

**FCC PART 15 B, CLASS B**  
**MEASUREMENT AND TEST REPORT**

For

**Nexpro International Limitada**

San Jose-Goicoechea, Guadalupe, Barrio Tournon, Frente Al Hotel Villas Tournon,

Oficinas Del Bufete Facio Y Canas, Costa Rica

**FCC ID: ZYPS7054**

<b>Report Type:</b> Original Report	<b>Product Type:</b> Mobile Phone
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\* This report may contain data that are not covered by the NVLAP accreditation and shall be marked with an asterisk "★"(Rev.2)

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The *Nexpro International Limitada*'s product, model number: *WISE (FCC ID: ZYPS7054)* (the "EUT") in this report was a *Mobile Phone, named as WISE by applicant*, which was measured approximately: 11.0 cm (L) x 6.0cm (W) x 1.5cm (H), rated input voltage: DC 3.7V Lithium battery or DC 5.0V from adapter for charging. The highest EUT operating frequency is 26 MHz.

Adapter Information: sendtel

Model No.: C325A50070

Input: AC100-240V, 50/60 Hz, 120mA

Output: 5.0V, 700mA

*\* All measurement and test data in this report was gathered from production sample serial number: 120721001 (Assigned by BACL, Dongguan). The EUT was received on 2012-07-24*

### Objective

This report is prepared on behalf of *Nexpro International Limitada* 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 the compliance of EUT with FCC Part 15 B Class B.

### Related Submittal(s)/Grant(s)

FCC Part 22H&24E PCE submissions with FCC ID: ZYPS7054.

FCC Part 15C DSS submissions with FCC ID: ZYPS7054 for Bluetooth.

FCC Part 15C DTS submissions with FCC ID: ZYPS7054 for WIFI.

### 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 a typical mode which is provided by manufacture.

### EUT Exercise Software

WINTHRAX for downloading mode test

### Equipment Modifications

No modification was made to the EUT tested.

### Local Support Equipment List and Details

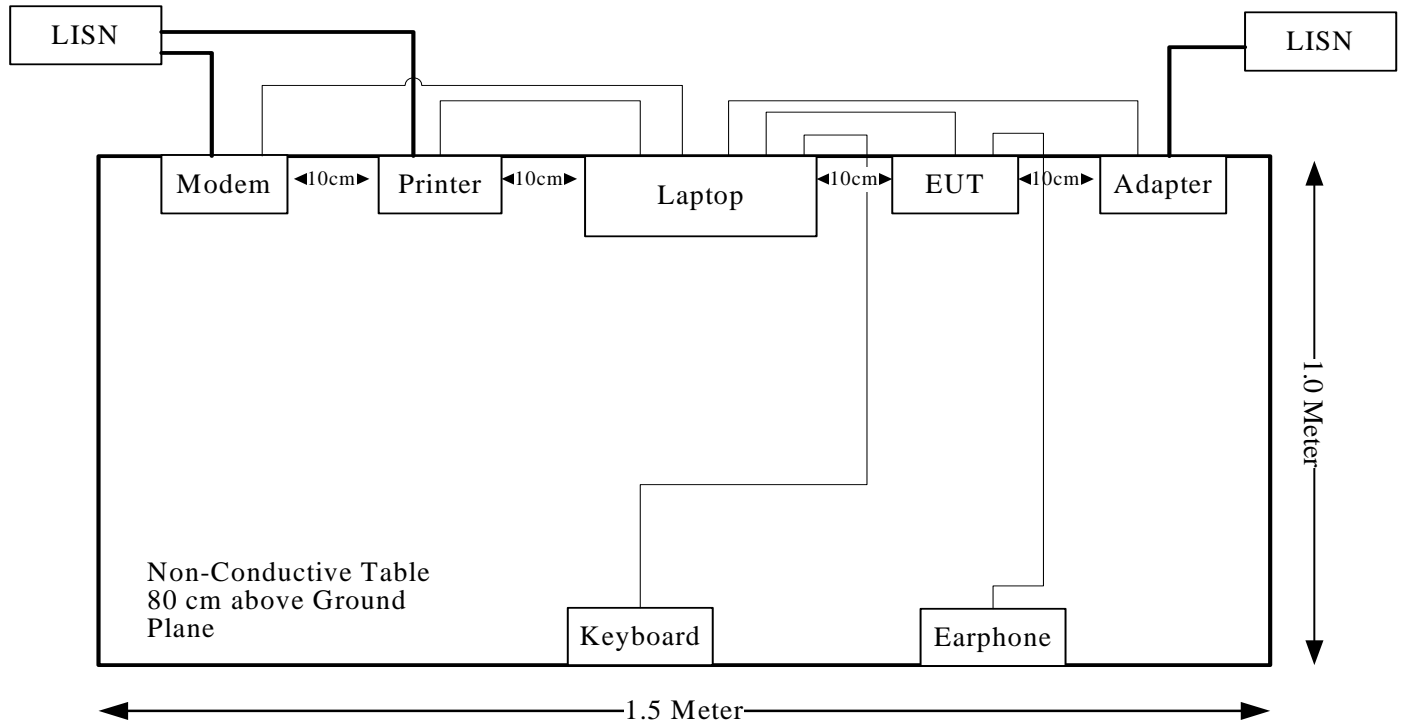
Manufacturer	Description	Model	Serial Number
HP	Laser Jet5L	C3941A	JPTVOB2337
SAST	Modem	AEM-2100	0293
DELL	Keyboard	L100	CNORH656658907BL05DC
DELL	Notebook	PP11L	N/A

### External I/O Cable

Cable Description	Length (m)	From/Port	To
Shielded Detachable Printer Cable	1.2	Parallel Port of Notebook	Printer
Shielded Detachable Serial Cable	1.2	Serial Port of Notebook	Modem
Shielded Detachable Keyboard Cable	1.5	Keyboard Port of Notebook	Keyboard
USB Cable	0.8	Notebook	EUT

## Block Diagram of Test Setup

Downloading Mode:



## SUMMARY OF TEST RESULTS

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



## 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:

<b><i>Frequency Range</i></b>	<b><i>IF BW</i></b>
150 kHz – 30 MHz	9 kHz

## Test Equipment List and Details

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
Rohde & Schwarz	EMI Test Receiver	ESCS 30	830245/006	2011-10-08	2012-10-07
Rohde & Schwarz	LISN	ESH3-Z5	843331/015	2011-10-08	2012-10-07
Rohde & Schwarz	LISN	ESH3-Z5	100113	2011-10-08	2012-10-07

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

## Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the first LISN, the printer, and modem 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 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:

**11.55 dB at 0.435 MHz in the Line conducted mode.**

## Test Data

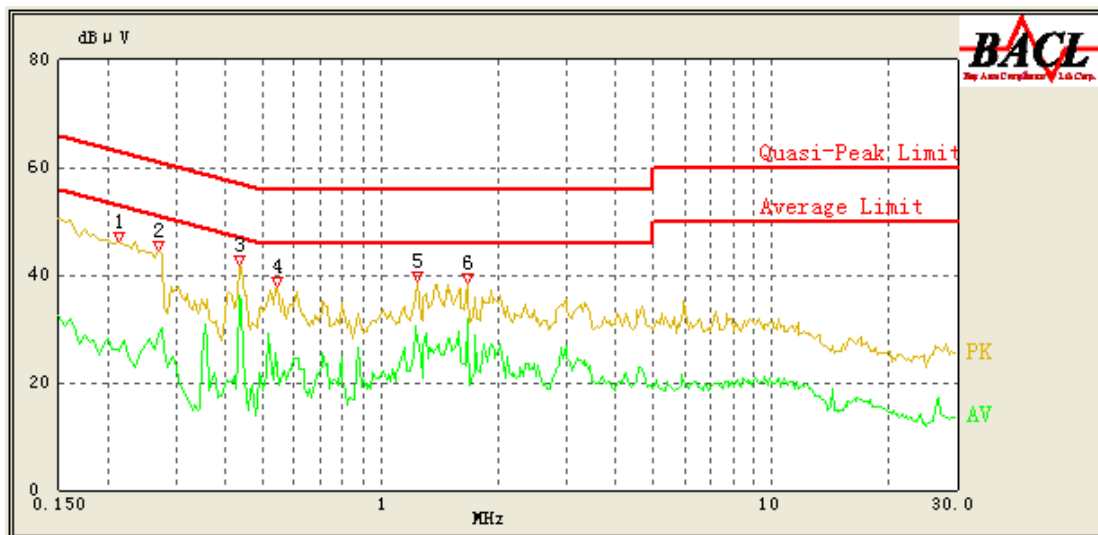
### Environmental Conditions

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	100.0 kPa

*The testing was performed by Leon Chen on 2012-07-25.*

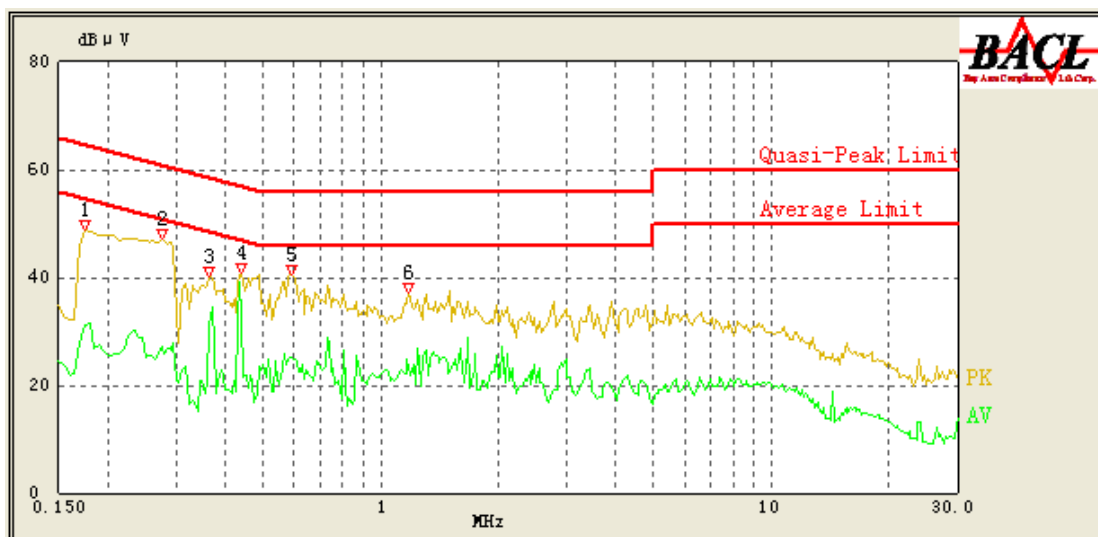
EUT Operation Mode: Downloading

AC 120V/60 Hz, Line



Frequency (MHz)	Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/ QP/Ave.)
0.435	36.31	0.42	47.86	11.55	Ave.
1.665	31.93	0.47	46.00	14.07	Ave.
1.235	29.83	0.46	46.00	16.17	Ave.
0.435	37.94	0.42	57.86	19.92	QP
1.240	34.12	0.46	56.00	21.88	QP
1.665	33.86	0.47	56.00	22.14	QP
0.215	41.95	0.42	64.14	22.19	QP
0.270	40.32	0.42	62.57	22.25	QP
0.270	29.05	0.42	52.57	23.52	Ave.
0.545	22.40	0.42	46.00	23.60	Ave.
0.545	31.49	0.42	56.00	24.51	QP
0.215	25.91	0.42	54.14	28.23	Ave.

## AC 120V/60 Hz, Neutral



Frequency (MHz)	Reading (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/ QP/Ave.)
0.440	32.74	0.42	47.71	14.97	Ave.
0.365	31.18	0.42	49.86	18.68	Ave.
0.440	38.45	0.42	57.71	19.26	QP
0.175	44.53	0.41	65.29	20.76	QP
0.590	25.22	0.43	46.00	20.78	Ave.
1.170	24.77	0.46	46.00	21.23	Ave.
0.590	34.02	0.43	56.00	21.98	QP
0.275	39.96	0.42	62.43	22.47	QP
0.365	36.67	0.42	59.86	23.19	QP
0.175	31.29	0.41	55.29	24.00	Ave.
0.275	27.03	0.42	52.43	25.40	Ave.
1.175	26.08	0.46	56.00	29.92	QP

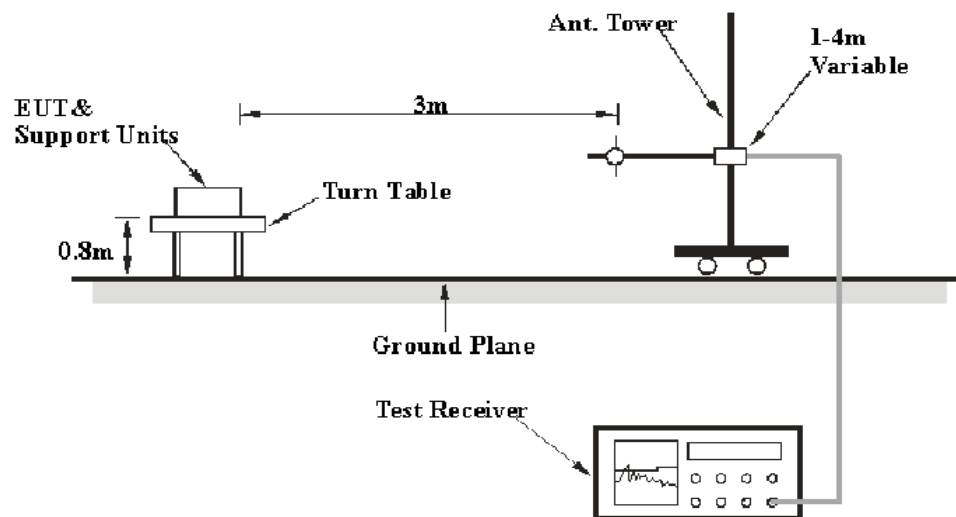
## FCC §15.109 - RADIATED EMISSIONS

### 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



The radiated emission tests were performed in the 3 meters 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 spacing between the peripherals was 10 cm.

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

## EMI Test Receiver Setup

The system was investigated from 30 MHz to 1000 MHz.

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

<i><b>Frequency</b></i>	<i><b>RBW</b></i>	<i><b>VBW</b></i>	<i><b>IF BW</b></i>	<i><b>Detection</b></i>
30 MHz-1 GHz	120 kHz	300 kHz	120 kHz	Quasi-peak

## Test Procedure

During the radiated emissions test, the host PC, monitor, modem and the printer were connected to AC floor outlet

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

All data was recorded in the Quasi-peak detection mode from 30 MHz to 1 GHz.

## Test Equipment List and Details

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
Rohde & Schwarz	EMI Test Reciever	ESCI	101121	2011-10-8	2012-10-7
Sunol Sciences	Hybrid Antennas	JB3	A060611-1	2012-9-6	2013-9-5
HP	Pre-amplifier	8447E	2434A02181	2011-10-8	2012-10-7

\* **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.

## 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:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Correction Factor}$$

$$\text{Correction Factor} = \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

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 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:

**5.10 dB at 927.2500 MHz in the Horizontal polarization**

## Test Data

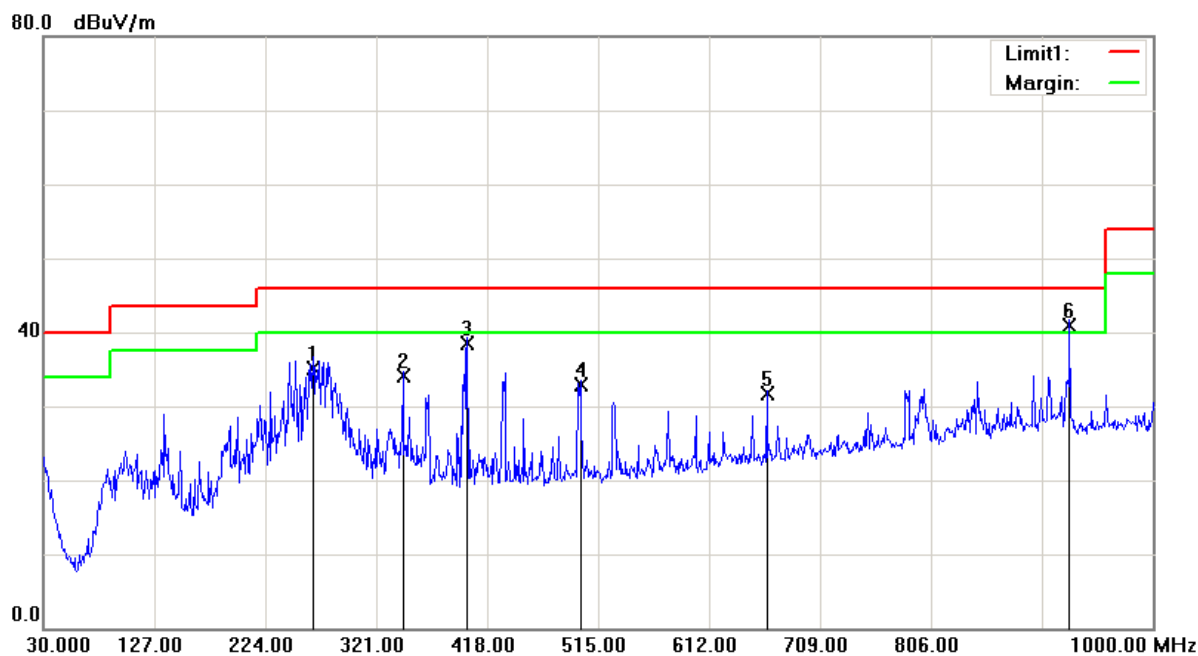
### Environmental Conditions

Temperature:	26 °C
Relative Humidity:	60 %
ATM Pressure:	100.0 kPa

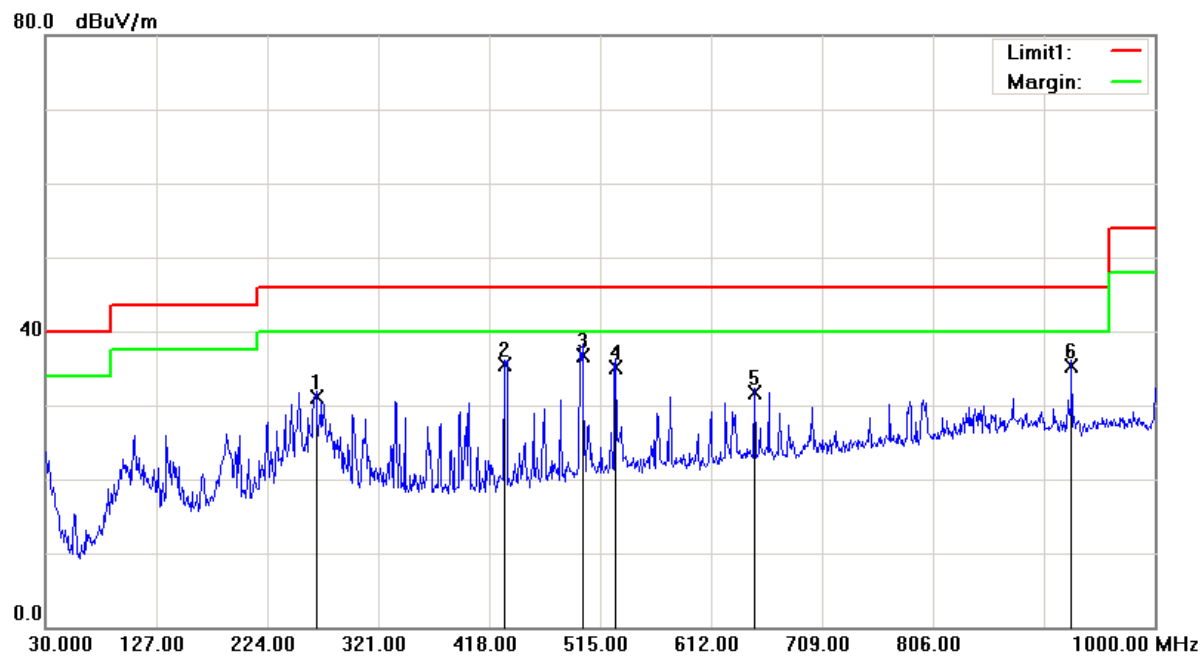
The testing was performed by Leon Chen on 2012-07-30.

EUT Operation Mode: Downloading

### Horizontal



Frequency (MHz)	Reading (dBμV)	Detector	Correction Factor (dB)	Corrected Amplitude (dBμV/m)	Limit (dBuV/m)	Margin (dB)
927.2500	36.35	QP	4.55	40.90	46.00	5.10
400.5400	41.64	QP	-3.14	38.50	46.00	7.50
265.7100	41.30	QP	-6.10	35.20	46.00	10.80
344.2800	38.56	QP	-4.46	34.10	46.00	11.90
499.4800	34.11	QP	-1.21	32.90	46.00	13.10
662.4400	30.90	QP	0.90	31.80	46.00	14.20

**Vertical**

Frequency (MHz)	Reading (dBμV)	Detector	Correction Factor (dB)	Corrected Amplitude (dBμV/m)	Limit (dBuV/m)	Margin (dB)
499.4800	38.01	QP	-1.21	36.80	46.00	9.20
431.5800	38.17	QP	-2.57	35.60	46.00	10.40
927.2500	30.85	QP	4.55	35.40	46.00	10.60
528.5800	36.12	QP	-0.92	35.20	46.00	10.80
649.8300	30.80	QP	1.00	31.80	46.00	14.20
266.6800	37.11	QP	-6.01	31.10	46.00	14.90

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