

# S-DIAS CPU Module

## CP 111



with 2 VARAN Out  
 1 Ethernet  
 1 USB Device  
 1 microSD

The S-DIAS CP 111 CPU module is a high-performance processor unit for the S-DIAS I/O modules. Through various interfaces, such as Ethernet, 2x VARAN, CAN bus, USB and an exchangeable microSD card, this module can be used for a variety of applications. Additionally, a RealTimeClock and zero voltage proof RAM space with buffer battery are provided. To operate the CPU, a voltage supply module is required that also has the USB host and CAN interface.

### Performance Data

|   |   |
|---|---|
| Processor                                   | EDGE2 Technology  |
| Addressable I/O/P modules                   | VARAN bus: 65,280<br>CAN participants: > 100<br>S-DIAS bus: 64  |
| Internal I/O                                | no  |
| Internal cache                              | 512-kbyte L2 Cache  |
| Internal program and data memory (DDR3 RAM) | 256-Mbyte   |
| Internal remnantdata memory                 | 256-kbyte SRAM (battery buffered)   |
| Internal storage device                     | 1-Gbyte microSD card  |
| Interfaces                                  | 1x Ethernet<br>2x VARAN Out (Manager) (maximum cable length: 100 m)<br>1x CAN (via PS 101)<br>1x USB host 2.0 (high speed 480 Mbit/s) (via PS 101)<br>1x USB device 1.1<br>1x S-DIAS (with manager) |
| Status display                              | no  |
| Status LEDs                                 | yes   |
| Real-time clock                             | yes (battery buffered)  |

### Electrical Requirements

|   |                  |                |
|---|------------------|----------------|
| Supply voltage  | +5 V from PS 101 |                |
| Voltage supply from S-DIAS bus                        | +5 V             |                |
| Current consumption on S-DIAS bus (+5 V power supply) | typically 400 mA | maximum 450 mA |

### Electrical Requirements

|   |                  |                |
|---|------------------|----------------|
| <b>Module Supply (Input)</b>                        |                  |                |
| Supply voltage                                      | +5 V from PS 101 |                |
| <b>S-DIAS Bus Supply (Output)</b>                   |                  |                |
| Voltage supply from S-DIAS bus                      | +5 V             |                |
| Current consumption on the S-DIAS bus (+5 V supply) | typically 400 mA | maximum 450 mA |

### Article Number and Miscellaneous

|                                    |                                  |  |
|------------------------------------|----------------------------------|--|
| Article number                     | 20-004-111                       |  |
| Article number power supply module | 20-003-101                       |  |
| Operating system                   | Salamander                       |  |
| Dimensions                         | 12.5 x 104.2 x 72 mm (W x H x D) |  |
| Project backup                     | internally on the microSD card   |  |
| Standard                           | UL 508 (E247993)                 |  |
| Approvals                          | UL, cUL, CE                      |  |

### Environmental Conditions

|                           |   |   |
|---------------------------|---|---|
| Storage temperature       | -20 ... +85 °C                                    |   |
| Environmental temperature | 0 ... +55 °C                                      |   |
| Humidity                  | 0-95 %, non-condensing                            |   |
| Operating conditions      | pollution degree 2<br>altitude up to 2000 m       |   |
| EMC resistance            | in accordance with EN 61000-6-2 (industrial area) |   |
| EMC noise generation      | in accordance with EN 61000-6-4 (industrial area) |   |
| Vibration resistance      | EN 60068-2-6                                      | 3.5 mm from 5-8.4 Hz<br>1 g from 8.4-150 Hz |
| Shock resistance          | EN 60068-2-27                                     | 15 g  |
| Protection type           | EN 60529  | IP20  |