



Product Description

WINSYSTEMS' SYS-480 is a rugged fanless edge platform engineered for mobile, remote, and unattended environments where uptime is critical. Whether deployed in commercial fleets, remote surveillance sites, or mission-critical ground systems, the SYS-480 delivers reliable compute, persistent connectivity, and long-term field survivability.

Powered by the Intel Atom® Amston Lake x7433RE Processor, it delivers efficient, long-lifecycle performance for edge analytics, AI inference, and mission-critical control tasks. It's ideal for multi-camera surveillance and sensor-dense deployments and integrates well with vehicle electronics and autonomous ground systems.

Benefits

- **Reliable compute in harsh, mobile environments** - MIL-STD-810H shock and vibration compliance ensures dependable operation under continuous motion and thermal stress.
- **Simplified multi-camera and sensor deployments** - Four 2.5GbE PoE+ ports reduce cabling, power distribution complexity & installation time.
- **Edge intelligence without cloud dependency** - Supports real-time video analytics, sensor fusion, and local decision-making.
- **Low-maintenance, long-lifecycle design** - Fanless construction, rugged I/O, and external-access storage minimize service calls and downtime.
- **Versatile I/O for system integration** - CAN bus, digital I/O, serial ports, and expansion options support modern and legacy equipment.
- **Always-connected architecture** - Expansion sockets for Cellular, Wi-Fi®, Bluetooth, and GNSS modules, for persistent connection.

Key Features

- Intel Atom® Amston Lake x7433RE processor for edge performance
- Rugged fanless design for -40°C to +70°C continuous operation
- 8GB and 16GB DDR5 memory options
- 4x PoE+ 2.5GbE ports (60W total) for powering IP cameras & sensors
- Dual isolated CAN 2.0 (A/B) for vehicle and equipment integration
- M.2 and mini-PCIe expansion for 4G/5G/LTE, Wi-Fi 6/Bluetooth, GNSS & storage
- External-access 2.5" SATA and SD storage for simplified field service
- Dual display outputs (2x HDMI) for local interface or diagnostics
- Wide 9-36V DC input with ignition control for in-vehicle deployments

Technical Specifications

| SYSTEM | |
|------------------|---|
| PROCESSOR | Intel Atom® Amston Lake x7433RE Processor Cores: 4; Speed: 1.5 (3.4) GHz; Cache: 6 MB of L3; Base Power: 9W; Cache: 2 MB L2 |
| RAM | 8GB or 16GB DDR5 SO-DIMM, 4800 MT/s, with 1 memory channel (single socket) |
| OPERATING SYSTEM | Support for Windows 10/11 IoT, Ubuntu Linux, and other x86 real-time OS |
| SOFTWARE | Configurable UEFI based AMI BIOS |
| SECURITY | On-board discrete TPM 2.0 hardware |
| WATCHDOG TIMER | 1~255 levels reset |
| STORAGE | 1x external 2.5" SATA SSD/HDD (SATA 3) slot, (up to 9.5mm) 1x external SD card slot 1x M.2 B-Key 2242/2280 (SATA+USB 2.0) for storage or GNSS |
| I/O | |
| NETWORK | 4x PoE+ 2.5GbE (Intel i266) with PoE LEDs (RJ45) |
| EXTERNAL I/O | 1x non-isolated RS-232/422/485 (DB-9) 1x non-isolated RS-485 (DB-9) 2x isolated CAN 2.0 A/B (DB-9) 4x DI / 4x DO 2kV isolation (DB-15) 4x USB 2.0 (USB-A) 2x USB 3.2 Gen2 (10Gbps) (USB-C) Supports Accelerometer (G-Sensor) and Gyroscope |
| EXPANSION | 1x M.2 B-Key 2242/3052 socket (USB 3.0 + USB 2.0) for 4G/5G/LTE module; external SIM slot 1x Mini PCIe / mSATA socket (full length, PCIe and USB) for Wi-Fi/BT/LTE module; external SIM slot 1x M.2 B-Key 2242/2280 socket (SATA + USB 2.0) for storage or GNSS |
| DISPLAY | 2x HDMI 2.0, up to 3840x2160 at 60Hz Dual Display support |
| AUDIO | 1x Mic-in (3.5mm jack) 1x Line-out (3.5mm jack) |
| POWER | Variable Input: +9V to +36V Power Connector: 3-pin Terminal Block with IGN PWR control (V+, V-, IGN) Max Power Use: 100W PoE: 4x 802.3af or 2x 802.3at; 60W power budget |
| MECHANICAL | Buttons: Power Button with dual color LED (Red/Green) and recessed Reset button LED indicators: 1x Green LED (WWAN and WLAN); 1x Red LED (SATA SSD) 5x Antenna Holes Dimensions (W x D x H): 210 mm x 190 mm x 58 mm (8.3" x 7.5" x 2.3") Weight: 2.4 kg / 5.3 lb Case Material: Aluminum alloy Mounting: Desktop (default) / Wall-mount (optional) |
| ENVIRONMENTAL | Operating Temperature: -40°C to +70°C (-40°F to +158°F) Storage Temperature: -40°C to +85°C (-40°F to +185°F) Humidity: 10% to 95% non-condensing at 70°C Certifications: CE, FCC Class A, E-Mark Compliance: MIL-STD-810H - Vibration Method 514.8, Category 4 and Shock Method 516.8, Procedure I, functional shock=20g; RoHS |

Order Information

| | |
|-------------|--|
| PART NUMBER | SYS-480-7433RE-8-0 - 8GB version SYS-480-7433RE-16-0 - 16GB version |
| ACCESSORIES | Contact Sales for storage options and more. |