FCC RF EXPOSURE REPORT

FCC ID: 2AC23-WT22M

Project No.	:	1902C106A
Equipment	:	WIFI+BT Module
Brand Name	:	GSD
Test Model	:	WT22M2600N
Series Model	:	N/A
Applicant	:	Hui Zhou Gaoshengda Technology Co., LTD
Address	:	NO.75 Zhongkai Development Area, Huizhou, Guangdong
Manufacturer	:	Hui Zhou Gaoshengda Technology Co., LTD
Address	:	NO.75 Zhongkai Development Area, Huizhou, Guangdong
Factory	:	Hui Zhou Gaoshengda Technology Co., LTD
Address	:	NO.75 Zhongkai Development Area, Huizhou, Guangdong
Date of Receipt	:	Feb. 28, 2019
Date of Test	:	Mar. 04, 2019 ~ Dec. 06, 2019
Issued Date	:	Dec. 10, 2019
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG20191128107
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Dec. 10, 2019

1. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:
S = power density
P = power input to the 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

Table for Filed Antenna

For BT & LE:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PIFA	N/A	1.72

For 2.4G:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PCB	N/A	3.10
2	N/A	N/A	PCB	N/A	3.10

(1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain $=10\log[(10^{G1/20}+10^{G2/20}+...10^{GN/20})^2/N]$dBi, that is Directional gain $=10\log[(10^{3.10/20}+10^{3.10/20})^2/2]$dBi =6.11. So, the output power limit is 30-6.11+6=29.89, the power spectral density limit is 8-6.11+6=7.89.

2. TEST RESULTS

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
1.72	1.4859	6.48	4.4463	0.00132	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
1.72	1.4859	10.40	10.9648	0.00324	1	Complies

For 2.4GHz:

Directional Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
6.11	4.0832	24.91	309.7419	0.25174	1	Complies

For the max simultaneous transmission MPE:

Power Density (S) (mW/cm^2)	Power Density (S) (mW/cm^2)	Total	Limit of Power Density (S) (mW/cm^2)	Test Result
LE	2.4GHz			
0.00324	0.25174	0.25497	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report