BeMicro Max 10 FPGA Evaluation Kit

BeMicro Max 10 adopts Altera's non-volatile MAX® 10 FPGA built on 55-nm flash process. The kit retains the 80-pin edge connector interface used on previous BeMicro kits. Users can migrate their designs from BeMicro SDK or BeMicro CV easily and take advantage of the new features Altera offers in the MAX 10 FPGA, such as an ADC block, temperature sense diode and flash memory.

BeMicro Max 10 includes a variety of peripherals such as 8MB SDRAM, accelerometer, digital-to-analog converter (DAC), temperature sensor, thermal resistor, photo resistor, LEDs, pushbuttons and several different options for expansion connectivity.

Board Highlights

- Features Altera MAX 10 FPGA with ADC block, temperature sense diode, onchip-RAM, user flash memory and non-volatile self-configuration.
- Powered by Altera's Enpirion® PowerSoCs
- Extensible via 2 Digital PMOD Interface headers
- Allows for further expansion from two 40-pin prototyping headers
- 3-Axis MEMS Accelerometer from Analog Devices (ADXL362)
- 12-bit Digital-to-Analog Converter from Analog Devices (AD5681R)
- Digital Temperature Sensor from Analog Devices (ADT7420)

Features

One MAX10 FPGA (*10M08DAF484xxx*)

- 8,000 LEs
- 414 Kbit (Kb) M9K memory
- 256 Kbit (Kb) user flash memory
- 2 phase locked loops (PLLs)
- 24 18×18-bit multipliers
- 1 ADC block – 1 MSa/sec, 12-bit, 18-channels
- 17 analog inputs
- 1 temperature sense diode
- 250 general purpose input/output (GPIO)
- Non-volatile self-configuration with dual-boot support

Embedded USB-Blaster™ for use with the Quartus® II Programmer

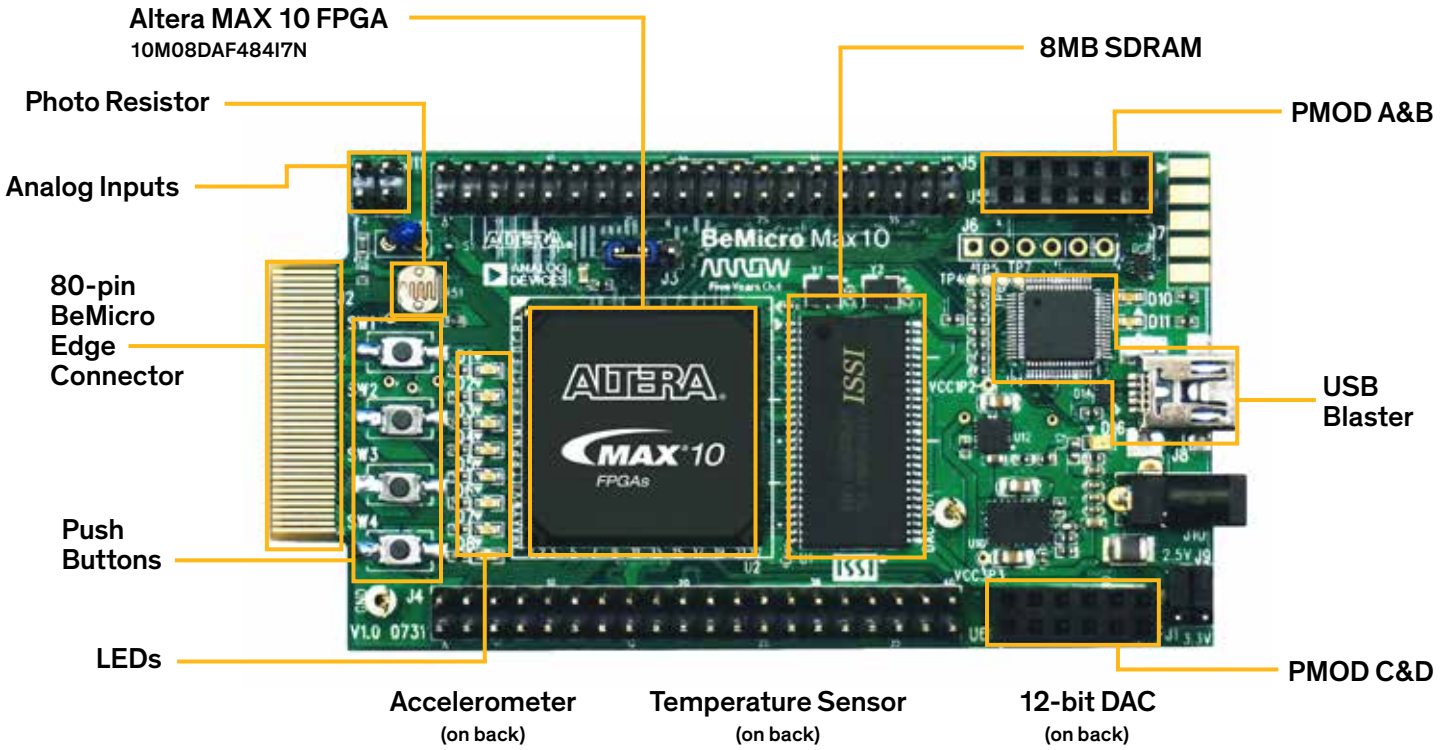
Clocking circuitry

- 50 MHz oscillator
- 24 MHz oscillator

Ordering Information

Website:

http://arrow.com/bemicro



External peripherals

- 8MB SDRAM (4Mb x 16) (ISSI IS42S16400)
- 3-Axis MEMS Accelerometer from Analog Devices, SPI interface (ADXL362)
- 12-bit *nano*DAC+®, SPI interface (Analog Devices AD5681R)
- 16-bit Digital I2C Temperature Sensor (Analog Devices ADT7420)
- Thermal resistor
- Photo resistor

General user input / output

- 8 user LEDs
- 4 user Pushbuttons

Prototyping

- Two 6-pin PMOD expansion headers
- Two 40-pin prototyping headers which provide access to 64 digital I/O
- 6 analog inputs
- One 80-pin BeMicro card edge connector

Power via USB or via user-provided 5V supply

Power Management

- One 1.5A PowerSoC (Altera Enpirion EN5319QI)
- Three 1A PowerSoC (Altera Enpirion EP53A8LQI)

In Person

Components
800 833 3557

Online

parts.arrow.com

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