

RGC-PC.2

Computing Module for SMT Systems for Data Acquisition and Processing using the Measuring Software PEA

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The Realtime Gateway Controller consists of a full-function PC as well as its connection to the internal SMT system bus. Together with the system software PEA, the RGC-PC.2 is responsible for configuring and controlling all integrated SMT modules.



Integration

The RGC-PC.2 enables full-scale measuring without using a datalogger or separate PC. An external monitor and keyboard (or alternatively a remote desktop connection) are only necessary for system parameterization or if live visualization is desired.

As it is designed for use in vehicles, the processing module has no movable mechanical parts. Data is recorded on the flash memory; central system cooling is responsible for heat dissipation.

Interfaces

The RGC-PC.2 has all important interfaces of a modern PC. This makes it possible to connect standard peripheral devices and, in addition, simplifies integration into existing IT environments. Various removable media can be used to transmit measured data.

Internally, the RGC-PC.2 acts as a central clock source for all SMT modules. This guarantees time-synchronous sampling or reference value output of all I/O channels. If required, the system clock can also be fed or emitted via a special interface, which, in combination with other measuring devices or test systems, makes it possible to operate SMT as clock master or clock slave.

Areas of Application (together with measuring software)

- System configuration
- Clock synchronization
- Triggering
- Digital signal processing
- Online visualization
- Sequence control / process automation
- Real-time simulation
- Regulation
- Project management
- Data recording

Advantages

- No external PC / datalogger required
- High degree of compatibility due to standard interfaces and connectors
- No risk of failure of movable parts
- Low power consumption



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Technical Data

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| PC | |
| Form factor | COM Express Basic Type 2 |
| Processor | Intel® Core™ i7-620UE (2x 1.06 GHz, 4 MB Cache) |
| RAM | 2 GB (DDR3-1066, SODIMM) |
| Storage Media | |
| Internal | 64 GB (1.8", SSD, SATA1.0a 1,5 Gbit/s) |
| Removable media | USB stick (ports on the front) SD card (slot on the front, max. 32 GB, SDHC) |
| Interfaces | |
| VGA | 1x standard VGA |
| LAN | 1x Gigabit Ethernet |
| USB 2.0 | 3x USB 2.0 |
| Audio | 1x stereo loudspeaker outlet 1x stereo microphone input |
| I/O | Supply 5 V / 500 mA, short-circuit-proof 2x Digital In (TTL) 2x Digital Out (TTL) 1x relay (changeover contact) |
| Internal | 1x mini PCI EXPRESS® card (half-size) 1x PCI EXPRESS® X1 slot (for specific low-profile cards) |
| Other | 1x SIM card slot (at mini PCI EXPRESS®) Optional extensions: WLAN, UMTS |
| Operating System | |
| Standard | Windows Embedded Standard 7 incl. SP1 / RTX2011, SP1 |
| Optional | QNX Neutrino RTOS 6.5 |
| Environmental Conditions | |
| Storage | -30 °C ... +85 °C, 10 % ... 90 % rel. humidity, non-condensing |
| Operation | -30 °C ... +70 °C, 10 % ... 90 % rel. humidity, non-condensing |

Order Numbers

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