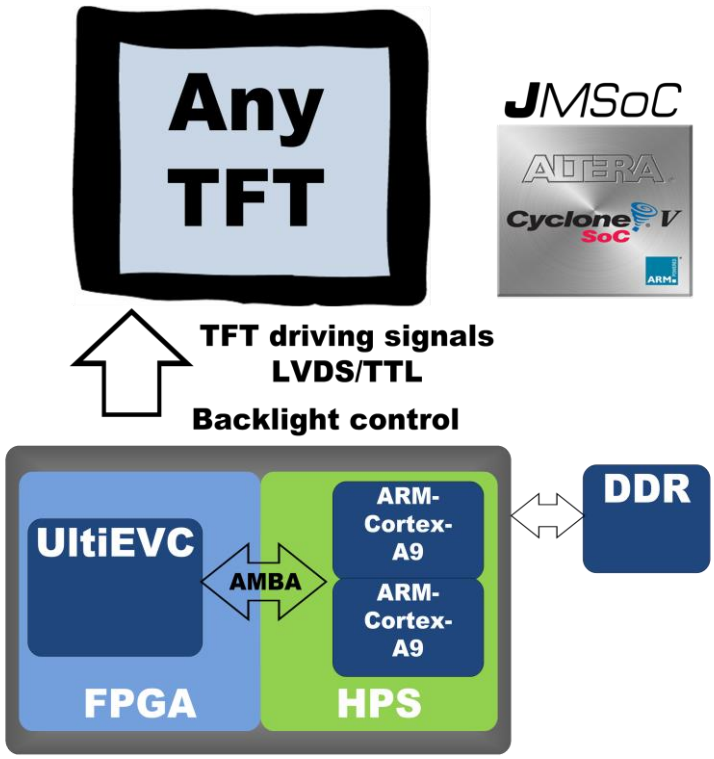
JMSoC UltiEVC



JMSoC Altera® CV SoC Embedded Video Controller

UltiEVC is an enhanced, fully configurable Video Controller FPGA IP core which can be used to implement versatile and powerfull display control, graphics and video applications.

The IP Library is based around the industry standard AMBA® bus architecture, allowing easy interface of the UltiEVC optimized on Altera® CV SoC device.

The UltiEVC is a field-proven IP core able to drive all TFT panels from different vendors.

The UltiEVC is a compact design optimized for cost-sensitive applications.

Altera® CV SoC Linux Video Frame buffer

Exor JMobile platform compatible.

Features

- Supports Altera® Cyclone™ V and CV SoC devices
- AMBA® 3 AXI Master interfaces and AMBA® 3 APB™ Slave interfaces for registers Configurable design in terms of Logic Modules consumption and functionality
- Supports Active matrix display refresh (TFT, Plasma, AMOLED)
- Display power-up sequence control
- 32x32 to 8192x4096 display pixels resolution, up to 16,777,216 colors
- 8,16 or 24 bit Data output Multiple frame buffers. Internal pixel clock generator. RGB8, RGB16, RGB32, ARGB32 frame buffer formats
- Multi-layer window and overlay image assembly
- Variable frame buffer geometry per layer standard overlay with color-key transparency
- Alpha blending with per-layer fading and Alpha mask layer support
- Supports backlight control and dimming

Main Applications

- Factory Automation HMI
- Building & Home Automation Touch Panel
- Marine Automation dashboard display
- Mobile Industry dashboard display
- Transportation e-Vehicle
- Medical display
- Vending Systems & Kiosk
- Energy Smart Systems
- Embedded Industry

Technical data

Bus Interface	Altera® Cyclone V SoC family bus architecture AMBA® 3 AXI Master™ interfaces and AMBA® 3 APB™
Video Memory	SoC DDR3 shared memory. (Uniform Memory Architecture)
Driver	Linux 3.8x Frame buffer video driver
TFT Controller	TTL / LVDS LCD interface
Backlight	Dimming / ON-Off control

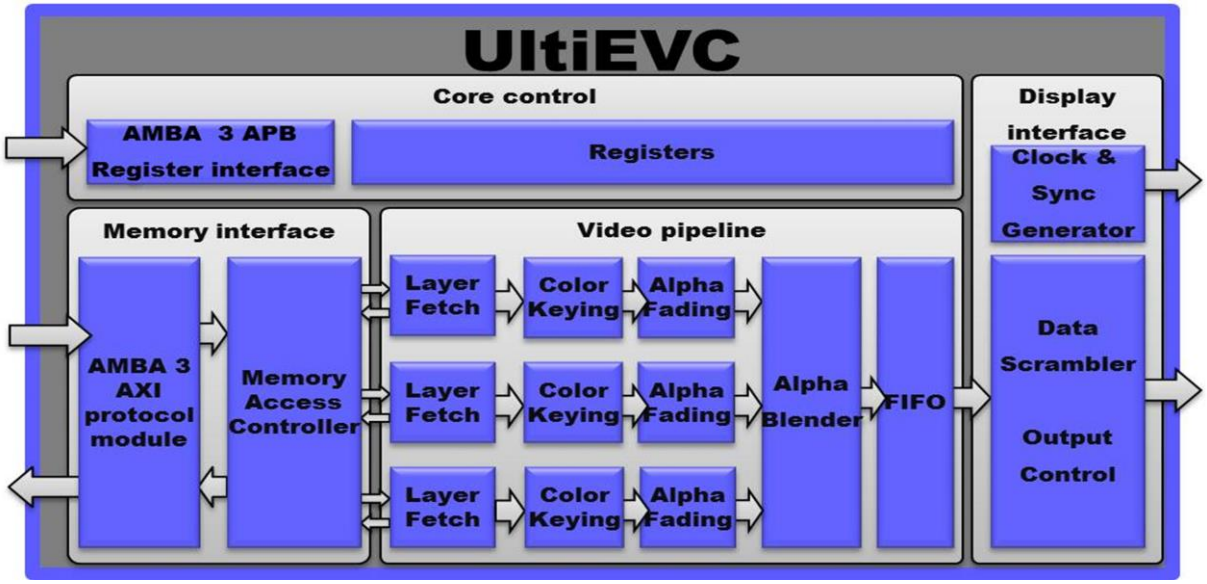
FPGA Resources

UltiEVC	Altera CV ALM	Altera M10KS	External Pins
CV SoC FPGA	2500	3	31

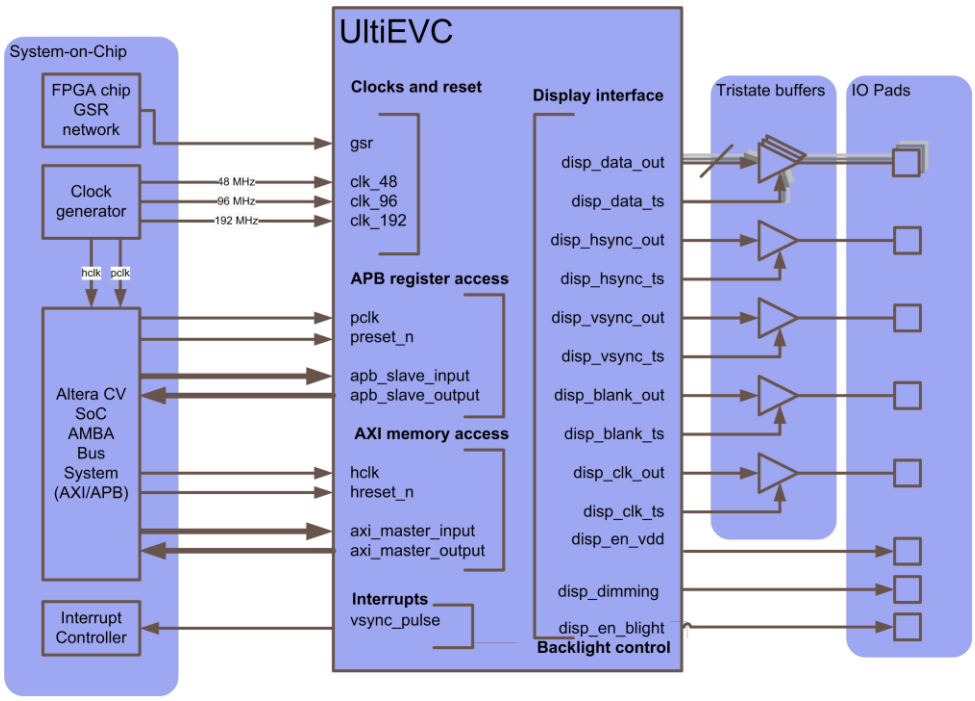
MKT-FL20-131133

JMSoC UltiEVC

UltiEVC Schematic Block



UltiEVC Altera® CV SoC connections



Deliverables

UltiEVC Library License
Embedded Video Controller IP core including Linux frame buffer Video driver for JMSoC integration

User Manual and Application notes for Altera® Cyclone V Soc Development Kit 5CSXFC6D6F31C8NES

Design Service

- Board design engineering
- FPGA design engineering
- Linux firmware engineering
- JMobile application development
- Custom HMI Product design

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