

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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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

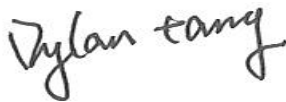
Type/Model: HCCS-H64H2C1M

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:

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Reviewer
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Revision History

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

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 \pm 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

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/cm²

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.

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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/cm² from 1.310 Table 1.

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*****