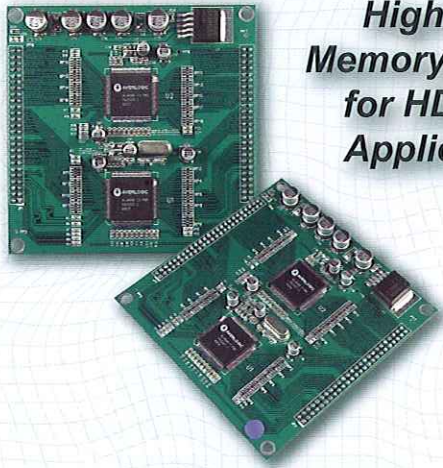


AL460 HD-FIFO Modules



**High Speed
Memory Buffer
for HD Video
Applications**

■ Features

- 256 Mbit density, 8M x 32-bit FIFO memory
- Supports double buffer mode (4M x32-bit upper and lower frames access)

Introduction

The AL460A-7-PBF and AL460A-13-PBF modules are designed to assist companies in evaluating and validating the AL460A HD-FIFO chip for use as a high speed memory buffer in HD video applications. Each module has two embedded AL460 HD-FIFO chips operating in parallel, expanding the bus width to 32-bits. Control signals and data bus signals are available on two 50-pin connectors. An HSMC Adaptor Board is available for interfacing the modules with Altera's Cyclone III FPGA Starter Kit for further solution verification/validation.

■ Features

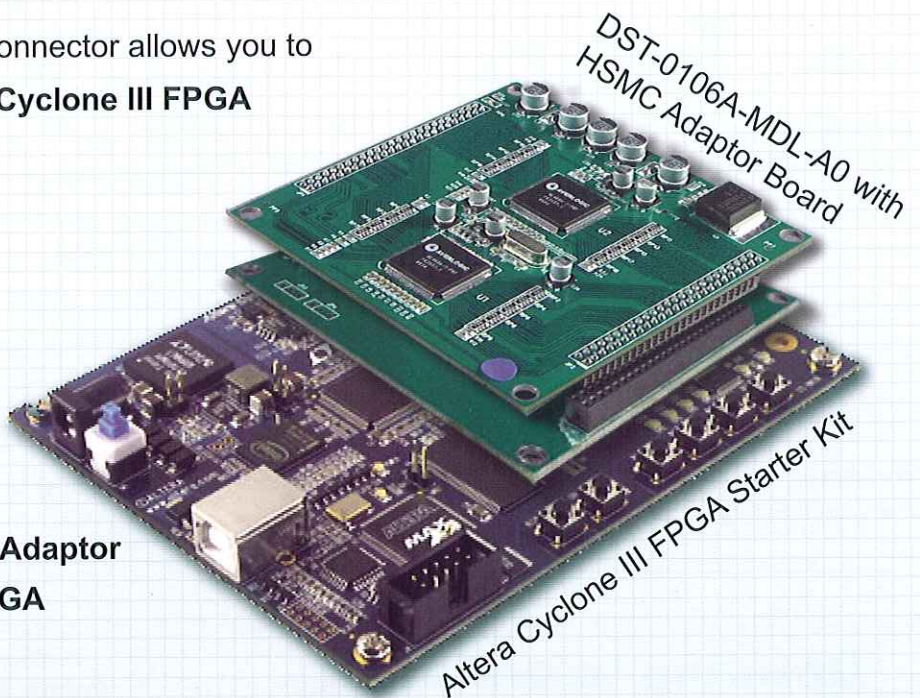
- Programmable I/O control
- Selectable Polarity control
- 3.3V power supply
- Maximum 4.8 Gbps throughput
- Maximum 150 MHz, 32-bit synchronous sequential read/write operations

AL460 HD-FIFO Module, HSMC Adaptor Board and Altera Cyclone III FPGA Starter Kit

An Adaptor Board with an HSMC connector allows you to interface the Module with **Altera's Cyclone III FPGA Starter Kit**.

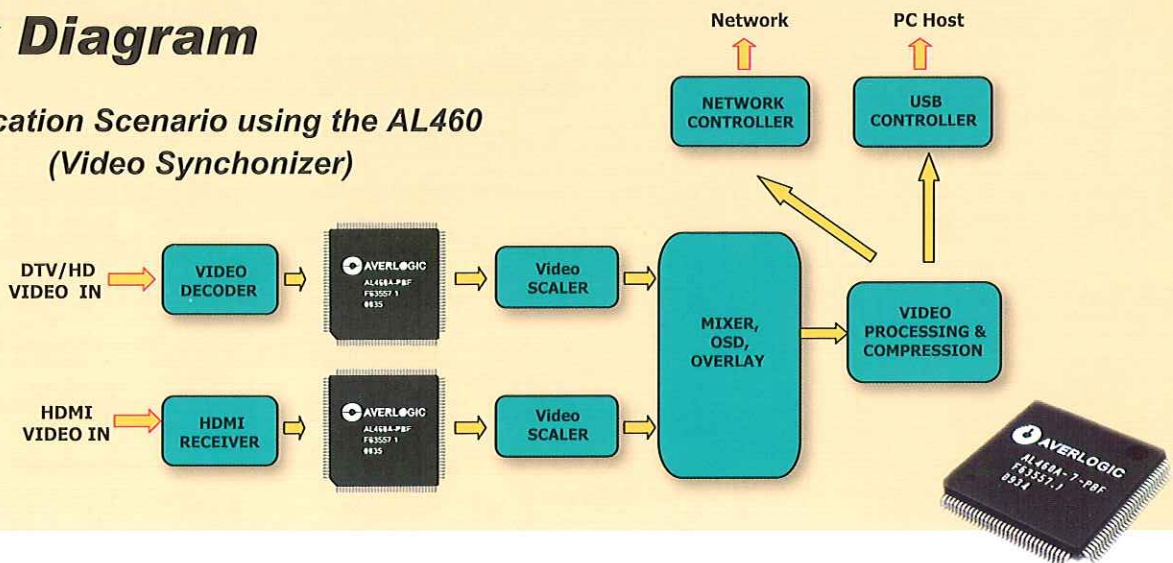


Quick and Easy benching and validation using the HSMC Adaptor Board and Altera Cyclone III FPGA Starter Kit.



Block Diagram

Application Scenario using the AL460 (Video Synchronizer)



AL460 Module specs (RoHS compliant)

- AL460A-7-PBF or AL460A-13-PBF (x2)
- Dimensions: 80 mm x 80 mm
- Parallel AL460A chips provide a 32-bit I/O bus
- 3.3V input from existing system or external power supply
- 2.5V Ultra low dropout linear regulator LP3852
- Clocking: 14.31818 MHz on-board Crystal
- Connectors: Low profile 25x2 2.0 mm male header (x2)

HSMC Adaptor Board specs (optional)

- Dimensions: 80 mm x 80 mm
- Connectors: Low profile 25x2 2.0 mm female header (x2) and HSMC

HD-FIFO Applications

- HD video capturing and editing systems
- Switcher or format converter box
- Scan rate converters
- Time base correction (TBC)
- Frame synchronizer
- HD digital video camera buffering
- Up to 1080p video stream data

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AL460 HD-FIFO Advantages

AL460 HD-FIFO is a proprietary technology designed to overcome issues commonly hindering and limiting other frame buffer devices found in FPGA solutions (e.g. SDRAM, DDR ...). In contrast, AverLogic's HD-FIFO requires significantly less in I/O pins and logic resources, thus significantly reducing latency times. Furthermore, the AL460 HD-FIFO is designed with a straightforward bus interface, reducing implementation and debugging efforts, and helping customers develop faster and more efficiently.

Ordering Information

Module Only Ordering Information	DST-0106A-MDL-A0 (150 MHz)
	DST-0106A-MDL-A1 (75 MHz)

Chip Only Ordering Information	AL460A-7-PBF (150 MHz)
	AL460A-13-PBF (75 MHz)
* Module + Adaptor Board Ordering Information	AL460A-7-EVB-A0 (150 MHz)
	AL460A-13-EVB-A0 (75 MHz)

* Altera system not included in package