

## LLM2v5CYF – AMD Ryzen™ Embedded V2516 Processor Fanless

### Stay Cool, Clean, and Silent

The LLM2v5CYF built with AMD Ryzen™ Embedded V2000 Processors, AMD Radeon™ Vega Graphics, and Porcoolpine chassis delivers performance and innovation for small spaces and embedded solutions without the use of a cooling fan. Whether the target application is creating a digital kiosk, deploying intelligent vending machines, or refreshing enterprise PCs, the LLM2v5CYF is built to withstand the test of time with a 7-year commitment on supply. The LLM2v5CYF is application customizable by providing optional Intel® Wi-Fi 6 and Bluetooth 5 connectivity, along with OS support for Windows® 10 64-bit, Windows® IOT Enterprise, Ubuntu and Fedora.

### I/O Performance and Flexibility

The LLM2v5CYF has some new features, including Ethernet with speeds up to 2.5Gbps. Four vibrant 4k displays can be controlled independently using the dual HDMI 2.1 ports, with refresh rates up to 120Hz, and dual USB 3.2 Gen 2 Type-C ports with DisplayPort Alt-mode. New AMD Radeon™ Vega 6 Graphics

with up to 1.5GHz processing enables 1.3x faster rendering for enhanced visual immersion. The Porcoolpine chassis provides flexible configuration of the IO ports to expand USB 3.0 and audio connections, optimizing the unit for application specific needs. LLM2v5CYF is tested for 24/7 operation, ensuring solutions that are built to last.

### Safe and Secure

With AMD Secure Processor technology, the LLM2v5CYF stays ahead of security threats. The built-in hardware-enhanced security creates trusted networks for remote management of unattended digital kiosks and intelligent vending machines by securely storing credentials and other confidential data. Platform Secure Boot and AMD Memory Guard features overcome the growing concern of malicious boot process attacks to establish the highest level of application integrity. Beyond the embedded protection provided, Simply NUC provides optional physical protection with the locking VESA mount kit.

### Highlighted features

- AMD Ryzen™ Embedded V2516
- AMD® Radeon™ Vega 6 Graphics
- M.2 Slot Supports 22x80 SSD
- SATA 3 for 2.5" SSD
- 2x DDR4 SO-DIMMs Sockets
- 2x HDMI 2.1 (4K@120Hz)
- 1x 10/100/1000/2500Mbps RJ45 Ethernet
- 1x front USB 3.2, gen 2, type-A port
- 1x front USB 2.0, type-A port
- 2x Rear USB 3.2 Gen 2 Type-C w/ DP Alt-mode (DP 1.4)
- 1x Legacy Serial on a DE-9M connector
- TPM down (Infineon 2.0)
- Fanless design in Aluminum chassis
  - 19V<sub>DC</sub> 90W power supply adapter
  - VESA mounting plate included
  - Kensington Lock Slot
- 7-yr supply (from October 2021)
- Operating temperature: 0°-40°C

### Customization

- Supports Primary M.2 PCIe and SATA SSD (128GB to 8TB)
- Supports Secondary 2.5" SSD (128GB-8TB)
- Supports 4GB to 64GB DDR4 RAM
- Supports 16GB to 64GB DDR4 ECC RAM
- Option for Intel® WiFi 6 AX200 + Bluetooth 5.0
- Option for RP-SMA Dual-Band Antennas
- Expandable I/O options on front panel: 3x USB3.0 or 1x USB3.0 + Audio
- Microsoft Windows 10 64-bit, Windows 10 IOT Enterprise, Ubuntu and Fedora
- Extended service support options (5-, 3-, 1-yr)



### 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 Specification

### Processor

- AMD Ryzen™ Embedded V2516 2.1GHz (3.95GHz Turbo), 6 Cores / 12 Threads

### Storage Capabilities

- M.2 22x80 supporting NVMe or SATA SSD, 8TB
- 2.5" secondary drive bay enabling additional 8TB

### Audio

- Up to 7.1 Surround via HDMI
- Optional Front Audio: Mic In/Line Out

### Hardware Management Features

- Trusted Platform Module (TPM) 2.0
- AMD Secure Processor with Platform Secure Boot and AMD Memory Guard

### Graphics

- AMD® Radeon™ Vega 6 Graphics with up to 1.5GHz Processing
- 2x HDMI 2.1 enabling 4k displays at 120Hz refresh rate
- 2x USB 3.2 Gen 2 Type-C with Display Port Alt-mode for 4k displays

### Peripheral Connectivity

- 1x 10/100/1000/2500Mbps RJ45 Ethernet
- 1x USB 2.0 Type-A
- 1x USB 3.2 Gen 2 Type-A
- 2x USB 3.2 Gen 2 Type-C with Display Port Alt-mode
- 1x Serial DB9 Connector
- Optional Intel® WiFi 6 AX200 + Bluetooth 5.0

### Baseboard Power Requirements

- 12V<sub>DC</sub> to 24V<sub>DC</sub> Input Voltage Range
- 19V<sub>DC</sub>, 90W AC-DC Power Adapter with Detachable Power Cord Supplied

### System Memory

- 2x 1.2V DDR4 SO-DIMM Sockets Enabling:
  - 4GB to 64GB 3200MHz
  - ECC 16GB to 64GB 2666MHz

### Mechanical Chassis Information

- 7.5" x 4" x 3" (190mm x 102mm x 76mm)
- VESA Mount Kit (Plate and Screws)
- 1.47kg (3.25lbs) Base Configuration

### Expansion Capabilities

- Front Panel Expansion Enabling Either 3x USB 3.0 or combination of 1x USB 3.0 with Audio
- RP-SMA Dual-Band Antennas

## Certifications and Regulation

### Safety Regulations and Standards

- IEC 60950-1
- UL 60950-1
- EN 60950-1
- CAN/CSA-C22.2 No. 60950-1

### Environmental Operating Temp

- 0°C to +40°C
- Non-Condensing Humidity

### EMC/RF Regulations and Standards

- FCC CFR Title 47, Chapter I, Part 15, Subparts B, C, E
- EN 55052
- EN 55024
- CISPR 32
- ICES-003
- ETSI EN 300 328
- ETSI EN.301 489-1
- ETSI EN.301 893
- EN 62511

### Environmental Regulations

- RoHS Directive 2011/65/EU
- WEEE Directive 2012/19/EU

### Certified Operating Systems

- Windows 10 64-bit (Pro & Home)
- Windows 10 IoT
- Linux (Ubuntu)
- Linux (Fedora)