

A Visit to Spectral Instruments Booth at Photonics West 2014

I stopped by the Spectral Instruments Booth at Photonics West to see some huge CCD cameras such as would be deployed in a large publicly-funded project like ESO etc.

I took photos of two of the cameras on display using my cell phone cam (it's all I had!)

<http://www.narrowbandimaging.com/incoming/sta1600.jpeg>

<http://www.narrowbandimaging.com/incoming/sta4150.jpeg>

the first camera of the two uses the STA1600 sensor, a massive 10,500 x 10,500 CCD of 9 x 9 micron pixels that is about 100mm on a side!

http://www.narrowbandimaging.com/incoming/STA1600A_011408_Rev5.pdf

with a sensor that large and using projection lithography, you get one per wafer: and there's no guarantee it is any good.

The second camera uses the STA4150 4K x 4K (15 micron pixels) in a 2 x 2 mosaic!

http://www.narrowbandimaging.com/incoming/STA4150A_06_05_2012_v5.pdf

these are serious sensors for serious cameras.

Here's a brochure for the camera using the big chip:

http://www.narrowbandimaging.com/incoming/1110S%2520KT%2520brochure_AH_web.pdf

and the one using the 2 x 2 mosaic of the 16Mpixel chips:

http://www.narrowbandimaging.com/incoming/900S%2520Camera%2520Broch_Rev.pdf

and finally here is the cooler (A Cryo-Tiger). Note how it sticks out of the back of the big-chip camera and has a separate compressor unit:

http://www.narrowbandimaging.com/incoming/CRYO_OPEN.jpg

and a brochure on the cooler system:

http://www.narrowbandimaging.com/incoming/ICG_Brochure.pdf

ESO reports:

http://www.eso.org/sci/facilities/develop/detectors/optdet/docs/reports/Cryotiger_potential.pdf

<http://www.eso.org/sci/facilities/develop/detectors/optdet/docs/reports/Cryotiger.pdf>

enjoy!