

Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.

MPE ASSESSMENT REPORT

Report Type:

FCC Part §2.1091, §2.1093 and §1.1307(b) assessment report

Model:

HCCS-H64H2C1M

REPORT NUMBER:

220401716SHA-002

ISSUE DATE:

June 29, 2022

DOCUMENT CONTROL NUMBER:

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TEST REPORT

Applicant: Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.
No. 218, Qianwangang Road, Economic and Technological Development
Zone, Qingdao, China

Manufacturer: Qingdao Hisense Hitachi Air-conditioning Systems Co., Ltd.
No. 218, Qianwangang Road, Economic and Technological Development
Zone, Qingdao, China

Product Name: Hi-Mit II Adapter

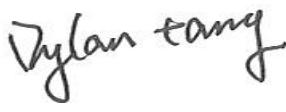
Type/Model: HCCS-H64H2C1M

FCC ID: 2A6PD-HCCSH64H2C1M

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06
FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:

Project Engineer
Dylan Tang

REVIEWED BY:

Reviewer
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TEST REPORT**Revision History**

| Report No. | Version | Description | Issued Date |
|-------------------|----------------|-------------------------|--------------------|
| 220401716SHA-002 | Rev. 01 | Initial issue of report | June 29, 2022 |
| | | | |
| | | | |

TEST REPORT**1 GENERAL INFORMATION****1.1 Description of Equipment Under Test (EUT)**

| | |
|-------------------------|--|
| Product name: | Hi-Mit II Adapter |
| Type/Model: | HCCS-H64H2C1M |
| Description of EUT: | The EUT is Hi-Mit II Adapter, it supports WIFI function, it has only one model. |
| Rating: | Input: DC 12V, 3A Adapter: Manufacturer: ShenZhen SOYTechnology Co., LTD. Model: SOY-1200100-090 Input: 100-240VAC, 50/60Hz 0.5A Max Output: 12.0V ==1.0A 12.0W |
| EUT type: | <input checked="" type="checkbox"/> Table top <input type="checkbox"/> Floor standing |
| Product Marketing Name: | HCCS-H64H2C1M |
| HVIN: | HCCS-H64H2C1M |
| Software Version: | C-1173 |
| Hardware Version: | H7C09139 |
| Serial numbers: | 0220630-01-001(for radiation sample), 0220630-01-002(for conduction sample) |
| Sample received date: | June 9, 2022 |
| Date of test: | June 10, 2022 ~ June 27, 2022 |

1.2 Technical Specification

| | |
|----------------------|---|
| Frequency Band: | 2400MHz ~ 2483.5MHz |
| Support Standards: | IEEE 802.11b, IEEE 802.11g, IEEE 802.11n(HT20), IEEE 802.11n(HT40) |
| Type of Modulation: | IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n(HT20): OFDM (64-QAM, 16-QAM, QPSK, BPSK) IEEE 802.11n(HT40): OFDM (64-QAM, 16-QAM, QPSK, BPSK) |
| Operating Frequency: | 2412MHz to 2462MHz for IEEE 802.11b/g/n(HT20) 2422MHz to 2452MHz for IEEE 802.11n(HT40) |
| Channel Number: | 11 Channels for 802.11b, 802.11g ,802.11n(HT20) 7 Channels for 802.11n(HT40) |
| Channel Separation: | 5 MHz |
| Antenna Information: | PCB antenna: 1.84dBi |

TEST REPORT**1.3 Description of Test Facility**

| | |
|------------|--|
| Name: | Intertek Testing Services Shanghai |
| Address: | Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China |
| Telephone: | 86 21 61278200 |
| Telefax: | 86 21 54262353 |

| | |
|---|---|
| The test facility is recognized, certified, or accredited by these organizations: | CNAS Accreditation Lab Registration No. CNAS L0139 |
| | FCC Accredited Lab Designation Number: CN1175 |
| | IC Registration Lab CAB identifier.: CN0051 |
| | VCCI Registration Lab Registration No.: R-14243, G-10845, C-14723, T-12252 |
| | A2LA Accreditation Lab Certificate Number: 3309.02 |

TEST REPORT**2 MPE Assessment****Test result:** Pass**2.1 MPE Assessment Limit**

Mobile device exposure for standalone operations:

| Frequency range | E-field strength (V/m) | H-field strength (A/m) | B-field (uT) | Equivalent plane wave power density S_{eq} (W/m ²) |
|-----------------|------------------------|------------------------|---------------------|--|
| 0-1 Hz | - | $3,2 \times 10^4$ | 4×10^4 | - |
| 1-8 Hz | 10 000 | $3,2 \times 10^4/f^2$ | $4 \times 10^4/f^2$ | - |
| 8-25 Hz | 10 000 | $4 000/f$ | $5 000/f$ | - |
| 0,025-0,8 kHz | 250/f | 4/f | 5/f | - |
| 0,8-3 kHz | 250/f | 5 | 6,25 | - |
| 3-150 kHz | 87 | 5 | 6,25 | - |
| 0,15-1 MHz | 87 | 0,73/f | 0,92/f | - |
| 1-10 MHz | $87/f^{1/2}$ | 0,73/f | 0,92/f | - |
| 10-400 MHz | 28 | 0,073 | 0,092 | 2 |
| 400-2 000 MHz | $1,375 f^{1/2}$ | $0,0037 f^{1/2}$ | $0,0046 f^{1/2}$ | $f/200$ |
| 2-300 GHz | 61 | 0,16 | 0,20 | 10 |

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

TEST REPORT**2.2 Assessment Results**

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm^2

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 220401716SHA-001:

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

| Frequency band | Power | | Antenna Gain | R | S | Limits |
|----------------|-------|-------|--------------|------|-----------------------|-----------------------|
| (MHz) | dBm | mW | dBi | (cm) | (mW/cm ²) | (mW/cm ²) |
| 2412 – 2462 | 16.22 | 41.88 | 1.84 | 20 | 0.0153 | 1 |

Note: 1 mW/cm^2 from 1.310 Table 1.

TEST REPORT

Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

*****END*****