



*Experts In Low Light Imaging*



# APX Series



## APX Series Overview

# APX SERIES

The Apx series are our most advanced CMOS cameras to date. The Apx series boasts up to a stunning 61 megapixel large format sensor, providing 16-bit image depth.

With high full-well depth and low noise, it is possible to bin and take advantage of the large pixels and speeds. These sensors offer up to 65,536 grey levels.

Robust cooling (-35°C) and no amp glow make these cameras ideal for very long exposures. The Apx series will be suitable for a vast amount of demanding applications such as microscopy, spectroscopy, PCB screening, flat panel screening, colourimetry, neutron imaging, luminescence and astrophotography. Additionally, these cameras can be supplied with either a commercial or industrial grade back illuminated sensor, guaranteed for continuous use and an in/out trigger as standard.

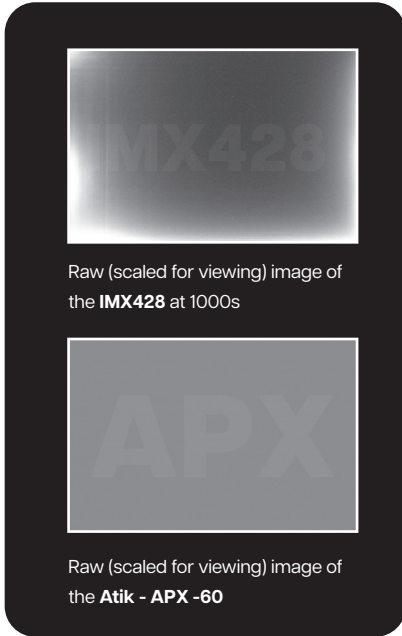
## Specifications

	ATIK APX-60	ATIK APX-26
IMAGE SENSOR	Sony IMX455 CMOS	Sony IMX571 CMOS
RESOLUTION	9576 x 6388	6244 x 4168
SENSOR SIZE	43.3mm Diagonal (36mm X 24mm)	28.3mm Diagonal (23.5mm X 15.7 mm)
PIXEL SIZE (µm)	3.76 x 3.76	3.76 x 3.76
ADC		16 bit
FULL WELL		51,000e-
READ NOISE		1.2e-
SET POINT COOLING AT AMBIENT OF 20°C	-20°C	-15°C
DARK CURRENT	0.005e-/s/px	0.002e-/s/px
FRAME RATE	2 fps	4 fps
MAX. EXPOSURE		24 hours
MIN. EXPOSURE		0.01s
READING MODE	Electronic Rolling Shutter With Global Reset	
PC INTERFACE	USB 3.2 Gen 1 - Other On Request	
BACKFOCUS DISTANCE	17mm ±0.5; (Without Levelling Plate = 9.5mm ±0.5)	
MOUNT TYPE	M54	M54
WEIGHT		1kg
MONO OR COLOUR		Either



## Key Features

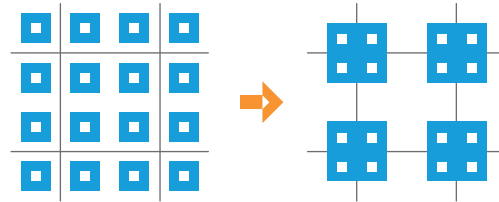
**Large format sensor** - The APX series can handle sensor sizes with up to a 43mm diagonal (full frame) whilst still maintaining adequately sized pixels of 3.76  $\mu\text{m}$ . There are options with 26MP (APS-C) and 9MP (1" sensor) sensors to achieve maximum field of view.



**No Amp Glow** - The APX series does not suffer from amp glow, due to the use of the most recent generation of Sony IMX sensors and our custom low noise electronics. This technology allows the readout electronics on the sensor to be turned off or quietened. Although amp glow can be 'calibrated' or have dark subtracted out, at long exposures there is still residual noise. This has a detrimental effect on the achievable dynamic range of the cameras. Atik was founded on the premise that starting with a clean sensor is always preferable.

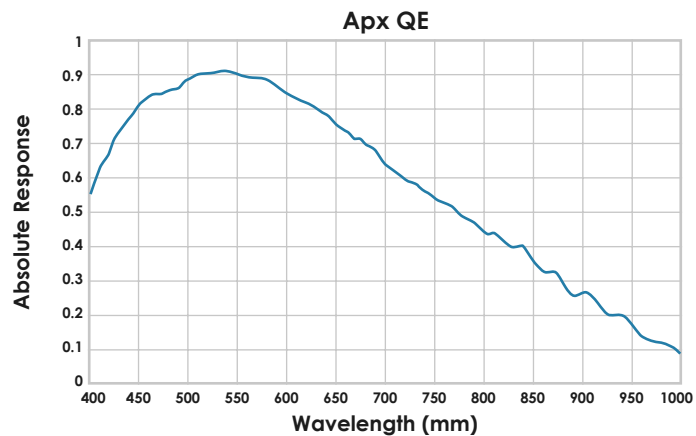
### Low Read Noise

Due to the fact that each pixel is read independently, CMOS cameras cannot bin in hardware to get the same signal to noise improvements as a CCD. However, with a read noise many times lower than CCD (1.2 e- vs ~6 e-) additive software binning can realistically be considered. There is an added advantage that this also increases the full well by adding the single pixel full well capacities.



### High Quantum Efficiency

Using a back illuminated sensor means that in situations where there is a limited number of photons, Apx converts as many as possible into readable signal in the sensor.





# ATIK CAMERAS

## APX SERIES

### Atik Cameras

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## Integration

Atik Cameras run off a standard SDK library that can be installed on PCs, Macs and Linux systems. A dedicated support team and complete examples make it easy for you to integrate and support the APX series into your system. Using our integrated Python development platform, you can easily demo and test our cameras in your environment.

## OEM Supply

With over 20 years' experience in this field, Atik Cameras thrives in providing custom OEM solutions. Since moving to a larger state-of-the-art facility in January 2020, Atik Cameras has shipped more than 30,000 cameras to integrators around the world.

Having industry leading quality standards and robust batch tracking, we can ensure that cameras shipped from our European production facility in Portugal will be of the highest quality and will perform well for your customers for many years to come.

