Xylon d.o.o.

Fallerovo setaliste 22
10000 Zagreb, Croatia
Phone: +385 1 368 00 26
Fax: +385 1 365 51 67
E-mail: support@logicbricks.com
URL: www.logicbricks.com

Features

- Xilinx® Spartan®-6 XC6LX45T 484-pin
- Small form factor 165mm x 125mm (6.5"x5")
- 2 x 128MB/16-bit DDR2 SDRAM
- 2 x 8MB SPI Multi I/O QSPI Flash
- Micro SD Card connector
- 2x simultaneous video inputs selectable from 4x CVBS or 2x S-Video video inputs
- LVDS differential pairs directly connected to the FPGA
- 2x high-speed LVDS Gbit/s MGTs with Rosenberger connectors
- Configurable DVI or VGA video output
- 4x LVDS camera interface (suitable for surround vision)
- Communication interfaces:
  - SATA
  - Parallel IO (84 FPGA pins, 4 expansion connectors, shared signals)
  - CAN
  - CAN single wire
  - LIN
  - RS232
  - JTAG
  - Interface to external Bluetooth module
  - iPod control interface
- Touch-screen controller
- 4x stereo audio and 1x microphone inputs
- 2x stereo line, 2x headphones, 2x IR headphones audio outputs
- Power and control output for CCFL backlight inverters and LCD backlights available through add-on boards
- Connectors for standard PC power supply

Applications

- Automotive, Medical, Consumer, Industrial
- Defense/Aerospace, and others
Figure 2: logiCRAFT6 Block Diagram
**General Description**

The logiCRAFT6 Compact Multimedia Display Development Platform (Fig.1) is Xilinx Spartan-6 based board primarily aimed at electronic applications which handle various multimedia contents. The platform is designed to support a wide variety of audio and video sources, and to be able to handle a variety of display types.

With several standard communication interfaces you can easily integrate the logiCRAFT6 platform into larger systems. The platform provides plenty of different type memory devices. Different kinds of LCD displays can be interfaced by provided connectors. In addition, integrated DVI/VGA video output connector enables work with standard PC monitors.

Excellent examples of targeted applications are advanced automotive applications such as navigation, infotainment, rear seat entertainment (RSE), and different driver assistance (DAS) applications including the emerging surrounding (“bird’s eye”, panoramic) view. Other multimedia applications are equally applicable, such as medical, measurement instrumentation, consumer, or factory automation applications.

Application examples can be found at [http://www.logicbricks.com/Markets.aspx](http://www.logicbricks.com/Markets.aspx).

Figure 2 shows logiCRAFT6 platform's functional blocks. A wide variety of system interfaces such as A/V I/Os, line drivers, general purpose I/Os, power supplies, etc., makes this platform extremely versatile. The logiCRAFT6, with its support for high speed Gbit/s digital serial links (Xilinx MGT transceivers connected to high-speed Rosenberger connectors), dramatically reduces the complexity and cost of the end application’s wiring.

The logiCRAFT6 provides 4 LVDS camera interfaces, which are extremely useful for applications such as automotive surrounding (“bird’s eye”) view.

This platform replaces older Xylon’s logiCRAFT3 platform, and makes a basis for the new edition of Xylon’s logiTAP Platform for Embedded GUI Developments. Transition to the latest Xilinx Spartan-6 FPGA family provides more design freedom to embedded system designers using Xilinx FPGA and Xylon products.

**Package Content**

Xylon provides the logiCRAFT6 hardware platform with the referent FPGA design utilizing Xilinx LogiCORE® and Xylon logicBRICKS IP cores, software demo application and IP drivers, and documentation.

**Recommended Design Experience**

The user should have experience in the following areas:

- Xilinx design tools
- C programming

The logicBRICKS IP cores are fully supported by the Xilinx Platform Studio and the EDK, and their use does not require any particular skills beyond general Xilinx tools knowledge.

**Related Xylon Products**

Xylon logicBRICKS IP cores can be evaluated on Xylon logiCRAFT6 platform, which demonstrates modularity on all levels: software, board, FPGA, and IP cores. The platform makes an excellent development tool appropriate for the development of different embedded systems, including systems with strong graphics capabilities.
Xylon's logiTAP platform, based on the logiCRAFT6, provides a complete design framework to designers of embedded GUI applications. The logiTAP includes high-resolution LCD touch-display and other system parts in a single Plexiglas casing.

To learn more about the logiCRAFT6 and other Xylon development platforms, contact Xylon or visit the web:

   Email: support@logicbricks.com

**Ordering Information**

This product is available directly from Xylon. Please visit our web shop or contact Xylon for pricing and additional information:

   Email: sales@logicbricks.com
   URL: www.logicbricks.com

This publication has been carefully checked for accuracy. However, Xylon does not assume any responsibility for the contents or use of any product described herein.

Xylon reserves the right to make any changes to product without further notice. Our customers should ensure that they take appropriate action so that their use of our products does not infringe upon any patents. Xylon products are not intended for use in the life support applications. Use of the Xylon products in such appliances is prohibited without written Xylon approval.

**Related Information**

**Xilinx Programmable Logic**

For information on Xilinx programmable logic or development system software, contact your local Xilinx sales office, or:

   Xilinx, Inc.
   2100 Logic Drive
   San Jose, CA 95124
   Phone: +1 408-559-7778
   Fax: +1 408-559-7114
   URL: www.xilinx.com

**Revision History**

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00</td>
<td>29.04.2010</td>
<td>Initial Xylon’s release.</td>
</tr>
</tbody>
</table>