

Maximum Permissible Exposure Evaluation

FCC ID: 2AT7G-GTCOM-WM-01

1. Client Information

Applicant	:	Global Tone Communication Technology Co., Ltd.
Address	:	1601, 16th Floor, No. 20 Shijingshan Road, Shijingshan District, Beijing,China
Manufacturer	:	Global Tone Communication Technology Co., Ltd.
Address	:	1601, 16th Floor, No. 20 Shijingshan Road, Shijingshan District, Beijing,China

2. General Description of EUT

EUT Name	:	wireless microphone	
Models No.	:	GTCOM-WM-01	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	657.215MHz~662.615MHz
	:	Antenna Gain:	0 dBi Spiral Antenna
Power Rating	:	DC 3.0V by AA Battery*2.	
Software Version	:	UD-104R 201908 REV1.1	
Hardware Version	:	201902 REV1.7	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

MPE Calculations for Microphone

1. Antenna Gain:

0dBi Spiral Antenna

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

According to the KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are Determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

4. Calculation Result:

DQPSK						
Frequency (MHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
657.215	3.20	3±1	4	2.51189	0.40727	3.0
660.215	3.14	3±1	4	2.51189	0.40820	3.0
662.615	3.27	3±1	4	2.51189	0.40894	3.0

Test separation: 5mm	
The worst RF Exposure Evaluation	
Worst Calculation Value	Threshold Value
0.40894	3.0

The worst RF Exposure Evaluation is **0.40894 / cm² < limit 3.0**, So standalone SAR measurements are not required.

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