

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®-3 XC3S1500-5FG676
- 128MB DDR SDRAM accessible by FPGA
- 8MB NOR Flash accessible by FPGA
- Video output block capable of driving 3 displays simultaneously. It consists of:
 - VGA DACs
 - DVI and LVDS transmitters
 - Backlight/Contrast adjustment
 - Driver/power supply for one COG display
- Video input block supporting 2 simultaneous video inputs fed from various sources:
 - composite video decoders
 - VGA ADCs
 - DVI and LVDS receivers
- Support for versatile vehicle/multimedia network protocols:
 - CAN
 - LIN
 - USB
 - IDB1394
 - RS232
 - Ethernet
- Audio Input/Output block:
 - Audio Codec (ADC/DAC) supporting 4 simultaneous stereo inputs/outputs
 - Audio multiplexers for 4 stereo inputs
 - 2 IR broadcast stereo outputs
- IR remote controller receiver
- Two touch-screen controllers
- Expansion connectors and free FPGA I/Os for rapid prototyping
- Auxiliary push buttons and DIP switch as simple user interface
- JTAG programming connector
- Xylon demo EDK design including evaluation logicBRICKS™ IP cores
- Xylon demo SW application including drivers for the logicBRICKS IP cores
- Single +12VDC power supply

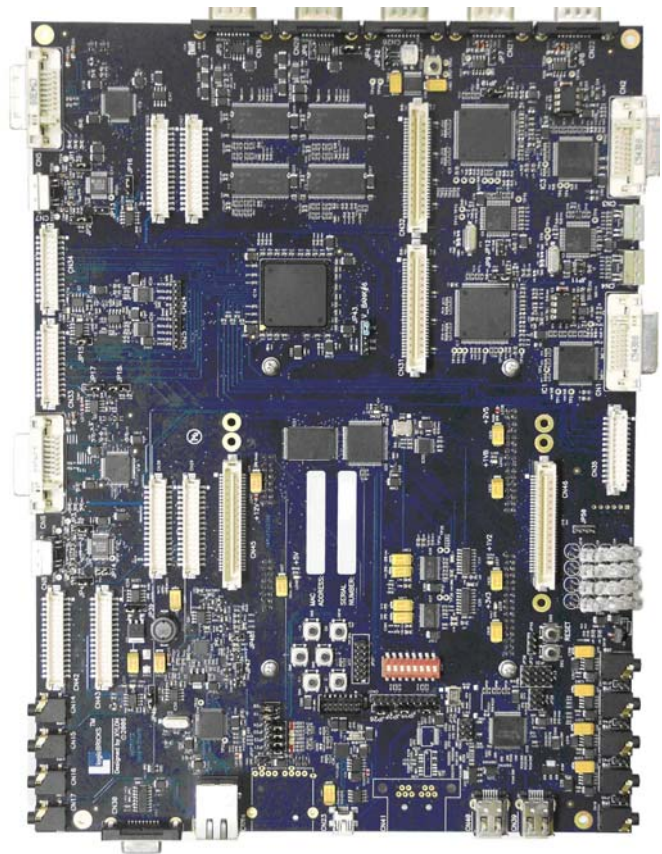


Figure 1: The logiCRAFT2 Platform

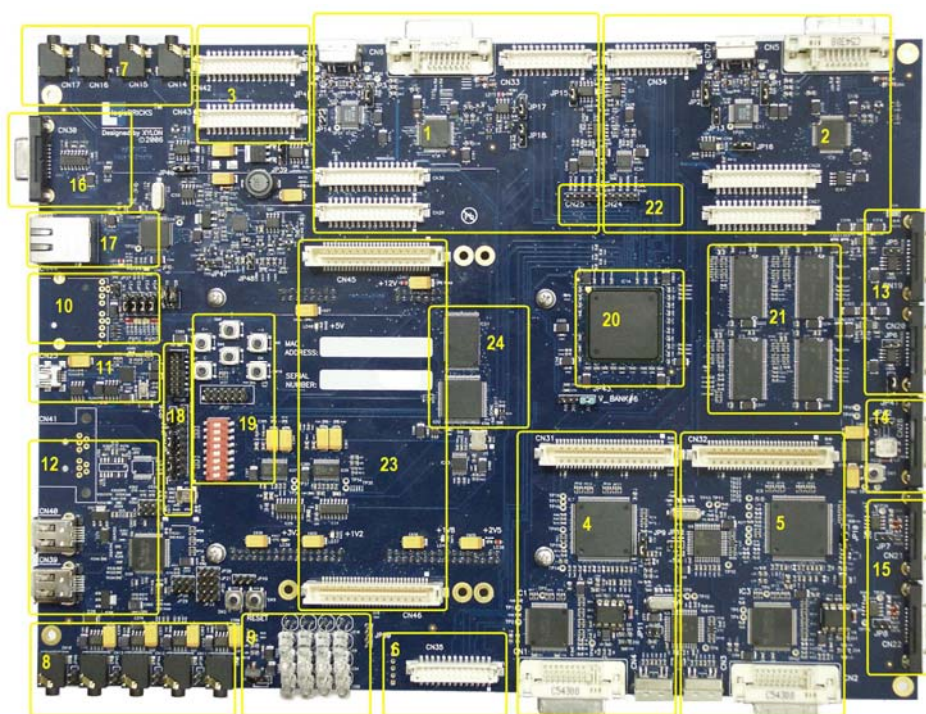


Figure 2: logiCRAFT2 Functional Blocks

Applications

- Automotive
- Medical
- Industrial
- Military/Aerospace, and others

General Description

The logiCRAFT2 Spartan-3 centric demonstration and development platform is especially designed for developers working in the field of multimedia and infotainment. The platform demonstrates modularity on all levels: software, board, FPGA and IP cores, which provides customers with flexibility, fast development cycles, and lower development and production costs.

The logiCRAFT2 is capable of driving up to three displays, and can simultaneously display different video streams on each screen. This capability is enabled by the Xilinx Spartan-3 FPGA device and flexible IP cores from Xylon and Xilinx IP portfolios.

Besides its unique display driving capabilities, the logiCRAFT2 supports many networking types. The platform is expandable and enables rapid hardware prototyping even to the most demanding development teams. The logiCRAFT2 deliverables embrace a reach set of features that differentiate this platform from 'dummy' evaluation boards: logicBRICKS IPs with software drivers, complete EDK FPGA design with the demo application, etc.

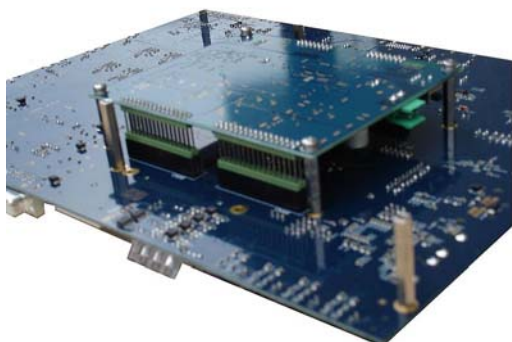
Package Content

The logiCRAFT2 system actually features 2 PCB boards: the logiCRAFT2 Main board and the Power Supply board.

logiCRAFT2 Main Board

- Video output 1 (DVI, CVBS, RBG Analog/Digital, LVDS from output 2) (1)
- Video output 2 (DVI, CVBS, RBG Analog/Digital, LVDS from output 1) (2)
- Video output 3 (COG -RBG Digital) (3)
- Video input 1 (DVI, CVBS, RBG Analog/Digital) (4)
- Video input 2 (DVI, CVBS, RBG Analog/Digital) (5)
- Video input (LVDS) (6)
- Stereo Audio outputs 1 and 2 (Headphone, Lineout) (7)
- Stereo Audio Input Channel 1 to 4 and microphone (MIC) Input (8)
- Infrared Remote controller input, IR headphone output Channel 1 and 2 (9)
- MOST (10)
- USB OTG PHY (11)
- FireWire PHY (IDB1394 Connector, IEEE1394 two channels) (12)
- CAN A/B PHY Channel 1 and 2 (13)
- Flexray (14)
- LIN PHY Channel 1 and 2 (15)
- Debug UART (16)
- Ethernet 10/100M PHY (17)
- JTAG connectors (18)
- Push buttons, DIP switch (19)
- Xilinx XC3S1500 FG676 FPGA (20)
- DDR 128MByte Bank (21)
- Touch screen Controller 1 and 2 (22)
- Expansion connectors (23)
- Flash 8MByte / CPLD (24)

logiCRAFT2 Power Supply



The logiCRAFT2 power supply board plugs into bottom side of the logiCRAFT2 main board (Fig. 3). It requires a single +12VDC input, and generates all voltage levels required for a proper logiCRAFT2 operation. The board is protected against overloads and reverse polarity connection

Figure 3: logiCRAFT2 Power Supply

Recommended Design Experience

The user should have experience in the following areas:

- Xilinx design tools
- C programming
- Good HW/SW designing practices

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 logiCRAFT2 platform, which is designed especially for developers working in the fields of multimedia and infotainment. The logiCRAFT2 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.

To learn more about the logiCRAFT2 and other Xylon development platforms, contact Xylon or visit the web:

Email: support@logicbricks.com

URL: <http://www.logicbricks.com/Product/Detail.aspx?sifraProizvod=2342&sifraCvor=415>

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

Version	Date	Note
1.00.	01.04.2009	Initial Xylon's release.