

Prodigy™ S7-13P Logic System

The Prodigy S7-13P Logic System is a high-performance, compact, all-in-one prototyping system that includes all components – FPGA module, power control module, and power supply - for maximum flexibility, durability, and portability. The system is based on Xilinx's Virtex UltraScale+ VU13P FPGA and provides 676 general purpose I/Os and 48 GTY transceivers on 11 high-speed connectors. Utilizing the 7th generation Prodigy Player Pro™ technology, user can perform an array of runtime features remotely through both Ethernet and USB. User also has access to S2C's vast library of over 90 daughter cards to quickly build prototyping targets.

Highlights

- Supports 25Gbps transceivers
- 3.78M System Logic Cells, 455 Mb of internal memory, and 12,288 DSP Slices
- 676 high-performance I/Os
- 4x QSFP28 optical interfaces, each supporting 100G applications
- Supports MIPI and x8 PCIe Gen3
- Abundant remote management capability



Features

Large Capacity & Scalability

- 3.78M System Logic Cells
- 455Mb of internal memory
- 12,288 DSP Slices
- Multiple Logic Systems can be conveniently connected to expand capacity

Flexible & Powerful I/Os

- 576 I/Os and 15 GTY transceivers through 4 Prodigy I/O connectors
- 16 GTY transceivers and 32 GPIOs through 2 PGT I/O connectors
- 16 GTY transceivers through 4 QSFP28 connectors
- I/O voltage can be adjusted to 1.2V, 1.35V, 1.5V or 1.8V through runtime software in GUI with 4 status LEDs on-board to indicate I/O voltage

High Performance

- Equal trace length for all the Prodigy I/O connectors
- Up to 100W of power for an FPGA

High Reliability

- Screw-lock design to high-speed I/O connectors
- Self-Tests – Isolate design issues from board issues conveniently with a software GUI
- Monitoring of on-board voltage, current, and temperature with a software GUI
- Automatic shut-down upon detection of over-current, over-voltage, or over-temperatures