



AIDA

Advanced European Infrastructures
for Detectors at Accelerators

AIDA Beam-Telescope TLU Hardware for TimePix TLU

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AIDA and Timepix Discussion

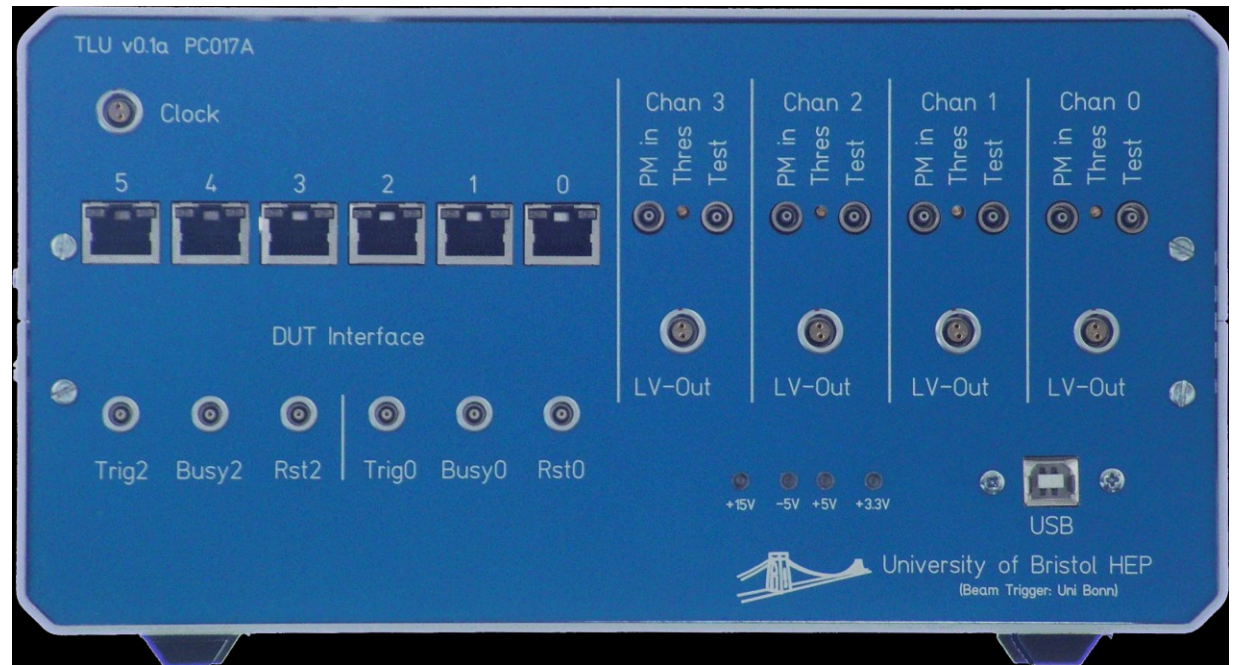
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EUDET Beam-Telescope TLU



AIDA Beam-Telescope will be a development of EUDET JRA1 TLU

- Accepts PMT/NIM/TTL input signals
- Forms a trigger (AND/OR/VETO)
- Sends triggers to “Device Under Test”
- Integrated with EUDAQ data acquisition system

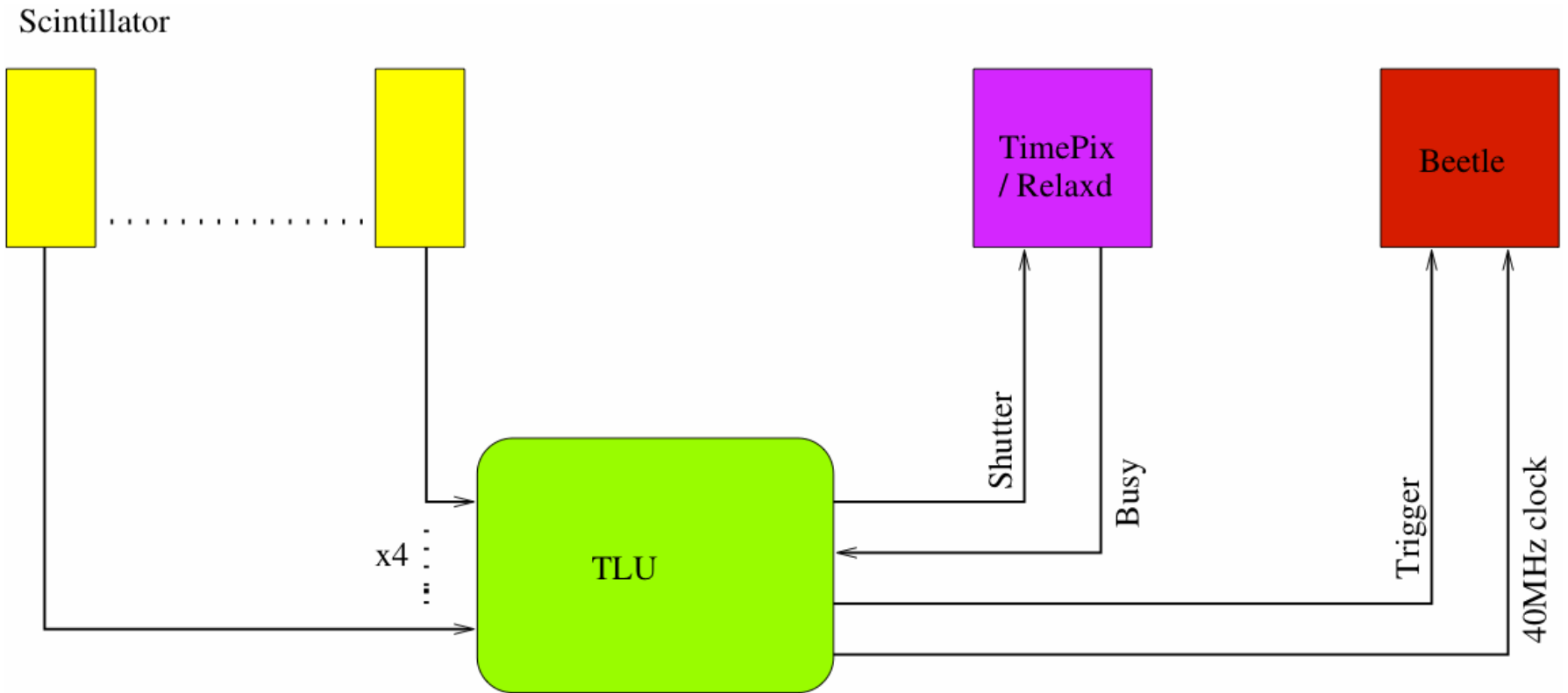


AIDA Beam-Telescope TLU

Mini-TLU being developed now

- FMC (FPGA Mezzanine Card) format
- Could be used as hardware for TimePix TLU
- Timepix specific firmware from Daniel Esparante?
- Gigabit Ethernet communication
 - Use IPBus
 - Developed for CMS upgrade
 - Hardware UDP/IP. Faster, uses less space than microprocessor
 - Working now.

Hardware Signals



Status

- Schematic capture ~ 30% complete.
- Template with FMC outline, connector done
- Project created on CERN OHWR site:
 - <http://www.ohwr.org/projects/fmc-mtlu>

Summary

- Hardware development underway
- Possibility of mutually beneficial collaboration
 - Reduce hardware costs
 - Better tested hardware and firmware