

## RF EXPOSURE EVALUATION

FCC ID : 2AFWN-TG-GR22

### 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*

*KDB447498 D01 v06 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies*

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*



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### MPE calculation

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

Where

S : Power density

EIRP :  $P \times G$

P : Maximum transmitter power

G : Antenna gain

R : distance to the centre of radiation of the antenna

### EUT RF Exposure

P : 0.44 dBm (1.107 mW)

G : -4.60 dBi (x 0.347)

R : 20 cm

$$S = 0.0000764 \text{ mW/cm}^2$$

### Conclusion

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