

Advantech Launches TREK-120 LoRa Sensors for Uninterrupted Real-Time Cold Chain Management

Germering, January 2021 - Advantech, a leading provider of industrial computing platforms, is pleased to announce its TREK-120 LoRa temperature and humidity sensors aimed at cold chain logistics and supermarket applications. In response to industry demands for rugged cold chain fleet management solutions, Advantech developed its TREK-120 wireless temperature and humidity sensors that can be integrated with an NFC reader and LoRa gateway for wireless data collection and transmissions. Functioning like a data logger, TREK-120 sensors are designed to collect and log all temperature and humidity data accurately and precisely without data losses. The collected data can then be downloaded using an NFC reader (or any handheld device with NFC capabilities) or wirelessly transmitted to the cloud via a LoRa gateway to enable real-time monitoring. The inclusion of LoRa technology not only enables long-distance (up to 50 meters) wireless transmissions with excellent signal penetration, but also reduces the sensor's overall power consumption. However, even with the use of NFC and LoRa technology, the sensor battery supports at least 1 year of operation (depending on operating environment) and can be easily replaced for convenient management.

Compact, Cableless Design for Rapid and Flexible Installation

Compared to conventional temperature sensors that require additional cables and extensive vehicle modification for installation, the TREK-120 series sensors are cableless, use LoRa technology to wirelessly transmit data, and can be installed using magnets or an adhesive backing. This ensures rapid and easy assembly, installation (within 5 seconds), and deployment in diverse industrial environments. Additionally, TREK-120 sensors are IP65 rated for water and dust resistance, eliminating the need to remove the sensors when washing/cleaning vehicles.

LoRa Connectivity Maximizes Signal Penetration for Long-Distance Data Transmissions

With the inclusion of wireless LoRa technology, TREK-120 sensors can support long-distance data transmissions (up to 50 meters) because LoRa communication networks allow for greater signal penetration through metal and walls. This means that all data collected by the sensors can be transmitted from the refrigerated container through to the LoRa gateway in the driver cabin to enable real-time monitoring. Moreover, because TREK-120 sensors also function as data loggers, all collected data is actually stored on the sensor and can be downloaded using an NFC reader or device with NFC capabilities, thereby eliminating the risk of data losses.

Mobile Access and Industrial-Grade SDK for Diverse Usage Scenarios

For operation in diverse usage environments, TREK-120 sensors can be paired with a LoRa gateway or NFC reader. Additionally, TREK-120 sensors support management using mobile devices that feature Windows or Android operating systems to enable uninterrupted cold chain management. Finally, to facilitate development, Advantech offers software APIs and SDKs (for Windows/Android) that allow system integrators to develop unique applications and cold chain application software aimed at optimizing vehicle diagnostics and facilitating cloud-based centralized management.

Key Features

- High-penetration, long-distance data transmissions via LoRa
- Low power consumption ensures at least 1 year of operation (depending on operating environment)
- Cableless with adhesive backing or magnetics for easy and flexible installation
- IP65 rated for protection from water and dust ingress
- Wide operating temperature range (-20 ~ 65 °C/-4 ~ 149 °F)
- Functions as both a wireless sensor and a data logger
- Lightweight (108 g) and compact sensor design

About Advantech Service-IoT GmbH

As a global player in intelligent IoT systems and embedded platforms, Advantech Service-IoT GmbH is part of Advantech Co., Ltd., founded in 1983 in Taiwan.

Advantech promotes IoT hardware and software solutions to drive IoT, Big Data, and Artificial Intelligence. It also supports business partners and customers in connecting industrial value chains. To help shape corporate ecosystems and accelerate the realization of industrial intelligence, Advantech leverages its ever-expanding networks of partners.

Within the support, sales and marketing network, more than 8,600 Advantech employees worldwide are committed to rapid time-to-market services.

The trade name Advantech-DLoG, which was introduced in 2010, will continue to exist as a product brand after the name change. The brand name originated from the former DLoG GmbH, has now been renamed Advantech Service-IoT GmbH and has been fully integrated into the Advantech Group

About Advantech

Advantech's corporate vision is to enable an intelligent planet. The company is a global leader in the fields of IoT intelligent systems and embedded platforms. To embrace the trends of IoT, big data, and artificial intelligence, Advantech promotes IoT hardware and software solutions with the Edge Intelligence WISE-PaaS core to assist business partners and clients in connecting their industrial chains. Advantech is also working with business partners to co-create business ecosystems that accelerate the goal of industrial intelligence.

(www.advantech.com)

Weitergehende Informationen unter <https://advantech-service-iot.eu/>

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