

**Operation/ testing procedures for Naomi WFS CCD camera****wht-naomi-48**

Naomi WFS camera has two EEV CCD39-01 DUAL in-line Package with integral 2-stage Peltier cooler. The CCD39-01 is back illuminated with 80\*80 (plus 4 underscan each row) pixels, each pixel has 24 um square.

The CCD is cooled by means of supplying DC current to the package. At present, the DC current is generated by DC voltage supplier with serial resistor ( see Brenda 's Docs).

The camera system layout is illustrated in Figure 1

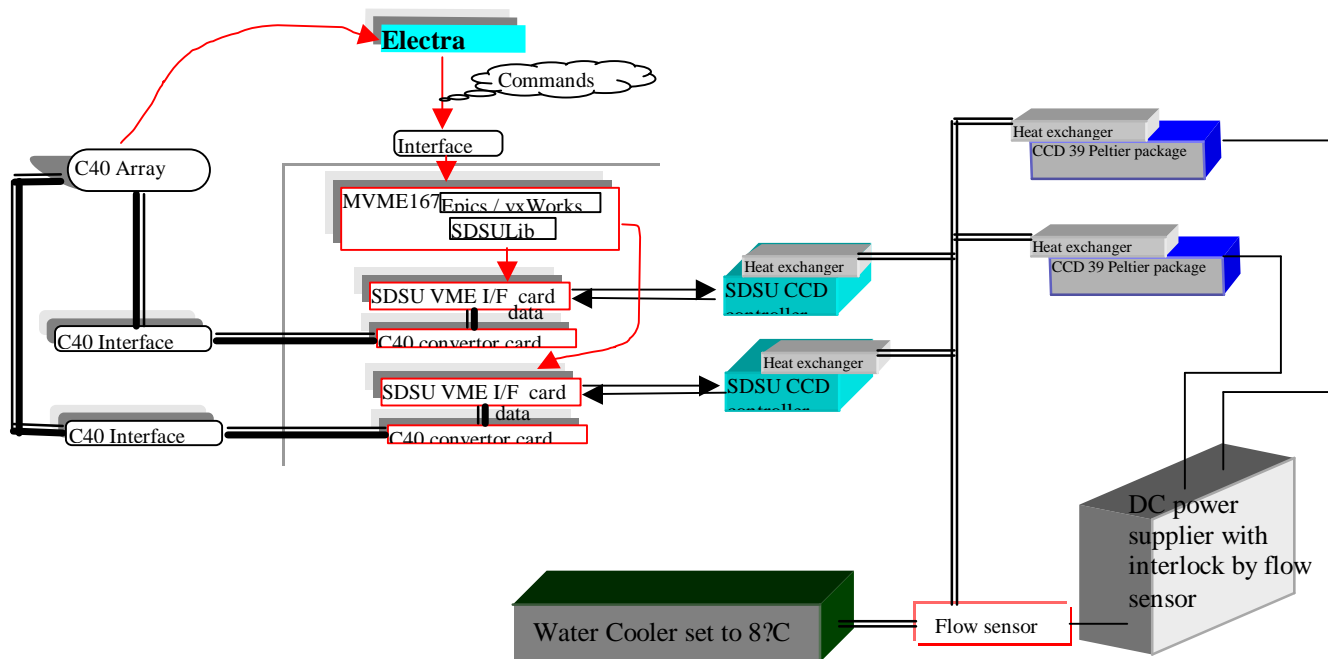


Figure 1. the Naomi WFS camera system layout

**To operate the camera, test CCD:**

- 1). Switch on the Water cooler first
- 2). Switch on VME crate, press the reset button of SDSU VME I/F boards
- 3). Switch on the SDSU controller
- 4). Switch on Peltier power supplier
- 5). Login Navis, from one xterm, type
 

```
source /software/naomi/naomi-0.2/config/setup.csh
source /software/naomi_atc_src/naomiView/naomiView_login
naomiQI_xg
```
- 6) open another xterm **rlogin** ( or telnet) **naomisdsu** , this gets you into the Vxwork shell
- 7). To start full frame ccd readout as default using Vxwork, QI-Sever, SAOtnng to display image, from Vxwork shell
 

```
<readout_cam1 or <close1 to stop readout
<readout_cam2 or <close2 to stop readout
```

?? cam1 refer to Master, can2 refer to Slave. During the unsynchronised readout mode, you **have to stop cam1 before to start cam2, vice verca**
- 8). To change parameters, like exposure time, speed. etc, see Derek's ICD .
- 9). To make change and recompile, see READMEfirst.doc
- 10). To do noise, dark current measurement, see Derek's note Camera\_result.doc
- 11). To use C40 system, see Durham's Docs.
- 12). To move camera, etc, see other Docs , like Chris Tierney's.
- 13). Read READMEfirst.doc for more details