

# KCS TraceME TM-4400 / RFT2 BLE/NFC-beacon tag













The KCS TraceME TM-4400 / RFT2 is equipped with BLE and NFC technology targeted for remotely tracking and tracing a variety of assets and for personal identification.

# **Key Features**

- Integrated 2.45GHz. radio for special functions and peripherals.
  - Long range, up to 100m range, line of sight
- Integrated 13.56MHz NFC for remote updates and special functions.
- Battery holder for replaceable CR2032 battery (exclusive)
- Compact size, only 25mm diameter
- Lightweight: 1.3 grams for a fully equipped PCB, excl. battery.
- Battery lifespan of more than 5 years.
- 3D accelerometer (up to 16g) (\*)
- Humidity/Temp sensor

 $(\pm 1.8\%RH/\pm 0.2°C)$  (\*)

- 1 LED for user interaction.
- 1 RGB LED for user interaction. (\*)
- 1 switch for user interaction. (\*)
- Wide operating range: -40°C to +85°C
- Compatible with Airtag<sup>™</sup>, Eddystone<sup>™</sup> and iBeacon<sup>™</sup>
- Robust IP67 enclosure (\*)
- Multiple watchdog levels for maximum stability.
- Event based free configurable module to fit any job.
- Supports integration into third party networks.
- (\*) Optional, please contact sales for more details.

# **Applications**

- Asset protection
- Logistics
- Identification
- Retail
- Animal management
- Smart city building projects



# **Product Summary**

The KCS TraceME TM-4400 is a Bluetooth Low Energy (BLE) beacon tag targeted for modern tracking and tracing a variety of assets and for personal identification. Government projects and IoT industries like construction, building, transportation and logistical are demanding advanced industrial BLE beacons to integrate into their applications.

The functionality of the module can be remotely programmed to fit any job. From basic/general functionality to advanced/low-level application specific detailed functionality. By default the unit broadcasts its unique ID on a regular interval, allowing proximity information to be detected by BLE beacons in e.g. retail shops and warehouses.

The (optional) integrated 3D-accelerometer, temperature-/humidity sensor and RBG LED facilitates indoor- and outdoor tracking and positioning capabilities. With a minimal size of 25 mm diameter, weight of only 1.3 grams (excl. battery) and a battery lifespan of more than 5 years, the module offers endless OEM integration possibilities.

All of the necessary server-side scripts to process and store data from these units are available for registered distributors and resellers. If you do not want to host data and maps yourself, you can use the hosting services of one of our partner companies.

(\*) Optional, please contact sales for more details.



# Ordering information

• TM-4400B Basic version (2.45GHz. RF, 1 LED, exclusive: (accel-, temp/hygro sensor,

CR2032 battery))

• (\*) Optional, please contact sales for more details.

#### Enclosure (\*)

Depending on the application, different types of enclosures might be required, which can be provided separately.



- 42mm x 15mm (diameter x thickness)
- IP67
- Screw mounting

#### Battery (\*)

The TM-4400 contains a CR2032 battery holder for using a replaceable CR2032 Lithium battery.



Battery type: CR2032, Lithium battery

Rated voltage 3.0 VoltNominal capacity 265mAh

(\*) The CR2032 battery is exclusive/not provided by KCS.



# Specifications KCS TraceME TM-4400

#### Data communication

RF 2.4GHz.	Nordic nRF52811	<b>Bluetooth</b> °
Frequency	2.45 GHz.	
Protocol	BLE 5.1 and custom 2.4 GHz. protocol	
Transmitting power	up to +4 dBm	
Sensitivity	-104 dBm (BLE)	

#### Electrical

Power supply	Replaceable non-rechargeable Lithium battery CR2032 (3V/265mAh)
Typical power consumption	7.5mA BLE transmission
	1.2uA standby, sensors, timer active, no transmissions

#### Recommended environmental conditions

Operating Temperature	-40°C to +85°C (OEM)
Humidity	10% to 90%

## **Onboard sensors**

#### 3D accelerometer (\*)

The module contains an optional 3D accelerometer (up to 16g), which can be used for a variety of custom specific (M2M) applications. Accelerometers are useful for measuring movement, speed, g-forces and vibration of the object. The accelerometer and advanced embedded firmware enables a very low-power battery solution.

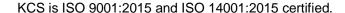
#### Humidity/Temp sensor (\*)

The module contains an optional humidity/temp sensor ( $\pm 1.8\%$ RH and  $\pm 0.2$ °C). The humidity represents the amount of water vapor held in the air.



## **About KCS BV**

KCS BV, founded in The Netherlands in 1984, develops and manufactures electronics in-house for industrial applications, medical purposes, broad- casting solutions, etc.







KCS is a LoRa Alliance member since 2016.

# Support

Visit our support page at: www.trace.me

### Sales

Contact us by email: Trade@trace.me

### Disclaimer

KCS BV reserves the right to make changes without further notice to any products herein to improve reliability, function or design. KCS BV does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

©2023 KCS BV Kuipershaven 22 3311 AL Dordrecht The Netherlands

email: <a href="mailto:Trade@trace.me">Trade@trace.me</a>
URL: <a href="mailto:www.trace.me">www.trace.me</a>