

BittWare
a **molex** company

XUP-PL4
PCIe FPGA Board

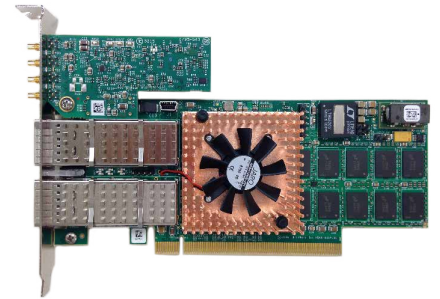


UltraScale+ PCIe board with QSFP and DDR4

BittWare's XUP-PL4 is a low-profile PCIe x16 card based on the Xilinx Virtex UltraScale+ FPGA. The UltraScale+ devices deliver high-performance, high-bandwidth, and reduced latency for systems demanding massive data flow and packet processing. The board offers up to 32 GBytes of memory, sophisticated clocking and timing options, and two front panel QSFP cages, each supporting up to 100 Gbps (4x25) - including 100GbE.

The XUP-PL4 also incorporates a Board Management Controller (BMC) for advanced system monitoring, which greatly simplifies platform integration and management. All of these features combine to make the XUP-PL4 ideal for a wide range of data center applications, including network processing and security, acceleration, storage, broadcast, and SigInt.

XILINX



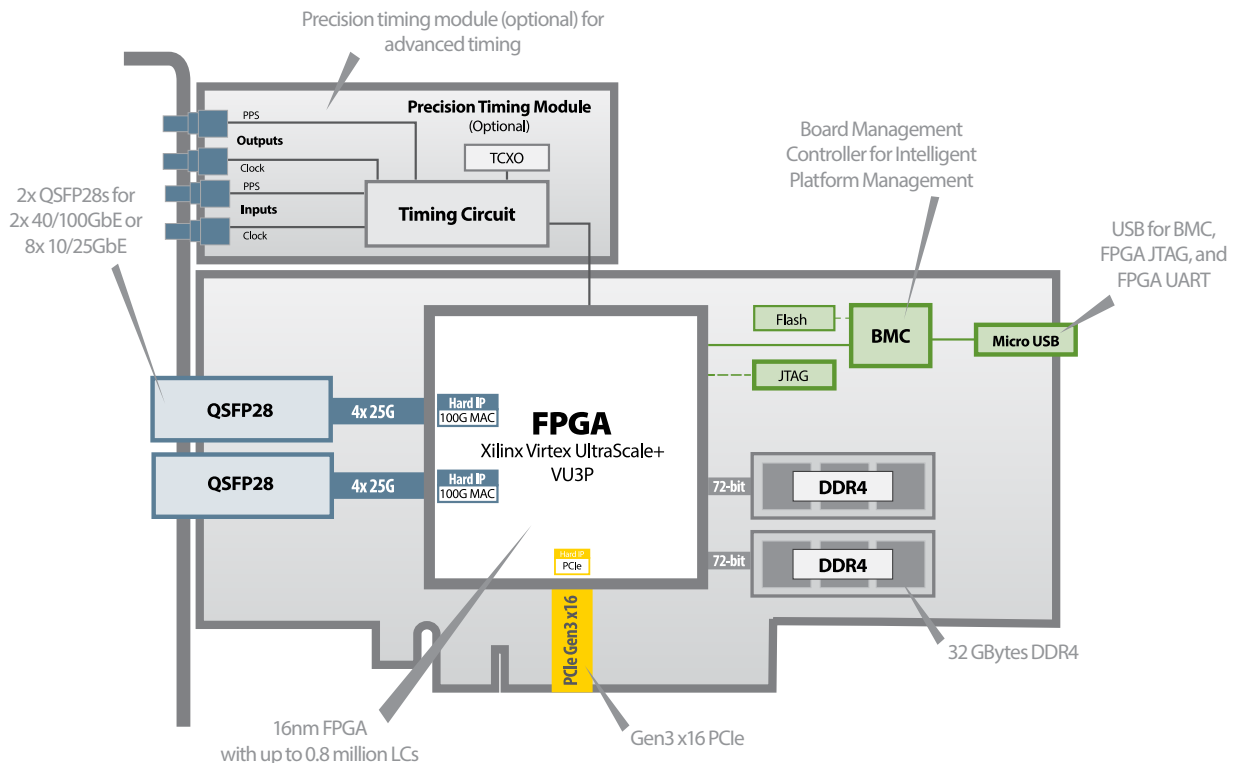
An optional add-on module provides precision timestamping capabilities

key features

2x 100GbE
via 2 QSFP28

Up to 32 GBytes
DDR4

Precision clocking and timing options



Additional Services

Take advantage of BittWare's range of design, integration, and support options



Customization

Additional specification options or accessory boards to meet your exact needs.



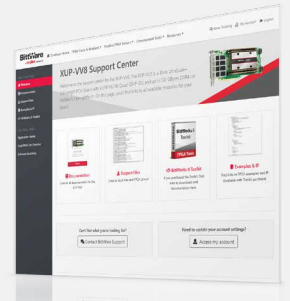
Server Integration

Available pre-integrated in our [TeraBox servers](#) in a range of configurations.



Application Optimization

Ask about our services to help you port, optimize, and benchmark your application.



Service and Support

BittWare Developer Site provides online documentation and issue tracking.

Board Specifications

FPGA	<ul style="list-style-type: none"> Virtex UltraScale+ <ul style="list-style-type: none"> VU3P in C1517 package Core speed grade - 2 Contact BittWare for other FPGA options
On-board memory	<ul style="list-style-type: none"> Flash memory for booting FPGA Two banks of up to 16 GB DDR4 (x72)
Host interface	<ul style="list-style-type: none"> x16 Gen3 interface direct to FPGA
Utility header	<ul style="list-style-type: none"> Micro USB for BMC access and programming Flash
Timestamping (optional)	<ul style="list-style-type: none"> 1 PPS input/output Reference clock input/output
QSFP cages	<ul style="list-style-type: none"> 2 QSFP28 (zQSFP) cages on front panel connected directly to FPGA via 8 transceivers Each supports 100GbE, 40GbE, 4x 25GbE, or 4x 10GbE and can be combined for 400GbE

Board Management Controller	<ul style="list-style-type: none"> Voltage, current, temperature monitoring Power sequencing and reset Field upgrades FPGA configuration and control Clock configuration I²C bus access USB 2.0 Voltage overrides
Cooling	<ul style="list-style-type: none"> Standard: single-width active heatsink
Electrical	<ul style="list-style-type: none"> On-board power derived from 12V PCIe slot Power dissipation is application dependent
Environmental	<ul style="list-style-type: none"> Operating temperature 5°C to 35°C
Size	<ul style="list-style-type: none"> Low profile (half-height, half-length) PCIe slot board 6.6 x 3.85 inches

Development Tools

System development	<ul style="list-style-type: none"> BittWorks II Toolkit - host, command, and debug tools for BittWare hardware
FPGA development	<ul style="list-style-type: none"> FPGA Examples - example Vivado projects Xilinx Tools - Vivado® Design Suite



ALLIANCE PROGRAM
CERTIFIED

To learn more, visit www.BittWare.com

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