SPECIFICATIONS

	PIXIS: 1300F	PIXIS: 1300B_eXcelon	PIXIS: 1300B	PIXIS: 1300BR
Features	Front-illuminated CCD. Affordable technology for moderate light level applications. No etaloning.	Back-illuminated CCD. Highest sensitivity in the visible region. High sensivity in the NIR. Extremely low etaloning. 100x lower dark charge than the BR.	Back-illuminated CCD. Highest sensitivity in the visible region.	Back-illuminated, deep depletion CCD. Ideal for NIR applications. Highest sensitivity and no etaloning.
CCD Image Sensor	Princeton Instruments' proprietary CCD, front-illuminated, grade 1, AIMO	Princeton Instruments' proprietary CCD, grade 1, AIMO	Princeton Instruments' proprietary CCD, back-illuminated, grade 1, AIMO	Princeton Instruments' proprietary CCD, back-illuminated deep depletion, grade 1, NIMO
Dark current @ -60°C (e-/p/sec)	0.01 (typical) 0.05 (max)	0.01 (typical) 0.05 (max)	0.01 (typical) 0.05 (max)	0.32 (typical) 0.65 (max)

CCD UV coating	Optional UV coating
CCD format	1340 x 1300 imaging pixels; 20µm x 20µm pixels; 100% fill factor
Imaging area	26.8 x 26 mm (optically centered)
Lens mount	F-mount with integral 45mm shutter
Deepest cooling temperature	< -70°C (typical), -60°C (guaranteed) with CoolCUBEII liquid circulator < -65°C (typical), -55°C (guaranteed) with air
Thermostating precision	±0.05 °C
Cooling method	Thermoelectric air or liquid cooling (CoolCUBE II required)
Full well: Single pixel Output node	250 ke- (typical), 200 ke- (min) 1000 ke- (typical), 800 ke- (min)
ADC speed/bits	100kHz/16-bit and 2MHz/16-bit
System read noise @ 100kHz @ 2MHz	2 e- rms (typical), 3 e- rms (max) 12 e- rms (typical), 16 e- rms (max)
Vertical shift speed	27 µsec/row (programmable)
Non-linearity	<1% @ 100kHz
Software selectable gains	1, 2, 4 e-/ADU (low noise output); 3.5, 7, 14 e-/ADU (high capacity output)
Operating systems supported	Windows XP/Vista/7; Linux
Data interface	USB2.0 (5m interface cable provided); Optional Fiberoptic interface is available for remote operation
I/O signals	Two MCX connectors for programmable frame readout, shutter, trigger in
Operating environment	+5 to +30°C non-condensing
Certification	CE
Dimensions / Weight	19.51cm (7.67") x 11.81cm (4.65") x 11.38cm (4.48") (L x W x H) / 2.5kg (5.5lbs)

All specifications subject to change

FRAME RATE

Binning	Readout Time @ 2 MHz	Readout Time @ 100 kHz
1 x 1	0.93 sec	16 sec
2 x 2	0.402 sec	4.762 sec
8 x 8	0.12 sec	0.491 sec
16 x 16	0.083 sec	0.209 sec