BTC611E

BTC611E Fiber Coupled Back Thinned USB 2.0/1.1 CCD Array Spectrometer

BTC611E series products are high performance TE cooled back thinned CCD array spectrometers. They are equipped with 512 by 64 elements highly sensitive CCD arrays, optimized high throughput spectrographs, fiber coupled input capability, built-in 16 bit digitizer with high-speed USB 2.0/1.1 interface. BTC611E products offer high dynamic range, high signal to noise ratio, low dark counts and long term operation stability, and are ideal for light starving applications from UV to NIR. Flexible custom configurations and custom application support are provided.

Highlights

- *Over 60% QE down at 200 nm*
- *Over 90% peak QE*
- *High UV, Vis, and NIR response*
- *Line and pixel binning for superior S/N enhancement*
- *16 bit digitizer*
- *Plug and Play high speed USB 2.0/1.1 interface*
- *No moving parts*
- *TE cooled 512 x 64 elements*
- *Portable and light weight*

Applications

- *Low light level UV and NIR applications*
- *Raman and fluorescence spectroscopy*
- *Remote sensing*
- *DNA sequencing*
- *Semiconductor monitoring and inspection*

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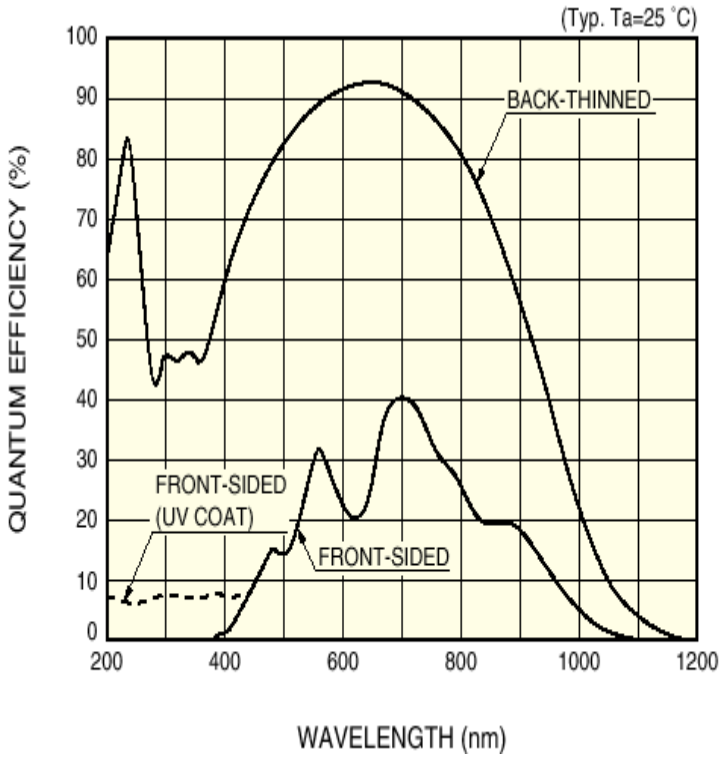
Specifications

Power input:	5V, +/- 15V and 24V DC
Operating temperature:	5° to 35° C
Detector:	TE cooled 512x64 element back thinned CCD array, 24 by 24µm pixel size
CCD full well depth:	300,000 (V) and 600,000 (H) electrons
CCD dynamic range:	75,000 with line binning
Spectral coverage:	100, 200, 400nm or custom in 190 - 1100nm
Spectrograph f#:	3.3
Spectrograph optical layout:	Crossed Czerny-Turner
Grating:	200-1200 lines/mm available with different blaze wavelengths
Slit:	25-400µm width dependent on resolution requirements (slit height : 1000µm)
Optical resolution:	0.3 to >10nm FWHM
Digitizer resolution:	16 bit
Digitizer speed:	500KHz (maximum)
Computer interface:	USB 1.1/2.0
Operating software:	Windows Me, 2000, and XP comparable
Dimensions:	7.0 x 4.25 x 2.75 inches
Weight:	3lbs

BW Spec Software

Minimum Requirements

- *IBM PC Compatible*
- *Pentium II, 500MHz CPU or higher*
- *One free USB 2.0 or 1.1 port*
- *One free CD ROM drive*
- *One free 3.5" floppy disk drive*
- *64MB of RAM*
- *20MB of free hard disk space*



Back thinned and front illuminated CCD array quantum efficiency curve

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