MPE REPORT

Product Name	:	Dual QI
Model No.	:	HO-WLC-2XX
FCC ID	:	O3ZHOWLC2XX
Applicant	:	Konnext Corporation Limited
Address	:	Flat A, 5/F, Contempo Place, 81 Hung To Rd, Kwun Tong, Kowloon, HONG KONG
Manufacturer	:	Konnext Corporation Limited
Address	:	Flat A, 5/F, Contempo Place, 81 Hung To Rd, Kwun Tong, Kowloon, HONG KONG

Date of Receipt	:	29/06/2013
Issued Date	:	30/06/2013
Report No.	:	A1304031F 02002
Test Result	:	Pass

Testing Laboratory	:	DongGuan Anci Electronic Technology Co., Ltd
Address	:	No. A222, Building A, Shifu Hardware Plaza, Changan Town, Dongguan City, Guangdong Pr., China. FCC Registered Test Site Number: 721657
Tested by		Brgant Xu
Reviewer by		Teresa Hu
Approved by		Joe Long

Remarks:
The result shown in this test refer only to the sample tested, this test report cannot be reproduced, except in full, without prior written permission of the company.

1. EUT Description

Product	Dual QI
Brand Name	KONNEXT
Model No.	HO-WLC-2XX
Working Voltage	DC 18V
Charging Frequency	110~132kHz
Antenna Type	Loop Antenna

2. Test Equipment

Instrument	Manufacturer	Type No.	Serial No	Cali. Due Date
E-Field Probe	narda	EF 0391	A-1238	2014/05/11
H-Field Probe	narda	HF 3061	A-0333	2014/05/11
Broadband Field Meter	narda	NBM-550	E-0477	2014/05/11
Temperature/Humidity Meter	zhicheng	ZC1-2	TH	2014/01/14

3. STANDARD REQUIREMENT

Test Requirement : FCC Part 1.1310 and Part 2.1091

Test Procedure : OET Bulletin 65

4. Requirement

Three different categories of transmitters are defined by the FCC in OET Bulletin 65. These categories are fixed installation, mobile, and portable and are defined as follows:

O Fixed Installations: fixed location means that the device, including its antenna, is physically secured at a permanent location and is not able to be easily moved to another location. Additionally, distance to humans from the antenna is maintained to at least 2 meters.

O Mobile Devices: a mobile device is defined as a transmitting device designed

to be used in other than fixed locations and to be generally used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structures and the body of the user or nearby persons. Transmitters designed to be used by consumers or workers that can be easily re-located, such as a wireless modem operating in a laptop computer, are considered mobile devices if they meet the 20 centimeter separation requirement. The FCC rules for evaluating mobile devices for RF compliance are found in 47 CFR §2.1091.

O Portable Devices: a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user. Portable device requirements are found in Section 2.1093 of the FCC's Rules (47 CFR§2.1093). The FCC also categorizes the use of the device as based upon the user’s awareness and ability to exercise control over his or her exposure. The two categories defined are Occupational/ Controlled Exposure and General Population/Uncontrolled Exposure. These two categories are defined as follows:

O Occupational/Controlled Exposure: In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program. If appropriate, warning signs and labels can also be used to establish

such awareness by providing prominent information on the risk of potential exposure and instructions on methods to minimize such exposure risks.

O General Population/Uncontrolled Exposure: The general population / uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity. Warning labels placed on low-power consumer devices such as cellular telephones are not considered sufficient to allow the device to be considered under the occupational/controlled category, and the general population/uncontrolled exposure limits apply to these devices.

5. The limit

(A) Limits for Occupational/Controlled exposure

Frequency Range(MHz)	Electric field strength(E) V/m	Magnetic field strength(H) (A/m)	Power density(S) (mW/cm²)	Averaging time (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

(B) Limit for General Population/Uncontrolled exposure

Frequency Range(MHz)	Electric field strength(E) V/m	Magnetic field strength(H) (A/m)	Power density(S) (mW/cm²)	Averaging time (minutes)
0.3-3.0	614	1.63	(100)*	30
3.0-30	824/f	2.19/f	180/f²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

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

6. Test Configuration

a. The field strength of both E-field and H-field was measured at 10cm using the equipment list above for determining compliance with the MPE requirements of FCC Part 1.1310.
b. The RF power density was measured with the battery at 4 different charge conditions: battery at 0% (depleted), battery at 50% charger, battery near 100% charge, max resistive load (Wireless charging cover with resistor attached).
c. Maximum E-field and H-field measurements were made 10cm from each side of the EUT. Along the side of the EUT and still 10cm away from the edge of the EUT, the field probes were positioned at the location where there is maximum field strength. The maximum E-field and H-field is reported below.
d. This device uses a wireless charging circuit for power transfer operating at the frequency of 110 – 132 kHz. Thus, the 300 kHz limits were used: E-field Limit = 614 (V/m); H-field limit = 1.63 (A/m).

7. Test Data

Table1. E-field MPE Data

	E-Field Measurement (10 cm)				
EUT Sides	Left(V/m)	Right(V/m)	Top(V/m)	Bottom(V/m)	Z-Axis(above)
Battery at 0% (depleted)	1.15	0.98	1.01	0.75	0.80
Battery at 50% (charge)	0.91	0.92	1.02	0.65	0.62
Battery at 100% (charge)	0.92	0.85	0.95	0.61	0.71

Table2. H-field MPE Data

	H-Field Measurement (10 cm)				
EUT Sides	Left(A/m)	Right(A/m)	Top(A/m)	Bottom(A/m)	Z-Axis(above)
Battery at 0% (depleted)	0.018	0.016	0.033	0.017	0.050
Battery at 50% (charge)	0.179	0.020	0.039	0.030	0.039
Battery at 100% (charge)	0.041	0.036	0.035	0.034	0.064

Remark:
The device meets the mobile RF exposure limit at a 10cm separation distance as specified in &2.1091 of the FCC Rules.

The maximum leakage fields at 10cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.