

NanoPAK™ i7

Rugged Small Form Factor (SFF) Tactical Computer

Quiet performance
and reliability with
maximum flexibility

- Intel® Core™ i7 (Skylake) CPU with AVX 2.0
- 32 GB DDR4 memory, 1 TB flash storage
- Quiet, conduction cooled, small form factor
- MIL-STD-461F, IP67 sealed (water resistance)
- Customizable input/output (I/O)



Mercury's NanoPAK™ i7 small form factor computer delivers performance and minimizes size, weight, power and cooling (SWaP-C) for unmanned vehicle, ground vehicle, man-wearable and shipboard applications.

Engineered for the Field

The Nanopak i7 embeds an Intel® 6th generation Core™ i7 (SkyLake) processor, 32 GB DDR4 memory and 1 TB FLASH storage in a small and lightweight form factor.

Only 1.3" high and 4.5" deep, the conduction cooled system delivers quiet performance and reliability in hardened-aluminum chassis. With a typical weight of 1.6 lbs, the Nanopak i7 can serve as a standalone computer or be utilized in real time control, data recording, small storage and communications systems and mobile robotic systems.

Broad Functionality

Multiple I/O configurations such as USB, VGA*, dual Ethernet, GPIO, serial, power and other specialized custom interfaces allow users maximum flexibility and compatibility.

Robust Performance and Reliability

The NanoPAK i7 supports Intel® AVX 2.0 instruction, enabling fast fused multiply-add operations for better performance on signal processing, media and floating point computations, face recognition, compression and encryption.

The system is IP67 sealed for water resistance and meets ground vehicle MIL-STD 461F.

Proven Performance

Mercury's small form factor systems are trusted worldwide for their high performance, long life cycles, thermal resiliency, compatibility with industry standards and SWaP optimization. With the latest Intel® core-count processors and configurable I/O, Mercury's tactical systems are ideally suited for next-gen mission-critical applications.

Partnering with





TECHNICAL SPECIFICATIONS

CPU Architecture and Memory

Intel® Core i7-6600U, 2.6 GHz (Turbo to 3.4 GHz), Dual-Core, 4 threads
Up to 32 GB DDR4-2133 memory, 64-bit

Management and Operating System

Linux® or Microsoft® Windows® or virtualized environment
Local or network PXE boot

CPU Architecture and Memory

CPU clock: 2.6 Ghz (up to 3.4 Ghz in turbo mode)
Cache memory: 4 MB, Smart Cache
Number of cores: 2 cores, 4 threads
Instruction set: 64-bit, AVX 2.0, SSE 4.1/2.3
CPU Power (TDP): 7.5 W (TDP-down); 15 W (TDP-normal); 25 W (TDP-up)

Environmental

Cooling method: Conduction-cooled, passive convection cooled

Operational temperature: -40°C / +50°C**

Storage temperature: -40°C / +90°C

EMI: CE marking

Shock: 50 G @ 25ms

Vibration (random): 10 Hz-2000 Hz; 5 Grms

Humidity: 95%

Altitude: 15,000 feet

Mechanical

Dimensions (W x H x D): 6.8 inches (174 mm) x 1.3 inches (33 mm) x 4.5 inches (114 mm)

Weight (Typical): 1.6 lbs (.725 kg)

Customizable I/O

GPU: Intel® HD graphics

VGA: Analog RGB with DDC (up to 1920x1200 @ 60 Hz)

Ethernet: Dual GbE Ethernet

USB: (4) USB 2.0, (2) USB 3.0 additional ports available via mini PCIe®

HD audio: Line In (or MIC) / Line Out

GPIO: 4 lines

Serial port: 2 ports (RS232 with RTS/CTS or RS485)

Expansion slot: Mini PCIe slot

Storage: Up to 1 TB M.2 SATA

TPM 2.0: Yes

I/O connectors: Customizable

Input voltage: 8-36 V, optimized for 24 V

Input power: 20 W (45 W max)

Power source: External, no internal battery

Wi-Fi: Via optional M.2 (22x30)

Markings and MIL Specifications

MIL-STD-461F (ground mobile)

IP67 sealed

CE marking

* For Display Port™/HDMI options, consult with a Mercury sales representative.

** Mercury designs all products to meet or exceed listed data sheet specifications. Some specifications are configuration-dependent.



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