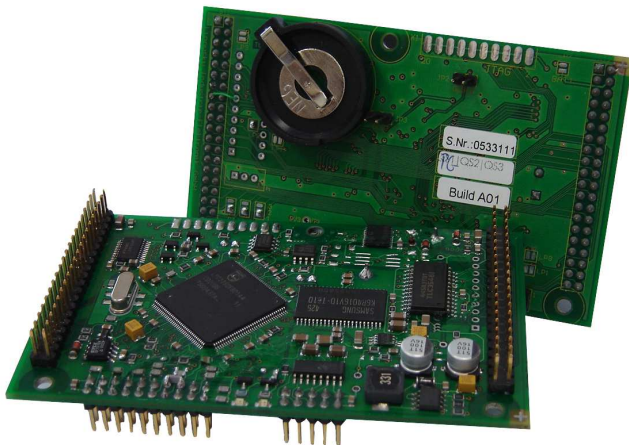


MOD-2292

Microcontroller Module with LPC-2292 CPU (ARM7/Philips)



The MOD-2292 module integrates a powerful 32-bit microcontroller with an ARM-7 core. The CPU, the external RAM, the serial FRAM, the real time clock and the 14-Bit-A/D-converter, all fit in the compact format of our MOD-family.

This module is useful for applications with high requirements on computing power and memory demand. With 10 MHz of external clock frequency the LPC2292 works internally with up to 60 MIPS and a minimal clock cycle of 17ns. The MOD-2292 provides 512 kBytes of RAM on board with a 16-bit data bus.

The CPU-chip already integrates 256 kBytes of Flash, 16 kBytes of RAM and includes many peripheral units like an analog to digital converter, PWM-generators, 2 x SPI-bus, 2 x UART and 2 CAN-controllers compatible with CAN 2.0B.

Using the on board 8-channel multiplexed 14-bit A/D-converter, the realisation of tasks with high requirements on the resolution of the analog value is easy.

This module is pin compatible to our other MOD-modules. Upgrade from our present 8-Bit-modules (MOD-320 and MOD-515) as well as from our MOD-167 is simple.

The LPC-2292 CPU is a 3.3V-chip, but like other modules from the MOD-family, the MOD-2292 needs only a single 5V supply. All available port pins are 5V-tolerant. The 8-bit CPU data bus on the connector is realized by a 5V level shifter.

Also available on the module are a serial FRAM with a storage of 8 kByte, a real time clock and a lithium back-up battery.

The robust 40-pin connectors (2.54 mm pitch) allow the use of this highly modern technology even on a simple breadboard. SMD-processing is not mandatory for the user of this module.

Specifications

- LPC-2292 (ARM-7 series, PHILIPS)
- RAM: 512 kBytes (16-bit data bus)
- real time clock: RTC8564JE (I²C-bus)
- serial FRAM 24C64 (8 kBytes)
- reset chip with voltage monitoring
- 14 bit A/D-converter
- robust pins (2.54 mm pitch)
- expandable by processor bus (20 bit address bus and 16 bit data bus), I²C-bus and SPI-interface
- dimensions: 100 x 60 x 22
- single supply voltage (5V DC)
- power supply current: approx. 80mA

Options

- MBASE-EURO-01
Carrier board with 9-12 V supply, second RS-232 port and 2.54mm holes field.
- MBASE-EURO-02
Carrier board with 9-12 V supply, CAN-bus transceiver, connectors and 2.54mm holes field.

Ordering information

MOD-2292 with 256 KB X 16 RAM

Block diagram MOD-2292:

