



TEST REPORT

Report No. : A20013145(5) Date: 2025-04-15

Application No. : L1026373(0)

Applicant : Holoindustry Kft.
Sumegvar koz9.Budapest, Hungary

Sample Description : Mixed reality goggles

Model No. : ThermalGlass Explorer

Date Received : 2025-03-10

Test Period : 2025-03-11 to 2025-04-10

Test Requested : RF Exposure

Test standard : KDB 447498 D04 Interim General RF Exposure Guidance v01
47 CFR Part 2 section 2.1093

Test Result : See attached sheet(s) from page 2 to 8.

Conclusion : The submitted sample complies with RF Exposure requirements.

Remark : N/A

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Lau Ka Ho
Deputy Manager

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FCC ID: 2BL9D-THERMALGLASS1

Document name: FCC MPE - Document Ref No: RT-EL-EMC-045- Issue Date: 03 Sep 2018 - Edition: 1

The conformity statement stated in Conclusion above is based on the decision rule agreed with applicant and listed in www.cmateesting.org/qac/statement-of-conformity.pdf.
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CMA Industrial Development Foundation Limited

Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St., Fo Tan, Shatin, N.T., Hong Kong.

Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmateesting.org Web Site: <http://www.cmateesting.org>



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1 Product Information

1.1 General Information

Sample Description : Mixed reality goggles
Model No. : ThermalGlass Explorer

Primary function : Transceive signal through the Bluetooth communication
Power supply : DC 3.7V (Li-ion Rechargeable battery)
DC 5.0V (micro-usb input)

RF related function : Bluetooth BLE communication
Electric Accessories sold with : Nil

Interconnection cable : USB Type-C (HHS 502248)
associated sold with

Operating condition : -10°C to +45 °C
Model difference : Not applicable
Remark : N/A

1.2 Technical Information

Frequency Band : 2400 MHz to 2483.5 MHz
Operating Frequency : 2402 MHz to 2480MHz
Modulation : GFSK
Number of Channel : 40
Channel Separation : 2.0MHz
Signal Type : Data
Number of Antenna : One
Antenna Type : FPCB Type
Antenna Gain : 3.7 dBi
Rated Input Voltage : DC 3.7 V (Li-ion rechargeable battery)
DC 5.0 V (USB Type-C input)

RF Technology Used : Bluetooth 5.0 (BLE)
Simplex or Duplex : Simplex
Maximum Peak Power : 0.97 dBm
Normal Test Voltage : DC 3.7 V

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1.3 Other Information

Type of Modulation	Tx/Rx Frequency	Test RF Channel Lists		
GFSK	2402 MHz to 2480 MHz	Lowest(L)	Middle(M)	Highest(H)
		Channel 0	Channel 19	Channel 39
		2402 MHz	2440 MHz	2480 MHz

1.4 Location of the test site

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2014. A Semi-Anechoic Chamber Testing Site is set up for investigation and located at:

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2014. A shielded room is located at :

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
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FCC Accredited Lab (Designation Number: HK004)



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1.5 General Description of Applied Standards

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

47 CFR Part 2 section 2.1093

All test items have been performed and recorded as per the above standards

1.6 Deviation from Standards

None

1.7 Abnormalities from Standard Conditions

None

1.8 Other Information Requested by the Customer

None

1.9 Equipment List

Please refer to the RF test report.

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2 SAR Test Exclusion Evaluation

2.1 Reference documents for Evaluation

No.	Identity	Document Title
1	47 CFR Part 2 section 2.1093	Radiofrequency radiation exposure evaluation: portable devices.
2	KDB 447498 D04 Interim General RF Exposure Guidance v01	RF exposure procedures and equipment authorization policies for mobile and portable devices

2.2 Exemption Limits for Routine Evaluation – SAR Evaluation

2.2.1 SAR Test Exclusion Threshold

According to KDB 447498 D04, SAR-based thresholds are derived based on frequency, power, and separation distance of the RF source. The formula defines the thresholds in general for either available maximum time-averaged power or maximum time-averaged ERP, whichever is greater.

The separation distance is the smallest distance from any part of the antenna or radiating structure for all persons, during operation at the applicable ERP. In the case of mobile or portable devices, the separation distance is from the outer housing of the device where it is closest to the antenna.

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

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$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and ERP_{20cm} is per Formula (B.1).

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)									
	5	10	15	20	25	30	35	40	45	50
300	39	65	88	110	129	148	166	184	201	217
450	22	44	67	89	112	135	158	180	203	226
835	9	25	44	66	90	116	145	175	207	240
1900	3	12	26	44	66	92	122	157	195	236
2450	3	10	22	38	59	83	111	143	179	219
3600	2	8	18	32	49	71	96	125	158	195
5800	1	6	14	25	40	58	80	106	136	169

2.2.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.



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2.3 MPE Calculation Results

2.3.1 Test Conditions

For Bluetooth: LE/2LE function, operating at 2402MHz to 2480 MHz for GFSK

2.3.2 Antenna Type

FPCB Antenna

2.3.3 Antenna Gain

2402MHz to 2480 MHz: 3.7 dBi

2.3.4 Results for 47 CFR Part 2 section 2.1093

Operating Mode	Frequency	Tune-up Power (conducted average)	Tolerance	Antenna Gain	Calculated maximum ERP		Separation Distance	SAR Test Exclusion Threshold
	(MHz)	(dBm)	(dBm)	(dBi)	(dBm)	(mW)	(mm)	(mW)
LE	2402-2480	-2.5	1.5	3.7	0.55	1.1350	5	3
2LE	2402-2480	-5.0	1.5	3.7	-1.95	0.6383	5	3

Note: For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

The transmitter complies with the RF exposure requirements and the SAR is not required.

***** End of Report *****