

Test Report No.:
FCC2022-0014-EMF

Test Report

EUT : 15.6-inch Computer
MODEL : VT-HMI-156-TEL
BRAND NAME : N/A
APPLICANT : Chengdu Vantron Technology Co., Ltd.
Classification Of Test : N/A

CVC Testing Technology Co., Ltd.



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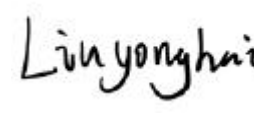
Test Report No.: FCC2022-0014-EMF		Page 2 of 8	
Client		Name : Chengdu Vantron Technology Co., Ltd. Address : No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China	
Manufacturer		Name : Chengdu Vantron Technology Co., Ltd. Address : No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China	
Equipment Under Test		Name : 15.6-inch Computer Model/Type: VT-HMI-156-TEL Trade mark : N/A Serial NO.:N/A Sampe NO.:4-1	
Date of Receipt.	2022.03.10	Date of Testing	2022.03.10~2022.03.31
Test Specification		Test Result	
FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. Issue Date: 2021.03.31		
Tested by:  Xu ZhenFei Name Signature	Reviewed by:  Liu YongHai Name Signature	Approved by:  Chen HuaWen Name Signature	
Other Aspects: NONE.			
Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2022-0014-EMF	Original release	2022.03.31



1. GERTIFICATION

PRODUCT	15.6-inch Computer
BRAND	N/A
MODEL	VT-HMI-156-TEL
ADDITIONAL MODEL	N/A
FCC ID	2AAGE156TEL6256
POWER SUPPLY	DC 12V From Adapter or DC 48V from POE
OPERATING FREQUENCY	2412-2462MHz for 2.4G WIFI 5180-5240MHz, 5745-5825MHz for 5G WIFI 2402-2480MHz for BT and BT-LE
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A
Remark: 1. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report. 3. EUT photo refer to the report (Report NO.: FCC2022-0014-E).	

2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

3. MPE CALCULATION 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

π = 3.1416

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



4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
BT	3.0	External Antenna
2.4G WIFI	2.0	External Antenna
5G WIFI for 5180-5240MHz	2.5	External Antenna
5G WIFI for 5745-5825MHz	3.0	External Antenna

6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The measured conducted Average Power

Mode	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
BT (GFSK)	2402-2480MHz	3	+ -1	2	4
BT-LE (GFSK)	2402-2480MHz	4	+ -1	3	5
Wi-Fi 2.4GHz	2412-2462MHz	14	+ -1	13	15
Wi-Fi 5GHz(Band1)	5150-5250MHz	11	+ -1	10	12
Wi-Fi 5GHz(Band4)	5725-5850MHz	14	+ -1	13	15

Mode	Frequency (MHz)	Averaged Power (dBm)
BT (GFSK)	2441	3.01
BT-LE (GFSK)	2440	4.78
Wi-Fi 2.4GHz	2437	14.01
Wi-Fi 5GHz(Band1)	5220	11.63
Wi-Fi 5GHz(Band4)	5825	14.47



The tuned conducted Average Power (declared by client)

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
BT 2.4GHz	4	3	20	0.001	1.0
Wi-Fi 2.4GHz	15	2	20	0.010	1.0
Wi-Fi 5GHz(Band1)	12	2.5	20	0.006	1.0
Wi-Fi 5GHz(Band4)	15	3	20	0.013	1.0

CONCLUSION:

The WLAN 2.4GHz and 5GHz can not transmit simultaneously, the BT and WLAN can transmit simultaneously, the formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 +etc. < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$(0.00100/1) + (0.013/1) = 0.023 < 1, \text{ which is less than the "1" limit.}$$



Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.
- (6) Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;

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