6.11 Safety exposure levels

6.11.1 Standard Applicable: FCC 15.319(i)

UPCS devices are subject to the radio frequency radiation exposure requirements specified in FCC parts 1.1307 (b), 2.1091 and 2.1093, as appropriate. All equipment shall be considered to operate in a “general population / uncontrolled environment. For portable devices tests according to IEEE 1528 are requested, if applicable.

6.11.2 Measurement procedure

Consideration of radio frequency radiation exposure for EUT is done as

SAR test according IEEE1528 (for PP)	☐
MPE calculation as below (for FP, Repeater)	☒

SAR test results: not applicable

MPE calculation:

The EUT is considered as a mobile device according to OET Bulletin 65, Edition -97-01. Therefore distance to human body of min. 20 cm is determined.

The limit of Power density for General Population / Umcontrolled Exposure is 1.0 mW/cm².
Formula:

$$S = EIRP / 4\pi R^2$$

Calculation:

EIRP	Radiated Power (dBm)	23.39
EIRP	Radiated Power (mW)	218.3
R	Distance (cm)	20
S	Power Density (mW/cm²)	0.0434

Simultaneous Evaluation:

WLAN 2.4GHz, 5GHz and DECT radio can transmit simultaneously.
The formula of calculated MPE is:

CPD1/LPD1+CPD2/LPD2+…etc. ＜ 1

CPD=Calculated Power Density

LPD=Limit of Power Density

Radio Technology	Worse CPD (mW/cm^2)
WiFi 2.4 GHz	0.4246
WiFi 5 GHz	0.2071
DECT	0.0434

The MPE evaluation is 0.4246/1+0.2071/1+0.0434/1=0.6751＜1, which confirm the device comply the MPE limit.

6.11.3 Results：Complies