

NIFE 300

6th Generation Intel® Core™ i7/i5/i3 LGA Automation System



- Support 6th generation Intel® Core™ i7/i5/i3 LGA1151 socket type processors
- Intel® Q170 PCH
- 1 x DVI-D, and 1x HDMI for dual independent display support
- 3 x Intel® GbE LAN ports; support WoL, teaming and PXE
- 4 x USB 3.0, 2 x USB 2.0 and 2 x RS232/422/485 auto
- 1 x front access 2.5" SATA HDD tray
- 2 x Mini-PCIe socket support optional modules and mSATA device
- 1 x external CFast socket and 1 x SIM card socket
- Support +24VDC input; support ATX power mode

Product Overview

NEXCOM PC-based IoT controller solution NIFE 300 accelerates the migration of automation systems to cyber-physical systems for smart manufacturing. Boosted by Intel® Core™ i5-6500TE and i7-6700TE processors (formerly codenamed Skylake-S), the NIFE 300's open architecture features high interoperability to provide a unified infrastructure, communication network, and programming tool for factory floors and company offices, regaining speed, efficiency, and agility in manufacturing.

The 6th generation Intel® Core™ processors utilizing Intel's 14nm process have integrated Intel® HD Graphics and the latest generation interfaces including DDR4 2133. NIFE300 excellent performance is suited for graphic- and compute-intensive applications such as motion control and machine vision, while the 4K2K support enables human machine interface (HMI) to show exquisite details of working pieces and 3D simulation of working processes.

NIFE 300 also meets PLCopen® specifications and allows easy control programming via CODESYS Control RTE and CODESYS SoftMotion tool kit. Using libraries of reusable logic and motion functionality, control schemes can be developed with reduced programming efforts for fast deployment of SoftPLC and IoT controllers.

Specifications

CPU Support

- Support 6th generation Intel® Core™ i7/i5/i3 LGA socket type processors
 - Core™ i7-6700TE, quad core, 3.4GHz, 8M cache
 - Core™ i5-6500TE, quad core, 3.3GHz, 6M cache
 - Core™ i3-6100TE, dual core, 2.7GHz, 4M cache
 - Pentium G4400TE, dual core, 2.9GHz, 3M cache
 - Celeron, G3900TE dual core, 2.6GHz, 2M cache

Main Memory

- 2 x DDR4 SO-DIMM socket, supports 2133MHz and up to 8GB with un-buffered and non-ECC type

Display Option

- Dual independent display
 - HDMI + DVI-D

Front I/O Interface Status LEDs

- 1 x Battery/ 1 x C-Fast LEDs
- 4 x GPO status/ 2 x TX/ RX LEDs
- 1 x Power/ 1 x HDD access LEDs

Front I/O Interface

- 1 x ATX power on/ off switch

- 1 x HDMI and 1 x DVI-D
- 4 x USB 3.0 ports (900mA per each)
- 2 x USB 2.0 ports (500mA per each)
- 1 x Line-out and 1 x Mic-in
- 2 x Antenna holes for WI-FI/ GSM
- 1 x Front access 2.5" HDD tray
- 1 x Mini-PCIe expansion support optional modules
- 2x RS232/422/485 auto with 2.5KV Isolation

Top I/O Interface

- 1 x 3Pin remote switch
- 1 x CFast expansion
- 1 x SIM card

Storage Device

- 1 x CFast (SATA 3.0)
- 1 x 2.5" HDD (external, SATA 3.0)
- 1 x 2.5" HDD (internal, SATA 3.0)
- 1 x mSATA (via internal Mini-PCIe socket)

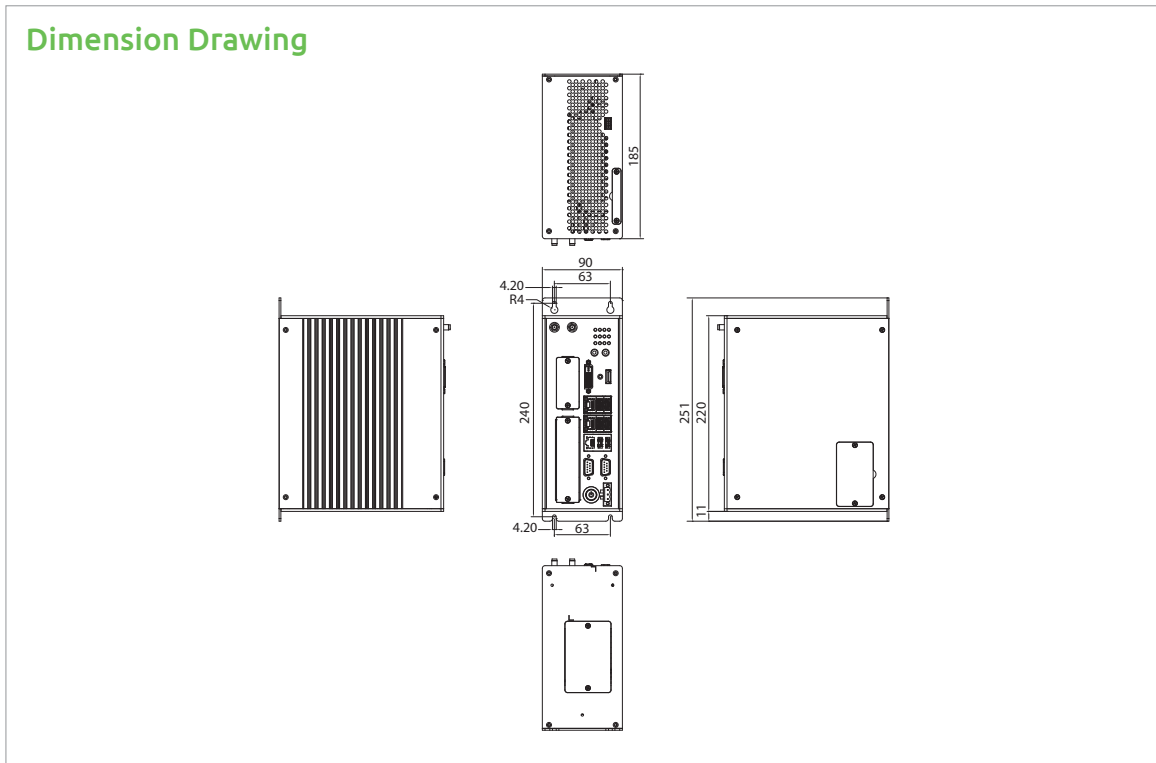
Expansion Slot

- NIFE300: No expansion

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Dimension Drawing



- NIFE300P2: Two PCI expansion slots
 - Add-on card length: 180mm max
 - Power consumption: 10W/slot max
- NIFE300P2E: One PCI expansion slot, and one PCIe x8 expansion slot
 - Add-on card length: 180mm max
 - Power consumption: 10W/ slot max
- NIFE300P3: Two PCI expansion slots and one PCIe x8 expansion slot
 - Add-on card length: 180mm max
 - Power consumption: 10W/slot max
- NIFE300E16: One PCIe x16 expansion slot
 - Add-on card length: 180mm
 - Power consumption: 30W/ slot max

- Random: 0.5Grms @ 5~500 Hz, IEC60068-2-64
- Sinusoidal: 0.5Grms @ 5~500 Hz, IEC60068-2-6

Certifications

- CE Approval
 - EN61000-4-2
 - EN61000-4-4
- FCC Class A
- LVD

OS Support Lists

- Windows 7 32bits and 64bits
- Windows 8.1 32 bits and 64 bits

Power Requirement

- AT/ ATX power mode (default with ATX power mode)
- Power input: typical +24VDC +/- 20%
- Power adapter: optional AC to DC power adapter (+24Vdc, 120W)

Dimensions

- NIFE300: 90 mm(W) x 185mm (D) x 251mm (H)
- NIFE300P2: 155 mm(W) x 185mm (D) x 251mm (H)
- NIFE300P2E: 155 mm(W) x 185mm (D) x 251mm (H)
- NIFE300E16: 155 mm(W) x 185mm (D) x 251mm (H)
- NIFE300P3: 175 mm(W) x 185mm (D) x 251mm (H)

Construction

- Aluminum and metal chassis with front access design

Environment

- Operating Temperature:
 - Ambient with air flow: -5°C to 55°C (according to IEC60068-2-1, IEC60068-2-2, IEC60068-2-14)
- Storage Temperature: -20°C to 85°C
- Relative Humidity: 10% to 93% (non-condensing)
- Shock Protection:
 - HDD: 20G, half sine, 11ms, IEC60068-27
 - CFast: 50G, half sine, 11ms, IEC60068-27
- Vibration protection w/HDD condition:

Ordering Information

- **NIFE300 system (P/N: 10J70030000X0)**
- **NIFE300P2 system (P/N: 10J70030001X0)**
- **NIFE300P2E system (P/N: 10J70030002X0)**
- **NIFE300P3 system (P/N: 10J70030003X0)**
- **NIFE300E16 system (P/N: 10J70030004X0)**
- **24V, 120W AC to DC power adapter w/o power core (P/N: 7400120015X00)**

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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