

Maximum Permissive Exposure

FCC ID: Y9E-IAD18010H; Y9E-IAD18010A
 EUT: Room Booking Panel
 M/N: IAD-18010H; IAD-18010A; IAD-18010L

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 Exposures (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	---	---	f/1500	30
1500-100,000	---	---	1.0	30

2. MPE Calculation

Idea Corporation 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.

RF Exposure Calculations: $S = (P * G) / (4 * \pi * r^2)$ or $r = \sqrt{(P * G) / (4 * \pi * S)}$

2.1. Estimation Result

DTS Band

Mode	Frequency (MHz)	PK Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain (linear)	MPE (mW/cm ²)
11b	2412	15.10	32.36	2.3	1.70	0.01094
	2437	15.45	35.08	2.3	1.70	0.01186
	2462	15.76	37.67	2.3	1.70	0.01273
11g	2412	13.81	24.04	2.3	1.70	0.00813
	2437	14.22	26.42	2.3	1.70	0.00893
	2462	14.61	28.91	2.3	1.70	0.00977
11n HT20	2412	12.23	16.71	2.3	1.70	0.00565
	2437	12.68	18.54	2.3	1.70	0.00627
	2462	12.80	19.05	2.3	1.70	0.00644

NII-1 Band

Mode	Frequency (MHz)	PK Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain (linear)	MPE (mW/cm ²)
11a	5180	12.51	17.82	3.5	2.24	0.00794
	5200	12.30	16.98	3.5	2.24	0.00757
	5240	12.60	18.20	3.5	2.24	0.00811
11n HT20	5180	12.10	16.22	3.5	2.24	0.00723
	5200	11.92	15.56	3.5	2.24	0.00693
	5240	12.33	17.10	3.5	2.24	0.00762
11n HT40	5190	12.12	16.29	3.5	2.24	0.00726
	5230	12.14	16.37	3.5	2.24	0.00729
11ac VHT20	5180	11.99	15.81	3.5	2.24	0.00705
	5200	11.90	15.49	3.5	2.24	0.00690
	5240	12.23	16.71	3.5	2.24	0.00745
11ac VHT40	5190	12.05	16.03	3.5	2.24	0.00714
	5230	12.14	16.37	3.5	2.24	0.00729
11ac VHT80	5210	11.63	14.55	3.5	2.24	0.00649

NII-3 Band

Mode	Frequency (MHz)	PK Output power (dBm)	Output power (mW)	antenna Gain (dBi)	antenna Gain (linear)	MPE (mW/cm ²)
11a	5745	15.79	37.93	5.1	3.24	0.02443
	5785	15.67	36.90	5.1	3.24	0.02377
	5825	15.53	35.73	5.1	3.24	0.02301
11n HT20	5745	15.46	35.16	5.1	3.24	0.02264
	5785	15.32	34.04	5.1	3.24	0.02193
	5825	15.13	32.58	5.1	3.24	0.02099
11n HT40	5755	16.15	41.21	5.1	3.24	0.02654
	5795	16.02	39.99	5.1	3.24	0.02576
11ac VHT20	5745	15.57	36.06	5.1	3.24	0.02322
	5785	15.36	34.36	5.1	3.24	0.02213
	5825	15.20	33.11	5.1	3.24	0.02133
11ac VHT40	5755	16.07	40.46	5.1	3.24	0.02606
	5795	16.03	40.09	5.1	3.24	0.02582
11ac VHT80	5775	15.35	34.28	5.1	3.24	0.02208

Based on safety distance (r) **20cm**, the antenna gain (G) is **3.24 Numerical**, and the highest power output (P) is **41.21mW**, the power density (S) is **0.02654mW/cm²**.