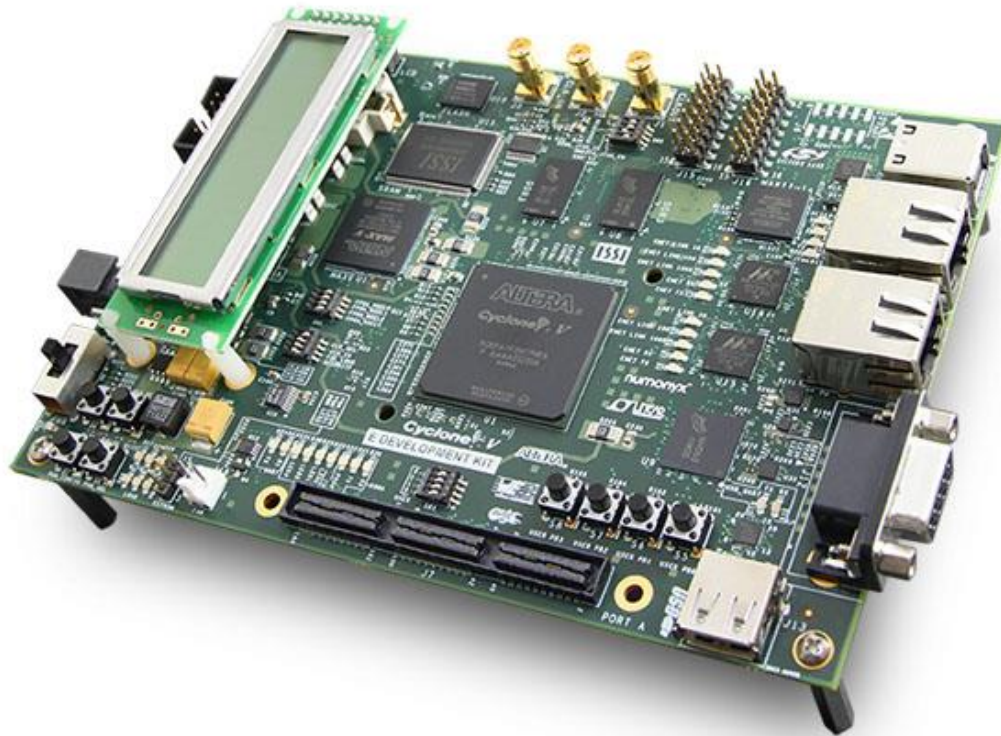


Altera Cyclone V E FPGA Development Kit

1. Overview



The Cyclone[®] V E Development Kit offers a comprehensive general purpose development platform for many markets and applications, including: Industrial Networking, Military, and Medical applications. The kit features an the Altera[®] Cyclone V device and a multitude of on board resources including: multiple banks of DDR3 and LPDDR2 memory, LCD character display, LEDs, user switches, USB and RJ-45 connectors. The Cyclone V E Development Kit gives industrial equipment designers greater flexibility in implementing real-time Ethernet communications with [Industrial Ethernet intellectual property \(IP\)](#) cores.

2. Specification

Featured devices:

- Cyclone V E FPGA - 5CEFA7F31C7NES
- MAX V CPLD - 5M2210ZF256I5N (system controller)
- MAX II CPLD - EPM240M100I5N (embedded USB Blaster II)

Configuration:

- **Company:** Terasic
- **Tel:** +886-3-5750880
- **Fax:** +886-3-5726690
- **Add:** 9F., No.176, Sec.2, Gongdao 5th Rd, East Dist, Hsinchu City, 30070. Taiwan

- On-board USB-Blaster™ II cable (USB, PHY, Max® V CPLD)
- JTAG direct via JTAG header

Memory devices

- DDR3 x32 at 300 MHz (soft memory controller)
- LPDDR2 x16 (soft memory controller)
- Flash (512 Mb)
- SSRAM (18 Mb)
- EEPROM (64 Kb)

General user input/output

- User control
- Four pushbuttons
- Five LEDs
- Four DIP switches
- 2x Resets (CPU reset, Dev Clear)
- LCD: Character LCD (16x2)

Components and interfaces

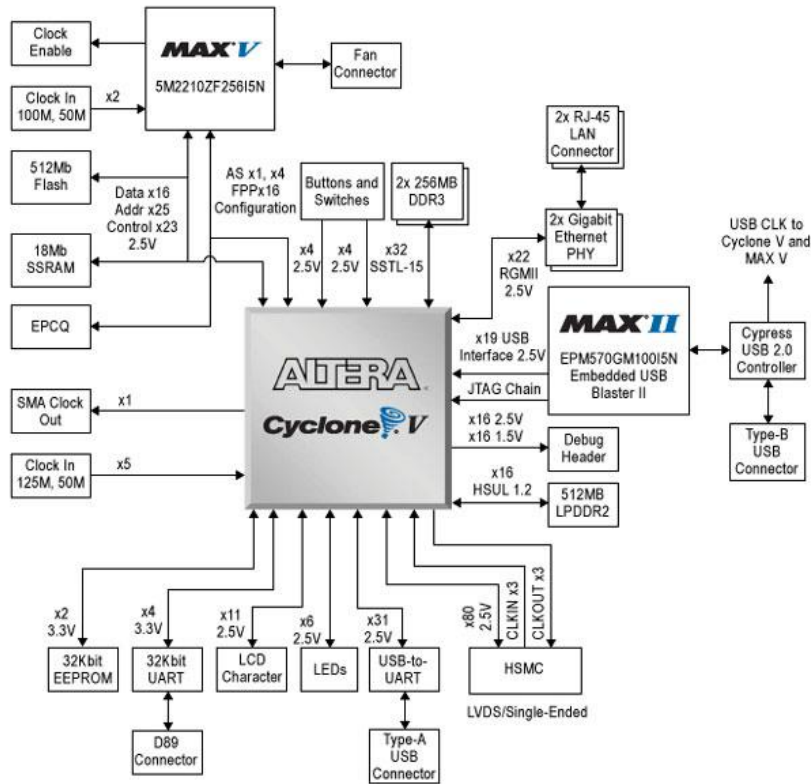
- RJ45 for Ethernet
- UART interface

Quartus® II design software information

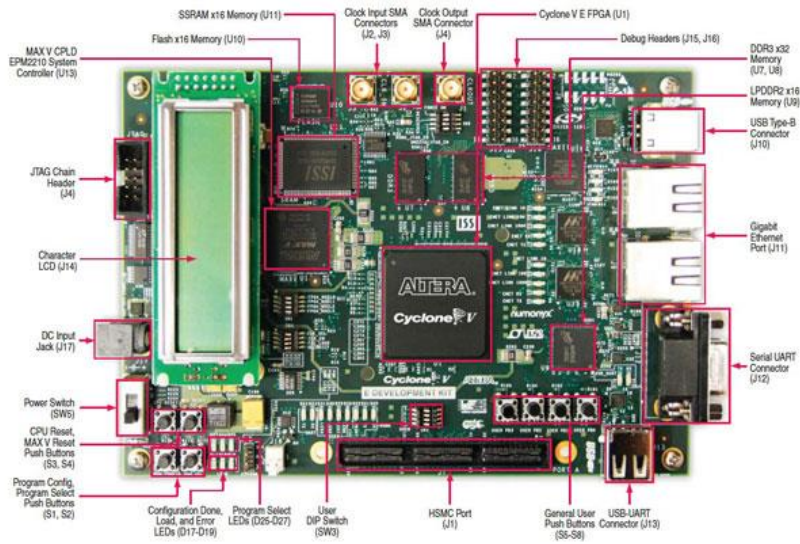
- Quartus II Web Edition Software

Altera Cyclone V E FPGA Development Board Block Diagram

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3. Layout



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