Maximum Public Exposure to RF (MPE) CFR 15.247 (i), CFR 1.1310 (e)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density S as per the respective limits at a distance of 20 cm from the EUT.

The EUT was tested with two different antenna. For all evaluation in this report the highest gain antenna was used.

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)
(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 for 902 MHz – 928 MHz

Limit = f / 1500 mW/cm^2 = 915/1500 = 0.61 mW/cm^2

Peak Power (dBm) = 18.19
Peak Power (watts)= 0.0659
Gain of transmit Antenna (dBi) = 6.0= 3.981 (numeric)
d= Distance = 20 cm= 0.2 m

$S = (PG/ 4\pi d^2)$ = EIRP/4A = 0.0659(3.981)/4*π*0.2*0.2
=0.2623/0.5030 = 0.9017 W/m^2
= (0.5215 W/m^2) (1m^2/W) (0.1 mW/cm^2)
= 0.05215 mW/cm^2
which is << less than 0.6100 mW/cm^2

MPE for LTE Radio

RF Exposure report can be found under FCC ID: RI7ME210G1WW

Simultaneous MPE (900 MHz band + LTE band):

The LTE and 900 MHz RF module communications of the EUT do no operate at the same time; therefore, this evaluation is not applicable.

CANADA RSS-102 (Issue 6), Exemption Limits Compliance:

Field Reference Level (FRL) Exposure exemption limits (RSS-102, 6.6)

FRL 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:

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 $1.31 \times 10^{-2} f^{0.6834}$ in Watts (adjusted for tune-up tolerance where applicable), where f = frequency in MHz.

For 902-928MHz band: $1.31 * 10^{-2} * 915^{0.6834} = 1.39$ W

Compliance:
EUT max EIRP = 18.19 dBm + 3.85 dBd (6.0 dBi-2.15) = 22.04 dBm or 0.159 Watts << 1.39 Watts

For LTE GHz band

RF Exposure report can be found under IC: 5131A-ME310G1WW

Simultaneous Evaluation Percentage=

The LTE and 900 MHz RF module communications of the EUT do no operate at the same time; therefore, this evaluation is not applicable.