RF Exposure Report

Report No.:	SA150730E02
FCC ID:	R68PW2050
Test Model:	PW 2050
Received Date:	July 30, 2015
Test Date:	Oct. 08 to 12, 2015
Issued Date:	Nov. 04, 2015
Applicant:	Lantronix Inc
Address:	7535 Irvine Center Drive Suite 100, Irvine CA 92618
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (1):	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.
Test Location (3):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
SA150730E02	Original release.	Nov. 04, 2015

1 Certificate of Conformity

Product:	PremierWave 2050
Brand:	Lantronix
Test Model:	PW 2050
Sample Status:	ENGINEERING SAMPLE
Applicant:	Lantronix Inc
Test Date:	Oct. 08 to 12, 2015
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D03 IEEE C95.1

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Nov. 04, 2015

Midoli Peng / Specialist

Approved by : _____ , **Date:** Nov. 04, 2015

May Chen / Manager

2 RF Exposure

2.1 Limits For Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
300-1500	…	…	F/1500	30
1500-100,000	…	…	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Antenna Gain

Brand	Model	Antenna Gain (dBi) (Excelude cable loss)	Cable Loss (dB)	Net Gain (dBi)	Cable Length (mm)	Frequency range (GHz to GHz)	Antenna Type	Connecter Type
taoglas	GW.71.5153	3.8	1	2.8	45	2.4~2.483	Dipole	R-SMA
		5.5	1.7	3.8		5.15~5.85		
Brand	Model	Antenna Gain (dBi)				Frequency range (GHz to GHz)	Antenna Type	Connecter Type
ethertronics	M830510	1.1				2.4~2.483	Chip	NA
		3.2				5.15~5.85		
Brand	Model	Antenna Gain (dBi)				Frequency range (GHz to GHz)	Antenna Type	Connecter Type
ethertronics	1000602	2.5				2.4~2.483	PCB	i-pex(MHF)
		5				5.15~5.85		

4 Calculation Result Of Maximum Conducted Power

For WLAN:

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2412-2462	143.549	2.8	20	0.05442	1
5180-5320 5500-5720 5745-5825	30.269	5	20	0.01904	1

For BT-EDR:

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480	10.839	2.8	20	0.00411	1

For BT-LE:

Frequency Band (MHz)	Max Power (mW)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480	5.445	2.8	20	0.00206	1

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