



THINKCENTRE NANO IoT FEATURES AND BENEFITS



Ultra-small form factor with 0.55L chassis



MIL-STD tested with an operating temperature* of 0° to 50°C



Win 10 IoT Enterprise, Azure IoT, and Ubuntu certified



Wireless expandability with WiFi/BT, LPWAN, and WWAN connections



2 USB Type-C ports and I/O expansion via IOBOX for advanced connectivity



TPM 2.0 chip and Kensington™ lock slot for data security



Mounting flexibility with VESA and industrial DIN rail options



Up to 30% energy savings annually over Tiny

SMALL DESKTOP WITH A BIG IMPACT

Tiny yet powerful, the ThinkCentre M90n Nano IoT leverages the potential of Intel® processors, superfast DDR4 memory, and PCIe SSD storage to boost the productivity of manufacturing processes. This compact device with an ultra-small form factor can fit nearly anywhere. Its innovative fan-less design allows it to work efficiently in industrial environments. Additionally, with an IOBOX for enhanced connectivity, the Nano IoT delivers the performance and expandability features of a desktop with a space-saving design.

THINKCENTRE M90n NANO IoT FOR MANUFACTURING

UNMATCHED RELIABILITY

MIL-SPEC tested, the Nano IoT goes through shock, drop, temperature, and dust tests to ensure it always performs as designed, even in harsh manufacturing plant environments. Its fan-less design ensures efficient heat dissipation for improved performance.

IMPRESSIVE PERFORMANCE

Don't let its size deceive you. This micro-desktop is powered by the 8th Generation Intel® mobile processors, high-speed DDR4 memory, and super-fast PCIe SSD, which enable easier and faster processing of everyday tasks.

COMPACT DESIGN

This micro-desktop is extremely adaptable to any workspace. A smaller footprint of 0.55L allows you to place it right where you want it. Slide it under the desk, behind a monitor or mount it on a wall. This truly simplifies the deployment of the Nano using a VESA mount or an industrial DIN rail.

EASY EXPANDABILITY

The Nano M90n IoT offers an IOBOX that provides full-stack physical I/O connectivity to peripheral devices. This enables edge computing, reducing latency and allowing users to work across multiple displays or devices.

IoT-READY PLATFORM

In addition to serving as a micro-desktop, the Nano functions as an IoT gateway. In this role, it provides end-to-end communications between IoT devices and sensors and securely transports the Big Data those devices generate to the cloud or corporate data center over wireless network links. The Nano IoT gateway delivers computing power at the edge, providing real-time analytics for management and production efficiency.

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

ENGINEERED TO IMPROVE PRODUCTION EFFICIENCY

In the age of Industry 4.0, the Industrial Internet of Things (IIoT) is transforming factories with smarter, automated, and more streamlined operations that save manufacturers both time and money. In gateway mode, the Nano M90n connects IIoT devices in manufacturing plants to the IIoT.

The Nano collects data from sensors, inverters, sirens, displays, and other equipment, analyzes it, and provides real-time efficiency information based on it to plant operators. It also transfers IIoT device data to SCADA control systems for real-time monitoring, so manufacturers can identify and track issues as they occur and act on them before they cause delays.

Lenovo

COMPETITOR ANALYSIS

	Nano IIoT	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	3-5 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.

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