



Xinetics Phantom V7 Camera Interface Proposal

New Jersey Institute of Technology

Proposal Q10-187c

Prepared by
Scott Walker
Joe Murphey
April 2, 2010

Quasar Systems Inc.

21525 Ridgetop Circle, Suite 120
Sterling VA, 20166
703-421-0420

Joe.Murphey@quasarsystemsinc.com
www.quasarsystemsinc.com

Attn: Phil Goode

Quasar Systems is pleased to provide this fixed price quote for the Xinetics Phantom V7 camera interface to the Bittware T26U card. Specifically, this includes the following tasks:

- 1) Interfacing to the Vision Research Phantom V7 camera through eight serial MGT ports of the T2-6U cPCI board using Fiber Channel framing protocol at 2.032 Gbps.
- 2) Provide 20-bit SOR-422U Interface via the Bittware T2-6U cPCI board.
- 3) Implementation, integration and coding of ATLANTiS FPGA on Bittware board.

The deliverables include the following:

- VHDL source code for the ATLANTiS FPGA on T26U
- VHDL testbench and simulation code
- FPGA design specification

The validation phase is to be completed at the Quasar facility and can be scheduled to begin ten weeks ARO (After receipt of purchase order).

Task	Cost
FPGA Design	\$ 15,000.00
FPGA Simulation	\$ 8,000.00
Cable	\$ 3,000.00
Documentation	\$ 6,000.00
Reviews	\$ 2,000.00
Support	\$ 4,000.00
System Test	\$ 11,000.00
System Engineer	\$ 5,000.00
TOTAL	\$ 54,000.00

Assumptions include the following:

- This effort utilizes the Vision Research Phantom V7.3 Camera
- NSO (Kit Richards) will assist during validation
- DSP coding will be done by Kit Richards and NSO team
- Any other software will be the responsibility of NSO team
- Validation phase will be on-site at Quasar
- All source code will be developed in VHDL and simulated using ModelSim.
- Camera will be purchased by NJIT and delivered to Quasar for testing and integration

- All additional hardware will be purchased from Bittware and delivered to Quasar for testing and integration. (See separate quote for h/w from Lacey Brown of Bittware)
- Bittware will configure and test system before shipment to Quasar so that system level is functional and validated before development
- NSO (Kit Richards) will come to Quasar for testing and integration of DSP code in system
- NJIT BBSO optical engineer Nicolas Gorceix will be present for validation
- If travel is needed to debug or for support at customer site or via phone this will be done on a time and materials basis with all expenses paid for by NJIT. Quasar hourly rate is \$125 per hour

Milestone	Percent	Payment
Project Kickoff	25%	\$ 13,500.00
Preliminary Design Review	25%	\$ 13,500.00
Completion	50%	\$ 27,000.00

Quasar Systems Inc. is very pleased to have the opportunity to provide this proposal to Bittware. This quote is valid for 30 days. If you have any questions or concerns regarding this proposal, please do not hesitate to contact me at 703-421-0420.

Regards,

Joe Murphey
Quasar Systems Inc.