

IIoT device overview

Wireless and wired devices for IIoT applications

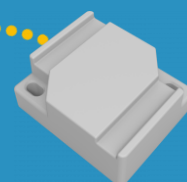
IIoT Multi-Function Device with server connection



Identification
with iButton



BLE Beacons
Range < 100 m



With camera module
and transparent cover



LoRa Beacon
Range < 1000 m



Sensor Box LoRa
Range < 1000 m





Devices for IIoT applications

Device	Designation	specification
	IIoT Multi-Function Device for IIoT solutions	<p>Applications: suitable as a gateway, beacon scanner, tracking module, telemetry unit, camera control, and much more</p> <p>Cellular: LoRa/LoRaWAN, BLE, Wi-Fi, mobile radio, GNSS</p> <p>Wired: DigIn, DigOut, AnIn, AnOut, RS232, RS485, 1Wire, Ethernet (PoE)</p> <p>Power supply: 220V power supply, vehicle electrical system (6V/12V/24V), battery, solar</p> <p>Miscellaneous: buzzer, reed relay, temperature sensor, humidity sensor, battery charging circuit, 2 processors for double the computing power, waterproof IP67, operating temperature: -40 °C ~ 80 °C Size: 130x80x35 mm, weight: 200 g</p>
	Autonomous Tracking Device for IIoT solutions	<p>Applications: suitable as a tracking module, beacon scanner</p> <p>Cellular: LoRa, LoRaWAN, BLE, mobile radio</p> <p>Miscellaneous: 3D acceleration sensor up to 2 high-performance lithium batteries, 16Ah, 3.9 V, Mono-D battery, at least 10 years with 1 position per day, waterproof IP66K, operating temperature: -40 °C ~ 80 °C size: 150x80x41 mm, weight: approx. 480 g</p>
	IIoT Sensor box LoRa, robust, waterproof	<p>Applications: temperature sensor, humidity sensor, 3-axis motion sensor, other sensors on request</p> <p>Cellular: LoRa, range: up to 1000 m in clear line of sight</p> <p>Miscellaneous: batteries: e.g. 2 x 8,500 mAh waterproof IP67, operating temperature: -40 °C ~ 80 °C, size: 82x80x55 mm, weight: 102-200 g depending on the battery</p>
	LoRa Beacon robust, waterproof	<p>Applications: identification of objects, places, people, animals in harsh environments or in difficult radio conditions at long distances</p> <p>Cellular: LoRa / LoRaWAN, range up to 1000 m in clear line of sight</p> <p>Miscellaneous:</p> <ul style="list-style-type: none"> temperature sensor, 3D acceleration sensor battery: 700 mAh, at least 5 years battery life waterproof IP68, operating temperature: -20 °C ~ 60 °C size: 57x35x16 mm weight: 35 g

Devices for IIoT applications

Device	Designation	specification
	BLE Beacon BLE, robust, waterproof	<p>Applications: identification of objects, places, people in harsh environments</p> <p>Wireless: Bluetooth 5.2, range up to 100 m in clear line of sight</p> <p>Miscellaneous: data format: iBeacon, Eddystone, TLM battery: 550 mAh, at least 5 years battery life waterproof IP69k operating temperature: -20 °C ~ 85 °C size: 38x32x16 mm, weight: 27 g</p>
	BLE EYE Beacon BLE, robust, waterproof	<p>Applications: Identification of objects, places, people in harsh environments</p> <p>Wireless: Bluetooth 5.2, range up to 80 m in clear line of sight</p> <p>Miscellaneous: data format: iBeacon, Eddystone battery: 600 mAh, at least 5 years battery life waterproof IP67 operating temperature: -20 °C ~ 60 °C size: 56.6x38x13 mm, weight: 18 g</p>
	BLE Beacon BLE, simple	<p>Applications: identification of objects, places, people</p> <p>Wireless: Bluetooth 5.2, range up to 100 m in clear line of sight</p> <p>Miscellaneous: data format: iBeacon, Eddystone, TLM battery: 220 mAh, at least 2 years battery life waterproof IP55 operating temperature: -20 °C ~ 85 °C size: 37x22x6 mm weight: 7 g</p>
	Temperature Sensor LoRa, robust, waterproof	<p>Applications: temperature recording in refrigerators, incubators, data centers, animal transport, etc.</p> <p>Radio: LoRa, range: up to 1000 meters with clear line of sight</p> <p>Miscellaneous: batteries: AAA 3.6 V, 750 mAh, replaceable waterproof IP67 operating temperature: -30 °C ~ 85 °C size: 70x34x15 mm weight: 31 g</p>

Devices for IIoT applications

Device	Designation	specification
	Camera Extension In the housing of the multifunction device	Applications: <ul style="list-style-type: none"> determining the progress of unloading trailers security applications Characteristics: <ul style="list-style-type: none"> installation in the housing of the multifunction device; thus IP67 waterproof, mechanically well protected, cable connection operating temperature: -20 °C ~ 60 °C size: 130x80x50 mm transparent cover for camera view and 6 status LEDs
	iButton Key and Reader Very robust, magnetic	Applications: <ul style="list-style-type: none"> ID of people Drivers of vehicles Access control Time recording Characteristics: <ul style="list-style-type: none"> 1Wire connection, 2 LEDs for booking confirmation magnetic for indoor use

Connection to the ENAIKOON web portal inViu pro

ENAIKOON inViu pro is the **web platform for monitoring any trackables** such as cars, trucks, construction machinery, containers, agricultural vehicles, cranes, small equipment, animals, people and much more

In addition to GPS tracking, the platform offers a variety of **evaluations**, e.g. logbooks, operating hours, preventive maintenance data, temperature monitoring, tank level management and much more.

Mobile **Asset Management** is an integral part of the platform. Key reports in this context include:

- Where is each **small device** currently:
GPS coordinates / construction site name / warehouse
- Who is responsible for which small appliance:
seamless chain of responsibility – at any given time, a specific employee is responsible for each part
- Which small device is assigned to which **cost center** :
Raw data for the post-calculation of a construction site
- Which small equipment is currently available / not available:
Optimization of the inventory of small equipment; no unwanted hoarding of small equipment on construction sites
- What is the **utilization rate** of a category of small appliances: are there too many appliances of one type, so that their stock should be reduced?
- How high is the **loss** of small equipment per equipment class, per construction site, per employee?

