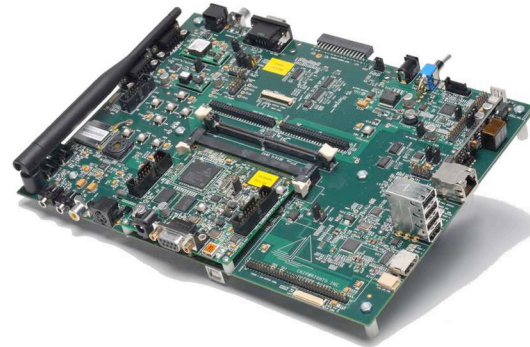


The HDK provides a complete reference platform, including essential hardware design components, interfaces, and software development tools (SDK), for evaluating the CW5631 System on Chip. The CW5631 is designed for multi-purpose applications, requiring high-speed digital video processing, peripheral integration, low power consumption, and low BOM cost.

Build premium embedded audio and video designs on a fully integrated hardware platform. Tailor the sample applications to specific design requirements.

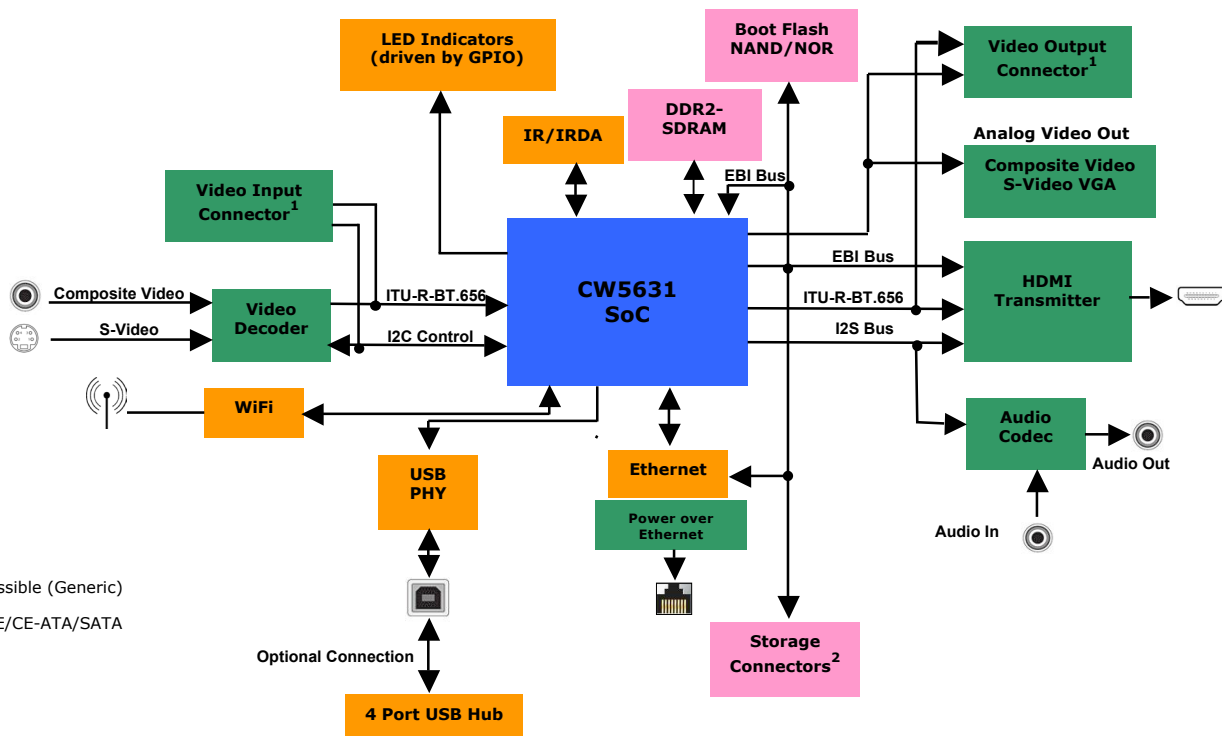


Typical Applications

- IP cameras
- Digital signage
- Video conferencing
- IPTVs, IPTV set top boxes
- Digital video recorders
- Personal media players

Essential Hardware Design Components

- CW5631 processor
- NOR/NAND boot flash
- HDMI transmitter
- JTAG debug interface
- RS-232 ports
- LCD display interface
- CCD image sensor interface; Camera module board
- USB/embedded 4-port hub
- Infrared remote control
- Ethernet/Power-over-Ethernet
- Mass storage devices: SD/CF/IDE/CE-ATA/SATA
- Input/output A/V connectors
- WIFI module/antenna



1 User Accessible (Generic)

2 SD/CF/IDE/CE-ATA/SATA

Complete Hardware and Software Prototyping Platform

Full integration with ChipWrights' software development kit enables the development and debugging of code directly on the hardware using the Eclipse™ framework. This allows significant code development while hardware is developed concurrently, providing a faster time to market. Comprehensive on-board peripheral interfaces provide the components necessary to develop high-performance applications. Typical markets include: video surveillance, IP camera, IPTV, digital video recorders and digital signage.

Key Features

- Develop and debug code directly on the CW5631 SoC and associated hardware
- Flexible interfaces allow rapid prototyping and testing
- Removable DIMM module with embedded CW5631 SoC allows field upgrades
- Hardware breakpoints, watch points, and single stepping for easy debugging (fully integrated with SDK)
- Programmable external I/O clocks and high-speed external buffers allow code testing at full I/O speed
- Ethernet and USB connections permit quick transfer of large amounts of application-specific data
- Examine and modify registers, internal and external memory, and system-level buffers
- Direct connection headers to chip interfaces allow rapid prototyping
- 2–3 RS-232 interfaces for serial port communication
- On-board flash for boot code (software generated)
- Push buttons and jumpers connected to GPIO pins
- SDK support for Linux® OS

Kit Components

- Modular board set (motherboard; removable DIMM module with embedded CW5631 SoC; WIFI module; antenna; ChipWrights camera module board)
- 5 volt power supply (with barrel connector)
- Video camera
- LCD display (NTSC/PAL composite, VGA/SVGA/XGA)
- 4 USB cables (2 mini-A to B, 1 mini-B to A, 1 A to B)
- Audio cable (1/8" stereo to dual RCA male)
- Composite video cable
- S-video cable
- HDMI cable
- SATA power cable
- Storage: Secure Digital, Compact Flash storage cards
- Infrared remote control (with batteries)
- JTAG wiggler (USB)
- Ethernet cable (10')
- 2 RS-232 cables
- VGA cable
- ESD wrist strap
- CD (SDK, documentation, schematics)



ARM Processor Support

- Linux kernel 2.6.29
- OpenEmbedded environment
- Uboot

System Requirements for SDK

- PC: 2GB RAM; 3 GHz CPU; 30 GB disk space; CD-ROM drive
- Parallel or USB port to connect to JTAG targets
- Microsoft Windows™ 2000 or Windows XP operating system