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MobiPad nBOX MC8F-PoE v.1 - Barebones rugged desktop computer for industrial use with two 2.5G LAN ports and 4x USB 2.0

Category:	MiniPC Industry
Manufacturer:	Mobilator
Supported OS:	Windows 11, Windows 10, Linux
Installed OS:	Windows 11 PRO (optional)
Chipset:	Intel 13th Gen Twin lake-N
CPU Support:	Intel 13th Gen
Installed CPU:	Intel N150
Graphic Card:	Intel Graphics
Memory Support:	DDR4
Installed Memory:	None 8GB | 16GB (optional)
Storage (HDD) Support:	SSD M.2 - NVMe | SSD 2.5"
Installed Storage (HDD):	None 128GB | 256GB | 512GB | 1TB (optional)
IP Norm:	None
Temp:	-20°C ~ +55°C
Storage temperature:	-40°C ~ +70°C
Humidity:	10% - 90%
Others:	Color black
LAN:	4x 2.5GbE LAN (Intel I225-V/I226-V chip), 1 port can support POE IN
Wireless LAN card:	Wi-Fi | WiFi 6E (optional)

3G:	No
4G LTE:	Optional
Bluetooth:	No
Rear Panel (ports):	4× LAN 2.5G | COM (RJ-45 RS232/485/422) | DC IN
Front Panel (ports):	USB-C 3.0 | 4× USB 2.0 | USB 3.0 | DisplayPort 1.4a | HDMI 2.0b | SIM Slot | Power + LED
Expansion:	Adapter | HDMI cable | VESA mount | WiFi Antenna
Power:	12V 3A DC or PoE IN (802.3at/bt min. 30W)
Watch Dog Timer:	No
CD/DVD Drive:	None
TV Tuner:	No
Dimensions:	155 x 126.5 x 60 mm
Fanless:	Yes
Weight:	1,23kg

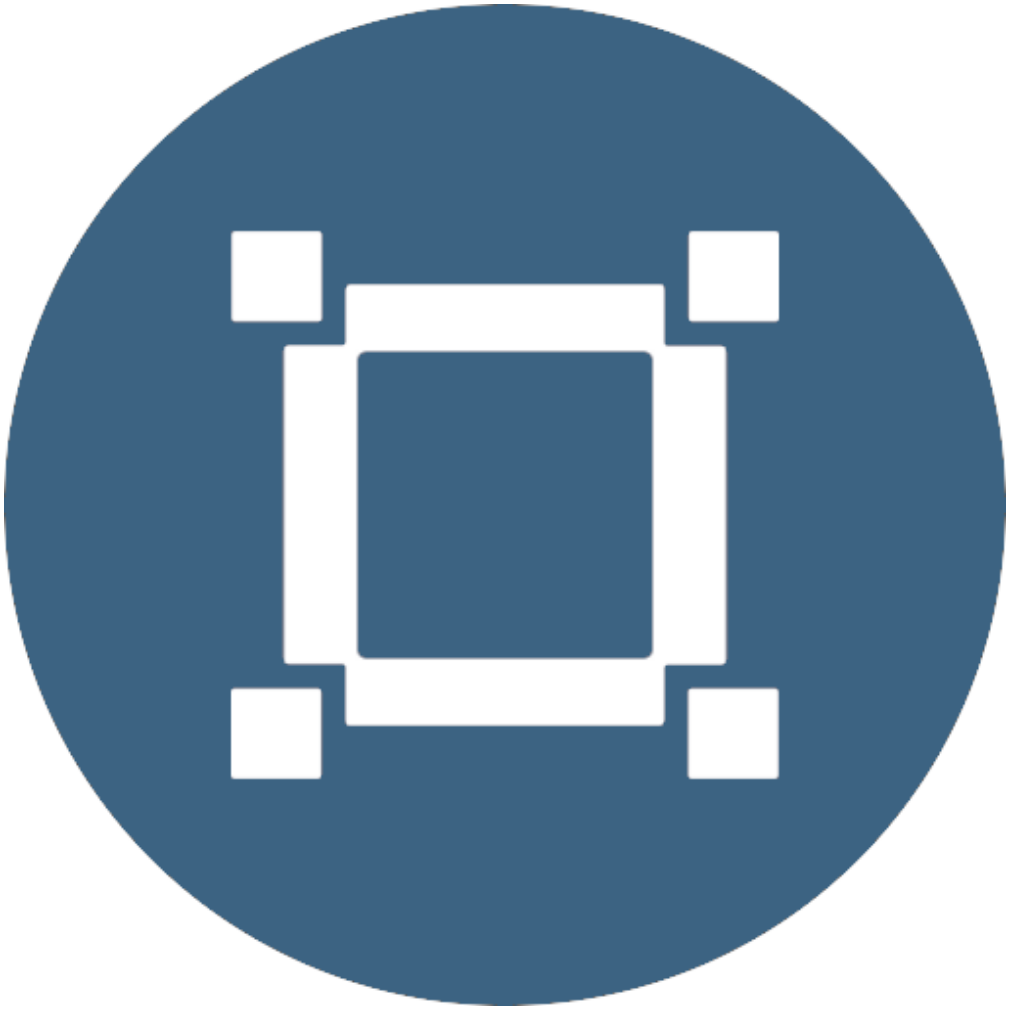
1 683,56 zł
net price: 1 368,75 zł

MobiPad nBOX MC8F-PoE

These miniature computing units, designed for the industrial sector, are exceptionally resistant to harsh environmental conditions and high dust levels, ensuring absolute silence while operating anywhere. The reliable MobiPad nBOX MC8F-PoE features a robust metal housing and a fanless cooling system that eliminates the need for mechanical components susceptible to failure. This hardware has been thoroughly designed for uninterrupted 24/7 operation, and

its stability is significantly enhanced by automatic power-on after a sudden power outage and remote wake-up via the local network. The integrated Intel Graphics processor makes this device a solid foundation for advanced industrial deployments and professional workstations requiring absolute operational continuity.

Small dimensions



The compact size fits perfectly into any workstation, allowing for the most efficient planning of available workspace.

Lightweight construction

The low weight of approximately 1.23 kg combined with the compact external dimensions guarantees excellent portability and significantly streamlines the process of regularly moving the device between different locations.

Efficient processor

The implementation of the modern Intel N150 chip, part of the thirteenth-generation Twin Lake-N, ensures the highest level of smoothness and reliable stability of the system environment.

Wireless Networking

The implementation of modern communication modules, including support for the fast Wi-Fi standard, guarantees exceptionally stable and lightning-fast data transmission using the latest wireless network protocols.

Quick Start

The use of an M.2 2280 solid-state drive connector with SATA 3.0 support and built-in space for an additional 2.5-inch drive significantly reduces the system platform's loading time.

Passive Cooling

The use of a silent heat dissipation system based on a fanless architecture ensures silent operation of the processing unit.

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SPECIFICATION

MobiPad nBOX MC8F-PoE v.1	
Processor	Intel Twin Lake-N N150
Operating system	Supported: Windows 11, Windows 10, Linux

MobiPad nBOX MC8F-PoE v.1

RAM DDR4	None 8GB * | 16GB * (optional)
Hard Disk SSD M.2	None 128GB * | 256GB * | 512GB * (optional)
Second Hard Disk SSD 2.5"	None 1TB * (optional)
Communication	WiFi 6E * | 4G * | 5G * (optional)
Connectors - front	1x HDMI 2.0b | 1x DisplayPort 1.4a | 4x USB 2.0 1x USB 3.0 | 1x USB-C 3.0 | 1x SIM Slot (4G/5G)
Connectors - rear	4x 2.5G LAN | 1x DC IN 12V 1x COM ** (via RJ45 cable to RS232/485/422)
Dimensions	155 x 126.5 x 60 mm
Weight	1.23kg
Graphics card	Intel Graphics
Colors available	Black (Metal Housing)

* Optional equipment available only in the appropriate product versions or upon request.

** When ordering, please select your preferred COM connector variant: via RJ45 cable to RS232, 485 or 422.

Detailed device specification is available in the "Technical data".

Efficient Processor

The versatile MobiPad nBOX MC8F-PoE is powered by an advanced and highly energy-efficient thirteenth-generation processing unit utilizing the Twin Lake-N architecture. This powerful variant of the Intel N150 processor offers four cores and four threads clocked at up to 3.6 GHz while maintaining an exceptionally low power consumption of just 6W, ensuring the smooth execution of multiple demanding tasks simultaneously. Its modern design enables efficient management of system resources, which, combined with a single SO-DIMM slot for DDR4 RAM, ensures excellent throughput for all processed data.

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Passive Cooling

The advanced design of the professional MobiPad nBOX MC8F-PoE device is based on a passive cooling system that fully utilizes the excellent thermal capabilities of the durable, all-metal housing. All heat generated during the operation of internal components is immediately transferred to the outer walls of the frame, eliminating the need for traditional fans and other moving parts subject to rapid wear. Implementing this type of noiseless mechanism not only guarantees perfect silence during electronic operation but also significantly reduces the likelihood of technical failures while providing excellent protection against the ingress of harmful dust and industrial dirt into the entire system.

Dimensions

The compact design, based on a durable metal housing with optimized dimensions of 155 millimeters in length, 126.5 millimeters in width, and 60 millimeters in height, significantly simplifies installation in very confined spaces.

Dimensions	155mm x 126.5mm x 60mm
Net weight	1230g

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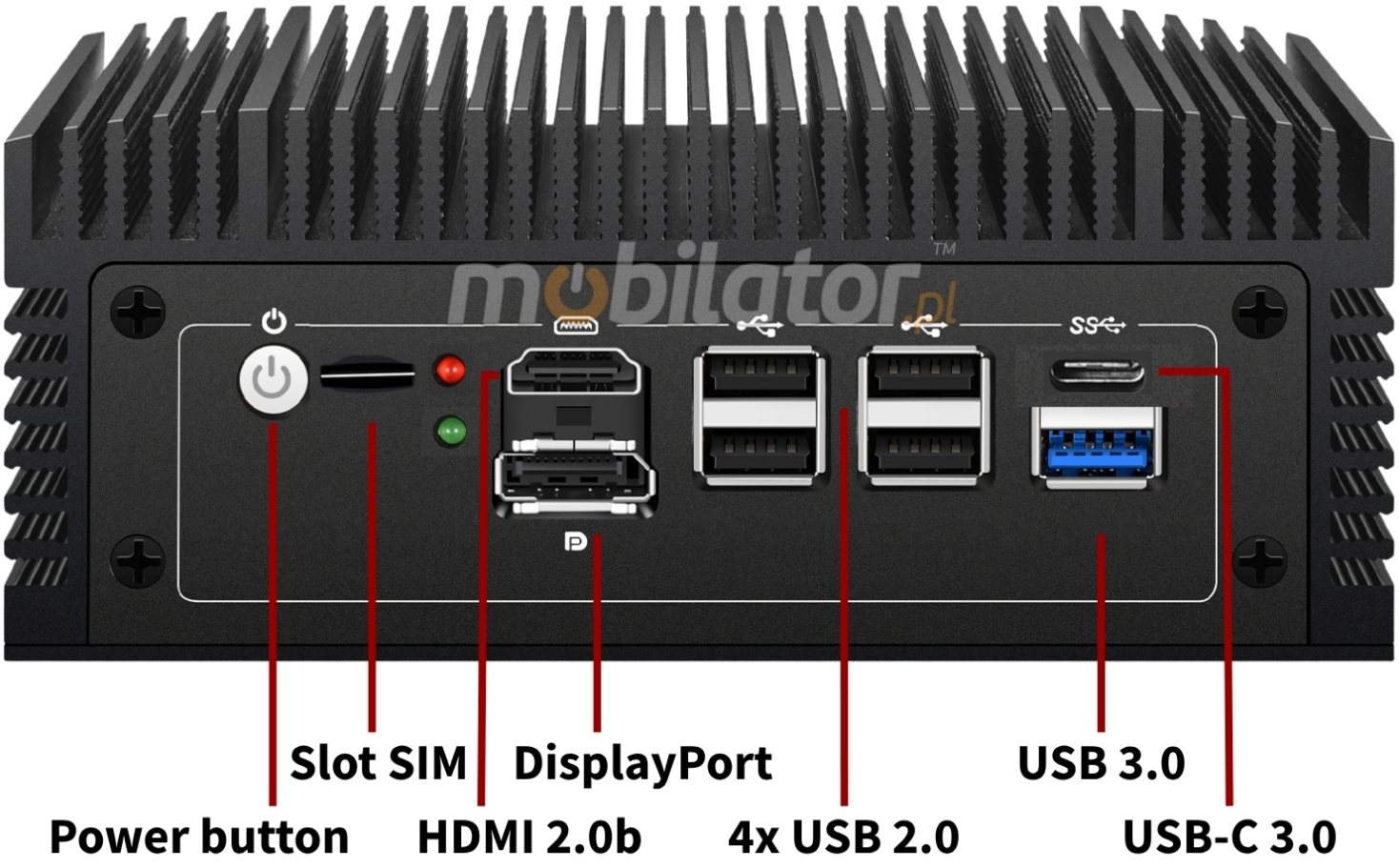
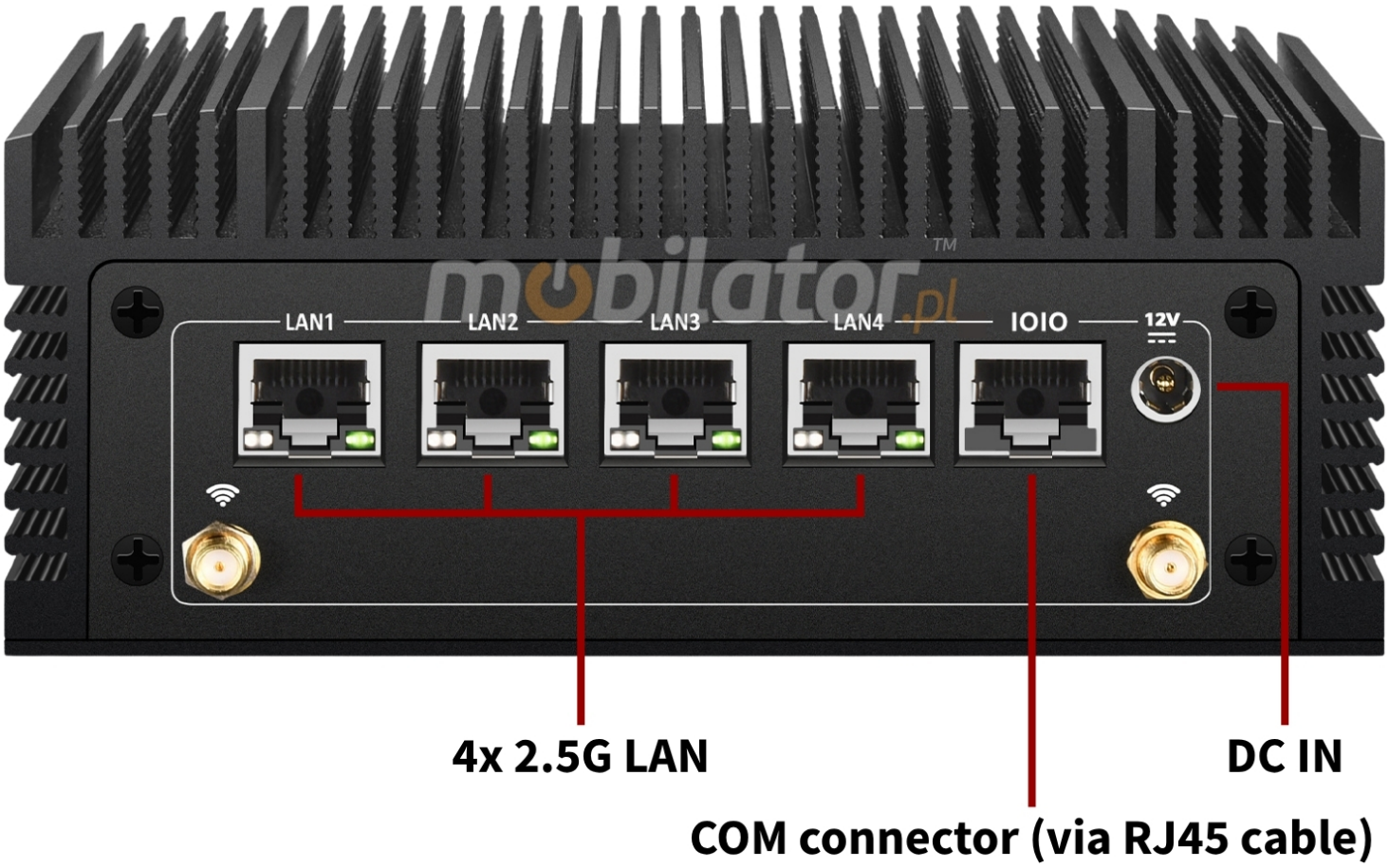
Connectors and Buttons

The versatile MobiPad nBOX MC8F-PoE features an exceptionally functional front panel and easily accessible interface, designed to simplify daily operation and

efficiently connect peripherals without having to access the rear of the device. A key feature of this section is the conveniently located power button, allowing for a quick system startup. This design also offers a dedicated SIM card slot. Available ports include an HDMI 2.0b digital video output and a DisplayPort 1.4a port, facilitating quick setup and operation of external displays. A comprehensive set of connectivity ports, including four universal USB 2.0 ports, one high-speed USB 3.0 port, and a modern USB 3.0 Type-C port, guarantees complete flexibility during data transfer and compatibility with advanced hardware. This carefully planned layout significantly improves workstation ergonomics, providing exceptional comfort in managing all hardware connections in any target operating environment.





The rear section of the enclosure has been meticulously designed for maximum reliability and continuous operation, offering a standard power socket that delivers stable 12V 3A DC power, as well as the option of alternative power supply via POE IN technology with a power output of 30W or higher. Rapid and seamless network communication in this architecture is ensured by four extremely efficient RJ45 LAN ports with high-bandwidth 2.5Gbe, with one of these ports supporting the aforementioned Power over Ethernet. A significant advantage that significantly expands the commercial and specialized applications of the multifunctional MobiPad nBOX MC8F-PoE device in demanding industrial sectors is the integrated RJ45 communication port, which functions as a COM RS232 serial interface, with the additional option of upgrading to RS485 or RS422 using the appropriate configuration jumper. Due to

such technical specificity, for full integration with advanced machine controllers, logistics scanners or professional measuring equipment used in modern automation systems, a dedicated cable is used to convert the signal from the RJ45 socket to the selected RS serial connector, which guarantees full hardware compatibility without any loss in the quality of the transmitted data.

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CONNECTIVITY AND COMMUNICATION

WiFi5 wireless network | (WiFi 6E) *

The modern MobiPad nBOX MC8F-PoE guarantees exceptionally stable and fast wireless connectivity, utilizing the built-in M.2 2230 E Key slot. This advanced technology is fully compatible with current Wi-Fi ac/ax standards. The use of these innovative communication protocols enables incredibly smooth transfer of large amounts of data while minimizing the risk of signal transmission delays. This high throughput allows the device to easily handle environments with high network traffic, ensuring continuous communication even in highly congested workspaces, such as large offices or automated industrial facilities.

* The device is available in a configuration with the WiFi 6E option.

Wired LAN

The high-performance MobiPad nBOX MC8F-PoE is equipped with four innovative network ports based on advanced Intel I225-V or I226-V controllers,

guaranteeing exceptionally stable and fast throughput at the 2.5Gbe LAN standard. This extensive communication architecture enables the rapid and reliable exchange of massive amounts of data while virtually eliminating transmission delays, which is crucial in advanced critical infrastructure management systems. The use of such a comprehensive, quadruple wired interface enables the seamless implementation of complex network configurations, such as strict physical separation of the secure internal network from vulnerable external public connections, and significantly simplifies the creation of essential, fully automated redundant emergency links, dramatically increasing the overall resilience and reliability of an advanced industrial ecosystem.

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RESISTANCE AND DURABILITY

Mechanical Damage

The use of an innovative, completely passive cooling system, combined with support for very fast solid-state drives via an M.2 2280 socket dedicated exclusively to SATA3.0 SSDs, as well as the option to install an additional classic 2.5-inch drive with the proven SATA HDD/SSD interface, makes the silent MobiPad nBOX MC8F-PoE exceptionally resistant to mechanical damage. The complete absence of any moving components responsible for active ventilation within the sealed enclosure completely eliminates the risk of mechanical failures and guarantees uninterrupted system stability, even in the most demanding

environmental conditions.

An undeniable advantage of this innovative technological solution, the professional MobiPad nBOX MC8F-PoE, is its all-metal housing, which plays a fundamental role in the thermal regulation process, acting as an extremely effective passive heat sink in a fanless architecture.

Extreme Temperatures

The highly durable MobiPad nBOX MC8F-PoE has been precisely optimized for continuous and stable operation in extremely unfavorable thermal conditions. The device's reliability in harsh environments is clearly demonstrated by its wide operating temperature range, spanning from -20 to +55 degrees Celsius. Furthermore, this rugged design boasts impressive standby tolerance, ensuring

complete component safety during extreme temperature drops of up to -40 degrees Celsius and during intense heat up to +70 degrees Celsius.

Operating Temperature	-20°C to 55°C
Temperature Storage	-40°C to 70°C
Humidity	10% to 90%

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APPLICATIONS

Retail and Services

The versatile MobiPad nBOX MC8F-PoE is an exceptionally effective work tool in the retail, service, and logistics industries. Its compact design significantly simplifies the operation of modern sales systems and the smooth management of essential documentation. Passive cooling combined with a highly durable, all-metal housing guarantees completely silent operation, which is particularly important in direct customer service areas, thus improving the overall standard of the workstation by eliminating intrusive noise. The universal VESA mounting standard, supporting 70x70 and 100x100 millimeter spacing, allows for easy and discreet installation of this lightweight device, weighing just 1.23 kilograms, on the back of a monitor, under a desk, or on specialized warehouse carts, thus maximizing the use of available, often very limited, space.

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Warehouse and Logistics

The innovative MobiPad nBOX MC8F-PoE bases its impressive operational performance on a quad-core Intel 13th Generation N150 processor from the Twin Lake-N family, which offers a base clock speed of 1.7 GHz with turbo boost up to 3.6 GHz at a very low TDP of just 6W. This guarantees exceptionally smooth and optimized support for many complex management processes running in parallel, such as in warehouses. The extremely durable metal housing, combined with a fully passive cooling system, enables long-term and highly stable operation of

this device in harsh, dusty environments, while minimizing any risk of unwanted failure.

Transportation and Automotive

The multi-purpose MobiPad nBOX MC8F-PoE stands out for its exceptional utility in the broadly defined transportation and automotive sectors, thanks largely to its standard 12V 3A DC power connector, which significantly simplifies seamless integration with the on-board electrical systems of various vehicles. This completely fanless industrial computer is ideal for use onboard delivery vehicles, railway rolling stock, and modern public transport vehicles, where it continuously and reliably manages advanced passenger information systems

and conducts continuous, fully automated diagnostics of key telemetry indicators in real time, ensuring complete operational stability regardless of vibrations resulting from machine movement.

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More photos in full resolution available in the "Gallery".

AVAILABLE VERSIONS

The versatile MobiPad nBOX MC8F-PoE boasts extensive hardware adaptability, allowing for extremely precise adjustment of this passive unit's parameters to specific project requirements. Should specific technical specifications be required, a custom configuration can be developed, enabling the creation of a unique technological solution fully aligned with current operational needs.

	v.1	v.2	v.3	v.3.1	v.4	v.5	v.6	v.7
Windows 11 PRO	—	—	—	+	—	—	—	—
WiFi 6E	—	—	+	+	+	—	—	—
4G	—	—	—	—	—	+	—	—
5G	—	—	—	—	—	—	+	—
8GB RAM	—	+	+	+	+	+	+	—
16GB RAM	—	—	—	—	—	—	—	+
128GB SSD M.2 - NVMe	—	+	—	—	—	+	—	—
256GB SSD M.2 - NVMe	—	—	+	+	+	—	—	—
512GB SSD M.2 - NVMe	—	—	—	—	—	—	+	+
1TB SSD 2.5	—	—	—	—	+	—	—	—