



Intelligent High-Performance Compute Platform for Heavy Duty Operations

- ▶ Ruggedized & modular platform for in-vehicle deployments with built-in AI
- ▶ COM Express® Intel® high performance module
- ▶ Expansion slots for multiple GPU, frame grabbers, video modules and more
- ▶ Multiple I/Os, high speed network with PTP and high-capacity storage options
- ▶ Wireless connectivity options for cellular and Wi-Fi

Expandable and configurable to meet demanding requirements

To meet the growing demand for powerful, flexible computing in rugged industrial environments, Kontron introduces the EVOTRAC™ S1901—an embedded platform built for tough heavy-duty machinery operations.

From enabling automation in construction and mining equipment to managing real-time control in agricultural systems, the EVOTRAC™ S1901 delivers high performance and reliability in harsh, vibration-heavy settings.

Built on ruggedized COM Express® modules, it combines a durable carrier board and customizable connector front-panel. The EVOTRAC™ S1901 offers expanded capabilities, more I/O flexibility, and scalable performance—ideal for next-gen industrial deployments.

It offers capabilities including:

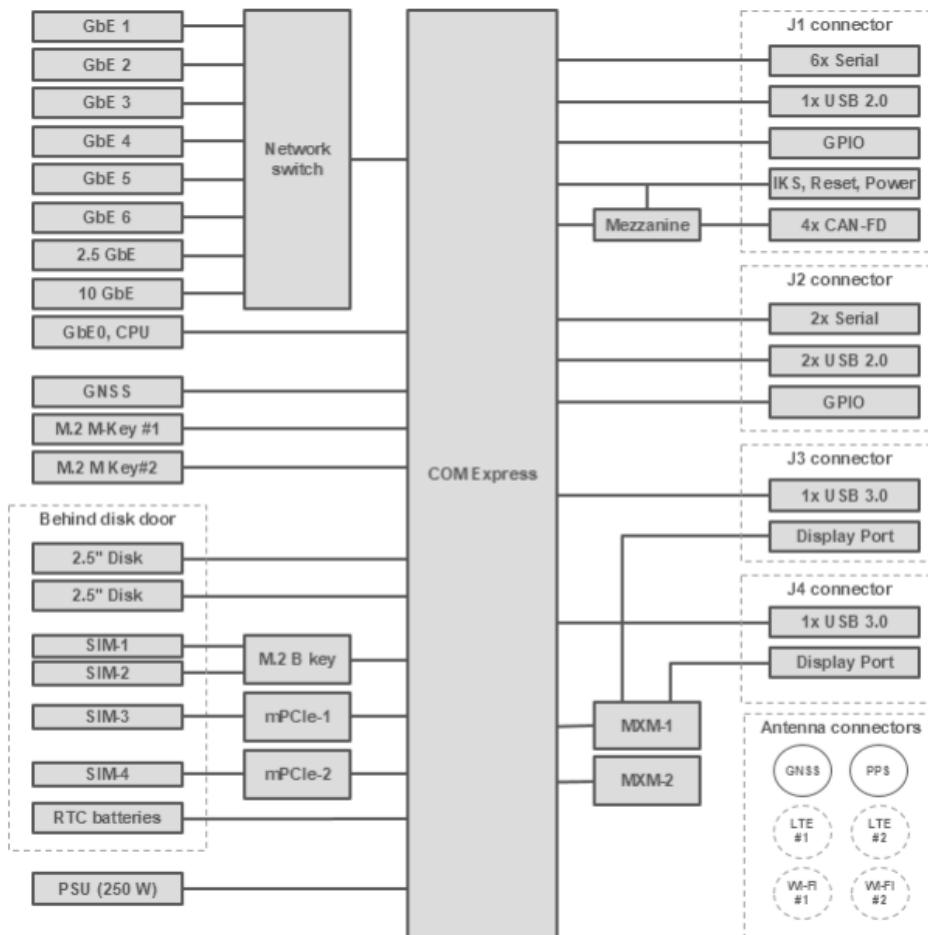
- Support for type 7 COM Express® modules
- Two MXM sites for GPU, FPGA-based, or specialized processing modules
- Three m.2 and two mini-PCIe sites
- Built-in managed Ethernet switch
- Built-in support for an optional CANBus or combination CANBus/Aurix™ MCU processor mezzanine
- Two, larger 2.5" drive bays for removable high-density solid-state drives
- An optional fan kit, for configurations drawing too much power to be cooled using passive convective/conductive cooling

EVOTRAC™ S1901 offers commercial off-the-shelf variants but can easily be customized to meet the needs of any deployed application.

Technical Information

| | |
|------------------------------|---|
| DIMENSIONS | 330 mm x 284 mm x 115 mm (13.0" W x 11.2" D x 4.5" H) |
| COMe PROCESSOR | COMe-bID7 Intel® Xeon® D-1732, 8 Cores-p, 1.9 GHz, 64 GByte of DRAM ECC COMe-bBD7 Intel® Xeon® D-1539, 8 Cores, 1.6 GHz, 64 GByte of DRAM ECC COMe-bBD7 Intel® Xeon® D-1559, 12 Cores, 1.5 GHz, 64GByte of DRAM ECC Contact Factory for other configurations options |
| STORAGE AND EXPANSION | 2x M.2 M key 2230/2260/2280/22110 1x M.2 B key 2242/3052 2x mPCIe full length Removable Storage Drive Bay; Includes two 2.5" storage slots (contact factory for configuration options) |
| MXM GPU | NVIDIA MXM: A2000 ADA, A2000 (contact factory for latest GPU options) |
| ETHERNET PORTS | 1x 10GBASE-T (Switched) 1x 2.5GBASE-T (Switched) 6x 1000BASE-T (Switched) 1x 1000BASE-T (Direct to CPU) PPT/1588 with 1PPS, GNSS |
| USB | 1x USB 3.0 with Display port 2x USB 3.0 with Display port (option) 3x USB 2.0 |
| WIRELESS (OPTIONAL) | Cellular connectivity Wi-Fi connectivity 4 SIM cards (supports up to 3 simultaneous 5G/LTE connections) |
| SERIAL | 4x RS232 2x RS232 or RS485/422 2x RS485/422 |
| VIDEO | 1x Display Port with USB 3.0 2x Display Port with USB 3.0 (option) |
| DISCRETES | 9x GPI, 8x GPO, 7x GPIO 1x Ignition key switch |
| AUDIO | 2 Balanced Audio In, 2 Balanced Audio Out |
| SPECIAL FEATURES | GPS and 1 PPS input/output, 4x CANBus (Option) Aurix™ TC387 MCU Processor (Option) |
| POWER | +28 VDC (+9 VDC to +36 VDC) power input Power Consumption: up to 250 W (Typical 175 W) |
| COOLING | Passive air/conduction cooled. Auxiliary IP67 fan kit option. |
| OPERATING SYSTEM | Linux Ubuntu 24.04, LTS, 64-Bit (installed) Other OS options are available. Contact factory for details. |

Diagram



Environmental Specifications

| | |
|-----------------------|--|
| COOLING METHOD | Passive convective cooling with conduction cooling through the bottom plate (no fans). |
| QUALIFICATION TESTING | CISPR 16, CISPR 25, FCC PART 15 CLASS A, ICES-003 CLASS A, IEC 60529, IEC 60068, IEC 61000, ISO-7637, ISO-11452, ISO-16750, SAE J1113, SAE J1455 & NEMA-250 TYPE 6 |
| OPERATING TEMPERATURE | -40 °C to +70 °C ambient - configuration dependent |
| STORAGE TEMPERATURE | -40 °C to +85°C |
| VIBRATION (OPERATING) | 10 Hz to 2000 Hz, Random, 1hr each axis, 8.1 gRMS Power Spectrum Density |
| SHOCK (FUNCTIONAL) | 40 g, 11ms TP sawtooth |
| ALTITUDE (OPERATING) | -1500 ft to 40,000 ft |
| INGRESS PROTECTION | IP67, designed to meet MIL-STD-810 for liquid, freezing rain, sand, dust, salt fog, and explosive atmospheres |



About Kontron

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: kontron.com

Kontron America Inc
9477 Waples Street
San Diego, CA 92121, USA
Tel.: 1 800 480 0044

Kontron Canada Inc
4555 rue Ambroise-Lafortune
Boisbriand, Quebec, J7E 4K6, Canada
Tel.: 1 800 387 4222

Email: info.americas@kontron.com

www.kontron.com