

MPE CALCULATION
WIFI FCC ID: W38-28010161
RFID FCC ID: W38-28010087

RF Exposure Requirements: 47 CFR §1.1307(b)

RF Radiation Exposure Limits: 47 CFR §1.1310

RF Radiation Exposure Guidelines: FCC OST/OET Bulletin Number 65

EUT Frequency Band: 2.4GHz 2412-2462 MHz, 13.56MHz

Limits for General Population/Uncontrolled Exposure in the band of: 1500 - 100,000 MHz

Power Density Limit: 1 mW / cm²

Limits for General Population/Uncontrolled Exposure in the band of: 1.34-30 MHz

Power Density Limit: $180/f^2 = 0.97 \text{ mW / cm}^2$

Equation: $S = PG / 4\pi R^2$ or $R = \sqrt{PG / 4\pi S}$

Where, S = Power Density

P = Power Input to Antenna

G = Antenna Gain

R = distance to the center of radiated antenna

Host EUT Model No.: CPF50

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm ²)	MPE Limit (mW/cm ²)	Pass/Fail
2.4 GHz	2462	15.74	2.5	±1dB	16.74	20	0.0167	1	Pass
RFID	13.56	-30.53	0.5	±1dB	-29.53	20	0.0000002217	0.97	Pass

RFID and WIFI transmit simultaneously

RFID = $(0.00002217 / 0.97) \times 100 = 0.00002278 \%$

WIFI = $(0.0167 / 1) \times 100 = 1.67 \%$

Total MPE Percentage = $0.00002278 \% + 1.67 \% = 1.67002278 \%$

The Above Result had shown that the Device complied with MPE requirement.

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