RF Exposure Evaluation Report

APPLICANT	:	KonnectONE, LLC
EQUIPMENT	:	Wireless Home Phone
BRAND NAME	:	moxee
MODEL NAME	:	K500HPEL
FCC ID	:	2APQU-K500HPEL
STANDARD	:	47 CFR Part 2.1091 FCC KDB 447498 D01 v06

The product evaluation date was started from Apr. 19, 2024 and completed on Apr. 19, 2024. We, Sporton International Inc. (Shenzhen), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

Sporton International Inc. (Shenzhen)
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055
People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA431424	Rev. 01	Initial issue of report	Apr. 19, 2024

1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	KonnectONE, LLC
Address	40 Lake Bellevue Drive, Suite 350, Bellevue, Washington 98005, U.S.A

Manufacturer	
Company Name	KonnectONE, LLC
Address	40 Lake Bellevue Drive, Suite 350, Bellevue, Washington 98005, U.S.A

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Wireless Home Phone
Brand Name	moxee
Model Name	K500HPEL
FCC ID	2APQU-K500HPEL
Wireless Technology and Frequency Range	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 814 MHz ~ 849 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz
Mode	LTE: QPSK, 16QAM
Antenna Type	Fixed External Antenna
HW Version	EN_K500HPEL_MB_C
SW Version	EN_K500HPELV1.0.0B02
EUT Stage	Production Unit
Remark: This is a variant report for K500HPEL, for model change note, please refer to the K500HPEL_ Class II Permissive Change letter exhibit submitted. According to the differences, the change has no influence on the results, all the test results are leveraged from original report FA971908-01.	

3. Maximum RF average output power among production units

<LTE>

Mode		Maximum Average power(dBm)
LTE	Band 2	24.00
	Band 4	24.50
	Band 5	24.00
	Band 12	24.00
	Band 13	24.00
	Band 25	24.00
	Band 26	24.00
	Band 41	24.00
	Band 66	24.50
	Band 71	23.50

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	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

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
LTE Band 2	1850.70	1.00	24.00	25.000	316.228	0.063	1.000
LTE Band 4	1710.70	1.20	24.50	25.700	371.535	0.074	1.000
LTE Band 5	824.70	0.00	24.00	24.000	251.189	0.050	0.550
LTE Band 12	699.70	-0.70	24.00	23.300	213.796	0.043	0.466
LTE Band 13	779.50	-0.50	24.00	23.500	223.872	0.045	0.520
LTE Band 26	814.70	0.00	24.00	24.000	251.189	0.050	0.543
LTE Band 25	1850.70	1.00	24.00	25.000	316.228	0.063	1.000
LTE Band 41	2498.50	1.80	24.00	25.800	380.189	0.076	1.000
LTE Band 66	1710.70	1.20	24.50	25.700	371.535	0.074	1.000
LTE Band 71	665.50	-1.00	23.50	22.500	177.828	0.035	0.444

Note:
1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

------THE END------