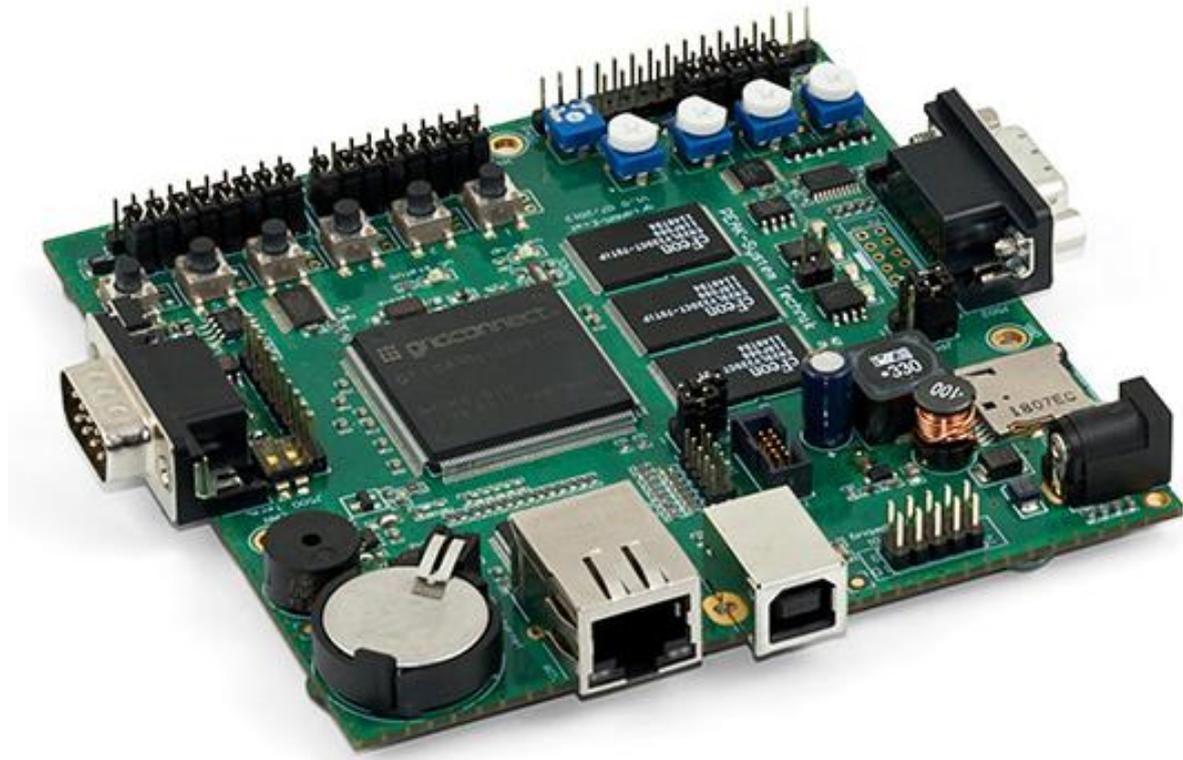




PEAK-gridARM Evaluation Board

Linux-based Development Platform for the gridARM™ Microcontroller



Grid Connect® has developed the ARM7 microcontroller gridARM™ as System on a Chip solution (SoC) aiming for embedded applications in the field of industrial communication. The PEAK-gridARM evaluation board is a Linux-based development platform for the gridARM™ microcontroller. It has connectors for Gigabit Ethernet, High-speed CAN, USB 2.0, RS-232, SPI, and I²C. Digital and analog inputs of the evaluation board are manipulated by push buttons and potentiometers. The microcontroller state as well as the states for supply and data traffic are indicated by LEDs. A board support package (BSP) for Linux gives access to the hardware resources of the PEAK-gridARM evaluation board.

Specifications

- ARM7 gridARM™ microcontroller (80 MHz)
- Linux operating system (version 2.6.36)
- 4 MByte NOR flash with 16-bit data bus access
- 8 MByte NOR flash with 32-bit data bus access
- 64 MByte SDRAM with 32-bit data bus access
- I²C EEPROM for device configuration
- 4 MByte SPI flash
- Memory card slot for additional memory capacity



- Real-time clock (RTC) with battery
- Two alternative JTAG sockets
- Push button for hardware reset
- Voltage supply via USB or an external power supply unit (8 - 30 V)
- Dimensions: 110 x 110 mm
- Additional HD44780-compatible text display available on request

Communication:

- Gigabit Ethernet (10/100/1000 Mbit/s)
- High-speed CAN channel (ISO 11898-2) with
 - Bit rates from 5 kbit/s up to 1 Mbit/s
 - CAN bus connection via D-Sub, 9-pin (in accordance with CiA® 102)
 - NXP CAN transceiver PCA82C251
- USB 2.0 Full-speed (USB Device port)
- Two RS-232 connectors for debugging and terminal access
- SPI bus (1 MHz) for two external extensions
- I²C bus (400 kHz) for external extensions

Inputs and outputs:

- 8 digital inputs, occupied with 6 push buttons, an RTC alarm, and memory card detection
- 8 digital outputs, occupied with 7 LEDs and a buzzer
- 5 analog inputs, occupied with 4 potentiometers
- Optional use of I/O ports with external wiring via jumpers
- LEDs for μ C status, supply, CAN, and RS-232