Lab Code: 200707-0

FCC PART 15.249

TEST REPORT

For

Shenzhen Gospell Smarthome Electronic Co., Ltd.

5 Floor/Block 2, Vision (SZ) Park, Hi-Tech Industrial Park,

Shenzhen, Guangdong, China

FCC ID: TW5GB8832

Report Type:	Product Type:
Original Report	Inspection Camera (TX)

Test Engineer:	Sula Huang
Report Number:	RSZ110926001-00
Report Date:	2011-11-17
Reviewed By:	Merry Zhao EMC Engineer
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

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Shenzhen Gospell Smarthome Electronic Co., Ltd.* 's product, model *GB8832, GB8833, GB8836, GB8837, GB8839 (FCC ID: TW5GB8832)* (the "EUT") in this report is a *INSPECTION CAMERA (Tx)*, which was measured approximately: 165 mm (L) x 195 mm (W) x 55 mm (H) (Excluding the flexible tube), rated input voltage: DC 1.5 V*4 AA battery.

Note: The series product, model GB8832, GB8833, GB8836, GB8837 and GB8839 are electrically identical, all of them were selected to test, and the difference among them were the length and diameter of tube, material of shell and the structure of tube.

All measurement and test data in this report was gathered from production sample serial number: 1109092 (Assigned by BACL, Shenzhen). The EUT was received on 2011-09-26.

Objective

This Type approval report is prepared on behalf of *Shenzhen Gospell Smarthome Electronic Co., Ltd.* in accordance with Part 2, Subpart J, and 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 15.249 rules.

Related Submittal(s)/Grant(s)

N/A.

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 radiated and conducted emissions measurement was performed at 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 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

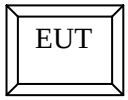
Justification

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

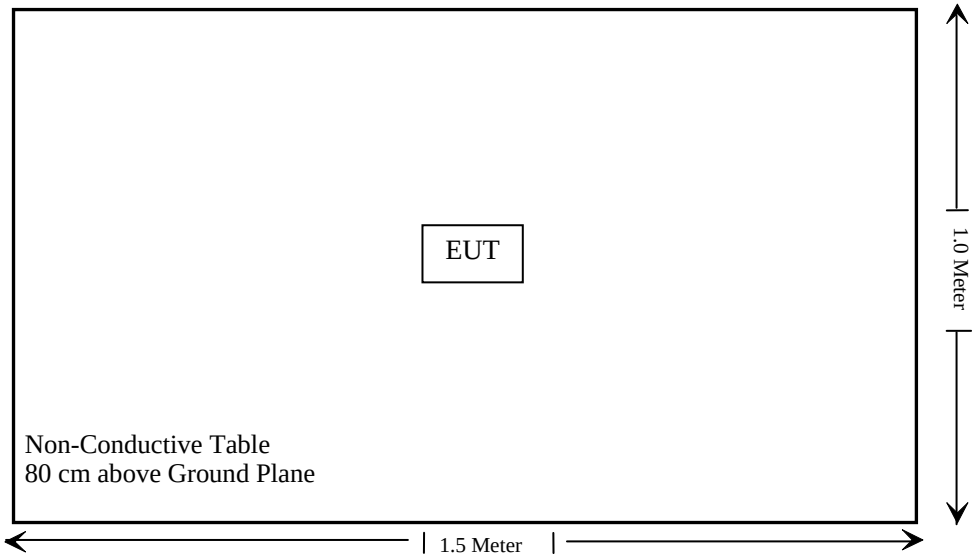
Equipment Modifications

No modifications were made to the unit tested.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliance
§15.207(a)	Conduction Emissions	N/A*
15.205, §15.209, §15.249	Radiated Emissions	Compliance
§15.249(d)	Outside of Band Emission-50dB attenuation	Compliance

Note: EUT was battery operation.

FCC §15.203 - ANTENNA REQUIREMENT

Applicable Standard

For intentional device, 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.

Antenna Connector Construction

The EUT has an internal Omni-directional antenna soldered to PCB, the maximum gain is 0 dBi, which in accordance to section 15.203, is considered sufficient to comply with the provisions of this section.

Result: Compliant

FCC §15.205, §15.209 & §15.249 - RADIATED EMISSIONS

Applicable Standard

As per FCC§15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

As per FCC§15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

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 $\pm$4.0 dB.

Test Equipment Setup

The spectrum analyzer or receiver is set as:

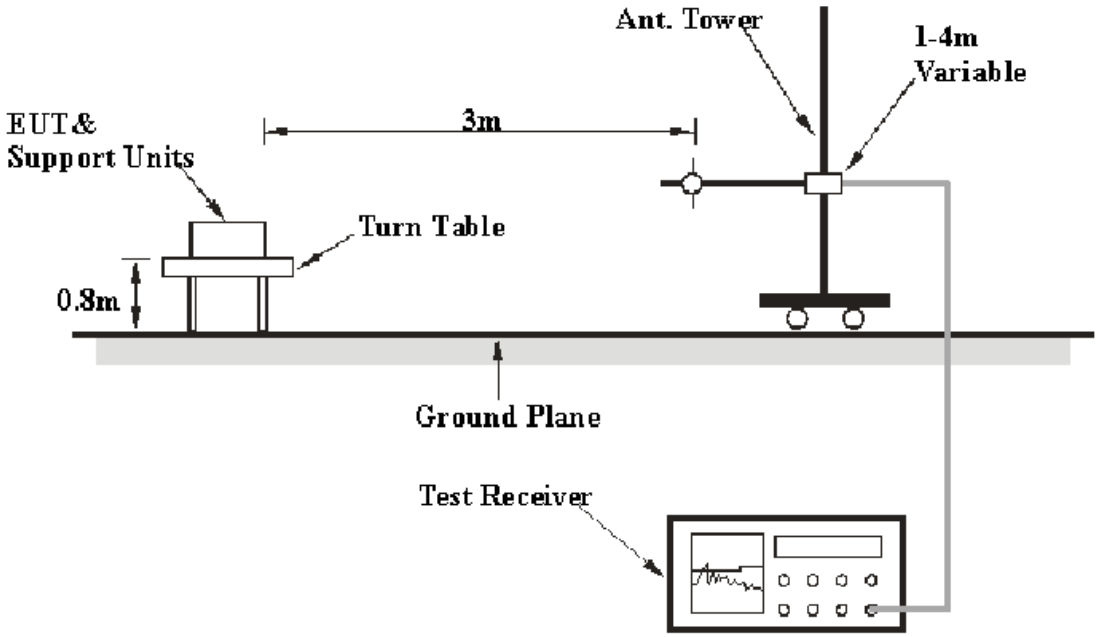
Below 1000 MHz:

RBW = 100 kHz / VBW = 300 kHz / Sweep = Auto

Above 1000 MHz:

Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto
Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

EUT Setup



The radiated emission and out of band emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209/15.205 and FCC 15.249 limits.

Test Procedure

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

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 mete, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

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:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - 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 limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2011-08-02	2012-08-01
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2010-11-11	2011-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2011-07-05	2012-07-04
Mini-Circuits	Amplifier	ZVA-213+	T-E27H	2011-03-08	2012-03-07
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 data in the following table, the EUT complied with the FCC Part 15.209 & 15.249, with the worst margin reading of:

0.37 dB at **2468 MHz** in the **Vertical** polarization for model GB8839

Test Data

Environmental Conditions

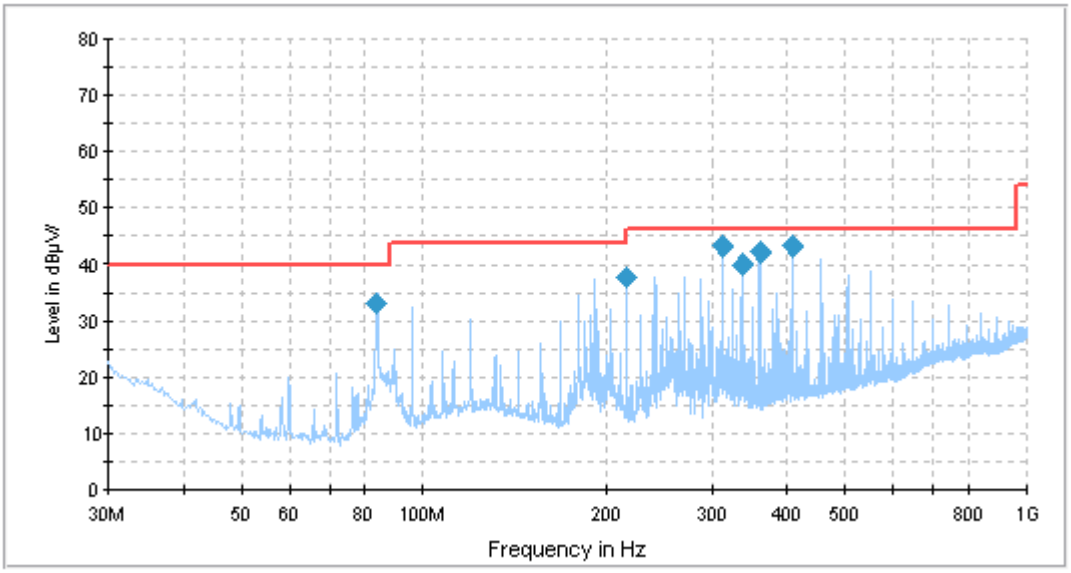
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.2 kPa

The testing was performed by Sula Huang on 2011-11-08

Test Mode: Transmitting

Model: GB8832

1) 30-1000 MHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
408.030500	43.1	101.0	H	268.0	-9.8	46.0	2.9*
311.998750	43.0	102.0	H	90.0	-12.1	46.0	3.0*
360.030750	42.3	102.0	H	56.0	-10.9	46.0	3.7*
336.020250	39.9	102.0	H	29.0	-11.4	46.0	6.1
83.997000	33.3	400.0	H	244.0	-17.9	40.0	6.7
216.016750	38.0	152.0	H	284.0	-14.1	46.0	8.0

*within measurement uncertainty!

2) Above 1 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC 15.209/ FCC 15.249		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
2468	86.92	Ave.	56	1.6	V	30.3	3.11	26.85	93.48	94	0.52*	Fund.
7404	33.89	Ave.	96	2.1	V	37.8	5.19	26.58	50.30	54	3.70*	harmonic
2468	82.37	Ave.	100	1.1	H	30.3	3.11	26.85	88.93	94	5.07	Fund.
7404	30.23	Ave.	88	1.9	H	39.1	5.19	26.58	47.94	54	6.06	harmonic
4936	33.27	Ave.	69	2.3	V	35.2	4.38	26.74	46.11	54	7.89	harmonic
4936	31.78	Ave.	220	1.7	H	36.2	4.38	26.74	45.62	54	8.38	harmonic
2468	96.84	PK	56	1.6	V	30.3	3.11	26.85	103.40	114	10.60	Fund.
7404	46.02	PK	96	2.1	V	37.8	5.19	26.58	62.43	74	11.57	harmonic
2468	94.46	PK	100	1.1	H	30.3	3.11	26.85	101.02	114	12.98	Fund.
7404	42.73	PK	88	1.9	H	39.1	5.19	26.58	60.44	74	13.56	harmonic
4936	44.63	PK	69	2.3	V	35.2	4.38	26.74	57.47	74	16.53	harmonic
4936	43.59	PK	220	1.7	H	36.2	4.38	26.74	57.43	74	16.57	harmonic

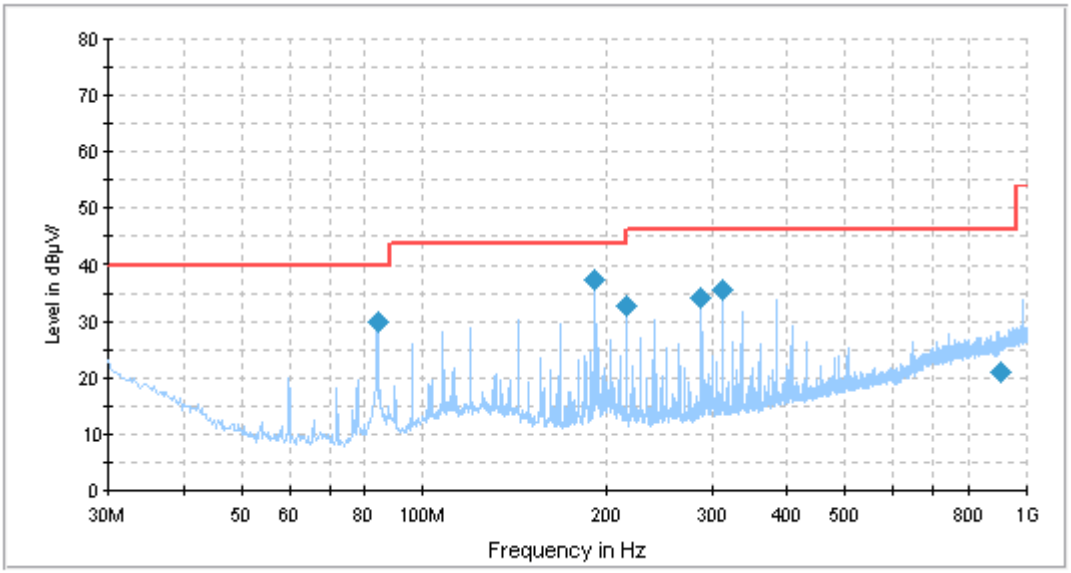
*within measurement uncertainty!

3) Spurious Emission in Restricted Bands

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave.	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cod. Amp. (dBμV/m)	Part 15.249/ 15.209	
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)
2485.78	26.08	Ave.	59	2.2	H	30.5	3.23	26.85	32.96	54	21.04
2388.11	26.23	Ave.	38	2.2	H	30.3	3.01	26.84	32.70	54	21.30
2485.78	25.74	Ave.	212	1.7	V	30.5	3.23	26.85	32.62	54	21.38
2388.11	25.98	Ave.	168	1.7	V	30.3	3.01	26.84	32.45	54	21.55
2485.78	40.63	PK	59	2.2	H	30.5	3.23	26.85	47.51	74	26.49
2388.11	40.90	PK	38	2.2	H	30.3	3.01	26.84	47.37	74	26.63
2485.78	40.18	PK	212	1.7	V	30.5	3.23	26.85	47.06	74	26.94
2388.11	40.49	PK	168	1.7	V	30.3	3.01	26.84	46.96	74	27.04

Model: GB8833

1) 30-1000 MHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
192.007750	37.5	123.0	H	25.0	-14.7	43.5	6.0
84.053500	32.2	400.0	H	149.0	-17.9	40.0	9.8
312.001250	35.7	102.0	H	25.0	-12.1	46.0	10.3
215.995750	32.7	123.0	H	0.0	-14.1	43.5	10.8
288.019000	34.2	101.0	H	144.0	-12.6	46.0	11.8
902.381000	21.1	122.0	H	130.0	-0.8	46.0	24.9

2) Above 1 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC 15.209/ FCC 15.249		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
2468	86.40	Ave.	56	1.6	V	30.3	3.11	26.85	92.96	94	1.04*	Fund.
7404	36.00	Ave.	96	2.1	V	37.8	5.19	26.58	52.41	54	1.59*	harmonic
2468	85.21	Ave.	100	1.1	H	30.3	3.11	26.85	91.77	94	2.23*	Fund.
7404	32.76	Ave.	88	1.9	H	39.1	5.19	26.58	50.47	54	3.53*	harmonic
4936	34.52	Ave.	220	1.7	H	36.2	4.38	26.74	48.36	54	5.64	harmonic
4936	34.52	Ave.	69	2.3	V	35.2	4.38	26.74	47.36	54	6.64	harmonic
7404	46.90	PK	96	2.1	V	37.8	5.19	26.58	63.31	74	10.69	harmonic
2468	96.10	PK	56	1.6	V	30.3	3.11	26.85	102.66	114	11.34	Fund.
7404	43.28	PK	88	1.9	H	39.1	5.19	26.58	60.99	74	13.01	harmonic
2468	92.08	PK	100	1.1	H	30.3	3.11	26.85	98.64	114	15.36	Fund.
4936	44.84	PK	69	2.3	V	35.2	4.38	26.74	57.68	74	16.32	harmonic
4936	43.69	PK	220	1.7	H	36.2	4.38	26.74	57.53	74	16.47	harmonic

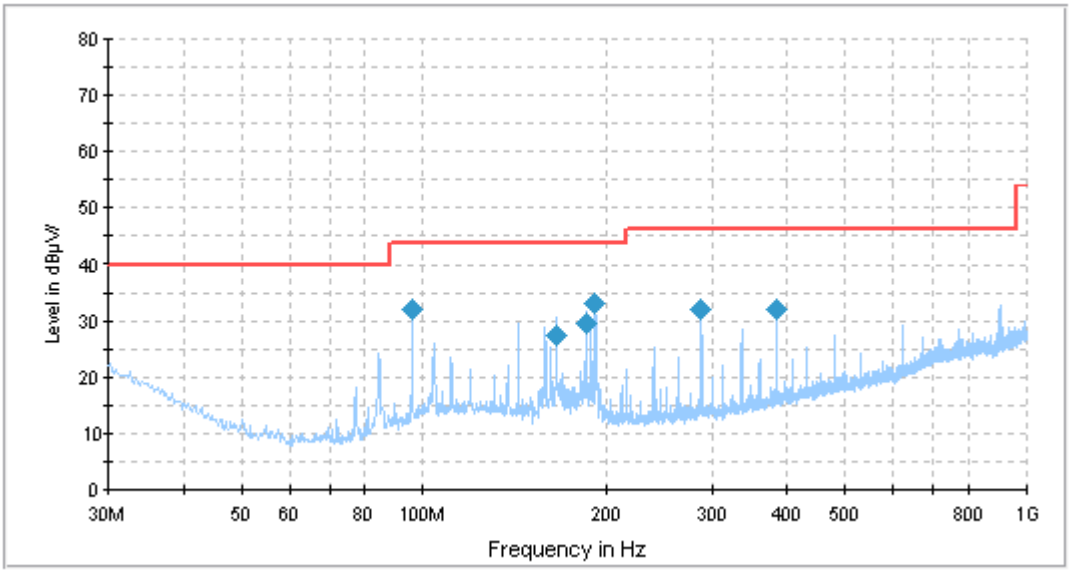
*within measurement uncertainty!

3) Spurious Emission in Restricted Bands

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave.	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cod. Amp. (dBμV/m)	Part 15.249/ 15.209	
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)
2371.42	41.6	PK	275	1.9	H	30.3	3.01	26.84	48.07	74	25.93
2492.09	40.64	PK	33	1.9	H	30.5	3.23	26.85	47.52	74	26.48
2492.09	26.21	Ave.	33	1.9	H	30.5	3.23	26.85	33.09	54	20.91
2371.42	40.78	PK	136	1.1	V	30.3	3.01	26.84	47.25	74	26.75
2492.09	40.44	PK	239	1.1	V	30.5	3.23	26.85	47.32	74	26.68
2371.42	27.01	Ave.	275	1.9	H	30.3	3.01	26.84	33.48	54	20.52
2492.09	26.07	Ave.	239	1.1	V	30.5	3.23	26.85	32.95	54	21.05
2371.42	26.24	Ave.	136	1.1	V	30.3	3.01	26.84	32.71	54	21.29

Model: GB8836

1) 30-1000 MHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
191.999500	33.2	122.0	H	247.0	-14.7	43.5	10.3
96.003750	32.1	205.0	H	172.0	-15.7	43.5	11.4
185.388000	29.7	127.0	H	212.0	-15.0	43.5	13.8
287.974500	32.2	101.0	H	312.0	-12.6	46.0	13.8
383.961750	32.2	101.0	H	178.0	-10.3	46.0	13.8
165.583250	27.6	168.0	H	194.0	-14.6	43.5	15.9

2) Above 1 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC 15.209/ FCC 15.249		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
2468	86.79	Ave.	100	1.1	H	30.3	3.11	26.85	93.35	94	0.65*	Fund.
2468	86.81	Ave.	56	1.6	V	30.3	3.11	26.85	93.37	94	0.68*	Fund.
7404	35.95	Ave.	96	2.1	V	37.8	5.19	26.58	52.36	54	1.64*	harmonic
7404	32.17	Ave.	88	1.9	H	39.1	5.19	26.58	49.88	54	4.12	harmonic
4936	33.71	Ave.	69	2.3	V	35.2	4.38	26.74	46.55	54	7.45	harmonic
4936	31.02	Ave.	220	1.7	H	36.2	4.38	26.74	44.86	54	9.14	harmonic
7404	46.89	PK	96	2.1	V	37.8	5.19	26.58	63.30	74	10.70	harmonic
2468	96.24	PK	56	1.6	V	30.3	3.11	26.85	102.80	114	11.20	Fund.
7404	43.32	PK	88	1.9	H	39.1	5.19	26.58	61.03	74	12.97	harmonic
2468	93.81	PK	100	1.1	H	30.3	3.11	26.85	100.37	114	13.63	Fund.
4936	44.38	PK	69	2.3	V	35.2	4.38	26.74	57.22	74	16.78	harmonic
4936	42.48	PK	220	1.7	H	36.2	4.38	26.74	56.32	74	17.68	harmonic

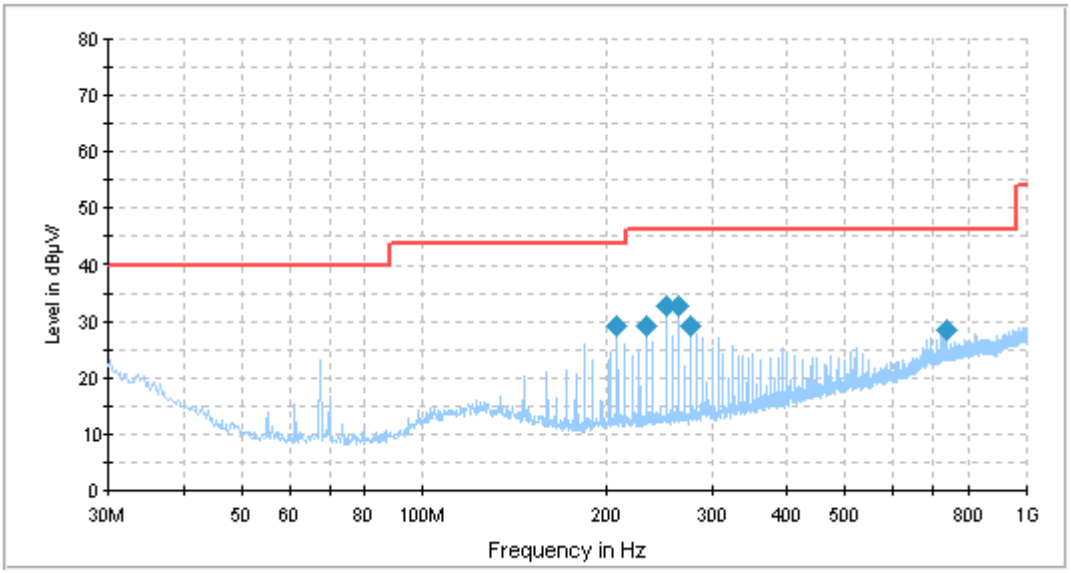
*within measurement uncertainty!

3) Spurious Emission in Restricted Bands

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave.	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cod. Amp. (dBμV/m)	Part 15.249/ 15.209	
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)
2484.86	26.17	Ave.	169	1.3	V	30.5	3.23	26.85	33.05	54	20.95
2369.95	26.56	Ave.	123	2.1	H	30.3	3.01	26.84	33.03	54	20.97
2484.86	26.14	Ave.	346	2.1	H	30.5	3.23	26.85	33.02	54	20.98
2369.95	26.17	Ave.	29	1.3	V	30.3	3.01	26.84	32.64	54	21.36
2484.86	40.76	PK	169	1.3	V	30.5	3.23	26.85	47.64	74	26.36
2369.95	41.11	PK	123	2.1	H	30.3	3.01	26.84	47.58	74	26.42
2484.86	40.67	PK	346	2.1	H	30.5	3.23	26.85	47.55	74	26.45
2369.95	40.78	PK	29	1.3	V	30.3	3.01	26.84	47.25	74	26.75

Model: GB8837

1) 30-1000 MHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
251.739500	32.8	122.0	H	114.0	-13.5	46.0	13.2
264.015500	32.7	122.0	H	101.0	-13.2	46.0	13.3
208.758500	29.4	122.0	H	283.0	-14.2	43.5	14.1
233.303750	29.2	139.0	H	111.0	-13.8	46.0	16.8
276.301500	29.2	102.0	H	84.0	-12.9	46.0	16.8
736.792500	28.4	122.0	H	355.0	-2.6	46.0	17.6

2) Above 1 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC 15.209/ FCC 15.249		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
2468	86.64	Ave.	56	1.6	V	30.3	3.11	26.85	93.20	94	0.80*	Fund.
7404	34.29	Ave.	96	2.1	V	37.8	5.19	26.58	50.70	54	3.30*	harmonic
2468	83.40	Ave.	100	1.1	H	30.3	3.11	26.85	89.96	94	4.04	Fund.
7404	32.14	Ave.	88	1.9	H	39.1	5.19	26.58	49.85	54	4.15	harmonic
4936	31.17	Ave.	220	1.7	H	36.2	4.38	26.74	45.01	54	8.99	harmonic
4936	30.25	Ave.	69	2.3	V	35.2	4.38	26.74	43.09	54	10.91	harmonic
7404	46.45	PK	96	2.1	V	37.8	5.19	26.58	62.86	74	11.14	harmonic
2468	95.22	PK	56	1.6	V	30.3	3.11	26.85	101.78	114	12.22	Fund.
7404	43.45	PK	88	1.9	H	39.1	5.19	26.58	61.16	74	12.84	harmonic
2468	92.45	PK	100	1.1	H	30.3	3.11	26.85	99.01	114	14.99	Fund.
4936	43.27	PK	220	1.7	H	36.2	4.38	26.74	57.11	74	16.89	harmonic
4936	42.60	PK	69	2.3	V	35.2	4.38	26.74	55.44	74	18.56	harmonic

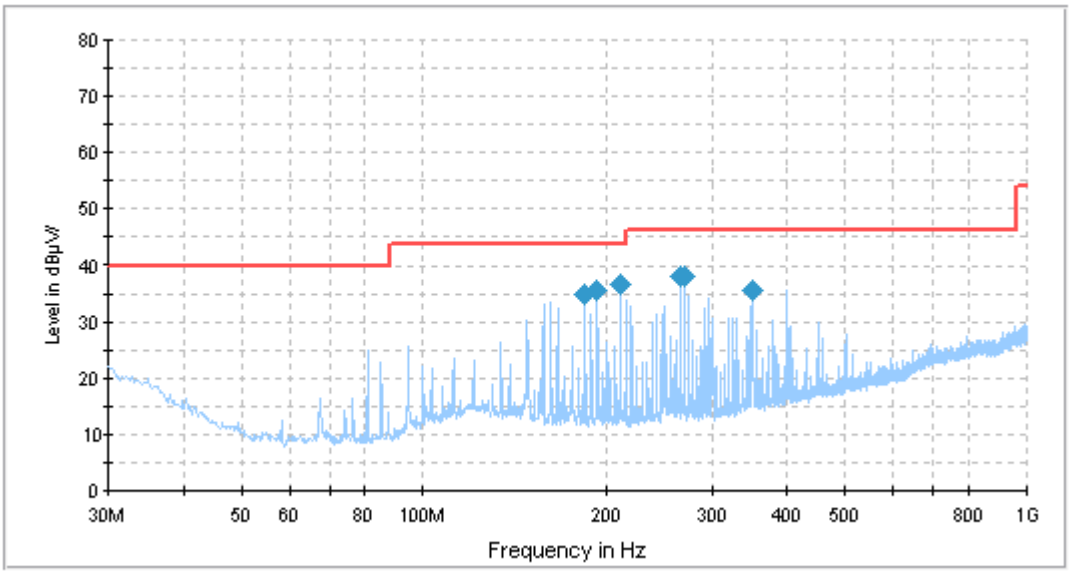
*within measurement uncertainty!

3) Spurious Emission in Restricted Bands

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave.	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cod. Amp. (dBμV/m)	Part 15.249/ 15.209	
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)
2379.12	41.62	PK	81	1.6	H	30.3	3.01	26.84	48.09	74	25.91
2483.62	41.41	PK	81	1.6	H	30.5	3.23	26.85	48.29	74	25.71
2379.12	40.95	PK	227	1.2	V	30.3	3.01	26.84	47.42	74	26.58
2379.12	26.86	Ave.	227	1.2	V	30.3	3.01	26.84	33.33	54	20.67
2483.62	27.14	Ave.	330	1.2	V	30.5	3.23	26.85	34.02	54	19.98
2483.62	42.03	PK	330	1.2	V	30.5	3.23	26.85	48.91	74	25.09
2483.62	26.75	Ave.	81	1.6	H	30.5	3.23	26.85	33.63	54	20.37
2379.12	26.97	Ave.	81	1.6	H	30.3	3.01	26.84	33.44	54	20.56

Model: GB8839

1) 30-1000 MHz



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (Degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
211.568250	36.7	153.0	H	153.0	-14.1	43.5	6.8
269.997750	38.3	123.0	H	274.0	-13.0	46.0	7.7
193.445500	35.7	170.0	H	345.0	-14.6	43.5	7.8
265.568250	38.1	123.0	H	273.0	-13.1	46.0	7.9
184.569500	35.0	123.0	H	175.0	-15.1	43.5	8.5
350.168000	35.6	102.0	H	261.0	-11.1	46.0	10.4

2) Above 1 GHz

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC 15.209/ FCC 15.249		
				Height (m)	Polar (H/V)	Factor (dB)				Limit (dBμV/m)	Margin (dB)	Comment
2468	87.07	Ave.	56	1.6	V	30.3	3.11	26.85	93.63	94	0.37*	Fund.
7404	34.71	Ave.	96	2.1	V	37.8	5.19	26.58	51.12	54	2.88*	harmonic
2468	84.30	Ave.	100	1.1	H	30.3	3.11	26.85	90.86	94	3.14*	Fund.
7404	30.24	Ave.	88	1.9	H	39.1	5.19	26.58	47.95	54	6.05	harmonic
4936	32.19	Ave.	220	1.7	H	36.2	4.38	26.74	46.03	54	7.97	harmonic
4936	32.93	Ave.	69	2.3	V	35.2	4.38	26.74	45.77	54	8.23	harmonic
2468	95.52	PK	56	1.6	V	30.3	3.11	26.85	102.08	114	11.92	Fund.
7404	45.61	PK	96	2.1	V	37.8	5.19	26.58	62.02	74	11.98	harmonic
7404	42.26	PK	88	1.9	H	39.1	5.19	26.58	59.97	74	14.03	harmonic
2468	91.85	PK	100	1.1	H	30.3	3.11	26.85	98.41	114	15.59	Fund.
4936	43.49	PK	220	1.7	H	36.2	4.38	26.74	57.33	74	16.67	harmonic
4936	43.98	PK	69	2.3	V	35.2	4.38	26.74	56.82	74	17.18	harmonic

*within measurement uncertainty!

3) Spurious Emission in Restricted Bands

Freq. (MHz)	S.A. Reading (dBμV)	Detector QP/PK/Ave.	Direction Degree	Test Antenna			Cable Loss (dB)	Amp. Gain (dB)	Cod. Amp. (dBμV/m)	Part 15.249/ 15.209	
				Height (m)	Polar (H/V)	Factor (dB/m)				Limit (dBμV/m)	Margin (dB)
2490.83	27.14	Ave.	117	1.4	V	30.5	3.23	26.85	34.02	54	19.98
2490.83	26.94	Ave.	261	1.5	H	30.5	3.23	26.85	33.82	54	20.18
2384.12	26.74	Ave.	39	1.4	V	30.3	3.01	26.84	33.21	54	20.79
2384.12	26.67	Ave.	136	1.5	H	30.3	3.01	26.84	33.14	54	20.86
2490.83	41.55	PK	261	1.5	H	30.5	3.23	26.85	48.43	74	25.57
2490.83	41.37	PK	117	1.4	V	30.5	3.23	26.85	48.25	74	25.75
2384.12	40.91	PK	39	1.4	V	30.3	3.01	26.84	47.38	74	26.62
2384.12	40.86	PK	136	1.5	H	30.3	3.01	26.84	47.33	74	26.67

FCC §15.249(d) - OUT OF BAND EMISSIONS

Applicable Standard

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation

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 its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
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	2010-11-11	2011-11-10

*** 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

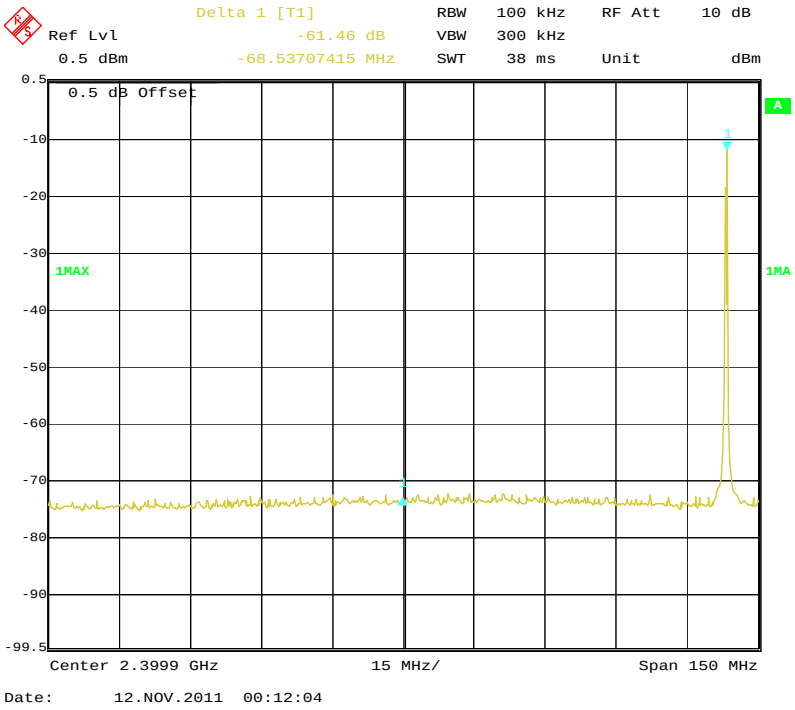
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.2 kPa

The testing was performed by Sula Huang on 2011-11-08.

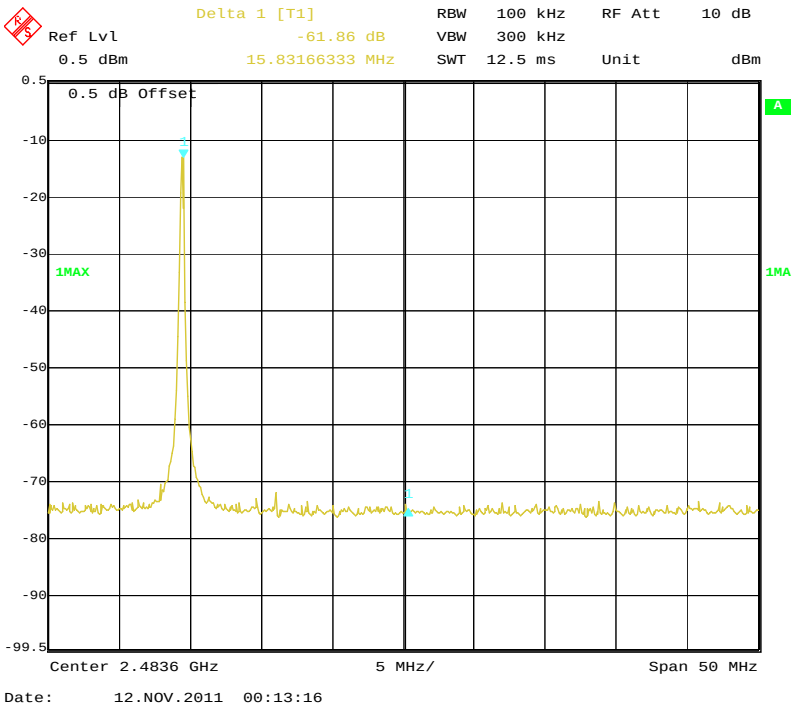
Frequency (MHz)	Delta Peak to Band Emission (dBc)	Delta Limit (dBc)	Result
2399.76	61.46	50	Pass
2483.68	61.86	50	Pass

Please refer to the following plots.

Band Edge, Left Side



Band Edge, Right Side



ANNEX A - PRODUCT SIMILARITY DECLARATION LETTER

Shenzhen Gospell Smarthome Electronic Co., Ltd.
5Floor/Block 2, Vision (SZ) Park, Hi-Tech Industrial Park, Shenzhen, China
Tel: +0755-29980909 Fax: +0755 - 27478338

Date: 2011-11-07

Product Similarity Declaration

To Whom It May Concern.

We Shenzhen Gospell Smarthome Electronic Co., LTD hereby declare that our INSPECTION CAMERA Model Number: GB8833/GB8836/GB8837/GB8839 are electrically identical with the GB8832 that was certified by BACL. They are just different in model names, due to the length of tube.

Please contact me if you have any question.

Signature: Thomas Bai

Thomas Bai

Manager

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