

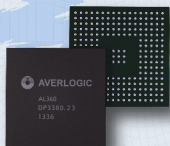


# AVERLOGIC

Video Solutions Provider

Color & Sound

## AL360



### Full HD Video Conversion SOC

Robust, Sophisticated, Intuitive

### A Dream Chip for HD Developers

Developing Full HD video products can be fraught with debugging headaches, interface incompatibilities, performance problems, workarounds ... and Burnout! These are the burdens that dog today's developers and wreak havoc with product development schedules.

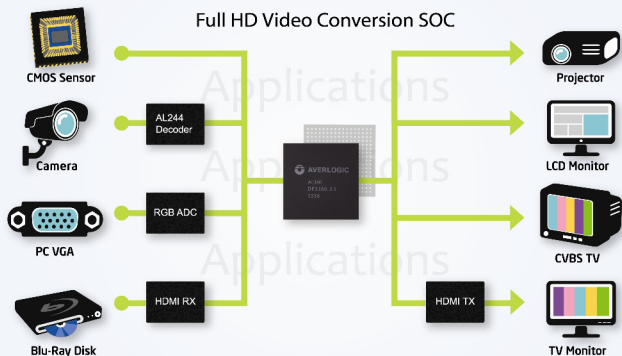
**AverLogic's AL360** is a full HD Video Conversion SOC keen on providing seamless implementation for HD Video Product developers. It's a highly integrated SOC (MCU80251), free from external interface snags (e.g. OS interface). It has everything you need, providing a stable, robust, well-defined environment. Sophisticated technology, intuitive API, and full features takes you on the fast-track to product development for getting to market on time and beating the competition.

#### ■ Features

#### ■ Features

- Data and Control interfaces - Low voltage detection for battery control, UART, interrupt and GPIO for MCU user's interface control.
- Embedded MCU80251, Embedded Low Power DDR-SDRAM, Embedded power management and power saving control

- Scaling, Interlacing, de-interlacing, format conversion, video freeze, zoom, flip, mirror, rotation, 256-Color OSD, and more.
- Inputs - RGB888, BT.1120, YCbCr, BT.656
- Outputs - RGB888, BT.1120, YCbCr, BT.656, Analog RGB DAC, CVBS/S-video
- Comprehensive Developer's Kit, fully functional EVB board



## Engineered with Developers in mind

### ▶▶▶ No OS needed

Stable development platform

Less debugging

Faster development

Straight forward interfaces

Full function EVB reference

Comprehensive development kit

### ■ Video Input- Digital

- 8-bit YCbCr
- 24-bit RGB888
- 16-bit BT.1120 and 16-bit YCbCr
- 8-bit BT.656
- Supports up to 148.5MHz pixel rate

### ■ Video Output- Digital

- 24-bit RGB888 with TCON output
- 20-bit BT.1120 and 16-bit YCbCr
- 8-bit BT.656
- Supports up to 148.5MHz pixel rate



**HDTV**

### ■ Video Processing and Scaler

- Supports video scaling engine (640x480 to 1920x1080)
- Supports de-interlacing video engine
- Frame rate conversion
- Supports video freeze, zoom, flip, mirror, rotation and more
- Supports video contrast/brightness/hue/sharpness adjustment

### ■ Video Output- Analog

- Embedded Analog RGB DAC
- Embedded TV Encoder CVBS/S-video

### ■ OSD

- Embedded 2-layer 256 color OSD engine

### ■ Miscellaneous

- 3.3V I/O, 1.2V/1.8V core logic
- Embedded MCU80251
- Supports SPI-Flash and ISP (In-System Programming) function
- No external memory required
- Small-size package LFBGA-249 12x12 mm

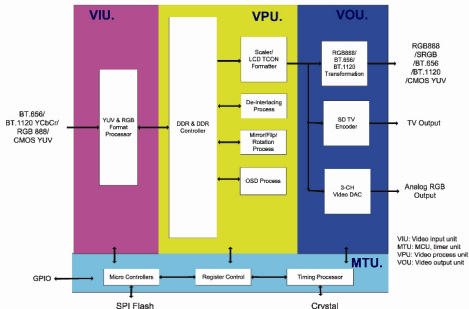
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### Block Diagram



## Ordering Information

Part Number	Description	Content
AL360A	HD Video Conversion SOC	
AL360A-EVB-A0	AL360A EVB	
AL360A-EVB-A1	AL360A EVB with Video Daughter Boards	AL360A-EVB-A0 x1 + BB-AL360AVGA-EVB-DO x1 + BB-AL360AHDMI-EVB-DO x1