

RF Exposure evaluation

Product Name : MINI PC
Brand Name : N/A
Model : MS-03-S386H
Series Model : See page 6
FCC ID : 2A49R-MS-03-S386H
Applicant : **MICRO COMPUTER (HK) TECH LIMITED**
Address : RM 18, 28/F, Shui On Centre, 6-8 Harbour Road, WaterfRont,
Wan Chai, HK
Manufacturer : **MICRO COMPUTER (HK) TECH LIMITED**
Address : RM 18, 28/F, Shui On Centre, 6-8 Harbour Road, WaterfRont,
Wan Chai, HK
Standard(s) : 47CFR §1.1310, 47CFR §2.1091
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt : April 29, 2026
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Issued By: **Dongguan Yaxu (AiT) Technology Limited**

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Note: This device has been tested and found to comply with the standard(s) listed, this test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory. This report shall not be reproduced except in full, without the written approval of Dongguan Yaxu (AiT) Technology Limited. If there is a need to alter or revise this document, the right belongs to Dongguan Yaxu (AiT) Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.

Dongguan Yaxu (AiT) Technology Limited

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Report Revise Record

Report Version	Issued Date	Notes
M0	June 23, 2026	Initial Release

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1 GENERAL INFORMATION

1.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

1.2 General Description of EUT

Product Name:	MINI PC
Model/Type reference:	MS-03-S386H
Serial Model:	MS-03-S**** (where*="0-9","A-Z""a-z", ".", blank space, no character difference between each model is only due to the different model naming methods for different sales regions, other circuit principles, safety structures and key components are all the same, and the difference not affect the safety and electromagnetic compatibility performance of the product.)
Power Ratings:	Input: 19V=12.63A
Adapter information:	Model: SOY-1901263-244-B Input: 100-240V~ 50/60Hz 3.0A Max. Output: 19.0V=12.63A 239.97W
Hardware Version:	N/A
Software Version:	N/A
Bluetooth:	
Supported type:	Bluetooth BR/EDR
Modulation:	GFSK, $\pi/4$ DQPSK, 8DPSK
Operation frequency:	2402MHz~2480MHz
Channel number:	79
Channel separation:	1MHz
Antenna type:	FPC antenna
Antenna gain:	Antenna 1(A):2.41Bi, Antenna 2(B):2.29dBi
Directional gain:	2.35dBi
Bluetooth LE:	
Supported type:	Bluetooth Low Energy
Modulation:	GFSK
Operation frequency:	2402MHz~2480MHz
Channel number:	40
Channel separation:	2MHz
Antenna type:	FPC antenna

Antenna gain:	Antenna 1(A):2.41Bi, Antenna 2(B):2.29dBi				
Directional gain:	2.35dBi				
2.4G WIFI:					
Supported type:	802.11b/g/n(H20)/n(H40)/ax(HE20)/ax(HE40)/be(EHT20)/be(EHT40)				
Modulation:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK) 802.11ax: OFDMA (1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK) 802.11be: OFDMA (4096QAM,1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK)				
Operation frequency:	802.11b/g/n(H20)/ax(HE20)/be(EHT20): 2412MHz~2462MHz 802.11n(H40)/ax(HE40)/be(EHT40):2422MHz~2452MHz				
Channel number:	802.11b/g/n(H20)/ax(HE20)/be(EHT20): 11 802.11n(H40)/ax(HE40)/be(EHT40):7				
Channel separation:	5MHz				
Antenna type:	FPC antenna				
Antenna gain:	Antenna 1(A):2.41Bi, Antenna 2(B):2.29dBi				
Directional gain:	2.35dBi				
5G WIFI:					
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system	320MHz system
	802.11a 802.11n 802.11ac 802.11ax 802.11be	802.11n 802.11ac 802.11ax 802.11be	802.11ac 802.11ax 802.11be	802.11ac 802.11ax 802.11be	N/A
Operation frequency:	5180-5240MHz 5260-5320MHz 5500-5700MHz 5745-5825MHz	5190-5230MHz 5270-5310MHz 5510-5670MHz 5755-5795MHz	5210MHz 5290MHz 5530MHz 5610MHz 5690MHz 5775MHz	5250MHz 5570MHz	N/A
Modulation:	OFDM/OFDMA	OFDM/OFDMA	OFDM/OFDMA A	OFDM/OFDMA A	N/A
Channel number:	25	12	6	2	N/A
Channel separation:	20MHz	40MHz	80MHz	160MHz	N/A
MIMO	Support MIMO 2*2				
Antenna type:	FPC Antenna MIMO 2*2				
Antenna gain:	Antenna 1(A): 3.74Bi, Antenna 2(A):3.85dBi				
Directional gain:	3.80dBi				
5.9G WIFI:					
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system	
	802.11a 802.11n 802.11ac 802.11ax 802.11be	802.11n 802.11ac 802.11ax 802.11be	802.11ac 802.11ax 802.11be	802.11ac 802.11ax 802.11be	

Operation frequency:	5845-5885MHz	5835MHz-5875MHz	5855MHz	5815	
Modulation:	OFDM/OFDMA	OFDM/OFDMA	OFDM/OFDMA	OFDM/OFDMA	
Channel number:	3	2	1	1	
Channel separation:	20MHz	40MHz	80MHz	160MHz	
MIMO	Support MIMO 2*2				
Antenna type:	FPC Antenna MIMO 2*2				
Antenna gain:	Antenna 1(A): 3.30Bi, Antenna 2(B):3.48dBi				
Directional gain:	3.39dBi				
6G WIFI:					
Supported type:	20MHz system	40MHz system	80MHz system	160MHz system	320MHz system
	802.11ax 802.11be	802.11ax 802.11be	802.11ax 802.11be	802.11ax 802.11be	802.11be
Operation frequency:	5955-6415MHz 6435-6515MHz 6535-6855MHz 6895-7115MHz	5965-6405MHz 6445-6485MHz 6525-6845MHz 6885-7085MHz	5985-6385MHz 6465MHz 6545-6865MHz 6945-7025MHz	6025-6985MHz	6105-6745MHz
Modulation:	OFDMA	OFDMA	OFDMA	OFDMA	OFDMA
Channel number:	59	29	13	7	3
Channel separation:	20MHz	40MHz	80MHz	160MHz	320MHz
MIMO	Support MIMO 2*2				
Antenna type:	FPC Antenna MIMO 2*2				
Antenna gain:	Antenna 1(Main):3.55Bi, Antenna 2(Aux):3.58dBi				
Directional gain:	3.57dBi				

1.3 Test Facility

Test Laboratory: Dongguan Yaxu (AiT) Technology Limited

No.22, Jinqianling 3rd Street, Jitigang, Huangjiang, Dongguan, Guangdong, China

The test facility is recognized, certified or accredited by the following organizations:

CNAS-Registration No: L6177

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on April 18, 2022

FCC-Registration No.: 703111 Designation Number: CN1313

Dongguan Yaxu (AiT) Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC-Registration No.: 6819A CAB identifier: CN0122

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

A2LA-Lab Cert. No.: 6317.01

Dongguan Yaxu (AiT) Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to CISPR 16 - 4"Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Dongguan Yaxu (AiT) Technology Limited's quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Yaxu (AiT) laboratory is reported:

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	150KHz~30MHz ± 1.20 dB	(1)
Radiated Emission	9KHz~30Hz ± 3.10 dB	(1)
Radiated Emission	9KHz~1GHz ± 3.75 dB	(1)
Radiated Emission	1GHz~18GHz ± 3.88 dB	(1)
Radiated Emission	18GHz~40GHz ± 3.88 dB	(1)
RF power, conducted	30MHz~6GHz ± 0.16 dB	(1)
RF power density, conducted	± 0.24 dB	(1)
Spurious emissions, conducted	± 0.21 dB	(1)
Temperature	$\pm 1^{\circ}\text{C}$	(1)
Humidity	$\pm 3\%$	(1)
DC and low frequency voltages	$\pm 1.5\%$	(1)
Time	$\pm 2\%$	(1)
Duty cycle	$\pm 2\%$	(1)
Bandwidth	$\pm 1.5 \times 10^{-6}$	(1)

The report uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty Multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

2 Method of measurement

2.1 Applicable Standard

According to §1.1307(b)(1), 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.

According to §1.1310 and §2.1091 RF exposure is calculated.

FCC KDB447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures

2.2 Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
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

2.3 MPE Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

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

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

2.4 Manufacturing Tolerance

According to the applicant, the maximum conducted transmit power (including the upper tolerance) for the EUT under evaluation are as follows:

Mode	Max Output Power(incl. Tolerance) (dBm)
DTS	22.25
UNII 5GHz	23.75
UNII 6GHz	22.50
BT	15.50

2.5 MPE Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r = 20\text{cm}$, as well as the gain of the used antenna is refer to section 2.2, the RF power density can be obtained.

Standalone Evaluation

Antenna 1/Antenna 2

Modulation Type	Max Output power with tune_up		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)	radio
	dBm	mW					
DTS	22.25	167.8804	2.41	1.7418	0.0582	1.0000	0.0582
BT	15.50	35.4813	2.41	1.7418	0.0123	1.0000	0.0123
UNII 5GHz	23.75	237.1374	3.85	2.4266	0.1145	1.0000	0.1145
UNII 6GHz	22.50	177.8279	3.58	2.2803	0.0807	1.0000	0.0807

Remark:

1. For conservativeness, the Max. gain of antenna 1 and antenna2 is used to determine power density.
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.

simultaneous transmission Evaluation

The device can transmit simultaneously in UNII 5GHz/UNII 6GHz and BT, if the sum of the ratios of all individual transmitters is less than 1, the simultaneously transmit can be exempt.

$$\text{Max. SUM}_{\text{ratios}} = \text{Max. radio of WIFI MIMO} + \text{Max. radio of BT MIMO} = 0.1145 + 0.1145 + 0.0123 + 0.0123 = 0.2536 < 1.$$



2.6 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

***** End of Report *****