

## LLN11CRFv5 – Quad-Core i5 vPro Fanless

### Stay Cool, Clean, and Silent

The LLN11CRF, built with 11th Gen Intel® Core™ embedded processors (vPro available), Intel® Xe Graphics, and fanless “Porcoolpine” chassis, delivers performance and innovation for small spaces and embedded solutions without the use of a blower or fan. Whether you’re creating a digital kiosk, deploying intelligent vending, or refreshing enterprise PCs, the LLN11CRF is built to withstand the test of time with a 7-year commitment on supply. With the option of Intel® Wi-Fi 6 and Bluetooth 5 and the ability to run Windows® 10, or Linux, the LLN11CRF provides the flexibility to build the exact solution your situation needs.

### I/O Performance and Flexibility

The LLN11CRF Fanless PC has some new features including, dual Ethernet with speeds up to 2.5 Gbps. Support up to a single 8K display or quad brilliant 4K displays at 60Hz with Chimney Rock Porcoolpine via the HDMI, Display Port and two USB Type-C ports. New on-processor Dual-Video Decode Boxes allow the 11th Gen processors to ingest up to

40 simultaneous video streams at 1080p. AI-Inferencing with built-in Vector Neural Network instructions boost deep learning performance. Porcoolpine allows for additional expansion I/O if more USBs, Ethernet or Serial ports are needed. We can configure to your specific needs. And Porcoolpine is tested for 24/7 operation ensuring solutions that are built to last.

### Safe and Secure

With Intel® vPro™ technology you can get ahead of security threats. The built-in hardware-enhanced security means you can keep data and credentials secure, and remote manageability is perfect for installations such as unattended digital kiosks and intelligent vending. This hardware offers Trusted Platform Module (TPM) 2.0 which addresses the growing concern over boot process integrity and offers better data protection. In addition you can physically lock down your LLN11CRF via the built-in Kensington lock or an optional locking VESA mount kit available from Simply NUC.

### Highlighted features

- Intel® Core™ i5-1145G7E vPro® CPU
- Intel® Iris® Xe Graphics
- Two DDR4-3200 SO-DIMM Sockets
- M.2 Slot Supports PCIe Gen4 or SATA SSDs
- SATA 3 port for connection to 2.5" SSD
- DisplayPort 1.4 (4K@60Hz)
- HDMI 2.0a (4K@60Hz)
- Two DisplayPort 1.4 via USB-C Ports
- Dual Ethernet:
  - 1x 10/100/1000/2500 Mbps;
  - 1x 10/100/1000 Mbps
- Four USB 3.2 Gen 2 Type-A Ports
- Two USB 3.2 Gen 2 Type-C Ports
- Audio Combo Mic In/Line Out
- TPM Down (Infineon 2.0)
- Legacy Serial on a DE-9M connector
- 19VDC 90W Power Supply Adapter
- Kensington Lock Slot
- VESA Mount Kit Included
- 0°-40°C Operating Temperature

### Customization

- Supports DDR4 RAM 4GB-64GB
- Supports Primary M.2 Gen4 PCIe and SATA SSD 128GB-8TB
- Supports Secondary 2.5" SSD 128GB-8TB
- Intel® Wi-Fi 6 + Bluetooth 5.1 w Antennas
- Optional Front IO Panel
- Two USB 2.0 Internal Headers
- One RS-232 Serial Internal Header



### Simply NUC Services

You can order this NUC in your various configurations, as well as your corporate OS Image loaded and ready to deploy.

## Technical Specifications

<p><b>Processor</b></p> <ul style="list-style-type: none"> <li>Intel® Core™ i5-1145G7E vPro® Processor (1.5GHz@28W, Turbo 4.1GHz, 4C/8T, 8MB Cache)</li> </ul>	<p><b>Graphics</b></p> <ul style="list-style-type: none"> <li>Intel® Iris® Xe Graphics</li> <li>DisplayPort 1.4 (Supports up to 4k @60Hz)</li> <li>One HDMI 2.0a port (Supports up to 4k @60Hz)</li> <li>Two USB Type-C Ports with DisplayPort 1.4 (Supports up to 4k @60Hz)</li> </ul>	<p><b>System Memory</b></p> <ul style="list-style-type: none"> <li>Two DDR4-3200 SO-DIMM sockets, 64GB Max, 1.2V</li> </ul>
<p><b>Storage Capabilities</b></p> <ul style="list-style-type: none"> <li>M.2 Socket Supporting 22x80 M.2 SSDs, SATA or Gen4 PCIe, 8TB Max</li> <li>One SATA 3 port for connection to 2.5" HDD or SSD, 8TB Max</li> </ul>	<p><b>Peripheral Connectivity</b></p> <ul style="list-style-type: none"> <li>10/100/1000/2500 Mbps</li> <li>10/100/1000 Mbps RJ45 Ethernet</li> <li>Four USB 3.2 Gen 2 Type-A Ports</li> <li>Two USB 3.2 Gen 2 Type-C Ports</li> <li>One HDMI 2.0a Port</li> <li>One DisplayPort 1.4</li> <li>One Legacy Serial Port via DE-9M connector</li> <li>Intel® Wi-Fi 6 + BT 5.1 AX201 module can be added as an upgrade option</li> </ul>	<p><b>Mechanical Chassis Information</b></p> <ul style="list-style-type: none"> <li>7.5" x 4" x 3" (190mm x 102mm x 76mm)</li> <li>VESA Mount Kit (Plate and Screws)</li> <li>1.5kg (3.4lbs) Fully-Assembled with Antennas (no 2.5in drive or power adapter)</li> </ul>
<p><b>Audio</b></p> <ul style="list-style-type: none"> <li>Up to 7.1 Surround via HDMI</li> <li>Front Audio: Mic In/Line Out</li> </ul>	<p><b>Baseboard Power Requirements</b></p> <ul style="list-style-type: none"> <li>19V, 90W AC-DC Power Adapter with Detachable Power Cord</li> </ul>	<p><b>Expansion Capabilities</b></p> <ul style="list-style-type: none"> <li>Two USB 2.0 Headers</li> <li>One Serial Header</li> <li>Panel Expansion – via USB and Serial Headers</li> <li>2.5in Drive Mount for SATA drive</li> </ul>
<p><b>Hardware Management Features</b></p> <ul style="list-style-type: none"> <li>Trusted Platform Module (TPM) 2.0</li> <li>AMT supported Ethernet Controller</li> <li>Voltage and temperature sensing</li> <li>ACPI-compliant power management control</li> </ul>		

## Certification and Regulations

<p><b>Product Safety Regulations and Standards</b></p> <ul style="list-style-type: none"> <li>IEC 60950-1</li> <li>UL 60950-1</li> <li>EN 60950-1</li> <li>CAN/CSA-C22.2 No. 60950-1</li> </ul>	<p><b>EMC/RF Regulations and Standards</b></p> <ul style="list-style-type: none"> <li>FCC CFR Title 47, Chapter I, Part 15, Subparts B, C, E</li> <li>EN 55052</li> <li>EN 55024</li> <li>CISPR 32</li> <li>ICES-003</li> <li>ETSI EN 300 328</li> <li>ETSI EN.301 489-1</li> <li>ETSI EN.301 893</li> <li>EN 62511</li> </ul>	<p><b>Environmental Regulations</b></p> <ul style="list-style-type: none"> <li>RoHS Directive 2011/65/EU</li> <li>WEEE Directive 2012/19/EU</li> </ul>
<p><b>Environment Operating Temp</b></p> <ul style="list-style-type: none"> <li>0° C to +40° C</li> <li>Non-Condensing Humidity</li> </ul>		<p><b>Certified Operating Systems</b></p> <ul style="list-style-type: none"> <li>Windows 10 64-bit (Pro &amp;Home)</li> <li>Windows 10 IoT</li> <li>Windows Server 2019</li> <li>Linux (Fedora)</li> </ul>