Gigabit Ethernet On Board

Integrated Gigabit Ethernet with connection to front panel - the board can operate as an economical standalone networked appliance. The board uses the CPCI backplane for power and ground only, so it can either be simply retrofitted to an existing CPCI system with no effect on the existing memory map, or economical standalone systems can be created using a low cost CPCI chassis.

Digital I/O	
External Clock, Trigger Signals	Front Panel Lemos - 2 lines Backplane PXI - 6 lines
External Clock Input Rate	Minimum Clock Input = 600kHz Maximum Clock Input = 20 MHz [4]
Switching Characteristics	TTL - Opto-Coupled
Sample Clock Rate	Derived from internal or external clock source, clock multiplier is programmable, output rate controllable in 8Hz steps.
High Time for Trigger	100 nS min
Low Time for Trigger	100 nS min

[1] : Typical values measured at full scale with a 9.76kHz input.
[2] : via hardware offset DAC set by calibration table
[3] : via post processing numerical adjust using on-board calibration table
[4] : Input to clock multiplier, allows Sample Rate range 9..128 kHz.

11.10 Rolling mean Channel data available during shot

The “mean device” provides access to a boxcar running mean of data during capture. This allows applications to get trend data on all analog inputs while pre trigger capture proceeds at full sample rate to local memory.

- enable: **`load.mean`**
- view: `/dev/mean/CC` # data is presented as 4 byte ints for channels 01..NN

The mean device is intended for use with SCADA connectivity such as the EPICS IOC.

The mean device has the following controls:

- control #samples to average: `log2mean`
- control decimation : `skip`
- view actual rate: `update_interval_ms`

Examples accessing controls:

```
# set decimation 10
set.sys /sys/module/acq200_mean/parameters/skip 10
# set number of samples in mean to 16
set.sys /sys/module/acq200_mean/parameters/log2mean 4

# review actual sample rate:
get.sys /sys/module/acq200_mean/parameters/update_interval_ms
```

The problem is that on current DAQ computer the directory /sys/module/acq164_mean doesn’t exist. Neither does /sys/module/acq200_mean or anything similar