



MobiPad nBOX MD12-V2-I5U v.5.1 - Industrial Mini PC 16GB RAM, 256GB SSD, 1TB SSD, Intel Core i5, Windows 11 Pro license, WiFi 6E, SIM slot



Category:	MiniPC Industry
Manufacturer:	Mobilator
Supported OS:	Windows 11, Windows 10, Linux
Installed OS:	Windows 11 PRO
Chipset:	Intel Alder Lake-U
CPU Support:	12th and 13th generation Intel Core
Installed CPU:	Intel Core i5-1235U
Graphic Card:	Intel Iris Xe Graphics
Memory Support:	DDR4
Installed Memory:	16GB RAM 32GB (optional)
Storage (HDD) Support:	SSD M.2 - NVMe
Installed Storage (HDD):	256GB + 1TB SSD M.2 - NVME 2TB (optional)
IP Norm:	None
Temp:	-20°C ~ +55°C
Storage temperature:	-20°C ~ +70°C

Humidity:	5% - 95%
Others:	Color black
LAN:	2x RJ45 2.5Gbe LAN (Intel I225-V/I226-V chip)
Wireless LAN card:	WiFi 6E
3G:	No
4G LTE:	Optional
Bluetooth:	Bluetooth 4.2
Rear Panel (ports):	3x HDMI 2.0b DisplayPort 1.4a 2x LAN 2.5G 2x COM (RS232/RS485) 2x USB 2.0 DC-IN
Front Panel (ports):	USB-C 3.0 4x USB 3.0 2x USB 2.0 MIC IN Line-out Power + LED
Expansion:	Adapter HDMI cable VESA mount WiFi Antenna
Power:	100-240V AC - 19V DC / 3.42A
Watch Dog Timer:	Yes
CD/DVD Drive:	None
TV Tuner:	No
Dimensions:	174 x 125 x 43 mm
Fanless:	Yes
Weight:	980g

4 322,71 zł
net price: 3 514,40 zł

MobiPad nBOX MD12-V2-I5U



SPECIFICATION

CONNECTIVITY AND COMMUNICATION

RESISTANCE AND DURABILITY

APPLICATION

AVAILABLE VERSIONS

The high-end MobiPad nBOX MD12-V2-I5U computers demonstrate exemplary resistance to harsh external conditions, including dust, while offering completely silent operation in any work environment. The durable metal construction efficiently dissipates heat, eliminating the need for fans and eliminating the risk of failure of moving parts. This innovative model is powered by a 10-core Intel Core i5-1235U processor from the Alder Lake-U family, guaranteeing high performance while maintaining a low power consumption of 15W. The unit is designed for uninterrupted 24/7 operation, and the automatic resume function after power is restored ensures continuous processes without the need for a

manual restart.

Small dimensions



The handy MobiPad nBOX MD12-V2-I5U with its 174 x 125 x 43 mm footprint, significantly saves workspace and allows for easy relocation.

Lightweight construction



The mobile MobiPad nBOX MD12-V2-I5U weighing just 0.98 kg, allows for easy transport in a bag or backpack.

Efficient processor



The powerful MobiPad nBOX MD12-V2-I5U is powered by a ten-core Intel Core i5-1235U processor, enabling the efficient execution of numerous parallel operations while maintaining high system dynamics.

Wireless Networking



The innovative MobiPad nBOX MD12-V2-I5U is equipped with an advanced wireless communication module using the M.2 2230 E key socket, ensuring full compatibility with the WiFi ac and WiFi ax 6/6E standards.

Quick Start



The precise MobiPad nBOX MD12-V2-I5U provides lightning-fast data access thanks to the use of a powerful M.2 NVMe SSD.

Passive Cooling



The silent MobiPad nBOX MD12-V2-I5U is based on a passive fanless cooling architecture, allowing for completely silent operation during everyday use.

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SPECIFICATION

MobiPad nBOX MD12-V2-I5U	
Processor	Intel Core i5-1235U
Operating system	Windows 11 PRO

MobiPad nBOX MD12-V2-I5U

RAM DDR4	16GB 32GB * (optional)
Hard Disk SSD M.2	256GB + 1TB 2TB * (optional)
Communication	WiFi 6E Bluetooth 4.2 4G LTE * (optional)
Connectors - front	1x USB-C 3.0 4x USB 3.0 microphone input (MIC IN) line output (Line out)
Connectors - side	1x RS232 ** (can be converted to RS485) 1x RS485 ** (can be converted to RS232)
Connectors - rear	3x HDMI 2.0b 1x DisplayPort 1.4a 2x LAN 2x USB 2.0 1x DC IN
Dimensions	174x125x43mm
Weight	980g
Graphics card	Intel UHD Graphics
Colors available	Black (Metal Housing)

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

** When ordering, a selection of two COM connector variants is available: 1x RS232 and 1x RS485 or dual sets 2x RS232 or 2x RS485.



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

Efficient Processor

The advanced MobiPad nBOX MD12-V2-I5U is equipped with a modern and energy-efficient Intel Core i5-1235U processor from the Alder Lake-U architecture, characterized by a low TDP of 15 W. This unit has 10 cores and 12 threads, which, combined with a maximum clock speed of 4.4 GHz, enables lightning-fast processing of complex tasks and stable multitasking while maintaining completely silent operation due to the lack of active cooling systems.

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Passive Cooling

The reliable MobiPad nBOX MD12-V2-I5U relies on an advanced, passive fanless cooling system, a key element of which is a durable all-metal casing. This mechanism utilizes the natural phenomenon of thermal energy being dissipated through the external structure directly to the environment, allowing for the complete elimination of fans and any moving mechanical components. This technical solution eliminates the risk of failure of rotating components and ensures silent operation of the unit.

Dimensions

The versatile MobiPad nBOX MD12-V2-I5U features a compact metal chassis

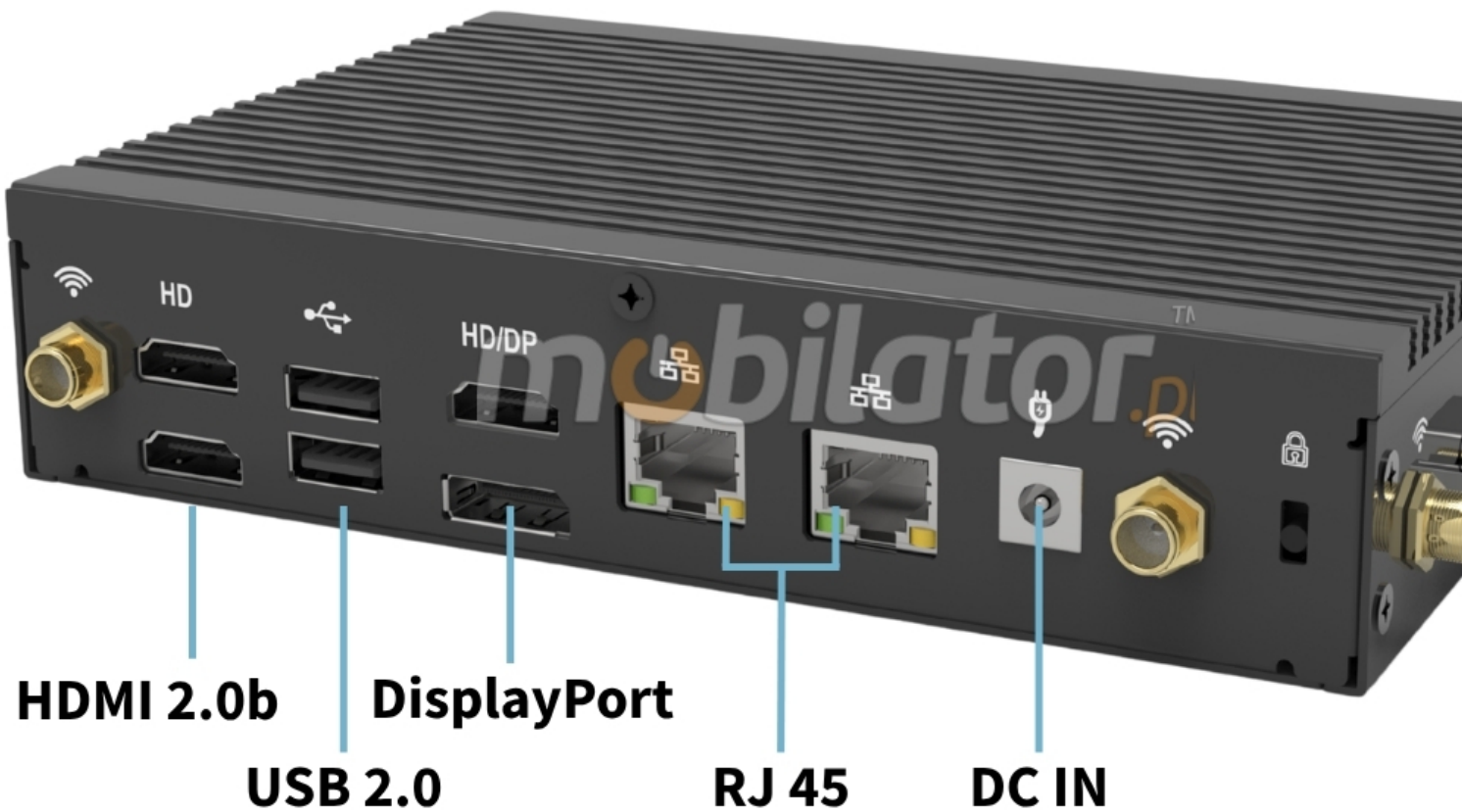
measuring 174 x 125 x 43 mm, making it suitable for use in modern offices and harsh industrial environments. A fanless cooling system allows for virtually any location, while full VESA mounting compliance allows for easy attachment to the back of the display, ensuring optimal workspace utilization. Weighing just 0.98 kg, this design, powered by a powerful, 10-core Intel Core i5-1235U processor, provides a solid foundation for advanced all-in-one configurations, while demonstrating high dust resistance and operating stability across a wide temperature range.



Dimensions	174mm x 125mm x 42mm
Net weight	980g

Connectors and Buttons

The modern MobiPad nBOX MD12-V2-I5U features an extensive front panel that allows for efficient connection of essential external devices in demanding work environments. The front of the durable enclosure features a power button, four high-speed USB 3.0 ports (compatible with USB 3.2 Gen2), and one USB 3.0 Type-C port. The design also includes a separate microphone input and audio port, making it easy to customize the hardware configuration for specific project tasks. A key communication module is the side interface, equipped with two serial COM ports. Integrated jumpers on the motherboard allow for precise setting of each port's operating standard as RS232 or RS485. **This allows for the flexible creation of systems with two RS232 ports, two RS485 ports, or a mixed configuration, significantly increasing the computer's potential for integration with specialized industrial devices.**



The high-quality MobiPad nBOX MD12-V2-I5U is equipped with a rear panel with

a DC IN power port that supports a 19V input voltage at 3.42A or 4.74A, ensuring stable operation of the 10-core Intel i5-1235U processor. This section of the device integrates two advanced RJ45 network ports with 2.5GbE bandwidth, based on Intel I225-V or I226-V chips. Extensive video transmission features are provided by three HDMI 2.0b ports and one DisplayPort 1.4a port, supporting high 4K resolutions at 60Hz. Two additional USB 2.0 ports complement the available interfaces, allowing for convenient connection of control peripherals without having to use the fast USB 3.0 ports located on the front of the metal casing.

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CONNECTIVITY AND COMMUNICATION

WiFi 6E wireless network

The versatile MobiPad nBOX MD12-V2-I5U, powered by a ten-core Intel Core i5-1235U processor, offers consistent wireless connectivity thanks to a dedicated M.2 2230 E key port that supports the advanced WiFi ac and WiFi ax 6/6E networking standards. Using these technologies, along with the included antennas, allows for smooth and secure data exchange even in dense network environments found in offices and industrial facilities.

Wired LAN

The advanced MobiPad nBOX MD12-V2-I5U, based on the Intel i5-1235U processor, features two integrated network controllers based on Intel I225-V or I226-V chipsets that support the 2.5GbE LAN standard. This technology allows for throughput that surpasses traditional Gigabit Ethernet solutions, resulting in seamless data exchange and highly stable connections in demanding industrial systems.

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RESISTANCE AND DURABILITY

Mechanical Damage

The durable MobiPad nBOX MD12-V2-I5U uses a passive heat dissipation system and an efficient M.2 NVMe SSD drive, which, combined with a metal housing with dimensions of 174x125x43 mm, translates into high resistance to vibrations and mechanical damage.



The professional MobiPad nBOX MD12-V2-I5U features an all-metal casing that acts as a passive heat sink and enables efficient heat exchange with the surrounding environment. Its robust design effectively protects its components, including the ten-core Intel Core i5-1235U processor with a low TDP of 15W, from negative external factors.

Extreme Temperatures

The robust MobiPad nBOX MD12-V2-I5U is designed for continuous operation in a variety of thermal conditions, offering complete operational stability in a temperature range of -20°C to 55°C. The heat-dissipating metal casing allows for passive cooling of the ten-core processor, eliminating the need for mechanical fans.

Operating Temperature	-20°C to 55°C
Temperature Storage	-20°C to 70°C
Humidity	5% to 95%

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APPLICATIONS

Retail and Services

The ergonomic MobiPad nBOX MD12-V2-I5U is an optimal tool for the retail and logistics sectors, streamlining invoicing and document recording processes. Its rigid metal construction operates in a fully passive mode, eliminating fan noise and improving work standards at customer-facing points. The included VESA mount, available in 70x70 mm or 100x100 mm, allows for discreet installation of the computer on the back of a monitor, under a worktop, or at a checkout

counter.



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Warehouse and Logistics

The efficient MobiPad nBOX MD12-V2-I5U, powered by a ten-core, twelve-thread Intel Core i5-1235U processor clocked at up to 4.4 GHz, enables simultaneous operation of demanding WMS systems and advanced logistics applications. Its

rigid, compact metal construction ensures high resistance to dust and other adverse external factors, ensuring long-term reliability in distribution centers.



Transportation and Automotive

The versatile MobiPad nBOX MD12-V2-I5U demonstrates a high level of usability in the transportation sector thanks to the implementation of a stable DC power socket with an output voltage of 19V. The compact device, weighing only 0.98 kg, is widely used in railway rolling stock, bus transportation, and aviation, where it is used to operate multimedia passenger information systems and monitor

vehicle technical parameters.



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

AVAILABLE VERSIONS

The adaptable MobiPad nBOX MD12-V2-I5U is available in multiple configurations, making it easy to precisely match the Intel i5-1235U processor-based unit's parameters to the technical requirements of a specific implementation. Selecting a specific model from the list provides insight into the

full technical specifications of the selected version. If components beyond the standard configuration are required, a dedicated hardware kit can be created based on a separate request. This allows for the full fulfillment of non-standard requirements while maintaining high performance.

	v.1	v.2	v.2.1	v.3	v.4	v.5	v.5.1
Windows 11 PRO	—	—		—	—	—	
WiFi 6E	—	—			—	—	
4G	—	—	—	—		—	—
8GB RAM	—					—	—
16GB RAM	—	—	—	—	—		
32GB RAM	—	—	—	—	—	—	—
256GB SSD M.2 -NVMe	—			—	—	—	—
512GB SSD M.2 -NVMe	—	—	—			—	—
512GB + 2TB SSD M.2 - NVMe	—	—	—	—	—	—	—

256GB + 1TB SSD M.2 - NVMe	—	—	—	—	—		
1TB SSD M.2 - NVMe	—	—	—	—	—	—	—
2TB SSD M.2 - NVMe	—	—	—	—	—	—	—
	v.6	v.7	v.8	v.8.1	v.9	v.10	
Windows 11 PRO	—	—	—		—		
WiFi 6E	—						
4G	—	—	—	—	—	—	
8GB RAM	—	—	—	—	—	—	
16GB RAM			—	—	—	—	
32GB RAM	—	—					
256GB SSD M.2 -NVMe	—	—	—	—	—	—	

512GB SSD M.2 -NVMe		—	—	—	—	—
512GB + 2TB SSD M.2 - NVMe	—	—	—	—	—	
256GB + 1TB SSD M.2 - NVMe	—	—	—	—	—	—
1TB SSD M.2 - NVMe	—				—	—
2TB SSD M.2 - NVMe	—	—	—	—		—