

# Lt Series Board Level Cameras

Compact, Lightweight USB3 Cameras Designed for Embedded Systems

Compact and light-weight USB 3 cameras that provided both monochrome and vivid color images for the most demanding environments.

Perfect for embedded systems, Teledyne Lumenera's Lt Series Board Level Cameras offer a smaller, lighter, and lower cost imaging solution. Equipped with the latest advanced Starvis™ and Pregius™ CMOS sensors from Sony®, with a resolution of 2 – 20 megapixels. With connectors on the side of each camera, applications can take advantage of a shorter cable lengths and a flat back design that minimizes the space required for vision systems.



## Key Features

Wide selection of advanced Sony Global and Rolling CMOS sensors to meet the diverse requirements of today's embedded vision systems.

## Size

Compact board level foot print is ideal for applications where space is tight: UAVs, handheld devices, mobile devices.



## Applications

Ready to meet the challenges of embedded system applications such as aerial imaging, intelligent traffic systems (ITS), robotic inspection, and life sciences.

## Compatibility

Flexible, proven 32 and 64-bit operating system compatibility for, Windows, Linux, Linux for embedded system platforms, and single board computers (SBCs).

## Lt SERIES BOARD LEVEL CAMERAS SPECIFICATIONS

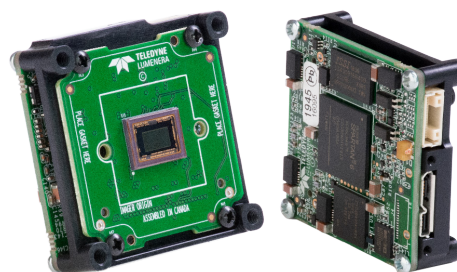
	Active Resolution	Sensor Model	Frame Rate	Pixel Size	Dynamic Range	Max. Image Circle	Data Format	Part Number**
 Lt-C1610B	1608 x 1104	Sony IMX432 (1.7M)	96 fps	9.00 µm	72.1 dB	1.1" Optical Format	8 or 12-bit	LT-UC11-C161NBL
 Lt-M1610B	1608 x 1104	Sony IMX432 (1.7M)	96 fps	9.00 µm	72.1 dB	1.1" Optical Format	8 or 12-bit	LT-UM11-M161NBL
 Lt-C1630B	1632 x 1248	Sony IMX430 (2.0M)	86 fps	4.50 µm	73 dB	1/1.7" Optical Format	8 or 12-bit	LT-UC11-C163NBL
 Lt-M1630B	1632 x 1248	Sony IMX430 (2.0M)	86 fps	4.50 µm	73 dB	1/1.7" Optical Format	8 or 12-bit	LT-UM11-M163NBL
 Lt-C1900B	1944 x 1096	Sony IMX327 (2.1M) RS*	60 fps	2.90 µm	72.8 dB	1/2.8" Optical Format	8 or 12-bit	LT-UC10-C190NBL
 Lt-C1950B	1936 x 1216	Sony IMX392 (2.3M)	162 fps	3.45 µm	73.27 dB	1/2.3" Optical Format	8 or 12-bit	LT-UC10-C195NBL
 Lt-M1950B	1936 x 1216	Sony IMX392 (2.3M)	162 fps	3.45 µm	73.27 dB	1/2.3" Optical Format	8 or 12-bit	LT-UM10-M195NBL
 Lt-C2020B	2064 x 1544	Sony IMX265 (3.2M)	55 fps	3.45 µm	73.56 dB	1/1.8" Optical Format	8 or 12-bit	LT-UC11-C202NBL
 Lt-M2020B	2064 x 1544	Sony IMX265 (3.2M)	55 fps	3.45 µm	73.56 dB	1/1.8" Optical Format	8 or 12-bit	LT-UM11-M202NBL
 Lt-C2420B	2464 x 2056	Sony IMX264 (5.1M)	35 fps	3.45 µm	73.02 dB	2/3" Optical Format	8 or 12-bit	LT-UC11-C242NBL
 Lt-M2420B	2464 x 2056	Sony IMX264 (5.1M)	35 fps	3.45 µm	73.02 dB	2/3" Optical Format	8 or 12-bit	LT-UM11-M242NBL
 Lt-C3200B	3216 x 2208	Sony IMX428 (7.1M)	50 fps	4.50 µm	73 dB	1.1" Optical Format	8 or 12-bit	LT-UC11-C320NBL
 Lt-M3200B	3216 x 2208	Sony IMX428 (7.1M)	50 fps	4.50 µm	73 dB	1.1" Optical Format	8 or 12-bit	LT-UM11-M320NBL
 Lt-C3840B	3840 x 2160	Sony IMX334 (8.3M) RS*	44 fps	2.00 µm	70.53 dB	1/1.8" Optical Format	8 or 12-bit	LT-UC10-C384NBL
 Lt-M3840B	3840 x 2160	Sony IMX334 (8.3M) RS*	44 fps	2.00 µm	70.53 dB	1/1.8" Optical Format	8 or 12-bit	LT-UM10-M384NBL
 Lt-C4030B	4112 x 2176	Sony IMX267 (8.9M)	31 fps	3.45 µm	73.27 dB	1" Optical Format	8 or 12-bit	LT-UC11-C403NBL
 Lt-M4030B	4112 x 2176	Sony IMX267 (8.9M)	31 fps	3.45 µm	73.27 dB	1" Optical Format	8 or 12-bit	LT-UM11-M403NBL
 Lt-C4020B	4112 x 3008	Sony IMX304 (12M)	22 fps	3.45 µm	73.22 dB	1.1" Optical Format	8 or 12-bit	LT-UC11-C402NBL
 Lt-M4020B	4112 x 3008	Sony IMX304 (12M)	22 fps	3.45 µm	73.22 dB	1.1" Optical Format	8 or 12-bit	LT-UM11-M402NBL

\* Rolling Shutter sensors

\*\* For LuCam software compatible part number, please use pn: LT-Lxxx-xxxxxxx

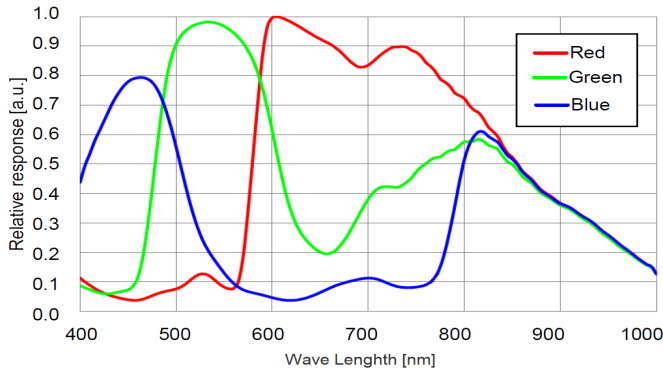
### Additional Specifications Across All Models

Data Output Transfer	USB3.1 (5 Gbit/s)
Exposure Control	Manual and automatic control
I/O Ports	Locking connector; includes trigger in, strobe out, and auxiliary power input
Image Buffers	128 MB
Lens Mount	No mount or casing for Board Level Cameras
Size (L x H x W)	40.4 mm x 40.4 mm x 17.1 mm
Mass	28 g
Operating Temp	0 °C to 50 °C
Power Supply	5V via Power Over USB
Power Dissipation (model dependent)	2.3 W to 3.6 W
Data Connector	USB3 Type micro-B (Locking Connector supported)
Power and I/O Connector	JST# SM09B-NSHSS-TB (mating part :JST # NSHR-09V-S)
Camera Specification	USB 3.1 interface , USB3 Vision v1.0 compliant
Software Platform	Teledyne Sopera LT 8.6 for Windows, Lumenera Camera Software Development Kit (LINUX) or 3rd Party GenICam compliant SDK

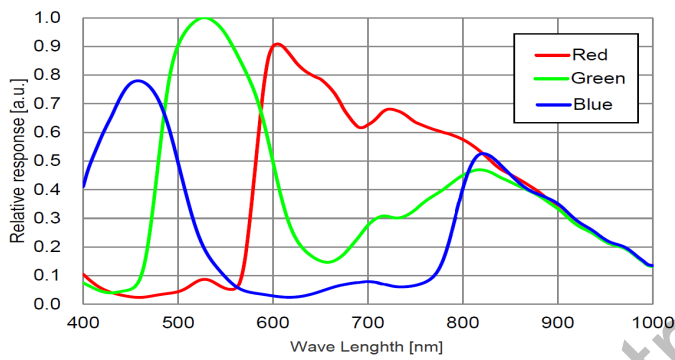


**RESPONSIVITY GRAPHS**

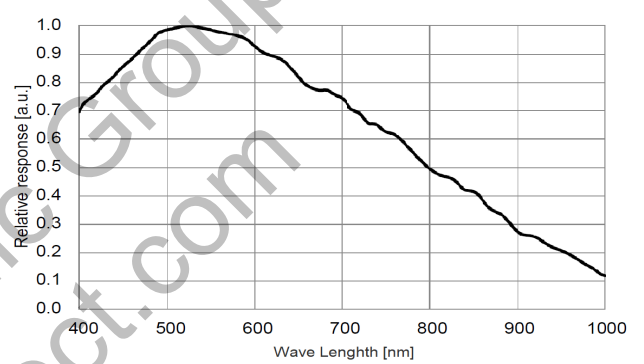
**Lt-C1900B**



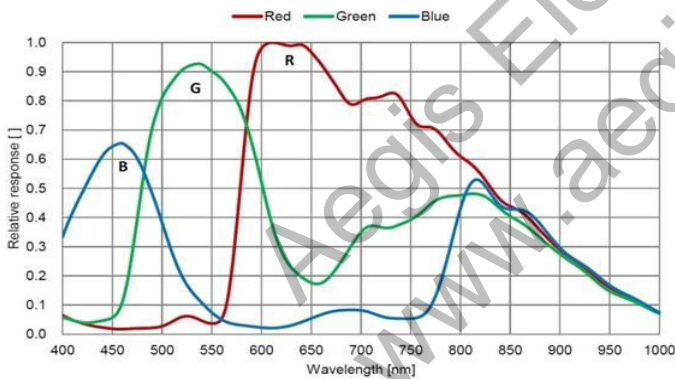
**Lt-C3840B**



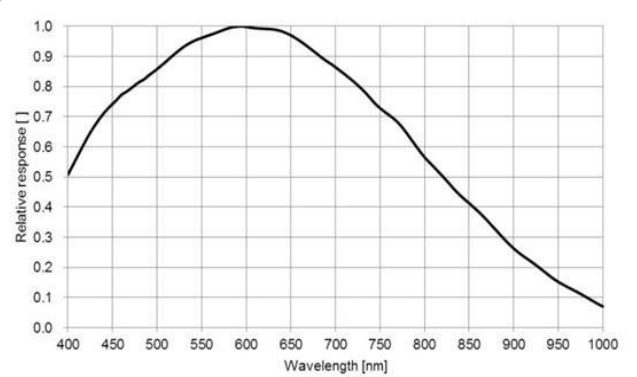
**Lt-M3840B**



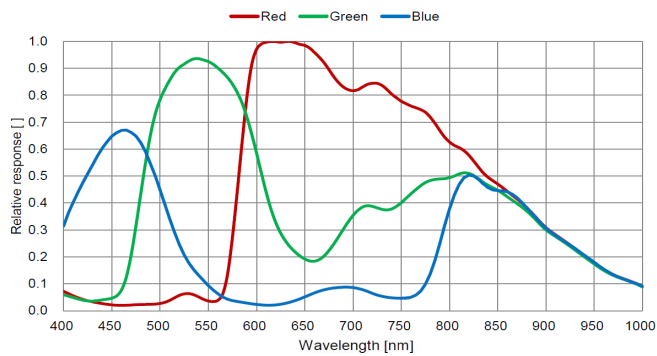
**Lt-C1950B, C2020B, C2420B, C4030B, C4020B**



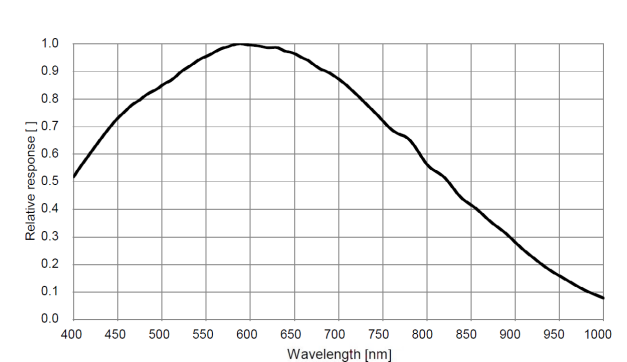
**Lt-M1950B, M2020B, M2420B, M4030B, M4020B**



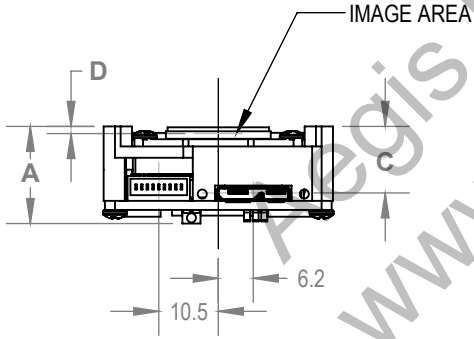
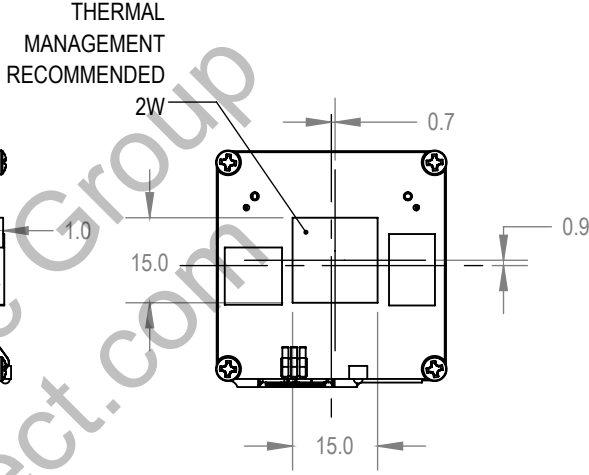
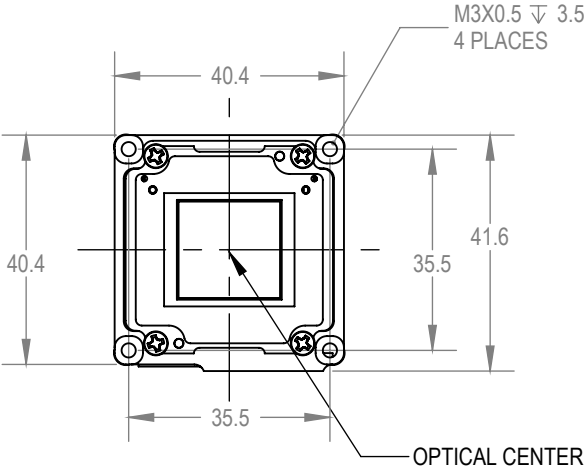
**Lt-C1610B, C1630B, C3200B**



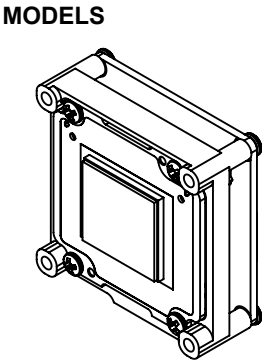
**Lt-M1610B, M1630B, M3200B**

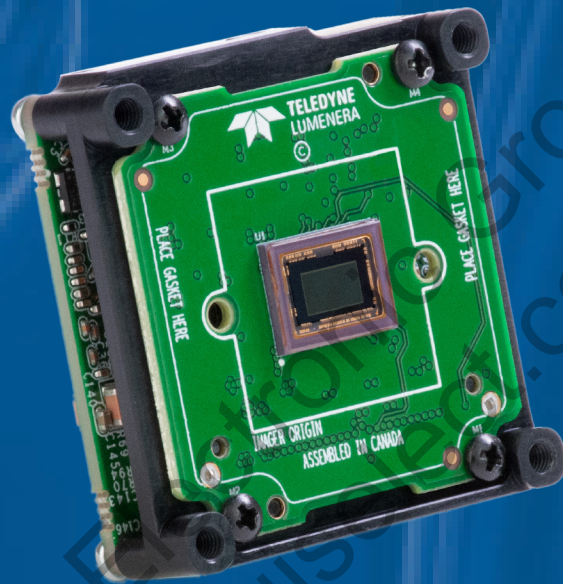


# Lt Series Board Level Camera Specifications



MODELS	DIMENSION		
	A	B	C
LT-1610B	17.1	11.9	1.3
LT-1630B			
LT-1950B			
LT-1980B			
LT-2020B			
LT-2420B			
LT-3200B			
LT-4020B			
LT-4030B			
LT-1900B	14.1	8.9	1.6
LT-3840B	14.1	8.9	1.4





# Versatile cameras featuring Sony Pregius & Starvis sensors