

Maximum Permissive Exposure

FCC ID: U4G-RHINOIWIN

Product Name: 802.11ag/draft 802.11n WLAN PCI-E Minicard

Model No: SDC-PE15N

1. According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

Datalogic S.r.l. declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

2. MPE Calculation

2.1. WIFI 2.4G MPE

Based on safety distance (r) **20cm**, the antenna gain (G) is **3.981Numerical**, and the highest power output (P) is **477.529mW**, the power density (S) is **0.378200mW/cm²**.

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where :

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	26.79 dBm = 477.529 mW
Antenna Gain (G)=	6 dBi = 3.981 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (676.083*1.259)/(4*π*20²)= 0.378200 mW/cm²

2.2. WIFI 5G MPE

Based on safety distance (r) **20cm**, the antenna gain (G) is **6.310Numerical**, and the highest power output (P) is **23.335mW**, the power density (S) is **0.029293mW/cm²**.

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where :

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	13.68 dBm = 23.335 mW
Antenna Gain (G)=	8 dBi = 6.310 Numerical
MPE (S) = (P*G) / (4*π*r ²) =	= (34.614*1.259)/(4*π*20²)= 0.029293 mW/cm²

Sincerely Yours,



Mr. Ben Cheng
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