



Maximum Permissive Exposure

FCC ID: XVG500107APBT

Product Name: STB

M/N: H200W; H200zzzzzzz

(zzzzzzzz can be combination of A-Z,a-z,0-9,“-”,“/”,“blank”for marketing purpose)

1. According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	---	---	f/300	6
1500-100,000	---	---	5.0	6
(B) Limits for General Population / Uncontrolled Exposures (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	---	---	f/1500	30
1500-100,000	---	---	1.0	30

2. MPE Calculation

APTIV Services Deutschland GmbH declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

RF Exposure Calculations: $S = (P * G) / (4 * \pi * r^2)$ or $r = \sqrt{(P * G) / (4 * \pi * S)}$

2.1. Estimation Result

Test Mode	Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE (mw/cm ²)	Limit (mw/cm ²)
BT	8.827	7.633	3.00	2.00	0.00304	1
WIFI2.4G	21.66	146.555	3.00	2.00	0.05831	
WIFI5G	18.42	69.502	3.00	2.00	0.02765	
BT+WIFI2.4G	-----	-----	-----	-----	0.06135	
BT+WIFI5G	-----	-----	-----	-----	0.03069	
Conclusion: Pass						

Note: WIFI 2.4G and WIFI 5G not support simultaneous transmission

Based on safety distance (r) **20cm**, the antenna gain (G) numerical as below:

Antenna System	
Type of Antenna	Dipole Antenna
Antenna Number	2 (ANT 0 and ANT 1)
Operation Modes	SISO and MIMO mode supported
Antenna Peak Gain	Bluetooth Peak Gain: 3dBi. WIFI 2.4G Band Peak Gain: Ant0:3dBi; Ant1:3.3dBi U-NII-1 Band Peak Gain: Ant0:3.1dBi; Ant1:2.8dBi U-NII-2A Band Peak Gain: Ant0:3.2dBi; Ant1:3.2dBi U-NII-2C Band Peak Gain: Ant0:3.4dBi; Ant1:3.4dBi U-NII-3 Band Peak Gain: Ant0:3dBi; Ant1:3dBi

and the BT highest power output (P) is **7.633mW**, and the WiFi 5GHz highest power output (P) is **0.00304mW**

WiFi 2.4GHz highest power output (P) is **146.555mW**, and the WiFi 5GHz highest power output (P) is **0.05831mW**

WiFi 5GHz highest power output (P) is **69.502mW**, and the WiFi 5GHz highest power output (P) is **0.02765mW**;