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Project Num	21E9406-2a
Quotation	Q21-0402-1
Prepared For	ABB Ltd
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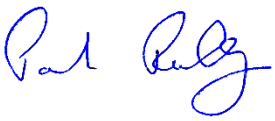
Test Lab Address	Clonross Lane, Derrockstown, Dunshaughlin, Co. Meath, Ireland
Tested By	Joy Dalayap / Michael Kirby
Test Report By	Michael Kirby
FCC Test Firm Registration	409640
IC Site Registration	IE0001
Date	16th Sept 2021
EUT Description	Sensor with Bluetooth Low Energy
FCC ID	2A2UMFA2101
Authorised by	**Paul Reilly**
Authorised Signature:	

RF Exposure Exhibit– Technical Report

1.0 Overview

Fixed / Mobile Application
MPE for bystanders which are considered to be ≥20cm away from the front of the transmit antenna

2. Maximum Permissible Exposure FCC

2.1 Limits /guidelines

47 CFR Sections 1.1307, 1.1310, 2.1091
447498 D01 General RF Exposure Guidance v06

2.2 Results

$$S = \frac{PG}{4\pi R^2}$$

where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Note the Radiated field strength was measured at 3 metres and
the conversion formula below was used to determine the EIRP in dBm

EIRP (dBm) = E_{3m} (dBuV/m) – 95.2

Prediction frequency:	2440	MHz
Radiated Field Strength at 3m	97.11	dBuV/m
Power Conversion factor for antenna distance 3m	-95.2	dB
EIRP Peak	1.91	dBm
Time Averaging Factor	0	dB
EIRP Peak	1.91	dBm
EIRP Peak	1.55	mW
Prediction distance:	20	cm
MPE limit for Uncontrolled/General Population exposure at prediction frequency:	1	mW/cm^2
Power density at prediction frequency:	0.00030884	mW/cm^2
Power density at prediction frequency:	0.003088	W/m^2
Test Result: Exempt from RF exposure test	Pass	

Notes
The table above shows that for a prediction distance of 20cm, RF exposure evaluation is not required.

End of Report