



**CENTRE OF TESTING SERVICE
INTERNATIONAL**

OPERATE ACCORDING TO ISO/IEC 17025

FCC ID TEST REPORT

TEST REPORT NUMBER : CGZ3100630-02362-O



CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao,
Guangzhou, China.



TEST REPORT For FCC ID	
47 CFR PART 15 OCT, 2009	
Report Reference No.	CGZ3100630-02362-O
Date of issue	22 July 2010
Testing Laboratory Name	CETRE OF TESTING SERVICE CO., LTD
Address	Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China.
Testing location/ procedure	Full application of Harmonised standards <input checked="" type="checkbox"/> Partial application of Harmonised standards <input type="checkbox"/> Other standard testing method <input type="checkbox"/>
Applicant's name	BELLMATE HOLDINGS LTD.
Address	Unit 206, Sterling Centre, 11 Cheung Yue Street, Cheung sha Wan, Kowloon, Hong Kong.
Test specification	
Standard	47 CFR PART 15 OCT, 2009
Test Report Form No.	CTSEMC-1.0
TRF Originator	CENTRE OF TESTING SERVICE CO., LTD
Master TRF	Dated 2009-01
CENTRE OF TESTING SERVICE CO., LTD. All rights reserved.	
This publication may be reproduced in whole or in part for non-commercial purposes as long as the CENTRE OF TESTING SERVICE CO., LTD is acknowledged as copyright owner and source of the material. CENTRE OF TESTING SERVICE CO., LTD takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
Test item description	WIRELESS CONTROLLER
Trade Mark	PRO 1
Manufacturer	BELLMATE HOLDINGS LTD.
Model/Type reference	WW160W
Ratings	24V~50Hz
Operating Frequency	916.060MHz
Result	Positive

Compiled by:

Quty Liu / File administrators

Supervised by:

Jackson Zhang / Technique principal

Approved by:

Kevin Liang / Manager

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



FCC ID -- T E S T R E P O R T

Test Report No. :	CGZ3100630-02362-O	<u>22 July 2010</u> Date of issue
--------------------------	---------------------------	--------------------------------------

Type / Model.....	WW160W
EUT.....	WIRELESS CONTROLLER
Applicant.....	BELLMATE HOLDINGS LTD.
Address.....	Unit 206, Sterling Centre, 11 Cheung Yue Street, Cheung sha Wan, Kowloon, Hong Kong.
Telephone.....	(852) 2785 0364
Fax.....	(852) 2785 0493
Contact.....	Mr. Xie
Manufacturer.....	BELLMATE HOLDINGS LTD.
Address.....	Unit 206, Sterling Centre, 11 Cheung Yue Street, Cheung sha Wan, Kowloon, Hong Kong.
Telephone.....	(852) 2785 0364
Fax.....	(852) 2785 0493
Contact.....	Mr. Xie
Test report holder.....	BELLMATE HOLDINGS LTD.
Address.....	Unit 206, Sterling Centre, 11 Cheung Yue Street, Cheung sha Wan, Kowloon, Hong Kong.
Telephone.....	(852) 2785 0364
Fax.....	(852) 2785 0493
Contact.....	Mr. Xie

Test Result according to the standards on page 3: **Positive**

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



TABLE OF CONTENTS

Description	Page
1 TEST STANDARDS.....	5
2 SUMMARY	5
2.1 GENERAL REMARKS.....	5
2.2 FINAL ASSESSMENT	5
3 EQUIPMENT UNDER TEST.....	5
3.1 POWER SUPPLY SYSTEM UTILISED	5
3.2 SHORT DESCRIPTION OF THE EQUIPMENT UNDER TEST (EUT)	5
3.3 EUT OPERATION MODE.....	5
3.4 EUT CONFIGURATION	6
4 TEST ENVIRONMENT	7
4.1 ADDRESS OF THE TEST LABORATORY	7
4.2 TEST FACILITY	7
4.3 ENVIRONMENTAL CONDITIONS	7
4.4 DEFINITIONS OF SYMBOLS USED IN THIS TEST REPORT	7
4.5 STATEMENT OF THE MEASUREMENT UNCERTAINTY	7
4.6 MEASUREMENT UNCERTAINTY.....	8
5 SUMMARY OF STANDARDS AND RESULTS	8
5.1.DESCRPTION OF STANDARDS AND RESULTS	8
6 POWER LINE CONDUCTED EMISSION TEST.....	9
6.1.TEST EQUIPMENT.....	9
6.2.BLOCK DIAGRAM OF TEST SETUP	9
6.3.POWER LINE CONDUCTED EMISSION TEST LIMITS	9
6.4.CONFIGURATION OF EUT ON TEST	9
6.5. OPERATING CONDITION OF EUT.....	10
6.6.TEST PROCEDURE	10
6.7.POWER LINE CONDUCTED EMISSION TEST RESULTS.....	10
7 RADIATED DISTURBANCE (ELECTRIC FIELD).....	15
7.1.TEST EQUIPMENT.....	15
7.2.BLOCK DIAGRAM OF TEST SETUP	15
7.3.RADIATED EMISSION LIMIT STANDARD: FCC 15.249.....	16
7.4.EUT CONFIGURATION ON TEST	16
7.5.OPERATING CONDITION OF EUT.....	16
7.6.TEST PROCEDURE	17
7.7.RADIATED EMISSION TEST RESULTS	17

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



8 BAND EDGE COMPLIANCE MEASUREMENT22

8.1.TEST EQUIPMENT.....22

8.2.TEST INFORMATION.....22

8.3.TEST RESULTS22

9 DEVIATION TO TEST SPECIFICATIONS.....25

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.



1 TEST STANDARDS

The tests were performed according to following standards:

- 47 CFR PART 15 OCT, 2009
- ANSI C63.4-2003

2 SUMMARY

2.1 GENERAL REMARKS

Date of receipt of test sample	30 June 2010
Testing commenced on	01 July 2010
Testing concluded on	22 July 2010

2.2 FINAL ASSESSMENT

The FCC requirements pertaining to the technical standards and tested operation modes are

- - fulfilled.
- ☐ - **not** fulfilled.

The equipment under test

- - fulfils the FCC requirements cited on page 3.
- ☐ - **does not** fulfil the FCC requirements cited on page 3.

3 EQUIPMENT UNDER TEST

3.1 Power supply system utilised

Power supply voltage : ■ 24V~50Hz

3.2 Short description of the Equipment under Test (EUT)

Number of tested samples: 1
Serial number: Prototype

3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

- ☐ - Standby
- - Test program (customer specific)

Operation mode 1: 916.060MHz

Note: X position of EUT is the worst case, so only these test results be recorded in the test report.

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

3.4 EUT configuration

3.4.1. Description of configuration (EUT)

3.4.1.1. EUT Information

Description	:	WIRELESS CONTROLLER
Model Number	:	WW160W
Operation frequency	:	916.060MHz ISM Band
Radio Technology	:	MSK
Modulation Technology	:	MSK modulation
Antenna	:	Integral antenna, met requirement of FCC 15.203
Antenna Assembly Gain	:	2.0dBi (maximum)

3.4.2. Tested Supporting System Details

3.4.2.1. Adapter

M/N	H3-12/1A
S/N	CN-OT0486-42940-37M-OBXB
Manufacturer	FRIWO EMC.Inc
Power Cord	Unshielder, Undetachabled, 1.8m, 2Pin
Certificate	By VoC

opyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

4 TEST ENVIRONMENT

4.1 Address of the test laboratory

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

4.2 Test facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L3394

CENTRE OF TESTING SERVICE CO., LTD has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

IC-Registration No.: 8374

The 3m Alternate Test Site of CENTRE OF TESTING SERVICE CO., LTD has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8374 on June 24, 2009 .

FCC-Registration No.: 971995

CENTRE OF TESTING SERVICE CO., LTD, EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration No.791995, July 21, 2009.

4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 °C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

4.4 Definitions of symbols used in this test report

- - The black square indicates that the listed condition, standard or equipment is applicable for this report.
- - The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	$\pm 1.22\text{dB}$	(1)
Power disturbance	30MHz~300MHz	$\pm 1.38\text{dB}$	(1)
Radiation emission (3m)	30MHz~300MHz	$\pm 3.14\text{dB}$	(1)
	300MHz~1000MHz	$\pm 3.18\text{dB}$	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

5 Summary of standards and results

5.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Conducted Disturbance Emission Test	FCC Part 15 C: 15.207 ANSI C63.4-2003	PASSED
Radiated Emission Test	FCC Part 15 C: 15.249 ANSI C63.4-2003	PASSED
Band Edge Compliance Test	FCC Part 15 C: 15.249 ANSI C63.4-2003	PASSED
N/A is an abbreviation for Not Applicable.		

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

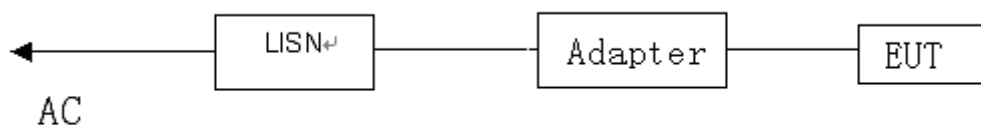
6 Power line conducted Emission Test

6.1. Test Equipment

Conducted Disturbance					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESHS10	842884/012	2009/12
2	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/025	2009/12
3	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/026	2009/12
4	Pulse Limiter	ROHDE & SCHWARZ	ESHSZ2	100301	2009/12
5	EMI Test Software	ROHDE & SCHWARZ	ESK1	N/A	2009/12

6.2. Block Diagram of Test Setup

6.2.1 Block Diagram of connection between EUT and simulators



(EUT: WIRELESS CONTROLLER)

6.3. Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

6.4. Configuration of EUT on Test

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

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

6.5. Operating Condition of EUT

- 6.5.1. Setup the EUT and simulator as shown as Section 6.2.
- 6.5.2. Turn on the power of all equipment.
- 6.5.3. Let the EUT work in test mode (TX) and measurement it.

6.6. Test Procedure

The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N.#1). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. let EUT working in test mode, then test it. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC Part 15C on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS 10) is set at 10kHz.

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

The test result are reported on Section 6.7.

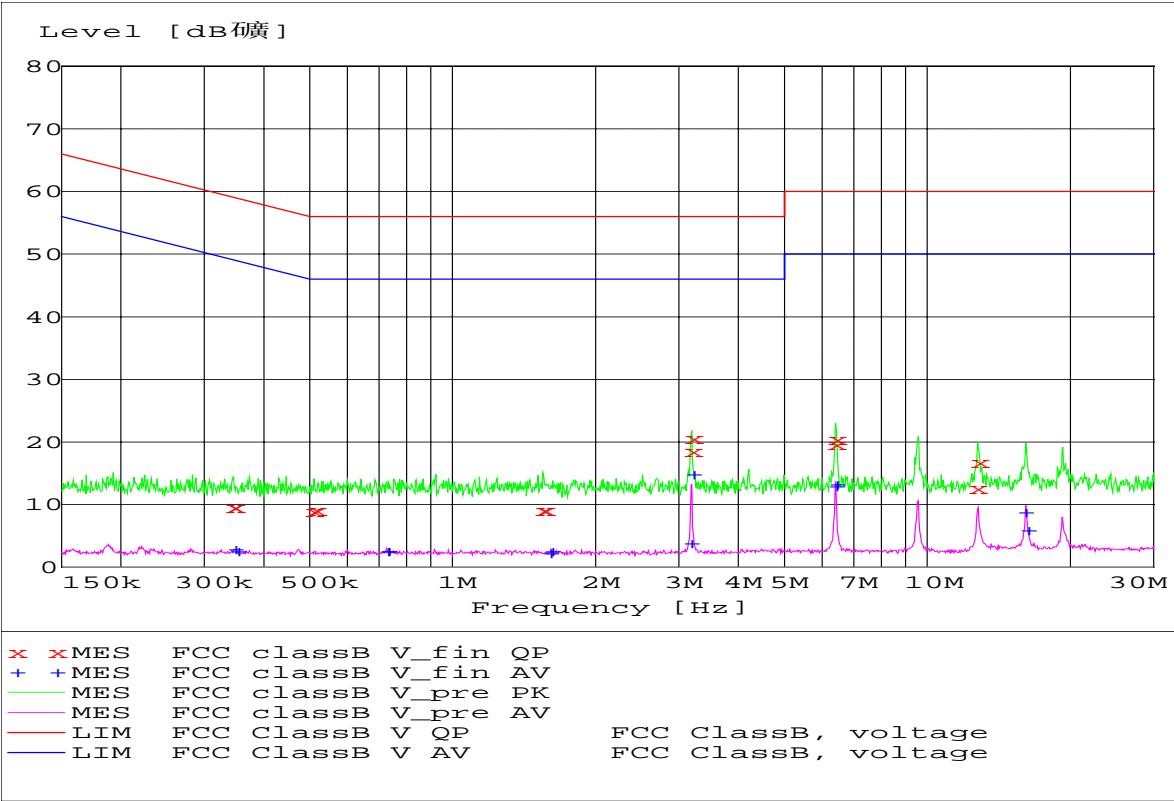
6.7. Power Line Conducted Emission Test Results

PASSED



Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed
Test point	Va		<input type="checkbox"/> - not passed

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

**MEASUREMENT RESULT: "FCC classB V_{fin} QP"**

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.345487	9.50	10.1	59	49.6	Va	GND
0.346869	9.50	10.1	59	49.5	Va	GND
0.506840	9.00	10.1	56	47.1	Va	GND
0.515000	9.10	10.1	56	46.9	Va	GND
1.549925	9.20	10.1	56	46.8	Va	GND
1.562350	9.10	10.1	56	46.9	Va	GND
3.192377	18.60	10.1	56	37.4	Va	GND
3.205146	20.60	10.1	56	35.4	Va	GND
6.394125	19.60	10.0	60	40.4	Va	GND
6.419701	20.40	10.0	60	39.6	Va	GND
12.705148	12.70	9.9	60	47.3	Va	GND
12.806993	16.70	9.9	60	43.3	Va	GND

MEASUREMENT RESULT: "FCC classB V_{fin} AV"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.346872	2.80	10.1	49	46.2	Va	GND
0.351050	2.50	10.1	49	46.5	Va	GND
0.725943	2.50	10.1	46	43.5	Va	GND
0.728847	2.50	10.1	46	43.5	Va	GND
1.600230	2.30	10.1	46	43.7	Va	GND
1.613057	2.50	10.1	46	43.5	Va	GND
3.166998	3.90	10.1	46	42.1	Va	GND
3.205150	14.80	10.1	46	31.2	Va	GND
6.394125	12.90	10.0	50	37.1	Va	GND
6.419701	13.20	10.0	50	36.8	Va	GND
16.015300	8.70	9.9	50	41.3	Va	GND
16.208253	5.90	9.9	50	44.1	Va	GND

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

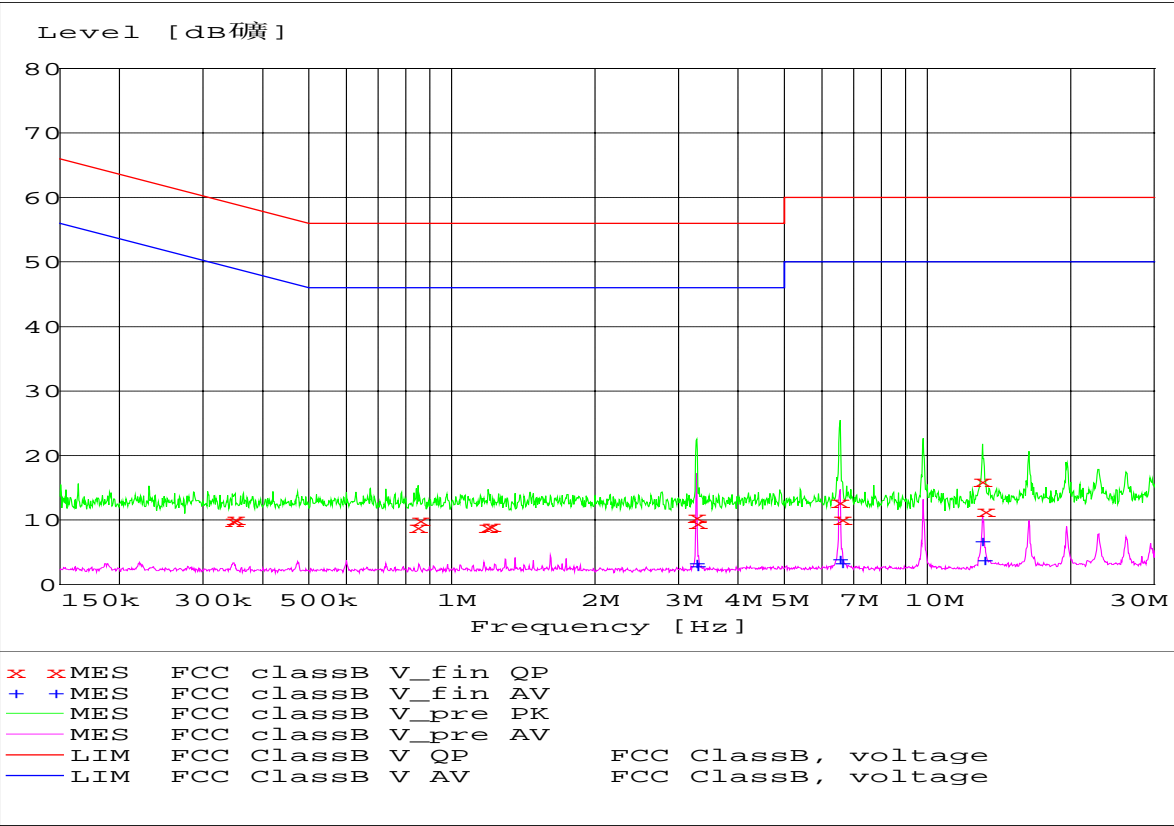
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed
Test point	Vb		<input type="checkbox"/> - not passed

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.
Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China
Tel: +86-20-85543113 (32 lines) Fax: +86-20-38780406
Complaint line: +86-20-85533471 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

**MEASUREMENT RESULT: "FCC classB V_{fin} QP"**

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.345487	9.80	10.1	59	49.2	Vb	GND
0.348260	10.20	10.1	59	48.8	Vb	GND
0.841500	8.90	10.1	56	47.1	Vb	GND
0.851638	10.00	10.1	56	46.0	Vb	GND
1.181460	9.00	10.1	56	47.1	Vb	GND
1.200477	9.10	10.1	56	46.9	Vb	GND
3.243770	10.40	10.1	56	45.6	Vb	GND
3.269772	9.60	10.1	56	46.4	Vb	GND
6.497040	12.80	10.0	60	47.2	Vb	GND
6.575317	10.20	10.0	60	49.8	Vb	GND
12.961290	16.10	9.9	60	43.9	Vb	GND
13.169918	11.40	9.9	60	48.6	Vb	GND

MEASUREMENT RESULT: "FCC classB V_{fin} AV"

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
3.243770	3.30	10.1	46	42.8	Vb	GND
3.269772	2.90	10.1	46	43.1	Vb	GND
6.497040	4.00	10.0	50	46.0	Vb	GND
6.575317	3.30	10.0	50	46.7	Vb	GND
12.961290	6.70	9.9	50	43.3	Vb	GND
13.117448	3.80	9.9	50	46.2	Vb	GND

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

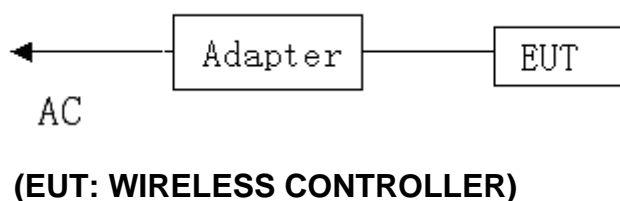
7 Radiated disturbance (electric field)

7.1. Test Equipment

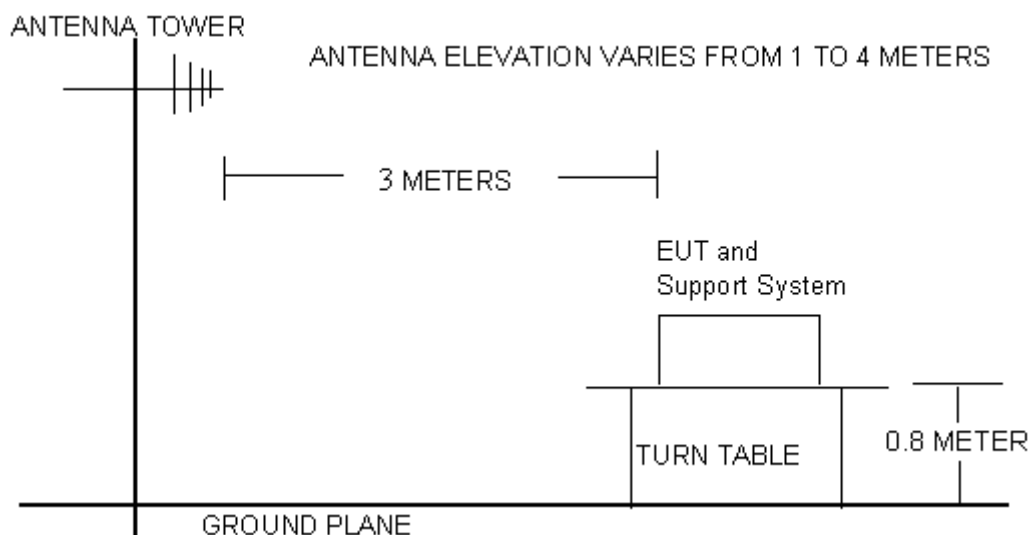
Radiated disturbance (electric field)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100868	2009/12
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2009/12
3	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2009/12
4	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2009/12
5	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2009/12

7.2. Block Diagram of Test Setup

7.2.1 Block Diagram of connection between EUT and simulators



7.2.2 Anechoic Chamber Setup Diagram



copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

7.3. Radiated Emission Limit Standard: FCC 15.249

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Local Oscillator:	3	114.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 94.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	
Above 1000	3	Other: 74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

Remark: (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V}/\text{m}$
 (2) The smaller limit shall apply at the cross point between two frequency bands.
 (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

7.4. EUT Configuration on Test

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

7.5. Operating Condition of EUT

7.5.1. Setup the EUT and simulator as shown as Section 7.2.

7.5.2. Turn on the power of all equipment.

7.5.3. Let the EUT work in test mode (TX) and measurement it.



7.6. Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2003 on radiated emission Test.

The frequency range from 30MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 120kHz RBW below 1GHz and a Peak and Average detector with 1MHz RBW above 1GHz,

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 300kHz VBW below 1GHz and a Peak detector with 1MHz VBW above 1GHz, A average detector with 10Hz VBW above 1GHz

Pretest x, y, z position of EUT, final, select the worst case x position test and record the test results in the report.

The test modes (TX Mode) is tested in Anechoic Chamber and all the scanning waveforms are reported on section 7.7

7.7. Radiated Emission Test Results

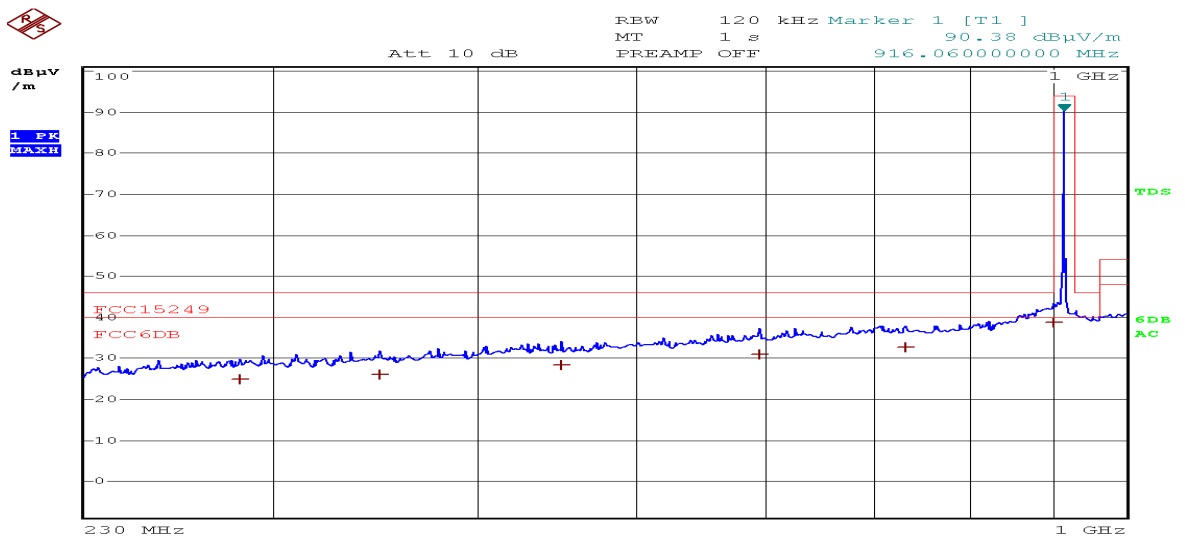
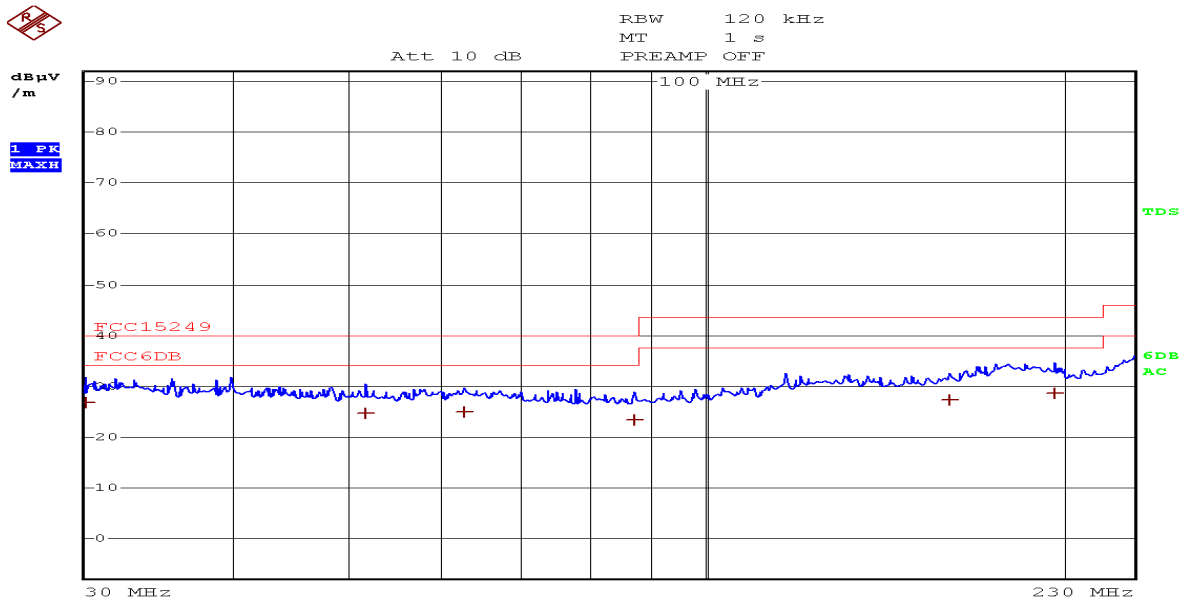
PASSED

The frequency range from 30MHz to 230MHz, 230MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.



Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed
Test point:	Horizontal		<input type="checkbox"/> - not passed
Frequency range:	30-230MHz and 230-1000MHz		

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	QP	Average	QP	Average	QP
30.88	-	25.65	-	40	-	14.35
51.31	-	26.36	-	40	-	13.64
160.76	-	27.01	-	43.5	-	12.99
356.32	-	26.19	-	46	-	19.80
591.44	-	31.05	-	46	-	14.95
732.54	-	32.63	-	46	-	13.36

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	QP	Average	QP	Average	QP
916.060	-	90.3	-	94	-	3.7

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed
Test point:	Horizontal		<input type="checkbox"/> - not passed
Frequency range:	1G-10GHz		

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	Peak	Average	Peak	Average	Peak
1832.2	49.8	63.2	54	74	4.2	10.8
2374.9	42.1	53.3	54	74	11.9	20.7
2746.0	46.0	58.5	54	74	8.0	15.5
3287.9	47.0	56.3	54	74	7.0	27.7
7897.7	41.3	50.0	54	74	12.7	24.0
8787.1	41.5	51.7	54	74	12.5	22.3
9345.8	43.2	53.5	54	74	10.8	20.5

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

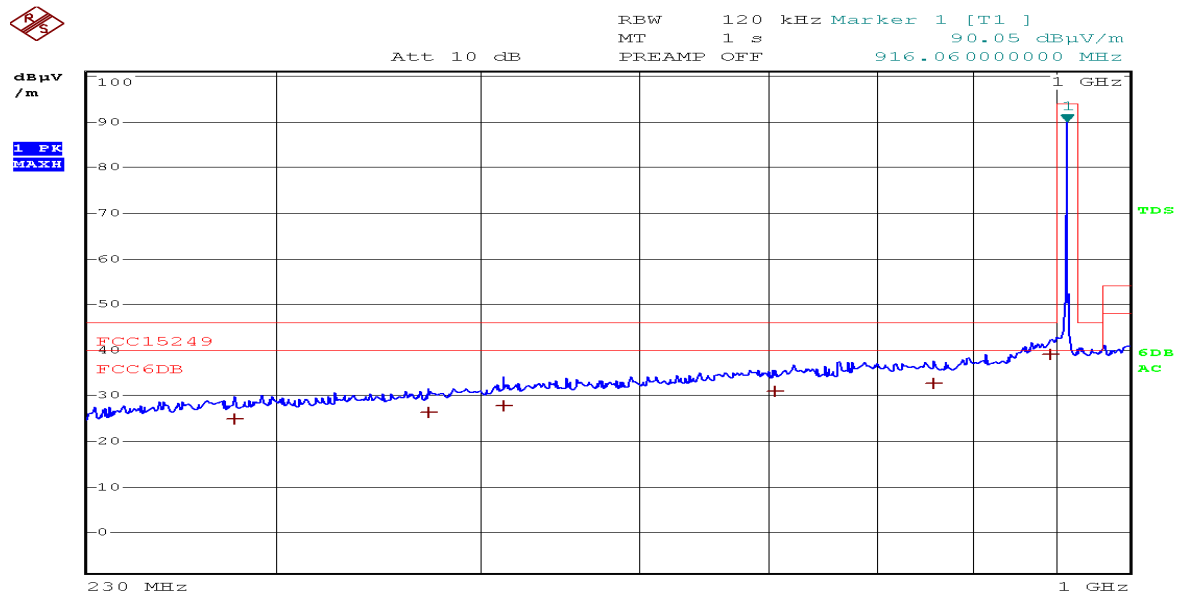
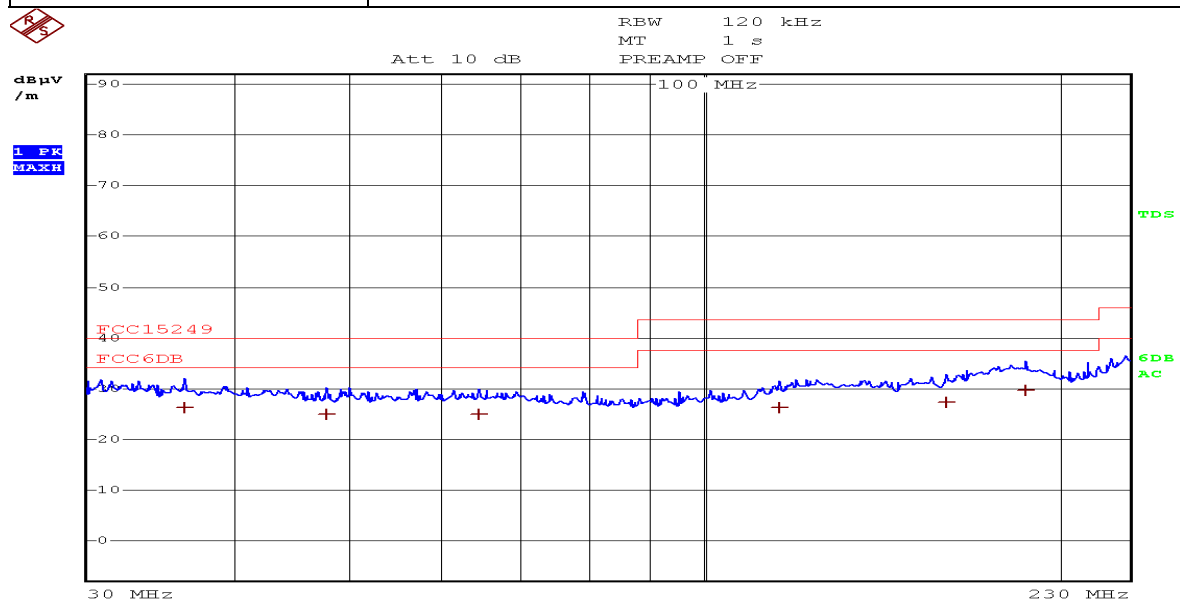
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed
Test point:	Vertical		<input type="checkbox"/> - not passed
Frequency range:	30-230MHz and 230-1000MHz		

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	QP	Average	QP	Average	QP
31.11	-	25.63	-	40	-	14.37
50.32	-	26.35	-	40	-	13.65
160.54	-	27.01	-	43.5	-	16.49
196.32	-	27.05	-	43.5	-	16.45
591.44	-	31.05	-	46	-	14.95
732.54	-	32.63	-	46	-	13.36

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	QP	Average	QP	Average	QP
916.060	-	90.0	-	94	-	4.0

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

Channel:	916.060MHz	Result:	<input checked="" type="checkbox"/> - passed <input type="checkbox"/> - not passed
Test point:	Vertical		
Frequency range:	1G-10GHz		

Frequency [MHz]	Result [dBμV]		Limit [dBμV]		Dlimit[dBμV]	
	Average	Peak	Average	Peak	Average	Peak
1832.1	50.1	63.3	54	74	3.9	10.7
2372.1	42.2	53.3	54	74	11.8	20.7
2745.4	46.0	58.5	54	74	8.0	15.5
3234.5	47.0	56.5	54	74	7.0	27.5
7866.7	41.3	50.0	54	74	12.7	24.0
8709.8	41.5	51.7	54	74	12.5	22.3
9376.1	43.2	53.4	54	74	10.8	20.6

Note: 1. Emission level=Read level + Factor
2. Factor=Antenna factor + Cable loss

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



8 Band Edge Compliance Measurement

8.1. Test Equipment

Radiated disturbance (electric field)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	10868	2009/12
2	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2009/12
3	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2009/12

8.2. Test Information

EUT:	WIRELESS CONTROLLER
M/N:	WW160W
Test Date:	10 July 2010
Ambient Temperature:	20°C
Relative Humidity:	50%
Test standard:	FCC PART 15C: 15.249
Test mode:	Transmitting
Test Frequency:	916.060MHz
Test By:	Roy

8.3. Test Results

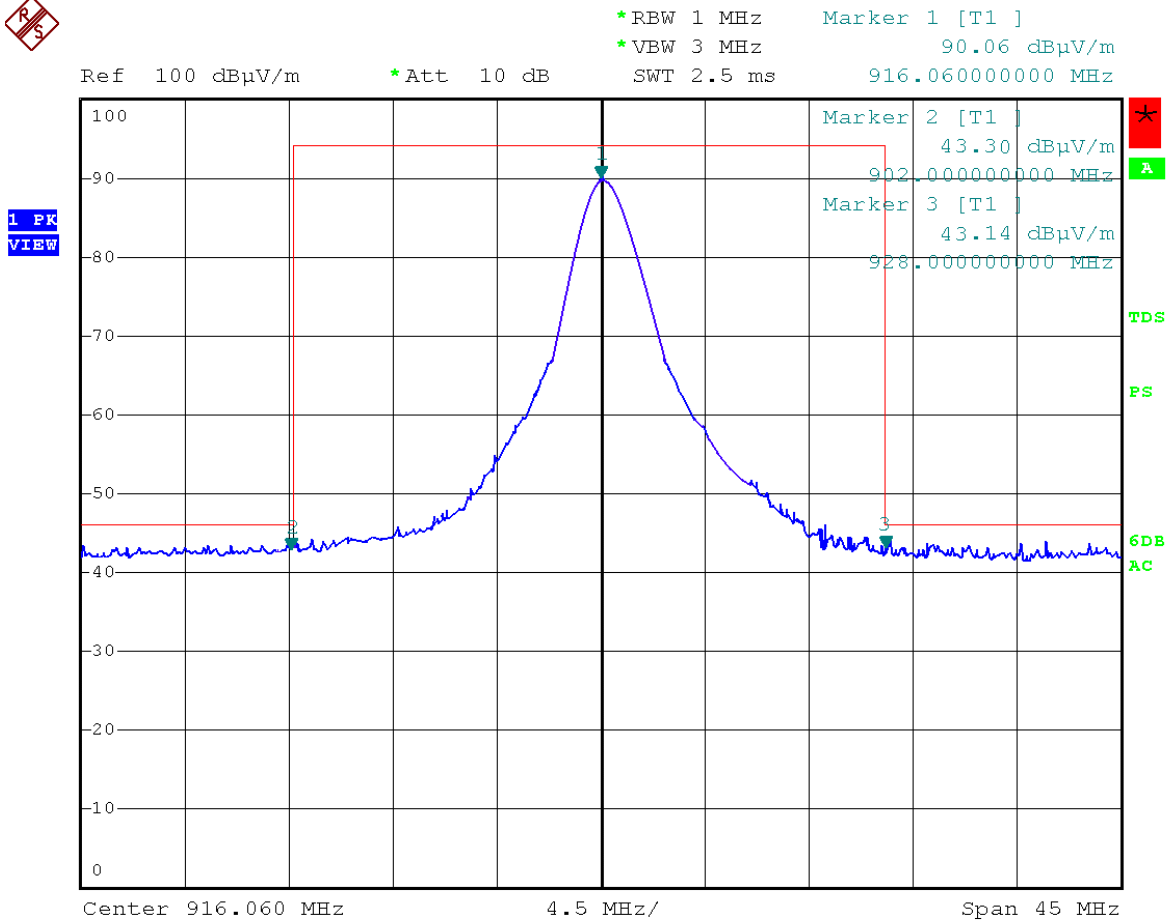
PASSED.

The testing data was attached in the next pages.



Test point:	Horizontal	Result:	<input checked="" type="checkbox"/> - passed
Test Frequency:	916.060MHz		<input type="checkbox"/> - not passed

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



opyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

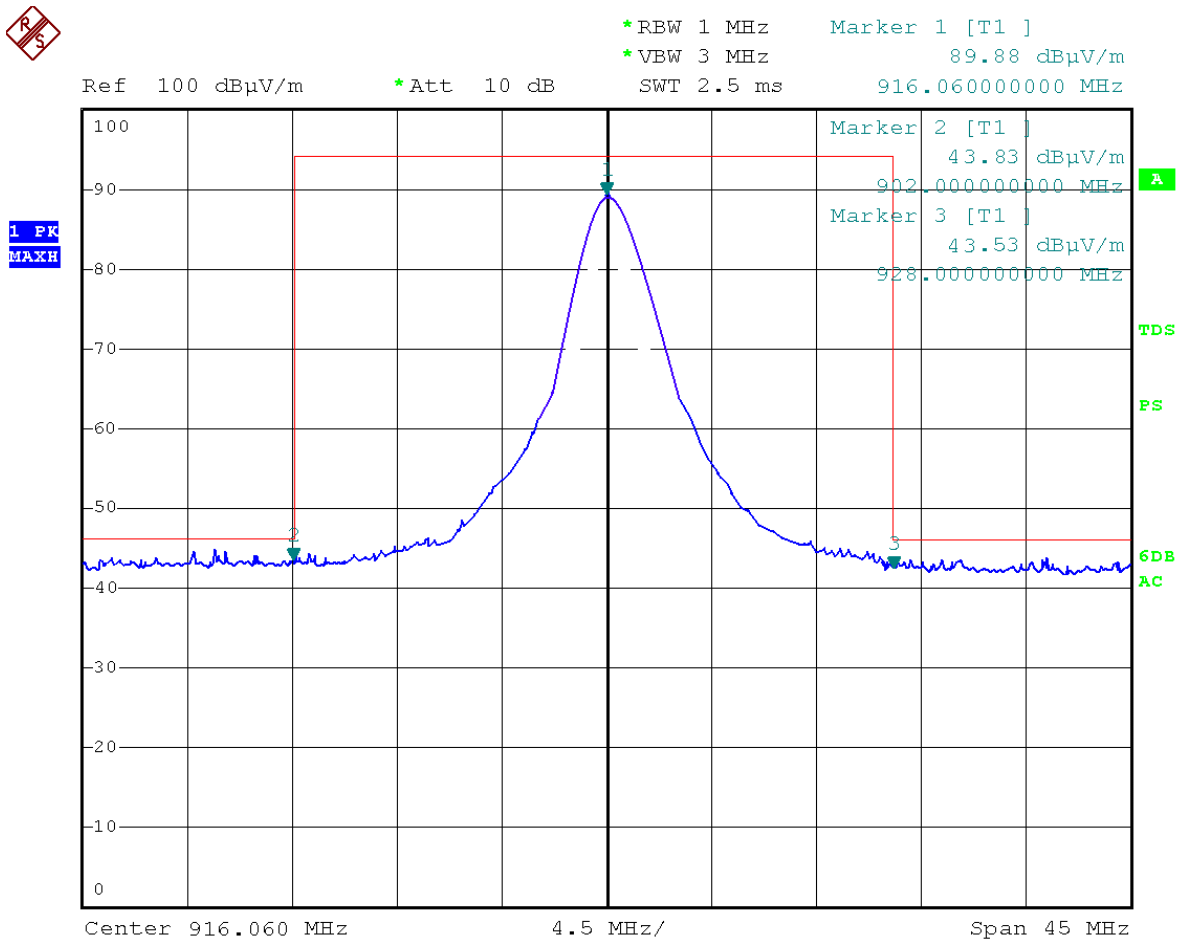
E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



Test point:	Vertical	Result:	<input checked="" type="checkbox"/> - passed
Test Frequency:	916.060MHz		<input type="checkbox"/> - not passed

EUT	WIRELESS CONTROLLER
Firm Name	BELLMATE HOLDINGS LTD.
Operating Condition	24V~50Hz
Test Condition	Ambient Temperature: 20°C Humidity: 50%
Operator	Roy
MODEL NO	WW160W



opyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service



9 Deviation to test specifications

[NONE]

copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CENTRE OF TESTING SERVICE CO., LTD.

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

Complaint line: +86-20-85533471

E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service