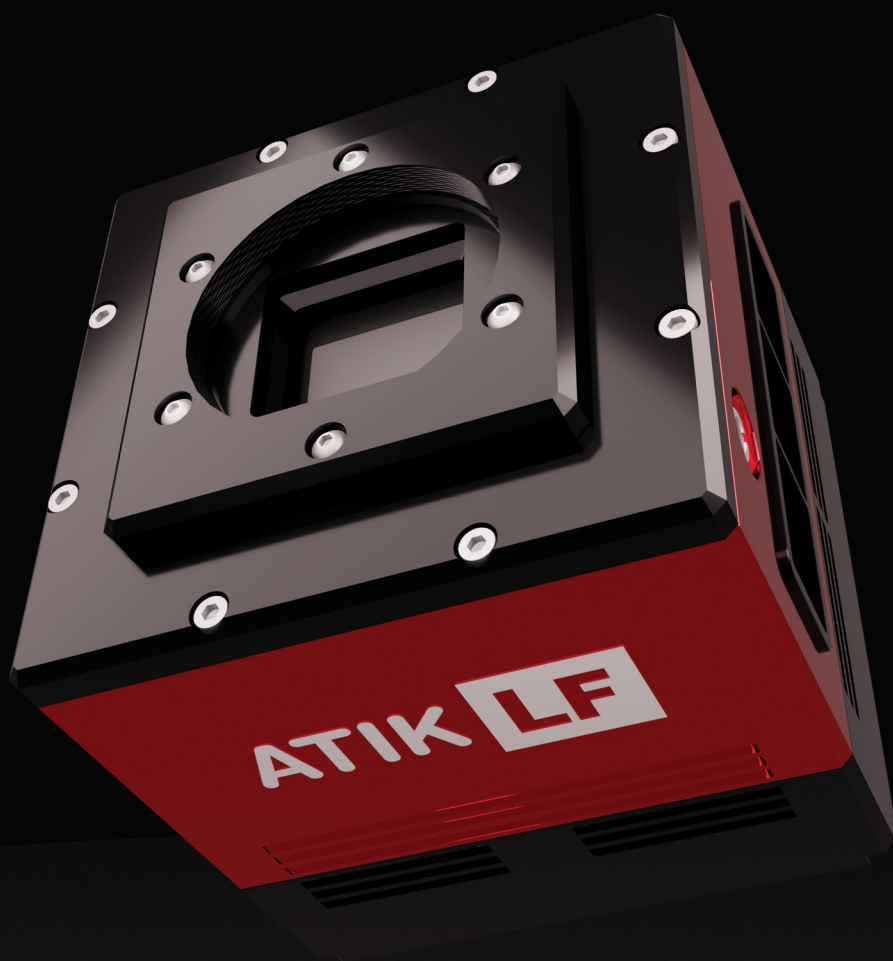




*Experts In Low Light Imaging*



# LF Series

# LF Series Overview



As the most technologically advanced generation of CMOS cameras to date, the modular LF series represents the next step in our evolution.

The LF series feature upto a large format 61 megapixel sensor with a maximum image depth of 16 bits. As a result the high full well depth and low noise allow the LF the ability to bin and take advantage of the large pixels and speeds produced. The LF series also has very low read noise, meaning that they can capture images with very low levels of digitisation noise, even in low light conditions.

Extremely efficient cooling (-20°C @ ambient 20°C) and the absence of amp glow make it possible to create very long exposures. A wide range of complex applications can be handled using the LF series, including microscopy, spectroscopy, PCB screening, flat panel screening, colourimetry, neutron imaging, luminescence, and astrophotography.

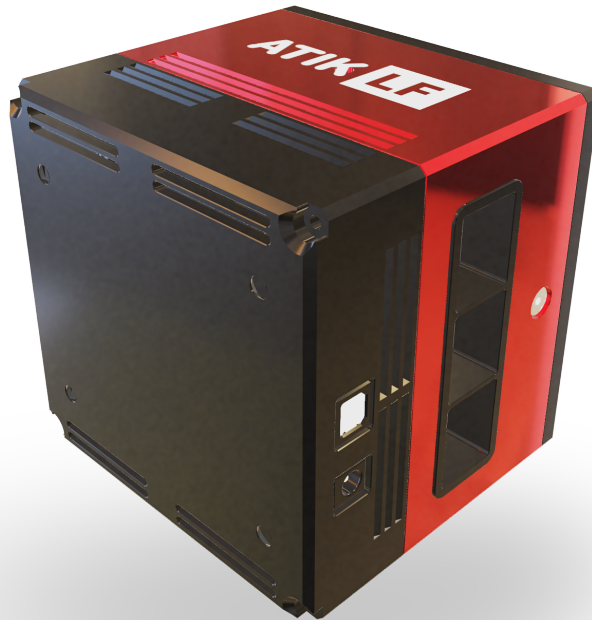
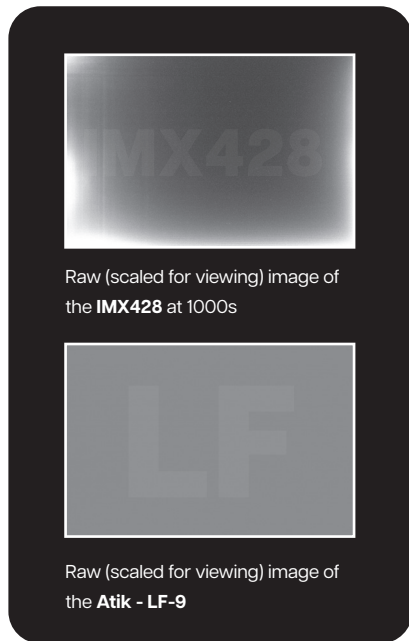
It is possible to customize these cameras to meet your specific requirements. Find out how the LF series can be incorporated into your next project by contacting our sales team today.

# Specifications

	ATIK LF-60	ATIK LF-26	ATIK LF-9
IMAGE SENSOR	Sony IMX455 CMOS	Sony IMX571 CMOS	Sony IMX533 CMOS
RESOLUTION	9576 x 6388	6244 x 4168	3011 x 3011
SENSOR SIZE	43.3mm Diagonal (36mm X 24mm)	28.3mm Diagonal (23.5mm X 15.7 mm)	16mm Diagonal (11.3mm X 11.3mm)
PIXEL SIZE (µM)	3.76 x 3.76	3.76 x 3.76	3.76 x 3.76
ADC	16 bit		14 bit
FULL WELL	51,000e-		
READ NOISE	1.2e-		
SET POINT COOLING AT AMBIENT OF 20°C	-20°C	-15°C	-20°C
DARK CURRENT	0.005e-/s/px	0.002e-/s/px	0.0005e-/s/px
FRAME RATE	2 fps	4 fps	6 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	C Mount
WEIGHT	TBC		
MONO OR COLOUR	Either		

## Key Features

**Large format sensor** - The LF 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 LF 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.

## Customisation

The heart of the LF series is based around the modular flexibility of the options that can be configured

### Colour

All configurations of the LF series can be supplied with either monochrome or colour sensors.

### Sensor type

The LF series is available with either commercial or industrial level sensors.

Commercial sensors are guaranteed for 300 hours use.

Industrial sensors are guaranteed for 24/7 use and with this grade of camera, Atik Cameras run additional testing and soak tests to guarantee stability of imaging.

### Cover glass

Any model in the LF series can be supplied with no cover glass to enable integrators to access the pixels directly, therefore, increasing UV sensitivity or allowing techniques like fibre bonding to be undertaken.

### Cooling

The sensor is cooled by a 2 stage Peltier and there are options to configure the camera to remove the generated heat by either forced air (fan assemblies) or a liquid cooling loop.



# ATIK CAMERAS

## LF 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 LF 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.

