RF EXPOSURE EVALUATION

FCC ID : PROULORY1010UIL

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 (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*

MPE calculation

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

Where S : Power density
EIRP : P x G
P : Maximum transmitter power
G : Antenna gain
R : distance to the centre of radiation of the antenna

EUT RF Exposure

(1) LoRa

P : 10.938 dBm (12.411 mW)
G : 2.625 (x 1.83)
R : 20 cm

$S = 0.004518\ mW/cm^2$

Conclusion

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