

RF Exposure Evaluation Report

Product Name	Thin Client
Model No.	Chromebox 5
FCC ID	MSQ-CN67QI15

Applicant	ASUSTeK Computer, Inc
Address	1F, No. 15, Lide Rd, Beitou, Taipei, 112 Taiwan

Date of Receipt	Nov. 08, 2022
Date of Declaration	Apr. 20, 2023
Report No.	22B0348R-RFUSV17S-C
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

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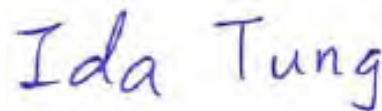
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.



Product Name	Thin Client	
Applicant	ASUSTeK Computer, Inc	
Address	1F, No. 15, Lide Rd, Beitou, Taipei, 112 Taiwan	
Manufacturer	ASUSTeK COMPUTER INC.	
Model No.	Chromebox 5	
FCC ID	MSQ-CN67QI15	
EUT Rated Voltage	AC 100-240V / 50-60Hz	
EUT Test Voltage	AC 120V / 60Hz	
Trade Name	ASUS	
Applicable Standard	KDB 447498 D01 v06	☒ For Field Strength Test
Test Result	Complied	

Documented By

:



(Project Specialist / Ida Tung)

Tested By

:



(Senior Engineer / Jack Hsu)

Approved By

:



(Manager / Tim Sung)

Revision History

Report No.	Version	Description	Issued Date
22B0348R-RFUSV17S-C	V1.0	Initial issue of report.	Apr. 20, 2023

1. General Information

1.1. EUT Description

Product Name	Thin Client
Trade Name	ASUS
Model No.	Chromebox 5
FCC ID	MSQ-CN67QI15

Note: For more detailed information please refer to report No.: 200611-01.TR01, 200611-01.TR02, 200611-01.TR03, 200611-01.TR04 and 200611-01.TR05.

2. Test Facility

USA : FCC Registration Number: TW0033
Canada : CAB Identifier Number: TW3023 / Company Number: 26930

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No. 5-22, Ruishukeng Linkou District, New Taipei City, 24451, Taiwan
Performed Location : No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number : +886-3-275-7255
Fax Number : +886-3-327-8031
Email Address : info.tw@dekra.com
Website : <http://www.dekra.com.tw>

3. RF Exposure Evaluation

3.1. Standard Applicable

According to KDB 447498 D01 (7.1), A minimum test separation distance ≥ 20 cm is required between the antenna and radiating structures of the device and nearby persons to apply mobile device exposure limits.

3.2. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of 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)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
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
300-1,500			f/300	6
1,500-100,000			5	6
(B) Limits for General Population/ Uncontrolled Exposures				
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
300-1,500			f/1500	30
1,500-100,000			1.0	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

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

Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0

3.3. Test Result of RF Exposure Evaluation

Product	Thin Client
Test Item	RF Exposure Evaluation

Band	Frequency (MHz)	E.I.R.P (dBm)	E.I.R.P (mW)	Power Density at R = 20 cm (mW/cm ²)	Limit (mW/cm ²)
Bluetooth	2480	13.740	23.659	0.0047	1
WiFi 2.4G	2442	33.150	2065.380	0.4109	1
WiFi 5G	2755	29.100	812.831	0.1617	1

Note: The conducted output power is refer to report No.: 200611-01.TR01, 200611-01.TR02, 200611-01.TR03, 200611-01.TR04 and 200611-01.TR05 from the Intel.

Calculations for Multi-Transmitter

Mode	Ratios	result	Limit
Bluetooth	0.0047	0.4647	1
WiFi 2.4G	0.4109		
WPC	0.0491		

Note:

1. Ratios = Power Density / Power Density Limit
2. WPC is refer to report No.: 22B0348R-RFUSV17S-B from the DEKRA.

Results	PASS
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