

## RF EXPOSURE EVALUATION

FCC ID : 2AFWN-EL058F6W4A

### Standard Requirement

The following FCC Rule Parts and procedures are applicable :

Part 1.1310 Radiofrequency radiation exposure limits

Part 2.1091 Radiofrequency radiation exposure evaluation : Mobile device

Table 1 below sets forth limits for Maximum Permissible Exposure (MPE) to radiofrequency electromagnetic fields.

*Table 1—Limits for Maximum Permissible Exposure (MPE)*

| Frequency range<br>(MHz)                                       | Electric field strength<br>(V/m) | Magnetic field strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|----------------------------------------------------------------|----------------------------------|----------------------------------|----------------------------------------|-----------------------------|
| <b>(A) Limits for Occupational/Controlled Exposure</b>         |                                  |                                  |                                        |                             |
| 0.3-3.0                                                        | 614                              | 1.63                             | *100                                   | 6                           |
| 3.0-30                                                         | 1842/f                           | 4.89/f                           | *900/f <sup>2</sup>                    | 6                           |
| 30-300                                                         | 61.4                             | 0.163                            | 1.0                                    | 6                           |
| 300-1,500                                                      |                                  |                                  | f/300                                  | 6                           |
| 1,500-100,000                                                  |                                  |                                  | 5                                      | 6                           |
| <b>(B) Limits for General Population/Uncontrolled Exposure</b> |                                  |                                  |                                        |                             |
| 0.3-1.34                                                       | 614                              | 1.63                             | *100                                   | 30                          |
| 1.34-30                                                        | 824/f                            | 2.19/f                           | *180/f <sup>2</sup>                    | 30                          |
| 30-300                                                         | 27.5                             | 0.073                            | 0.2                                    | 30                          |
| 300-1,500                                                      |                                  |                                  | f/1500                                 | 30                          |
| 1,500-100,000                                                  |                                  |                                  | <b>1.0</b>                             | 30                          |

*f = frequency in MHz \* = Plane-wave equivalent power density*



CTK Co., Ltd.  
The Power Leader of Global Regulatory Compliance

## CTK Co., Ltd.

(Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea  
Tel: +82-31-339-9970 Fax: +82-31-624-9501  
www.e-ctk.com

### MPE calculation

$$S = \text{EIRP} / (4\pi R^2)$$

Where S : Power density (mW/cm<sup>2</sup>)  
EIRP : P + T + G (dBm)  
P : Maximum transmitter power (dBm)  
G : Antenna gain (dBi)  
R : distance to the centre of radiation of the antenna (cm)  
T : Power tolerance (dB)

**Safety distance(R) : 20 cm**

| Mode | Conducted<br>Output power<br>[dBm] | Antenna Gain<br>[dBi] | Power<br>tolerance<br>[dB] | Power density<br>[mW / cm <sup>2</sup> ] | Limit<br>[mW / cm <sup>2</sup> ] |
|------|------------------------------------|-----------------------|----------------------------|------------------------------------------|----------------------------------|
| GFSK | 3.433                              | 2.29                  | + 1.5                      | 0.001                                    | 1                                |

### Conclusion

This confirms compliance to the required Radio frequency radiation exposure limit.