RF Exposure

FCC ID: A49AIVIEW

Applicant: Shenzhen Creative Industry Co., Ltd.

Exposure category: General population/uncontrolled environment
EUT Type: Patient Monitor
Refer Standard: FCC Part 2.1091: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

FCC MPE Limited:

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm2)	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density
P = power input to the antenna
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)

2.4GHz Antenna Gain information:

Antenna type	Gain(dBi)
Internal	4.87

5GHz Antenna Gain information:

Antenna type	Gain(dBi)
Internal	4.87

Worst-Case mode Conducted Output Power Results for2.4G WIFI

802.11b mode

Frequency (MHz)	Output Power(dBm)	Tune Up tolerance(dBm)
2412	13.51	14±1

Worst-Case mode Conducted Power Test results of band U-NII-2C

802.11n (20MHz) mode

Frequency (MHz)	Conducted Output Power (dBm)	Tune Up tolerance(dBm)
5600	8.54	9±1

Calculation results (for 2.4G WIFI): Worst-case mode

Frequency (MHz)	Maximum tune up power(dBm)	ANT Gain(dBi)	RF distance(cm)	Result (mW/cm2)	Limit (mW/cm2)
2412	15.0	4.87	20	0.019	1.0

Calculation results (for 5G WIFI): Worst-Case mode

Frequency (MHz)	Maximum tune up power(dBm)	ANT Gain(dBi)	RF distance(cm)	Result (mW/cm2)	Limit (mW/cm2)
5600	10	4.87	20	0.006	1.0

Simultaneous Transmission Calculation

No.	Transmitter Combinations	Scenario Supported or not
1	2.4G WLAN+5G WLAN	No