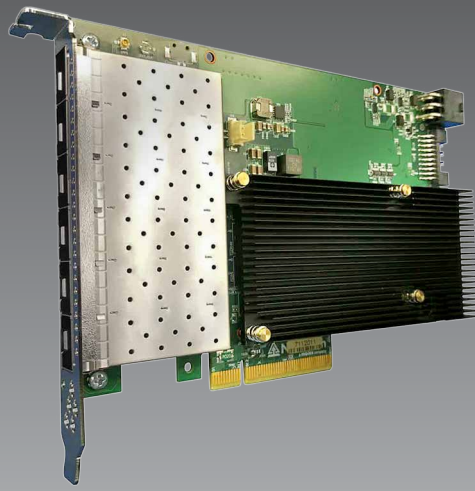


**BittWare**  
a **molex** company

**385A-SFP**  
PCIe FPGA Board



## Arria 10 PCIe FPGA Board

1/2-Length PCIe with Six SFP+ and DDR3

The 385A-SFP network accelerator card provides a powerful PCI-Express compute and high-density I/O platform for processing high-speed network traffic, FPGA development and deployment across a range of application areas including inline error correction, network traffic storage, and high frequency trading.

### Key Applications

Designed to address a range of latency-critical applications:

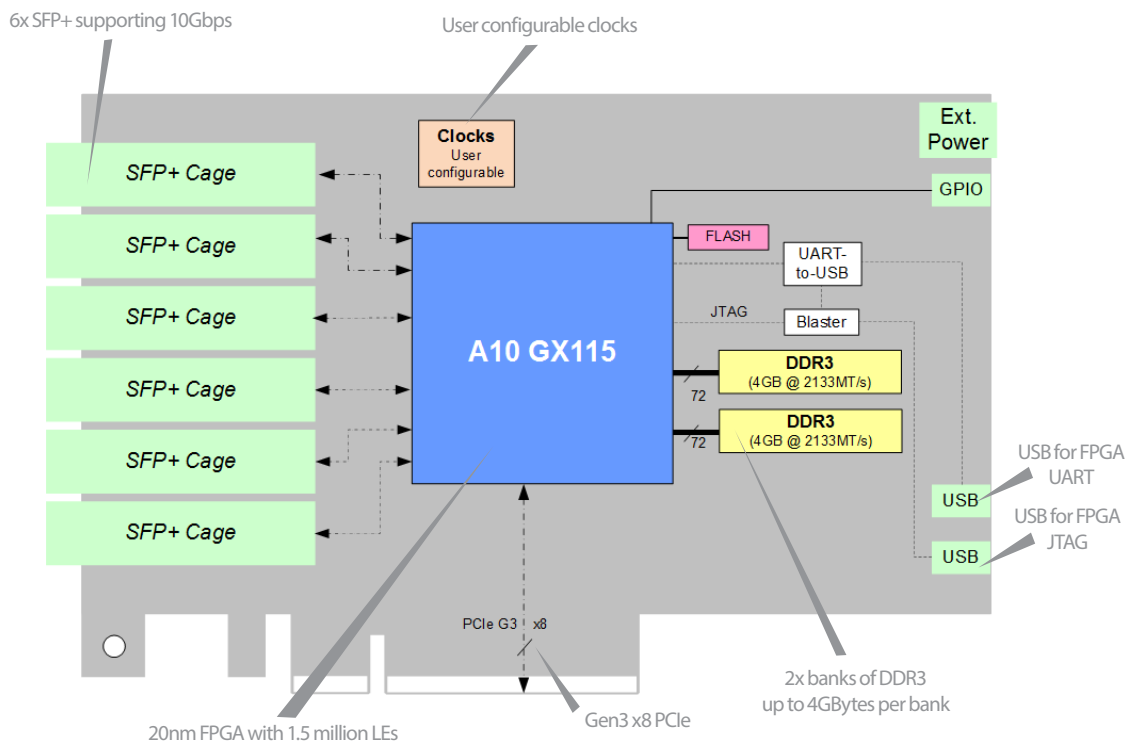
- Macrocell monitoring
- Macrocell inline digital RF filtering
- RF interference monitoring across CPRI
- CRAN monitoring using multiple cards across the PCIe bus
- Backhaul monitoring of Ethernet traffic
- High Frequency Trading
- Video Transcoding
- Medical Imaging

## key features

Intel Arria 10  
GX 1150

6x SFP+  
for 10Gbps

8 GBytes  
DDR3



# 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.



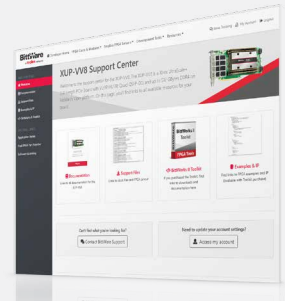
## Server Integration

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"> <li>Intel Arria 10 GX             <ul style="list-style-type: none"> <li>1150GX in F45 package</li> <li>Core speed grade -2: I/O speed grade -3</li> </ul> </li> <li>Contact BittWare for other Arria 10 GX options</li> </ul>
On-board Flash	<ul style="list-style-type: none"> <li>Flash memory for booting FPGA</li> </ul>
On-board memory	<ul style="list-style-type: none"> <li>Two banks of DDR3 SDRAM x 72 bits</li> <li>4GB per bank (8GB total /16GB and 32GB version also available)</li> <li>2133MT/s per bank</li> </ul>
Host interface	<ul style="list-style-type: none"> <li>x8 Gen3 interface direct to FPGA</li> </ul>
SFP+ cages	<ul style="list-style-type: none"> <li>6 SFP+ cages on front panel connected directly to FPGA via 6 transceivers</li> <li>Supports 1/10Gb Ethernet, Fiber Channel, and CPRI rates up to 10 Gbps</li> <li>Clocked by up to four independent sources</li> <li>Clocking options:             <ul style="list-style-type: none"> <li>User clock programming via I2C</li> <li>Flexible low jitter clocking</li> <li>External clock input, 1PPS</li> </ul> </li> </ul>
GPIO	<ul style="list-style-type: none"> <li>Single ended and differential GPIO connector</li> </ul>
Power Supply Monitoring & Reporting	<ul style="list-style-type: none"> <li>On-board Intel USB-Blaster II</li> <li>Power and temperature monitoring</li> </ul>
Cooling	<ul style="list-style-type: none"> <li>Standard: single-width active heatsink (embedded fan)</li> <li>Optional: single-width passive heatsink</li> </ul>

Electrical	<ul style="list-style-type: none"> <li>On-card power derived from host motherboard PCIe slot and optional external power source</li> <li>Power dissipation is application dependent</li> <li>Typical max power consumption 75W</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>Operating temperature: 5°C to 35°C</li> </ul>
Quality	<ul style="list-style-type: none"> <li>Manufactured to IPC-A-610 Class 2</li> <li>RoHS compliant</li> </ul>
Form factor	<ul style="list-style-type: none"> <li>Standard-height, half-length PCIe single-slot board</li> <li>167.6mm x 110.9 mm x 17mm</li> </ul>

## Development Tools

FPGA development	<b>BIST</b> - Built-In Self-Test for CentOS 7 provided with source code (pinout, gateway, PCIe driver & host test application)
Application development	<b>Supported design flows</b> - Quartus Prime Pro (HDL, Verilog, VHDL, etc.)

## Deliverables

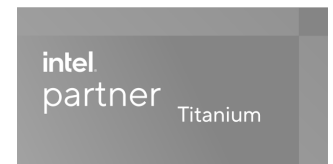
- 385A-SFP FPGA board
- USB cable (back panel access)
- Built-In Self-Test (BIST)
- 1-year access to online Developer Site
- 1-year hardware warranty

To learn more, visit [www.BittWare.com](http://www.BittWare.com)

Rev 2021.11.23 | November 2021

© BittWare 2021

Arria 10 is a registered trademark of Intel Corp. All other products are the trademarks or registered trademarks of their respective holders.



**BittWare**  
a **molex** company