



Compliance Engineering Ireland Ltd

Clonross Lane, Derrockstown, Dunshaughlin, Co. Meath

Tel: +353 1 8256722 Fax: +353 1 8256733

Project Number: 14E5499-2a

Prepared for:

**Kodaplay Ltd.**

By

Compliance Engineering Ireland Ltd

Clonross Lane

Derrockstown

Dunshaughlin

Co. Meath

**FCC Site Registration: 92592**

**Industry Canada Assigned Site Code: 8517A-2**

FCC ID: 2AELYPT001

IC: 20138-PT001

**Date**

19<sup>th</sup> May 2015

FCC EQUIPMENT AUTHORISATION

Test Report

**EUT Description**

**Sports Performance Sensor for Athletes**

---

**Authorised :**

**John McAuley**

A handwritten signature in blue ink, reading 'John McAuley', written over a horizontal line.

## 1.0 SAR Evaluation

### SAR Exclusion Limits

**Excerpt from 447498 KDB** (47498 D01 General RF Exposure Guidance v05r02)

#### Section 4.3.1 Standalone SAR Test exclusion considerations

##### 4.3.1. Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  mm are determined by:

$$\left[ \frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \left[ \sqrt{f_{\text{(GHz)}}} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}^{25} \text{ where}$$

- $f_{\text{(GHz)}}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>26</sup>
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is  $< 5$  mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

- 2) At 100 MHz to 6 GHz and for *test separation distances*  $> 50$  mm, the SAR test exclusion threshold is determined according to the following, and as illustrated in Appendix B:<sup>27</sup>
  - a)  $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot (f_{\text{(MHz)}}/150)]$  mW, at 100 MHz to 1500 MHz
  - b)  $[\text{Power allowed at numeric threshold for 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot 10]$  mW at  $> 1500$  MHz and  $\leq 6$  GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion, and as illustrated in Appendix C:<sup>28</sup>
  - a) The power threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f_{\text{(MHz)}})]$  for *test separation distances*  $> 50$  mm and  $< 200$  mm
  - b) The power threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for *test separation distances*  $\leq 50$  mm
  - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

**Appendix 1****Head and Body SAR**

Prediction frequency:	f	2.48	GHz
Maximum power of channel :	P	1	mW
Minimum separation distance:	D	5	mm
Calculation		0.2	
Numeric Threshold for 1g SAR		3	
SAR Test not required			
Estimated SAR Value	$[0.2/3]*0.4$	0.03	W/Kg

Power measured as conducted with antenna gain of 2.0dB