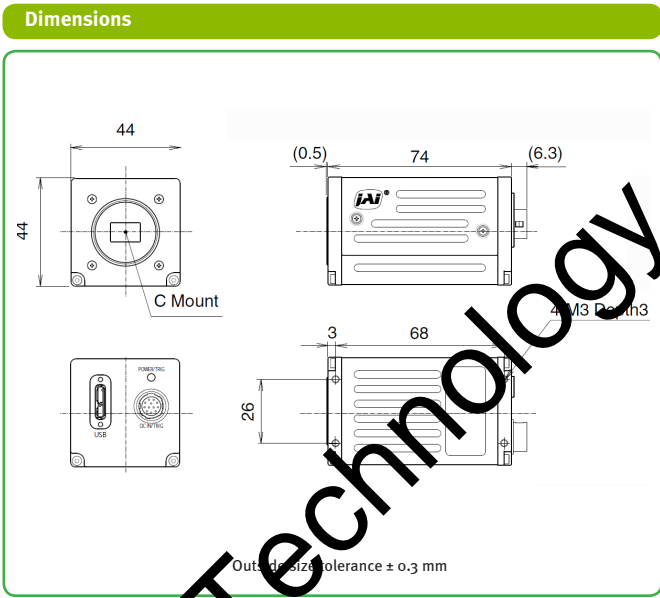




# Specifications for AP-3200T-USB-LSX

# Apex Series

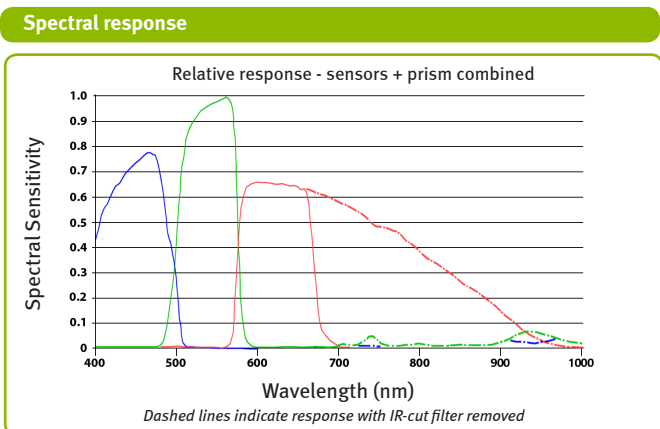
Specifications	AP-3200T-USB-LSX
Sensor	1/1.8" 3-CMOS global shutter (IMX265)
Active pixels	2064 (h) x 1544 (v) x 3 (R,G,B)
Frame rate, full frame	38.3 frames/sec. @ 8-bit
Active area	7.12 mm (h) x 5.33 mm (v) - 8.89 mm diagonal
Pixel size	3.45 μm x 3.45 μm
System clock	74.25 MHz (for pulse generator)
Read-out modes	Full ROI (single) 2064 (h) x 1544 (v) up to 38.3 fps H: 16 to 2064 pixels in 16 pixel steps V: 2 to 1544 lines in 2 line steps ROI (multi) Binning Up to 5 overlapping scanning areas can be defined. 1X2, 2X1, 2X2
EMVA 1288 Parameters	12-bit output format
Absolute sensitivity	3.77 p (λ = 525 nm)
Maximum SNR	40.39 dB
Traditional SNR*	>60 dB (0 dB gain, 10-bit)
Video signal output	8/10/12-bits per channel† (24/30/36-bit RGB)
Video modes	Normal, Single ROI, Multi ROI, Sequencer
Gain	Manual control - master mode or individual R/G/B channels Auto gain control - off, continuous, one-push
White balance	Off, 4 presets (3200K, 5000K, 6500K, 7500K), or one-push/continuous AWB using gain or exposure time (3000K to 9000K)
Gamma/LUT	0.45 to 1.0 (9 steps) or 257-point programmable LUT
Shading correction	Flat shading, color shading
Trigger input	Opto In (2), Pulse Generators (4), Software NAND Out (2), User Output (4)
Exposure modes	Timed/EPS, Trigger Width, Auto
Electronic shutter	(can be set independently for R/G/B channels) 30.73 μs to 8 sec. in 1 μs steps (8-bit) 34.73 μs to 8 sec. in 1 μs steps (10-bit)
Auto Level Control (ALC)	Shutter range from 100 μs to 3.427 ms, gain range from 0 dB to +12 dB. Tracking speeds and max. values adjustable
Pre-processing functions	Color enhanced edge enhancer, color space conversion (RGB to YUV, XYZ, sRGB, Adobe RGB), blemb. compensation (200 px/channel)
Operating temp. (ambient)	-10°C to +45°C (20 to 80% non-condensing)
Storage temp. (ambient)	-20°C to +60°C (20 to 80% non-condensing)
Vibration	3G (20 Hz to 200 Hz) X, Y directions
Shock	500g
Regulations	CE (EN61000-6-2, EN61000-6-3) FCC Part 15 Class B, RoHS/WEEE
Power	+12V to +24V DC ± 10%. 5.3 W typical @ +12 V Bus power: not supported
Lens mount	C-mount
Dimensions (H x W x L)	44 mm x 44 mm x 74 mm (excl. connectors)
Weight	170 g



### Connector pin-out

DC In / Trigger		USB 3.0 Interface	
1	Ground	1	VBUS IN
2	DC in +12V to +24V	2	DM
3	Opto In 2-	3	DP
4	Opto In 2+	4	OTG ID
5	Opto In 1-	5	GND
6	Opto In 1+	6	FX3 SSTXM
7	Opto Out 1-	7	FX3 SSTXP
8	Opto Out 1+	8	GND
9	TTL out 1	9	FX3 SSRXP
10		10	FX3 SSRXM
11	DC in +12V to +24 V		
12	Ground		

Micro B type - ZX3600-B-10P or equiv.



### Ordering Information

AP-3200T-USB-LSX	3-CMOS prism color camera with USB3 Vision
AP-3200T-USB-NF-LSX	Same as above with IR-cut filter removed

\*Traditional SNR is based on random noise in a single frame, where EMVA SNR measurements consider more comprehensive noise sources and variance over time.

†12-bit output available in video processing bypass mode. See manual for details.

<b>Europe, Middle East &amp; Africa</b> Phone +45 4457 8888 Fax +45 4491 8880	<b>Asia Pacific</b> Phone +81 45 440 0154 Fax +81 45 440 0166	<b>Americas</b> Phone (Toll-Free) 1 800 445 5444 Phone +1 408 383 0300
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