



RF Exposure Evaluation

FCC ID: 2BH8N-UHF888

1. Client Information

Applicant	:	Dongguan Jieqiang Computer Co., Ltd
Address	:	Room 1422, No. 605, Tangxia Section, Dongshen Road, Tangxia Town, Dongguan City, Guangdong Province, China
Manufacturer	:	Dongguan Jieqiang Computer Co., Ltd
Address	:	Room 1422, No. 605, Tangxia Section, Dongshen Road, Tangxia Town, Dongguan City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Microphone
Model(s) No.	:	UHF888, UHF888-A, UHF888-B, UHF888-C, UHF888-D, UHF888-E, UHF888-F, UHF888-G
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is different names for different customers.
Brand Name	:	JUDIO
Sample ID	:	HC-C-202403-0335-01-01-1#&HC-C-202403-0335-01-01-2#
Product Description	:	Operation Frequency: 566MHz~585MHz
		Number of Channel: 20 Channels
		RF Output Power: 0dBi FPC Antenna
		Antenna Gain: Digital systems
		Modulation: Pi/4-QPSK
Power Supply	:	USB Input: DC 5V/1A DC 3.7V 1500mAh Rechargeable Li-ion battery
Software Version	:	----
Hardware Version	:	----
Remark:		
(1) The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.		
(2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		
(3) The above antenna information is declared by manufacturer and for more detailed		

features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.



The RF Exposure Evaluation for FCC:

SAR Test Exclusion Calculations

FCC: According to 447498 D04 Interim General RF Exposure Guidance v01.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

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

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). The 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



Calculation:

Test separation: 5mm					
Wireless microphone					
Frequency (MHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mW)	Limit P _{th} (mW)
566	-2.221	-2±1	-1	0.794	15
575	-2.887	-2±1	-1	0.794	15
585	-3.786	-3±1	-2	0.631	15
The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 D04, No SAR is required.					

-----END OF THE REPORT-----

