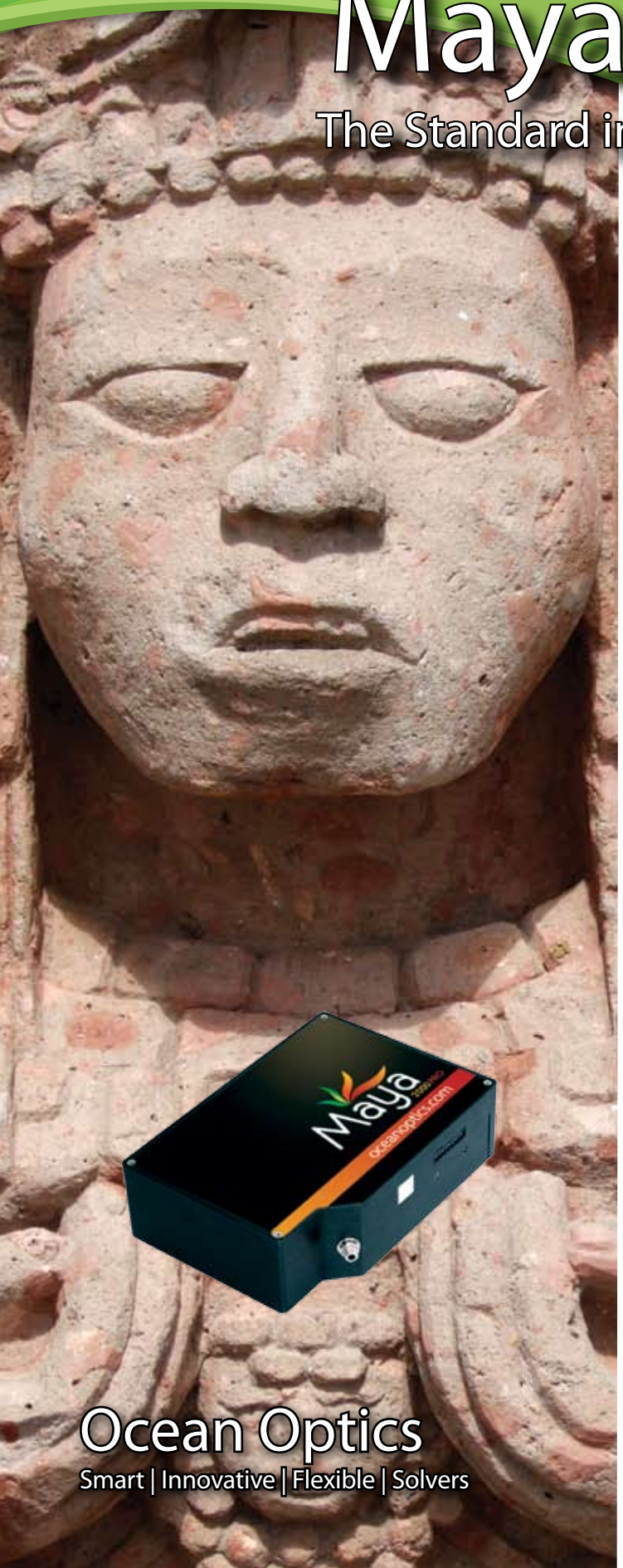
Maya-series

The Standard in UV Spectroscopy



Applications

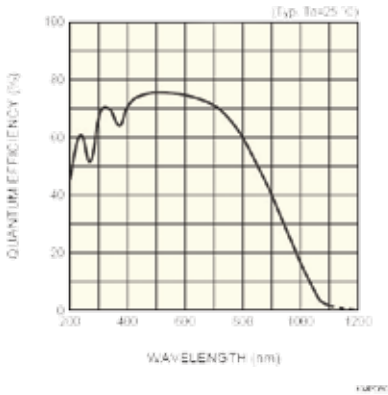
The Maya-series of Spectrometers are used for measurements in the UV and deep UV range and are particularly well suited for low light level and UV sensitive applications that require high sensitivity and great dynamic range.

Features

» Back-thinned 2D FFT-CCD detectors
» Optional propriety order-sorting filters
» USB interface
» Fully programmable strobe signals (single or continuous)
» 10 onboard digital user-programmable GPIOs
» Optical resolution up to ~0.035 nm FWHM

Advantages

» Excellent UV response
» Great signal-to-noise characteristics
» Wide dynamic range
» Up to 90% quantum efficiency
» No need for UV-sensitive coatings
» Low-noise electronics
» User friendly
» Runs on both Windows, Mac or Linux



Spectral response of the Maya 2000 Pro

Specifications

	Maya 2000	Maya 2000-Pro
SPECTROSCOPIC		
Wavelength range	max. 900 nm	max. 900 nm
Optical resolution	~ 0.035 - 6.8 nm (FWHM)	~ 0.035 - 6.8 nm (FWHM)
Signal-to-noise ratio	350 : 1	450 : 1
Dark noise	7 RMS counts	5.5 RMS counts
Dynamic range	5000 : 1	12000 : 1
Integration time	5 ms - 20 seconds	17 ms - 10 seconds
PHYSICAL		
Dimentions	148.6 x 104.8 x 45.1 mm	148.6 x 104.8 x 45.1 mm
Weight	570 grams	570 grams
DETECTOR		
Type	Backthinned 2D CCD Detector	Backthinned 2D CCD Detector
Detector range	165 – 1100 nm	165 – 1100 nm
Active Pixels	2048 x 14	2048 x 64
Pixel size	14 µm²	14 µm²
Pixels well depth	130 Ke-	200 Ke-
Peak QE QE @ 250 nm	90 % 65 %	75 % 60 %
Sensitivity	~ 0.45 counts / e-	~ 0.32 counts / e-
OPTICAL BENCH		
Design	f/4, Symmetrical crossed Czerny-Turner	f/4, Symmetrical crossed Czerny-Turner
Focal length	101.6 mm input and output	101.6 mm input and output
Entrance aperture	5, 10, 25, 50, 100 or 200 µm	5, 10, 25, 50, 100 or 200 µm
Grating options	14 different grating options, including the HC-1 composite grating.	14 different grating options, including the HC-1 composite grating.
Fiber optic connector	SMA 905 to 0.22 numerical aperture single-strand optical fiber	SMA 905 to 0.22 numerical aperture single-strand optical fiber
ELECTRONICS		
Power consumtion	500 mA @ 5 VDC	500 mA @ 5 VDC
Data transfer speed	Full spectrum every 5 ms with USB 2.0 port	Full spectrum every 8 ms with USB 2.0 port
Inputs/Outputs	10 onboard digital user-programmable GPIOs	10 onboard digital user-programmable GPIOs
COMPUTER		
Operating systems	Windows, Mac, Linux	Windows, Mac, Linux
Computer interfaces	USB 2.0 @ 480 Mbps; RS-232 (2-wire) @ 115.2 K baud	USB 2.0 @ 480 Mbps; RS-232 (2-wire) @ 115.2 K baud
Peripheral interfaces	SPI (3-wire); I²C intergrated circuit	SPI (3-wire); I²C intergrated circuit

Maya

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