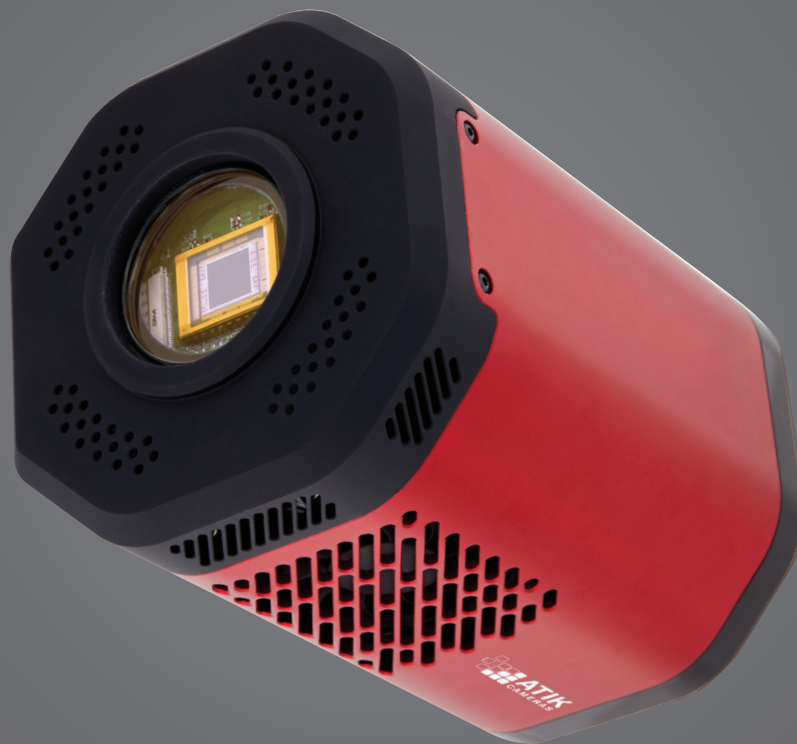


# TE SERIES



- TE Large pixel size scientific grade CCD
- TE Deep full well for large dynamic range
- TE 16 bit or 18 bit ADC options
- TE Optional High Speed shutter



## TE-Series Overview



Introducing Atik Cameras advanced imaging TE series, showcasing the power and possibilities of CCD technology. Utilising novel new chamber sealing methodology, alongside increased cooling delta, these cameras achieve incredibly low read noise, enabling detection of the faintest signals. Furthermore, the exceptionally deep full well depth means there is much lower saturation when imaging, revealing exceptional detail. Atik's design and engineering complements these advanced sensors from Teledyne e2v perfectly.

With their large pixel, low noise characteristics and excellent QE, these cameras will provide fantastic results in the most demanding of applications such as chemiluminescence, fluorescence, spectroscopy, microscopy, and bioluminescence.

These advanced imaging solutions come with a choice of back or front illuminated sensor and the option to add a 45mm, bi-stable high speed scientific shutter, capable of 20.0 millisecond opening times.

## Technical Specifications

	TE-77		TE-47		TE-42		TE-30	
<b>Image sensor</b>	e2v CCD 77 Front Illuminated	e2v CCD 77 Back Illuminated	e2v CCD 47-10 Front Illuminated	e2v CCD 47-10 Back Illuminated	e2v CCD 42-40 Front Illuminated	e2v CCD 42-40 Back Illuminated	e2v CCD 30-11 Front Illuminated	e2v CCD 30-11 Back Illuminated
<b>Resolution</b>	512 x 512		1024 x 1024		2048 x 2048		1024 x 256	
<b>Sensor size</b>	12.3 x 12.3 mm		13.3 x 13.3 mm		26.6 x 26.6 mm		26.6 x 6.7 mm	
<b>Pixel size (µm)</b>	24 x 24		13 x 13		13.5 x 13.5		26 x 26	
<b>ADC</b>	16 bit or 18 bit		16 bit or 18 bit		16 bit or 18 bit		16 bit or 18 bit	
<b>Digitisation</b>	200kHz or 2 MHz		200kHz or 2 MHz		200kHz or 2 MHz		200kHz or 2 MHz	
<b>Read noise (Typ.)</b>	8e <sup>-</sup>		<8e <sup>-</sup>		<8e <sup>-</sup> (provisional)		<8e <sup>-</sup> (provisional)	
<b>QE (peak)</b>	46%	>92% with midband coating	46%	92%	46%	92%	46%	92%
<b>Full Well</b>	300,000 e <sup>-</sup> (summing well 600,000 e <sup>-</sup> )		100,000 e <sup>-</sup>		150,000 e <sup>-</sup>		500,000 e <sup>-</sup>	
<b>Set point cooling at ambient of 20°C</b>	-30°C		-30°C		-30°C (provisional)		-30°C (provisional)	
<b>Regulated cooler</b>	Yes		Yes		Yes		Yes	
<b>Max. exposure</b>	Unlimited		Unlimited		Unlimited		Unlimited	
<b>Min. exposure</b>	0.01s		0.01s		0.01s		0.01s	
<b>PC Interface</b>	USB2		USB2		USB2		USB2	
<b>Power requirements</b>	12VDC, 10A		12VDC, 10A		12VDC, 10A		12VDC, 10A	
<b>Backfocus distance</b>	11.9mm ±0.5 16.9mm ±0.5 with Shutter		11.9mm ±0.5 16.9mm ±0.5 with Shutter		11.9mm ±0.5 16.9mm ±0.5 with Shutter		11.9mm ±0.5 16.9mm ±0.5 with Shutter	
<b>Mount type</b>	M54 x 0.75		M54 x 0.75		M54 x 0.75		M54 x 0.75	
<b>Weight</b>	2.5kg without shutter 2.65kg with shutter		<3kg without shutter		<3kg without shutter		<3kg without shutter	