FCC PART 15.247
TEST REPORT

For

Winnix Technologies Co., Limited

4/F R2-B Building, Hi-tech Park, NanShan District, ShenZhen, GuangDong, China

FCC ID: RVZHYR830

Report Type:	**Product Type:**
Original Report	UHF Reader

Test Engineer:	Rocky Kang
Report Number:	RSZ130808005-00
Report Date:	2013-12-19
Reviewed By:	Alvin Huang RF Leader
Prepared By:	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

TABLE OF CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Winnix Technologies Co., Limited*'s product, model number: *HYR830 (FCC ID: RVZHYR830)* or the "EUT" in this report was a *UHF Reader*, which was measured approximately: 19.0 cm (L) x 14.5 cm (W) x 3.0 cm (H), rated with input voltage: DC 12V from adapter.

Adapter Information:
Model: NU30-4120250-I3
Input: AC 100-240V, 50/60Hz, 0.8A
Output: DC 12V, 2.5A

Note: The product, series model HYR830 and UR830 are electrically identical, they are just diffetent in model number due to market purposes, which was explained in the attached declaration letter that stated and guaranteed by the applicant. And the model HYR830 was selected for fully testing.

**All measurement and test data in this report was gathered from production sample serial number: 1308027 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2013-08-08.*

Objective

This test report is prepared on behalf of *Winnix Technologies Co., Limited* in accordance with Part 2-Subpart J, 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, section 15.203, 15.205, 15.207, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

No related submittal(s).

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 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.

Measurement uncertainty with radiated emission is 5.91 dB for 30MHz-1GHz.and 4.92 dB for above 1GHz, 1.95dB for conducted measurement.

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.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in a testing mode which was controlled by Software.

Equipment Modifications

No modification was made to the EUT.

EUT Exercise Software

UHF RFID Demo V2.02

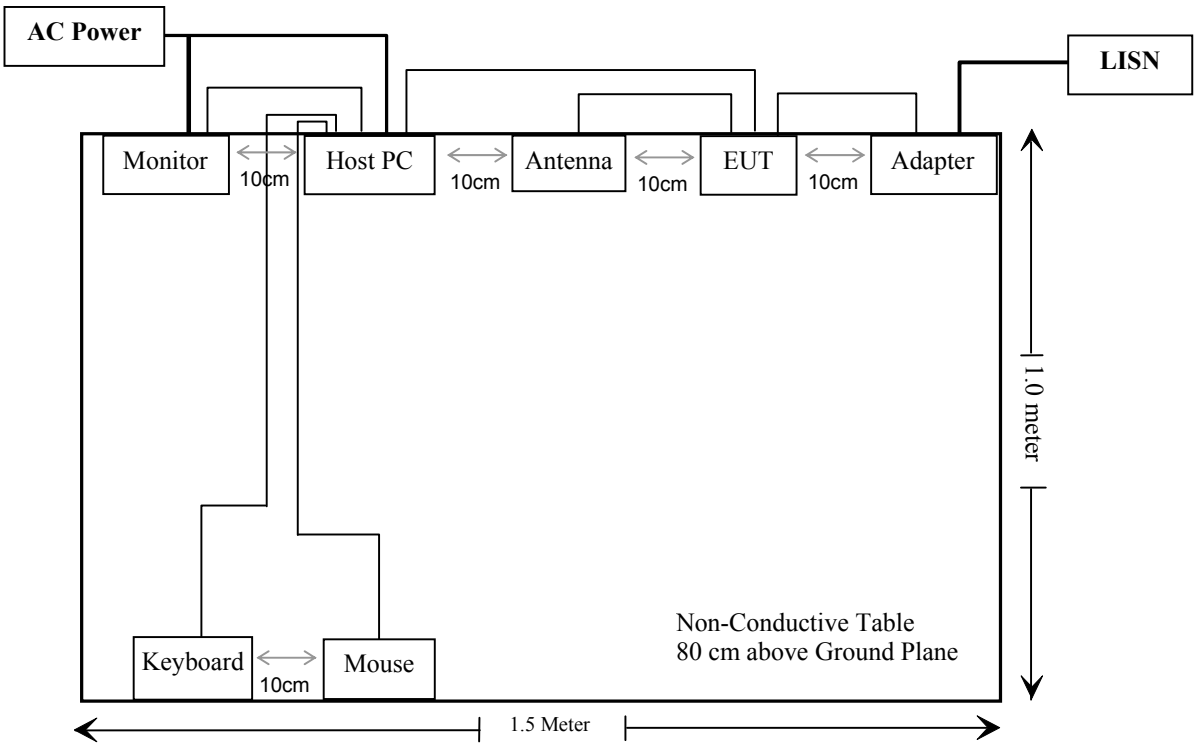
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	PC	127BP2X	N/A
DELL	Keyboard	L100	CNORH656658907BL04TY
DELL	Mouse	MOC5UO	G1B0096D
DELL	Monitor	E178WFPC	CN-OWY564-64180-7C4-2SQH

External I/O Cable

Cable Description	Length (m)	From/Port	To
Shielded Detachable K/B Cable	1.5	Host PC	Keyboard
Shielded Detachable USB Cable	1.5	Host PC	Mouse
Shielded Detachable VGA Cable	1.5	Host PC	Monitor
Unshielded Detachable RJ45 Cable	1.5	EUT	PC
Unshielded Detachable Antenna Cable	2.0	EUT	Antenna
Unshielded Undetachable DC Cable	0.8	Adapter	EUT
Unshielded Undetachable AC Cable	1.0	Adapter	LISN

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.247 (i), §1.1307 (b)(1), §2.1091	Maximum Permissible exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209 & §15.247(d)	Radiated Emissions	Compliance
§15.247(a)(1)(i)	20 dB Emission Bandwidth	Compliance*
§15.247(a)(1)(i)	Channel Separation	Compliance*
§15.247(a)(1)(i)	Time of Occupancy (Dwell Time)	Compliance*
§15.247(a)(1)(i)	Quantity of hopping channel	Compliance*
§15.247(b)(2)	Peak Output Power Measurement	Compliance*
§15.247(d)	Band edges	Compliance*

Note: Compliance*: The RF module in this product was fully certified, which was tested in Shenzhen Huatongwei International Inspection Co., Ltd. with FCC ID: RVZHYM750 granted on 2013-05-10.

FCC §15.247 (i) & §1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 15.247(i)and subpart §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW).
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Calculated Data:

Frequency (MHz)	Antenna Gain		Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
	(dBi)	(numeric)	(dBm)	(mW)			
902.75	7	5.012	28.70	741.31	25	0.473	0.602
914.75	7	5.012	28.93	781.63	25	0.499	0.610
927.25	7	5.012	28.61	726.11	25	0.464	0.618

Result: Compliance

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

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 with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Antenna Connector Construction

This product is professionally installed equipment, it can be equipped circular polarized antennas which have different gains, and the max gain is 7dBi.

Result: Compliance.

FCC §15.207 (a) – AC LINE CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207(a)

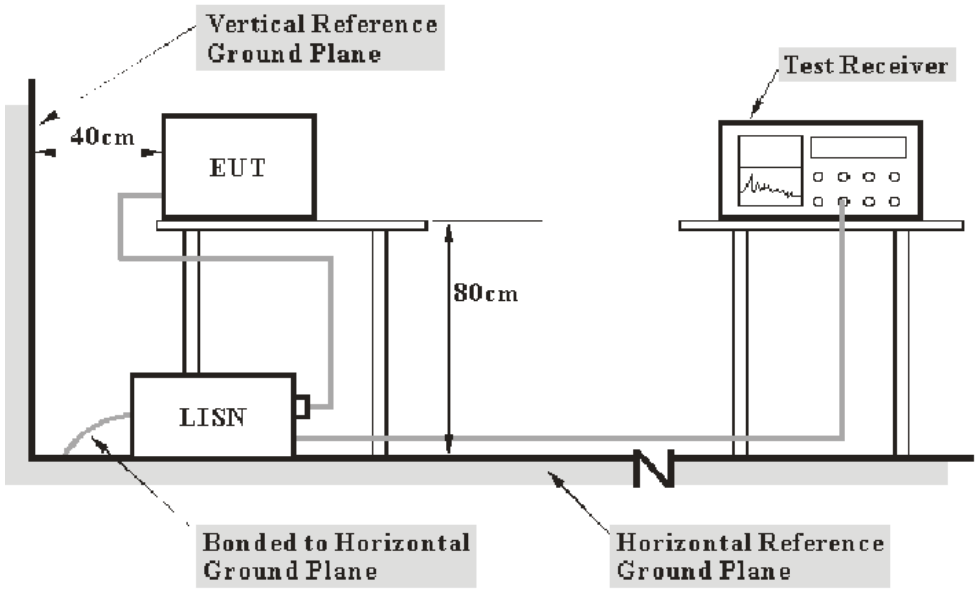
Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between AMN/ISN and receiver, AMN/ISN voltage division factor, AMN/ISN VDF frequency interpolation and receiver related input quantities, etc.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of conducted disturbance test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will not be taken into consideration for the test data recorded in the report

Port	Measurement uncertainty
AC Mains	3.26 dB (k=2, 95% level of confidence)
CAT 3	3.70 dB (k=2, 95% level of confidence)
CAT 5	3.86 dB (k=2, 95% level of confidence)
CAT 6	4.64 dB (k=2, 95% level of confidence)

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 measurement procedure of EUT setup is according with ANSI C63.4-2009. The related limit was specified in FCC Part 15.207.

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 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:

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

Test Procedure

During the conducted emission test, the adapter was connected to the 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
Rohde & Schwarz	EMI Test Receiver	ESCS30	100176	2013-06-17	2014-06-17
Rohde & Schwarz	LISN	ESH2-Z5	892107/021	2013-08-22	2014-08-22
Rohde & Schwarz	Transient Limitor	ESH3Z2	DE25985	2013-08-09	2014-08-08
Rohde & Schwarz	LISN	ENV216	3560.6650.12-101613-Yb	2013-05-07	2014-05-07
Rohde & Schwarz	CE Test software	EMC 32	8.95	-	-

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Corrected Factor & Margin Calculation

The Corrected factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Pulse Limiter Attenuation. The basic equation is as follows:

Correction Factor = LISN VDF + Cable Loss + Pulse Limiter Attenuation

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 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

Test Results Summary

According to the recorded data in following table, with the worst margin reading of:

0.8 dB at **29.234000 MHz** in the **Line** conducted mode

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cispr}$$

in BACL., $U_{(Lm)}$ is less than U_{cispr}, if L_m is less than L_{lim}, it implies that the EUT complies with the limit.

Test Data

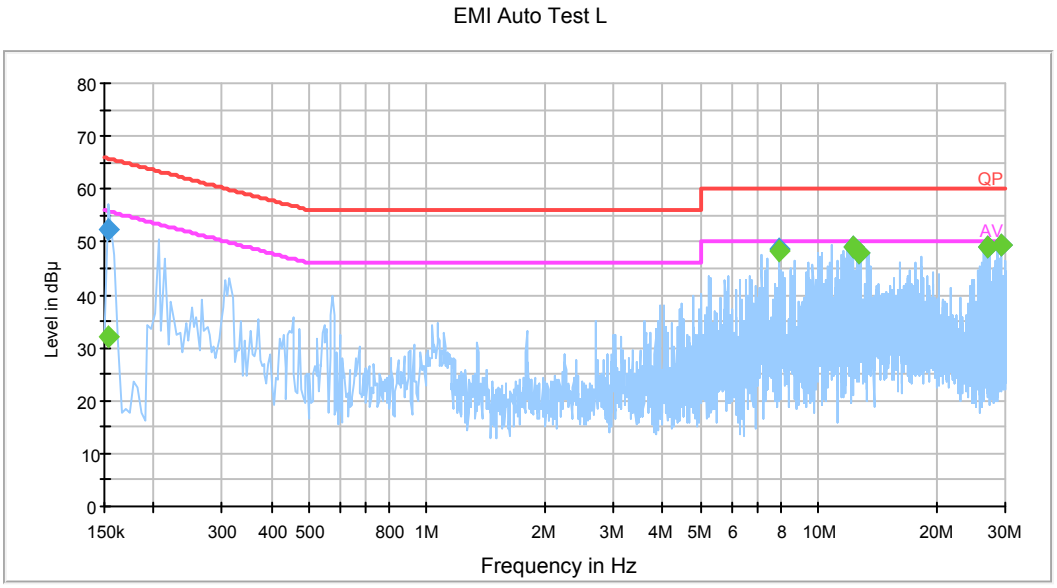
Environmental Conditions

Temperature:	25℃
Relative Humidity:	55 %
ATM Pressure:	100.1 kPa

The testing was performed by Rocky Kang on 2013-09-17.

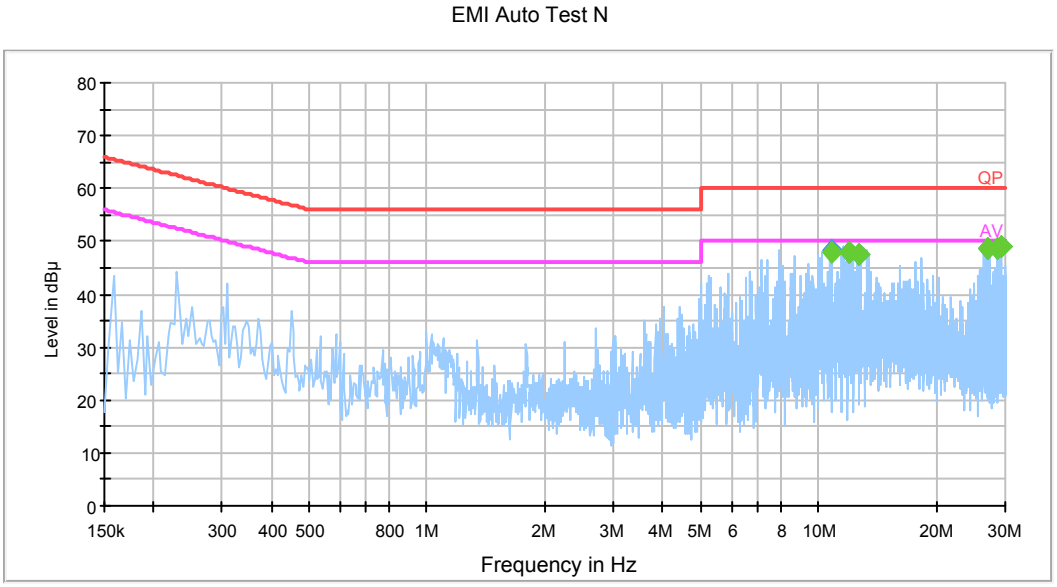
EUT operation mode: Transmitting

AC 120 V, 60 Hz, Line:



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.154000	52.2	19.5	65.8	13.6	QP
0.154000	32.1	19.5	55.8	23.7	Ave.
7.922000	48.6	19.7	60.0	11.4	QP
7.922000	48.3	19.7	50.0	1.7	Ave.
12.198000	49.3	19.8	60.0	10.7	QP
12.198000	49.1	19.8	50.0	0.9	Ave.
12.746000	47.9	19.9	60.0	12.1	QP
12.746000	47.8	19.9	50.0	2.2	Ave.
27.158000	49.1	20.3	60.0	10.9	QP
27.158000	49.0	20.3	50.0	1.0	Ave.
29.234000	49.4	20.4	60.0	10.6	QP
29.234000	49.2	20.4	50.0	0.8	Ave.

AC 120V, 60 Hz, Neutral:



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
10.794000	48.2	19.9	60.0	11.8	QP
10.794000	48.0	19.9	50.0	2.0	Ave.
11.954000	48.0	19.9	60.0	12.0	QP
11.954000	48.0	19.9	50.0	2.0	Ave.
12.746000	47.5	20.0	60.0	12.5	QP
12.746000	47.5	20.0	50.0	2.5	Ave.
27.158000	48.6	20.5	60.0	11.4	QP
27.158000	48.5	20.5	50.0	1.5	Ave.
28.686000	48.7	20.5	60.0	11.3	QP
28.686000	48.6	20.5	50.0	1.4	Ave.
29.234000	49.1	20.5	60.0	10.9	QP
29.234000	49.0	20.5	50.0	1.0	Ave.

Note:
1) Correction Factor =LISN/ISN VDF (Voltage Division Factor) + Cable Loss + Pulse Limiter Attenuation
The corrected factor has been input into the transducer of the test software.
2) Corrected Amplitude = Reading + Correction Factor
3) Margin = Limit – Corrected Amplitude

FCC §15.205, §15.209 & §15.247(d) – RADIATED EMISSIONS

Applicable Standard

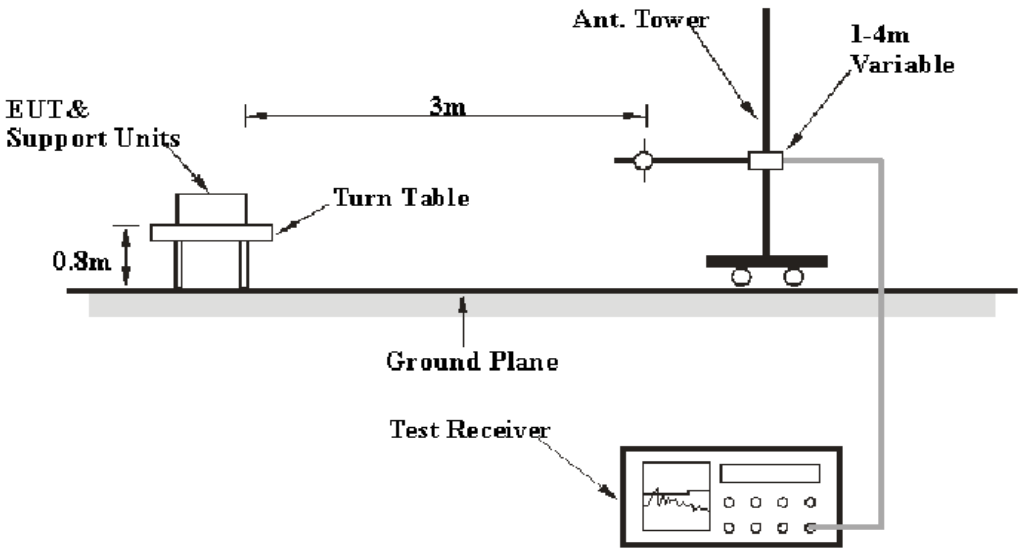
FCC §15.205; §15.209; §15.247(d)

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 16-4-2:2011, the expended combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Shenzhen) is 5.91 dB for 30MHz-1GHz.and 4.92 dB for above 1GHz, and it will not be taken into consideration for the test data recorded in the report

EUT Setup



The radiated emission tests were performed in the 3 meters, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC 15.209 and FCC 15.247 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 was connected to an AC 120V/60 Hz power source.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 10 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30MHz – 1000 MHz	100 kHz	300 kHz	120kHz	QP
Above 1 GHz	1MHz	3 MHz	/	PK
	1MHz	10 Hz	/	Ave.

Test Procedure

For the radiated emissions test, the adapter was connected to the 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 and peak and Average detection modes for frequencies above 1 GHz.

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 Factor = Antenna Factor + Cable Loss- Amplifier Gain
Corrected Amplitude = Meter Reading + Corrected Factor

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the maximum 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	2013-08-09	2014-08-09
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2013-05-09	2014-05-09
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2011-11-28	2014-11-27
SUPER ULTRA	Amplifier	ZVA-213+	N/A	2012-11-24	2013-11-23
Sunol Sciences	Horn Antenna	DRH-118	A052304	2011-12-01	2014-11-30
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2012-11-24	2013-11-23

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

According to the recorded data in following table, with the worst margin reading of:

2.08 dB at **1829.5 MHz** in the **Vertical** polarization

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cispr}$$

In BACL, $U_{(Lm)}$ is less than U_{cispr}, if L_m is less than L_{lim}, it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

Temperature:	25℃
Relative Humidity:	55 %
ATM Pressure:	100.1 kPa

The testing was performed by Rocky Kang on 2013-08-27.

EUT operation mode: Transmitting

30 MHz ~10 GHz:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBuV/m)	FCC Part 15.247/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
Low Channel (902.75 MHz)									
902.75	95.71	PK	72	1.1	H	22.40	118.11	/	/
902.75	98.20	PK	127	1.2	V	22.40	120.60	/	/
1805.0	47.24	Ave.	41	1.3	V	2.63	49.87	54	4.13
2708.2	35.06	Ave.	307	1.4	V	7.93	42.99	54	11.01
236.4	45.71	QP	163	1.2	V	-15.5	30.21	46	15.79
1805.0	53.95	PK	41	1.3	V	2.63	56.58	74	17.42
3611.0	24.04	Ave.	181	1.4	H	9.68	33.72	54	20.28
2708.2	42.19	PK	307	1.4	V	7.93	50.12	74	23.88
2358.6	24.35	Ave.	170	1.4	H	5.48	29.83	54	24.17
3611.0	38.92	PK	181	1.4	H	9.68	48.60	74	25.40
2491.3	21.05	Ave.	356	1.2	H	7.21	28.26	54	25.74
2235.7	23.16	Ave.	291	1.4	V	4.40	27.56	54	26.44
2358.6	37.93	PK	170	1.4	H	5.48	43.41	74	30.59
2491.3	35.62	PK	356	1.2	H	7.21	42.83	74	31.17
2235.7	36.52	PK	291	1.4	V	4.40	40.92	74	33.08
Middle Channel (914.75 MHz)									
914.75	98.50	PK	38	1.1	H	22.90	121.40	/	/
914.75	100.26	PK	120	1.0	V	22.90	123.16	/	/
1829.5	49.29	Ave.	271	1.2	V	2.63	51.92	54	2.08
2744.2	36.85	Ave.	182	1.4	V	7.93	44.78	54	9.22
236.4	47.70	QP	93	1.3	V	-15.5	32.20	46	13.80
1829.5	55.49	PK	271	1.2	V	2.63	58.12	74	15.88
3659.0	22.30	Ave.	78	1.2	H	9.79	32.09	54	21.91
2486.5	23.59	Ave.	104	1.2	H	7.21	30.80	54	23.20
2744.2	42.55	PK	182	1.4	V	7.93	50.48	74	23.52
2374.2	22.30	Ave.	89	1.5	H	6.13	28.43	54	25.57
2285.6	23.40	Ave.	206	1.3	V	4.99	28.39	54	25.61
3659.0	36.58	PK	78	1.2	H	9.79	46.37	74	27.63
2486.5	37.88	PK	104	1.2	H	7.21	45.09	74	28.91
2285.6	38.92	PK	206	1.3	V	4.99	43.91	74	30.09
2374.2	36.69	PK	89	1.5	H	6.13	42.82	74	31.18

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBuV/m)	FCC Part 15.247/205/209	
	Reading (dBµV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBµV/m)	Margin (dB)
High Channel (927.25 MHz)									
925.25	95.02	PK	124	1.4	H	23.60	118.62	/	/
925.25	98.62	PK	72	1.2	V	23.60	122.22	/	/
1855.0	48.11	Ave.	211	1.3	V	2.63	50.74	54	3.26
2783.2	36.12	Ave.	312	1.2	V	8.62	44.74	54	9.26
236.4	47.16	QP	120	1.3	V	-15.5	31.66	46	14.34
1855.0	54.26	PK	211	1.3	V	2.63	56.89	74	17.11
3709.0	24.11	Ave.	324	1.4	H	9.77	33.88	54	20.12
2783.2	42.20	PK	312	1.2	V	8.62	50.82	74	23.18
2378.0	23.64	Ave.	14	1.3	V	6.13	29.77	54	24.23
2496.2	22.22	Ave.	314	1.4	V	7.21	29.43	54	24.57
3709.0	38.67	PK	324	1.4	H	9.77	48.44	74	25.56
2229.3	22.30	Ave.	316	1.4	V	4.40	26.70	54	27.30
2378.0	36.85	PK	14	1.3	V	6.13	42.98	74	31.02
2496.2	35.43	PK	314	1.4	V	7.21	42.64	74	31.36
2229.3	37.85	PK	316	1.4	V	4.40	42.25	74	31.75

Note:
1. Corrected Factor=Antenna factor (RX) +cable loss – amplifier factor
2. Corrected Amplitude = Corrected Factor + Receiver Reading
3. Margin = Limit- Corrected Amplitude

FCC §15.247(a) (1) (i)-CHANNEL SEPARATION

Applicable Standard

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

FCC §15.247(a) (1) (i) – 20 dB EMISSION BANDWIDTH

Applicable Standard

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

FCC §15.247(a) (1) (i)-QUANTITY OF HOPPING CHANNEL

Applicable Standard

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

FCC §15.247(a) (1) (iii) -TIME OF OCCUPANCY (DWELL TIME)

Applicable Standard

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

FCC §15.247(b) (2) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §15.247(b) (2), for frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of FCC §15.247.

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

FCC §15.247(d) - BAND EDGES

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Data

Test data is referred to FCC ID: RVZHYM750 granted on 2013-05-10, report No.: TRE1301001401, which was tested by Shenzhen Huatongwei International Inspection Co., Ltd.

PRODUCT SIMILARITY DECLARATION LETTER

Winnix Technologies Co., Limited
4/F R2-B Building,Hi-tech Park,NanShan District,ShenZhen,GuangDong518057,China
Tel:0755- 86503650 Fax:0755- 86503650

2013-8-12

Product Similarity Declaration

To Whom It May Concern,

We, Winnix Technologies Co., Limited hereby declare that our UHF Desktop Reader, Model Number: UR830 is electrically identical with HYR830 that was certified by BACL. They are just different in model numbers due to marketing purposes.

Please contact me if you have any question.

Victorica Lee
GM Victoria Lee

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