Radio Test Report

Report No.:CTA231129002H02

Issued for

Chengdu Accsoon Technology Co., LTD.

Rm. 2502, Bld. A, Tianxiang Plaza, Tianfu 2nd St., High-tech Zone, Chengdu, Sichuan, China

Product Name:	Wireless Video Transmission System
Brand Name:	Accsoon
Model Name:	WIT04-HE
Series Model(s):	WIT04-QS, WIT04-SE
FCC ID:	2AOH404WIT2C
Test Standard:	FCC 47CFR §2.1091

TEST REPORT

Applicant's Name	:	Chengdu Accsoon Technology Co., LTD.
Address	:	Rm. 2502, Bld. A, Tianxiang Plaza, Tianfu 2nd St., High-tech Zone, Chengdu, Sichuan, China
Manufacturer's Name	:	Shenzhen Accsoon Technology Co., LTD.
Address	:	Rm. 302-305, 3F, Bld. 10, Baozhi Industrial Rd., Guancheng Shequ, Guanhu St., Longhua District, Shenzhen, China

Product Description

Product Name	:	Wireless Video Transmission System
Brand Name	:	Accsoon
Model Name	:	WIT04-HE
Series Model(s)	:	WIT04-QS, WIT04-SE
Test Standards	:	FCC 47CFR §2.1091 447498 D01 Interim General RF Exposure Guidance v06

Date of Test	:	
Date of receipt of test item	:	26 Sept. 2023
Date (s) of performance of tests	:	26 Sept. 2023 ~ 18 Oct. 2023
Date of Issue	:	18 Oct. 2023
Test Result	:	**Pass**

Testing Engineer : Zoey Cao

(Zoey Cao)

Technical Manager : Amy Wen

(Amy Wen)

Authorized Signatory : Eric Wang

(Eric Wang)

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Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	18 Oct. 2023	CTA231129002H02	ALL	Initial Issue

1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

<table>
<tr><td>Product Name</td><td>Wireless Video Transmission System</td></tr>
<tr><td>Brand Name</td><td>Accsoon</td></tr>
<tr><td>Model Name</td><td>WIT04-HE</td></tr>
<tr><td>Series Model(s)</td><td>WIT04-QS, WIT04-SE</td></tr>
<tr><td>Model Difference</td><td>WIT04-QS and WIT04-HE only have different model names, The video input interfaces of WIT04-SE and WIT04-HE are different</td></tr>
<tr><td>Product Description</td><td>The EUT is Wireless Video Transmission System.
<table>
<tr><td>Operation Frequency:</td><td>2.4G WLAN:802.11n 20: 2412~2462 MHz
5.2G WLAN:
IEEE 802.11n(HT20): 5.180GHz-5.240GHz
5.3G WLAN:
IEEE 802.11 n(HT20):5.280GHz-5.320GHz
5.6G WLAN:
IEEE 802.11 n(HT20):5.500GHz-5.700GHz
5.8G WLAN:
IEEE 802.11 n(HT20):5.745GHz-5.825GHz</td></tr>
<tr><td>Modulation Type:</td><td>802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM</td></tr>
<tr><td>Antenna gain:</td><td>5G WLAN:
ANT 1：2.5 dBi
ANT 2：2.5 dBi
MIMO 1+2：5.51dBi</td></tr>
<tr><td>Antenna Designation:</td><td>External antenna</td></tr>
</table></td></tr>
<tr><td>Rating</td><td>Input:7.4V~16.8V 1.5A</td></tr>
<tr><td>Hardware Version</td><td>V1.1</td></tr>
<tr><td>Software Version</td><td>V1.28</td></tr>
</table>

1.2 TEST FACTORY

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community,Fuhai Street, Bao'an District, Shenzhen, China

FCC test Firm Registration Number: 517856

IC test Firm Registration Number: 27890

A2LA Certificate No.: 6534.01

IC CAB ID: CN0127

2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.
Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

2.2 LIMIT

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)
Limits for Occupational / controlled Exposures			
300 - 1500	--	--	F/300
1500 – 100000	--	--	5.0
Limits for General population / Uncontrolled Exposure			
300 - 1500	--	--	F/1500
1500 – 100000	--	--	1.0

F= Frequency in MHz

Friss Formula

Friss Transmission Formula: $Pd = (Pout * G) / (4*pi*r^2)$

Where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.

2.3 TEST RESULT

Turn up

Mode	Detector	Turn up Power
2.4G WLAN	AV	14±1dBm
5G WLAN	AV	17±1dBm

Protocol	Fre. (GHz)	Separation distance (cm)	Max Turn up power (dBm)	ANT Gain (dBi)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm²)	Limit (mW/cm²)	Ratio	Result
2.4G WLAN	2.412	20	15	2.5	17.50	56.234	0.0112	1	0.0112	Pass
5G WLAN	5.240	20	18.00	2.5	20.50	112.202	0.0223	1	0.0223	Pass

Multiple transmission:

2.4G WLAN+5G WLAN=0.0112+0.0223=0.0335＜1

Note: 1. The Maxinum power is less than the limit, complies with the exemption requirements.

2. The 2.4G WLAN and 5G WLAN can simultaneous transmission at the same time.

※※※※※END OF THE REPORT※※※※※