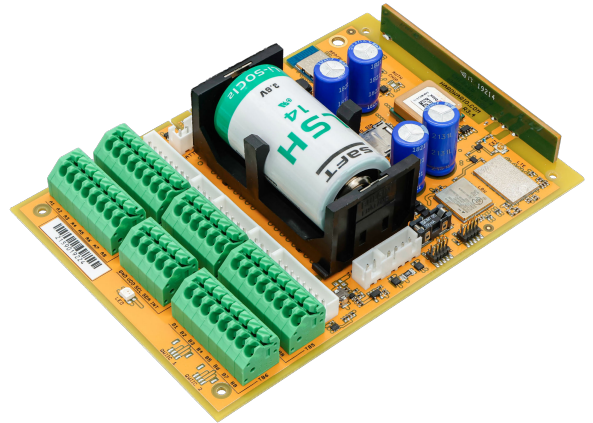


PRODUCT DATASHEET

CHESTER-M

The configurable low-power IoT gateway platform — one mainboard, two expansion slots, three radios, and a decade of field deployments behind it.



REFERENCE NUMBER HPD.260706.02-R1 DATE July 6, 2026

15+

catalog applications

100+

hardware configurations

3+ yrs

battery life

IP67

enclosure rating

Why integrators pick it

■ One platform, any I/O

Two backside slots accept interchangeable X-modules — 1-Wire, RS-485, Pt100/Pt1000, thermocouples, load cells, analog and digital inputs. Swap modules for any sensor mix; same enclosure, same cloud, same toolchain.

■ Open SDK — no lock-in

Firmware built on Zephyr RTOS and the nRF Connect SDK with full source access. Deploy one of 15+ catalog applications the same week, or build custom firmware and ship OTA updates on your schedule.

■ Radio that fits the site

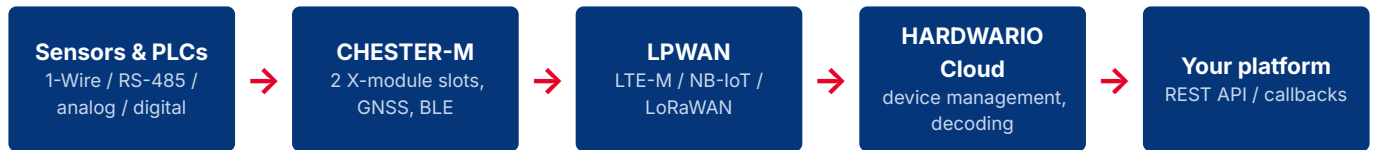
LTE-M and NB-IoT (Nordic nRF9160) plus LoRaWAN (Murata Type ABZ) on one board, with GNSS positioning and Bluetooth Low Energy for local access — pick the network per deployment by configuration, not by hardware change.

■ Field-proven industrial build

IP67 enclosure, -20 to +60 °C operating range, field-proven down to -40 °C in Canadian winters, and 3+ years on a primary cell — set-and-forget hardware for harsh sites.

Where it fits

CHESTER-M is the mainboard every CHESTER catalog application is built on — and the platform integrators standardize on when one client needs cold-chain records, the next needs machine activity, and the third needs energy sub-metering. One device family covers grain storage, smart-city infrastructure, indoor air quality, and industrial monitoring, so your team learns one toolchain and reuses it across projects.



One mainboard, any sensor mix — X-modules define the I/O, configuration defines the network.

Local commissioning and firmware updates run over Bluetooth Low Energy from a phone with HARDWARIO Manager; fleets are managed remotely through HARDWARIO Cloud with FOTA updates, remote shell, and data handover via REST API or HTTP callbacks to any platform you run — from pilot to thousands of devices.

Technical specification

PLATFORM

Expansion slots	2 backside slots (A and B) for X-modules
Sensor interfaces ¹	1-Wire bus, RS-485/UART, Pt100/Pt1000, thermocouples, load cells, analog and digital inputs
Positioning	GNSS — GPS, Galileo, GLONASS, BeiDou
Wireless sensors	Up to 8 external BLE temperature/humidity tags
Firmware	CHESTER SDK — Zephyr RTOS, nRF Connect SDK, open source

CONNECTIVITY

Cellular	LTE-M / NB-IoT (Nordic nRF9160)
LoRaWAN	Class A, EU868 (Murata Type ABZ, LoRaWAN 1.0.2)
Local access	Bluetooth Low Energy — configuration and firmware updates via HARDWARIO Manager
Antenna	Internal, or external via SMA pigtail

POWER

Primary battery	LiSoCl ₂ lithium cells 3.6 V — 1× size C (7 700 mAh) or 2× size AA (2 600 mAh) holder variants
External power	Rechargeable Li-ion, solar panels, or DC 6 V to 28 V via extension modules
Operating voltage range	2.0 V to 5.25 V
Battery life	3+ years at typical reporting intervals
Idle consumption	< 180 µA
Peak consumption	< 250 mA

ENVIRONMENT & MECHANICAL

Operating temperature	−20 to +60 °C — field-proven down to −40 °C
Storage temperature	−30 to +70 °C
Ingress protection	IP67
Enclosure	130 × 175 × 45 mm; carrier-board enclosures 200 × 280 × 45/65 mm

¹ Available interfaces depend on the installed X-modules and the application firmware.

Ordering information

Every mainboard is ordered by a configuration code in the format `CHESTER-M-[A][B][C][D][E][G][L][S][V]`, where each letter adds a hardware option: battery holders (A = 2× AA, B = 1× C), C = cellular modem, D = developer variant, E = external-power variant, G = GNSS, L = LoRaWAN, S = nano-SIM holder, V = Vodafone SIM chip. Twenty-four standard combinations are stocked; other combinations are available on request under MOQ conditions. Enclosures (CHESTER-E series) and extension modules are ordered separately per application.

Ordering code	Description
CHESTER-M-BCGLS	Standard mainboard — C-cell holder, cellular, GNSS, LoRaWAN, nano-SIM
CHESTER-M-ACGLS	Mainboard with 2× AA holders — thin profile for cover modules
CHESTER-M-CGLS	Mainboard without battery holder — for external power sources

COMPLIANCE

CHESTER-M 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. The built-in radio modules additionally carry FCC certifications for the US market.

Declaration of Conformity: HDC.260706.01

CE
UKCA

Scope your first deployment

A CHESTER evaluation unit reports to your platform in an afternoon — no wiring, no gateways, no IT tickets. Tell us about the application — sensors, environment, connectivity on site — and we will match the right module configuration and catalog application, including integration support for your first deployment.

- [Explore the CHESTER platform](#)
- [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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