

Complete Parallel Readout VME DAQ System



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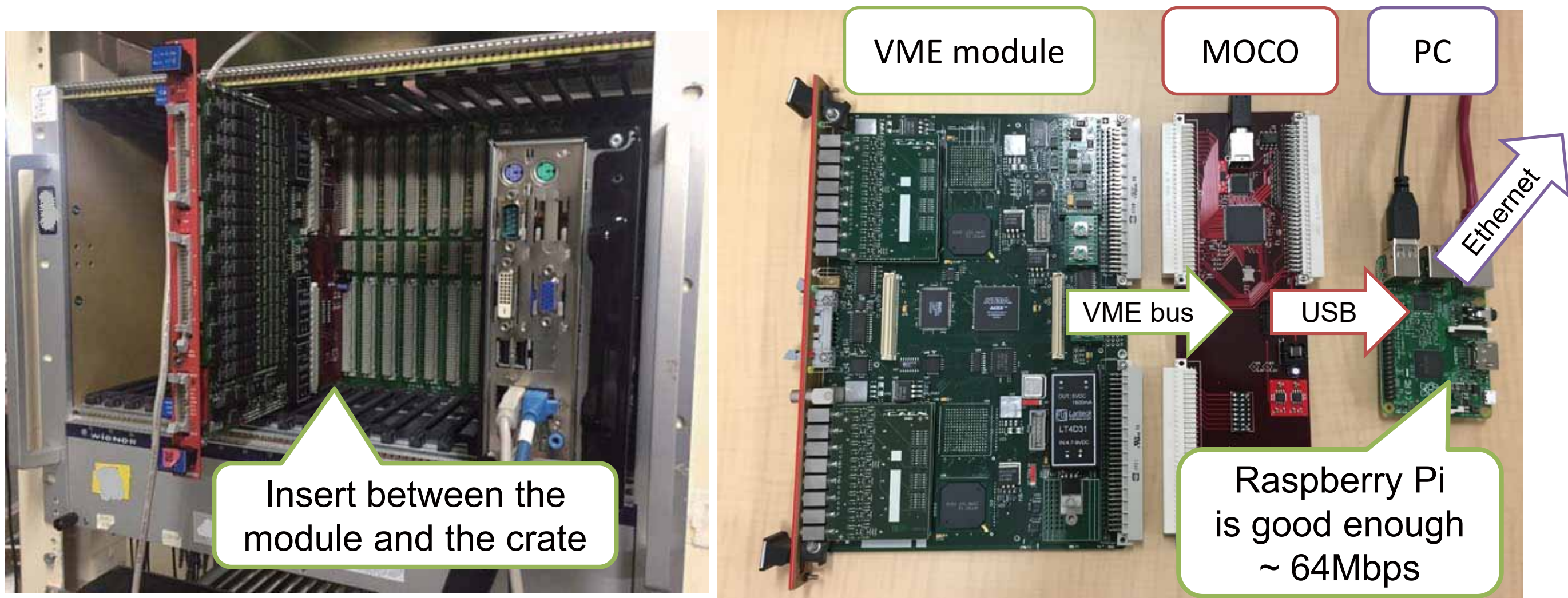
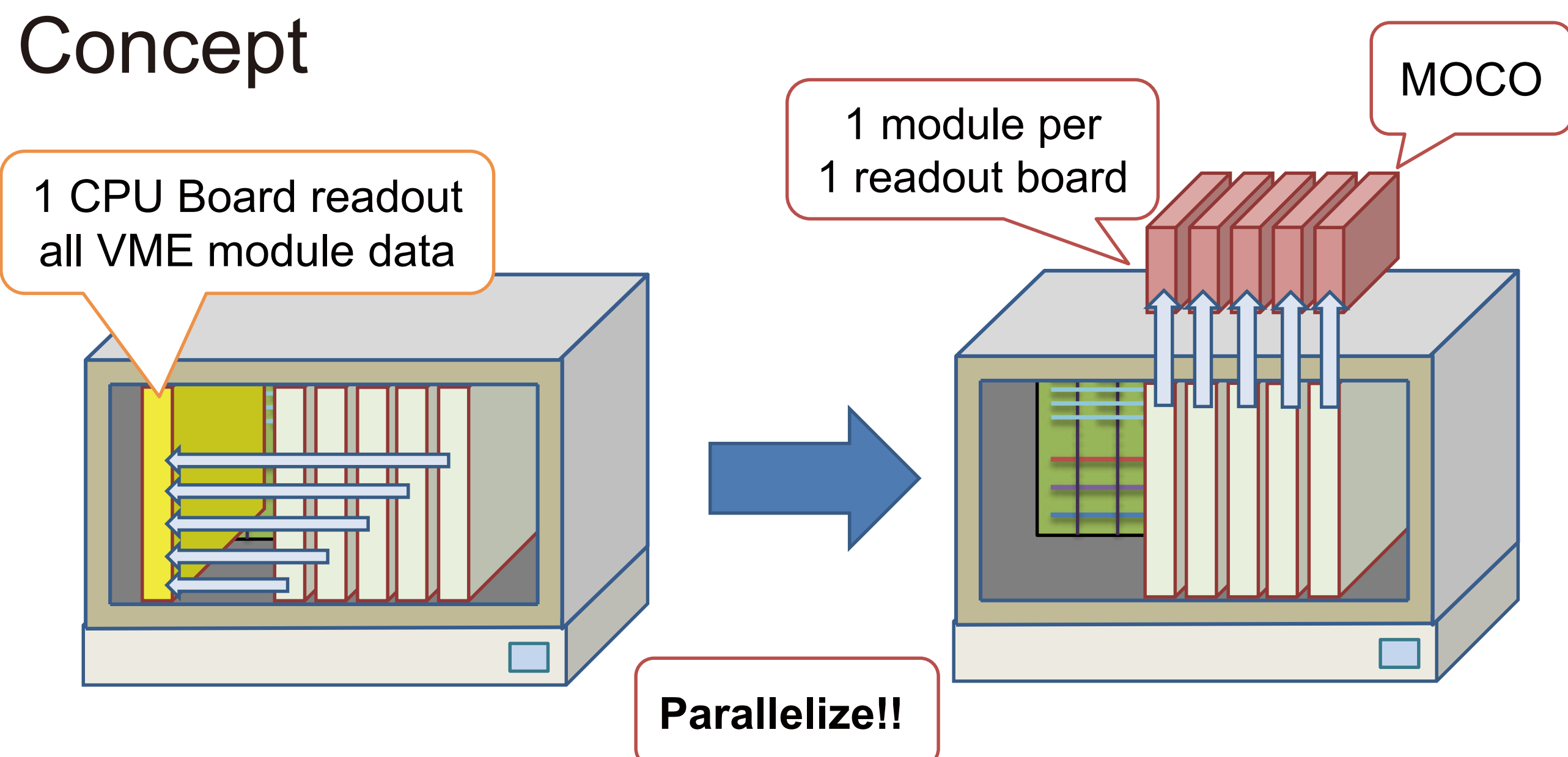
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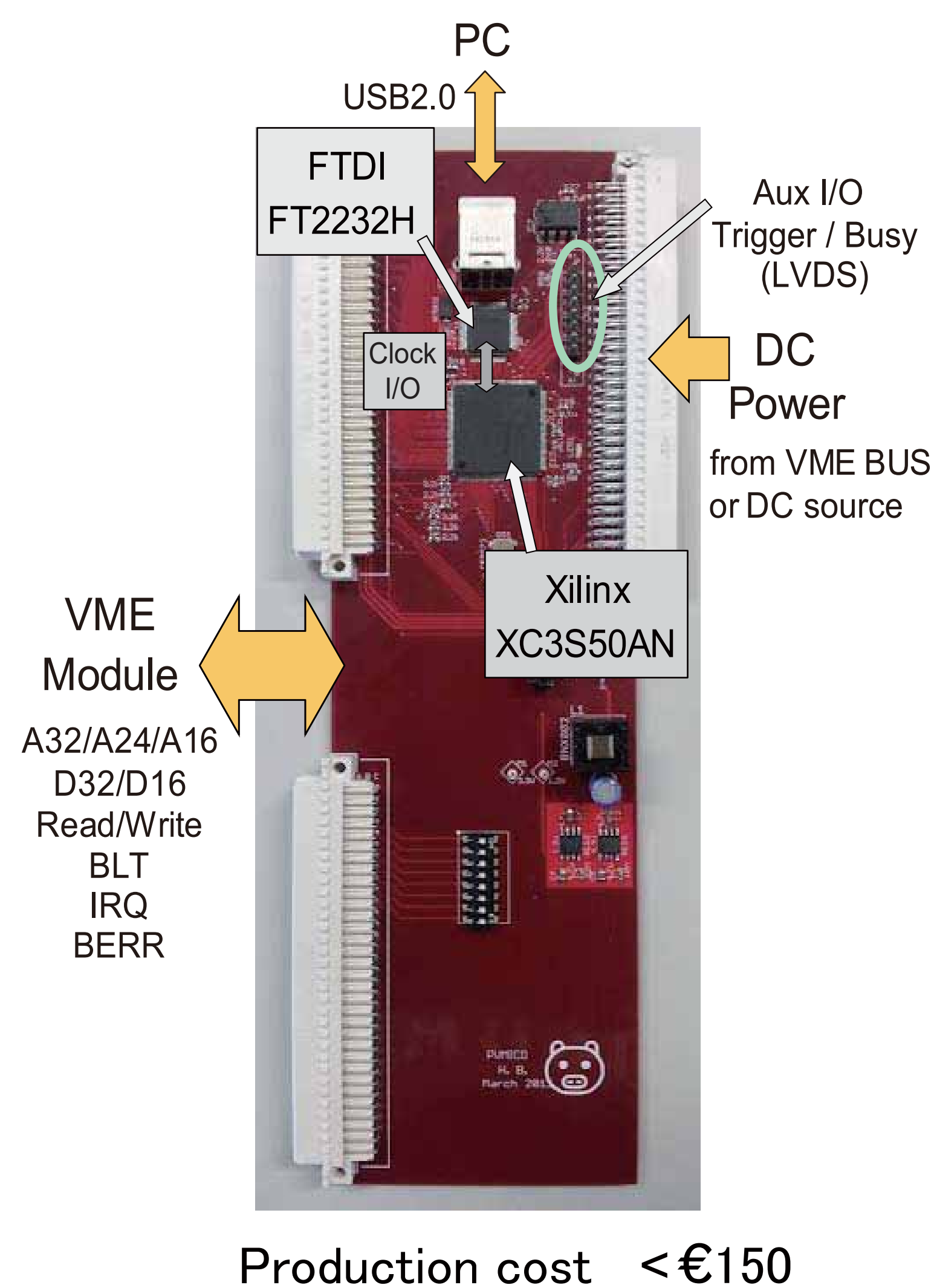
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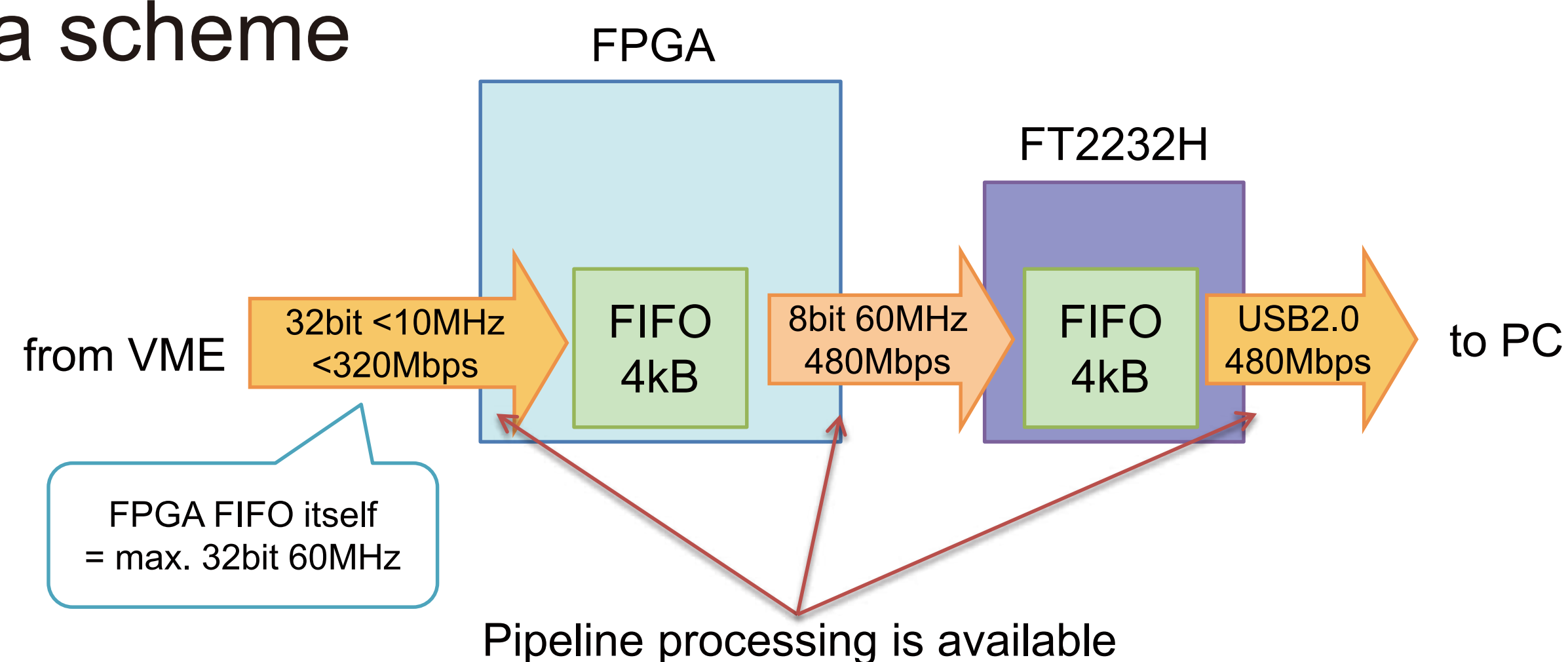
Concept



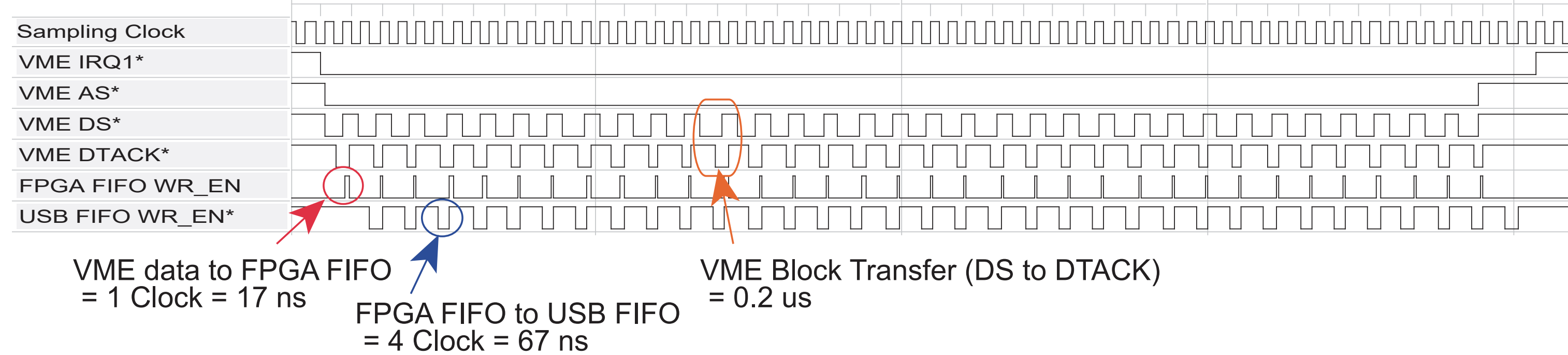
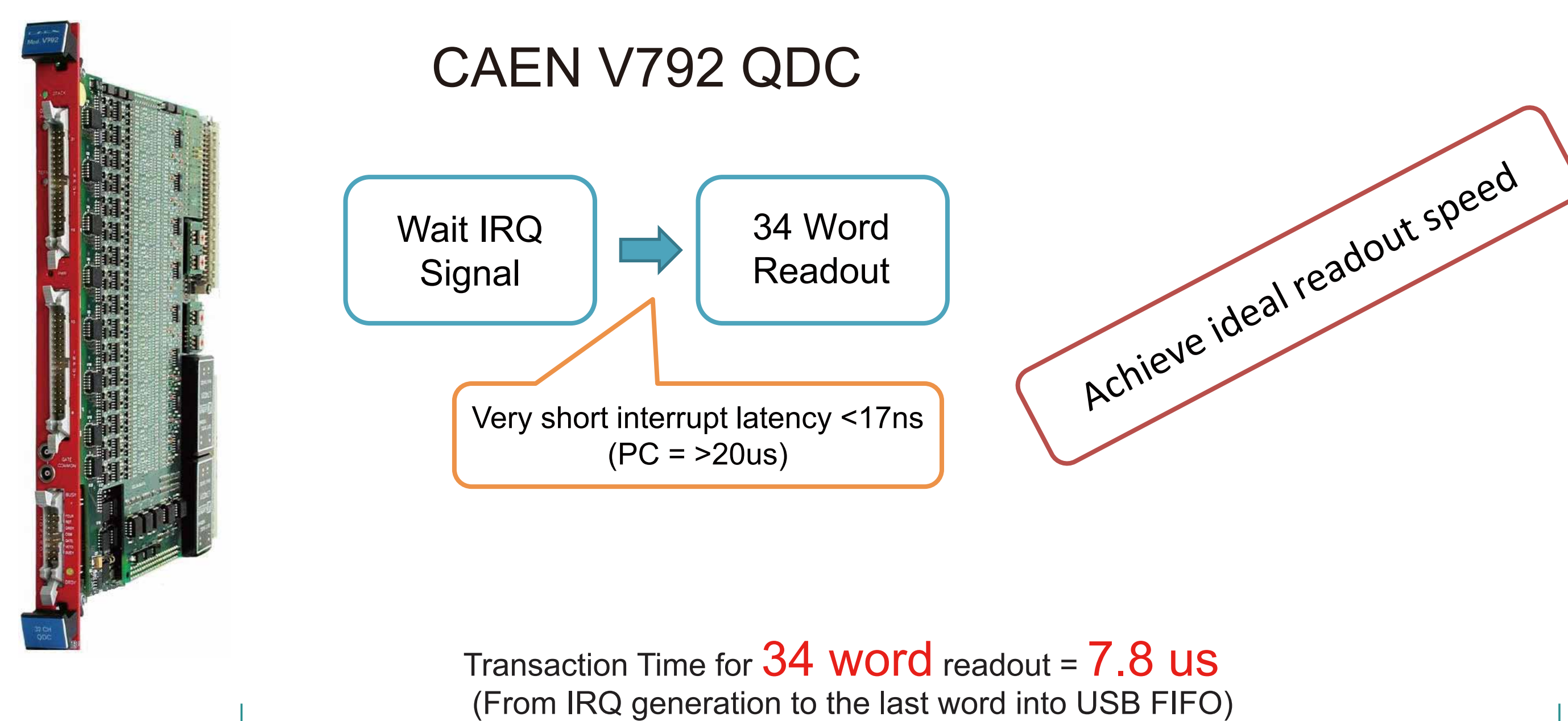
Mountable Controller (MOCO)



Data scheme



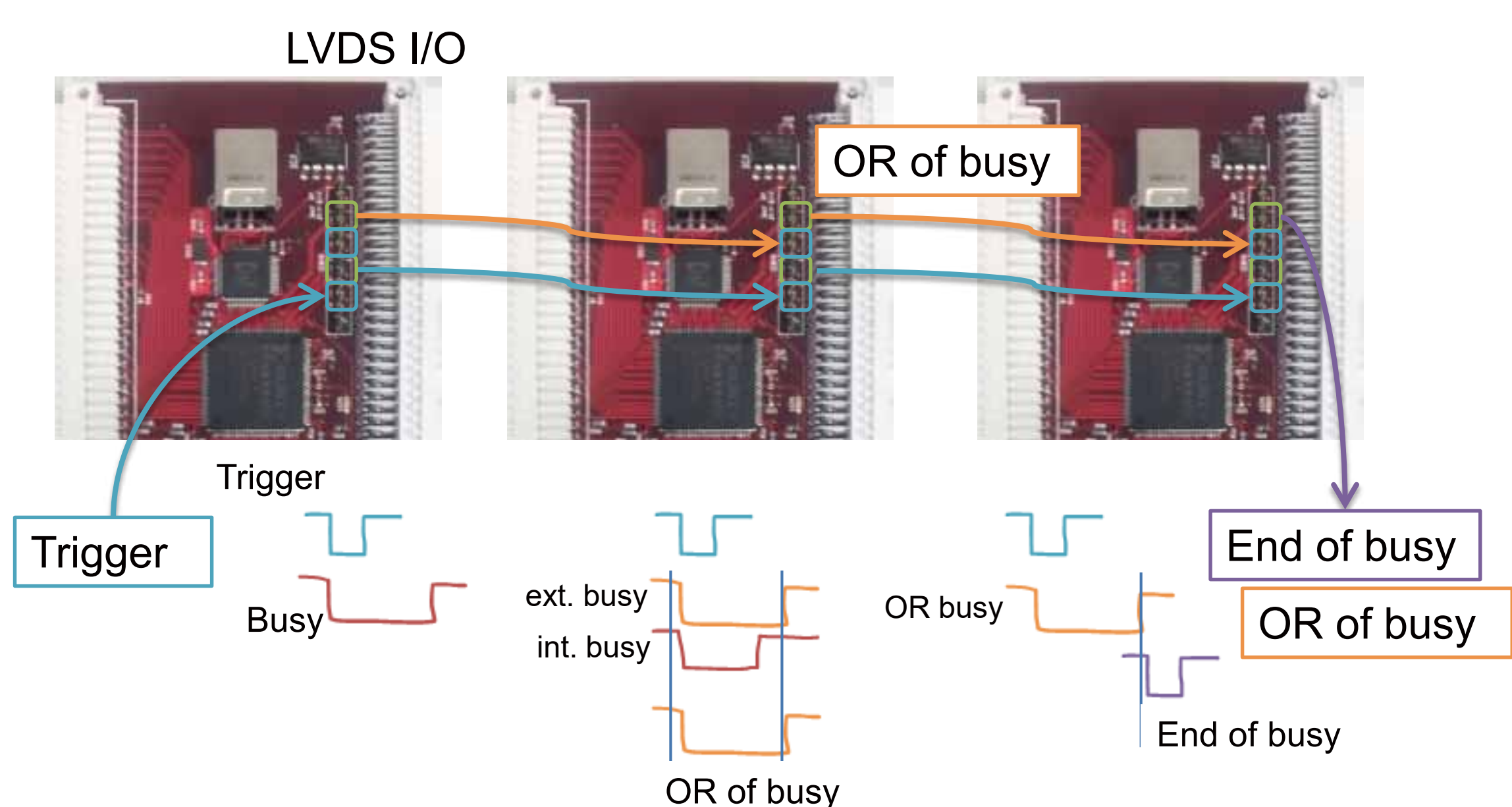
Readout performance



Operation Modes

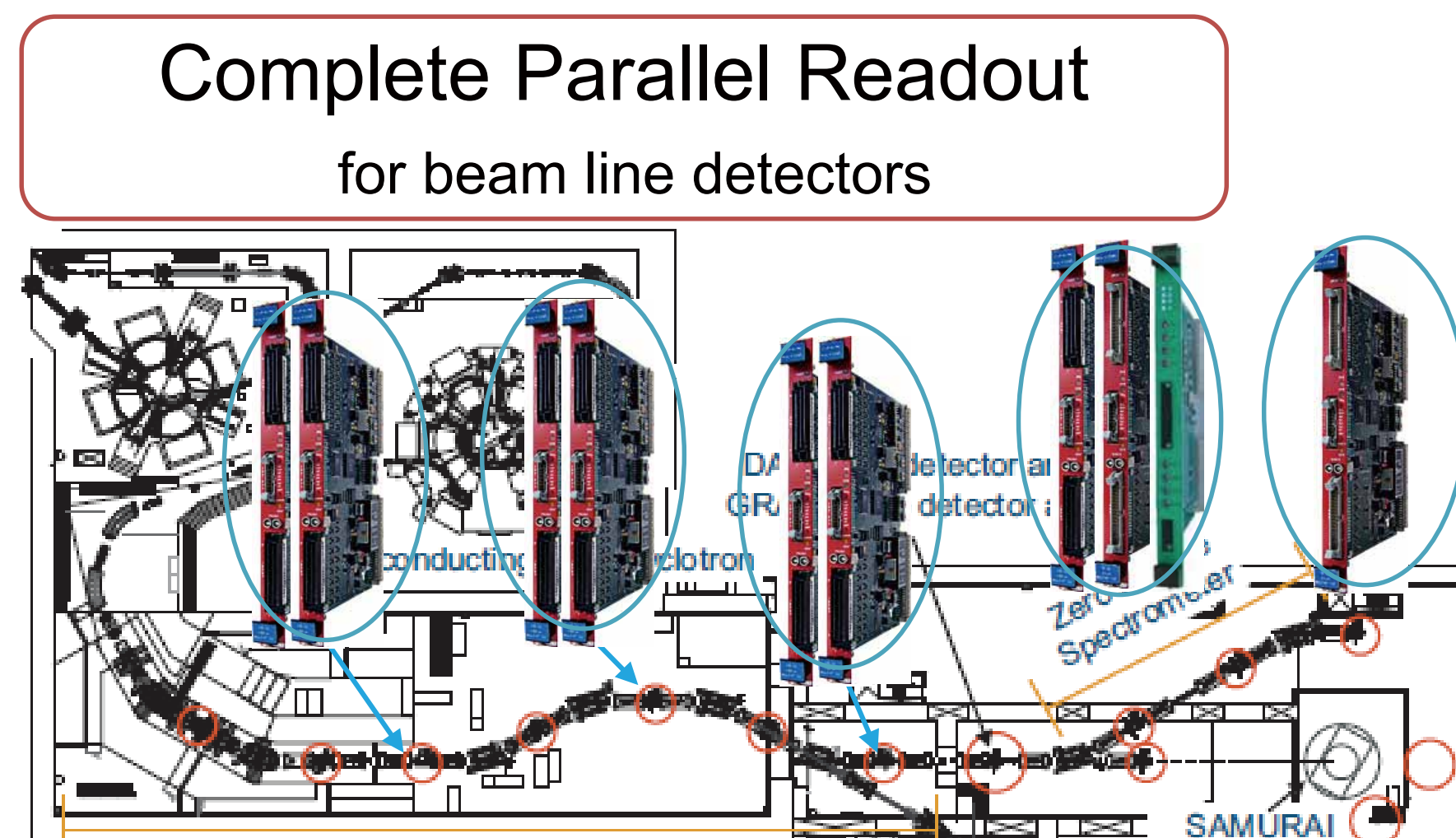
- Trigger synchronize (+ Busy output)
 1. Wait Trigger → Readout
 2. Wait Trigger → Wait IRQ → Readout
- Free run
 3. Wait IRQ → Readout
 4. Readout

Event synchronization (Trigger and Busy)



Experiment at RIKEN RIBF (Japan)

Isoscalar Giant Monopole Resonance in ¹³²Sn (RIBF113)



Readout 10 VME modules in parallel

7 x CAEN V1190 (100ps TDC)

2 x CAEN V1290 (25 ps TDC)

1 x Niki LUPO (TimeStamp)

Data Rate = 2.7 MByte/sec

Live Time = 99 %

Readout Time = 49.2 us/event (0.2us for 32bit data)