

GigE Vision Camera BG Series Catalog



New IP Core

Industry's lightest



3.1 MP BG302LM Series
Sony IMX265 **NEW**

5 MP BG505LM Series
Sony IMX264 **NEW**



0.4 MP BG040M Series
Sony IMX287 **PLANNING**

1.6 MP BG160M Series
Sony IMX273 **PLANNING**



2 MP BG205M Series
CMOSIS CMV2000



0.3 MP BG030 Series
Sony CCD ICX424



0.3 MP BG031
Sony CCD ICX414



0.8 MP BG080
Sony CCD ICX204



1.3 MP BG130 Series
Sony CCD ICX445



2 MP BG202 Series
Sony CCD ICX274



Pregius logo is trademark of Sony Corporation.

IMAGING REVOLUTION

**BG030 Series / BG031 / BG080 / BG130 Series /
BG202 Series / BG205M Series**

- Sony CCD sensor / CMOSIS sensor

- PoE / DC 12V (automatic switching)

- IEEE802.3ab (1000BASE-T)

- 1 Trigger Input
2 GPIO (2 Output)



29 × 29 × 40 mm **53g**

**BG040M Series / BG160M Series /
BG302LM Series / BG505LM Series**

NEW

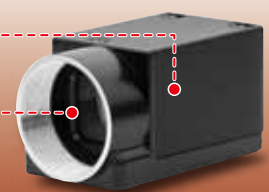
- Teli Core Technology Inside

- Sony CMOS sensor

- PoE / DC 12V (automatic switching)

- IEEE802.3ab (1000BASE-T)

- 1 Trigger Input
2 GPIO (1 I/O, 1 Output)



29 × 29 × 40 mm **60g**

TOSHIBA TELI CORPORATION

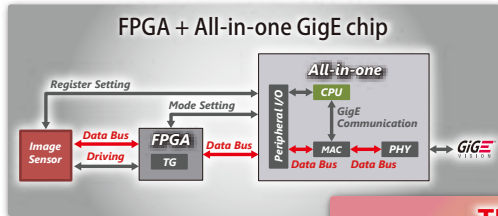
<http://www.toshiba-teli.co.jp/en/>



TOSHIBA TELI GigE Vision CAMERA

Featuring TELI original IP "TELI Core Technology"

- Achieved high integration with TELI's original technology.
- Shorten the response time !

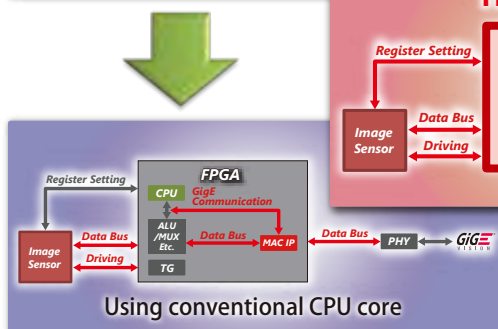


Downsizing,
High
integration

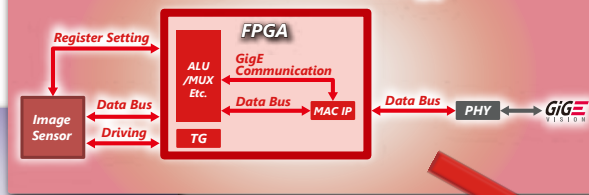
teLi CORE TECHNOLOGY

**no CPU and
no software !**

**Downsizing and super
high speed response
by high integration !**



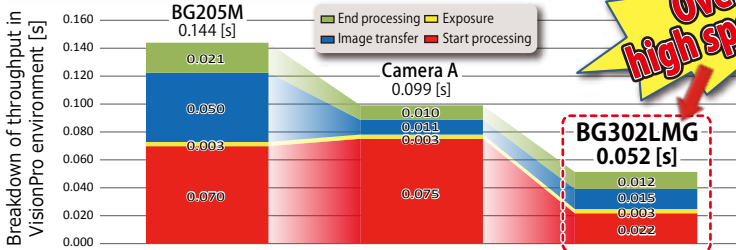
TELI Core Technology



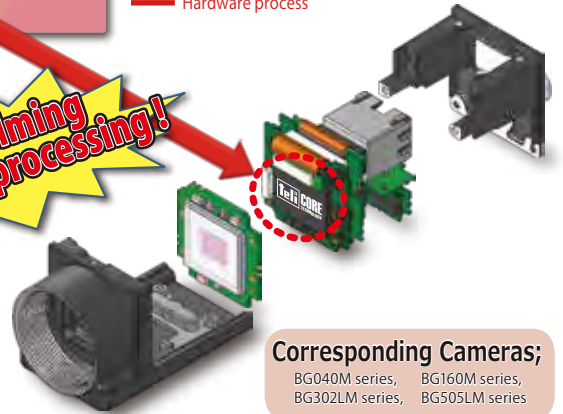
— Firmware process
— Hardware process

Downsizing,
High
integration

**Overwhelming
high speed processing!**



* BG302LMG cuts out 1280 (H) x 960 (V) pixels to match the number of pixels with other cameras.

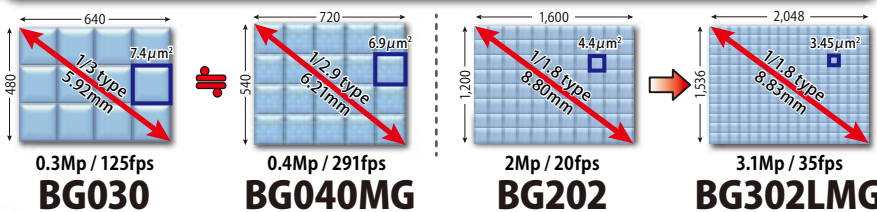


Corresponding Cameras;
BG040M series, BG160M series,
BG302LM series, BG505LM series

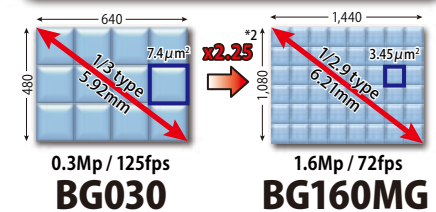
Key factor of choice for camera replacement (replacing CCD camera with CMOS camera)

- Wide product range supports replacement of your camera in usual use. ^{*2}: Comparing in horizontal pixel numbers. ^{*3}: Comparing in image size of effective pixels.

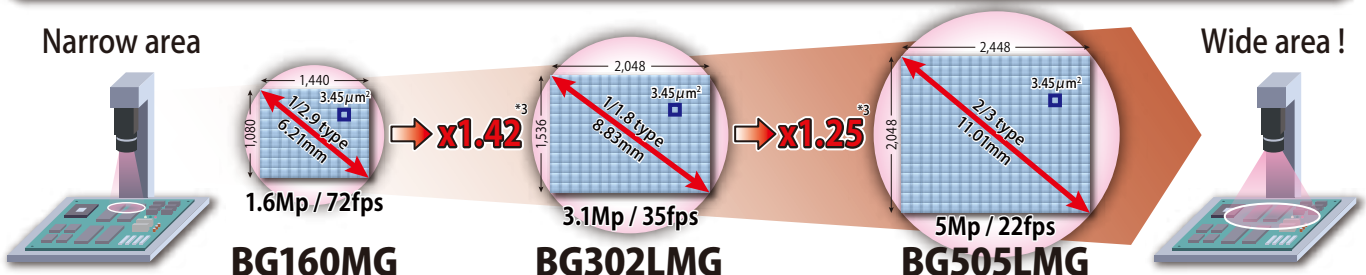
Needs for keeping pixels and size



Higher resolution in the same view



Wider range with the same limit of resolution

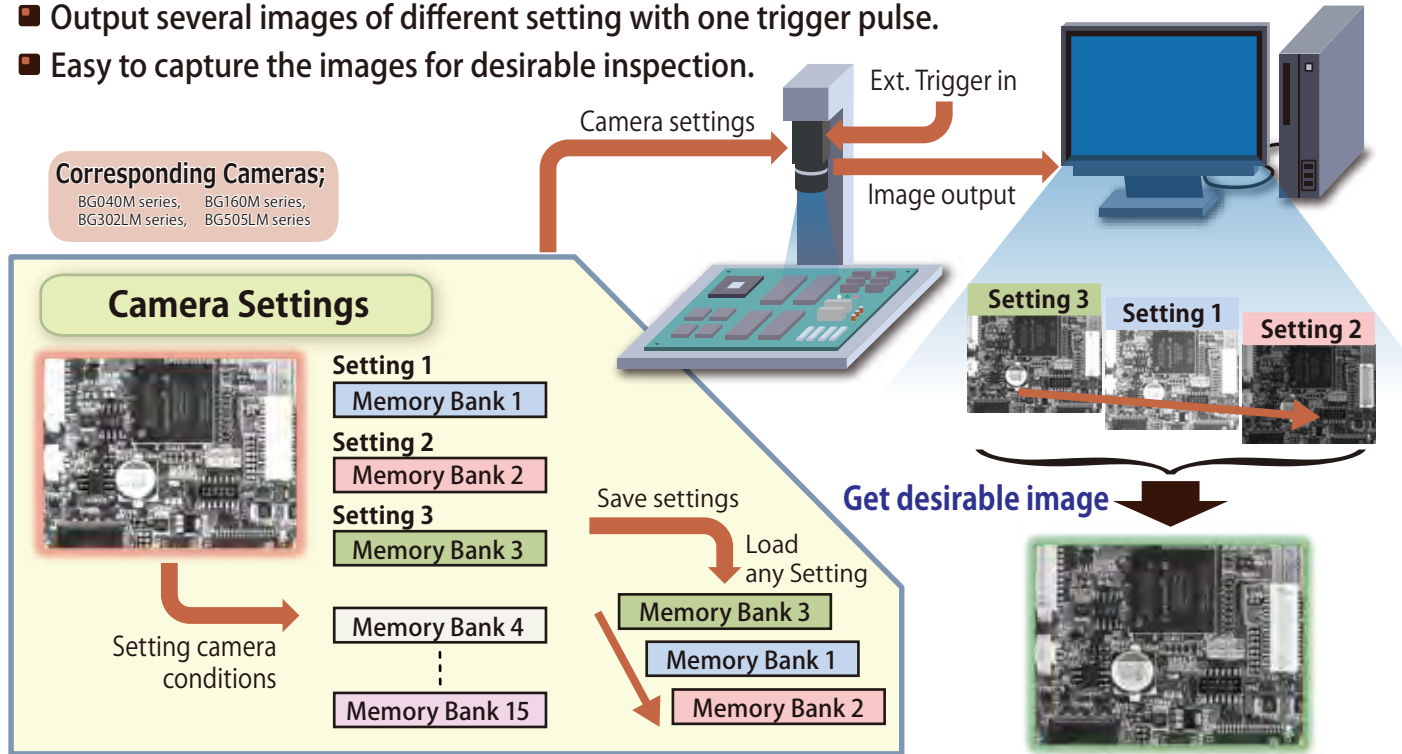


BG Series



Sequential Shutter mode + Bulk Trigger mode

- Output several images of different setting with one trigger pulse.
- Easy to capture the images for desirable inspection.

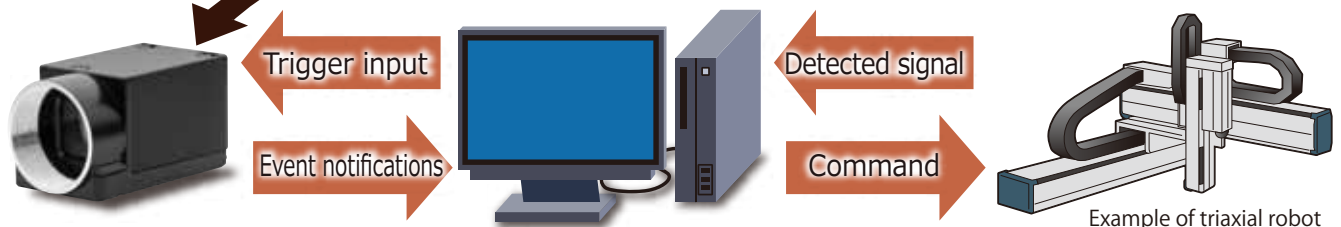


Event Notifications

- Camera notifies status information via event packet!
- Event notice without delay by the TELI Core Technology.
- Rendering great service to vision systems with high speed as its important feature.

1	FrameTrigger	: Reception of Frame Start Trigger
2	FrameTriggerError	: Rejection of Frame Start Trigger
3	FrameTriggerWait	: Start of waiting for Frame Start Trigger
4	FrameTransferStart	: Start of transferring Streaming Data
5	FrameTransferEnd	: End of transferring Streaming Data
6	ExposureStart	: Start of Exposure
7	ExposureEnd	: End of Exposure
8	Timer0Start	: Start of Timer "0"
9	Timer0End	: End of Timer "0"

Corresponding Cameras;
BG040M series, BG160M series,
BG302LM series, BG505LM series

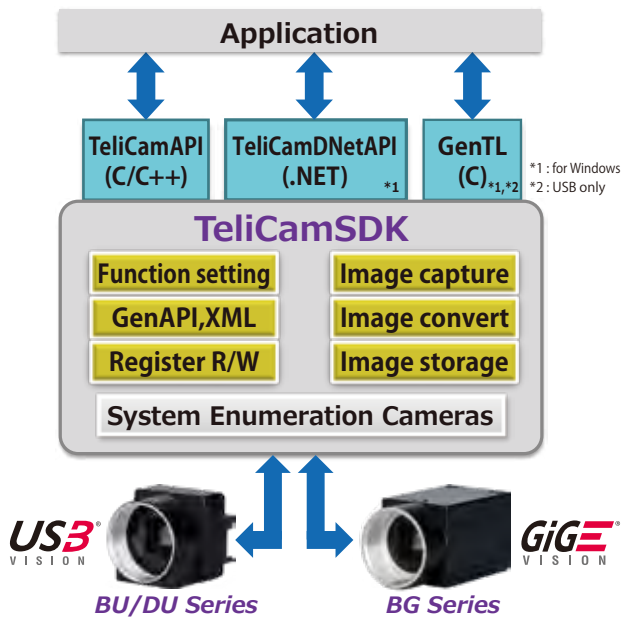


BG205M-CS/MC-CS Series (Featuring CMOSIS Sensor)

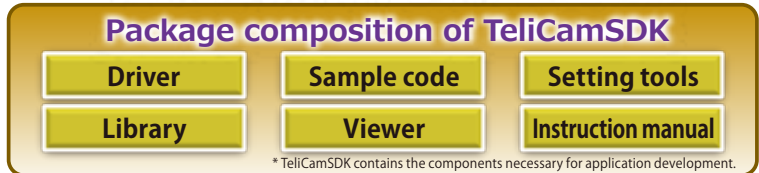
- High sensitivities (1200 lx, F11, 1/50s)
- Clear image by FPN correction
- Featuring CS mount suitable for ITS



TeliCamSDK



- Easy to capture image
- More than 70% reduction of mounting code
- GEN<i>CAM available
- Varieties of functions for easy programming
- Abundant sample code
- Easy to understand manuals
- Unified SDK for USB3.0 & GigE



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

TeliCamSDK for Linux supported ARM architectures. - Jetson TK1, Jetson TX2, Odroid XU4 (*5), Raspberry pi 3 (*6)
 *1: for Windows / *2: USB only / *3: Corresponds to old version / *4: Please contact us / *5: GigE Vision cameras have some limitations. / *6: GigE Vision camera can be used with 100BASE-T. USB3 Vision camera can not be used.

Specifications

MODEL ^{*1}	BG030	BG030C BG030CF	BG031	PLANNING BG040M	PLANNING BG040MC BG040MCF	BG080	BG130	BG130C BG130CF	PLANNING BG160M	PLANNING BG160MC BG160MCF
B/W or COLOR	B/W	COLOR	B/W	B/W	COLOR	B/W	B/W	COLOR	B/W	COLOR
Pixels	0.3M		0.3M	0.4M		0.8M	1.3M		1.6M	
Imager model	Sony ICX424A		Sony ICX414A	Sony IMX287		Sony ICX204A	Sony ICX445A		Sony IMX273	
Imager size / type ^{*2}	1/3" CCD		1/2" CCD	1/2.9" GS-CMOS		1/3" CCD	1/3" CCD		1/2.9" GS-CMOS	
Resolution	640 x 480		640 x 480	720 x 540		1,024 x 768	1,280 x 960		1,440 x 1,080	
Frame rate	125 fps		125 fps	291 fps		40 fps	30 fps		72 fps	
Pixel size	7.4 x 7.4 μm		9.9 x 9.9 μm	6.90 x 6.90 μm		4.65 x 4.65 μm	3.75 x 3.75 μm		3.45 x 3.45 μm	
TELI Core Technology ^{*4}	-		-	✓		-	-		✓	
Event notifications	✓		✓	✓		✓	✓		✓	
Bulk trigger	-		-	✓		-	-		✓	
Image buffer	-		-	✓		-	-		✓	
Sequential shutter	-		-	✓		-	-		✓	
Product availability (CY)	Available	Available	Available	(Planning)	(Planning)	Available	Available	Available	(Planning)	(Planning)

MODEL ^{*1,*3}	BG202	BG202C BG202CF	BG205M-CS	BG205MC-CS BG205MCF-CS	NEW BG302LMG	NEW BG302LMCG BG302LMCF	NEW BG505LMG	COMING SOON BG505LMCG BG505LMCF
B/W or COLOR	B/W	COLOR	B/W	COLOR	B/W	COLOR	B/W	COLOR
Pixels	2M		2M		3.1M		5M	
Imager model	Sony ICX274A		CMOSIS CMV2000		Sony IMX265		Sony IMX264	
Imager size / type ^{*2}	1/1.8" GS-CMOS		2/3" GS-CMOS		1/1.8" GS-CMOS		2/3" GS-CMOS	
Resolution	1,600 x 1,200		2,048 x 1,088		2,048 x 1,536		2,448 x 2,048	
Frame rate	20 fps		40 fps		36 fps		22 fps	
Pixel size	4.40 x 4.40 μm		5.5 x 5.5 μm		3.45 x 3.45 μm		3.45 x 3.45 μm	
TELI Core Technology ^{*4}	-		-		✓		✓	
Event notifications	✓		✓		✓		✓	
Bulk trigger	-		✓		✓		✓	
Image buffer	-		-		✓		✓	
Sequential shutter	-		-		✓		✓	
Product availability (CY)	Available	Available	Available	Available	Available	Available	Available	(Coming soon)

- *1: MODEL suffix C / MC: without IR-cut filter, CF / MCF: with IR-cut filter, G / CG: with Dust-proof Glass
- *2: Imager type GS-CMOS: Global shutter type CMOS sensor (RS-CMOS: Rolling shutter type CMOS sensor)
- *3: Lens mount BG205M-CS / MC-CS / MCF-CS are CS-Mount models
- *4: TELI Core Technology Featuring newly developed TELI original IP core technology



Notes on Safety

- Before using this product, please read "Instruction 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.

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

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