NVLAP LAB CODE 200707-0

FCC PART 15B

MEASUREMENT AND TEST REPORT

For

Wellgain Auto Technology Co., Ltd.

Dongcheng Science & Technology Industrial Area, Dongke Road, Dong Cheng District,

Dongguan City, Guangdong Province, P.R.C

FCC ID: YASRX001

Report Type: Original Report	**Product Type:** Tire Pressure Monitoring Systems (Receiver)

Bruce zhang

Test Engineer: Bruce Zhang

Report Number: RSZ10040251

Report Date: 2010-04-13

Merry Zhao

Reviewed By: EMC Engineer

Prepared By:

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *Wellgain Auto Technology Co., Ltd's* product, model: *WTRX001 (FCC ID: YASRX001)*or the "EUT" as referred to in this report is a *Tire Pressure Monitoring Systems (Receiver)* which measures approximately: 9.2 cm L x 3.4 cm W x 4.5 cm H, rated input voltage: DC 12V power source. The operating frequency of EUT is 433.92 MHz +/-12 kHz, the high frequency of the oscillator is 13.580625 MHz.

** All measurement and test data in this report was gathered from production sample serial number: 1004501 (Assigned by BACL, Shenzhen). The EUT was received on 2010-04-02.*

Objective

The following test report is prepared on behalf of *Wellgain Auto Technology Co., Ltd* in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

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

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, 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 Laboratory 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 November 21, 2007. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

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 a National Institute of Standards and Technology (NIST) accredited laboratory, under the 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 manufacturer testing fashion.

EUT Exercise Software

N/A.

Special Accessories

The special accessories were supplied by Bay Area Compliance Laboratories Corp. (Shenzhen).

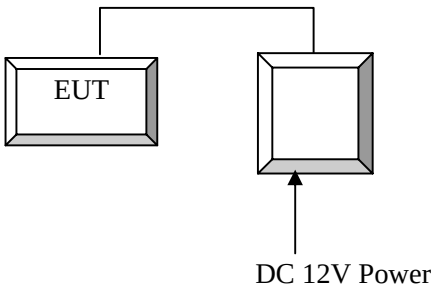
Equipment Modifications

No modification was made to the unit tested.

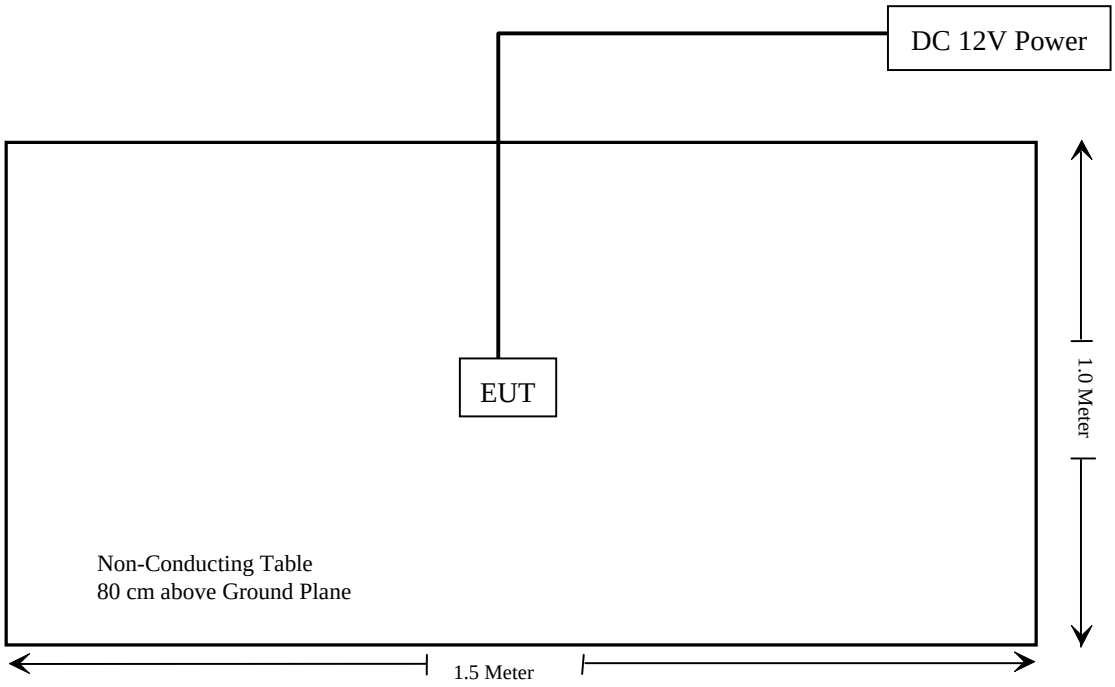
External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded Undetachable Power Cable	1.5	EUT	DC 12V Power

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST REPORT

FCC Rules	Description of Test	Results
§15.107	Conducted Emissions	N/A
§15.109	Radiated Emissions	Compliant

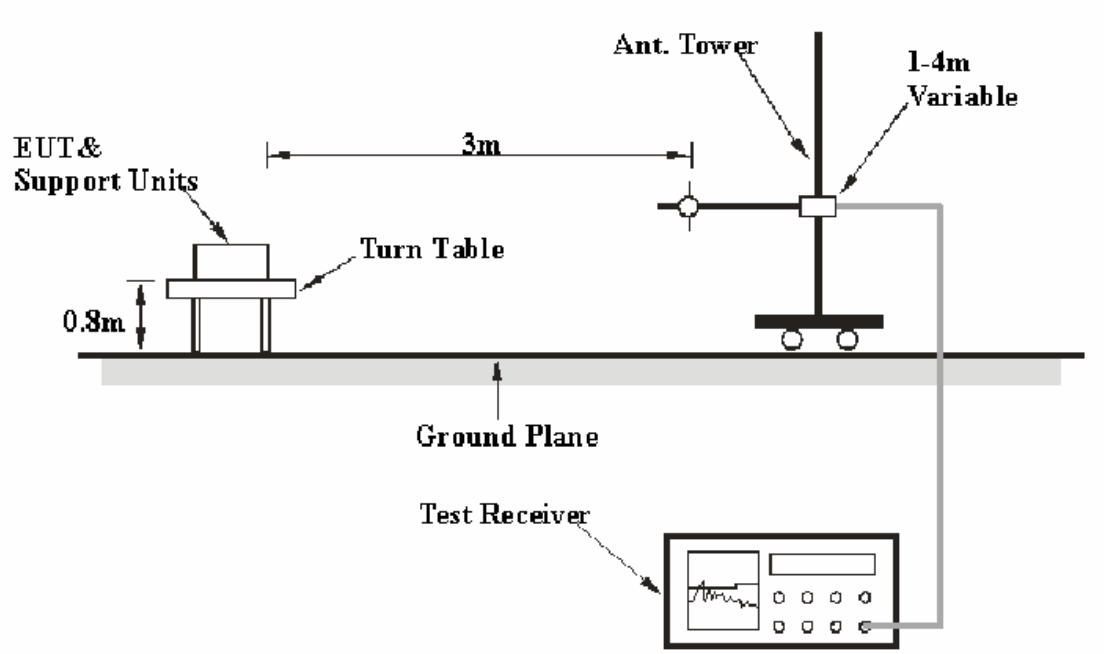
CFR 47 §15.109 - RADIATED EMISSIONS

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 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.

EUT Setup



The radiated emission tests were performed in the 3 meters chamber B test site, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC Part 15 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.

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:

Frequency	***RB/W***	***VB/W***	***IF B/W***	***Detector***
30 MHz-1 GHz	100 kHz	300 kHz	120 kHz	Quasi-peak
Above 1GHz	1MHz	3 MHz		Peak
	1MHz	10 Hz		Average

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2009-11-24	2010-11-23
HP	Amplifier	HP8447E	1937A01046	2009-08-02	2010-08-01
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2009-05-05	2010-05-04
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2009-07-08	2010-07-07
HP	Amplifier	8449B	3008A00277	2009-09-12	2010-09-11
Sunol Sciences	Horn Antenna	DRH-118	A052604	2009-05-05	2010-05-04

*** 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 Procedure

For the radiated emissions test, the EUT was connected to DC 12V Power.

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

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

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:

Corrected Amplitude = Meter Reading + Antenna Loss + 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 for Class B. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15 Class B, with the worst margin reading of:

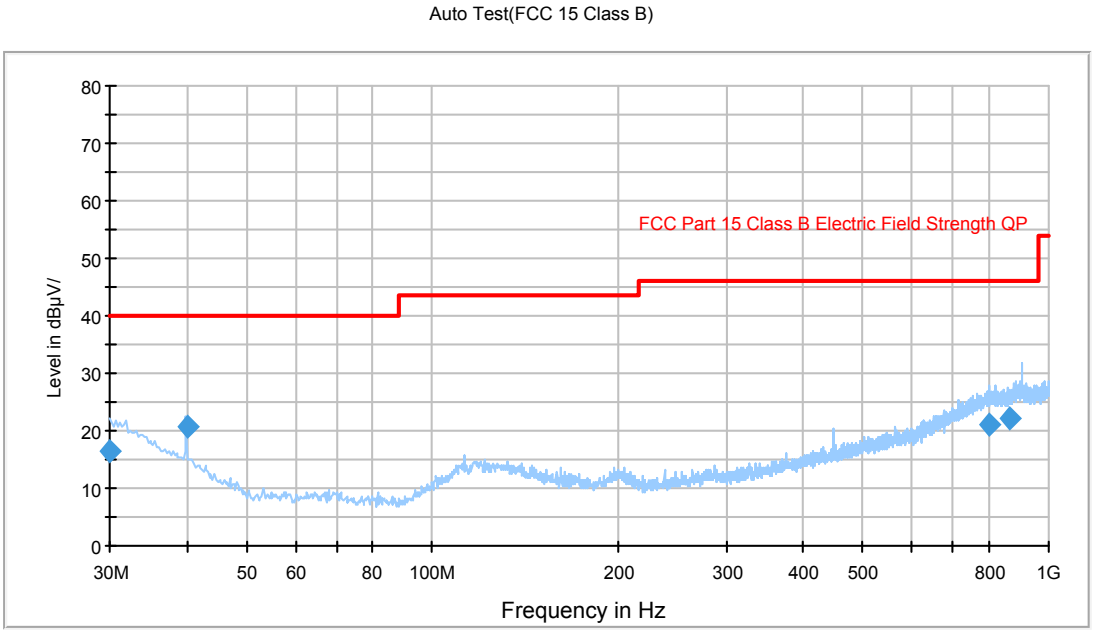
19.1 dB at **40.005750 MHz** in the **Vertical** polarization

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

The testing was performed by Bruce Zhang on 2010-04-09.



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Antenna Height (cm)	Antenna Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
40.005750	20.9	100.0	V	268.0	-13.3	40.0	19.1
30.034875	16.3	369.0	H	299.0	-5.9	40.0	23.7
863.817500	22.1	401.0	V	193.0	-0.2	46.0	23.9
803.471250	21.1	216.0	V	145.0	-1.3	46.0	24.9

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