LCD Library

The XMOS LCD library allows you to interface to LCD screens via a parallel bus.

Features

- Standard component to support different types LCD displays with RGB 565
- Resolution of up to 800 * 480 pixels
- Up to 62.5 MHz pixel clock
- Hsync/Vsync and/or Data_Enable signal interfaces supported
- Configurable porch timings

Components

- LCD server
- LCD server with synchronization

Resource Usage

This following table shows typical resource usage in some different configurations. Exact resource usage will depend on the particular use of the library by the application.

Configuration	Pins	Ports	Clocks	Ram	Logical cores
LCD server, 16 bit data, sync mode: DE	18	2 (1-bit), 1 (16-bit)	1	~1.0K	1
LCD server, 16 bit data, sync mode: h_sync, v_sync	19	3 (1-bit), 1 (16-bit)	1	~1.1K	1
LCD server, 16 bit data, sync mode: h_sync, v_sync, DE	20	4 (1-bit), 1 (16-bit)	1	~0.8K	1
LCD server with synchronization, 16 bit data, sync mode: DE	18	2 (1-bit), 1 (16-bit)	1	~1.0K	1
LCD server with synchronization, 16 bit data, sync mode: h_sync, v_sync	19	3 (1-bit), 1 (16-bit)	1	~1.1K	1
LCD server with synchronization, 16 bit data, sync mode: h_sync, v_sync, DE	20	4 (1-bit), 1 (16-bit)	1	~0.8K	1

Software version and dependencies

This document pertains to version 3.0.1 of this library. It is known to work on version 14.1.1 of the xTIMEcomposer tools suite, it may work on other versions.

The library does not have any dependencies (i.e. it does not rely on any other libraries).

Related application notes

The following application notes use this library:

- AN00168 - Using the LCD library

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