

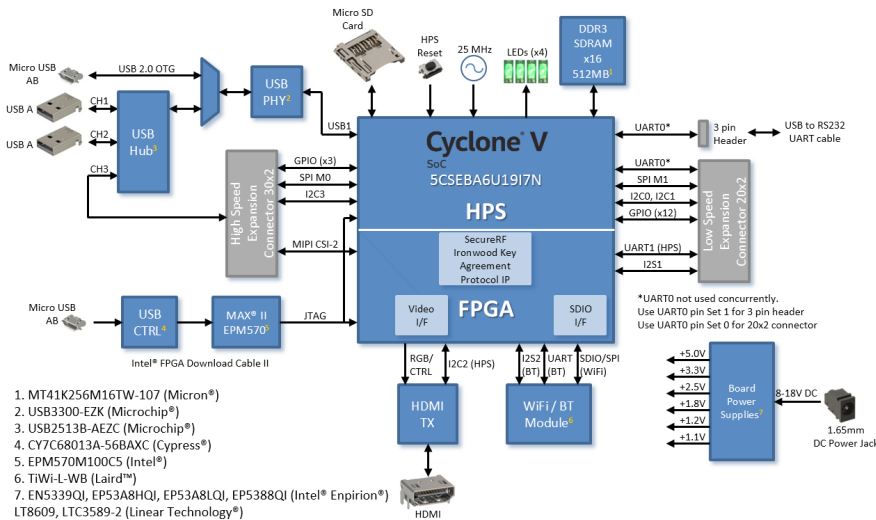
Arrow Chameleon96 Community Board



The Arrow Chameleon96 community board features an Intel® Cyclone® V SoC FPGA based system that adheres to the Linaro 96Boards open platform specification. The board includes industry standard interfaces and expansion headers for 96Boards compatible mezzanine cards and interface kits.

Unlike other 96Boards, the Chameleon96 board includes Intel's SoC FPGA which combines the performance of a dual core ARM Cortex-A9 processor with the flexibility of programmable logic, providing the ultimate in system customization. Programmable logic is also ideal for accelerating embedded software with custom hardware.

The Chameleon96 board includes a quantum-resistant Key Agreement Protocol and Digital Signature Algorithm reference design from SecureRF. These Public Key methods feature small, fast, and very low-energy solutions designed to accelerate the development of authentication and data protection solutions for the Internet of Things. For the availability of additional security methods for the Chameleon96 board, including Secure Boot, Secure Firmware Updates and Secure Firmware Delivery, please check at <http://www.SecureRF.com/Chameleon96>.



Board Features:

> FPGA

- Intel® Cyclone® V SE 5CSEBA6U19I7N device
- Integrated Intel® FPGA Download Cable II
- Configuration sources: SD Card, JTAG
- HDMI display output
- WiFi 802.11 a/b/g/n + Bluetooth 4.1 module interface

> Hard Processor System

- 800 MHz dual-core ARM® Cortex®-A9 processor
- 512MB DDR3 SDRAM (16 bit data bus)
- USB Interface
- Micro SD card interface
- Serial UART
- User LEDs
- Warm reset button

> 96Boards Standard Expansion Connectors

- Low speed expansion connector (20x2) with UART, SPI, I2C, I2S, and GPIO connectivity
- High speed expansion connector (30x2) with USB 2.0 Host, SPI, I2C, GPIO, and MIPI CSI-2 connectivity

Embedded Software

- SD Card with bootable image
- Linux kernel
- Linux distribution with graphical desktop environment
- Source files

Security

Ironwood Key Agreement Protocol

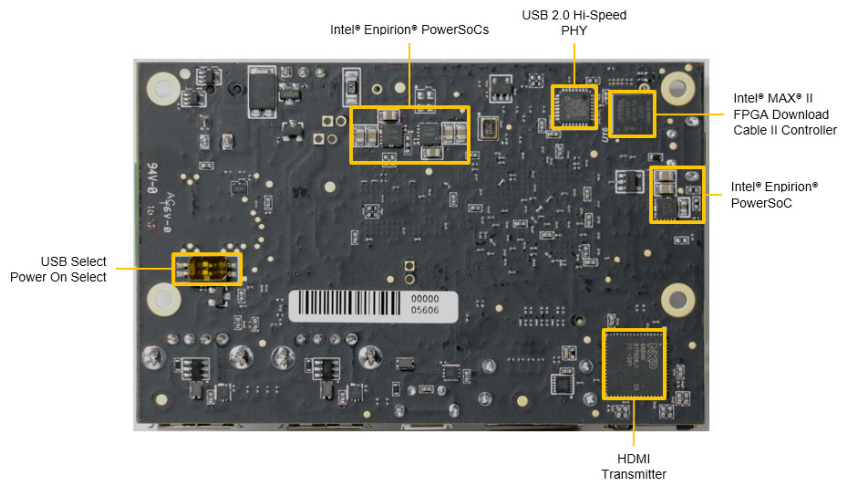
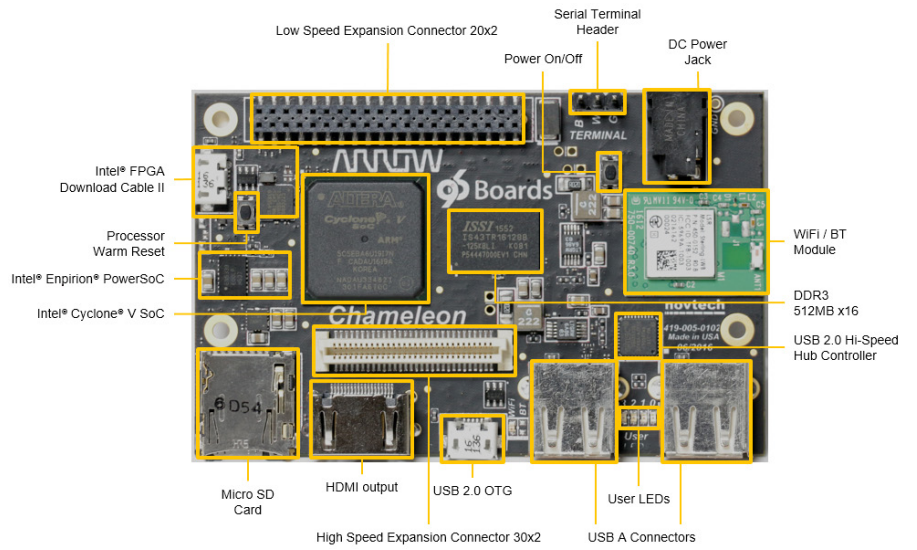
- Diffie-Hellman-like authentication protocol
- 128-Bit Security Level
- Quantum-resistant to known attacks
- Reduced footprint, ultra-low energy
- Supports ultra-fast performance on low-resource connected devices

WalnutDSA

- Digital signature verification protocol
- 128-Bit Security Level
- Quantum-resistant to known attacks
- VERY fast verification
- Test vectors to facilitate rapid development
- Signature generation SDK available

For more information please visit

<https://rocketboards.org/foswiki/view/Documentation/ArrowChameleon96Board>



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arrow.com

