

RF Exposure Evaluation Report

Report Reference No..... : MTEB25080026-H

FCC ID..... : 2A397-HK568A

Compiled by

(position+printed name+signature)..: File administrators Alisa Luo



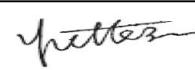
Supervised by

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Date of issue..... : **August 04, 2023**

Representative Laboratory Name. : **Shenzhen Most Technology Service Co., Ltd.**

Address..... : No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

Applicant's name..... : **QINGDAO HISTONE INTELLIGENT COMMERCIAL SYSTEM CO., LTD.**

Address..... : Wisdom Valley, No.8 Shengshui Road, Laoshan District, Qingdao City, China

Test specification/ Standard..... : **47 CFR Part 1.1307**

47 CFR Part 1.1310

KDB447498D01 General RF Exposure Guidance v06

TRF Originator..... : Shenzhen Most Technology Service Co., Ltd.

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Test item description..... : POS COMPUTER

Trade Mark.....: Histone

Manufacturer.....: QINGDAO HISTONE INTELLIGENT COMMERCIAL SYSTEM CO., LTD.

Model/Type reference.....: HK568A

Listed Models: N/A

Modulation Type.....: ASK

Operation Frequency.....: 13.56MHz

Hardware Version.....: HS-ADL-P

Software Version.....: MADP

| | |
|-------------|--|
| Rating..... | DC 24V by Adapter 24V,2.5A,60W (by Adapter 1: 100-240V~,50/60Hz,2.0A(GM60-240250-F)) 24V,2.5A,60W (by Adapter 2: 100-240V~,50-60Hz,1.8A(FSP060-DAAN3)) 24V,5A,120W (by Adapter 3: 100-240V~, 50-60Hz,1.8A(FSP120-AAAN3)) |
| Result..... | PASS |

TEST REPORT

Equipment under Test : POS COMPUTER

Model /Type : HK568A

Listed Models : N/A

Remark : N/A

Applicant : QINGDAO HISTONE INTELLIGENT COMMERCIAL SYSTEM CO., LTD.

Address : Wisdom Valley, No.8 Shengshui Road, Laoshan District, Qingdao City, China

Manufacturer : QINGDAO HISTONE INTELLIGENT COMMERCIAL SYSTEM CO., LTD.

Address : Wisdom Valley, No.8 Shengshui Road, Laoshan District, Qingdao City, China

| | |
|---------------------|-------------|
| Test Result: | PASS |
|---------------------|-------------|

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

1. Revision History

| Revision | Issue Date | Revisions | Revised By |
|----------|------------|---------------|------------|
| 00 | 2025.08.04 | Initial Issue | Alisa Luo |
| | | | |
| | | | |

2. SAR Evaluation

2.1 RF Exposure Compliance Requirement

2.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.1.2 Limits

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 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) | 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/f ²) | 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/f ²) | 30 |
| 30–300 | 27.5 | 0.073 | 0.2 | 30 |
| 300–1500 | | | f/1500 | 30 |
| 1500–100,000 | | | 1.0 | 30 |

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$ Where

P_d = power density in mW/cm²

P_{out} = 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

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.3 EUT RF Exposure

$$\text{EIRP} = \text{PT} * \text{GT} = (E \times D)^2 / 30$$

where:

PT = transmitter output power in watts,

GT = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m, $-10^{(\text{dBuV/m})/20}/10^6$,

D = measurement distance in meters (m)---3m,

So $\text{PT} = (E \times D)^2 / 30 / \text{GT}$

For 13.56MHz wireless:

Field strength=79 dBuV/m

$$\text{EIRP} = 79 \text{ dBuV/m} - 95.2 + 6 = -10.20 \text{ dBm}$$

| Channel | EIRP(dBm) | Tune up tolerance (dBm) | Maximum tune-up Power (dBm) | Maximum tune-up Power (MW) | Power Density at R = 20 cm (mW/cm ²) | Limit | Result |
|-----------|-----------|-------------------------|-----------------------------|----------------------------|--|--------|--------|
| 13.56 MHz | -10.20 | ±1 | -9.20 | 0.120 | 0.0000239 | 0.9789 | Pass |

Note: 1) Refer to report **MTEB25080026** for EUT test Max Conducted average Output Power value.

Note: 2) $P_d = (\text{EIRP}) / (4 * \pi * R^2) = (0.120) / (4 * 3.1416 * 20^2) = 0.0000239$

.....THE END OF REPORT.....