

FCC 47 CFR PART 15 SUBPART B CERTIFICATION TEST REPORT

PC VR Headset

MODEL No.: V8

Trade Mark: VIULUX

FCC ID: 2AGQ9-VIULUXV8

REPORT NO: ES180319008W

ISSUE DATE: April 26, 2018

Prepared for

Inlife-handnet Co., Ltd 53rd Floor, CES Tower, No.3099 Keyuan South Road, Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, P.R.C

Prepared by

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TEST REPORT DESCRIPTION

| Applicant | : | Inlife-handnet Co., Ltd 53rd Floor,CES Tower, No.3099 Keyuan South Road, Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, P.R.C |
|--------------|---|--|
| Manufacturer | : | Inlife-handnet Co., Ltd 53rd Floor,CES Tower, No.3099 Keyuan South Road, Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, P.R.C |
| Trademark | : | VIULUX |
| EUT | : | PC VR Headset |
| Model No. | : | V8 |
| Power Supply | : | DC 5V from PC |

Measurement Procedure Used:

FCC Rules and Regulations Part 15: 2017 Subpart B Class B & FCC / ANSI C63.4-2014 The device described above is tested by EMTEK (SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK (SHENZHEN) CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (SHENZHEN) CO., LTD.

| Date of Test : | March 19, 2018 to April 25, 2018 |
|--------------------------------|----------------------------------|
| Prepared by : | Dorrs Su. Doris Su/Editor |
| Reviewer : | Yaping Shen Supervisor |
| Approved & Authorized Signer : | Lisa Wang/Manager |



Modified Information

| Version Report No. | | Revision Date | Summary | |
|--------------------|--------------|---------------|-----------------|--|
| Ver.1.0 | ES180319008W | / | Original Report | |



1. SUMMARY OF TEST RESULT

| Description of Test Item | Standard & Limits | Results |
|---|---|---------|
| Conducted Disturbance at Mains Terminals | FCC Part 15, Subpart B, Class B ANSI C63.4: 2014 | Pass |
| Radiated Disturbance | FCC Part 15, Subpart B, Class B ANSI C63.4: 2014 | Pass |



2. GENERAL INFORMATION

2.1. Description of Device (EUT)

| EUT | : | PC VR Headset |
|------------------|---|---|
| Model Number | : | V8 |
| Test Voltage | : | DC 5V from PC |
| Applicant | : | Inlife-handnet Co., Ltd |
| Address | : | 53rd Floor, CES Tower, No.3099 Keyuan South Road, Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, P.R.C |
| Manufacturer | : | Inlife-handnet Co., Ltd |
| Address | : | 53rd Floor, CES Tower, No.3099 Keyuan South Road, Yuehai Street, Nanshan District, Shenzhen City, Guangdong Province, P.R.C |
| Date of Received | : | March 19, 2018 |
| Date of Test | : | March 19, 2018 to April 25, 2018 |

2.2. Description of Test Facility

| Site Description EMC Lab. | : Accredited by CNAS, 2016.10.24 The certificate is valid until 2022.10.28 The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005) The Certificate Registration Number is L2291. |
|-------------------------------|--|
| | Accredited by TUV Rheinland Shenzhen 2016.5.19 The Laboratory has been assessed according to the requirements ISO/IEC 17025. |
| | Accredited by FCC, August 03, 2017 Designation Number: CN1204 Test Firm Registration Number: 882943 |
| | Accredited by Industry Canada, November 24, 2015 The Certificate Registration Number is 4480A. |
| Name of Firm Site Location | EMTEK (SHENZHEN) CO., LTD. Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China |



2.3. Description of Support Device

| PC : | Manufacturer: DELL M/N: D11M |
|-------------|---|
| LCD Monitor | S/N: CN-0CV772-0887-31L-5219 Manufacturer: LENOVO M/N: 9227-AE6 |
| | S/N:4M0293084302824 CE, FCC |
| Keyboard : | Manufacturer: LENOVO M/N: KU-0225 |
| | S/N:0585494 CE, FCC: DOC |
| Mouse : | Manufacturer: LENOVO M/N: MO28UOL S/N:44G7862 068 CE, FCC: DOC |

2.4. Measurement Uncertainty

| Test Item Conducted Emission Uncertainty | : | Uncertainty 2.96dB(9k~150kHz Conduction 1#) 2.74dB(150k-30MHz Conduction 1#) |
|---|---|--|
| Radiated Emission Uncertainty (3m Chamber) | : | 3.78dB (30M~1GHz Polarize: H) 4.27dB (30M~1GHz Polarize: V) |



3. MEASURING DEVICE AND TEST EQUIPMENT

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|--------------|-----------------------|-----------------|-----------|----------------|--------------|---------------|
| | Test Receiver | Rohde & Schwarz | ESCI | 26115-010-0027 | May 20, 2017 | 1 Year |
| \checkmark | L.I.S.N. | Rohde & Schwarz | ENV216 | 101161 | May 20, 2017 | 1 Year |
| V | 50Ω Coaxial Switch | Anritsu | MP59B | 6100175589 | May 21, 2017 | 1 Year |
| \checkmark | Voltage Probe | Rohde & Schwarz | ESH2-Z3 | 100122 | May 21, 2017 | 1 Year |

3.1. For Power Line Conducted Emission Measurement

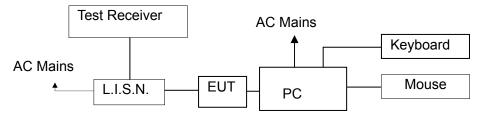
3.2. For Radiated Emission Measurement (3m Chamber)

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|--------------|-------------------|--------------------|-----------|--------------|--------------|---------------|
| V | EMI Test Receiver | Rohde & Schwarz | ESU | 1302.6005.26 | May 21, 2017 | 1 Year |
| \checkmark | Pre-Amplifier | HP | 8447F | 2944A07999 | May 20, 2017 | 1 Year |
| \checkmark | Bilog Antenna | Schwarzbeck | VULB9163 | 142 | May 20, 2017 | 1 Year |
| \checkmark | Cable | Schwarzbeck | AK9513 | ACRX1 | May 21, 2017 | 1 Year |
| \checkmark | Cable | Rosenberger | N/A | FP2RX2 | May 21, 2017 | 1 Year |
| \checkmark | Cable | Schwarzbeck | AK9513 | CRPX1 | May 21, 2017 | 1 Year |
| \checkmark | Cable | Schwarzbeck | AK9513 | CRRX2 | May 21, 2017 | 1 Year |



4. CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup



(EUT: PC VR Headset)

4.2. Measuring Standard

FCC Part 15, Subpart B, Class BANSI C63.4: 2014

4.3. Power Line Conducted Emission Limits (Class B)

| Frequency | Limit (dBµV) | | | | |
|--|------------------|---------------|--|--|--|
| (MHz) | Quasi-peak Level | Average Level | | | |
| 0.15 ~ 0.50 | 66.0 ~ 56.0 * | 56.0 ~ 46.0 * | | | |
| 0.50 ~ 5.00 | 56.0 | 46.0 | | | |
| 5.00 ~ 30.00 | 60.0 | 50.0 | | | |
| NOTE1-The lower limit shall apply at the transition frequencies. NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz. | | | | | |

4.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet FCC requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

EUT : PC VR Headset Model Number : V8

4.5. Operating Condition of EUT

4.5.1.Setup the EUT as shown on Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3.Let the EUT work in measuring mode (Connect to PC) and measure it.



4.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 500hm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC regulations during conducted emission measurement.

The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9kHz in 150kHz~30MHz and 200Hz in 9kHz~150kHz.

The frequency range from 150kHz to 30MHz is investigated.

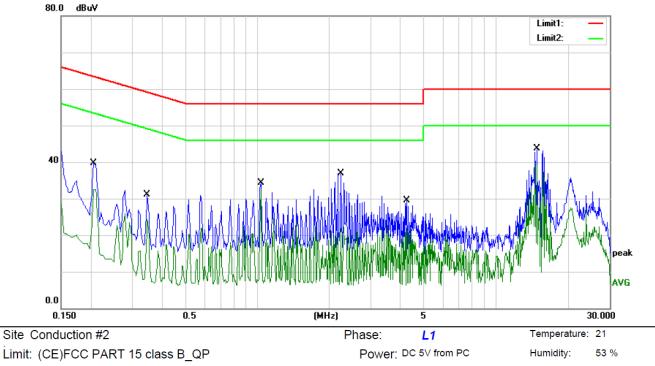
All the modes were tested and the data of the worst modes are attached the following pages.

4.7. Measuring Results

PASS.

Please refer to the following pages.





| Mode: | Connect to PC |
|-------|---------------|
| Note: | |

| No. Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | |
|---------|---------|------------------|-------------------|------------------|-------|--------|----------|---------|
| | MHz | dBu∨ | dB | dBu∨ | dBu∨ | dB | Detector | Comment |
| 1 | 0.2060 | 30.01 | 9.63 | 39.64 | 63.37 | -23.73 | QP | |
| 2 | 0.2060 | 22.96 | 9.63 | 32.59 | 53.37 | -20.78 | AVG | |
| 3 | 0.3460 | 21.46 | 9.67 | 31.13 | 59.06 | -27.93 | QP | |
| 4 | 0.3460 | 14.57 | 9.67 | 24.24 | 49.06 | -24.82 | AVG | |
| 5 | 1.0340 | 24.38 | 9.85 | 34.23 | 56.00 | -21.77 | QP | |
| 6 | 1.0340 | 22.69 | 9.85 | 32.54 | 46.00 | -13.46 | AVG | |
| 7 | 2.2420 | 27.09 | 9.86 | 36.95 | 56.00 | -19.05 | QP | |
| 8 | 2.2420 | 12.44 | 9.86 | 22.30 | 46.00 | -23.70 | AVG | |
| 9 | 4.2260 | 19.72 | 9.87 | 29.59 | 56.00 | -26.41 | QP | |
| 10 | 4.2260 | 11.97 | 9.87 | 21.84 | 46.00 | -24.16 | AVG | |
| 11 | 14.8580 | 33.10 | 10.60 | 43.70 | 60.00 | -16.30 | QP | |
| 12 * | 14.8580 | 29.05 | 10.60 | 39.65 | 50.00 | -10.35 | AVG | |

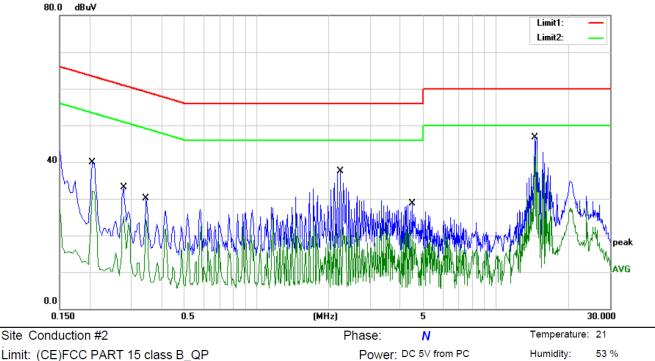
*:Maximum data x:Over lin

x:Over limit !:over margin

Comment: Factor build in receiver.

Operator: CH





Limit: (CE)FCC PART 15 class B_QP Mode: Connect to PC Note:

| No. Mk. | Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | |
|---------|---------|------------------|-------------------|------------------|-------|--------|----------|---------|
| | MHz | dBu∨ | dB | dBu∨ | dBu∨ | dB | Detector | Comment |
| 1 | 0.2060 | 30.35 | 9.63 | 39.98 | 63.37 | -23.39 | QP | |
| 2 | 0.2060 | 22.52 | 9.63 | 32.15 | 53.37 | -21.22 | AVG | |
| 3 | 0.2780 | 23.47 | 9.65 | 33.12 | 60.88 | -27.76 | QP | |
| 4 | 0.2780 | 15.71 | 9.65 | 25.36 | 50.88 | -25.52 | AVG | |
| 5 | 0.3460 | 20.37 | 9.67 | 30.04 | 59.06 | -29.02 | QP | |
| 6 | 0.3460 | 14.59 | 9.67 | 24.26 | 49.06 | -24.80 | AVG | |
| 7 | 2.2420 | 27.60 | 9.86 | 37.46 | 56.00 | -18.54 | QP | |
| 8 | 2.2420 | 12.46 | 9.86 | 22.32 | 46.00 | -23.68 | AVG | |
| 9 | 4.4820 | 18.85 | 9.87 | 28.72 | 56.00 | -27.28 | QP | |
| 10 | 4.4820 | 11.74 | 9.87 | 21.61 | 46.00 | -24.39 | AVG | |
| 11 | 14.5900 | 36.05 | 10.61 | 46.66 | 60.00 | -13.34 | QP | |
| 12 * | 14.5900 | 32.59 | 10.61 | 43.20 | 50.00 | -6.80 | AVG | |
| | | | | | | | | |

*:Maximum data

x:Over limit !:over margin

Comment: Factor build in receiver.

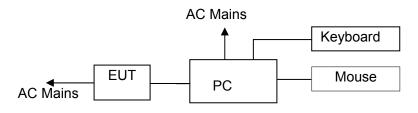
Operator: CH



5. RADIATED EMISSION MEASUREMENT

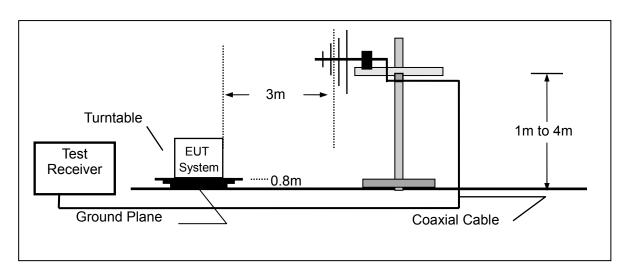
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of EUT System



(EUT: PC VR Headset)

5.1.2.Block diagram of test setup (In chamber)



(EUT: PC VR Headset)

5.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2014

5.3. Radiated Emission Limits (Class B)

| | Freque | ncy | Distance | it | | |
|-----|--------|------|----------|----------|-----------|--------------|
| | MH | Z | (Meters) | μV/m @3m | μV/m @10m | dB(µV)/m@10M |
| 30 | ~ | 88 | 10 | 100 | 30 | 29.5 |
| 88 | ~ | 216 | 10 | 150 | 45 | 33.0 |
| 216 | ~ | 960 | 10 | 200 | 60 | 35.5 |
| 960 | ~ | 1000 | 10 | 500 | 150 | 43.5 |

| Frequency | Distance | Field Str | engths Limit | |
|-----------|----------|------------------|---------------------|--|
| (GHz) | (Meters) | Average (dBµV/m) | Peak (dBμV/m) 74 | |
| 1~6 | 3 | 54 | | |

Remark: (1) Emission level (dB) μ V = 20 log Emission level μ V/m

(2) (Emission level μ V/m @3m) / (Emission level μ V/m @10m) = 10m / 3m

(3) The smaller limit shall apply at the cross point between two frequency bands.

(4) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

5.4. EUT Configuration on Measurement

The FCC Class B regulations test method must be used to find the maximum emission during radiated emission measurement.

EUT:PC VR HeadsetModel Number:V8

5.5. Operating Condition of EUT

5.5.1.Setup the EUT as shown on Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3.Let the EUT work in measuring mode (Connect to PC) and measure it.

5.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESU26) is set at 120kHz.

All the modes were tested and the data of the worst modes are attached the following pages.



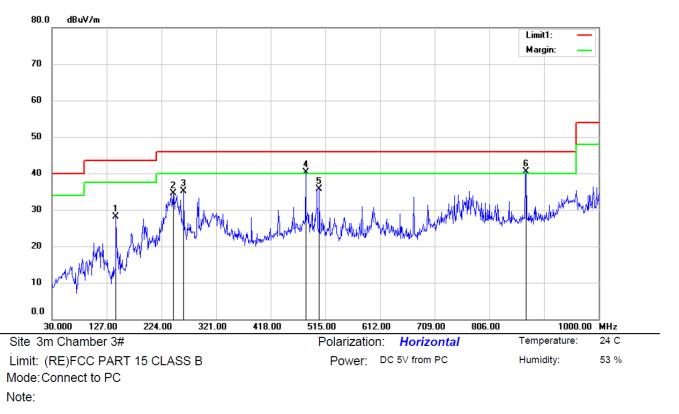
5.7. Measuring Results

PASS.

The frequency range from 30MHz to 6000MHz is investigated.

Please refer to the following pages.



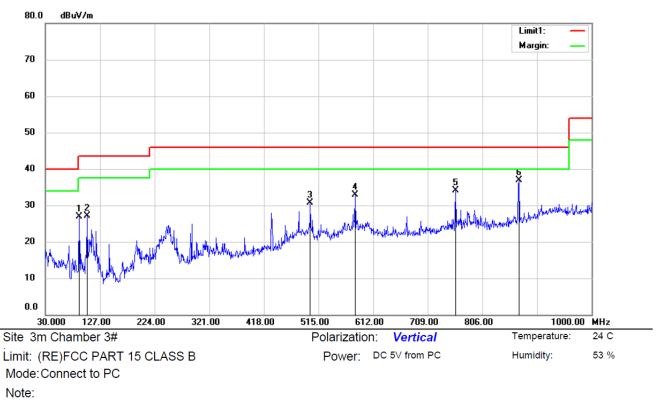


| No. | Mł | k. Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | Antenna Height | Table Degree | |
|-----|----|----------|------------------|-------------------|------------------|--------|--------|----------|-------------------|-----------------|---------|
| | | MHz | dBu∨ | dB | dBu∀/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 143.4900 | 47.46 | -19.34 | 28.12 | 43.50 | -15.38 | QP | | | |
| 2 | | 245.3400 | 48.41 | -13.96 | 34.45 | 46.00 | -11.55 | QP | | | |
| 3 | | 263.7700 | 48.47 | -13.32 | 35.15 | 46.00 | -10.85 | QP | | | |
| 4 | İ | 480.0800 | 48.36 | -7.98 | 40.38 | 46.00 | -5.62 | QP | | | |
| 5 | | 504.3300 | 43.20 | -7.53 | 35.67 | 46.00 | -10.33 | QP | | | |
| 6 | * | 870.9900 | 41.22 | -0.67 | 40.55 | 46.00 | -5.45 | QP | | | |

*:Maximum data x:Over limit !:over margin

Operator:





| No. | Mk | . Freq. | Reading Level | Correct Factor | Measure- ment | Limit | Over | | Antenna Height | Table Degree | |
|-----|----|----------|------------------|-------------------|------------------|--------|--------|----------|-------------------|-----------------|---------|
| | | MHz | dBuV | dB | dBuV/m | dBuV/m | dB | Detector | cm | degree | Comment |
| 1 | | 90.1400 | 44.69 | -17.72 | 26.97 | 43.50 | -16.53 | QP | | | |
| 2 | | 103.7200 | 42.68 | -15.64 | 27.04 | 43.50 | -16.46 | QP | | | |
| 3 | | 500.4500 | 38.32 | -7.59 | 30.73 | 46.00 | -15.27 | QP | | | |
| 4 | | 579.9900 | 38.51 | -5.60 | 32.91 | 46.00 | -13.09 | QP | | | |
| 5 | | 758.4700 | 36.63 | -2.51 | 34.12 | 46.00 | -11.88 | QP | | | |
| 6 | * | 870.9900 | 37.50 | -0.67 | 36.83 | 46.00 | -9.17 | QP | | | |

*:Maximum data x:Over limit !:over margin

Operator:



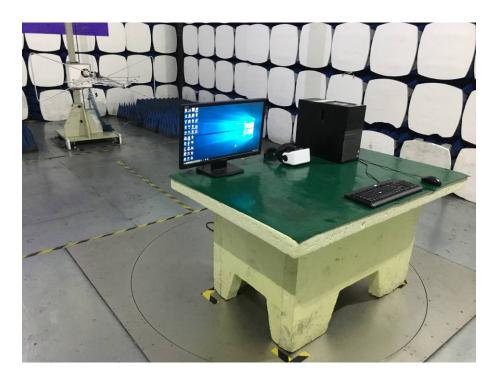
6. PHOTOGRAPHS



6.1. Photos of Conducted Emission Measurement







6.2. Photos of Radiation Emission Measurement

