Human RF Exposure

Calculation in in accordance with CFR47 FCC Part 15 Subpart C: 2017 Paragraphs 15.215, 15.247(i), ISED RSS-GEN:2014 Section 3.2.

The maximum measured conducted power, P is 19.48 dBm.
The antenna gain, G is 2.6 dBi.
The maximum EIRP power = P+G
EIRP = 19.48 + 2.6 = 22.08 dBm or 0.16143585568 W
The limits for Maximum Permissible Exposure (MPE) for transmitter operating at 2.4 GHz,
MPE is 10 W/m^2.
The Power Density, S is related to EIRP with the equation:
S = EIRP / $4\pi D^2$, where D is the safe separation distance and = 0.2m, or 20cm
S = 0.16143585568 W / $4\pi 0.2^2$,
S = 0.32 W/m^2,
which is below the Maximum Permissible Exposure (MPE) of 1.0 W/m^2 and RSS 102 Issue 5 RF Exposure limit 5.35 W/ m^2