

FCC RF Exposure

Applicant : Wuhu Mengbo Technology Co., Ltd.
Address : 16th floor, Building 1, Science and Technology Industrial Park
Phase II, Wuhu City
Product Name : UNIT ASSY-AUDIO&VIDEO (SE10)
Brand Mark : KG Mobility
Model no. : 895CGC4500
Series model : N/A
FCC ID : 2BWJ9-895CGC4500
Report Number : BLA-EMC-202606-A30-06
Date of Receipt : Jun. 10, 2026
Date of Test : Jun. 10, 2026 to Jul. 17, 2026
Test Standard : 47 CFR Part 15, Part1.1307
47 CFR Part 15, Part2.1091
KDB447498D04 General RF Exposure Guidance v01
Test Result : Pass

Compiled by: Mark Chen

Review by: Xavier

Approved by: Shue Zheng

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BlueAsia Technical Services(Shenzhen) Co.,Ltd.

Address: No.41, South of Beihuan Road, Shangwu Community, Shiyan
Subdistrict, Bao'an District, Shenzhen, Guangdong, China



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Revise Record

Version No.	Date	Description
01	Aug. 12, 2026	Original

1 General information

1.1 General information

Applicant	Wuhu Mengbo Technology Co., Ltd.
Address	16th floor, Building 1, Science and Technology Industrial Park Phase II, Wuhu City
Manufacturer	Wuhu Mengbo Technology Co., Ltd.
Address	16th floor, Building 1, Science and Technology Industrial Park Phase II, Wuhu City
Factory	Wuhu Mengbo Technology Co., Ltd.
Address	16th floor, Building 1, Science and Technology Industrial Park Phase II, Wuhu City

1.2 General description of EUT

Product Name	UNIT ASSY-AUDIO&VIDEO (SE10)
Model No.	895CGC4500
Operation Frequency	BLE&BT Classic: 2402MHz-2480MHz 2.4GWIFI: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz IEEE 802.11n(HT40): 2422MHz to 2452MHz 5GWIFI: U-NII-1: 5150MHz-5250MHz U-NII-2A: 5250MHz-5350MHz U-NII-2C: 5470MHz-5725MHz U-NII-3: 5745MHz-5850MHz
Modulation Type	BLE: GFSK BT Classic: GFSK, $\pi/4$ -DQPSK, 8DPSK 2.4GWIFI: 802.11b: DSSS(CCK/QPSK/BPSK) 802.11g: OFDM(BPSK/QPSK/16QAM/64QAM) 802.11n (HT20 and HT40): OFDM (64QAM, 16QAM, QPSK, BPSK) 5GWIFI: IEEE 802.11a:OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE 802.11n(HT20/HT40):OFDM (BPSK, QPSK, 16QAM, 64QAM) IEEE for 802.11ac: OFDM(256QAM, 64QAM, 16QAM, QPSK, BPSK)
Number of Channels	BLE:40 BT: 79 2.4GWIFI: 802.11b/g:11 Channels 802.11n (HT20): 11 Channels 802.11n (HT40): 7 Channels

	5GWIFI: U-NII-1: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40): 2, 802.11ac(HT80): 1 U-NII-2A: 802.11a/802.11n(HT20)/802.11ac(HT20): 4, 802.11n(HT40)/802.11ac(HT40): 2, 802.11ac(HT80): 1 V-NII-2C: 802.11a/802.11n(HT20)/802.11ac(HT20): 8, 802.11n(HT40)/802.11ac(HT40): 3, 802.11ac(HT80): 1 U-NII-3: 802.11a/802.11(HT20)/802.11ac(HT20): 5, 802.11n(HT40)/802.11ac(HT40): 2, 802.11ac(HT80): 1
Antenna Type	PCB antenna
Antenna Gain	BLE/BT Classic: 0.44dBi 2.4GWIFI: 0.54dBi 5G WIFI ANT1: 4.39dBi 5G WIFI ANT2: 2.51dBi 5G WIFI Directional gain = 6.51dBi
Power supply	DC 12V
Hardware Version	N/A
Software Version	N/A
Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.	

2 RF Exposure Compliance Requirement

2.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

2.2 Limits

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

Example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
	5	10	15	20	25	30	35	40	45	50	
	300	39	65	88	110	129	148	166	184	201	217
	450	22	44	67	89	112	135	158	180	203	226
	835	9	25	44	66	90	116	145	175	207	240
	1900	3	12	26	44	66	92	122	157	195	236
	2450	3	10	22	38	59	83	111	143	179	219
	3600	2	8	18	32	49	71	96	125	158	195
	5800	1	6	14	25	40	58	80	106	136	169

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B. 1})$$

2.3 Result

$$\text{EIRP} = \text{pt} \times \text{gt} = (\text{E} \times \text{d})^{2/30}$$

Where:

pt = transmitter output power in watts,

gt = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m

d = measurement distance in meters (m)

$$\text{Spot} = (\text{E} \times \text{d})^{2/30} \times \text{gt}$$

Separation distance= 20cm

BLE/BT Classic: 0.44dBi

2.4GWIFI Antenna Gain: 0.54dBi

5G WIFI ANT1: 4.39dBi

5G WIFI ANT2: 2.51dBi

5G WIFI Directional gain = 6.51dBi

BLE worse case: **3.181dBm @ 2480MHz**

$$\text{ERP} = 3.181 + 0.44 - 2.15 = 1.471 \text{dBm} = 1.403 \text{mW} < 3060 \text{mW}$$

$$\text{MPE ratio(BLE)} = 1.403 / 3060 = 0.0005$$

BT Classic worse case: **3.239dBm @ 2480MHz**

$$\text{ERP} = 3.239 + 0.44 - 2.15 = 1.529 \text{dBm} = 1.422 \text{mW} < 3060 \text{mW}$$

$$\text{MPE ratio(BT Classic)} = 1.422 / 3060 = 0.00046$$

2.4G WIFI worse case: **11.285dBm @ 2412MHz**

$$\text{ERP} = 11.285 + 0.54 - 2.15 = 9.675 \text{dBm} = 9.279 \text{mW} < 3060 \text{mW}$$

$$\text{MPE ratio(2.4GWIFI)} = 9.279 / 3060 = 0.0030$$

5G WIFI worse case: **16.980dBm @ 5230MHz**

$$\text{ERP} = 16.980 + 6.51 - 2.15 = 21.34 \text{dBm} = 136.144 \text{mW} < 3060 \text{mW}$$

$$\text{MPE ratio(5GWIFI)} = 136.144 / 3060 = 0.0445$$

For Simultaneous Transmission :

As MPE ratio (BLE+BT Classic+2.4GWIFI+5GWIFI)

$$= 0.0005 + 0.0005 + 0.0030 + 0.0445 = 0.0485 < 1,$$

Comply with RF exposure exemption limit.

----END OF REPORT----

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