Cold Electronics

Single-Phase Module DAQ

APA 2

Single-Phase Module DAQ Components for two APAs

WIB3 connectors [1] [2] [3] [4]

WIB1 connectors [1] [2] [3] [4]

WIB2 connectors [1] [2] [3] [4]

WIB4 connectors [1] [2] [3] [4]

WIB5 connectors [1] [2] [3] [4]

Front-End Readout for two APAs

ACTA COB 2

RCE1 FPGA RAM SSD

RCE2 FPGA RAM SSD

RCE3 FPGA RAM SSD

RCE4 FPGA RAM SSD

Data and Trigger Primitives

APA 1

ACTA COB 1

WIB3 connectors [1] [2] [3] [4]

WIB1 connectors [1] [2] [3] [4]

WIB2 connectors [1] [2] [3] [4]

WIB4 connectors [1] [2] [3] [4]

WIB5 connectors [1] [2] [3] [4]

RCE1 FPGA RAM SSD

RCE2 FPGA RAM SSD

RCE3 FPGA RAM SSD

RCE4 FPGA RAM SSD

Front-End Computing for two APAs

FELIX Host Computer

FELIX PCIe board

RAM Buffer

Data Selector

trigger candidates

Single-Phase Module Back-end Computing

Out-of-band dispatcher

OOB dump command

Module Trigger Logic

trigger commands

Event Builder

SNB dump Event Builder

Offline Disk Buffer

Single-Phase Module -- two APAs