

Eurobike 2019: IoT technology opens up new e-bike service world

Darmstadt, 5 September 2019. The IT'S MY BIKE brand will present an innovative service world for e-bikes at the leading bike trade fair Eurobike in Friedrichshafen between 4 and 7 September. Showcased on Stand 218 in the service provider area in the Foyer West, the core element providing services is a digital anti-theft solution based on the new NB-IoT radio standard for the Internet of Things. This product allows bike owners to track their bike reliably and securely and helps them to obtain a replacement in the event of theft. Users can simply click on the IT'S MY BIKE app to generate the police report. Other services such as an emergency assistant, journey statistics or private e-bike sharing are set to follow in autumn 2019.

IT'S MY BIKE is an innovative tracker which is built into e-bikes and connects them to the Internet. A GPS signal captures the bike's position and relays it to the cloud using narrowband IoT (mobile radio). Owners can then display their bike's location at any time and also use other services.

NB-IoT sets the course for the networked e-bike

NB-IoT is a new global radio standard for the Internet of Things (IoT). This LPWAN technology (Low-Power Wide-Area Network) offers many advantages. These include a greater range and building penetration than alternative mobile radio standards like GSM, 3G or LTE plus lower energy consumption to boot. The life of the built-in battery is significantly longer as a result. NB-IoT allows more cost-effective hardware components to be used and impresses with significantly lower connectivity costs. IT'S MY BIKE thus outperforms existing tracking solutions in terms of technology, quality and costs. The solution is setting the course for further innovations related to smart bicycles and micro-mobility overall.

Available ex works and from retailers

Manufacturers have been building the module into premium e-bikes in the factory since 2018. A commercial bike rental service has also been using the product since spring 2019. A retrofit solution is now also available, sold and retrofit exclusively by Zweirad network retailers. The recommended retail price in Germany is 199 euros (three years) or 249 euros (five years). This amount includes the hardware, data transmission and use of all services on the app. There are no running costs. An extension to the service can be acquired at 49 euros for an extra year or 99 euros for an extra three years. Suitable for all conventional e-

bike motor types, IT'S MY BIKE trackers are available in Germany now and are expected to be obtainable throughout Europe from 2020.

Installation in the motor housing

The tracker is connected to the e-bike's rear light under the motor cover to draw power. The tracker's casing holds a circuit board containing the crucial components: a GPS module, an NB-IoT module, including antennas, and a SIM card chip. The GPS module captures the bike's position and transmits data anonymously to the protected servers via NB-IoT, where they are then made available to the user in their app. No separate mobile phone plan is needed. IT'S MY BIKE handles all contractual arrangements with network operators.

The tracker features an internal rechargeable battery which ensures operation for up to five months in stand-by mode when fully charged – when the e-bike is not used for a long period in winter, for example. If the e-bike is moved without external power supply – when it is stolen and transported on a truck, for example – continuous operation is ensured for at least eight hours. This could be two hours on four different days, for example. The tracker cannot be seen from the outside and makes no noise while in operation. A power supply of five to fourteen volts and the necessary installation space are required for installation. To deter thieves, the IT'S MY BIKE user receives a sticker stating that their bike is tracked with GPS. The user can choose to attach the sticker to their bike or not, as they wish. The tracker is an attachment part, not an installation part, and is not connected to the powertrain. This means the manufacturer warranty for the e-bike motor is not affected.

300,000 stolen bicycles in Germany alone

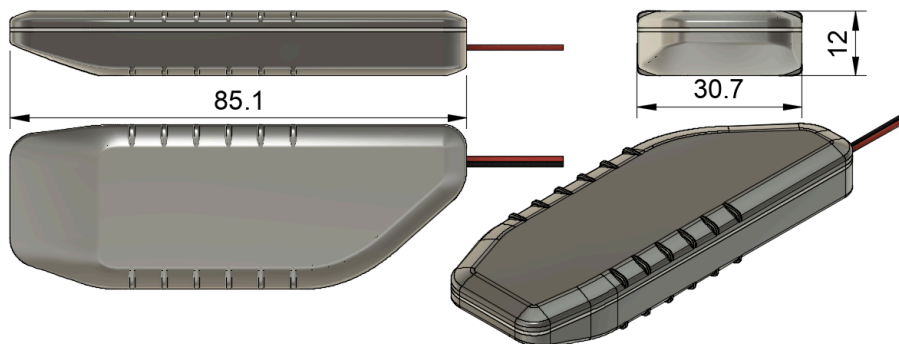
IT'S MY BIKE offers its users greater safety, comfort and riding pleasure with its new technology and its use as a tracking solution for e-bikes. Around 300,000 bikes of all types are reported stolen every year in Germany alone. The number of unreported cases is even higher. Only about one in twenty of reported theft cases are solved. IT'S MY BIKE heralds a new era of theft prevention and e-bike networking with additional services.

Technical data

Item	Min.	Max.	Unit
Voltage supply (VCC)	5	14.2	V
Maximum power consumption	n.a.	3.4	W
Average power consumption (internal battery is being recharged)	0	2.1	W
Average power consumption (internal battery is fully recharged)	0	0.1	W
Power consumption (standby mode)	n.a.	<20	μA
Standby time	n.a.	5	month
Battery capacity (li ion)	350	450	mAh
Charging time (up to 90%)	n.a.	2	h
Ambient temperature during operation	-10	40	°C
Ambient temperature during storage	-20	60	°C
Protection class	n.a.	IP66	
Weight	40	45	g

Connecting cable		Length	Diameter
Universal IT'S MY BIKE tracker:			
Red cable	VCC	min. 200 mm	AWG 24
Black cable	GND	min. 200 mm	AWG 24
Bosch IT'S MY BIKE tracker:			
Cable harness with polarity reversal protected connectors suitable for Bosch Generation 2 to 4 motors	VCC/GND	min. 250 mm	3.8 mm

Dimensions



IT'S MY BIKE company profile

IT'S MY BIKE is an IoT Venture GmbH brand. The company develops and markets GPS trackers which open up a new type of service world for e-bikes in conjunction with an app. IT'S MY BIKE uses the innovative narrowband NB-IoT radio standard for its products. NB-IoT provides a cost-efficient solution for the Internet of Things as a Low-Power Wide-Area Network with low energy requirements, effective building penetration and a wide range. It also offers the advantage that it makes use of existing networks. IT'S MY BIKE operational activities include hardware and software development (embedded systems) and the provision of the required data platform (cloud solution).

Media contact

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