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RF EXPOSURE EVALUATION

FCC ID : 2AFWN-CD16BTS01X

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 (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposure | | | | |
| 0.3-3.0 | 614 | 1.63 | *100 | 6 |
| 3.0-30 | 1842/f | 4.89/f | *900/f ² | 6 |
| 30-300 | 61.4 | 0.163 | 1.0 | 6 |
| 300-1,500 | | | f/300 | 6 |
| 1,500-100,000 | | | 5 | 6 |
| (B) Limits for General Population/Uncontrolled Exposure | | | | |
| 0.3-1.34 | 614 | 1.63 | *100 | 30 |
| 1.34-30 | 824/f | 2.19/f | *180/f ² | 30 |
| 30-300 | 27.5 | 0.073 | 0.2 | 30 |
| 300-1,500 | | | f/1500 | 30 |
| 1,500-100,000 | | | 1.0 | 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 (mW/cm²)

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 Output power [dBm] | Antenna Gain [dBi] | Power tolerance [dB] | Power density [mW/cm ²] | Limit [mW/cm ²] |
|------|------------------------------|--------------------|----------------------|-------------------------------------|-----------------------------|
| GFSK | 4.00 | -1.46 | + 1.50 | 0.000 5 | 1 |

Conclusion

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