US Tech Test Report:	FCC Part 15 Certification
FCC ID:	2AHQD-SENSOR4
Test Report Number:	22-0125
Issue Date:	June 6, 2022
Customer:	Clean Hands Safe Hands, LLC
Model:	Gen4 Sensor

Maximum Public Exposure to RF (MPE)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, S, of 1 mW/cm^2 at a distance, d, of 20 cm from the EUT.

Therefore, for:

MPE for 2400 MHz Radio Device

BLE (Bluetooth Low Energy) radio

Peak Power = +0 dBm
Peak Power = 0.001 W
Gain of Transmit Antenna = +3.3 dBi (2.14 numeric)
d = Distance = 20 cm = 0.2 m

$S_{BT} = (PG/ 4\pi d^2) = EIRP/4A =$ (0.001*2.14)/(4*π*0.2*0.2)
=0.0021/0.5030 = 0.00425 W/m^2
= (0.00425 W/m^2)*(1m^2/W)*(0.1 mW/cm^2)
= 0.000425 mW/cm^2

Zigbee Radio

Peak Power = +6.2 dBm (as measured from ZigBee report)
Peak Power = 0.004 W.
Gain of Transmit Antenna = +3.3 dBi (2.14 numeric)
d = Distance = 20 cm = 0.2 m

$S_{ZB} = (PG/ 4\pi d^2) = EIRP/4A =$ (0.004*2.14)/(4*π*0.2*0.2)
=0.0086/0.5030 = 0.0171 W/m^2
= (0.0171 W/m^2)*(1m^2/W)*(0.1 mW/cm^2)
= 0.00171 mW/cm^2

$S_{Total} = S_{BT} + S_{ZB} = 0.000425$ mW/cm^2 +0.00171 mW/cm^2 = 0.002135 mW/cm^2

Which is less than S = 1 mW/cm^2