

VGA



CMOS	VGA 1TAP, 2TAP, 3TAP	VGA High speed 500fps	VGA Ultra small 22mm cubic in size
Interface	PoCL・non-PoCL (Auto selection)	PoCL・non-PoCL	PoCL-Lite
Model name	VCC-VCL3M VCC-VCL3R	VCC-GC20V41CL / PCL VCC-FC20V49CL / PCL	VCC-GC10V31L
Sensor	PYTHON 300	CMV2000	MT9V024
Sensor size	1/4 type CMOS	1/4 type CMOS	1/3 type CMOS
Unit cell size (μm)	4.8 μm × 4.8 μm	5.5 μm × 5.5 μm	6.0 μm × 6.0 μm
Effective pixels (H) × (V)	640 × 480	640 × 480	752 × 480
Resolution	VGA	VGA	VGA
Frame rate	Base: 537.6fps(3tap) 267.7fps(2tap) 133.8fps(1tap)	Base: 502.29fps(2tap)	Base: 59.94fps
Pixel clock	72MHz・36MHz (Selectable at 2TAP output)	79.99MHz	24.545 MHz
Shutter	OFF ~ 1/10,000s	OFF ~ 1/50,000s	OFF ~ 1/30,000s
Lens mount	C mount	C mount	NF mount
Dimensions (W) × (H) × (D) mm	29 × 29 × 29	29 × 29 × 29	22 × 22 × 22
Features	Corresponds to 3tap, External trigger, ROI, Sub-sampling, Defective pixel correction, Power auto selection	High speed 500fps, External trigger, ROI, Low power consumption 1.6W, 8bit / 10bit output	Ultra compact size (22mm cubic, 19 g), Low power consumption 0.65W, External trigger, NIR sensitivity, ROI

SXGA

2M



CMOS	SXGA 1TAP, 2TAP, 3TAP	2M High speed	2M High speed
Interface	PoCL・non-PoCL (Auto selection)	PoCL・non-PoCL	PoCL
Model name	VCC-SXCL3M VCC-SXCL3R	VCC-GC20U11CL / PCL VCC-FC20U19CL / PCL	VCC-GC21U11PCL VCC-FC21U19PCL
Sensor	PYTHON 1300	CMV2000	CMV2000
Sensor size	1/2 type CMOS	2/3 type CMOS	2/3 type CMOS
Unit cell size (μm)	4.8 μm × 4.8 μm	5.5 μm × 5.5 μm	5.5 μm × 5.5 μm
Effective pixels (H) × (V)	1280 × 1024	2048 × 1088	2048 × 1088
Resolution	SXGA	2M	2M
Frame rate	Base: 151.7fps(3tap) 83.8fps(2tap) 41.9fps(1tap)	Base: 70.73fps(2tap)	Base: 70fps(2tap) Med: 140fps(4tap) Full: 280fps(8tap)
Pixel clock	72MHz・36MHz (Selectable at 2TAP output)	79.99MHz	80 MHz
Shutter	OFF ~ 1/10,000s	OFF ~ 1/50,000s	OFF ~ 1/50,000s
Lens mount	C mount	C mount	C mount
Dimensions (W) × (H) × (D) mm	29 × 29 × 29	29 × 29 × 29	29 × 29 × 45
Features	3tap-mode ready, External trigger, ROI, Sub-sampling, Defective pixel correction, automatic power selection, NIR model also available	External trigger, Vertical ROI, 8bit / 10bit output	External trigger, Vertical 8 positions ROI, 8bit / 10bit output (2TAP, 4TAP)

3M

4M



CMOS	3M	4M High speed	4M High speed / Thin type
Interface	PoCL・non-PoCL (Auto selection)	PoCL	PoCL・non-PoCL (Selectable)
Model name	VCC-3CL5M VCC-3CL5R	VCC-GC21FR11PCL VCC-FC21FR19PCL	VCC-GC60FR11CL VCC-FC60FR19CL
Sensor	IMX265	CMV4000	CMV4000
Sensor size	1/1.8 type CMOS	1 type CMOS	1 type CMOS
Unit cell size (μm)	3.45 μm × 3.45 μm	5.5 μm × 5.5 μm	5.5 μm × 5.5 μm
Effective pixels (H) × (V)	2064 × 1544	2048 × 2048	2048 × 2048
Resolution	3M	4M	4M
Frame rate	Base: 55fps(3tap) 45fps(2tap) 22fps(1tap)	Base: 38fps(2tap) Med: 75fps(4tap) Full: 150fps(8tap)	Base: 17fps(1tap), 34fps(2tap) Med: 68fps(4tap) Full: 135fps(8tap)
Pixel clock	74.25MHz	80MHz	72MHz
Shutter	OFF ~ 1/17,500s	OFF ~ 1/50,000s	OFF ~ 1/50,000s
Lens mount	C mount	C mount	M42 mount
Dimensions (W) × (H) × (D) mm	29 × 29 × 29	29 × 29 × 45	55 × 55 × 25
Features	External trigger, ROI, Manual Gain Control, automatic power selection Gain 0 ~ 42dB	External trigger, Vertical 8 positions ROI, 8bit / 10bit output (2TAP, 4TAP)	External trigger, Vertical 8 positions ROI, 8bit / 10bit output (2TAP, 4TAP)

5M

5.2M



CMOS	5.2M High speed・Various features・Thin type	5M High speed・Various features・Thin type	5M 29mm Cubic
Interface	PoCL・non-PoCL (Selectable)	PoCL・non-PoCL (Selectable)	PoCL・non-PoCL (Auto selection)
Model name	VCC-5CL1M VCC-5CL1R	VCC-5CL4M/VCC-5CL4MHS VCC-5CL4R/VCC-5CL4RHS	VCC-5CL5M VCC-5CL5R
Sensor	LinCC 5M	IMX250	IMX264
Sensor size	1 type CMOS	2/3 type CMOS	2/3 type CMOS
Unit cell size (μm)	5.0 μm × 5.0 μm	3.45 μm × 3.45 μm	3.45 μm × 3.45 μm
Effective pixels (H) × (V)	2560 × 2048	2448 × 2048	2464 × 2056
Resolution	5.2M	5M	5M
Frame rate	Base: 30fps(2tap) Med: 59fps(4tap) Full: 117fps(8tap) Deca: 140fps (10Tap 8bit), 117fps (8Tap 10bit)	Base: 28fps(2tap) 8bit/10bit Base: 42fps(3tap) 8bit Med: 57fps(4tap) 8bit/10bit Full: 114fps(8tap) 8bit Deca: 163.4fps (10tap 8bit) HS model	Base: 14.56fps (1tap) 29.09fps (2tap) 35.84fps (3tap)
Pixel clock	80MHz	74.25MHz / 84.9MHz (HS model)	74.25MHz
Shutter	OFF ~ 1/99,000s (10Tap Configuration)	OFF ~ 1/55,000s OFF ~ 1/60,000s (HS model)	OFF ~ 1/20,000s
Lens mount	M42 mount	M42 mount	C mount
Dimensions (W) × (H) × (D) mm	65 × 65 × 31	55 × 55 × 25	29 × 29 × 29
Features	External trigger, Sequence function, Binarization, Shading correction, AE, AGC, ROI, Binning	External trigger, ROI, Defective pixel correction Gain 0 ~ 48dB	External trigger, ROI, Manual Gain Control Gain 0 ~ 42dB

12M
25M



CMOS	12M High speed·Various features	12M	25M High speed·Various features
Interface	PoCL·non-PoCL (Selectable)	PoCL·non-PoCL (Selectable)	PoCL·non-PoCL (Selectable)
Model name (B/W) (Color)	VCC-12CL1M VCC-12CL1R	VCC-12CL4M VCC-12CL4R	VCC-25CL1M VCC-25CL1R
Sensor	KAC-12040	IMX253	PYTHON25K
Sensor size	4/3 type CMOS	1.1 type CMOS	35mm CMOS
Unit cell size (μm)	4.7 μm × 4.7 μm	3.45 μm × 3.45 μm	4.5 μm × 4.5 μm
Effective pixels (H) × (V)	4000 × 3000	4096 × 3000	5120 × 5120
Resolution	12M	12M	25M
Frame rate	Med: 22fps (4tap) Full: 43fps (8tap) Deca: 54fps (10tap·8bit), 43ps (8tap·10bit)	Base: 13.324fps (2tap) Med: 26.647fps (4tap) Full: 53.294fps (8tap)	Base: 5fps (2tap) 8bit / 10bit Med: 10fps (4tap) 8bit / 10bit Full: 20 / 25fps (8tap) 8bit Deca: 32fps (10tap) 8bit
Pixel clock	72MHz	84.86MHz	72MHz (2·4·8tap) / 85MHz (8·10tap)
Shutter	OFF ~ 1/34,000s (at 10Tap Configuration)	OFF ~ 1/51,000s	1/34 ~ 1/30,000s
Lens mount	M42 mount	M42 mount	M48 mount
Dimensions (W) × (H) × (D) mm	65 × 55 × 50	55 × 55 × 25	65 × 65 × 40.5
Features	External trigger, AE, AGC, 4 positions ROI Binarization, Shading correction (B/W)	Global shutter type CMOS sensor, Camera Link Base, Medium, FULL, 8tap 10bit, 10tap 8bit compliance, Fixed trigger shutter mode, Pulse width trigger shutter mode, Gain 0 ~ 48dB	External trigger, Defective pixel correction, Shading Correction, Sequence control function, ROI, Binning

VGA
XGA



CCD	VGA	VGA	XGA
Interface	PoCL·non-PoCL·PoCL-Lite	PoCL	PoCL·non-PoCL·PoCL-Lite
Model name (B/W) (Color)	VCC-G22V31ACL/APCL VCC-F22V39ACL/APCL	VCC-G21V21ACL/APCL	VCC-G21X31ACL/APCL
Sensor	ICX424L·ICX424AQ	ICX414AL	ICX204AL
Sensor size	1/3 type CCD	1/2 type CCD	1/3 type CCD
Unit cell size (μm)	7.40 μm × 7.40 μm	9.9 μm × 9.9 μm	4.65 μm × 4.65 μm
Effective pixels (H) × (V)	659 × 494	659 × 494	1034 × 779
Resolution	VGA	VGA	XGA
Frame rate	120 fps	60fps	36 fps
Pixel clock	49MHz	24.54MHz	36MHz
Shutter	OFF (1/120s) ~ 1/100,000s	OFF (1/60s) ~ 1/50,000s	OFF (1/36s) ~ 1/48,000s
Lens mount	C mount	C mount	C mount
Dimensions (W) × (H) × (D) mm	29 × 29 × 29	29 × 29 × 29	29 × 29 × 29
Features	External trigger, Partial scan, 8bit/10bit output. RGB output model is also available	External trigger, Partial scan, 8bit/10bit output	External trigger, Partial scan, Binning scan, 8bit/10bit output

Repeater

	Camera Link ↔ Optical signal Conversion unit (Camera Link Base Configuration)	Camera Link ↔ Optical signal Conversion unit (Camera Link Medium Configuration)	Camera Link Repeater
Model Name	CL-OPT100T CL-OPT100R	CL-OPT200T CL-OPT200R	CL-R100
Dimensions (W) × (H) × (D) mm	40 × 20 × 60	60 × 25 × 90	54 × 29 × 71.5
Features	Camera Link ↔ Optical signal Conversion units. Connect CIS camera and frame grabber board with optical fiber cable. 300m Long distance transmission of Camera Link Base configuration is supported with CIS CL cameras (up to 80MHz) *Sold as a set of transmitter and receiver *In warranty only with compatible CIS cameras to be used	Camera Link ↔ Optical signal Conversion units. Connect CIS camera and frame grabber board with optical fiber cable. 150m Long distance transmission of Camera Link Base configuration is supported with CIS CL cameras (up to 80MHz) *In warranty only with compatible CIS cameras to be used	Camera Link repeater to extend the distance between the camera and the connected device. Trigger input (Trigger can be output to the camera) Camera Link Base, PoCL, PoCL-Lite supported *In warranty only with compatible CIS cameras to be used

SXGA
UXGA



CCD	SXGA	UXGA
Interface	PoCL·non-PoCL·PoCL-Lite	PoCL·non-PoCL·PoCL-Lite
Model name (B/W) (Color)	VCC-G22S21ACL/APCL VCC-F22S29ACL/APCL	VCC-G22U21ACL/APCL VCC-F22U29ACL/APCL
Sensor	ICX267AL·ICX267AK	ICX274AL·ICX274AQ
Sensor size	1/2 type CCD	1/1.8 type CCD
Unit cell size (μm)	4.65 μm × 4.65 μm	4.40 μm × 4.40 μm
Effective pixels (H) × (V)	1392 × 1040	1628 × 1236
Resolution	SXGA	UXGA
Frame rate	25fps	20fps
Pixel clock	49MHz	49MHz
Shutter	OFF (1/25s) ~ 1/90,000s	OFF (1/20s) ~ 1/40,000s
Lens mount	C mount	C mount
Dimensions (W) × (H) × (D) mm	29 × 29 × 29	29 × 29 × 29
Features	External trigger, Partial scan, 8bit/10bit output. RGB output model is also available	External trigger, Partial scan, 8bit/10bit output. RGB output model is also available