BTC150

BTC150 Fiber Coupled TE Cooled 16 Bit TCP/IP CCD Spectrometer

BTC150 series products are low cost and high performance TE cooled linear CCD spectrometers. They are equipped with 2048 elements thermoelectric cooled (TEC) linear CCD arrays, built-in 16 bit digitizers with high speed Ethernet (TCP/IP) interface and optimized high throughput spectrographs. The BTC150 products offer much higher dynamic range, greatly reduced dark counts and superior long term operation stability, thus are ideal for low light level detections and long term monitoring applications. A unique integration time multiplier function is supported for 15 minutes or longer integration period to take the advantage of low dark counts in light sstarving applications. The plug and play Ethernet interface makes the BTC150 products suitable for remote and wireless measurement applications.

Highlights

- *OEM and end user versions available*
- *UV, Vis, NIR and custom configured ranges*
- *TEC cooled high stability and low dark counts*
- *Built-in 16 bit digitizer*
- *High performance to cost ratio*
- *0.3 to 20nm resolution versions available*
- *Plug and play Ethernet (TCP/IP) interface*
- *Up to over 100 complete spectra/s transferring speed*
- *5 - >65,535 ms integration time range*
- *Time multiplier (extended inttegration time) support*
- *Custom configurations and application support*

Applications

- *Remote and wireless spectroscopic measurements*
- *UV, Vis and NIR spectroscopy*
- *Raman and fluorescence spectroscopy*
- *OEM building blocks*
- *Color measurement and monitoring*
- *On-line optical inspection and monitoring*

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 Rev. 020106S

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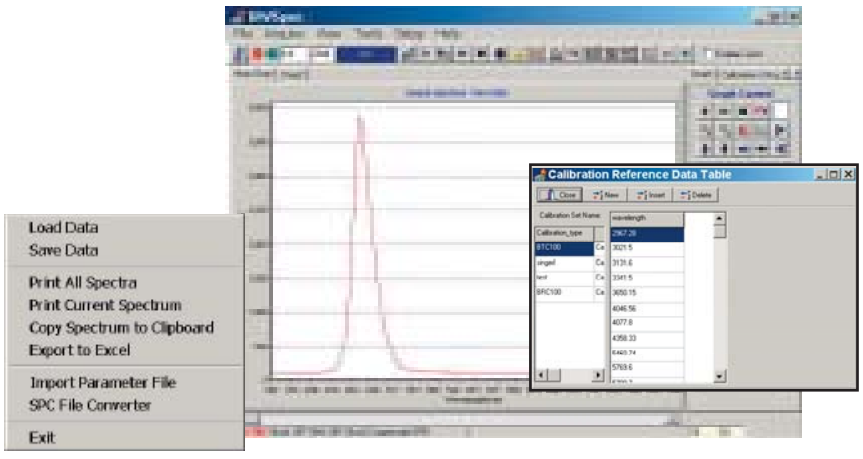
Specifications

*BTC150 End User Spectrometer (**OEM version available**)*

Power input:	5V DC @ < 1.2 A for TE cooled option through external power supply
Operating temperature:	0° to 40°C for TE cooled versions
Detector:	TE cooled 2048-element linear silicon CCD array
CCD elements:	2048 elements @ 14µm x 200µm per element
Effective range:	UV 200-400nm, Vis 390-760nm, NIR 750-1050nm, UV/Vis 200-720nm UV/Vis/NIR 300-850nm Vis/NIR 350-1050nm, and custom configurations
Cooling temperature:	10°C factory default
Spectrograph f#:	3.0
Spectrograph optical layout:	Crossed Czerny-Turner
Spectrograph optics:	Aspherical optics with sensitivity enhancement option
Grating:	600-1800 lines/mm available with different blaze wavelengths
Slit:	10-800µm width dependent on resolution requirements (slit height : 1000µm)
Optical resolution:	0.3 to >10nm FWHM
Stray light:	0.05% at 600 nm for Vis
Digitizer resolution:	16 bit or 65,535 to 1
Digitizer speed:	500KHz
External trigger:	Aux external triggering port option available
Integration time:	5 to 65,535 milliseconds without multiplier, multiplier of 1, 2 - 10 available
Data transfer speed:	50 to > 100 spectra per seond
Computer interface:	Ethernet (TCP/IP)
Operating software:	Windows Me, 2000 and XP compatible
Weight:	2.5 lb.
Dimensions:	4.24 (Width) x 3.75 (Depth) x 1.65 (Height) inches

Available Accessories

Light source:	Deuterium for UV and tungsten for Vis and NIR
Fiber patch cord:	50, 100, 200, 400, 600, 1000µm and custom diameters
Fiber sampling probes:	Reflectance, absorbance, Raman and other probes
Fiber sample holders:	2 port transmission and 4 port fluorescence cuvette holders



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