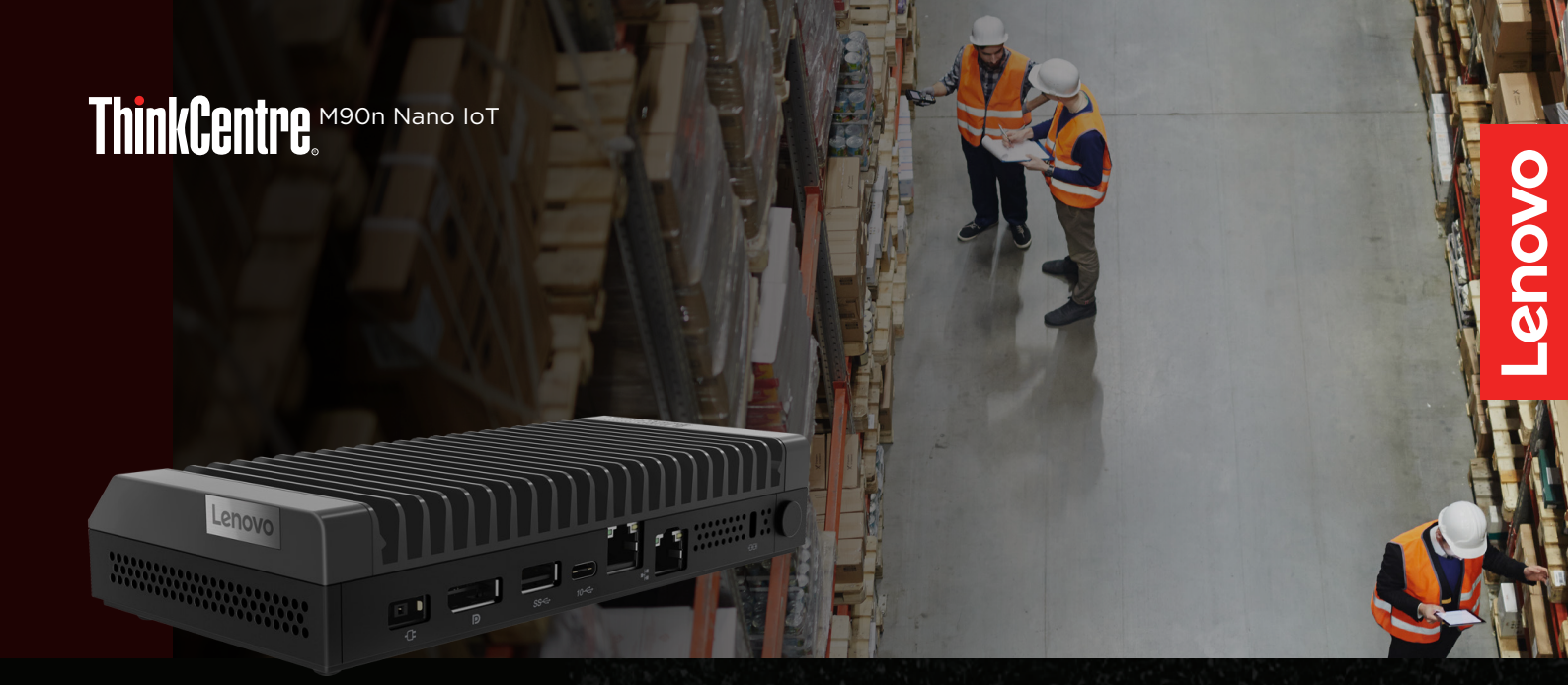
ThinkCentre M90n Nano IoT



THINKCENTRE NANO IoT FEATURES AND BENEFITS

- Powered by 8th Generation Intel® Core™ i3/Celeron® Processors
- Fan-less chassis (0.55L) for effective heat dissipation
- MIL-STD tested with an operating temperature* of 0° to 50°
- Win 10 IoT Enterprise, Azure IoT, and Ubuntu certified
- Supports WiFi/BT, LPWAN, and WWAN wireless connections
- 2 USB Type-C ports plus IOBOX for physical I/O connectivity
- TPM 2.0 chip and Kensington™ lock slot for data and device security
- Maximum mounting flexibility with VESA wall mount and DIN rail bracket
- Up to 30% energy savings annually over Tiny

*Some configurations may enable power protection management in your operating environments above 35°C

SMALL FOOTPRINT, BIG VALUE

From an ultra-small form factor to reliable LPWAN connectivity, the M90n Nano IoT changes the game for retail businesses. By transferring Big Data generated by Internet of Things (IoT) sensors to the cloud for analytics, the Nano enables retailers to better understand customer buying behaviors, streamline recommendations, and mitigate risks for improved efficiencies. Furthermore, built-in security features protect sensitive data against unauthorized access and theft.

THINKCENTRE M90n NANO IoT FOR RETAIL

REMARKABLE PERFORMANCE

Powered by 8th Generation Intel® mobile processors and backed by robust DDR4 memory, the M90n Nano IoT offers a smooth and responsive computing experience, ideal for handling data-intensive tasks. Up to 512GB M.2 PCIe SSD assures faster boot times and high-speed data transmission.

STEADFAST SECURITY

The hardware-based TPM 2.0 chip is a secure cryptoprocessor that encrypts confidential data to protect against data theft. The Kensington™ lock slot offers physical-layer security by enabling users to tether their devices to a stationary object, which deters criminals and lowers the risk of devices being stolen.

IoT-READY PLATFORM

As an IoT gateway, the Nano IoT allows sensors and devices in retail stores, such as door alarms, RFID tags, and surveillance cameras, to intercommunicate. It also securely transfers data from those devices to the cloud or the company data center for processing and analytics. The desktop delivers computing power at the IT edge for a variety of use cases, such as the delivery of real-time product recommendations via digital signage, which can help boost local customer engagement.

SPACE-SAVING DESIGN

Clad in a compact 0.55L chassis, the M90n Nano IoT is an ultra-sleek device that fits just about anywhere. Also, weighing just 750g/1.65lb, this unbelievably light device can be conveniently mounted on a wall using a VESA mount or a DIN rail bracket.

UNMATCHED DURABILITY

MIL-SPEC tested for longevity, the Nano can withstand unanticipated temperatures, shocks, accidental spills, and high levels of humidity, among other extreme conditions. The heatsink mounted on top of the chassis aids passive cooling that in turn improves the overall performance of the device.

VERSATILE CONNECTIVITY

Multiple ports including USB Type-C, USB 3.1 Gen2, and DisplayPort allow users to connect multiple external peripherals to the Nano with ease. Additionally, the IOBOX enables physical I/O connectivity for IoT edge computing, reducing network latency.

DESIGNED TO TRANSFORM IN-STORE CUSTOMER EXPERIENCES

The biggest challenge to most retailers is filtering, analyzing, and acting on the large volumes of data collected by numerous IoT devices. The Nano IoT gateway helps by providing end-to-end communications between the IoT network of sensors, the cloud, and the data center to enable efficient analytics and decision-making.

The powerful M90n Nano IoT presents new opportunities for retailers seeking innovative ways to personalize the customer experience. For instance, this IOBOX-enabled desktop can be efficiently used to collect data from a network of sensors that gauge shoppers' behavior or activity and send customized product advertisements or coupons via displays in real time. The in-store tracking information can be moved to the cloud or integrated with existing CRM tools to record and monitor individual customer preferences.

COMPETITOR ANALYSIS

	Nano IoT	Dell GW 3000	ADV ARK-1124	ADlink MXE-210
Pricing	Starting $539 + $9x (IOBOX)	$764 to $9xx	$720 to $8xx	$700 to $8xx
Size	0.55L (1L, w/IOBOX)	0.7L	0.6L (1L, w/IOBOX)	0.9L
CPU/TDP	WHL-U 15W	E3805/3815 BTL 3-6W	N3350/E3950 APL 6-9.5W	E39xx APL 6.5-12W
Operating Temperature	0° to 50°C	-30° to 70°C	0° to 40°C / -20° to 70°C	0° to 50°C / -20° to 70°C
Storage	2 x M.2	eMMC, SD	1 x 2.5" SATA 1 x half mPCIe (Opt.)	1 x mSATA 1 x SD
RAM	DDR4 on-board 4G	2G DDR3L	1 x SoDIMM, 8G Max	1 x SoDIMM, 8G Max
Wireless	1 x M.2 for WiFi/BT 1 x M.2 4G reserve 1 x USB I/F for LoRa	WiFi/BT LPWAN (Opt. B)	WiFi/BT or 4G 1 x mPCIe (IOBOX)	WiFi/BT 4G or LPWAN
USB	3 x USB 3.1 1 x USB 3.1 Type-C (Power-in, Display)	1 x USB 2.0 1 x USB 3.0	2 x USB 3.0	2 x USB 2.0 1 x USB 3.0
LAN	1 or 2 x GbE 2 x PoE (IOBOX)	1 x 10/100 (PoE) 1 x 10/100 (Opt.B/C)	1 x GbE	2 x GbE
Video/Audio	1 x DP 1 x DP (Type-C) 1 x Combo audio	1 x DP (Opt.C) Audio-in/out (Opt.C)	1 x VGA	1 x HDMI
Serial	2 x RS-232 2 x RS-232/422/485 (IOBOX)	2 x RS-232/422/485	4 x RS-232/422/48	1 x RS-232 1 x RS-232/422/485
Digital I/O	4 x DI 4 x DO (IOBOX)	8 x GPIO (Opt A)	8 x DI/8 x DO	4 x DI 4 x DO
VDC Power	AC Adapter DC-in 9-36V (IOBOX)	12-57V	12V Opt. 12-24V	6-36V Opt. adapter
Longevity	2-3 yrs	2-5 yrs	2-5 yrs	3-5 yrs

Actual transfer rates using the various USB connectors on this device will vary depending on factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments. Actual transfer rates are typically slower than the data rates defined by the respective USB specifications: 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2; and 20 Gbit/s for USB 3.2.