

On-Board Computer BC4401

The powerful Multifunctional Display for
mobile applications



- High-performance processor:
1 GHz, ULV VIA Eden
- Usage as diagnosis, controls and information
display on motor vehicles of all kinds
- Basic configuration with 256 MB,
or 512 MB DDR2-SDRAM
- Flexible due to up to 4 mass storages:
Compact Flash, CD-ROM drive, PCMCIA port,
Hard disk
- Service friendly via front flap with USB 2.0
access
- Basis unit BC4300 released by Deutsche Bahn
(application EBUla = Electronic Time Table)

The On-Board Computer BC4401 has been developed for the usage on railroad vehicles, but due to its flexibility and robustness it fits to different mobile applications of the traffic industry as well (road, water, air). The BC4401 is based on a powerful processor in an embedded PC architecture both for standard and real-time operating systems. Its large basic configuration and many options offer the suitable approach for a lot of operations.

Technical Data BC4401

(GERSYS Art. no. 644-01001-00)

Processor and Memory

- Processor VIA Eden ULV, 1 GHz
- DDR2-SDRAM 256 MB on board, optionally 512 MB
- Video controller MPEG-2 decoding
- Automotive hard disk \geq 20 GB, optionally Flash memory 2 GB

Systems clock

- RTC with high accuracy
- Battery puffering > 10 years

Display

- 10.4" TFT display
- Resolution VGA 640x480 pixels
- Illumination 450cd/m² (typ.)
- Contrast 600:1
- Automatic and/or manual illumination control of CCFL

Keyboard

- 25 single keys with overlying minted foil
- High abrasion and chemicals resistance
- Keys with LED illuminating
- Automatic key illumination control

Interfaces

- PCMCIA port via front accessible
- 1 x RS232 (Service)
2 x RS422 / RS485
- Isolated: 2 x RS422 / RS 485
- External PS/2 keyboard and mouse port
- CAN (on board) acc. to DIN ISO 11898
- Ethernet 10/100 MBit
- 2 x PC/104+ slot (ISA / PCI bus)
- 2 x USB 2.0 (bootable), via front flap access or from backside connectable

Power Supply

- Wide input voltage range from 24 - 110V DC (+/-40%)
- Power consumption max. 60W – in heating operation
- Integrated UPS, time bridging 45 min. (typically)
- Processor controlled loading of integrated NiMH accumulator
- Accumulator load management for extended lifetime (maintenance interval 5 years)

Mechanics

- For driver's desk installation or – with casing – for console build-up
- Front flap for CD-ROM exchange and servicing
- Steel sheet housing
- WxHxD: 310 x 214 x 160 mm
- Weight approx. 7.5kg (incl. UPS accumulator)

Environmental requirements

- Temperature range -25°C bis +55°C (heating below +5°C)
- Separate electronics for temperature management
- Complies with railway standards EN50155 and EN50121
- Protection class IP54 (front side)

Software

- Hardware specific drivers
- Operating system Microsoft WIN XP Pro e

Options / Versions

- WIN XPe, MS-DOS6.22, Linux, QNX
- Audio, MVB (Duagon, Siemens)
- VGA output, video input(in preparation)
- Digital inputs (6 x, 24 V, passive)
- DVD drive instead of CD-ROM
- Transflective display, SVGA, XGA