Cortex-M Prototyping System (MPS2+)
## For the Versatile Express™ Family

ARM®

The Versatile Express family of development boards provide an excellent environment for prototyping the next generation of system-on-chip designs. Through a range of application notes, hardware and software applications can be developed and debugged.

The Cortex-M Prototyping System is especially designed for evaluation and prototyping of M class processors and user peripherals. An ideal FPGA board to work with ARM's M class product range.

It offers:

♦ ~300K Logic Elements for user prototyping
♦ 8MB of single cycle SRAM, 16MB of PSRAM
♦ IO expansion via the expansion ports
♦ Wide range of debug connectors
♦ Early device driver & software development support
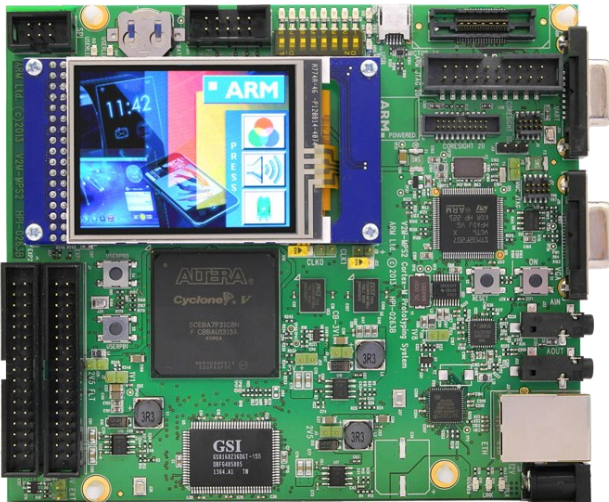
Microcontroller board V2M-MPS2

The FPGA used is the Altera™ CycloneV™ device (5CEBA7F31C8N).

Features

■ FPGA (5CEBA9F31C8N)
  - 300K Logic Elements (LE)
  - 8MB of single cycle SRAM
  - Encryption support
  - 16MB of PSRAM
■ Expansion
  - IO pins via expansion ports
  - 4 bit RGB video output from motherboard
  - Ethernet controller
  - SPI Connector for user peripherals
  - Audio codec
  - Local PLL clock, multiple clock options
  - QSVGA touch screen panel
■ Debug
  - ARM JTAG
  - ARM 16bit parallel trace
  - 20 pin Cortex debug connector
  - 10 pin Cortex debug connector
  - ILA for Signal-TAP/Identify
■ Simplified configuration
  - Fast programming < 1minute
  - Fast re-configuration < 10seconds

Deliverables

■ Motherboard
■ Fixed M class application note(s)
  ■ Cortex-M0,M0+,M1,M3,M4 & M7
  ■ Licence required to edit
■ Cortex-M0 design start example design including CMSDK peripherals
■ Quartus™ II example design files
■ Versatile Express support DVD
■ Demo Software using ARM DS-5 and Keil MDK
■ SelfTest Software
  - To prove application design
  - Allows user to modify for their design

Microcontroller board Architecture
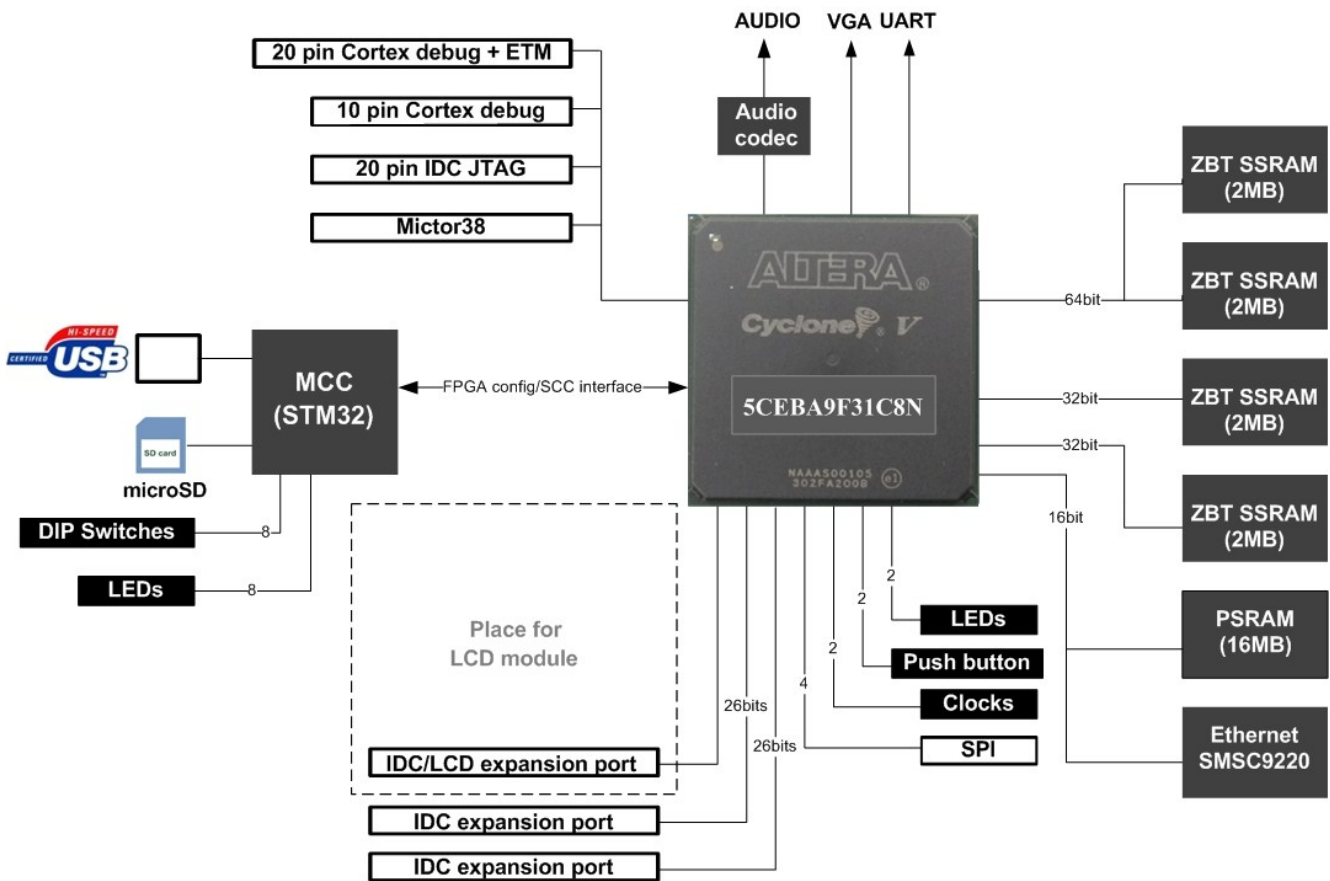
The high speed ZBT memory (Zero bus latency) allows you fast access to wide memories for development.

The expansion ports allow the user to develop their own breakout board for connection to Si e.g. Display panel or to connectors to other systems or interfaces.

Encryption support allows the user to protect their IP for evaluations and demonstrations

A collection of different debug interfaces allows the use of ARM processor debug testing and proving of CoreSight. The ILA connector allows the user to debug the FPGA design in real-time using Signal-TAP or Identify.

Encrypted Images of Cortex-M series processors.

PART NUMBER: V2M-MPS2-0318C
AVAILABLE Q4'15

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