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Features

- Xilinx Spartan®-3 XC3S1500-5FG676 device
- 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 IOs 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

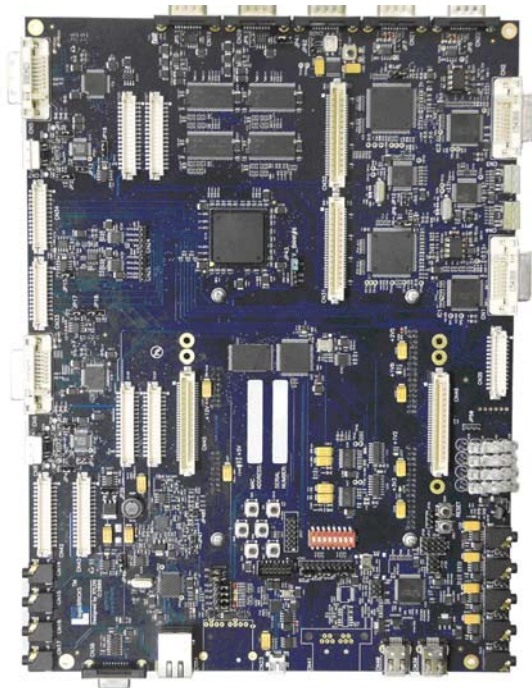


Figure 1: Xylon logiCRAFT2 Platform

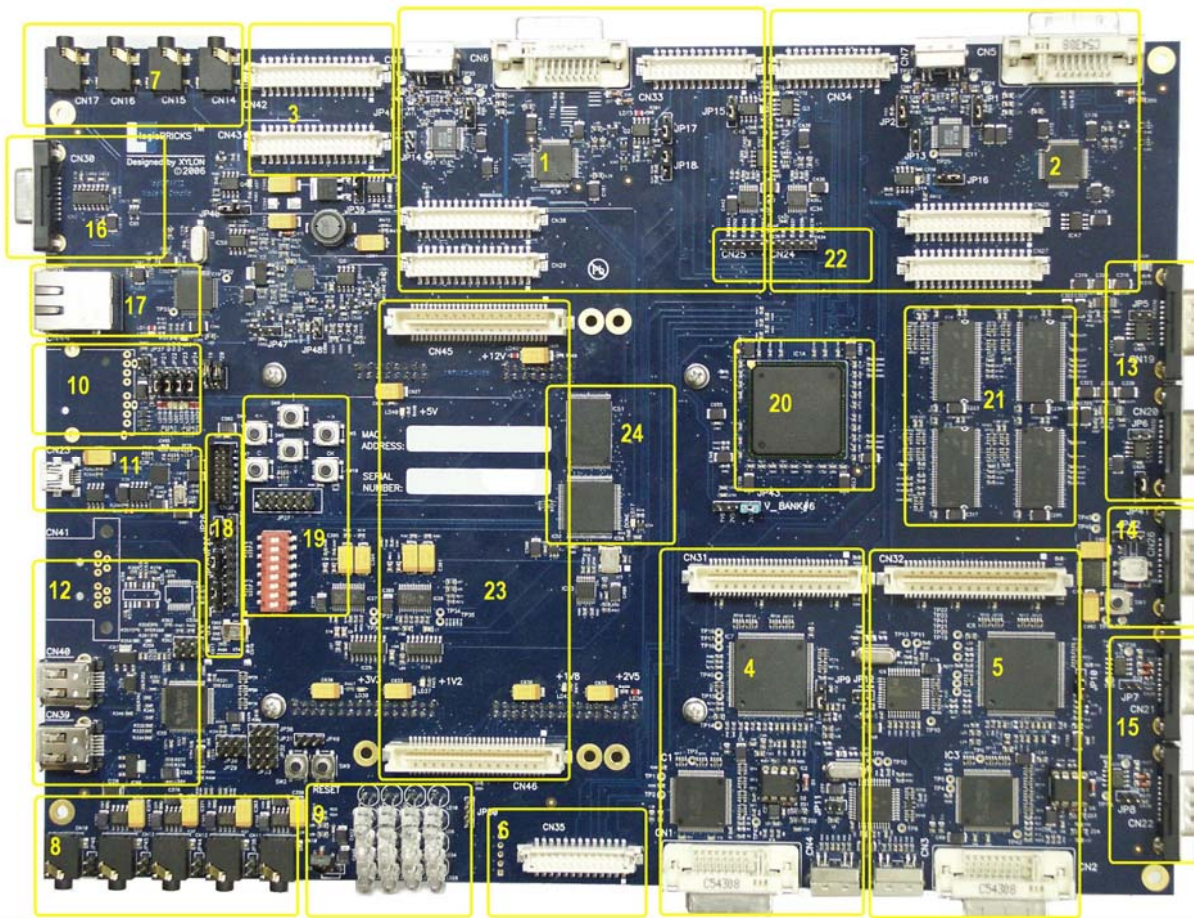


Figure 2: logiCRAFT2 Functional Blocks

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 a field of multimedia and infotainment. The platform demonstrates modularity on all levels: software, board, FPGA and IP cores, which provides the 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 the 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
- ModelSim

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: info@logicbricks.com
URL: www.logicbricks.com/html/evaluation_boards.htm

Ordering Information

This product is available directly from Xylon. Please contact Xylon for pricing and additional information about this product using the contact information on the front page of this datasheet.

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Related Information

Xilinx Programmable Logic

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

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Revision History

Version	Date	Note
1.00.	01.04.2009	Initial Xylon release - new doc template