

# Dual V7 Prodigy Logic Module

## Large Capacity

- Up to 40M ASIC gates with two Virtex-7 2000T FPGAs on one board
- Up to 90Mbits of FPGA internal memory
- On-board DDR2 and DDR3 SO-DIMM sockets
- Can expand through the use of interconnection modules and/or mother board

## High Speed Transceivers

- Each FPGA has 16 Gigabit Transceivers with up to a total of 32 Gigabit Transceivers
- Gigabit Transceiver can run up to 10Gbps through high speed differential connectors

## Flexible & Powerful I/Os

- Each FPGA can access up to 988 external I/Os
- 360 dedicated I/Os per FPGA
- 480 shared net and I/Os between two FPGAs
- 50 direct interconnections between two FPGAs
- Dedicated I/O voltage can be adjusted to 1.2V, 1.5V, 1.8V through runtime software in GUI

## High Performance

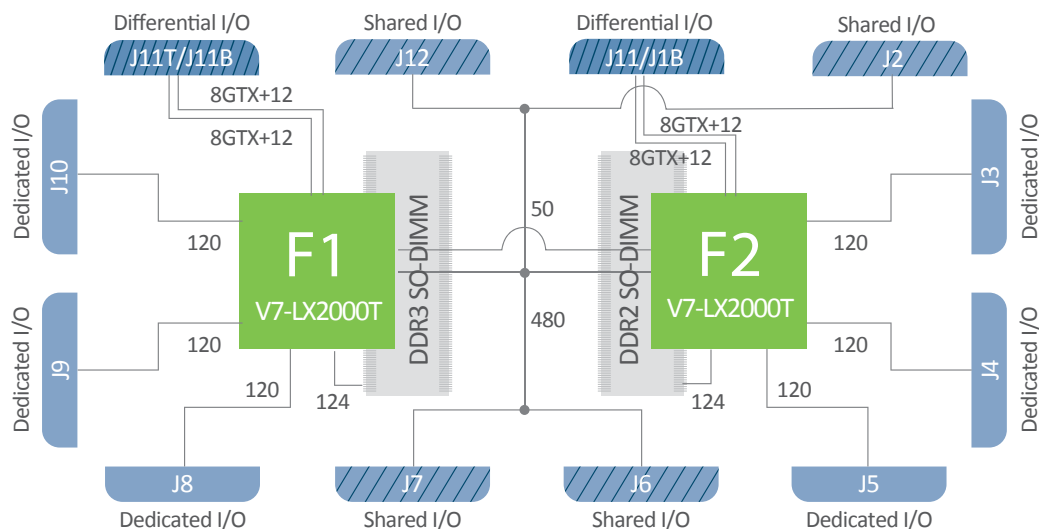
- Up to 60W of power for each FPGA
- Equal trace length for I/Os from same I/O connector
- Pre-tested DDR2 memory at up to 800Mbps and/or DDR3 memory at up to 1600Mbps

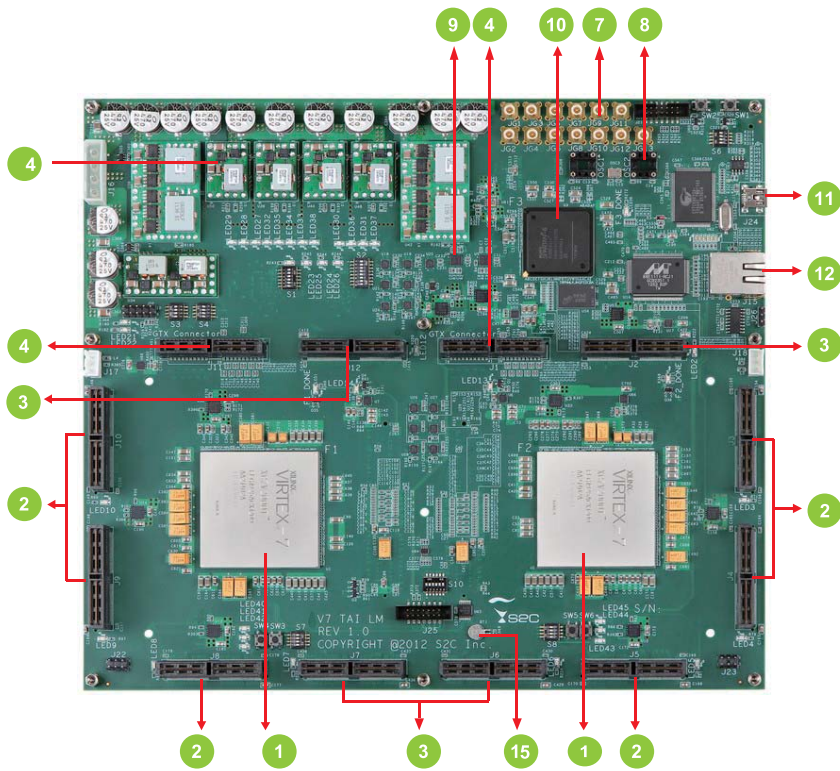
## Advanced Global Clock & Reset Management

- 14 global clocks to 2 FPGAs can be selected from:
  - 6 pairs of programmable differential clock sources (0.2~700MHz)
  - 6 pairs of differential SMB clock inputs
  - 6 pairs of differential feedback clocks from any of the two user FPGAs
  - 2 single-ended oscillator sockets
- Clocks are programed conveniently in S2C Prodigy Player Pro runtime software
- 1 global reset can be triggered from a push-button, SMB inputs or from runtime software

## Ease-of-Use

- Multiple FPGA configuration options through Gigabit Ethernet Port, USB2.0 Port, JTAG and SD Card
- Less than 3 seconds per FPGA per configuration through SD
- Many new runtime features including setting I/O voltage, read hardware status through software
- User Test Area - LEDs, Push Buttons, Switches and GPIO Headers for testing and debugging
- Design Implementation – Prodigy Player Pro supports design partition across multiple FPGAs
- Design Debug – Set probes at the RTL level and bring the signals up to the top level
- Use many off-the shelf pre-tested daughter boards





- 1 Xilinx Virtex-7 2000 FPGA
- 2 Dedicated I/O
- 3 Shared I/O
- 4 GTX I/O
- 5 DDR2 SO-DIMM Socket
- 6 DDR3 SO-DIMM Socket
- 7 SMB CLK In & Out
- 8 2 Oscillator Sockets
- 9 Programmable Clock Generator
- 10 LM Controller
- 11 USB Interface to PC
- 12 Giga-Ethernet Port to PC
- 13 SD Card for Download
- 14 Power Module
- 15 Battery for Encryption

