



FCC 47 CFR MPE REPORT

Hui Zhou Gaoshengda Technology Co.,LTD

WIFI+BT Module

Model Number: DT3HR1601

FCC ID: 2AC23-DT2H

Applicant:	Hui Zhou Gaoshengda Technology Co.,LTD
Address:	No.2, Jin-da Road, Huinan High-tech Industrial Park,
	Huizhou City, Guangdong, China
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R2609329
Date of Test:	Sep. 30, 2026 to Oct. 08, 2026
Date of Report:	Oct. 08, 2026

Maximum Permissible Exposure

1. Applicable Standards

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 limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 & KDB 447498 D04 V01 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

1.1. Limits for Maximum Permissible Exposure (MPE)

(a) Limits for Occupational/Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
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
1500-10000			5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-10000			1.0	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

1.2. MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, $d=0.2\text{m}$, as well as the gain of the used antenna, the RF power density can be obtained

2. Conducted Power Result

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)
GFSK	2402	8.27	6.714
	2441	7.46	5.572
	2480	6.53	4.498
$\pi/4$ -DQPSK	2402	9.06	8.054
	2441	8.51	7.096
	2480	7.77	5.984
8-DPSK	2402	9.58	9.078
	2441	9.03	7.998
	2480	8.23	6.653
BLE 1M	2402	8.12	6.486
	2440	7.47	5.585
	2480	6.55	4.519
BLE 2M	2402	8.48	7.047
	2440	7.82	6.053
	2480	6.88	4.875
IEEE 802.11b	2412	20.96	124.738
	2437	20.49	111.944
	2462	20	100.000
IEEE 802.11g	2412	20.09	102.094
	2437	20.25	105.925
	2462	20.68	116.950
IEEE 802.11n HT20	2412	20.02	100.462
	2437	20.39	109.396
	2462	20.79	119.950
IEEE 802.11n HT40	2422	16.58	45.499
	2437	16.74	47.206
	2452	16.45	44.157
IEEE 802.11a	5180	62.661	62.661
	5200	63.826	63.826
	5240	56.624	56.624
	5260	34.435	34.435
	5300	31.117	31.117
	5320	27.669	27.669
	5500	35.481	35.481
	5580	33.497	33.497

	5700	33.189	33.189
	5745	13.740	13.740
	5785	11.588	11.588
	5825	12.503	12.503
IEEE 802.11n HT20	5180	17.34	54.200
	5200	18.19	65.917
	5240	17.51	56.364
	5260	15.44	34.995
	5300	14.88	30.761
	5320	14.78	30.061
	5500	15.55	35.892
	5580	15.36	34.356
	5700	15.48	35.318
	5745	11.24	13.305
	5785	10.81	12.050
	5825	11.16	13.062
IEEE 802.11n HT40	5190	17.59	57.412
	5230	17.73	59.293
	5270	15.08	32.211
	5310	15.5	35.481
	5510	15.14	32.659
	5550	14.99	31.550
	5670	14.68	29.376
	5755	11.6	14.454
	5795	11.51	14.158

3. Calculated Result and Limit

Mode	Peak output power (dBm)	Target power (dBm)	MAX Target power (dBm)	Antenna gain		Power Density (S) (mW /cm²)	Limited of Power Density (S) (mW /cm²)	Test Result
				(dBi)	(Linear)			
2.4G Band								
GFSK	8.27	8±1	9	1.08	1.282	0.00203	1	Complies
π/4-DQPSK	9.06	9±1	10	1.08	1.282	0.00255	1	Complies
8-DPSK	9.58	9±1	10	1.08	1.282	0.00255	1	Complies
BLE 1M	8.12	8±1	9	1.08	1.282	0.00203	1	Complies
BLE 2M	8.48	8±1	9	1.08	1.282	0.00203	1	Complies
IEEE 802.11b	20.96	20±1	21	1.72	1.486	0.03722	1	Complies
IEEE 802.11g	20.68	20±1	21	1.72	1.486	0.03722	1	Complies
IEEE 802.11n HT20	20.79	20±1	21	1.72	1.486	0.03722	1	Complies
IEEE 802.11n HT40	16.74	16±1	17	1.72	1.486	0.01482	1	Complies
5G Band								
IEEE 802.11a	18.05	18±1	19	2.57	1.807	0.02856	1	Complies
IEEE 802.11n HT20	18.19	18±1	19	2.57	1.807	0.02856	1	Complies
IEEE 802.11n HT40	17.73	17±1	18	2.57	1.807	0.02268	1	Complies

BT+Wi-Fi

MAX Power Density(S) (mW/cm ²) Bluetooth	MAX Power Density(S) (mW/cm ²) WiFi	Total Ratio	Limit Ratio	Test Result
0.00255	0.03722	0.03977	1	Complies

End of Test Report