



Embedded system platform based on the combination of different Open Standards

The HeiSys system platform combines the advantages of available and established Plug-On modules and offers on the one hand computing power full scalability and on the other hand multidimensional modularity in terms of communication and I/O interfaces.

Depending on the complexity of the design and the requirements for bandwidth, signal diversity, power and current consumption, suitable COM Express boards can be selected and as a result the computing power can be scaled. The combination of the COMe processor module with a standardized FPGA SMARC module and the created FPGA design allows the largest possible variance of required interfaces to be mapped. This eliminates the need for complicated, time-consuming assembly or coordination of various components. Full flexibility with view to wireless transmission technologies is guaranteed by the use of standardized and future-oriented M.2 interfaces. The system platform is designed for the use of Wi-Fi, LTE, 5G, UMTS, GSM, LPWAN (LoRaWAN,...) Bluetooth, GPS/GLONASS multiband radio modules for industrial data communication and railway operations.

In addition, the realization of vehicle/field buses such as MVB, Profibus, CAN and EtherCat is guaranteed. The

compact system is certified for mobile use as a rolling stock or for wayside monitoring by the approval according to EN 50155. Due to the absence of moving parts such as fans, the reliability and the MTBF is significantly increased. The system guarantees operation in an extended temperature range between -40 °C and +85 °C.

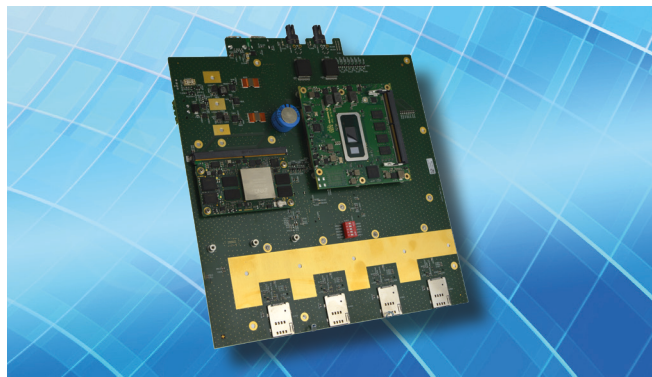
The system platform is excellently suited e.g. for the medical, energy / transportation, industrial and digitalization sectors. The system can be used as a gateway, a passenger information system, a wireless-access-point or as diagnostic and monitoring system in the energy sector or transportation. In marine, train or other transportation applications HeiSys can be used as a board computer or for navigation.

HeiSys supports Windows 10 / IoT and all Linux distributions with current kernels. The concept uses main line drivers or the drivers provided by the corresponding modules to ensure proper commissioning and function.

Rugged and reliable embedded system platform



HeiSys embedded system platform in the standard configuration - this is flexibly adaptable



HeiSys Baseboard - customized combination of present and upcoming module standards possible

| Article | Description | Width | Height | Depth | Material/Surface |
|----------|--|--------|--------|--------|-------------------------------|
| 9924.847 | HeiSys standard configuration+assembly | 320 mm | 2U | 271 mm | Aluminum anodized / varnished |

Technical Summary

- › Intel® Core™ i7 (8th gen.) on COM Express module
- › Up to 48 GB DDR4 RAM
- › 512 GB NVMe Storage at M.2
- › Four M.2 slots each with dual micro-SIM for GSM (2G), UMTS (3G), LTE (4G), 5G and GNSS
- › One M.2 slot for Wi-Fi/Bluetooth
- › RS232/422 and CAN
- › Digital I/Os, relay outputs, optocoupler outputs and odometer input
- › 2x Gb Ethernet, 2x USB 3.0 and 2x DisplayPort
- › Full Wide Range DC Power Supply (14.4-154 V) reg. EN 50155
- › Optional AC Power Input
- › Conforming to EN 50155, EN 60068, EN 50121, EN 50561/55024, EN 62368, EN 61373, EN 50153/50124, EN 45545 HL3, CE certification, REACH and RoHS
- › Material: aluminium anodized / varnished

Customer Benefits

- › Rugged and reliable system platform (no moving parts)
- › Scalable and multi-dimensional adaptable to requirements
- › Reusability of a major part of the components in case of upgrades
- › Possibility of using an AC power supply
- › EN 50155 compliant (incl. conformal coating)
- › Operating temperature -40 °C to +85 °C
- › Provides present and upcoming wireless modules

For more information, please follow this link:

<https://elektronik.heitec.de/en/solutions-services/heisys>

HEITEC AG

Dr.-Otto-Leich-Str. 16
90542 Eckental, Germany

Phone: +49 9126 2934 0

Fax: +49 9126 2934 199

e-mail: electronics@heitec.de

Web: www.heitec-electronics.com