ThinkCentre M90n Nano IoT

Breeze through the most demanding tasks with the ultra-slim ThinkCentre M90n Nano IoT, powered by the latest-generation Intel® mobile processors and high-speed DDR4 memory.

When it comes to an IoT-ready platform, the M90n Nano IoT is a game-changer. It supports WiFi, Bluetooth®, and 4G/LTE WWAN wireless connections to efficiently transport your IoT data to the cloud or your data center. With a scalable IOBOX for additional connectivity, the M90n Nano IoT delivers expandability features optimized for industrial environments that operate a wide variety of devices.

With an innovative fanless design that guarantees efficient heat dissipation and with MIL-STD-tested device reliability, the M90n Nano IoT offers stable performance for uninterrupted productivity, even in harsh environments.



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BOOSTS PRODUCTIVITY

Powerful Intel® processors, superfast DDR4 memory, and PCle SSD storage make everyday tasks faster and smoother now while also future proofing against your edge computing needs.



UNMATCHED RELIABILITY

The M90n Nano IoT is MIL-SPEC tested for its ability to withstand extreme temperatures and harsh conditions. That means it stays reliable and keeps you productive over the long haul.



COMPACT DESIGN

With an ultra-small form factor (0.55L), the M90n Nano IoT packs more computing power into a smaller footprint. Easy to mount, it can be tucked behind a monitor, placed under the desk, or mounted on the wall—wherever you like it.



CONVENIENT CONNECTIVITY

The M90n Nano IoT features four USB 3.1 Gen 2 ports and one display port, while an optional IOBOX with configurable serial interfaces, two POE ports, and DI/DO connectors provides even greater connectivity for manufacturing scenarios. The M90n Nano IoT also serves as a bridge, communicating with both LTE and dual LAN devices.



IT benefits



RELIABILITY AND STABILITY

This Nano is MIL-SPEC tested for durability, including unanticipated temperature shocks. Fanless design ensures efficient heat dissipation for improved performance.



SECURITY

The TPM 2.0 hardware cryptoprocessor chip uses RSA encryption to protect user information, while the Kensington™ lock slot offers physical security against device theft.



FLEXIBILITY

An array of accessories allows this Nano to be securely mounted on a wall, under a desk, or behind a monitor using VESA mounts or DIN rails. The M90n Nano IoT is also Tiny-in-One compatible via Cube.



MANAGEABILITY

Built for evolving IoT environments, the M90n IoT has been certified for Windows 10 IoT Enterprise, Microsoft® Azure IoT Edge, RedHat®, and Ubuntu®, making analyzing and reporting of devices in the network effortless.

USE CASES FOR M90N NANO IOT

mart retail

Retailers can rely on M90n Nano IoT to power signage and capture data from multiple sources simultaneously, including sensors, traffic counters, and thermostats.



smart manufacturing

The M90n Nano IoT helps drive manufacturing and production automation, with faster data processing from operations to IT.



smart healthcare

M90n Nano IoT can replace thin client devices in healthcare settings, taking up even less space while offering full connectivity and computing capabilities.



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performance

PROCESSOR

Intel® Core™ Celeron® 4205U Processor
Intel® Core™ i3-8145U/ 8145UE
(IOTG) Processor
Intel® Core™ i5-8265U Processor
AMD® Ryzen Pro Dali FP5 Processor

OPERATING SYSTEM

Windows 10 Pro (64 bit) Windows 10 Home (64 bit) Windows 10 IoT LTSC

MEMORY

Up to 8GB DDR4

STORAGE

Up to 512GB M.2 PCle SSD

PSU

65W 88% Adapter

connectivity

FRONT INPUT/OUTPUT PORTS

2 x RS-232 1 x USB Type-C (USB 3.1 Gen2) 2 x USB 3.1 Gen2 (AMD 1 x USB 3.1/1 x USB 2.0) 1 x audio combo

REAR INPUT/OUTPUT PORTS

1 x DisplayPort (i3 IOTG 1x HDMI)
1 x USB 3.1 Gen2 Type-C (power-in, display)
1 x USB 3.1 Gen2 (i3 SKU) / USB 2.0
(Celeron SKU)
2 x RJ45 LAN
(AMD and Celeron only 1 x RJ45)
1 x DC-in

EXPANSION SLOT

2 x M.2 PCle SSD 2 x M.2 for WiFi/Bluetooth® 1 x M.2 for 4G/LTE reserved 1 x USB I/F

design

DIMENSIONS

179 x 88 x 34.5mm 7.04 x 3.46 x 1.35 inches

WEIGHT

750g/1.65lb.

external mechanical peripherals

Monitor clamp VESA wall mount DIN rail bracket Nano IoT IOBOX

security

HW TPM 2.0 Chassis intrusion switch Smart USB protection Kensington™ lock slot

reliability

MIL-SPEC 810H

Yes

manageability

SMART POWER ON

Yes, 2 independent displays

MULTI-MONITOR

Yes

MIL-810G SPEC

Yes

MODERN STANDBY

Yes

certifications

ROHS

Ubuntu® Certified*
Red Hat® Certified*
Azure IoT Certified
AWS IoT Greengrass® Certified

ENVIRONMENTAL

Energy Star® EPEAT™ TÜV Low Noise

SAFETY

UL, CB, CCC

recommended services

Lenovo offers a comprehensive portfolio of services to support and protect your ThinkCentre investments, so you can focus on the business at hand rather than worrying about IT.

PREMIER SUPPORT

Provides direct access to skilled and experienced Lenovo technicians for comprehensive hardware and software support. Gives you a consistent point of contact within Lenovo to ensure that your case resolution is professionally managed from start to finish.

ACCIDENTAL DAMAGE PROTECTION (ADP)

Prevents the hassles of unexpected repair costs. Provides coverage for non-warranted damage incurred under normal operating conditions, such as minor spills, drops, or damage.

WARRANTY EXTENSION (1-YEAR BASE, UP TO 3 YEARS TOTAL)

This fixed-term, fixed-cost service helps you accurately budget for PC expenses, protect your valuable investment, and lower your cost of ownership over time.

*Powered by monitor through a single cable, this desktop lets you enjoy a minimalistic workspace.

©2020 Lenovo. All rights reserved. Depending on many factors such as the processing capability of peripheral devices, file attributes, and other factors related to system configuration and operating environments, the actual transfer rate using the various USB connectors on this device will vary and is typically slower than the data rates as defined by the respective USB specifications: - 5 Gbit/s for USB 3.1 Gen1; 10 Gbit/s for USB 3.1 Gen2 & 20 Gbit/s for USB 3.2. These products are available while supplies last. Prices shown are subject to change without notice. For any questions concerning price, please contact your Lenovo Account Executive. Lenovo is not responsible for photographic or typographic errors. Warranty: For a copy of applicable warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC 27709, Attn: Dept. ZPYA/B600. Lenovo makes no representation or warranty regarding third-party products or services. Trademarks: Lenovo, the Lenovo logo, Rescue and Recovery, ThinkPad, ThinkCentre, ThinkStation, ThinkVantage, and ThinkVision are trademarks or registered trademarks of Lenovo. Microsoft, Windows, and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation in the U.S. and/or other countries. Advanced Micro Devices, Inc. All rights reserved. AMD, the AMD Arrow logo, EPYC, FreeSync, Radeon, Ryzen and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other company, product and service names may be trademarks or service marks of others.

optional accessories



THINKCENTRE NANO IOBOX

This accessory enables Nano IoT to connect with even more types of sensors and devices. The IOBOX features DC power for industrial settings, configurable serial interfaces, two POE ports to power sensors, and DI/DO connectors, making this a valuable, yet rugged addition to your edge computing ecosystem.



THINKCENTRE NANO DIN RAIL MOUNT

This compact and ruggedly designed mount securely affixes the Nano IoT to a rack housing cabinet or frame with other DIN rail equipment for a clutter-free workspace.



THINKCENTRE NANO VESA MOUNT

The VESA-standard mount attaches to any VESA-compatible equipment. This versatile device can be used separately or combined with other options for secure mounting functionality.



THINKCENTRE NANO MONITOR CLAMP

Use this clamp to install your Nano IoT unit to a monitor to further save space.



THINKCENTRE NANO TIO MODULE BRACKET

The Nano IoT module bracket offers utmost mounting flexibility by allowing you to attach the Nano IoT at the back of the display to form your own modular PC. This secure mounting also enables easy upgrades of the display or PC as your business needs change.