ASIC Prototyping Platform

PRODUCT DESCRIPTION

ASIC Prototyping Platform is for prototyping up to 8 million ASIC gates using Xilinx Virtex-5 LX330 FPGAs. This is a one-stop, cost-effective platform which can answer all prototyping requirements from IP development to hardware-software co-verification.

ASIC Prototyping Platform is a flexible platform with a range of expansion boards and optional I/O daughter cards to suit your application needs. Stacking options allow prototyping well beyond 8 million gates.

The platform is used for
- Full ASIC prototyping
- IP development
- Hardware-Software co-verification
- Architectural evaluation

KEY FEATURES

- Up to four Xilinx Virtex-5 LX330 FPGAs on one board
- Can be used for prototyping up to 8 million ASIC gates
- Boards can be stacked for prototyping more than 8 million gates
- Up to 20 global on-board and external clock feed options
- Compatible with industry standard partition and PAR tools
- A range of memory, interface and general purpose daughter boards

SPECIFICATIONS

FPGAs
- Four Xilinx Virtex-5 LX330 FPGAs

Interfaces
- 24 Daughter card connectors
  - Each daughter card with 118 signals
  - Less than 5ps skew between signals on any particular connector
- Supports all single ended and differential electrical levels supported by Xilinx Virtex-5 family
- 20 GPIOs on each FPGA – 10 LEDs and 10 position DIP switch
- Up to 776 inter-FPGA connections between the four FPGAs
  - Daughter card may be used for more inter FPGA connections
- Wide array of daughter cards available:
  - Boot card, Dual GigE card, LA Probe card, ARINC429, DDR2-DIMM, Digital IO, Parallel FLASH card, MIL1553B card, USB card, SFP card, ADC-200, x8 lane PCIe card, x1 lane PCIe card, LVDS card, STAR card, Interconnect card, PCI-X card and DAC card
Expansion slots
- 24 daughter card connectors
  - Each FPGA has six daughter card slots

Software / IP
- Easy clock configuration GUI for clock selection

MECHANICAL
- Air cooled board with heat sinks and fan for each FPGA
- Custom form factor
- Ability to stack multiple boards with help of daughter card connectors

POWER INPUT
- Single 5V DC power supply adaptor with 240V AC input
- 24 independently configurable power regions, one for each connector; configurable for 1.2V, 1.5V, 1.8V, 2.5V or 2.2V

ENVIRONMENTAL
- Temperature range: To be used in controlled temperature environment

PART NUMBER(S)
The following variants of this board are available:

<table>
<thead>
<tr>
<th>Part Numbers</th>
<th>Features</th>
</tr>
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<tbody>
<tr>
<td>PX540</td>
<td>Two Xilinx Virtex-5 LX330 FPGAs</td>
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<tr>
<td></td>
<td>24 daughter card connectors</td>
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<tr>
<td>PX520</td>
<td>Two Xilinx Virtex-5 LX330 FPGAs</td>
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<tr>
<td></td>
<td>12 daughter card connectors</td>
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<tr>
<td></td>
<td>On-board Ethernet interfaces</td>
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<tr>
<td></td>
<td>On-board SRAM, Flash and serial ports</td>
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