Radio Frequency Exposure

EUT INFORMATION

FCC ID	2AVZLE24259582
EUT	Wireless Solution
Frequency band (Operating)	802.11a, 802.11n HT20: 5745MHz ~ 5825MHz 802.11n HT40: 5755 MHz ~ 5795MHz
Max. output power	-13.89 dBm
Antenna gain (Max)	23 dBi

According to KDB 447498 D01 and FCC 1.1310:The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency Radiation as specified in § 1.1307(b).

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
(B) Limits for General Population/Uncontrol Exposures				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

TEST RESULT

The modular use shall be at least 20cm distance away from human body.

MPE Calculation Method

$$E\ (V/m) = \frac{\sqrt{30*P*G}}{d}$$

Power Density = Pd (mW/cm^2) = E^2 / 3770

Combine these two formulas can be changed to

$Pd = (30*P*G) / (3770*d^2)$

Note:

1. “E” means Electric field (V/m).
2. “P” means Peak RF output power (W).
3. “G” means EUT Antenna numeric gain (numeric).
4. “d” means the minimum mobile separation distance is 0.2m between radiator and human body.

$G=10^{(23/10)} = 199.526$

Modulation Type	Channel	Frequency (MHz)	Output Power to Antenna (dBm)	Tune-up power (dBm)	Power Density (mW/cm^2)	Limit of Power Density (mW/cm^2)
802.11a	149	5745	-15.15	-15±1	0.00158	1
	157	5785	-16.29	-16±1	0.0013	1
	165	5825	-15.21	-15±1	0.0016	1
802.11n HT20	149	5745	-14.46	-14±1	0.002	1
	157	5785	-14.81	-14±1	0.002	1
	165	5825	-13.89	-13±1	0.0025	1
802.11n HT40	151	5755	-15.51	-15±1	0.0016	1
802.11n HT40	159	5795	-15.29	-15±1	0.0016	1

Tested By: **Reviewed by:**

Mar. 23, 2020 (Date) — Bing/Engineer

Mar. 23, 2020 (Date) — Bell/Manager

FCC Designation Number: TW2954