DATASHEET

SPECTRUMMM SYSTEM

SpectruMM:GS128B

Acton Research

1024 x 122 imaging array
24 x 24-µm pixels

The SpectruMM:GS128B is a high-performance digital camera system featuring a Hamamatsu back-illuminated spectroscopic-format CCD. The 1024 x 122 imaging array is ideal for general-purpose spectroscopy, providing full 24-mm spectral coverage and a relatively small height for faster spectral rates. Back-illumination and thermoelectric cooling to -30˚C gives the SpectruMM:GS128B the sensitivity and low noise necessary for Raman or weak-fluorescence applications. The GS128B sensor is available in the SpectruMM GS series system.

FEATURES	BENEFITS
Hamamatsu CCD sensor	Industry-standard performance
1024 x 122 imaging array	Ideal format for general-purpose spectroscopy
24 x 24-µm pixels	Provides excellent resolution and full well capacity
Back-illuminated CCD	Offers higher sensitivity and quantum efficiency
Low-noise CCD	Ideal for low-light measurements

SpectruMM™ ACTON RESEARCH

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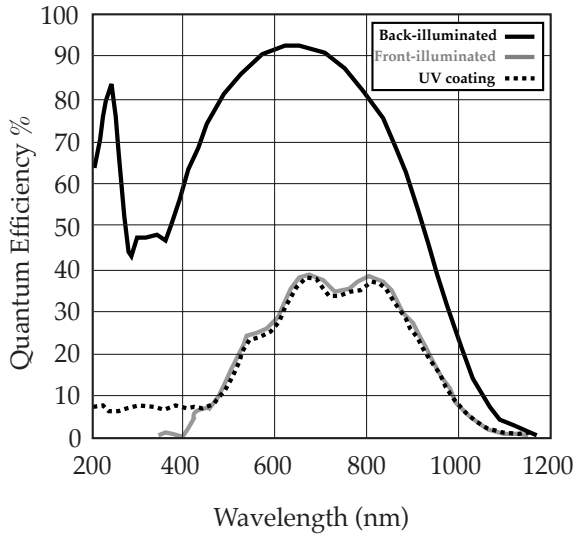

SPECIFICATIONS

CCD image sensor	Hamamatsu; scientific grade; MPP; back-illuminated
CCD format	1024 x 122 imaging pixels; 24 x 24-µm pixels; 100% fill factor; 24.58 X 3.07-mm imaging area
Spectrometric well capacity	550,000 e^-
System read noise	<2 ADC counts @ 100 kHz; <5 ADC counts @ 1 MHz
Nonuniformity	±10% over entire CCD (excluding blemishes)
Dynamic range	16 bits @ 100 kHz; 12 bits @ 1 MHz
Scan rate	100 kHz or 1 MHz
Spectral rate	59 Hz full-vertical binning @ 100 kHz; 135 Hz full-vertical binning @ 1 MHz
Dark current	<10 e^-/p/s @ -30°C

Note: Specifications are typical and subject to change.

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Product Literature

Brochures

SpectraPro monochromators

Spectrum Acquisition Systems

Spectroscopy accessories

Guide to system configuration

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Data sheets

Gratings

CCD Chips

GS 1024 x 128 Front

GS 1024 x 128 Back

GS 1024 x 256 Front

GS 1024 x 256 Back

S 1340 x 100 Front

S 1340 x 100 Back

S 1340 x100 Red

S 1340 x 100 Back Red

S 1340 x 400 Front

S 1340 x 400 Back

S 1340 x 400 Red

S 1340 x 400 Back Red

S 1024 x 256 Front

S 1024 x 256 Open Elect.

S 1024 x 256 Back