FCC ID:	**2AEJD-103678-DT60M**
CERTIFCATION NUMBER:	**9301A-103678DT60M**
PMN: (Product Marketing Name)	**DT60M**
HMN: (Host Marketing Name)	**-/-**
HVIN: (Hardware Version Identification Number)	**DT60M**
FVIN: (Firmware Version Identification Number)	**6.4.4 RC1**

Prediction of MPE limit at given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S = PG / 4\pi R^2$

where: S = Power density
P = Power input to the antenna
G = Antenna gain
R = Distance to the center of radiation of the antenna

Techologies:

Technologies:	Max. Power: (AVG)	Max. Gain:
WLAN 2G4	18 dBm*	4.2 dBi
WLAN 5G8	20 dBm*	5.0 dBi

*Max. Power (AVG) = Max Power Value + 1 dB Tolerance + 3 dB 2nd Antenna

MPE results for FCC:

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled “Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure”

Frequency Range (MHz)	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction: worst case

		2G4	5G8
		WLAN	WLAN
P	Max power input to the antenna	18 dBm	20 dBm
R	Distance	20 cm	20 cm
G	Antenna gain	4.2 dBi	5 dBi
S	MPE limit for uncontrolled exposure	1 mW/cm^2	1 mW/cm^2
	Calculated Power density:	**0.03 mW/cm^2**	**0.06 mW/cm^2**

This prediction demonstrates the following:

The power density levels for FCC at a distance of 20 cm are below the maximum levels allowed by regulations.

MPE results for IC according RSS-102 Issue 5

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 4.49/f0.5W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- **at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1.31 x 10^{-2} $f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;**
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

Prediction: worst case

		2G4	5G8
		WLAN	WLAN
P	Max power input to the antenna	18 dBm	20 dBm
G	Antenna gain	4.2 dBi	5 dBi
S	MPE limit for uncontrolled exposure	2684 mW	4714 mW
	Calculated output power:	**166 mW**	**316 mW**

Conclusion: for applications where minimum distance to radiating element is 20cm Annex C of RSS-102 should be filled out.

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