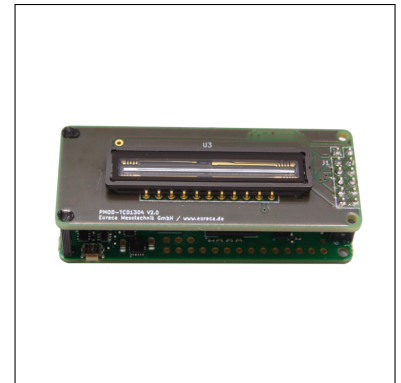


USB Camera Boards for linear sensors



Eureca offers a new family of line scan camera boards based on Toshiba's TCD1304DG linear sensors. Our line scan camera boards come from our own production and have a USB interface. Suitable applications for the use of our new USB camera boards include spectroscopy, position detection and scanning. The modules of the e9u-LSMD line scan camera family are available in three basic versions.

ECO and STD are already available. PRO is expected to be available in Q2 / 2021.



ECO: Economy Version

The entry-level model with all basic functions. Compared to the standard version, these modules have higher tolerances, but this enables a lower price. Ideal for anyone looking for a first entry into measurement technology, for the proof-of-concept or for simple measurement tasks. This version will be available open source.

STD: Standard Version

This version offers a balanced price-performance ratio and is suitable for a variety of applications and different measuring tasks. By selecting components, the modules in this series offer better technical data than the economy class, such as a lower signal / noise ratio.

PRO: Professional Version

This version offers additional features such as an external trigger for demanding measurement tasks with lower tolerances. This significantly extends the possible uses.

Essential technical data

	e9u-LSMD-1304 ECO	e9u-LSMD-1304 STD	e9u-LSMD-1304 PRO
Item number	02.29.0001	02.29.0002	02.29.0003
Digitization Depth	12 Bit	12 Bit	14 Bit
Conversion Gain (typ)	16 e ⁻ /LSB	16 e ⁻ /LSB	4 e ⁻ /LSB
Read Noise (typ, rms)	3 LSB	2 LSB	< 5 LSB (t. b. d.)
Read Noise (typ, rms)	50 e ⁻	30 e ⁻	20 e ⁻ (t. b. d.)
Saturation Capacity	65 ke ⁻	65 ke ⁻	65 ke ⁻
Minimum Integration Time	10 ms	10 μs	10 μs
Maximum Integration Time	65,ms	71 min	71 min
Maximum Frame Rate	50 fps	100 fps	200 fps
Minimum Frame Rate	0.015 fps	0 fps	0 fps
Maximum Data Rate via USB	400 kB/s	2 MB/s	2 MB/s



Additional technical data

	e9u-LSMD-1304 ECO	e9u-LSMD-1304 STD	e9u-LSMD-1304 PRO
Item number	02.29.0001	02.29.0002	02.29.0003
Integration Time Graduation	1 ms	10 μ s	10 μ s
Integration Start / Stop via USB	X	X	✓
Start / Stop via USB Latency	X	X	10 ms
External Integration Time Control	X	X	✓ (t. b. d.)
Integration Time Control Latency (max)	X	X	10 μ s
Frame Rate Graduation	X	10 μ s	10 μ s
Frame Request via USB	X	✓	✓
Frame Request via USB Latency	X	10 ms	10 ms
External Trigger	X	X	✓
External Trigger Latency (max)	X	X	11 μ s
Isolated Trigger Input	X	X	✓ (t. b. d.)
Isolated Trigger Output	X	X	X
High Resolution Time Stamp: Trigger	X	X	✓
High Resolution Time Stamp: Exp. Start	X	✓	✓
High Resolution Time Stamp: Exp. Stop	X	✓	✓
GPIO	X	X	X
Enhanced Frame Buffer	X	X	✓ (t. b. d.)
CRC32 Secured Communication	X	X	X
USB-Powered	✓	✓	✓
Optional External Power Supply	X	X	X
Supply Current	< 250 mA	< 250 mA	< 250 mA
Size (L×B×H)	62×25×20 mm	62×25×20 mm	62×25×20 mm
Weight	22 g	22 g	25 g

