NanoPAK™ i7

Rugged Small Form Factor (SFF) Tactical Computer

- **Intel Core i7 (Skylake) CPU with AVX 2.0**
- **32GB DDR4 memory, 1TB Flash Storage**
- **Quiet, conduction cooled, small form factor**
- **MIL-STD 461F, IP67 sealed (water resistance)**
- **Customizable Input/Output (I/O)**

The 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, **32GB DDR4 memory**, and **1TB FLASH** storage in a small and light-weight 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 **1.6lbs**, the Nanopak i7 can serve as a standalone computer or be utilized in real time control, data recorder, small storage and communications system, 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.

Your Reliable Teammate

With over 30 years of technical expertise, Mercury Systems works closely with customers to design computing solutions that are easy to integrate, affordable, and reliable for years to come.

Mercury Systems is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.
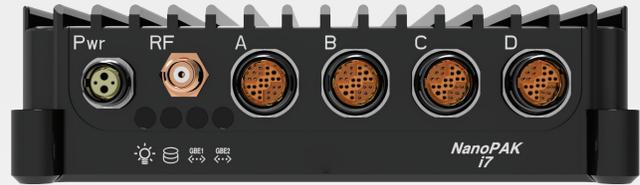
ACQUIRE   DIGITIZE   PROCESS   STORAGE   EXPLOIT   DISSEMINATE

Technical Specifications

CPU Architecture and Memory

Intel Core i7-6600U, 2.6GHz (Turbo to 3.4GHz), Dual-Core, 4 Threads
Up to 32GB 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	2.6Ghz (up to 3.4 Ghz in turbo mode)
Cache memory	4 MB, SmartCache
Number of cores	2 cores, 4 threads
Instruction set	64-bit, AVX 2.0, SSE 4.1/2.3
CPU power (TDP)	7.5W (TDP-down)
	15W (TDP-normal)
	25W (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	50G @ 25ms
Vibration (random)	10Hz-2000Hz; 5Grms
Humidity	95%
Altitude	15,000 feet

Mechanical

Dimensions (W x H x D): 6.8" (174 mm) x1.3"(33 mm) x 4.5" (114 mm)
Weight (typical): 1.6 lbs (.725kg)

Customizable I/O

GPU	Intel HD graphics
VGA	Analog RGB with DDC (up to 1920x1200 @ 60Hz)
Ethernet	Dual GigE 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 1TB M.2 SATA
TPM 2.0	Yes
I/O connectors	Customizable
Input voltage	8 - 36V, optimized for 24V
Input power	20W (45W 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

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* 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.

MADE IN AMERICA

mercury systems™

INNOVATION THAT MATTERS ™

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