
MPE REPORT

Report No: SRTC2020-9004(F)-20011701(I)

Product Name: Wi-Fi Module

Product Model: Hisense MW13

Applicant: Hisense Communication Co., Ltd.

Manufacturer: Hisense Communication Co., Ltd.

Specification: FCC Part §2.1091, §2.1093, §1.1307(b), §1.1310 (2019)

FCC ID: SARHISENSEMW13

The State Radio_monitoring_center Testing Center (SRTC)

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1 GENERAL INFORMATION

1.1 Notes of the test report

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1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
Address:	15th Building, No.30 Shixing Street, Shijingshan District, P.R.China
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1.3 Applicant's details

Company:	Hisense Communication Co., Ltd.
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1.4 Manufacturer's details

Company:	Hisense Communication Co., Ltd.
Address:	218 Qianwangang Road, Economic & Technological Development Zone, Qingdao, Shandong Province, P.R. China
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Country or Region:	Shandong Province, P.R. China
Contacted person:	Wang Haining
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Email:	wanghaining@hisense.com

2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Frequency Range	2.412GHz~2.462GHz
Number of Channel For 20MHz	11
Number of Channel For 20MHz	7
Data Rate	802.11b:1Mbps~11Mbps 802.11g:6Mbps~54Mbps 802.11n HT20:MCS0~MCS7 802.11n HT40:MCS0~MCS7
Duplex Mode	TDD
Channel Spacing	5MHz
Power Supply	DC Supply
Software Revision	M1679.6.01.01.00
Hardware Revision	V1.00A
SN	CA2C4F87F98F
Antenna type	Refer to Note
Antenna connector	Refer to Note

The antenna provide to the EUT, please refer to the following table:

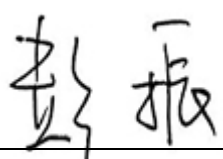

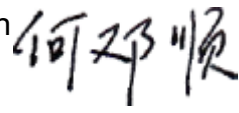
Brand	Model	Antenna gain	Frequency range(GHz)	Antenna type	Connecter Type
N/A	N/A	2.7dBi	2.412GHz~2.462GHz	Ceramic Antenna	N/A

3 REFERENCE SPECIFICATION

Specification	Version	Title
2.1091	2019	Radiofrequency radiation exposure evaluation: mobile devices.
2.1093	2019	Radiofrequency radiation exposure evaluation: portable devices.
1.1307(b)	2019	Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
1.1310	2019	Radiofrequency radiation exposure limits.
KDB447498	October 23, 2015	RF exposure procedures and equipment authorization policies for mobile and portable devices

4 RESULT SUMMARY

No.	Test case	FCC reference
1	MPE Calculation	FCC Part §2.1091, FCC Part §2.1093, FCC Part §1.1307(b) FCC Part §1.1310 KDB 447498

This Test Report Is Issued by: Mr. Peng Zhen 	Checked by: Mr. Li Bin 
Tested by: Mr. He Dengshun 	Issued date: 20200311

5 TEST RESULTS

5.1 Average Power Output Test Result

WLAN 2.4GHz

Modulation type	Average power output (dBm)		
	2412MHz	2437MHz	2462MHz
802.11b	17.04	17.23	16.78
802.11g	11.42	11.69	11.32
802.11n HT20	11.68	11.49	11.37
Modulation type	Average power output (dBm)		
	2422MHz	2437MHz	2452MHz
802.11n HT40	11.25	11.17	11.08

5.2 Calculation result

FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
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

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
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 *Plane-wave equivalent power density

Calculation procedure:

According to §2.1091, §2.1093, §1.1307(b) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

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

Where S = power density in mW/cm²

P = transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

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.

Mode/Band	Freq (MHz)	Power		Antenna Gain		R (cm)	S (mW/cm ²)	Limits (mW/cm ²)
		(dBm)	(mW)	(dBi)	(Numeric)			
WLAN2.4GHz	2437	17.23	52.845	2.7	1.862	20	0.020	1.00

Note: 1mW/cm² from §1.1310 Table 1.

According to the KDB447498 D01 section 7.1 determine the device is exclusion from SAR test.

---End of Test Report---