MPE CALCULATION

FCC ID: AFJ398900

RF Exposure Requirements: RF Radiation Exposure Limits: RF Radiation Exposure Guidelines:

EUT Frequency Band:

Limits for General Population/Uncontrolled Exposure in the band of:

Power Density Limit:

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

EUT: RoIP Gateway, Model No.: VE-PG4

Omnidirectional Antenna

Prediction distance 20cm

WCDMA Band V: Power=25.82 dBm, Antenna Gain = -4.5 dBi, Power density = 0.027 mW/cm²

WCDMA Band II: Power=25.74 dBm, Antenna Gain = -1.6 dBi, Power density = 0.052 mW/cm²

LTE Band II: Power=24.98 dBm, Antenna Gain = -1.6 dBi, Power density = 0.043 mW/cm²

LTE Band IV: Power=25.32 dBm, Antenna Gain = -2.5 dBi, Power density = 0.038 mW/cm²

LTE Band XII: Power=23.91dBm, Antenna Gain = -3.6 dBi, Power density = 0.021 mW/cm²

Туре	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
WCDMA (Band V)	824.0	24.82	-4.5	±1dB	25.82	20	0.027	0.549	Pass
WCDMA (Band II)	1850.0	24.74	-1.6	±1dB	25.74	20	0.052	1	Pass
LTE (Band II)	1850.0	22.98	-1.6	±2dB	24.98	20	0.043	1	Pass
LTE (Band IV)	1755.0	23.32	-2.5	±2dB	25.32	20	0.038	1	Pass
LTE (Band XII)	699.0	21.91	-3.6	±2dB	23.91	20	0.021	0.466	Pass

Note: There is no simultaneous operation between all the bands.

The Above Result had shown that the device complied with MPE requirement at a prediction distance of 20cm.

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699-716MHz, 824-849MHz, 1710-1755MHz, 1850-1910MHz, 300-1500MHz, 1500-100,000 MHz

f/1500; 1 mW / cm²