FLEXPONDI MANAGEMENT DEVICES / 01 / OVERVIEW

Edge control.

Built for the field.

FMD3000 / FMD3200

Compact edge management devices that combine industrial x86 compute, discrete hardware security and an integrated baseboard management controller (BMC). Deploy locally, monitor hardware remotely and maintain access independently of the host operating system.



FMD3000 concept rendering in Portal Robotics colors. Illustrative finish; not a dimensional or port-location drawing.

FMD3000	FMD3200
Network-focused, headless compute. Dual 10GbE SFP+ ports and optional modular AI acceleration.	Graphics-capable edge compute. Integrated graphics, dual-display output and native AI acceleration.

Designed for distributed installations

Fanless enclosures support compact deployments with configurable memory, storage, wireless connectivity and accelerator options. Optional DIN-rail and rack mounting adapt the platform to different sites. Active-cooled T variants use half-width 1U sleds.

Specification basis

This brief describes hardware-platform capabilities, maximums and options. Installed components, operating limits, software integration, availability and services must be confirmed in the final quotation. Optional modules may compete for expansion slots.

FLEXPONDI MANAGEMENT DEVICES / 02 / REMOTE OPERATIONS

Hardware access.

Independent of the host OS.

An integrated BMC provides out-of-band monitoring and control through its dedicated management connection. The device must retain power and management-network connectivity, including when the host system is shut down or unresponsive.

Capability	What it enables
Console access	Serial over IP for diagnostics and troubleshooting.
Remote power control	Power on/off, reset and power cycling, including hard and soft control paths.
Virtual media	Present a local file or directory as a remote drive for operating-system installation, file loading and BIOS maintenance.
Firmware maintenance	Update firmware remotely to maintain device functionality and security.
Health monitoring	Monitor hardware status, performance and power behavior.

Management access paths

Use the dedicated 1GbE BMC interface or integrate compatible management software. Host-level tools provide in-band access when the operating system is running; supported methods and Windows limitations depend on the software configuration. Deploy encrypted administrative access and restrict the management network.

Why it matters for distributed sites

Remote hardware diagnostics and recovery can reduce on-site support visits, shorten fault-resolution time and improve control over system power and resources. The controller remains a separate recovery path from host applications.

Physical management interfaces

Both devices include a Mini-USB console interface using an RS232 USB controller, a dedicated management Ethernet port and a remote-power connection. See the I/O reference on page 6.

Power availability is essential

“Host powered off” refers to the main compute system. Out-of-band functions still require standby power to the management controller and a reachable management network.

FLEXPONDI MANAGEMENT DEVICES / 03 / PLATFORM COMPARISON

Choose your platform.

Networking or integrated graphics.

Specification	FMD3000	FMD3200
Processor	V3C18I; third-generation x86 architecture	8840U; fourth-generation x86 architecture
BMC / security	Integrated BMC; discrete TPM 2.0	Integrated BMC; discrete TPM 2.0
Console	Mini-USB; RS232 USB controller	Mini-USB; RS232 USB controller
Memory maximum	128 GB non-ECC; 96 GB ECC	128 GB non-ECC; ECC unsupported
Memory operation	DDR5; 5600-rated modules operate at 4800 MT/s	DDR5; 5600-rated modules operate at 4800 MT/s
Storage maximum	12 TB; 3 × M.2 2280 PCIe Gen 4	12 TB; 3 × M.2 2280 PCIe Gen 4
USB	3 × USB 3.2; 1 × USB 2.0	3 × USB 3.2; 1 × USB 2.0; 1 × USB-C with display alternate mode
Networking	3 × 2.5GbE; 2 × 10GbE SFP+; 1 × 1GbE BMC	4 × 2.5GbE; 1 × 1GbE BMC
Display	Headless; no display output	Digital video 2.1; USB-C with display 2.1 output
Integrated graphics	None	780M-class; 12 compute units; third-generation graphics architecture
Native AI	No native NPU; optional accelerator modules	NPU up to 16 TOPS; total platform up to 38 TOPS; optional accelerator modules
Wireless / cellular	Optional WLAN + short-range radio; optional 4G/5G	Optional WLAN + short-range radio; optional 4G/5G
Power over Ethernet	Not supported as powered device	Not supported as powered device

Shared operating range: -40°C to 85°C as specified for the platform. Optional DIN-rail and 1U rack mounting. Verify the selected configuration and thermal conditions before deployment. TOPS are maximum platform ratings and do not represent application throughput.

FLEXPONDI MANAGEMENT DEVICES / 04 / EXPANSION

Configure locally.

Connect, store and accelerate.

High-speed SFP+ networking | FMD3000

Two 10GbE SFP+ interfaces support independent high-bandwidth links. Choose compatible optical or copper transceivers for the cable type and distance. Transceivers are required and are not included. Integrated 10GbE MAC controllers support these ports. The FMD3200 does not include SFP+ ports.

Memory options

Both devices use dual-channel DDR5 with two SODIMM slots at 4800 MT/s. Non-ECC capacities include 16, 32, 64, 96 and 128 GB. The FMD3000 additionally supports ECC SODIMMs at 32, 64 or 96 GB; ECC is not supported on the FMD3200.

Storage and accelerator allocation

Up to three M.2 2280 PCIe Gen 4 slots provide a maximum combined storage capacity of 12 TB. Optional AI modules can occupy up to two of these three slots; the 2230 wireless slot can also be used for compatible acceleration. Slot selection affects available storage and wireless capacity. Confirm compatibility for each combination.

Cellular and wireless options

Optional 4G LTE or 5G uses a 3042 or 3052 M.2 B-key modem. Two SIM slots support two providers for connectivity planning in areas with variable coverage. The 5G option is described with latency as low as approximately 5 ms; actual latency depends on modem, carrier, coverage and network conditions. Optional wireless LAN and short-range radio are also available.

AI processing

FMD3000 AI performance depends on the optional accelerator configuration. The FMD3200 includes a native NPU rated up to 16 TOPS and total platform AI performance up to 38 TOPS; compatible modules can add acceleration. These ratings describe different compute scopes and should not be added together as 54 TOPS.

Display support | FMD3200

The integrated graphics engine supports up to two displays at 3840 × 2160 resolution and up to 120 Hz. Outputs are a digital video 2.1 connector and USB-C with display 2.1 alternate mode. The USB-C connection is also described as USB 4.0 in the platform display documentation. Confirm cables, displays and firmware for the required mode.

FLEXPONDI MANAGEMENT DEVICES / 05 / INSTALLATION

Small footprint.

Flexible deployment.

Physical / environmental	Specification
Footprint	160 mm (L) × 130 mm (W); approximately 6.30 × 5.12 in.
Height by configuration	15 W: 29 mm (1.14 in.); 30 W: 45 mm (1.77 in.); 35 W: 29 mm (1.14 in.).
Listed weights	1.20 kg / 2.65 lb; 1.25 kg / 2.75 lb; 1.40 kg / 3.10 lb. Final weight depends on configuration.
Cooling / mounting	Fanless passive models; active-cooled T sled variants. Optional DIN-rail or rack mounting. A 1U cabinet accommodates two half-width sleds.
Operating temperature	-40°C to 85°C; confirm the selected configuration and thermal installation.
Optional protection	Board-level conformal coating for added protection against dust, moisture and chemical exposure. Availability and volume requirements by quotation.

Model	Processor TDP limit	Form
FMD3000	Up to 15 W	Passive / fanless
FMD3000T	Up to 35 W	Active-cooled sled
FMD3200	Up to 30 W	Passive / fanless
FMD3200T	Up to 35 W	Active-cooled sled

Power supply	Specification
AC input	100-240 V AC; 50-60 Hz
Regulated DC output	19 V DC ±5%; maximum 4.74 A; maximum 90 W
Device power connector	Keyed 2-pin screw-down connector with positive retention

Processor TDP, system consumption and supply rating are different measures. The platform brief describes system draw up to 50 W under load; actual draw depends on configuration and workload. Allow suitable thermal clearance and power margin.

FLEXPONDI MANAGEMENT DEVICES / 06 / I/O AND DEPLOYMENT

Know your connections.

Plan the installation.

Connector reference

Numbering below follows the platform connector reference. These tables are connection guides rather than physical-scale drawings. Verify the delivered hardware revision before cabling.

Front reference	FMD3000	FMD3200
1	USB-A 2.0	USB-A 3.2
2-4	USB-A 3.2	USB-A 3.2
5-7	2.5GbE	2.5GbE
8	1GbE BMC	2.5GbE
9	BMC console	Digital video output
10	10GbE SFP+	1GbE BMC
11	10GbE SFP+	USB-C / display alternate mode
12	Power button	Power button

The FMD3200 connector illustration identifies four USB-A 3.2 ports, while the summary specification lists three USB 3.2 plus one USB 2.0. Confirm the speed of each delivered USB port before specifying peripherals.

Top reference	FMD3000	FMD3200
1 / 2 / 3	DC input / cellular antenna / remote power	DC input / cellular antenna / remote power
4 / 5 / 6	Wireless antenna / wireless antenna / cellular antenna	Wireless antenna / BMC console / wireless antenna
7	Not listed	Cellular antenna

Compliance and services

The hardware brief lists FCC, CE, RoHS and REACH. Request current declarations for the ordered configuration; these entries do not assert certification of every complete deployment. Integration options include BIOS settings, imaging, system configuration and labeling. Field deployment management and in-region technical support may be specified by quotation; coverage and terms must be confirmed.

Discuss your configuration

portalrobotics.com/book-a-demo | Portal Robotics, Inc.