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Project Num	21E9686-3b
Quotation	Q21-0402-1
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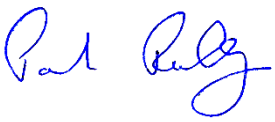
Test Lab Address	Clonross Lane, Derrockstown, Dunshaughlin, Co. Meath, Ireland
Tested By	Joy Dalayap / Dan Ikeh
Test Report By	Michael Kirby
FCC Test Firm Registration	409640
IC Site Registration	IE0001
Date	22nd Apr 2022
EUT Description	Sensor with Bluetooth Low Energy
FCC ID	2AYE3TK4E13294G0X
Authorised 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:	2402	MHz
Radiated Field Strength at 3m	101.78	dBuV/m
Power Conversion factor for antenna distance 3m	-95.2	dB
EIRP Peak	6.58	dBm
Time Averaging Factor	0	dB
EIRP Peak	6.58	dBm
EIRP Peak	4.55	mW
Prediction distance:	20	cm
MPE limit for Uncontrolled/General Population exposure at prediction frequency:	1	mW/cm^2
Power density at prediction frequency:	0.00090517	mW/cm^2
Power density at prediction frequency:	0.009052	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.

2.0 Maximum Permissible Exposure IC

Limits for Routine Evaluation — RF Exposure Evaluation

2.1 Limits /guidelines

Limits for Routine Evaluation — RF Exposure Evaluation
Limits as per RSS 102 Issue 5 (Mar 2015) Section 2.5.2

3.2 General population /Un-controlled Environments (IC)

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

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:	2402	MHz
EIRP Peak	6.58	dBm
Time Averaging Factor	0.00	dB
Tune up factor	0	dB
EIRP Peak	6.580	dBm
EIRP Peak	4.55	mW
Prediction distance:	20.00	cm
Exemption limit for Routine Evaluation :	2676.42	mW
Exempt from RF Exposure Evaluation		

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

End of Report