

New GigE Vision Camera

GIG
VISION

5
MP

22
fps

BG505LM series

Pregius

3.1
MP

36
fps

BG302LM series



New IP Core

High Image Quality

IMAGING REVOLUTION

Feature

- High speed response with new IP core; 'Teli Core Technology' (no CPU) system
- With Sony's high image quality CMOS sensor
- 5Mp (IMX264) : 22fps / 2,448(H) x 2,048(V) pixels
- 3.1Mp (IMX265) : 36fps / 2,048(H) x 1,536(V) pixels
- Global shutter type
- Correspond with "TeliCamSDK" (Software development kit, free supply)



29 × 29 × 40 mm

60g

Toshiba Teli Corporation

<http://www.toshiba-teli.co.jp/en/>

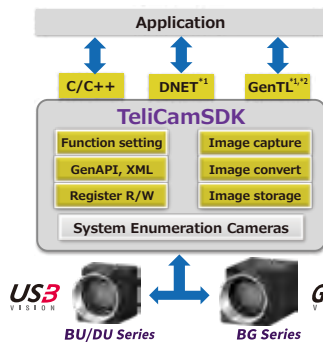


Specifications

B/W or COLOR		B/W		COLOR		B/W		COLOR	
Pixels		3.1M		5M		5M		5M	
ITEM	MODEL	BG302LMG	BG302LMCG BG302LMCF	BG505LMG	BG505LMCG BG505LMCF	BG505LMG	BG505LMCG BG505LMCF	BG505LMG	BG505LMCG BG505LMCF
Interface	Gigabit Ethernet IEEE802.3ab (1000BASE-T), IEEE802.3u (100BASE-TX)								
Imager	1/1.8 type GS-CMOS (IMX265)								
Resolution	2,048 (H) x 1,536 (V)								
Max. Frame Rate (all pixels readout)	36 fps (Mono 8), 18 fps (Mono 10 / 12)		36 fps (Bayer 8, Nono 8), 18 fps (Bayer 10 / 12)		22 fps (Mono 8), 11 fps (Mono 10 / 12)		22 fps (Bayer 8, Nono 8), 11 fps (Bayer 10 / 12)		
Pixel Size	3.45 (H) X 3.45 (V) μm								
Electronic Shutter	MANUAL (Global Shutter) / Random Trigger Shutter (Global Shutter)								
Random Trigger Shutter Type	External Trigger / Software Trigger								
Random Trigger Shutter Mode	Edge / Level / Bulk (255 times)								
Sequential Shutter	16 entry (max)								
Exposure Time	30 μs to 16 s (MANUAL), 30 μs to 1 s (AE), 30 μs to 16 s (Edge or Bulk Mode), Trigger width (Level Mode)				32 μs to 16 s (MANUAL), 32 μs to 1 s (AE), 32 μs to 16 s (Edge or Bulk Mode), Trigger width (Level Mode)				
Scan Method	Progressive								
On-chip Color Filter			RGB primary color mosaic				RGB primary color mosaic		
Dust-proof Glass / IR Cut Filter	G : with Dust-proof Glass		CG : with Dust-proof Glass CF : with IR Cut Filter		G : with Dust-proof Glass		CG : with Dust-proof Glass CF : with IR Cut Filter		
Standard Sensitivity (Gain : 0dB)	3,850 lx, F11, 1/36 s		CG : 2,500 lx, F8, 1/36 s CF : 2,600 lx, F8, 1/36 s		2,600 lx, F11, 1/22 s		CG : 3,100 lx, F11, 1/22 s CF : 3,200 lx, F11, 1/22 s		
Minimum Sensitivity (Video Level:50%)	2 lx (F1.4, Gain +24 dB)		CG : 3 lx, CF : 3 lx (F1.4, Gain +24 dB)		2 lx (F1.4, Gain +24 dB)		CG : 2 lx, CF : 2 lx (F1.4, Gain +24 dB)		
Gain	0 to +24 dB (MANUAL, AUTO)								
Black Level	-25 to +25 %								
White Balance			Manual, One push CG : N/A, CF : 2,500 to 6,500 K				Manual, One push CG : N/A, CF : 2,500 to 6,500 K		
Gamma / LUT	γ=1.0 to 0.45 / In 12 bit, Out 12 bit								
Sharpness / LUT	✓				✓				
Test pattern			✓				✓		
Memory Shot, Number of Frames	21 frames (Mono 8, all pixels readout)		21 frames (Bayer 8, all pixels readout)		13 frames (Mono 8, all pixels readout)		13 frames (Bayer 8, all pixels readout)		
Image Re-send	✓								
Image Time Stamp	✓								
Event Notification	FrameTrigger / FrameTriggerError / FrameTriggerWait / FrameTransferStart / FrameTransferEnd / ExposureStart / ExposureEnd / Timer0Start / Timer0End								
Chunk	✓ (FrameID / ExposureTime / Gain / LineStatusAll / FrameBurstTriggerCount / SequentialShutterNumber / SequentialShutterElement etc.)								
Image Output Format	Mono 8 / 10 / 12 bit All pixel, Scalable, Binning, Decimation, Mirroring, Flip		Bayer 8 / 10 / 12 bit, Nono 8 bit All pixel, Scalable, Binning, Decimation, Mirroring, Flip		Mono 8 / 10 / 12 bit All pixel, Scalable, Binning, Decimation, Mirroring, Flip		Bayer 8 / 10 / 12 bit All pixel, Scalable, Binning, Decimation, Mirroring, Flip		
External Trigger Input	1 channel / Photo-coupler								
GPIO Input Output	In/Out : 1 channel (selectable) / LVTTTL, Out : 1 channel / Photo-coupler								
Power Supply	PoE (RJ-45 connector) / DC +12 V ±10 % (HIROSE connector)								
Power Consumption	3.2 W (PoE) / 2.7 W (HIROSE connector)		3.6 W (PoE) / 2.9 W (HIROSE connector)		3.2 W (PoE) / 2.7 W (HIROSE connector)		3.6 W (PoE) / 2.9 W (HIROSE connector)		
Lens Mount	C Mount								
Dimensions / Mass	29 (W) x 29 (H) x 40 (D) mm (Not including protrusion) / Approx. 60 g								
Operation Assurance	Temperature : 0 °C to 40 °C (Camera housing temperature: less than 60 °C ^(*)), Humidity : 10 % to 90 % (no condensation)								
Conformity	CE, FCC, RoHS, WEEE, GigE Vision (Ver1.2), GenICam (Ver2.4, Ver3.0), PoE (IEEE802.3af), IIC2 (Ver1.1.0)								
Product Availability	Available		Available		Available		Available		(Ask)

**1: Depends on the serial number. Please confirm details in the Specifications.

TeliCamSDK



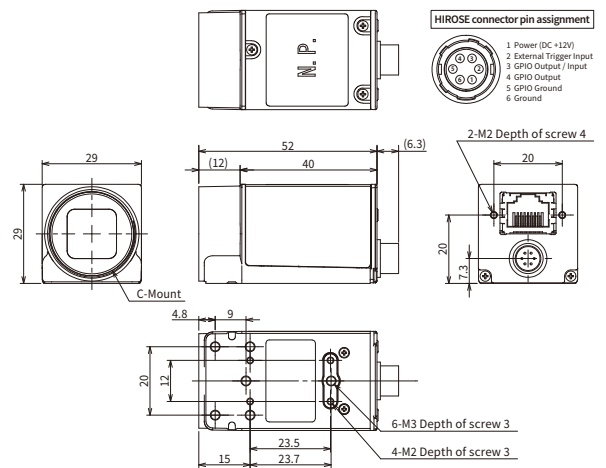
- Easy to capture image
- GEN<i>CAM available
- Varieties of functions for easy programming
- Abundant sample code
- Easy to understand manuals
- Unified SDK for USB3.0 & GigE

TeliCamSDK for Linux supported ARM architectures.
- Jetson TK1 - Jetson TX2
- Odroid XU4^(*) - Raspberry pi 3^(*)

bit	Windows					Linux		
	XP SP3	Vista	7	8.1	10	Ubuntu 14.04 LTS	Debian 8.1.0	Linux ARM
32	✓ ^{*3}	✓ ^{*3}	✓	✓	✓	✓ ^{*4}	✓ ^{*4}	✓ ^{*4}
64	—	✓ ^{*3}	✓	✓	✓	✓	✓	✓ ^{*4}

*1: for Windows / *2: USB only / *3: Corresponds to old version / *4: Please contact us / *5: With a GigE Vision camera, image might be missed depending on PC specifications. / *6: USB3 Vision camera cannot be used.

Outline Drawing



Notes on Safety

- Before using this product, please read "Operation Manual" carefully in order to use this product safely and correctly.
- If this product should be used in the extraordinary conditions or environments, or if you have any questions or problems, please contact our sales division.

Toshiba Teli Corporation

<http://www.toshiba-teli.co.jp/en/>

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