}$ and antenna is < 2.5 cm from other antennas, each with either output power $\leq P_{Ref}$ or 1-g SAR < 1.2 W/kg <p><u>Otherwise stand-alone SAR is required</u></p> <p><u>When stand-alone SAR is required</u></p> <ul style="list-style-type: none"> test SAR on highest output channel for each wireless mode and exposure condition if SAR for highest output channel is $> 50\%$ of SAR limit, evaluate all channels according to normal procedures 	
Jaw, Mouth and Nose	<p><u>Flat phantom SAR required</u></p> <ul style="list-style-type: none"> when measurement is required in tight regions of SAM and it is not feasible or the results can be questionable due to probe tilt, calibration, positioning and orientation issues position rectangular and clam-shell phones according to flat phantom procedures and conduct SAR measurements for these specific locations 	When simultaneous transmission SAR testing is required, contact the FCC Laboratory for interim guidance.

Routine SAR evaluation refers to that specifically required by FCC §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

Two antennas are available for the EUT, (GSM antenna, Bluetooth antenna), the distance between BT and GSM antenna is 0.2 cm, the maximum output power of Bluetooth antenna is 1.069 mW < P_{Ref} (12mW). According to KDB648474, stand-alone SAR is not required for BT antenna. Simultaneous SAR evaluation is not required for Bluetooth and GSM antennas.

Result:

The SAR measurement is exempt.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

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

Antenna Connector Construction

The EUT has a monopole antenna soldered on PCB, which in accordance to section 15.203, please refer to the internal photos.

Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

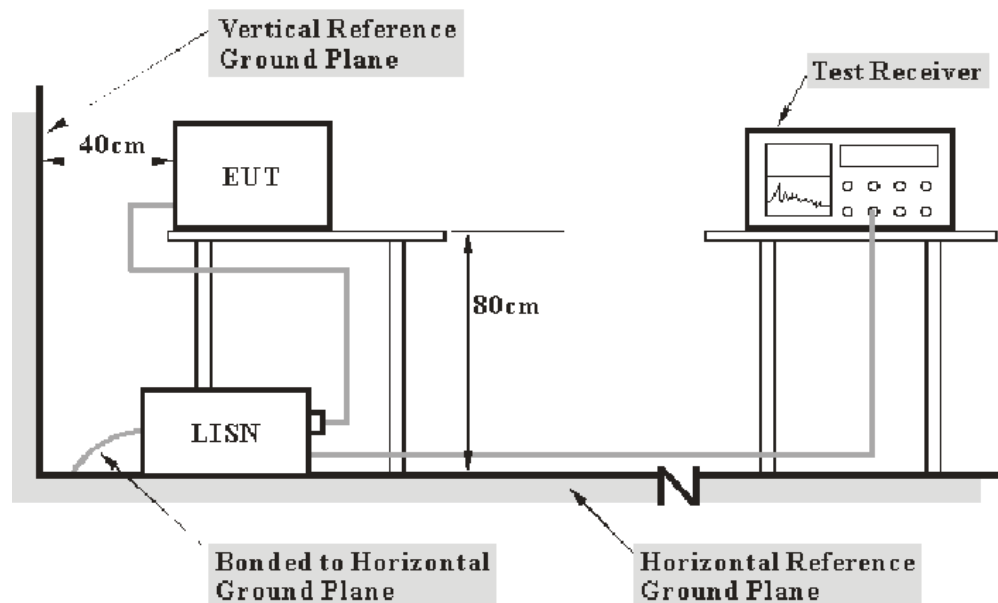
FCC §15.207

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 (k=2, 95% level of confidence).

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 C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The adapter was connected to a 120 VAC/60 Hz 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:

<i>Frequency Range</i>	<i>IF B/W</i>
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	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08

* **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 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, with the worst margin reading of:

10.92 dB at 0.780 MHz in the **Line** conducted mode

Test Data

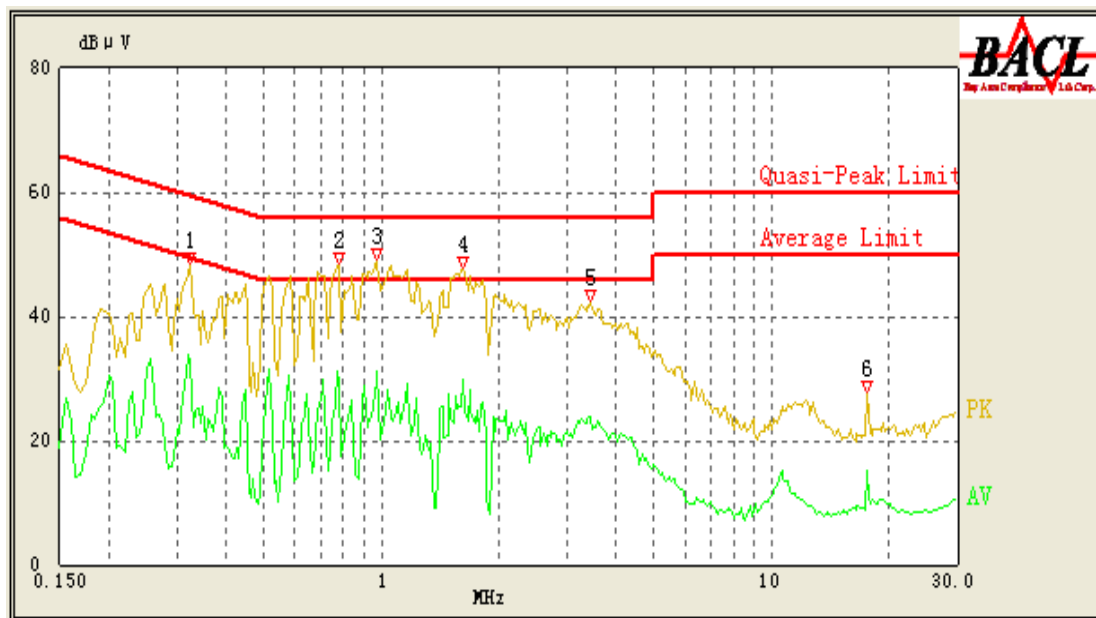
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

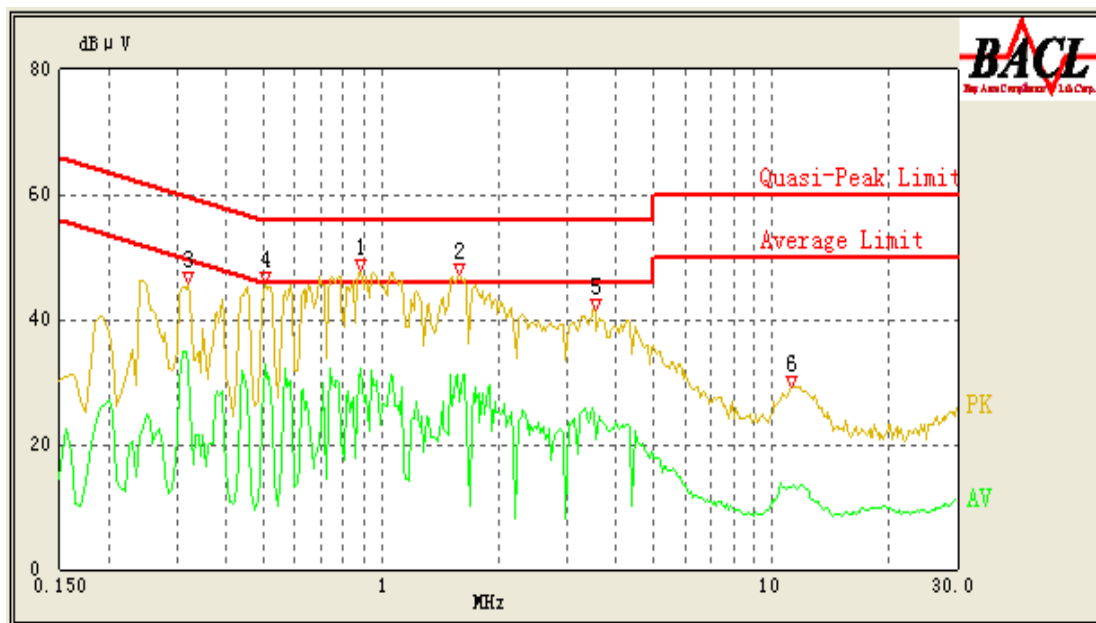
The testing was performed by Tiger Ye on 2011-11-18.

Test Mode: Charging & Transmitting

AC 120 V, 60 Hz, Line:



Conducted Emissions			FCC Part 15.207		
Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
0.780	45.08	10.24	56.00	10.92	QP
0.970	44.53	10.24	56.00	11.47	QP
1.615	42.89	10.30	56.00	13.11	QP
1.625	29.87	10.30	46.00	16.13	Ave.
0.780	29.69	10.24	46.00	16.31	Ave.
0.325	44.63	10.23	61.00	16.37	QP
0.970	29.58	10.24	46.00	16.42	Ave.
0.325	32.68	10.23	51.00	18.32	Ave.
3.445	35.91	10.46	56.00	20.09	QP
3.440	23.91	10.46	46.00	22.09	Ave.
17.545	15.05	11.49	50.00	34.95	Ave.
17.545	21.65	11.49	60.00	38.35	QP

AC 120V, 60 Hz, Neutral:

Conducted Emissions			FCC Part 15.207		
Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
0.505	42.93	10.23	56.00	13.07	QP
0.505	32.67	10.23	46.00	13.33	Ave.
0.885	42.48	10.24	56.00	13.52	QP
0.885	32.22	10.24	46.00	13.78	Ave.
1.590	39.22	10.29	56.00	16.78	QP
0.320	32.40	10.23	51.14	18.74	Ave.
0.320	42.30	10.23	61.14	18.84	QP
1.590	26.69	10.29	46.00	19.31	Ave.
3.520	25.19	10.47	46.00	20.81	Ave.
3.540	33.32	10.47	56.00	22.68	QP
11.235	13.22	11.08	50.00	36.78	Ave.
11.250	14.04	11.08	60.00	45.96	QP

FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS

Applicable Standard

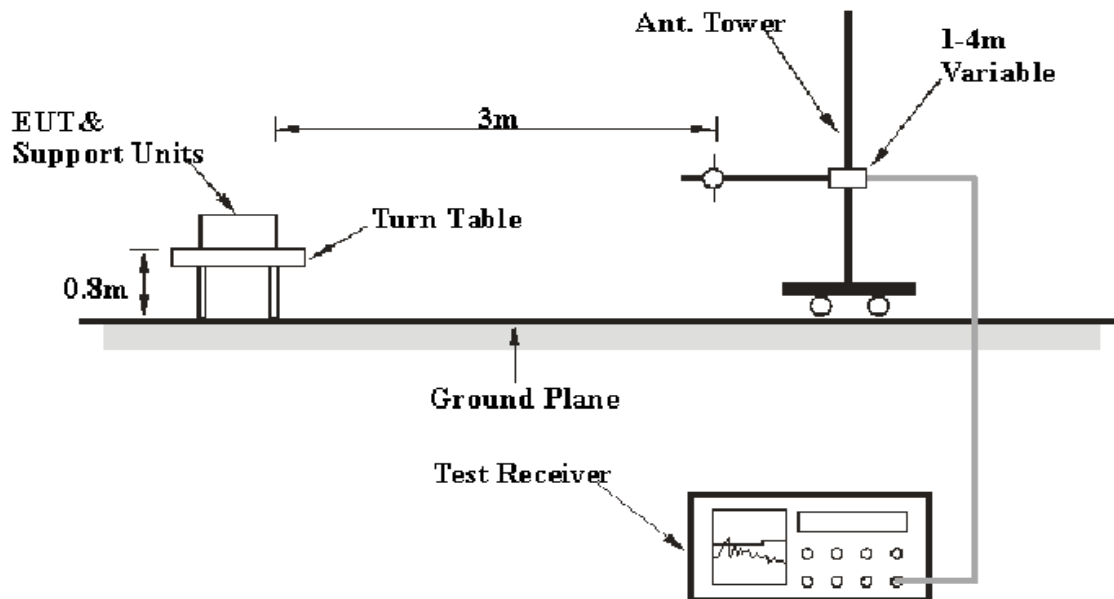
FCC §15.205; §15.209; §15.247(d)

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. ($k=2$, 95% level of confidence).

EUT Setup



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209 and FCC 15.247 limits.

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

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>	<i>Detector</i>
30 MHz – 1000 MHz	100 kHz	300 kHz	QP
1000 MHz – 25 GHz	1 MHz	3 MHz	PK
1000 MHz – 25 GHz	1 MHz	10 Hz	Ave

Test Procedure

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 -1 GHz and peak and Average detection modes for frequencies above 1 GHz.

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 7 dB means the emission is 7 dB below the maximum limit. The equation for margin calculation is as follows:

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

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447D	2944A09795	2011-08-02	2012-08-02
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2011-07-05	2012-07-04
Mini-Circuits	Amplifier	ZVA-213+	T-E27H	2011-03-08	2012-03-08
Sunol Sciences	Horn Antenna	DRH-118	A052604	2011-05-05	2012-05-04
Rohde & Schwarz	Signal Analyzer	FSIQ 26	609358	2011-07-08	2012-07-07

* **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 Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, and section 15.205, 15.209 and 15.247, with the worst margin reading of:

Worst case:

9.8 dB at 4804 MHz in the **Vertical** polarization above 1 GHz

Test Data

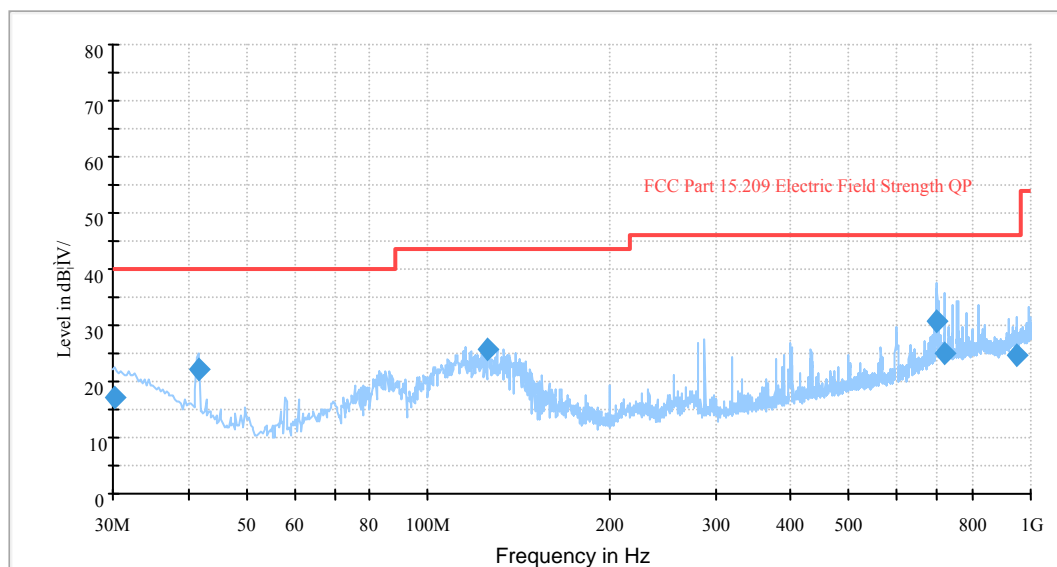
Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

** The testing was performed by Tiger Yen on 2011-11-18.*

1) Below 1 GHz:*Test mode: Transmitting*

Auto Test (FCC 15.209)



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Test Antenna		Turntable Position (degree)	Limit (dBµV/m)	Margin (dB)
		Height (cm)	Polarity (H/V)			
698.214750	30.7	103.0	V	293.0	46.0	15.3
41.697000	22.3	103.0	V	245.0	40.0	17.7
126.003000	25.6	156.0	H	190.0	43.5	17.9
718.089500	25.1	103.0	V	268.0	46.0	20.9
945.200000	24.6	206.0	V	293.0	46.0	21.4
30.234444	17.1	188.0	H	77.0	40.0	22.9

2) Above 1 GHz:

Frequency (MHz)	S.A. Reading (dBμV)	Detector (PK/QP/Ave)	Direction (Degree)	Test Antenna			Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.247/205/209		
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)	Comment
Low Channel (2402 MHz)												
4804	51.45	PK	310	1.6	V	35.2	4.28	26.73	64.2	74	9.8	harmonic
4804	49.84	PK	250	2.1	H	36.3	4.28	26.73	63.69	74	10.31	harmonic
4804	30.26	Ave.	310	1.6	V	35.2	4.28	26.73	43.01	54	10.99	harmonic
4804	28.03	Ave.	250	2.1	H	36.3	4.28	26.73	41.88	54	12.12	harmonic
Middle Channel (2441 MHz)												
4882	51.37	PK	180	1.8	V	35.4	4.37	26.75	64.39	74	9.61	harmonic
4882	49.37	PK	170	1.2	H	36.6	4.37	26.75	63.59	74	10.41	harmonic
4882	30.33	Ave.	180	1.8	V	35.4	4.37	26.75	43.35	54	10.65	harmonic
4882	27.89	Ave.	170	1.2	H	36.6	4.37	26.75	42.11	54	11.89	harmonic
High Channel (2480 MHz)												
4960	50.12	PK	170	2.4	H	36.6	4.37	26.75	64.34	74	9.66	harmonic
4960	29.76	Ave.	170	2.4	H	36.6	4.37	26.75	43.98	54	10.02	harmonic
4960	50.34	PK	180	1.6	V	35.4	4.37	26.75	63.36	74	10.64	harmonic
4960	29.55	Ave.	180	1.6	V	35.4	4.37	26.75	42.57	54	11.43	harmonic

Restrict band spurious emission

Indicated		Detector (PK/Ave.)	Table Angle Degree	Test Antenna		Correction Factor			FCC Part 15.247/15.209/15.205			
Frequency (MHz)	S.A. Reading (dBμV)			Height (m)	Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Comment
2483.6	32.98	Ave.	190	1.5	H	30.5	3.15	26.85	39.78	54	14.22	spurious
2389.1	33.19	Ave.	75	1.9	V	30.3	3.01	26.84	39.66	54	14.34	spurious
2483.6	31.92	Ave.	360	1.2	V	30.5	3.15	26.85	38.72	54	15.28	spurious
2389.1	31.26	Ave.	120	1.2	H	30.3	3.01	26.84	37.73	54	16.27	spurious
2389.1	45.72	PK	75	1.9	V	30.3	3.01	26.84	52.19	74	21.81	spurious
2483.6	44.61	PK	360	1.2	V	30.5	3.15	26.85	51.41	74	22.59	spurious
2483.6	44.39	PK	190	1.9	H	30.5	3.15	26.85	51.19	74	22.81	spurious
2389.1	43.34	PK	120	1.2	H	30.3	3.01	26.84	49.81	74	24.19	spurious

FCC §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 20 dB 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 20 dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

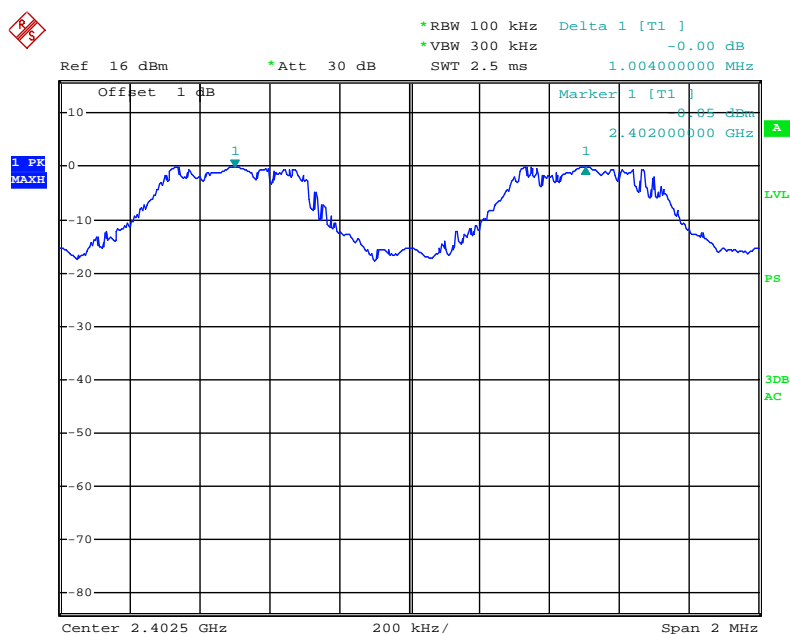
* The testing was performed by Tiger Ye on 2011-11-17.

Test Result: Compliance.

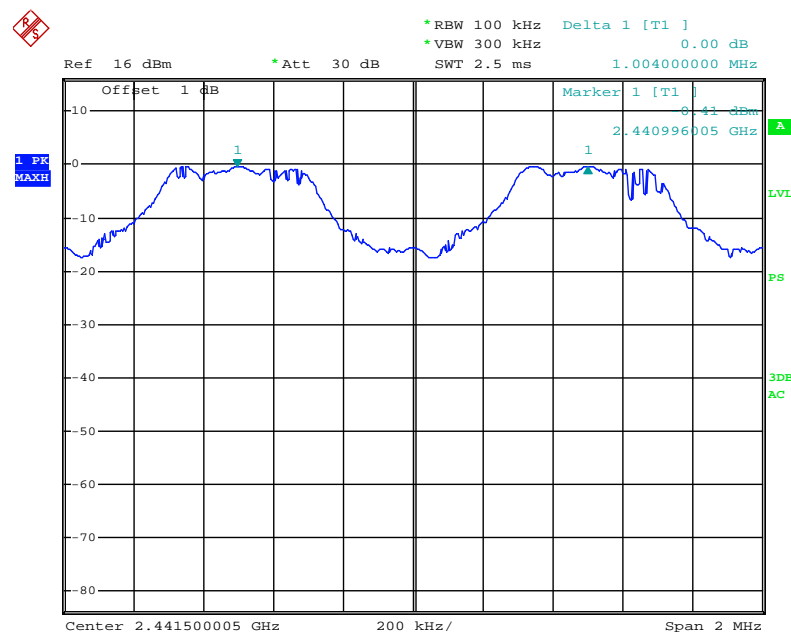
Please refer to following tables and plots

Test Mode: Transmitting

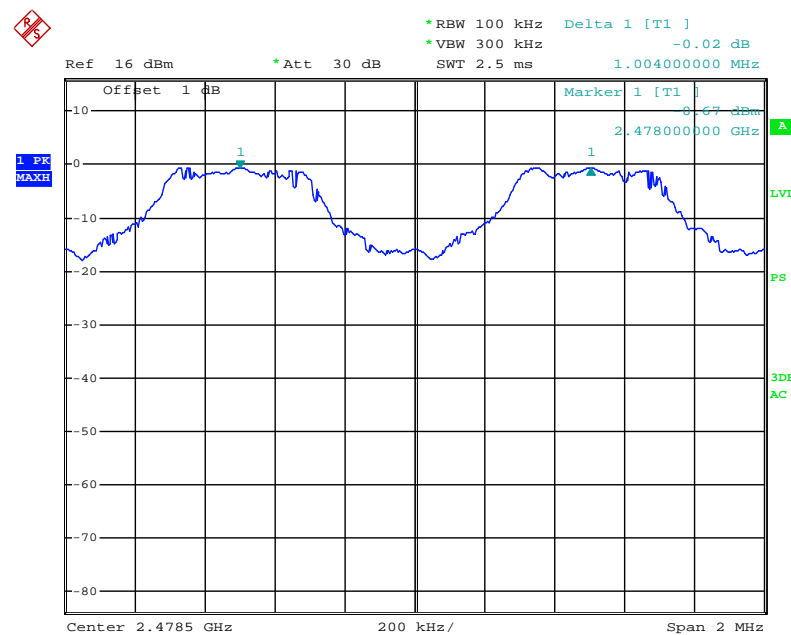
Channel	Frequency (MHz)	Channel Separation (MHz)	Limit (MHz)	Result
Low	2402	1.004	0.707	Pass
Adjacent	2403			
Middle	2441	1.004	0.707	Pass
Adjacent	2442			
High	2480	1.004	0.707	Pass
Adjacent	2479			

Low Channel

Middle Channel



High Channel



FCC §15.247(a) (1) – 20 dB EMISSION 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 125 mW.

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

* The testing was performed by Tiger Ye on 2011-11-16.

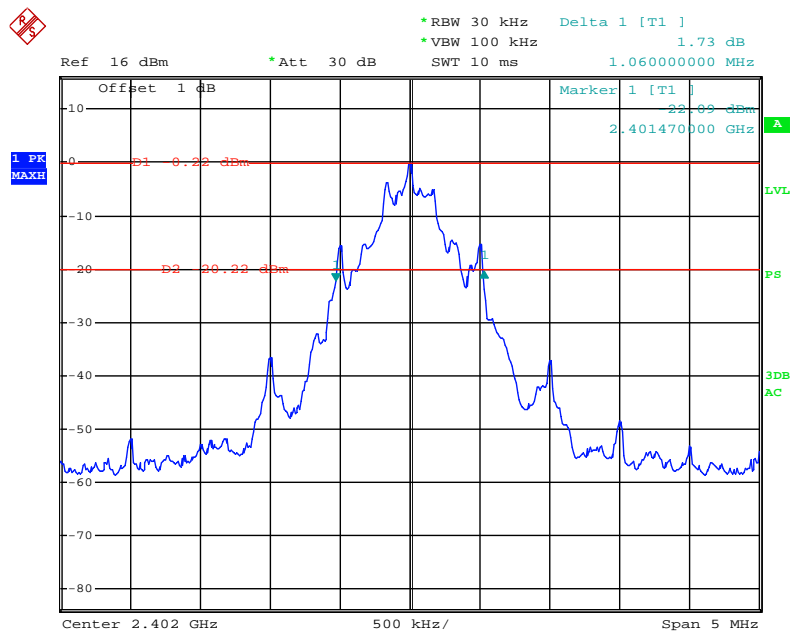
Test Result: Compliance.

Please refer to following tables and plots

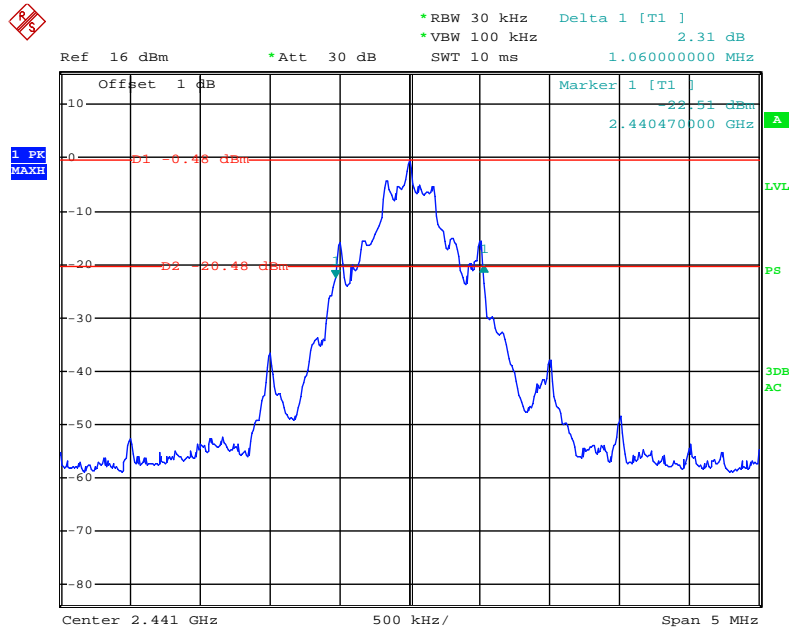
Test Mode: Transmitting

Channel	Frequency (MHz)	20 dB Emission Bandwidth (MHz)
Low	2402	1.060
Middle	2441	1.060
High	2480	1.060

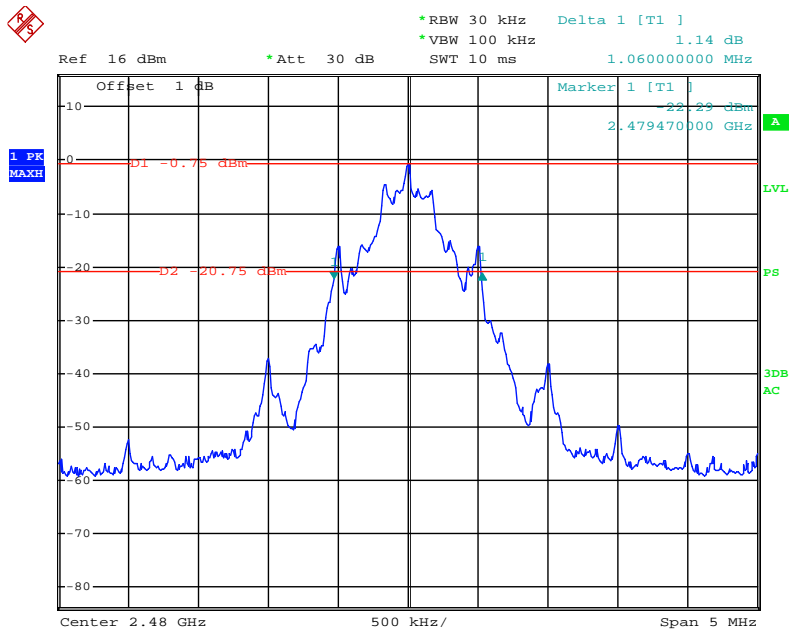
Low Channel



Middle Channel



High Channel



FCC §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 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

The testing was performed by Tiger Ye on 2011-11-17.

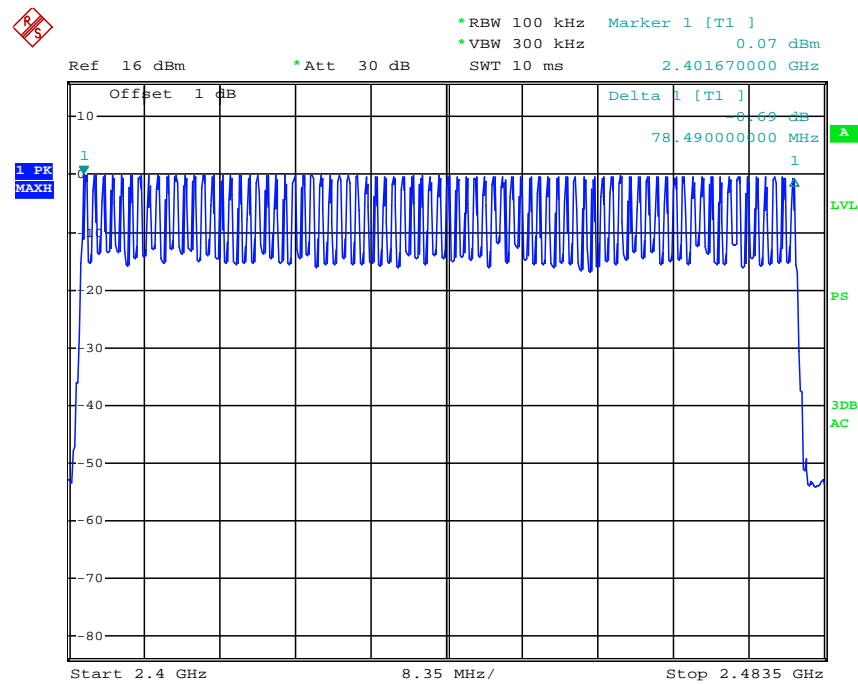
Test Result: Compliance.

Please refer to following table and plots

Test Mode: Transmitting

Frequency Range (MHz)	Number of Hopping Channel (CH)	Limit (CH)
2400-2483.5	79	≥ 15

Number of Hopping Channels



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FCC §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 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 = Pulse time*hop rate/number of hopping channels*31.6S
Hop rate=1600/S

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

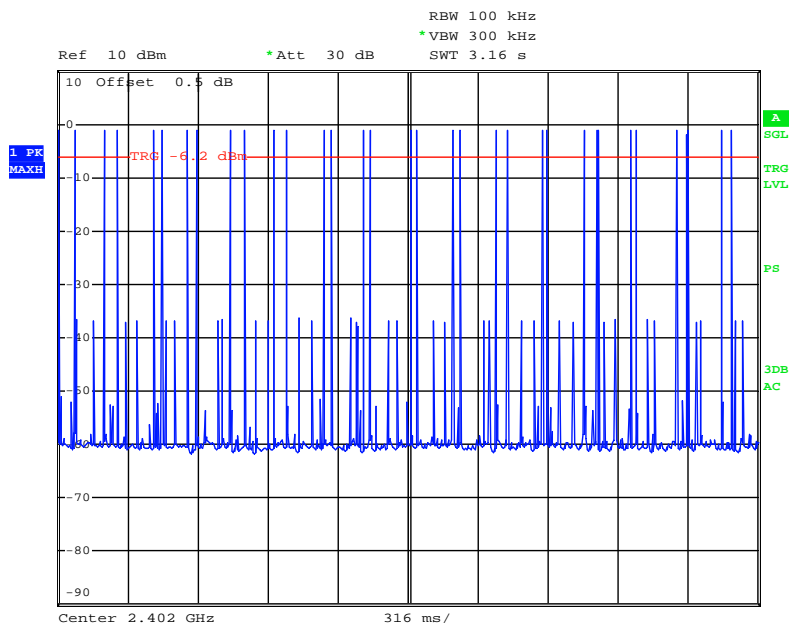
* The testing was performed by Tiger Ye on 2011-11-27 and 2011-11-28.

Test Result: Compliance.

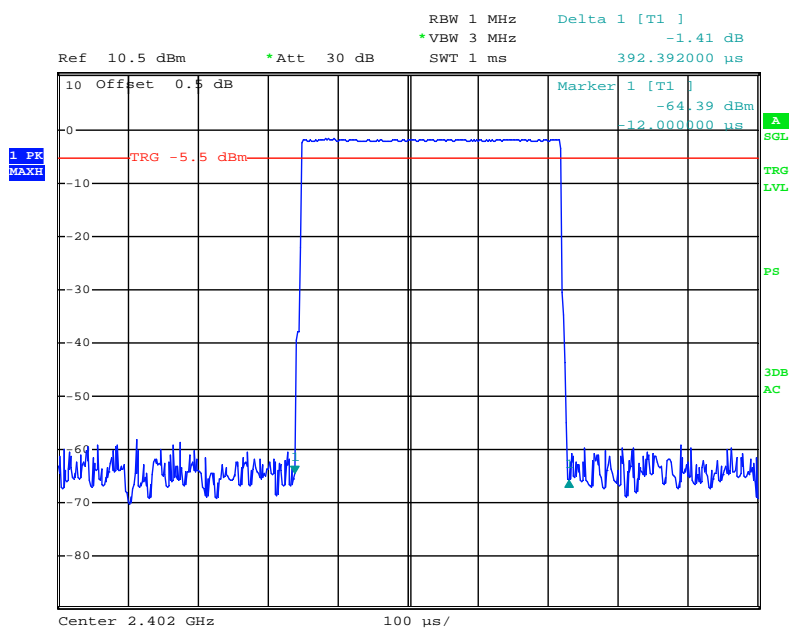
Please refer to following table and plots

Test Mode: Transmitting

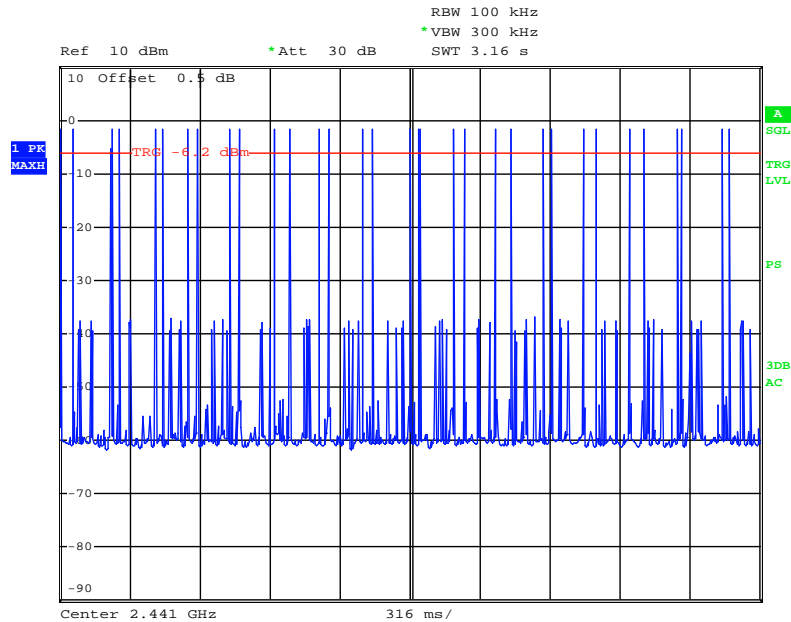
Mode	Channel	Pulse Width (ms)	Dwell Time (S)	Limit (S)	Result
DH 1	Low	0.392	0.125	0.4	Pass
	Middle	0.392	0.125	0.4	Pass
	High	0.392	0.125	0.4	Pass
	Note: DH1: Dwell time = Pulse time*(Number of slot per 3.16s)*10				
DH 3	Low	1.660	0.299	0.4	Pass
	Middle	1.660	0.299	0.4	Pass
	High	1.660	0.282	0.4	Pass
	Note: DH3: Dwell time = Pulse time*(Number of slot per 3.16s)*10				
DH 5	Low	2.924	0.380	0.4	Pass
	Middle	2.916	0.350	0.4	Pass
	High	2.908	0.349	0.4	Pass
	Note: DH5: Dwell time = Pulse time*(Number of slot per 3.16s)*10				

Number of slot per 3.16s, Low Channel, DH1

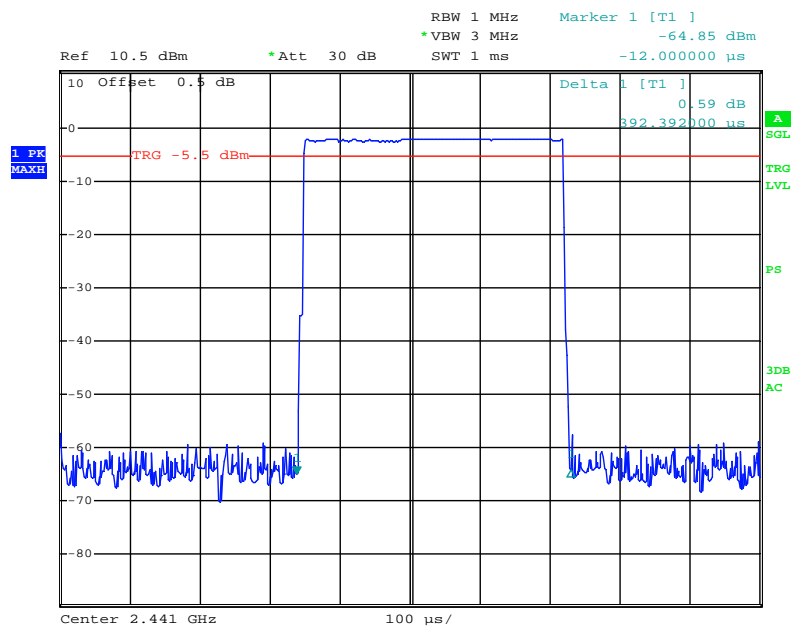
Date: 28.NOV.2011 17:47:47

Pulse time, Low Channel, DH1

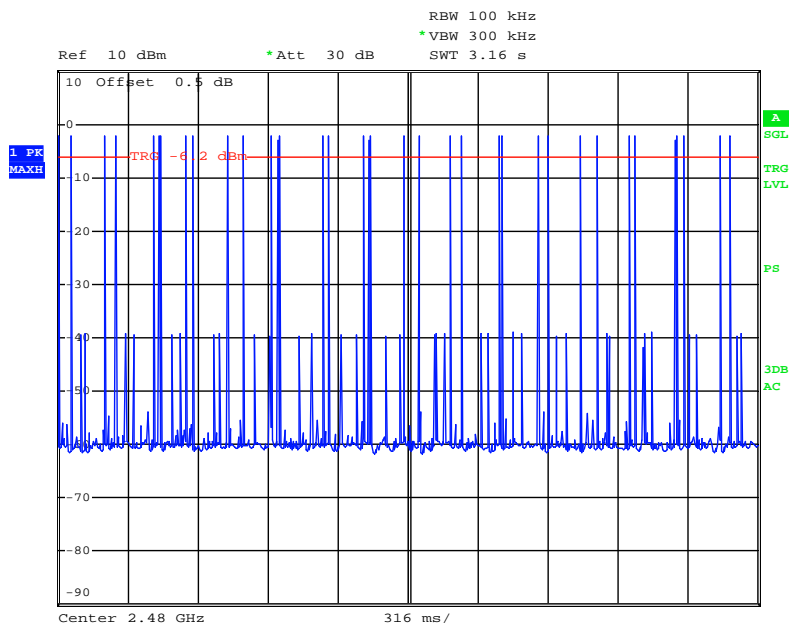
Date: 27.NOV.2011 09:31:15

Number of slot per 3.16s, Middle Channel, DH1

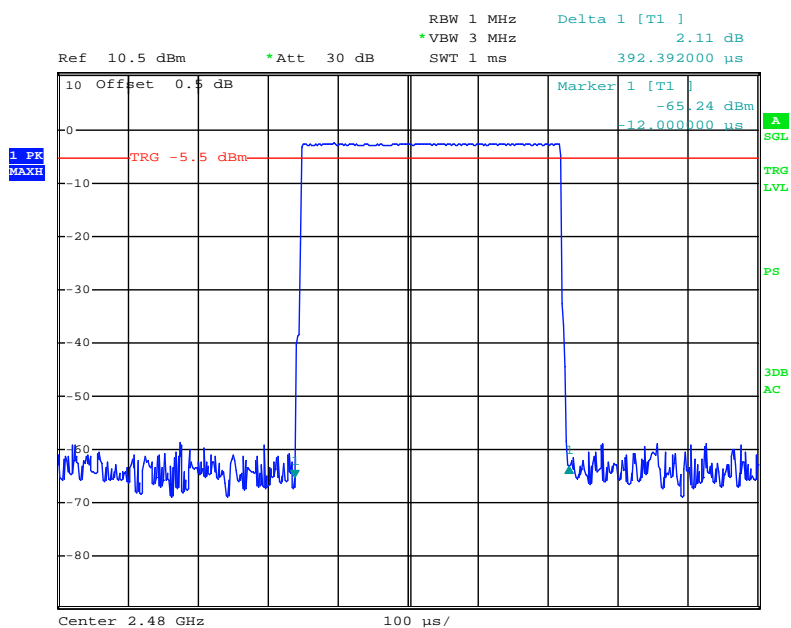
Date: 28.NOV.2011 17:48:17

Pulse time, Middle Channel, DH1

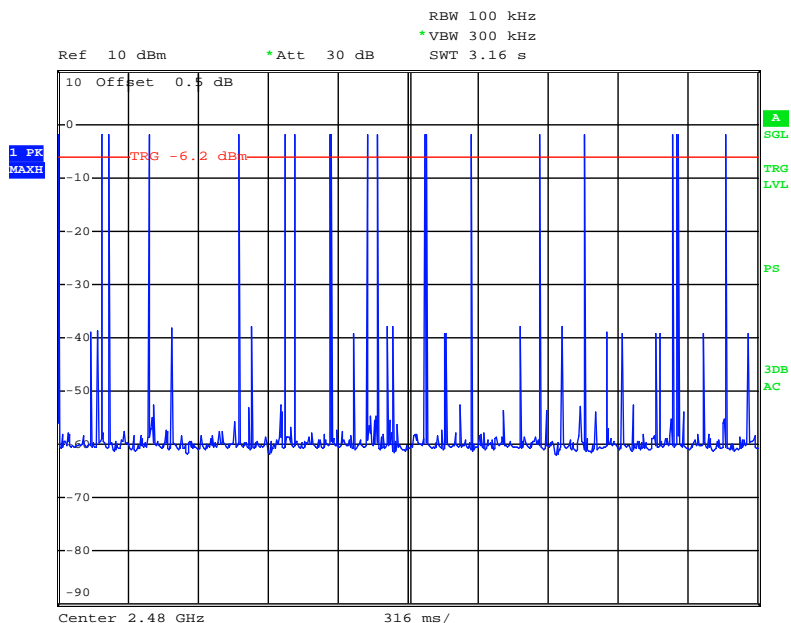
Date: 27.NOV.2011 09:32:05

Number of slot per 3.16s, High Channel, DH1

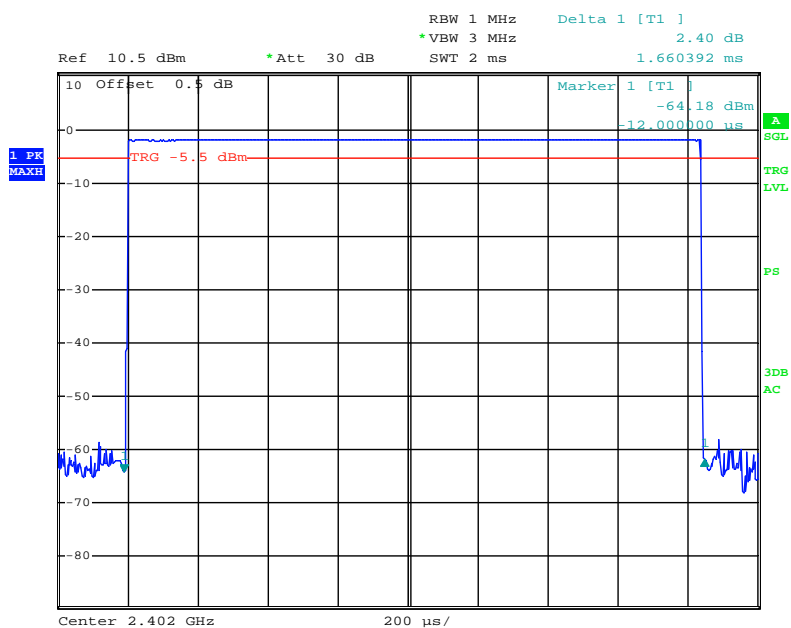
Date: 28.NOV.2011 17:48:59

Pulse time, High Channel, DH1

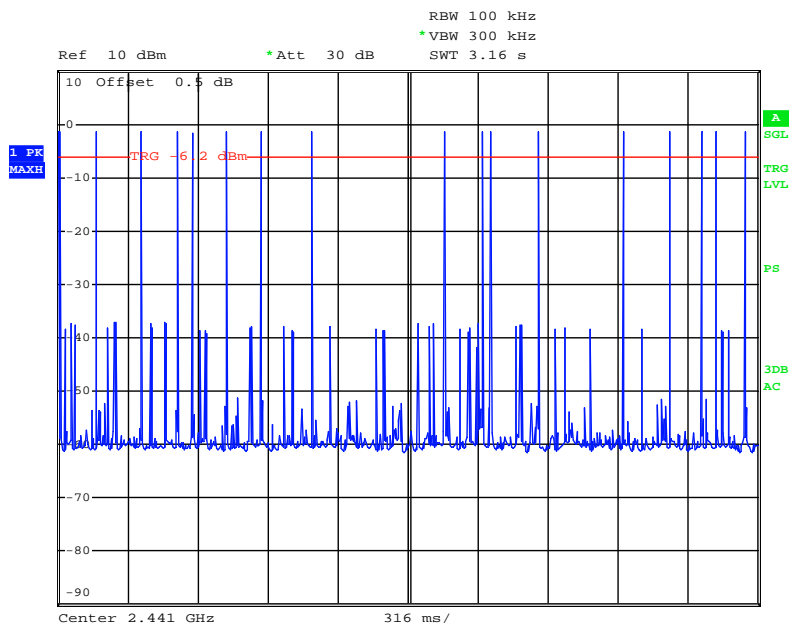
Date: 27.NOV.2011 09:32:53

Number of slot per 3.16s, Low Channel, DH3

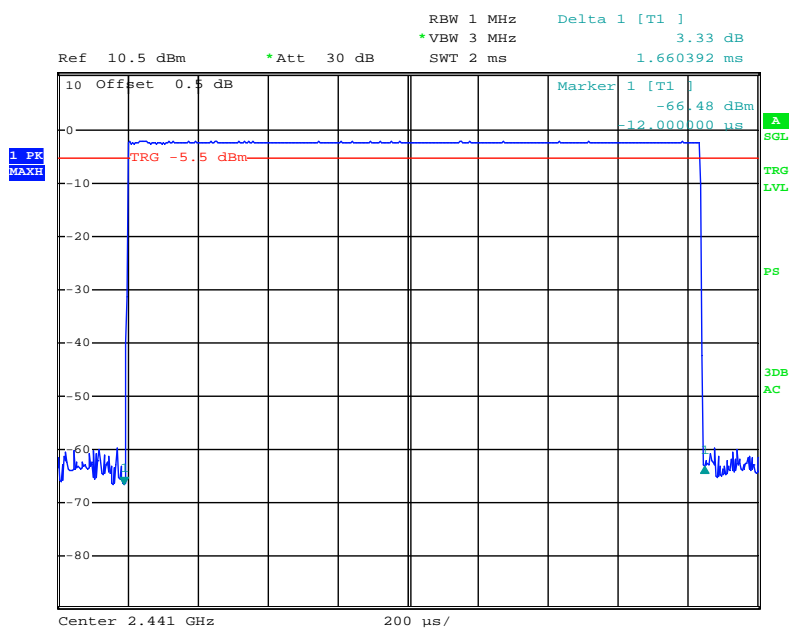
Date: 28.NOV.2011 17:54:03

Pulse time, Low Channel, DH3

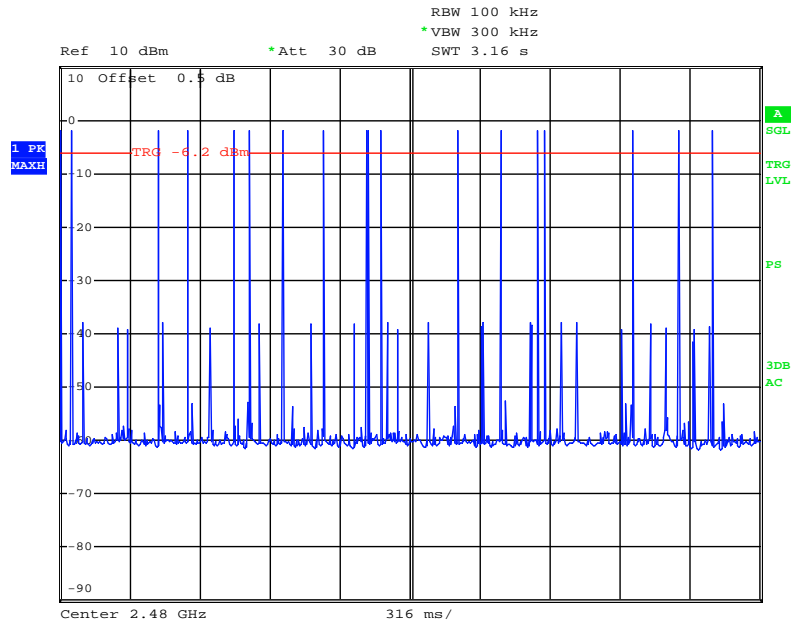
Date: 27.NOV.2011 09:41:57

Number of slot per 3.16s, Middle Channel, DH3

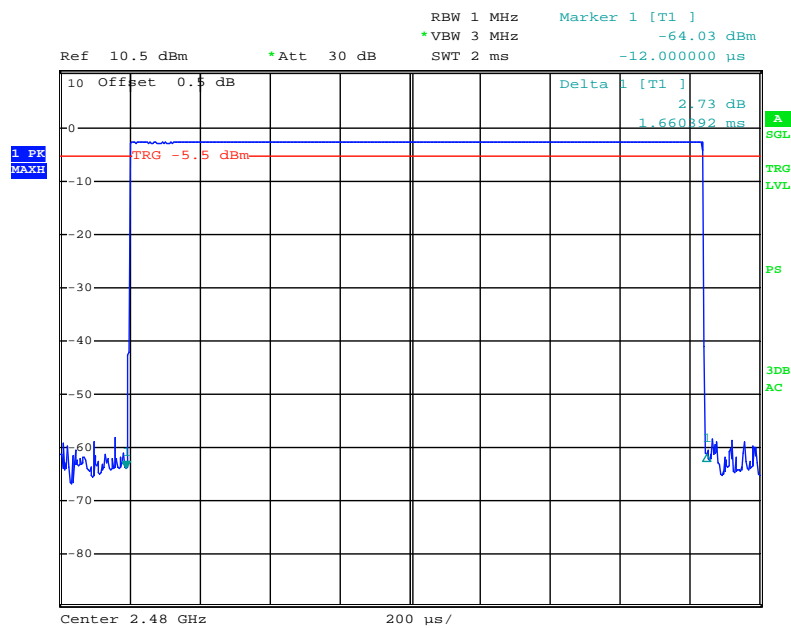
Date: 28.NOV.2011 17:57:22

Pulse time, Middle Channel, DH3

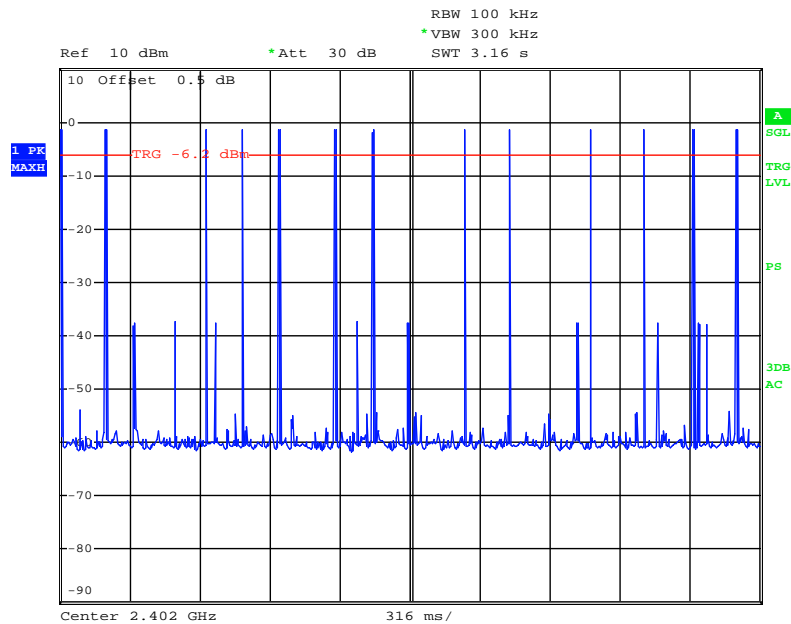
Date: 27.NOV.2011 09:42:49

Number of slot per 3.16s, High Channel, DH3

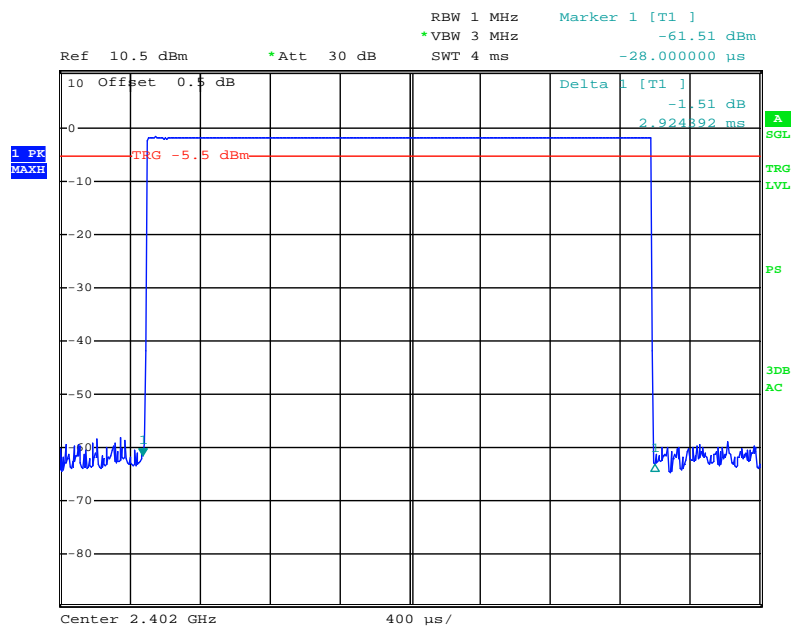
Date: 28.NOV.2011 17:58:59

Pulse time, High Channel, DH3

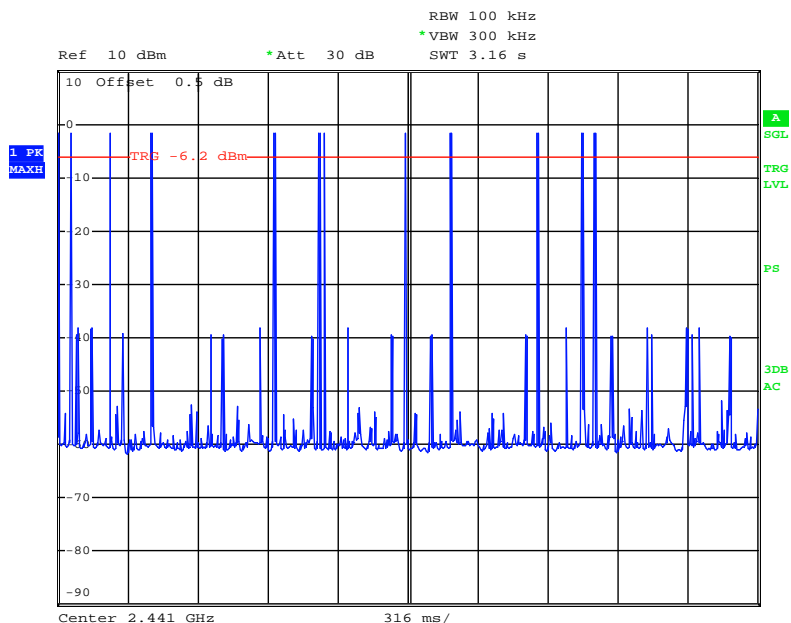
Date: 27.NOV.2011 09:43:39

Number of slot per 3.16s, Low Channel, DH5

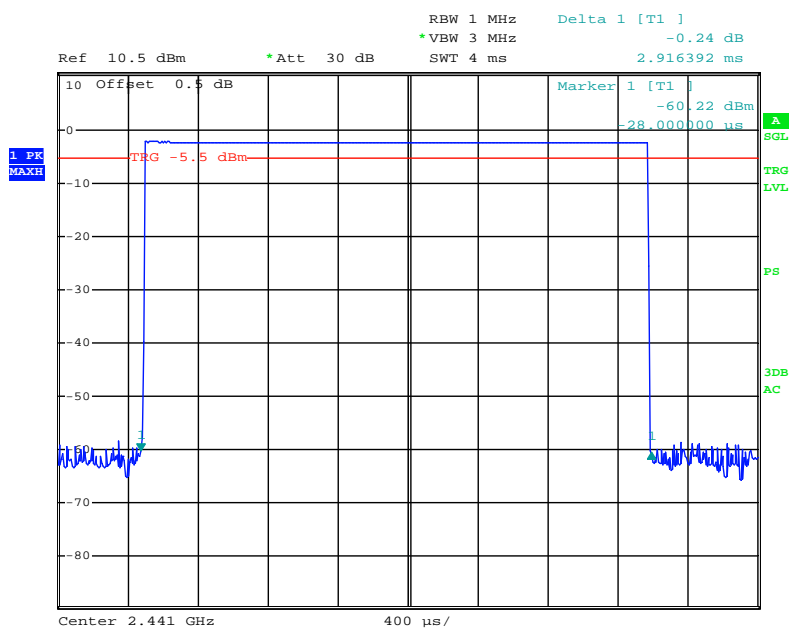
Date: 28.NOV.2011 18:05:44

Pulse time, Low Channel, DH5

Date: 27.NOV.2011 09:50:46

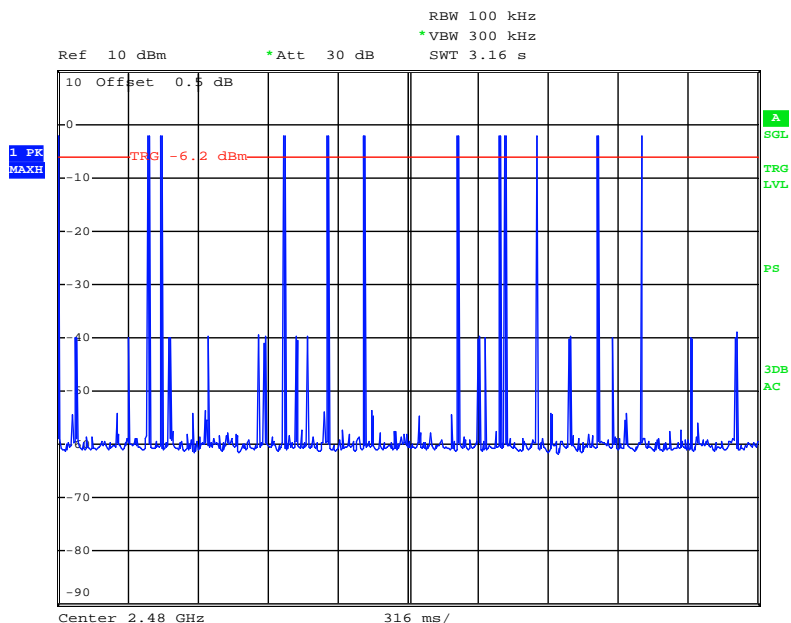
Number of slot per 3.16s, Middle Channel, DH5

Date: 28.NOV.2011 18:04:50

Pulse time, Middle Channel, DH5

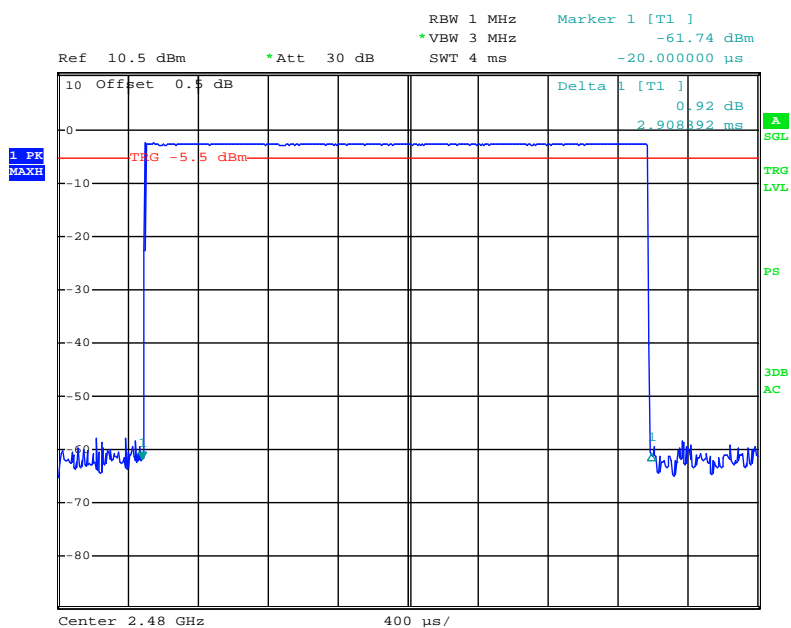
Date: 27.NOV.2011 09:51:28

Number of slot per 3.16s, High Channel, DH5



Date: 28.NOV.2011 18:02:06

Pulse time, High Channel, DH5



Date: 27.NOV.2011 09:52:11

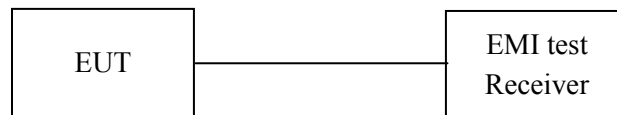
FCC §15.247(b) (1) - PEAK OUTPUT POWER MEASUREMENT

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. And for all other frequency hopping systems in the 2400–2483.5 MHz band: 0.125 watts.

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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

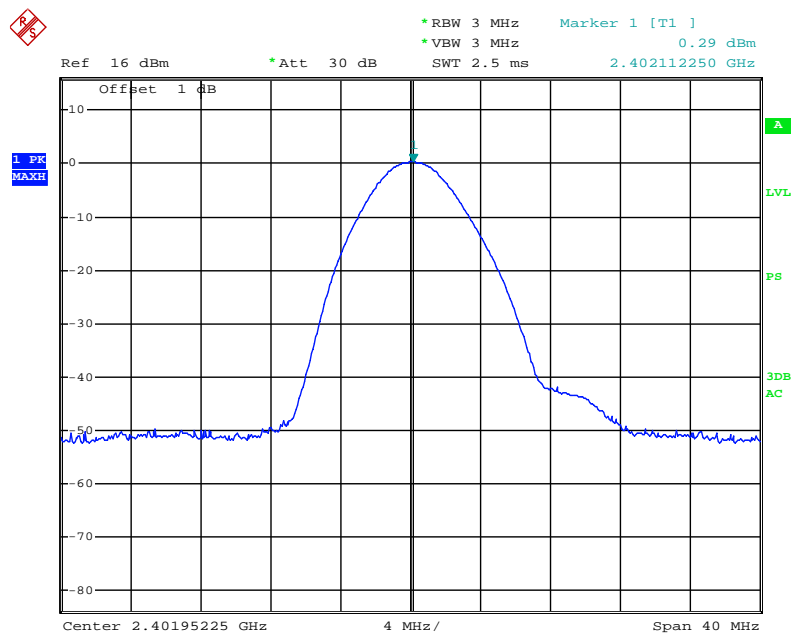
* The testing was performed by Tiger Ye on 2011-11-17.

Test Result: Compliance.

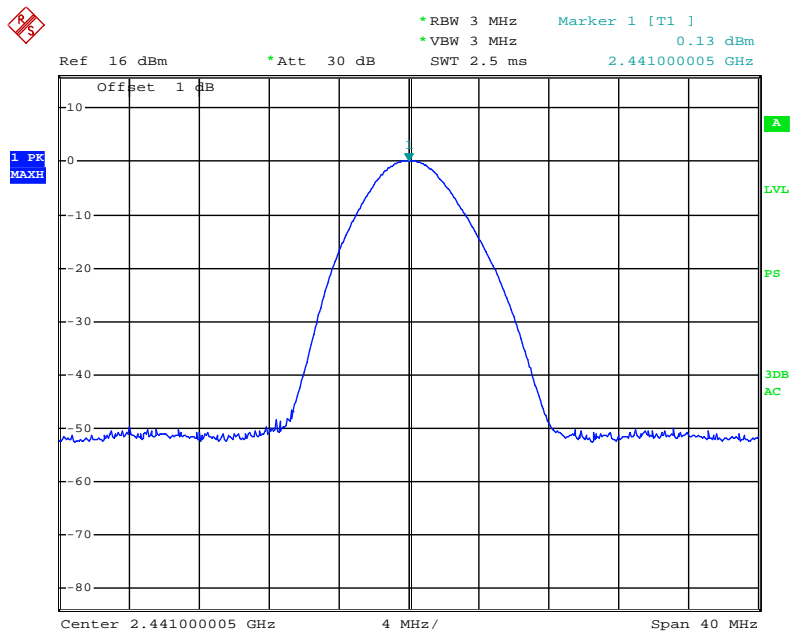
Please refer to following table and plots

Test Mode: Transmitting

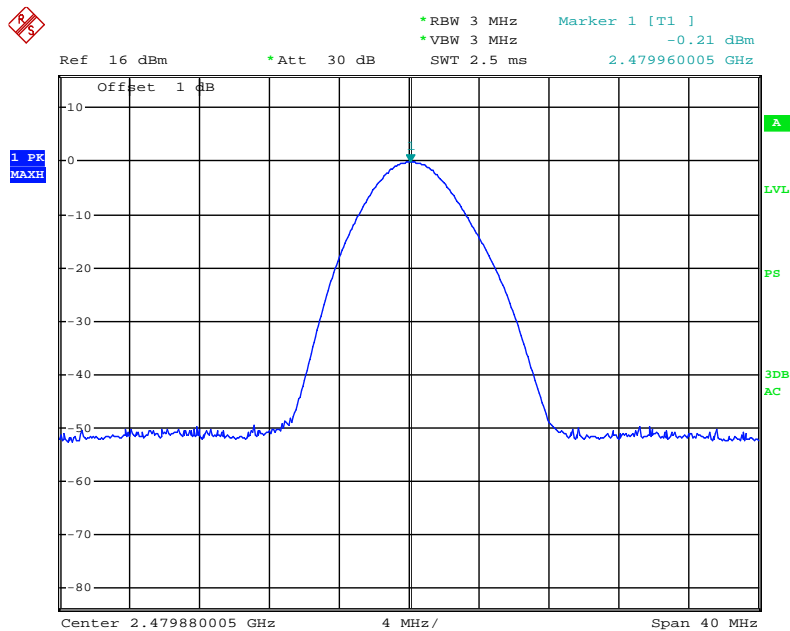
Channel	Frequency (MHz)	Conducted Output Power		Limit (mW)
		(dBm)	(mW)	
Low	2402	0.29	1.069	1000
Middle	2441	0.13	1.030	1000
High	2480	-0.21	0.952	1000

Low Channel

Middle Channel



High Channel



FCC §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 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 100 kHz bandwidth from band edge, for Radiated emissions restricted band RBW=1 MHz, VBW=3 MHz.
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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

* **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 Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101 kPa

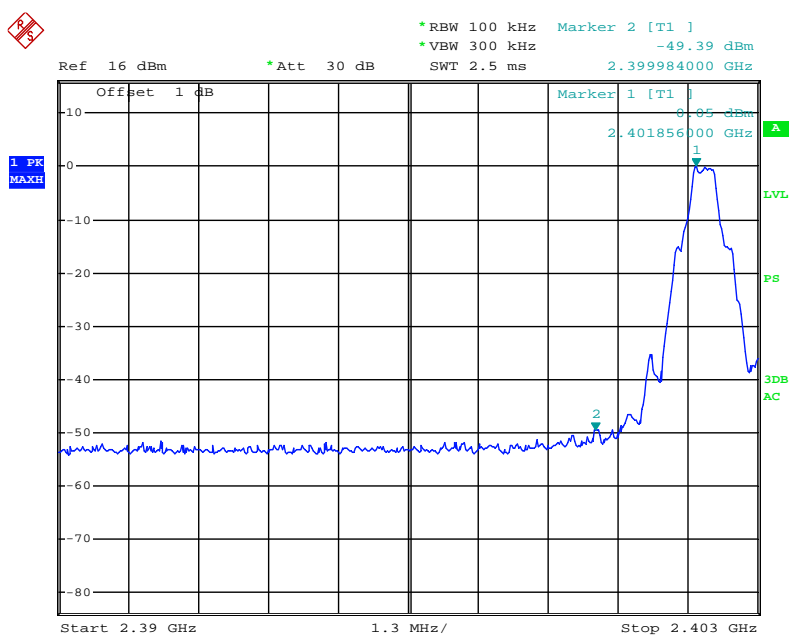
*The testing was performed by Tiger Ye on 2011-11-16.

Test Result: Compliance, please refer to the following table and plots.

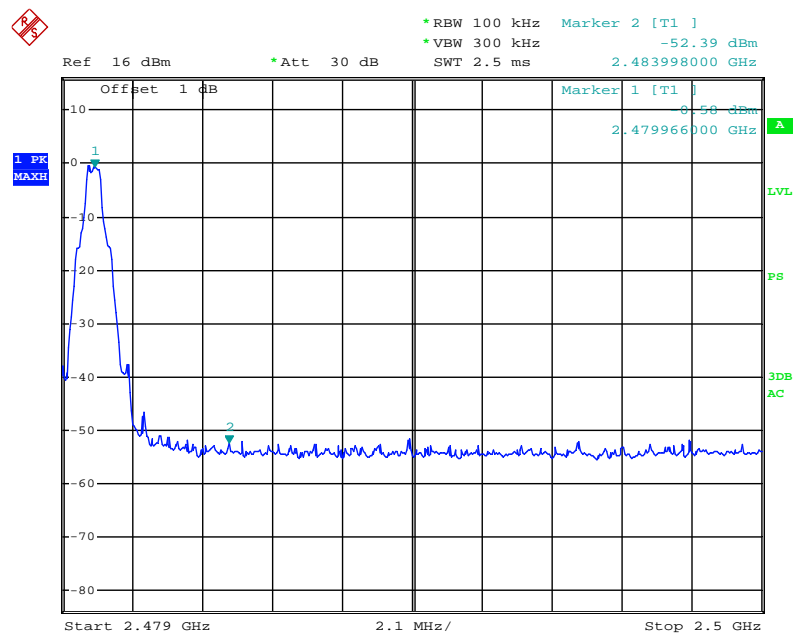
Test Mode: Transmitting

Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)
2399.974	49.44	20
2483.962	50.49	20

Band Edge: Left Side



Band Edge: Right Side



ANNEX A - PRODUCT SIMILARTITY DECLARATION LETTER



Enet Times Technology Co., LTD
Unit24F, BlockC, World Trade Plaza, Fuhong Road, Shenzhen, China
Tel: 0755-25327168
Fax: 0755-25327000
Date: 2011-11-18

Declaration of Similarity

To:
Bay Area Compliance Laboratories Corp. (Shenzhen)
6/F, the 3rd Phase of Wan Li Industrial Bldg., Shihua Rd.,
FuTian Free Trade Zone, Shenzhen, China
Phone: +86 755 33320018, Fax: +86 755 33320008
<http://www.baclcorp.com.cn>

We, Enet Times Technology Co., LTD. hereby declare that our product: GSM Dual Sim Dual Standby Mobile Phone, Model: DG600 and ALVO SLIM. These two models are electrically and mechanically identical, share the same PCB Layout and components. And the differences between them are the model number. Model DG600 was tested by BACL.

Sincerely,

Will Zhu

General Manager

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