

## DATA SHEET

# SENSORIA MAT

## Description

Sensoria® Core is a modular, self-contained, easy to set up and use wearable sensor platform that provides highly accurate data for the monitoring and analysis of human kinetics.

Paired with Sensoria® Mat, a textile pressure sensors infused insert for wheelchair cushions and its dedicated App, Sensoria® Core provides a reliable system to help to remind the users to do pressure relief activities, to provide expert coaching and behavioral feedback and to track and monitor quality of each repetition.



## Applications

- Pressure sore prevention
- Sedentarism monitoring
- Research (combined with Sensoria SDK, sold separately):
  - Motion Capture
  - Data Analysis

## Price

- 1 x Sensoria Core device and accessories
- 1 x Cushion with memory foam for comfort and gel on top layer to reduce heat
- 1 x Textile pressure sensor infused mat

## Sensoria® Core Datasheet



Part Number: SUA01E-STANDARD

### Dimensions

26 L x 28 W x 11 H mm

### Weight

6 g

Bluetooth Connection

9-axis MEMS

Up to 8 external sensors

System	
Architecture	Arm® 32-bit Cortex™-M4 CPU with FPU
Memory	Firmware storage and internal RAM only
Temperature Range	-20°C to 60°C Limited by Battery Specs

User interface	
Led	RGB led Color coded status/activity indicator

Connectivity	
Bluetooth	
Version	Bluetooth V5.0 Low Energy
Frequency range	2402 -2480 MHz
TX Power	Programmable +4..-20 dBm
RX Sensitivity	-96 dBm
TX distance	~8m
Antenna	Mid SMT Antenna, 3.0 dB max

Sensors	
Accelerometer	3-axis linear acceleration, measured in g (9.8 m/s <sup>2</sup> ) 10-bit or 16-bit resolution, ±16g range by default (configurable: ±2g, ±4g, ±8g)
Gyroscope	3-axis angular acceleration, measured in dps (degrees per second) 10-bit or 16-bit resolution, ±500 dps range by default (configurable: ±2000 dps, ±100 dps, ±245 dps)
Magnetometer	3-axis magnetic north reference, measured in Gauss 10-bit or 16-bit resolution, ±4 Gauss range by default (configurable: ±8G, ±12G, ±16G)
Analog Sensors	Up to 8 analog inputs for arbitrary sensors, application dependent
Sampling Frequency	1..120Hz depending on application

Power	
Power Supply	
Battery	3.7 V, 55mAh Li-Po rechargeable, 55mAh
Current Consumption (with default settings)	
Standby	0.045 mA
Streaming @ 2Hz	1.56 mA
Streaming @ 50Hz	2.61 mA

Accessories	
Sensoria® proprietary charger	Li-Po charger 42 mm L x 41.5 mm W x 12 mm H weight: 14 g
USB Charging cable	Micro-B, type A

Regulatory	
Bluetooth Declaration ID	D055206
FCC ID	2ASKE-SUA01E
FCC rules part 15 compliance	Operation is subject to the following two conditions: (1) this device may not cause harmful interference (2) this device must accept any interference received, including interference that may cause undesired operation
CE	LCS190401046AE
Battery	RoHS, IEC 62133
Product Safety	IEC 62368-1 2014ED2 - EN 62368 - 1:2014/A11:2017
Electromagnetic field exposure	EN 50663

Compatible Apps
Data Collection and Research
Sensoria Lab (iOS) Sensoria Workbench (Android)
Consumer / Healthcare Apps
Sensoria Run (iOS) Sensoria Walk (Android) Sensoria Mat (iOS/Android) Sensoria SKB (iOS/Android) Sensoria Smart Boot (Android Smart Watch)
Compatibility
iOS 13.0 or above iPadOS 13.0 or above macOS 11.0 or above with Mac M1 chipset or above Android 8 or above

**Designed in Seattle, WA (USA)**

**Made in China**

## Sensoria® Mat Datasheet

The Sensoria® Mat is a three layers cushion that provides a top cooling gel layer for climate control, a thick and high-quality memory foam structure for a comfortable and desirable seat and a removable bottom textile pressure sensors infused layer that monitors each pressure relief activity and provides data and actionable feedback.



Sensoria® Cushion	
Dimensions	40 L x 42 W cm From 5.6 to 9 cm height
Foam Density	50kg/m <sup>3</sup>
<u>Weight Capacity</u>	250 Kg
Cooling gel layer thickness	6mm
Core foam material content	100% PU
Core foam instructions	Wipe gently with a damp cloth No bleach Dry flat in a ventilated shadowed area
Cover material content	99% polyester; 1% cotton
Covers care instructions	Remove Sensoria® Mat insert before washing Machine wash at 50C 122F Avoid use bleach unless necessary Line dry and do not iron
Special Feature	
Completely removable covers Breathable covers Top layer cooling gel Antislip outer cover	Hook and loop fastener for an easy and correct placement of the Sensoria® Mat insert. Front zippered pouch



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Sensoria® Mat Insert	
Dimensions	41 cm wide From 40 to 51 cm long
Thickness	Less than 5 mm
Material content	75% polyester, 23% cotton, 2% other, PU coated
Care instructions	Remove Sensoria® Core before washing Wipe gently with a damp cloth No bleach Dry flat; no Iron
Special Feature	
Thin and flexible Easily accessible through the pouch	Waterproof surface
Accessories	
Sensoria® proprietary dock system	43.5 mm L x 43 mm W x 9 mm H weight: 8.75 g

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