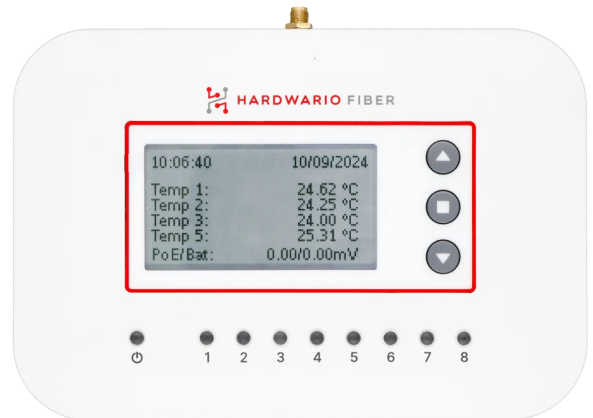


PRODUCT DATASHEET

FIBER

An embedded-Linux industrial gateway for multi-point monitoring — eight wired 1-Wire inputs, wireless STICKER sensors, and full root access.



REFERENCE NUMBER HPD.260706.20-R1 DATE July 6, 2026

8×

1-Wire sensor inputs

868 MHz

ISM radio built in

PoE

with Li-Ion backup

CM4

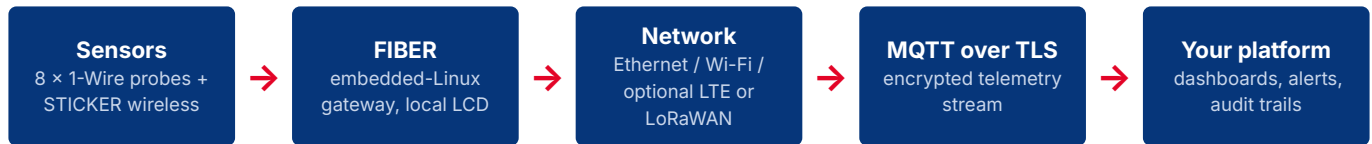
Raspberry Pi platform

Why integrators pick it

- Wired and wireless sensing in one box**
 Eight fully isolated 1-Wire ports for temperature probes, plus an integrated 868 MHz radio (GFSK/LoRa) that talks directly to HARDWARIO STICKER sensors over a proprietary LoRa P2P protocol — peer-to-peer or star topologies across the facility.
- Monitoring that survives outages**
 Powered over Ethernet (IEEE 802.3af) with an integrated 3.6 V Li-Ion backup battery, so records keep flowing through power interruptions — the excursion you must not miss is usually during one.
- An open Linux platform, not a black box**
 Built on the Raspberry Pi Compute Module 4 — quad-core Cortex-A72, up to 8 GB RAM, eMMC storage. Run Raspberry Pi OS or custom Yocto images with full root access and Docker; your software stack, your rules.
- Integration on your terms**
 A Rust-based ecosystem exposes the whole device over MQTT with TLS — 1-Wire readings, LCD, buttons, LEDs — and the open platform runs essentially any protocol your project needs.

Where it fits

FIBER is the measurement backbone for facilities where temperature is compliance-critical: hospital wards, pharmacies, and storage areas; GDP-compliant pharmaceutical cold chains; retail refrigeration; laboratories; transformer and switchgear monitoring in substations; and multi-point process monitoring along production lines. The backlit LCD and per-channel LEDs give on-site staff an immediate local view while the data streams to your platform.



From probe to audit trail — wired accuracy where it matters, wireless reach where cabling is impractical, one gateway per facility.

Data can also be processed, stored, and visualized locally through the integrated web interface — edge analytics run in Docker containers directly on the device. Thresholds, alerts, and data destinations are configured in minutes through the web interface or on the LCD.

Technical specification

SENSOR INTERFACES

1-Wire inputs	8× fully isolated, independent ports with per-channel status LEDs
ISM radio	868 MHz, GFSK and LoRa modulation — proprietary LoRa P2P link to STICKER sensors; peer-to-peer and star topologies
Wireless sensors	HARDWARIO STICKER (temperature, humidity, motion)
Local interface	Backlit graphic LCD, physical buttons, piezo buzzer

COMPUTING PLATFORM

Module	Raspberry Pi Compute Module 4
Processor	Quad-core Cortex-A72 (ARMv8, 64-bit), 1.8 GHz
Memory	1 / 2 / 4 / 8 GB RAM options
Storage	8 / 16 / 32 GB eMMC options
Operating system	Raspberry Pi OS or custom Linux images (Yocto); full root access, Docker support

CONNECTIVITY

Ethernet	LAN port with PoE input
Wi-Fi	2.4 / 5 GHz
Bluetooth Low Energy	Commissioning and diagnostics
Cellular / LoRaWAN	Optional LTE Cat 4 modem or LoRaWAN card — one or the other
Data protocol	MQTT with TLS encryption

POWER, ENVIRONMENT & MECHANICAL

Power supply	Power over Ethernet, 36–57 V (IEEE 802.3af)
Backup battery	3.6 V Li-Ion, integrated
Operating temperature	–20 to +60 °C
Dimensions	175 × 120 × 35 mm (W × H × D)

Ordering information

FIBER is ordered as a complete unit and configured at order time: choose the Compute Module 4 memory (1–8 GB RAM) and eMMC storage (8–32 GB), and optionally add the LTE Cat 4 modem or the LoRaWAN card — one or the other. Pair it with HARDWARIO STICKER sensors for wireless coverage beyond the reach of the wired probes.

COMPLIANCE

FIBER conforms to the Radio Equipment Directive 2014/53/EU — including the EN 18031-1 cybersecurity requirements mandatory since August 2025 — and the RoHS Directive 2011/65/EU, and to the equivalent UK statutory requirements.

Declaration of Conformity: HDC.260706.21

CE**UKCA**

Scope a monitoring pilot

A FIBER evaluation unit monitors your first facility in an afternoon — wired probes on the critical points, STICKER sensors where cabling is impractical, data on your platform over MQTT. Tell us about the application — measurement points, environment, network on site — and we will configure a pilot kit that matches it, including integration support for your first deployment.

- [Explore FIBER in the HARDWARIO store](#)
- [Read the developer documentation](#)

ABOUT HARDWARIO

HARDWARIO a.s. designs and manufactures industrial IoT devices in Liberec, Czech Republic. Founded in 2016 and listed on the Prague Stock Exchange, the company does more than 80 % of its business through its partners.

HARDWARIO a.s.

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