



IoT Terminal MuSeOn 1.1

Multi Sensor Industry Design



Powered by:



BOSCH

Bosch Sensortec *r life*

ANNO

Five Years Out

design & manufactured by:

© **Geniatech 2019**

Product Model: MuSeON v1.1 ()
Article Number: GT-MUSEON20190531
EAN: 4260588820223

Multi Sensor Industry Design

product introduction

Geniatech



General Product Information:

Geniatech **MuSeON v1.1** are industry grade multifunctional PoC Design, based on On Semi SL10 low SoC Power and lowest power BLE Design the **MuSeON v1.1** include programable Signal Button, five (5) industry grade sensors with highest resolutions to measure and detect and identify environmental conditions, which helps to keep employees under save conditions, as well help administration to manage, audit and report employees safety conditions to ensure safe working condition.

The Geniatech **MuSeON v1.1** serves Companies and Employees with in real-time worker safety insights for their workplace, as well it uses this IoT data, environmental sensors, to help improve workplace safety, drive compliance with safety policies, and help protect workers and other assets from risks.

Combining the powerful analytic capabilities of the IBM Watson IoT solution, Siemens Mindsphere or Microsoft Azure IoT with the high-quality sensor data and long battery life of Geniatech's **MuSeON v1.1** creates a great solution for remotely monitoring assets & workers with minimal user burden.

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Multi Sensor Industry Design

protect + sense + measure



Bosch Sensortec

BMM150:

- 3-axis digital geomagnetic
- 3-axis accelerometer
- 3-axis gyroscope

BME680:

- AIR Quality
- Humidity
- Pressure
- Temperature

BHI160:

- 6-axis IMU (BMI160) with an MCU
- Activity recognition (standing, walking, running, step counting biking or in vehicle)
- Indoor navigation and PDR
- HMI interfaces incl. gesture detection of motion, tilt, pickup, wake up, glance or other gestures for wearables

- Transparent Window Light Sensor
- Metal Heat Conductor
- Programable Signal Button



- Programable Signal Light
- Breathing Windows Air quality
- Microphone Sensor (omnidirectional)

ARROW
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Dual Interface RFID

Ambient Light Sensor:

- Photopic light response
- Excellent SNR and DR
- Operation from dark to full sun



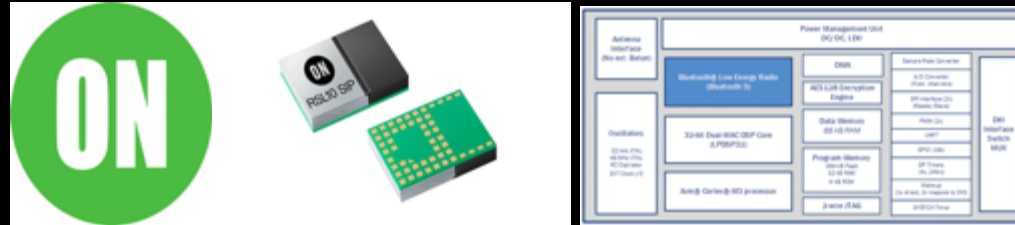
stereo digital microphone:

- omnidirectional
- Photopic light response
- Excellent SNR and DR
- Operation from dark to full sun

PROTECT DESIGN by Geniatech

- CASE: IP 65 Water & Dust Protection
- MICROCHIP Secure Toolchain & Object

Multi Sensor Industry Design communication + power consumption



RSL10 SIP – Bluetooth® 5 System-in-Package

Ultra-Low-Power:

- Industry's lowest power consumption in Deep Sleep Mode (62.5 nW) and Rx in Receive Mode (7 mW)
- Industry's best EEMBC® ULPMark™ scores (1090 ULPMark CP @ 3 V; 1260 @ 2.1 V)

Complete solution, advanced multi-protocol wireless functionality

- Supports Bluetooth Low Energy and 2.4 GHz proprietary/custom protocols
- Rx Sensitivity: -93 dBm
- Transmitting Power: -17 to 0 dBm
- Supports Firmware Over The Air (FOTA)

Other key technical features

- Built-in power management
- push/pull data transmissions for optimized power consumption
- Advanced dual-core architecture
- 1.1 to 3.3 Voltage Supply Range
- 384 kB Flash, 76 kB Program Memory, 88 kB Data Memory
- IP protection feature to secure flash contents
- Configurable analog and digital sensor interfaces (GPIOs, LSADs, I2C, SPI, PCM)

RFID Sensor N24RF64DTET3G

Dual Interface RFID 64kb EEPROM Tag ISO 15693 RF and I2C Bus compliant

Multi Sensor Industry Design

Scope of Delivery & Services

Scope of Delivery:

- HW: MuSeON v1.1
- GiftBox
- QSG
- SW: Sample APK (open source)
 - Manage & control sensors
- SW: Firmware (closed source)



Scope of Services (paid):

- HW: custom design
- SW: custom APK
 - Manage & control sensors
- SW: custom Firmware

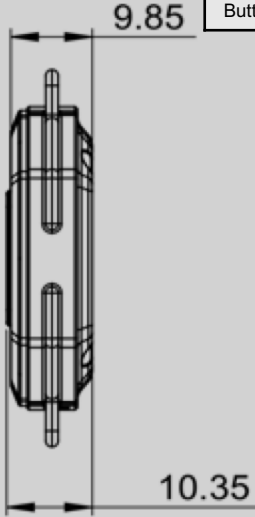
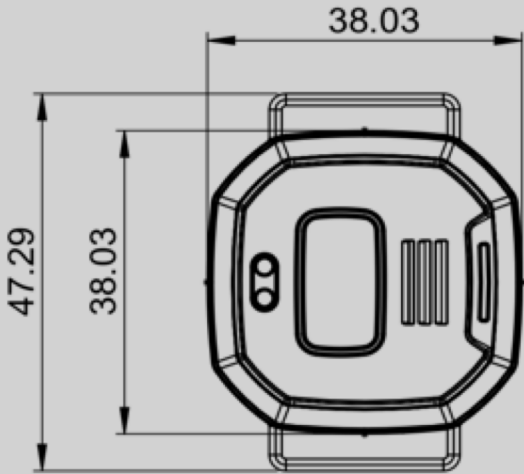
Mobile Industry Applications



- IIoT edge-node applications
- Bluetooth low-energy technology
- Industry Safety worker
- Industry & mobile quality measurement
- Industry Wearables

Multi Sensor Industry Design

dimension + weight



Logistic Data	
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Article Number:	GT-MUSEON20190531
EAN / HS Code:	4260588820223 / 8473 3020 00 0
Mainboard dimension/weight	???
Giftbox dimensions/weight	???
Button Cell Battery	CR2025 (3V/150mAh)



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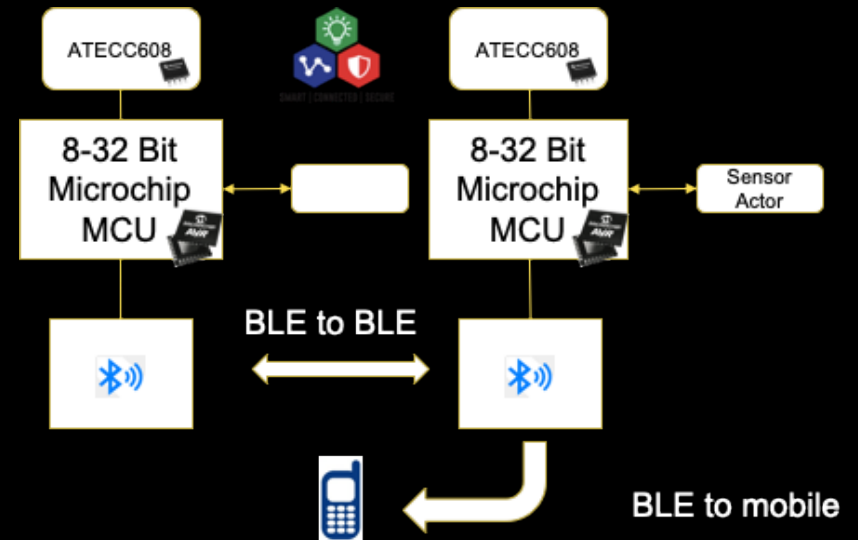
Multi Sensor Industry Design Security Concept for Worker Safety Platform(s)

What do we solve?

- Restricts Bluetooth access to trustworthy users who presents a real digital identity
- Preventing illegal, cloned, faked Bluetooth nodes to be connected the app/cloud
- Prevents spoofing , MITM attacks by isolating device keys, identity and crypto operations in a secure enclave
- Mobile proves if embedded Bluetooth device is genuine and vice versa
- MCU / Bluetooth module agnostic approach

* example integration

*Authentication over BLE with Hardware Root of Trust



Multi Sensor Industry Design

product introduction / external sources collection

The Geniatech logo is located in the top right corner of the slide. It consists of the word "Geniatech" in a bold, sans-serif font. The "Geni" part is in black, and the "atech" part is in red.

Geniatech

- MuSeOn 1.1 Product Page: <https://www.geniatech.com/product/iot-sensor-museon-1-1/>
- QuickSetup Guide: <https://www.geniatech.com/product/iot-sensor-museon-1-1/#download>
- FOTA FIRMAWARE BUILDS: <https://www.geniatech.com/product/iot-sensor-museon-1-1/#download>
- APK / APK SOURCES: <https://www.geniatech.com/product/iot-sensor-museon-1-1/#download>

ON SEMI

- RSL 10: <https://www.onsemi.com/products/connectivity/wireless-rf-transceivers/rsl10>
- LIGHT LV0104CS: LV0104CS <https://www.onsemi.com/products/sensors/ambient-light-sensors/lv0104cs>
- RFID/NFC N24RF64: <https://www.onsemi.com/pub/Collateral/N24RF64-D.PDF>

BOSCH SENSORTEC

- BMM150: https://www.bosch-sensortec.com/bst/products/all_products/bmm150
- BME680: https://www.bosch-sensortec.com/bst/products/all_products/bme680
- BHI160: https://www.bosch-sensortec.com/bst/products/all_products/bhi160

InvenSense

- NOISE NMP522: <https://www.invensense.com/wp-content/uploads/2015/02/INMP522.pdf>

Microchip

- SECURITY ATECC608A: <https://www.microchip.com/wwwproducts/en/ATECC608A>

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<https://www.geniatech.com/product/iot-sensor-museon-1-1/>



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