MX10 System on Module

The MX10 System on Module is a fully programmable, non-volatile FPGA solution based on Intel®'s MAX®10 family. The MX10 incorporates advantages of MAX®10 FPGA such as instant-on functionality, integrated analog-to-digital converters (ADCs) and dual configuration flash.
The module delivers full-featured FPGA capabilities including support for various soft-core CPUs, advanced DSP and video-processing algorithms as well as external DDR3 controller.

■ MX10 featureset:

- MAX 10 dual core voltage supply FPGA
- MAX10 FPGA 10M04DC to 10M50DA
- optional 4 MB SPI NOR
- optional 4 GB e.MMC
- 128/256/512M x8 DDR3 DRAM
  (for 10M 16/25/40/50 FPGAs)
- programmable clock generator and PLL,
  with optional external reference input
- 178 FPGA GPIO pins,
  including 13 LVDS transmitters and 54 receivers
- RTC with battery backup
- programmable high-efficient PMIC,
  FPGA IO voltages are configurable
- optional Li-Ion/Li-Pol charger
- Size: 70mm x 35mm

■ OS Support:

- U-Boot
- Linux
- FreeRTOS™

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Baseboard

The Spiderboard Baseboard is a unique solution, designed to host the Spiderboard SoM / MX10 SoM based on Intel® MAX®10 FPGA.

It is available as a low cost and extremely flexible platform which enables user to setup a running system according to the required specification in a very short time. This baseboard has a large prototype area and is based on the free and open design concept: KiCAD design files are available under CERN OHL v1.2.
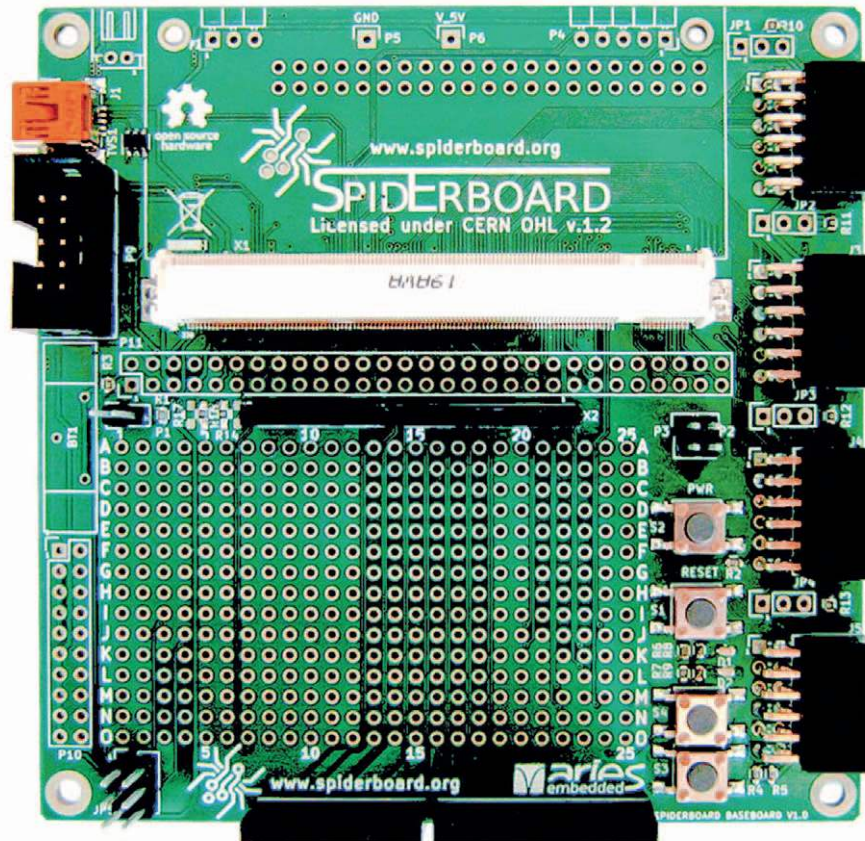
■ Spiderboard featureset:

- simple baseboard in 2 layer design
- compatible with MX10 and Spiderboard SoM
- open hardware
- MxM2 pcb edge connector
- .1" grid 25x15 prototyping area
- 4 PMOD compatible connectors
- reset, power and 2 user push buttons
- 2 user LEDs
- Arduino shield compatible interface
- Intel USB Blaster programming interface
- USB mini B connector
- CR2032 cell holder
- JST-2.0 lithium battery connector
- configuration jumpers

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