DynaCOR 10-00

- **EN 50155 qualified**
- **Rugged and low power**
- **Based on Intel® Atom™**
- **Built-in GPS**
- **Wi-Fi, 3G, Gigabit Ethernet**
- **Wide range power supply**
- **ESF and EDC Ready**

ESF Everyware Software Framework

EDC Everyware Device Cloud

FEATURES

Rugged and compact – The DynaCOR 10-00 is very powerful, yet compact mobile computer. With extended temperature range and rugged circular connectors, it is the ideal platform for harsh environments both in mobile and industrial applications.

Certified to Perform – Designed to meet the transportation market requirements, the DynaCOR 10-00 is EN50155 compliant and supports features such as opto-isolation on I/O and transient and surge protection on the wide range power supply.

Connected – With a wide choice of wireless and wired communication interfaces, it is simple to integrate this platform in any vehicle or industrial application.

Low Power and Fanless – Designed with high efficiency in mind, the DynaCOR 10-00 delivers exceptional performance and low power consumption.

M2M Ready – Ideally suited for Industrial & Rugged M2M applications to connect data with the business enterprise to make intelligent and actionable decisions.

ESF & EDC Support – Available with Everyware Software Framework (ESF) to speed up application software development on the device. Also, enjoy the benefits of the Everyware Device Cloud (EDC) to dramatically cut Time-to-Market when building scalable, robust applications that integrate devices to business applications.
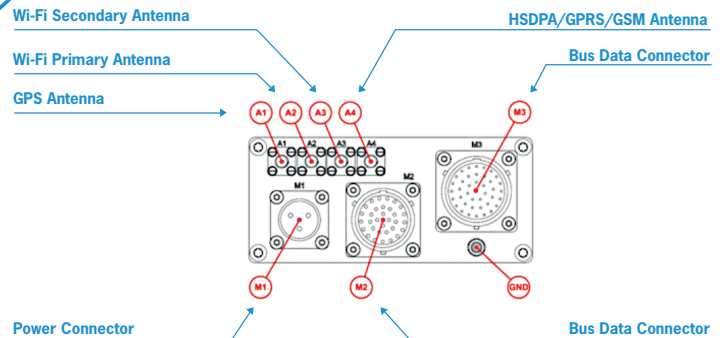
The DynaCOR 10-00 is a rugged mobile computer platform that targets demanding vehicle and industrial installations such as those in heavy industry machinery, rail networks and rolling stock, buses, etc. Thanks to the very compact yet rugged design and integration, the system withstands the mechanical and temperature stresses encountered in harsh environmental conditions while providing an exceptional set of communication options needed in diverse use cases.

The DynaCOR 10-00 provides the computational power of the Intel Atom CPU, the connectivity through Wi-Fi and 3G cellular networks, Dual Gigabit Ethernet, a high performance GPS and plenty of transportation specific features such as opto-isolated I/Os, serial ports, USBs and a wide range power supply section.

Being low power, fanless, very compact and EN 50155 certified, the DynaCOR 10-00 is off-the-shelf ready to be integrated in industrial, railway, automotive and similar applications. In addition, the device is IP65 protected and features high-end rugged connectors making the DynaCOR 10-00 easy to maintain and providing long-term reliability in harsh environments.

The DynaCOR 10-00 can leverage Everyware Software Framework (ESF) for fast and reliable device application development and the Everyware Device Cloud (EDC) that provides the entire infrastructure to instantly integrate devices and data into the business enterprise.

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Mechanical Drawing

Wi-Fi Secondary Antenna

Wi-Fi Primary Antenna

GPS Antenna

HSDPA/GPRS/GSM Antenna

Bus Data Connector

Power Connector

Bus Data Connector

System Architecture

CPU MODULE	Eurotech Catalyst XL Intel Atom Z510P, 1.1GHz, 512MB RAM soldered on board
MASS STORAGE	2 GB flash disk SSD soldered on board 1 Removable microSDHC card slot for data storage (Maintenance Interface)
WIRELESS	**A1**: GPS 50 channels Galileo ready, SMA connector **A2**: Wi-Fi 802.11 a/b/g/n Primary, SMA connector **A3**: Wi-Fi 802.11 a/b/g/n Secondary, SMA connector **A4**: HSUPA/HSDPA/UMTS/GPRS modem (data only), SMA connector
INTERFACE	**M1**: Power IN +24VDC (+, - and earth chassis) Key Input **M2**: 1 x USB 2.0 port (maintenance) 5 x Opto-isolated Digital Output 10 x Opto-isolated Digital Input 1 x Opto-isolated Digital Input Odometer *Audio Ports:* • 1x Stereo Microphone Input • 1x Stereo Headphones Output • 1x Speakers Output **M3**: 2 x Gigabit Ethernet ports 1x Opto-isolated RS232 serial port 1x Opto-isolated RS422/RS232/RS485 serial port, software configurable
GROUND	M4 Screw - System ground connection
MAINTENANCE INTERFACE	1x serial interface RS232 2x USB 2.0 1x SIM Card Slot 1x microSDHC slot 4x LED 1x VGA output, 1x Reset pushbutton
POWER SUPPLY	10.5 ÷ 36 VDC (Optionally 110 and 72 nominal VDC)
REAL TIME CLOCK	24 hours at 25°C (typical)
POWER CONSUMPTION	19 W
OS SUPPORT	Wind River Linux
ESF READY	Yes
EDC READY	Yes
DIMENSIONS	254 x 129 x 57 mm (L x W x H)
WEIGHT	1.5 Kg
OPERATING TEMPERATURE	-25°C ÷ 55°C EN50155 Class T1 (70°C for 10 min)
STORAGE TEMPERATURE	-30°C ÷ 80°C
HUMIDITY	95% relative humidity at +45°C non condensing
ENCLOUSURE	Black ultra-light extruded aluminum alloy enclosure IP65 rating
COOLING	Fanless design (no moving parts)
MTBF	> 40000 h (MIL-HDBK-217F GM-25°C)
COMPLIANCE EN	CE EN 50155 (Railway applications) EN 61373 (Vibrations & Shocks) EN 60950 (Safety) EN 61000 (Burst Immunity test) EN 60068 (Temperature test) Designed to meet: - DIN-5510-2 (German Fire and Smoke) and ISO-11170 (Italian Fire and Smoke) - Load Dump (for 24V In): ISO 7637-2 (2004-06) - AREMA Class C operating temperature requirements on the configurations not including the 3G modem feature
PERIPHERALS & ACCESSORIES	Cable set with standard connectors for an easy peripherals and I/O connection

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