



MPE Calculation

Applicant:	Hangzhou Huacheng Software Technology Co., Ltd.
Address:	15th Floor, Building 3, No. 582, Liye Road, Changhe Street, Binjiang District, Hangzhou, China
Product:	Consumer Camera
FCC ID:	2BQWU-S2XEXXM0S
Model No.:	IPC-S2XEP-6M0S, IPC-S2XEN-6M0S, IPC-S2XEP-8M0S, IPC-S2XEN-8M0S, IPC-S2XEP-10M0S, IPC-S2XEN-10M0S, IPC-S2XEP-6M0S-imou, IPC-S2XEN-6M0S-imou, IPC-S2XEP-6M0S-V-imou, IPC-S2XEP-8M0S-imou, IPC-S2XEN-8M0S-imou, IPC-S2XEP-8M0S-V-imou, IPC-S2XEP-10M0S-imou, IPC-S2XEN-10M0S-imou, IPC-S2XEP-10M0S-V-imou
Reference RF report #	709502506326-00B, 709502506326-00C

According to subpart 15.247(i) and subpart §1.1307(b)(1), 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 of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1,500	/	/	f/1500	30
1,500–100,000	/	/	1.0	30

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

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4 \pi R^2$ = power density (in appropriate units, e.g. mW/cm²);



P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

Calculated Data: BT FPC antenna for 2.4G Wi-Fi

Maximum peak output power at antenna input terminal (dBm):	25.11
Maximum peak output power at antenna input terminal (mW):	324.34
Prediction distance (cm):	20
Antenna Gain, typical (dBi):	1.29
Maximum Antenna Gain (numeric):	1.3459
The worst case is power density at predication frequency at 20 cm (mW/cm ²):	0.08684
MPE limit for general population exposure at prediction frequency (mW/cm ²):	1.00

The max power density 0.08684 (mW/cm²) < 1 (mW/cm²)

Calculated Data: BT FPC antenna for 5G Wi-Fi

Maximum peak output power at antenna input terminal (dBm):	16.81
Maximum peak output power at antenna input terminal (mW):	47.97
Prediction distance (cm):	20
Antenna Gain, typical (dBi):	2.86
Maximum Antenna Gain (numeric):	1.9320
The worst case is power density at predication frequency at 20 cm (mW/cm ²):	0.01844
MPE limit for general population exposure at prediction frequency (mW/cm ²):	1.00

The max power density 0.01844 (mW/cm²) < 1 (mW/cm²)

Wi-Fi 2.4G antenna and Wi-Fi 5G antenna can't transmit simultaneously.

Result: Compliant



- TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch

Reviewed by:

Prepared by:

Tested by:



Hui TONG

Wenqiang LU

Doujun XU

EMC Section Manager

EMC Project Engineer

EMC Test Engineer

Date: 2025-08-27

Date: 2025-08-27

Date: 2025-08-27

-----End of Test Report-----