



PC/104 Xilinx Spartan IIE FPGA

XG-300K



- Applications
- Rapid Prototyping
 - Consumer Electronics
 - Industrial

FEATURES:

- Xilinx Spartan IIE 300,000 Gate FPGA.
- 4Meg (256K x 16bit) high speed RAM.
- 512K (64K x 8bit) EEPROM.
- Programmable 0 to 33MHz Direct Digital Synthesis (DDS) chip.
- 2 dedicated pairs of differential inputs and 2 dedicated pairs of differential outputs.
- FPGA Global Clocks include PC/104 bus, 100Mhz on board oscillator and the DDS outputs.
- 44 I/O pins.
- 2 user defined LEDs and 2 user defined switches.
- Xilinx XC18V02 Series In-System Programmable Configuration PROM.
- Fully supported by the Xilinx free Webpack software.
- PC/104 board size and bus configuration.
- IEEE 1149.1 JTAG compliant communication port.
- Power sources either through the PC/104 bus or an external power source.
- Available in Commercial and Industrial Temperature range.

SPECIFICATIONS:

Board Dimensions:	3.55" x 3.775"
External Power Source:	5 to 14VDC, 200mA minimum (current is dependent upon density and features programmed in the FPGA and I/O utilization)

DESCRIPTION:

The XG-300K is a PC/104 based board featuring a Xilinx 300K Spartan IIE, 4Meg of high speed RAM, 512K of EEPROM, programmable 0 to 33MHz Direct Digital Synthesis (DDS) chip, 44 I/O pins, and dedicated differential inputs and outputs. The board uses the Xilinx Spartan IIE, XC2S300E-6PQ208, which has extensive features including: 6,912 Logic Cells; 98,304 Distributed Ram Bits; and 64K Block RAM Bits. The XG-300K can be powered from the PC/104 bus or can be powered from an external DC source allowing the board to be utilized as a stacked module in PC/104 applications or as a standalone product design platform. This allows the board to be ideal in embedded PC/104 applications or to be utilized in development platforms, design prototypes or production products. The small size, versatility and extensive features of the XG-300K makes it a prime target for embedded applications or as an integrated part of a larger system.

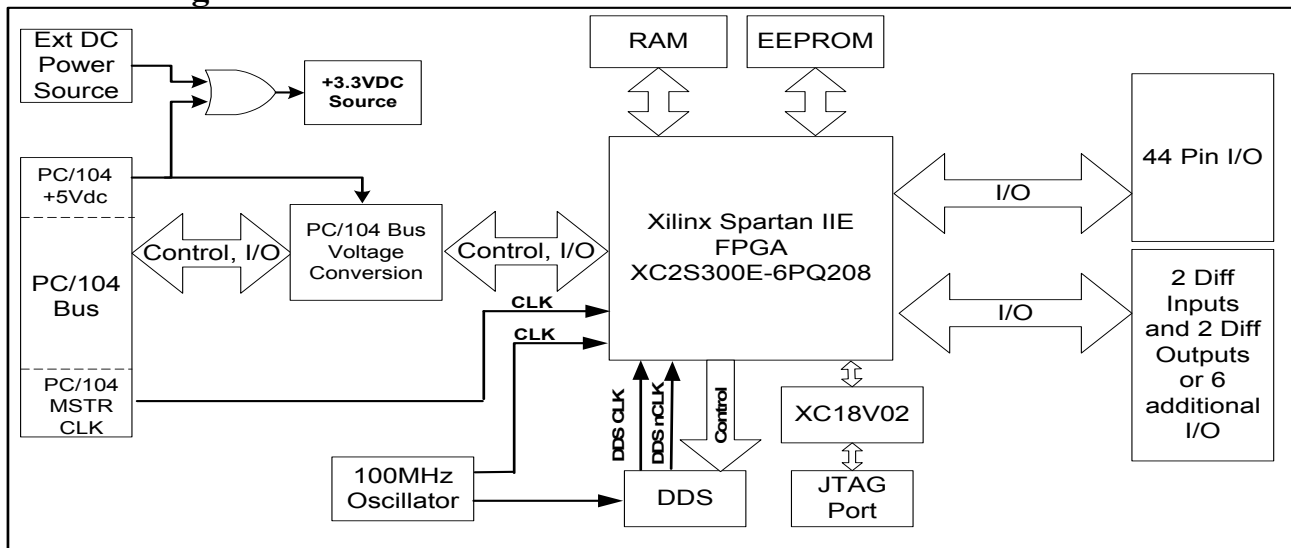
Device Selection Table

Part Number	PC/104 Connector Style	Temperature Range
XG-300K-NC	Non-Stackthrough	Commercial
XG-300K-SC	Stackthrough	Commercial
XG-300K-NI	Non-Stackthrough	Industrial
XG-300K-SI	Stackthrough	Industrial

The Spartan IIE FPGA's 4 Global Clock inputs are configured with the PC/104 Master Clock, a 100MHz on board oscillator, and two outputs from the DDS (one direct and one complimentary output of the DDS). This allows the XG-300K to be very flexible on single or multiple system clock requirements or system clock configurations.

The form factor and robustness of the XG-300K provides an ideal platform for embedded applications or as an integrated piece of a system.

Block Diagram



The XG-300K Data Sheet can be downloaded from www.jacyltechnology.com.

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