

FCC PART 15B, CLASS B

TEST REPORT

For

Onglory Rich Limited

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Hong Kong

FCC ID: R6DTL700

Report Type: Original Report	Product Type: Mobile phone
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Report Number: RIDG121116004-00C	
Report Date: 2012-11-29	
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Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Dongguan).

TABLE OF CONTENTS

GENERAL INFORMATION.....	3
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
OBJECTIVE	3
RELATED SUBMITTAL(S)/GRANT(S).....	3
TEST FACILITY	3
SYSTEM TEST CONFIGURATION.....	4
JUSTIFICATION	4
EUT EXERCISE SOFTWARE	4
EQUIPMENT MODIFICATIONS	4
SUPPORT EQUIPMENT LIST AND DETAILS	4
EXTERNAL CABLE.....	4
PRINTER	4
KEYBOARD	4
EUT	4
N/A.....	4
BLOCK DIAGRAM OF TEST SETUP	5
SUMMARY OF TEST RESULTS	6
FCC §15.107 – AC LINE CONDUCTED EMISSIONS	7
MEASUREMENT UNCERTAINTY	7
EUT SETUP	7
EMI TEST RECEIVER SETUP.....	7
TEST PROCEDURE	8
TEST EQUIPMENT LIST AND DETAILS.....	8
TEST RESULTS SUMMARY	8
TEST DATA	8
FCC §15.109 - RADIATED EMISSIONS	11
MEASUREMENT UNCERTAINTY	11
EUT SETUP	11
EMI TEST RECEIVER SETUP.....	11
TEST PROCEDURE	12
CORRECTED AMPLITUDE & MARGIN CALCULATION	12
TEST EQUIPMENT LIST AND DETAILS.....	12
TEST RESULTS SUMMARY	12
TEST DATA	13

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Onglory Rich Limited*'s product, model number: *TL700 (FCC ID: R6DTL700)* (the "EUT") in this report was a *Mobile phone*, which was measured approximately: 12.5 cm (L) x 7.0 cm (W) x 1.5 cm (H), rated input voltage: DC 3.7 V from battery or DC 5V from adapter.

Adapter information: Tonino
Model No: HB12-050100SPA
Input: AC 100-250V, 50/60Hz
Output: AC 100-250V, 50/60Hz or DC 5V

** All measurement and test data in this report was gathered from production sample serial number: 121116004 (Assigned by BACL.Dongguan). The EUT was received on 2012-11-19.*

Objective

This report is prepared on behalf of *Onglory Rich Limited* in accordance with Part 2, Subpart J, Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine compliance with FCC Part 15B, Class B.

Related Submittal(s)/Grant(s)

FCC Part 22H&24E PCE submissions with FCC ID: *R6DTL700*.
FCC Part 15C DSS submissions with FCC ID: *R6DTL700* for Bluetooth.
FCC Part 15C DTS submissions with FCC ID: *R6DTL700* for Wifi.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industrial Zone, Tangxia, Dongguan, Guangdong, China

Test site at Bay Area Compliance Laboratories Corp. (Dongguan) 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 February 02, 2012. 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.: 273710. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Justification

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

EUT Exercise Software

The software 'lan test' was used in the testing.

Equipment Modifications

No modification was made to the EUT.

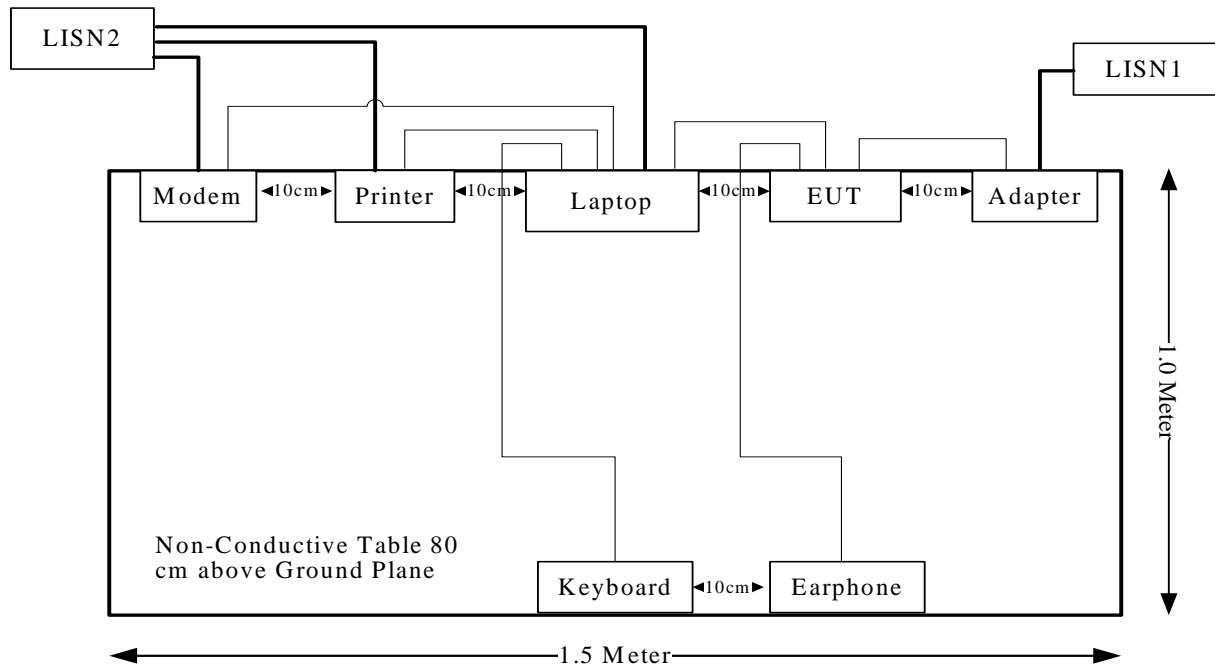
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	Laptop	PP11L	QDS-BRCM1017
HP	Printer	C3941A	JPTVOB2337
DELL	Keyboard	L100	CNORH656658907BL05DC
SAST	Modem	AEM-2100	0293
N/A	Earphone	N/A	N/A

External Cable

Cable Description	Length (m)	From Port	To
Shielded Detachable Printer Cable	1.2	Parallel Port of Laptop	Printer
Shielded Detachable Serial Cable	1.2	Serial Port of Laptop	Modem
Shielded Detachable Keyboard Cable	1.5	Keyboard Port of Laptop	Keyboard
USB Cable	1.0	Laptop	EUT
Earphone Cable	1.0	EUT	N/A

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	AC Line Conducted Emissions	Compliance
§15.109	Radiated Emissions	Compliance

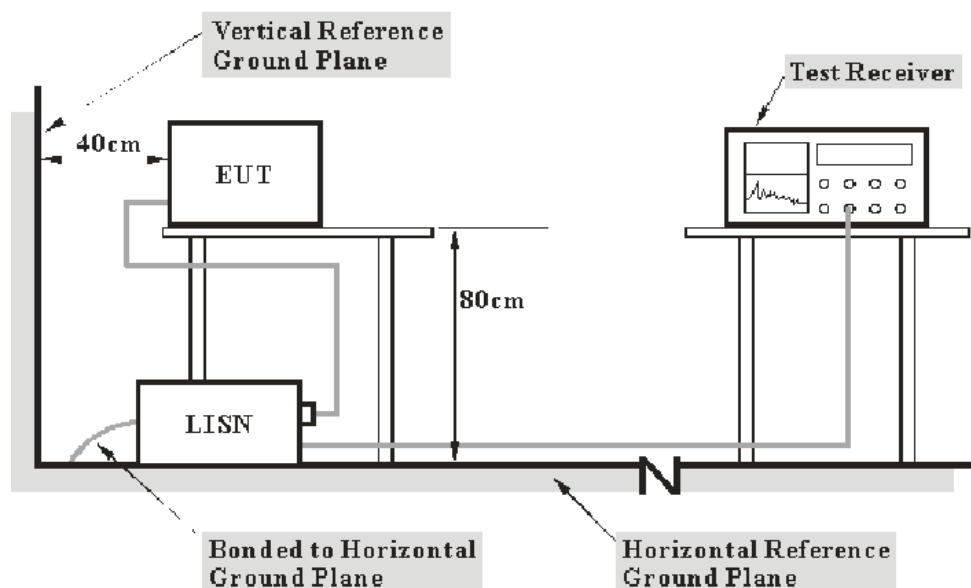
FCC §15.107 – AC LINE CONDUCTED EMISSIONS

Measurement Uncertainty

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

Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. (Dongguan) is 2.4 dB, and the uncertainty will not be taken into consideration for all the test data recorded in the report.

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 15.107 Class B 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:

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

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2012-10-08	2013-10-07
R&S	LISN1	ESH3-Z5	843331/015	2012-09-17	2013-09-16
R&S	LISN2	ESH3-Z5	100113	2012-10-08	2013-10-07

Test Results Summary

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

4.20 dB at 0.275MHz in the Neutral conducted

Test Data

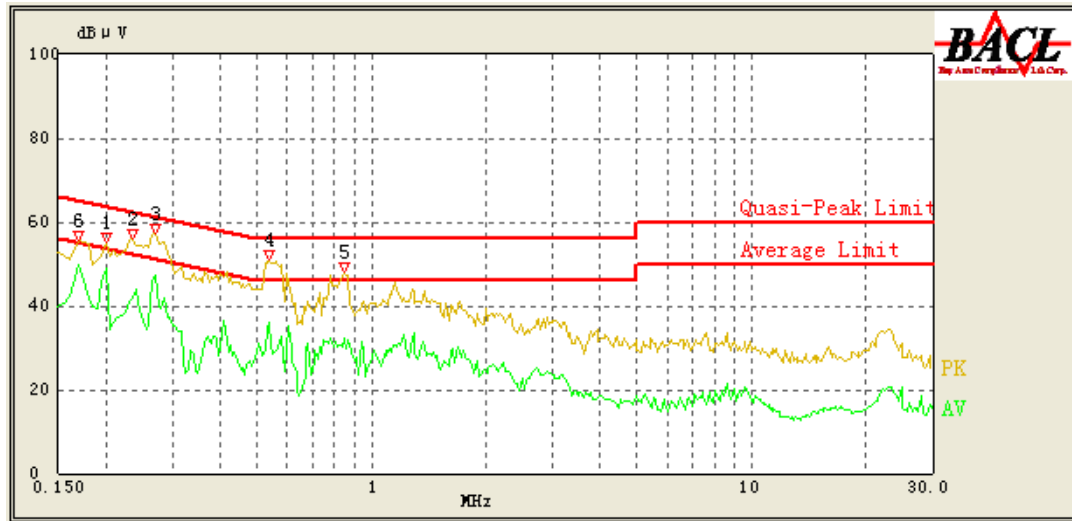
Environmental Conditions

Temperature:	25.7 °C
Relative Humidity:	48 %
ATM Pressure:	100.1kPa

The testing was performed by Leon Chen on 2012-11-22.

Test mode: Downloading

120 V, 60 Hz, Line:



Frequency (MHz)	Cord. Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/AV/QP)
0.200	46.76	0.42	64.57	17.81	QP
0.200	43.85	0.42	54.57	10.72	AV
0.235	48.90	0.42	63.57	14.67	QP
0.235	42.08	0.42	53.57	11.49	AV
0.270	52.60	0.42	62.57	9.97	QP
0.270	47.36	0.42	52.57	5.21	AV
0.535	44.00	0.42	56.00	12.00	QP
0.535	36.09	0.42	46.00	9.91	AV
0.850	40.18	0.44	56.00	15.82	QP
0.845	32.35	0.44	46.00	13.65	AV
0.170	49.33	0.41	65.43	16.10	QP
0.170	39.79	0.41	55.43	15.64	AV

120 V, 60 Hz, Neutral:

Frequency (MHz)	Cord. Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/AV/QP)
0.160	51.25	0.40	65.71	14.46	QP
0.160	45.12	0.40	55.71	10.59	AV
0.195	52.71	0.42	64.71	12.00	QP
0.195	48.49	0.42	54.71	6.22	AV
0.275	54.58	0.42	62.43	7.85	QP
0.275	48.23	0.42	52.43	4.20	AV
0.365	44.54	0.42	59.86	15.32	QP
0.365	36.62	0.42	49.86	13.24	AV
0.545	47.94	0.42	56.00	8.06	QP
0.545	36.60	0.42	46.00	9.40	AV
0.850	40.49	0.44	56.00	15.51	QP
0.845	33.13	0.44	46.00	12.87	AV

FCC §15.109 - RADIATED EMISSIONS

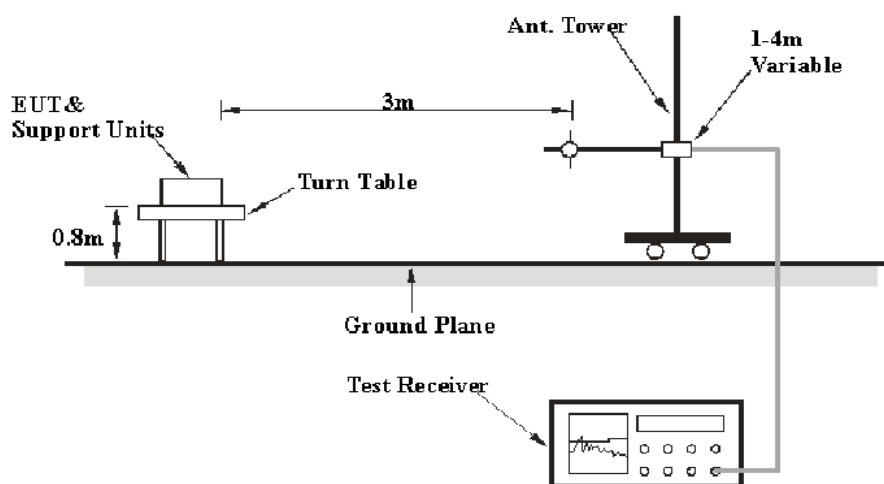
Measurement Uncertainty

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 CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of radiation emissions measurement from 30 MHz to 1 GHz at Bay Area Compliance Laboratories Corp. (Dongguan) is 4.0 dB, and the uncertainty will not be taken into consideration for all the test data recorded in the report.

EUT Setup

Below 1 GHz:



The radiated 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 Part 15.109, Class B limits.

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

The adapter connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

According to FCC 15.33 requirements, the system was measured from 30 MHz to 1 GHz.

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

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>	<i>Detector</i>
30MHz – 1000 MHz	120 kHz	300 kHz	QP

Test Procedure

For the radiated emissions test, the adapter was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

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

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1 GHz.

Corrected Amplitude & Margin Calculation

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

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

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the 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
R & S	EMI Test Receiver	ESCI	100224	2012-11-11	2013-11-10
Sunol Sciences	Hybrid Antennas	JB3	A060611-1	2012-09-06	2013-09-05
HP	Pre-amplifier	8447E	2434A02181	2012-10-08	2013-10-07
R & S	Spectrum Analyzer	FSEM	1079 8500	2012-10-09	2013-10-08
Beijingdayang	Horn Antenna	OMCDH10180	10279001B	2010-07-30	2015-07-29
Mini-Circuits	Wideband Amplifier	ZVA-183-S+	96901149	N/A	N/A

Test Results Summary

According to the data in the following table, the EUT complied with the FCC §15.109, Class B, with the worst margin reading of:

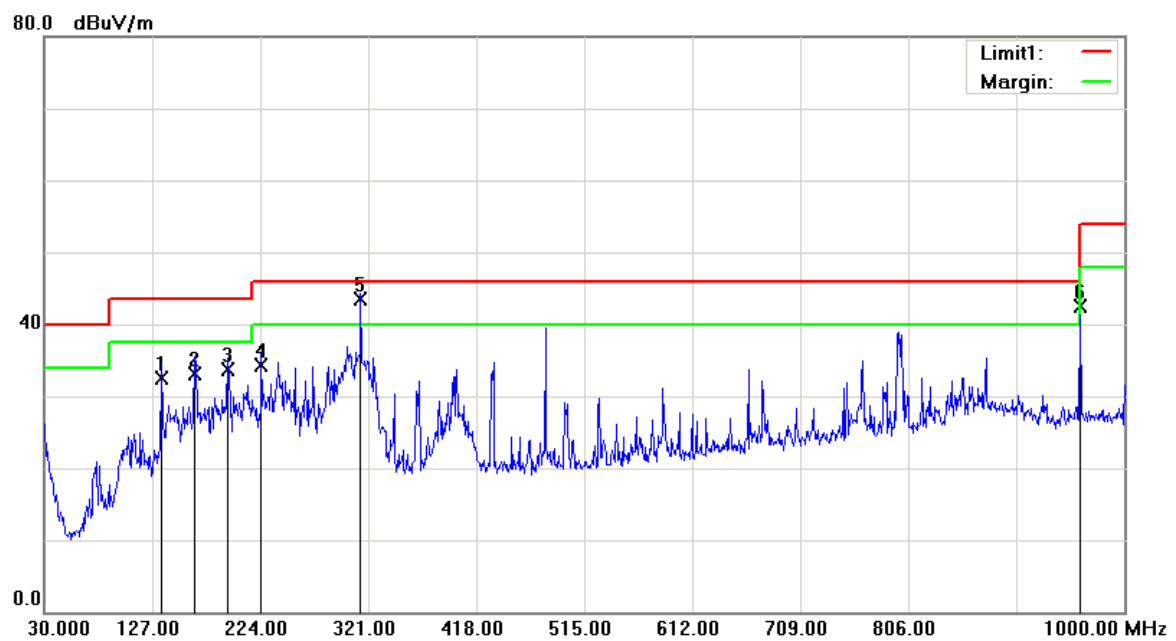
3.50 dB at 314.2100 MHz in the Horizontal polarization

Test Data**Environmental Conditions**

Temperature:	25.4°C
Relative Humidity:	58 %
ATM Pressure:	100.1kPa

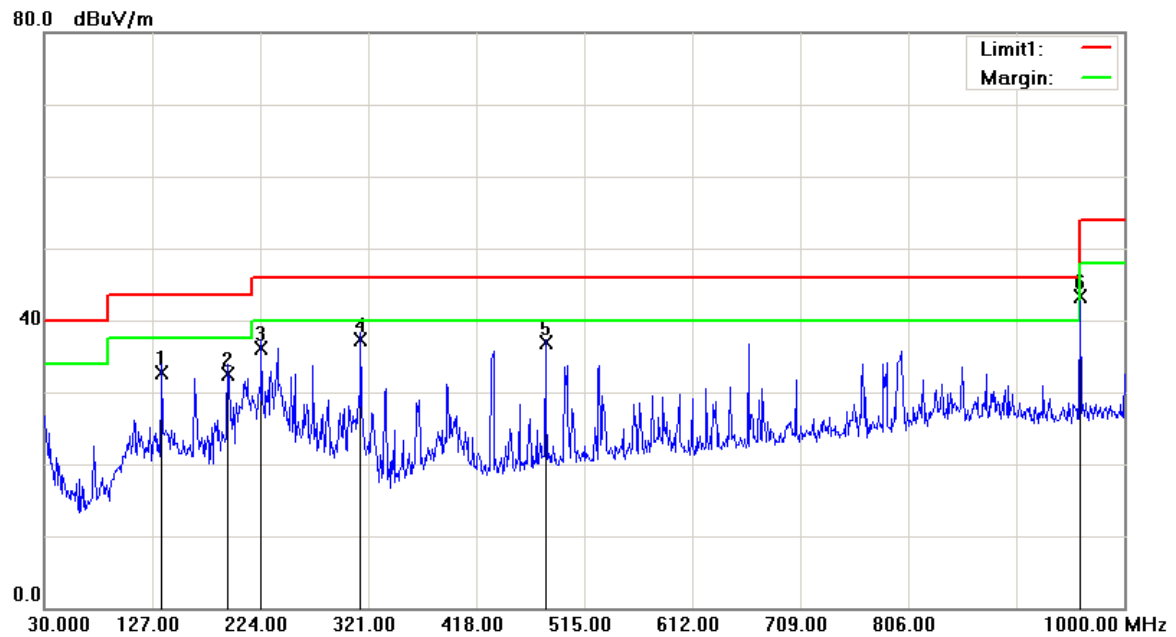
The testing was performed by Leon Chen on 2012-11-22.

Test mode: Downloading

Horizontal:

Frequency (MHz)	Receiver Reading (dBuV/m)	Detector (PK/QP/Ave)	Correction Factor (dB)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
314.2100	49.31	QP	-5.81	42.50	46.00	3.50*
194.9000	42.19	QP	-8.49	33.70	43.50	9.80
164.8300	41.25	QP	-8.05	33.20	43.50	10.30
135.7300	39.46	QP	-6.86	32.60	43.50	10.90
960.2300	38.74	QP	3.86	42.60	54.00	11.40
224.9700	43.07	QP	-8.67	34.40	46.00	11.60

*Within measurement uncertainty!

Vertical:

Frequency (MHz)	Receiver Reading (dBuV/m)	Detector (PK/QP/Ave)	Correction Factor (dB)	Cord. Amp. (dBuV/m)	Limit (dBuV/m)	Margin (dB)
314.2100	43.21	QP	-5.81	37.40	46.00	8.60
480.0800	39.18	QP	-2.28	36.90	46.00	9.10
224.9700	44.87	QP	-8.67	36.20	46.00	9.80
960.2300	39.54	QP	3.86	43.40	54.00	10.60
135.7300	39.66	QP	-6.86	32.80	43.50	10.70
194.9000	41.09	QP	-8.49	32.60	43.50	10.90

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