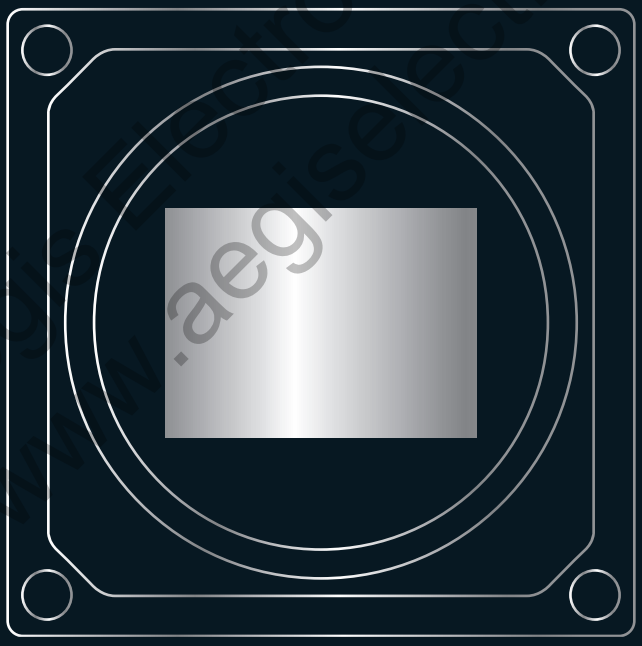
Industrial Cameras

SELECTION GUIDE



VIEWORKS

Vieworks Industrial Cameras

Your vision solution

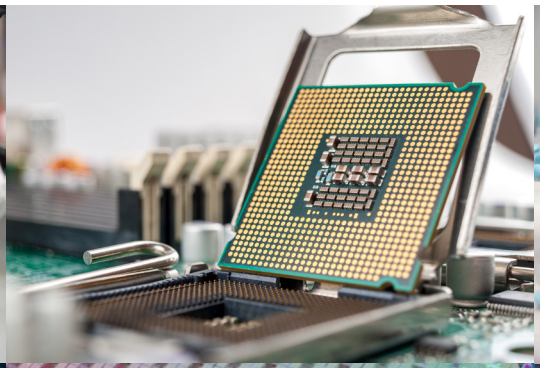
As your vision partner, Vieworks provides the vision solution you need. From VGA cameras to 152 megapixel cameras, Vieworks offers wide ranging resolutions suitable for a broad range of applications. With frame rates of up to 337.6 fps, Vieworks' cameras capture high quality images in an instant even in the most demanding environments. To optimize your vision system, Vieworks offers a broad selection of industry standard interfaces. Take your pick from Camera Link, CoaXPress 1.0, CoaXPress 2.0, GigE Vision, and 10GigE Vision interfaces.

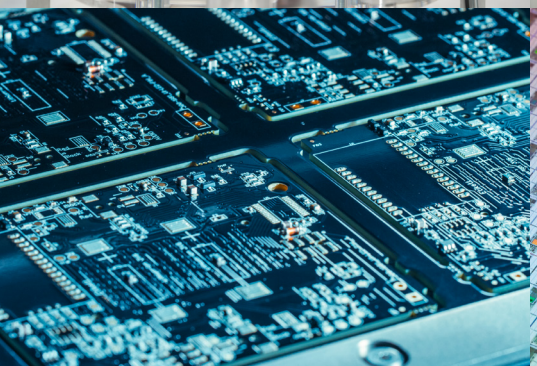
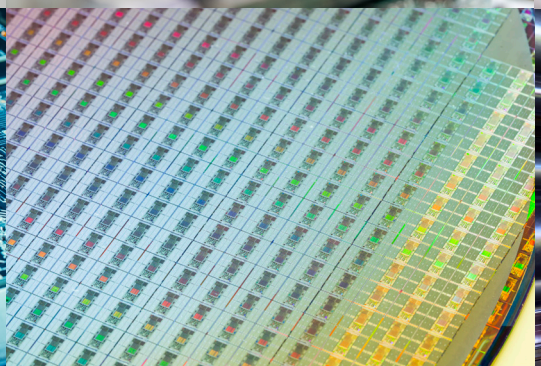
With industry-leading technology

Vieworks' advanced technologies place Vieworks' cameras ahead of other cameras in the industry. The world's first hybrid time delayed integration (TDI) line scan sensor was introduced to the market with Vieworks' VTDI (Vieworks TDI) cameras. VTDI combines the advantages of both CCD and CMOS image sensors, capturing images with up to 256 times greater sensitivity. Vieworks' pixel shifting technology incorporates the elaborate nano-stage technology to acquire ultra high resolution images beyond a sensor's physical limitations. By lowering the sensor temperature up to 20 degrees Celsius below ambient temperature, Vieworks' thermoelectric cooling (TEC) technology allows for stable performance with reduced noise. With continuous investment in innovative technology, Vieworks will continue to prove and expand its position as a leader in machine vision technology.

Quality cameras made by Vieworks from scratch

Vieworks' cameras are designed and manufactured from start to finish in South Korea. With full in-house capacity to research and develop industrial cameras, Vieworks takes agile and integrated actions to meet changing customer needs. Vieworks' specialized customer support team provides timely assistance to questions that arise after purchase. From product development to customer support, Vieworks' cameras are made and managed entirely by Vieworks.


Area Scan Cameras

Vieworks has continuously advanced the machine vision industry with its ultra high resolution area scan cameras. Vieworks presents unparalleled imaging solutions even to the most demanding flat panel inspection systems with its technologies such as nano-stage pixel shifting and TEC.

VC Series

VN Series

VP Series

VNP Series

VQ Series

VX Series

TDI Line Scan Cameras

VTDI

Vieworks' TDI line scan cameras are suitable for applications that require faster line rates and higher sensitivity. With VTDI, the world's first hybrid TDI line scan sensor, Vieworks brought the technology to another level by combining the strengths of CCD and CMOS sensors.

VTC Series – M42

VT Series – M42

VT Series – M72

VT Series – M95

Line Scan Cameras

Vieworks' line scan cameras meet customers' needs for more powerful features as well as diverse resolutions at high speeds.

VL Series

Accessories

Vieworks' accessories are designed to enhance the performance of Vieworks' cameras. With Vieworks' accessories, machine vision systems become more refined and accessible.

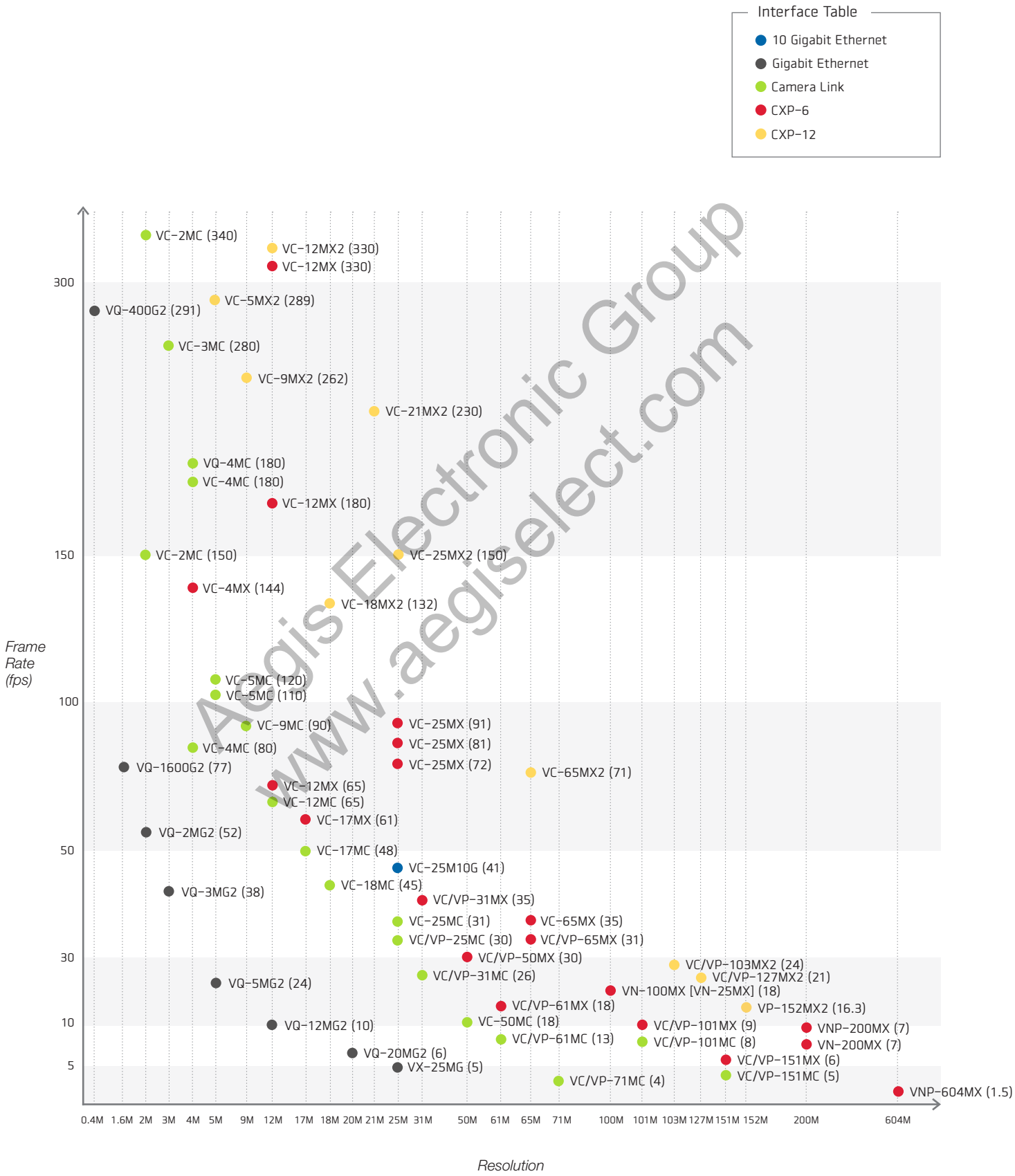
VLink Series

LCM Series

Software

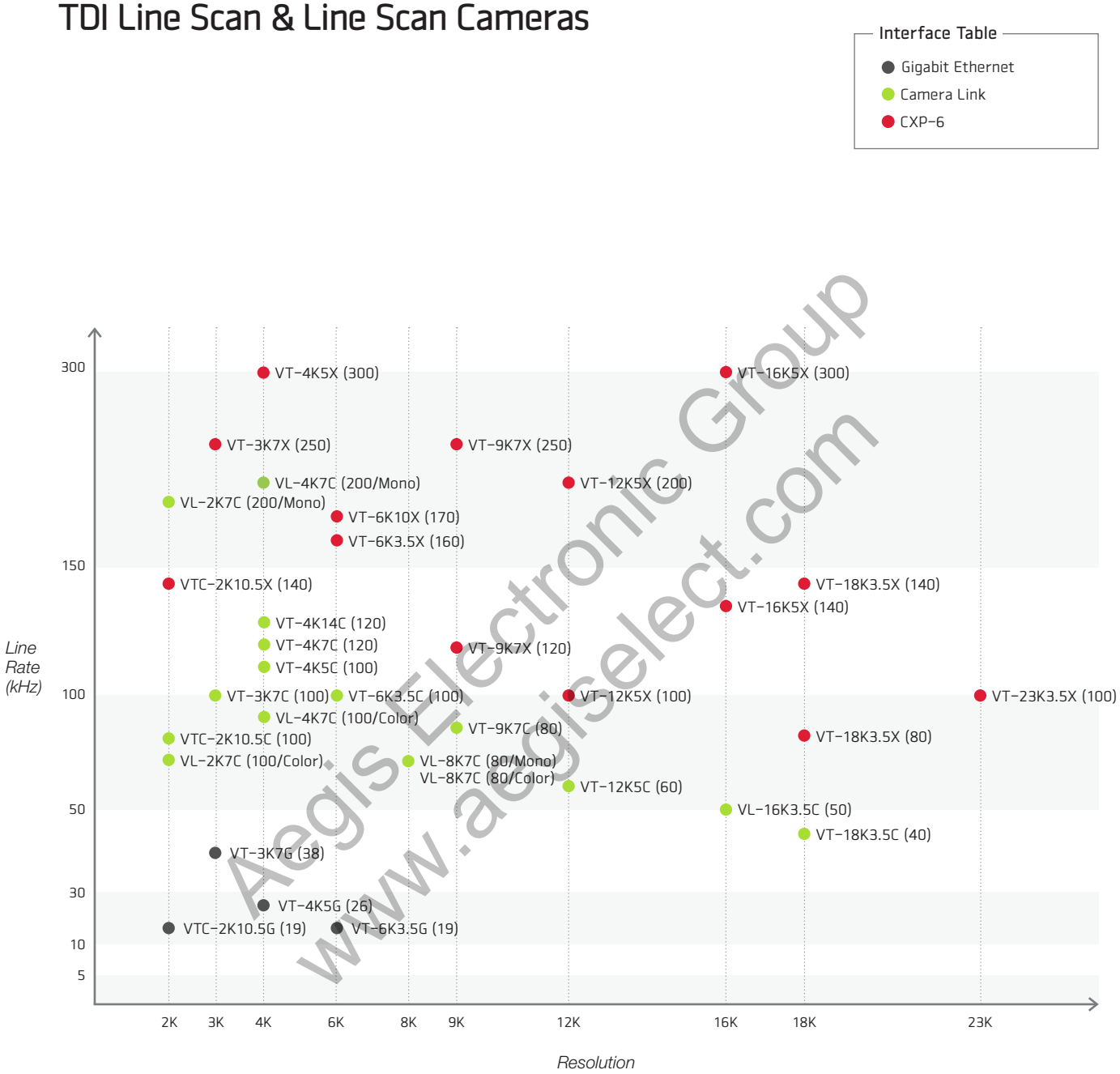
Graph of Resolution and Frame Rate

Area Scan Cameras



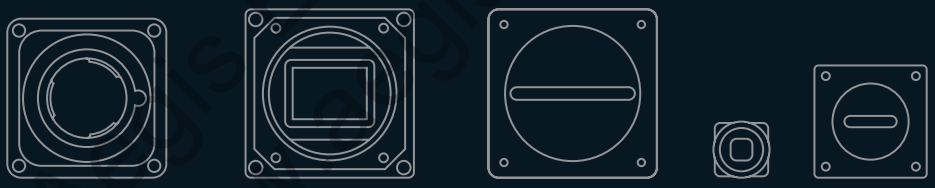
Graph of Resolution and Line Rate

TDI Line Scan & Line Scan Cameras



Contents

Cameras



VC Series

High Speed CMOS Cameras

VC Series is a family of high resolution CMOS cameras for machine vision. Equipped with the latest global or rolling shutter CMOS image sensor technology available today, the camera series offers not only high speed image processing capabilities but also precise exposure control. With a wide range of camera resolutions, these cameras are ideal for use in various industrial inspection and scientific research applications.

Ultra High Resolution and High Speed

- High resolution up to 151 megapixels
- High speed up to 337.6 fps

Better Usability

- Programmable cameras
- Easy firmware updates
- 10 Gigabit Ethernet, Camera Link, and CoaXPress interfaces
- Global shutter and rolling shutter

FPD (Flat Panel Display)

Semiconductor

Electronics

Aerial Imaging

Surveillance

Motion Analysis

ITS (Intelligent Transportation Systems)

Life Sciences

Pharmaceutical

Food, Beverages

CXP-12

CoaXPress

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (μm²)
					H×V (㎟)	Diagonal	Optical		
VC-5MX2-M/C 289	2592×2160	289 fps	8/10 bits	CXP-12 2 Lanes	6.5×5.4	8.45 ㎜	1/2"	GMAX2505	2.5×2.5
VC-9MX2-M/C 262	4192×2160	262 fps	8/10 bits	CXP-12 2 Lanes	10.5×5.4	11.8 ㎜	2/3"	GMAX2509	2.5×2.5
VC-12MX2-M/C 330 F	4096×3072	335 fps	8 bits	CXP-12 4 Lanes	22.53×16.90	28.16 ㎜	APS-like	CMV12000	5.5×5.5
VC-18MX2-M/C 132	4480×4096	132 fps	8/10 bits	CXP-12 2 Lanes	11.27×10.24	15.22 ㎜	1"	GMAX2518	2.5×2.5
VC-21MX2-M/C 230 I	5120×4096	229 fps	8/10/12 bits	CXP-12 4 Lanes	23.04×18.43	29.5 ㎜	APS-C	GSPRINT4521	4.5×4.5
VC-25MX2-M/C 150 I	5120×5120	150.2 fps	8/10 bits	CXP-12 4 Lanes	12.8×12.8	18.1 ㎜	1.1"	GMAX0505	2.5×2.5
VC-65MX2-M/C 71 I	9344×7000	71.1 fps	8/10 bits	CXP-12 4 Lanes	29.9×22.4	37.4 ㎜	2.3"	GMAX3265	3.2×3.2
VC-103MX2-M/C 24 I	11264×9200	24.7 fps	8/10/12 bits	CXP-12 4 Lanes	36.1×29.4	46.6 ㎜	2.9"	GMAX32103	3.2×3.2
VC-127MX2-M/C 21 H	13376×9528	21.9 fps	8/10/12/14 bits	CXP-12 4 Lanes	46.15×32.87	56.73 ㎜	3.6"	IMX661	3.45×3.45

* F and M72 mounts are available for VC CoaXPress Series. Contact us to request a custom mount.

Camera Link

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VC-2MC-M/C 150	2048×1088	148.5 fps	8/10 bits	Camera Link	11.26×5.98	12.75 ㎜	2/3"	CMV2000	5.5×5.5
VC-2MC-M/C 340	2048×1088	337.6 fps	8/10 bits	Camera Link	11.26×5.98	12.75 ㎜	2/3"	CMV2000	5.5×5.5
VC-3MC-M/C 280	1696×1710	285 fps	8 bits	Camera Link	13.57×13.68	19.27 ㎜	1.2"	LUPA3000	8.0×8.0
VC-4MC-M/C 80	2048×2048	78.9 fps	8/10 bits	Camera Link	11.26×11.26	15.92 ㎜	1"	CMV4000	5.5×5.5
VC-4MC-M/C 180	2048×2048	179.5 fps	8/10 bits	Camera Link	11.26×11.26	15.92 ㎜	1"	CMV4000	5.5×5.5
VC-5MC-M/C 110 H	2448×2048	109.5 fps	8/10/12 bits	Camera Link	67.08×56.12	8.8 ㎜	1/1.8"	IMX547	2.74×2.74
VC-5MC-M/C 120	2600×2160	120.6 fps	8/10/12 bits	Camera Link	6.5×5.4	8.45 ㎜	1/2"	GMAX2505	2.5×2.5
VC-9MC-M/C 90	4200×2160	90.7 fps	8/10/12 bits	Camera Link	10.5×5.4	11.8 ㎜	2/3"	GMAX2509	2.5×2.5
VC-12MC-M/C 65	4096×3072	64.3 fps	8/10 bits	Camera Link	22.53×16.90	28.14 ㎜	APS-like	CMV12000	5.5×5.5
VC-17MC-M/C 48 H	5440×3076	48.4 fps	8/10/12 bits	Camera Link	18.76×10.61	21.7 ㎜	4/3"	IMX387	3.45×3.45
VC-18MC-M/C 45	4504×4096	44.9 fps	8/10/12 bits	Camera Link	11.27×10.24	15.22 ㎜	1"	GMAX2518	2.5×2.5
VC-25MC-M/C 30	5120×5120	30.9 fps	8/10 bits	Camera Link	23.04×23.04	32.58 ㎜	35 ㎜	VITA25K	4.5×4.5
VC-25MC-M/C 30 D	5120×5120	30.1 fps	8/10 bits	Camera Link	23.04×23.04	32.58 ㎜	APS-H	PYTHON25K	4.5×4.5
VC-25MC-M/C 31 I	5120×5120	31.7 fps	8/10/12 bits	Camera Link	12.8×12.8	18.1 ㎜	1.1"	GMAX0505	2.5×2.5
VC-31MC-M/C 26 H	6464×4852	26.2 fps	8/10/12 bits	Camera Link	22.30×16.73	27.9 ㎜	APS-C	IMX342	3.45×3.45
VC-50MC-M/C 18	7920×6004	17.5 fps	8/10/12 bits	Camera Link	36.43×27.62	45.72 ㎜	35 ㎜	CMV50000	4.6×4.6
VC-61MC-M/C 13 H	9568×6380	13.68 fps	8/10/12 bits	Camera Link	35.98×23.99	43.3 ㎜	2.7"	IMX455	3.76×3.76
VC-71MC-M/C 4	10000×7096	4.2 fps	8/10/12 bits	Camera Link	31.00×24.11	38 ㎜	35 ㎜	CHR71000	3.1×3.1
VC-101MC-M/C 8 H	11648×8742	8.1 fps	8/10/12 bits	Camera Link	43.80×32.87	55 ㎜	3.4"	IMX461	3.76×3.76
VC-151MC-M/C 5 H	14192×10640	5.5 fps	8/10/12 bits	Camera Link	53.36×40.01	66.7 ㎜	4.2"	IMX411	3.76×3.76

* C, F, and M72 mounts are available for VC Camera Link Series. Contact us to request a custom mount.

CXP-6

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VC-4MX-M 144 F	2048×2048	144 fps	8 bits	CXP-6 1 Lane	11.26×11.26	15.92 ㎜	1"	CMV4000	5.5×5.5
VC-12MX-M/C 65 H	4096×3000	64.6 fps	8 bits	CXP-6 4 Lanes	14.13×10.35	17.6 ㎜	1.1"	IMX253	3.45×3.45
VC-12MX-M/C 180	4096×3072	180 fps	8 bits	CXP-6 4 Lanes	22.53×16.90	28.16 ㎜	APS-like	CMV12000	5.5×5.5
VC-12MX-M/C 330 F	4096×3072	330 fps	8 bits	CXP-6 8 Lanes	22.53×16.90	28.16 ㎜	APS-like	CMV12000	5.5×5.5
VC-17MX-M/C 61 H	5440×3076	61.3 fps	8/10/12 bits	CXP-6 4 Lanes	18.76×10.61	21.7 ㎜	4/3"	IMX387	3.45×3.45
VC-25MX-M/C 42 I	5120×5120	41.7 fps	8/10/12 bits	CXP-6 2 Lanes	12.8×12.8	18.1㎜	1.1"	GMAX0505	2.5×2.5
VC-25MX-M/C 72	5120×5120	72 fps	8/10 bits	CXP-6 4 Lanes	23.04×23.04	32.58 ㎜	35 ㎜	VITA25K	4.5×4.5
VC-25MX-M/C 81 D	5120×5120	81 fps	8 bits	CXP-6 4 Lanes	23.04×23.04	32.58 ㎜	APS-H	PYTHON25K	4.5×4.5
VC-25MX-M/C 91 I	5120×5120	91 fps	8/10 bits	CXP-6 4 Lanes	12.8×12.8	18.1 ㎜	1.1"	GMAX0505	2.5×2.5
VC-31MX-M/C 35 H	6464×4852	35.4 fps	8/10/12 bits	CXP-6 4 Lanes	22.30×16.73	27.9 ㎜	APS-C	IMX342	3.45×3.45
VC-50MX-M/C 30	7920×6004	30 fps	8/10/12 bits	CXP-6 4 Lanes	36.43×27.62	45.72 ㎜	35 ㎜	CMV50000	4.6×4.6
VC-61MX-M/C 18 H	9568×6380	17.93 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	35.98×23.99	43.3 ㎜	2.7"	IMX455	3.76×3.76
VC-65MX-M/C 31 I	9344×7000	31 fps	8/10/12 bits	CXP-6 4 Lanes	29.9×22.4	37.4 ㎜	2.3"	GMAX3265	3.2×3.2
VC-65MX-M/C 35 I	9344×7000	35.5 fps	8/10 bits	CXP-6 4 Lanes	29.9×22.4	37.4 ㎜	2.3"	GMAX3265	3.2×3.2
VC-101MX-M/C 9 H	11648×8742	8.7 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	43.80×32.87	55 ㎜	3.4"	IMX461	3.76×3.76
VC-151MX-M/C 6 H	14192×10640	6.2 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	53.36×40.01	66.7 ㎜	4.2"	IMX411	3.76×3.76

*F and M72 mounts are available for VC CoaXPress Series. Contact us to request a custom mount.

10 GigE

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VC-25M10G-M/C 41 I	5120×5120	41.7 fps	8/10p/10/12p/12 bits	10 GigE	12.8×12.8	18.1㎜	1.1"	GMAX0505	2.5×2.5

VN Series

Ultra High Resolution Pixel Shifting Cameras

VN Series of pixel shifting cameras is designed for applications where an object is stationary and extremely high resolution is required. Equipped with the Vieworks' advanced pixel shifting technology based on a precise piezoelectric stage, VN Series can increase the original resolution up to 9 times.

Outstanding Pixel Shifting Technology

- Vieworks' proprietary nano-stage pixel shifting technology
- Increases the resolution up to 9 times
- True color image
- Improved fill factor

Field-Proven Performance and Reliability

- Adopted by major FPD manufacturers
- Stable performance and reliability

FPD
(Flat Panel Display)

Document
Scanning

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- Pixel defect correction

CoaXPress

Model	Resolution	Extended Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (μm²)
						H×V (㎟)	Diagonal	Optical		
VN-25MX-M/C 72	5120×5120	15360×15360	72 fps	8/10 bits	CXP-6 4 Lanes	23.04×23.04	32.58 ㎜	35 ㎜	VITA25K	4.5×4.5
VN-200MX-M/C 30	7920×6004	23760×18012	30 fps	8/10/12 bits	CXP-6 4 Lanes	36.43×27.62	45.72 ㎜	35 ㎜	CMV50000	4.6×4.6

* F and M72 mounts are available for VN Series. Contact us to request a custom mount.

VP Series

High Performance Cameras with Thermoelectric Cooling Technology

VP Series cameras are thermoelectric cooled, high performance cameras. These cameras use cooling technology developed for and used by many demanding market customers. The TEC maintains the operating temperature of the image sensor at up to 20 degrees below ambient temperature. These cameras can provide either stable operating conditions or the ability to expose for a long period of time to increase camera sensitivity.

FPD
(Flat Panel Display)

Semiconductor

Life Sciences

Perfect Cooling Technology

- Steadily maintains the operating sensor temperature up to 20 degrees below ambient temperature

Excellent Heat Dissipation Structure

- Removes the moisture that forms on the cold surface of the Peltier by using Vieworks' signature heating structure
- Sturdy yet compact camera design

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- Pixel defect correction
- Camera Link and CoaXPress interfaces

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VP-25MC-M/C 30	5120×5120	30.9 fps	8/10 bits	Camera Link	23.04×23.04	32.58 ㎜	35 ㎜	VITA25K	4.5×4.5
VP-31MC-M/C 26 H	6464×4852	26.2 fps	8/10/12 bits	Camera Link	22.30×16.73	27.9 ㎜	APS-C	IMX342	3.45×3.45
VP-61MC-M/C 13 H	9568×6380	13.68 fps	8/10/12 bits	Camera Link	35.98×23.99	43.3 ㎜	2.7"	IMX455	3.76×3.76
VP-71MC-M/C 4	10000×7096	4.2 fps	8/10/12 bits	Camera Link	31.00×24.11	38 ㎜	35 ㎜	CHR71000	3.1×3.1
VP-101MC-M/C 8 H	11648×8742	8.1 fps	8/10/12 bits	Camera Link	43.80×32.87	55 ㎜	3.4"	IMX461	3.76×3.76
VP-151MC-M/C 5 H	14192×10640	5.5 fps	8/10/12 bits	Camera Link	53.36×40.01	66.7 ㎜	4.2"	IMX411	3.76×3.76
VP-31MX-M/C 35 H	6464×4852	35.4 fps	8/10/12 bits	CXP-6 4 Lanes	22.30×16.73	27.9 ㎜	APS-C	IMX342	3.45×3.45
VP-50MX-M/C 30	7920×6004	30 fps	8/10/12 bits	CXP-6 4 Lanes	36.43×27.62	45.72 ㎜	35 ㎜	CMV50000	4.6×4.6
VP-61MX-M/C 18 H	9568×6380	17.93 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	35.98×23.99	43.3 ㎜	2.7"	IMX455	3.76×3.76
VP-65MX-M/C 31 I	9344×7000	31 fps	8/10/12 bits	CXP-6 4 Lanes	29.9×22.4	37.4 ㎜	2.3"	GMAX3265	3.2×3.2
VP-101MX-M/C 9 H	11648×8742	8.7 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	43.80×32.87	55 ㎜	3.4"	IMX461	3.76×3.76
VP-103MX2-M/C 24 I	11264×9200	24.7 fps	8/10/12 bits	CXP-12 4 Lanes	36.1×29.4	46.6 ㎜	2.9"	GMAX32103	3.2×3.2
VP-127MX2-M/C 21 H	13376×9528	21.9 fps	8/10/12/14 bits	CXP-12 4 Lanes	46.15×32.87	56.73 ㎜	3.6"	IMX661	3.45×3.45
VP-151MX-M/C 6 H	14192×10640	6.2 fps	8/10/12/14/16 bits	CXP-6 4 Lanes	53.36×40.01	66.7 ㎜	4.2"	IMX411	3.76×3.76
VP-152MX2-M/C 16**	16544×9200	16.3 fps	8/10/12 bits	CXP-12 4 Lanes	53.0×29.4	60.6 ㎜	Medium Format	Vieworks	3.2×3.2

* No mount, F and M72-mount are available for VP Series. Contact us to request a custom mount.

** VP-152MX2 color model to be added.

VNP Series

Pixel Shifting Cameras with Thermoelectric Cooling Technology

VNP Series is equipped with thermoelectric cooling, and is designed not only for applications where extremely high resolution is required, but also for situations in which high image quality is essential. The thermoelectric cooling maintains the operating temperature of the image sensor at up to 15 degrees below ambient temperature to reduce noise significantly.

Outstanding Pixel Shifting Technology

- Vieworks' proprietary nano-stage pixel shifting technology
- Increase the resolution up to 9 times
- True color image
- Improved fill factor

Perfect Cooling Technology

- Steadily maintains the operating sensor temperature up to 15 degrees below ambient temperature
- Removes the moisture that forms on the cold surface of the Peltier by using Vieworks' signature heating structure
- Sturdy yet compact camera design

FPD
(Flat Panel Display)

Document
Scanning

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- Pixel defect correction

CoaXPress

Model	Resolution	Extended Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
						H×V (㎟)	Diagonal	Optical		
VNP-200MX-M/C 30	7920×6004	23760×18012	30 fps	8/10/12 bits	CXP-6 4 Lanes	36.43×27.62	45.72 ㎜	35 ㎜	CMV50000	4.6×4.6
VNP-604MX-M/C 6 H	14192×10640	28384×21280	6.2 fps	8/10/12 bits	CXP-6 4 Lanes	53.36×40.01	66.7 ㎜	4.2"	IMX411	3.76×3.76

* F and M72 mounts are available for VNP Series. Contact us to request a custom mount.

VQ Series

Ultra Compact & Cost-Effective CMOS Cameras

VQ Series features the smallest cameras and is ideal for a wide range of industrial applications. With their compact housing size and light weight, VQ cameras can simply replace most industrial cameras. Their competitive price and advanced features allow users to enjoy versatile choices for various machine vision applications.

Automotive

Robotics

Factory Automation

Food, Beverages

Pharmaceutical

ITS (Intelligent Transportation Systems)

Ultra Compact Cameras

- The smallest cameras with compact housing and lightweight design from 28x28x52 mm in dimension
- Ideal for a wide range of industrial applications

Seamless Installation and High Availability

- PoE Gigabit Ethernet interface for easy system integration
- Cost-effective solution

Better Usability

- Programmable cameras
- Easy firmware updates
- Pixel defect correction
- Gigabit Ethernet and Camera Link interfaces

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VQ-4MC-M/C 180 F	2048×2048	180 fps	8/10 bits	Camera Link	11.26×11.26	15.92 ㎜	1"	CMV4000	5.5×5.5
VQ-400G2-M/C 291 H	728×544	291 fps	8/10/12/16 bits	GigE	5.02×3.75	6.3 ㎜	1/2.9"	IMX287	6.9×6.9
VQ-1600G2-M/C 77 H	1440×1080	77 fps	8/10/12/16 bits	GigE	4.97×3.73	6.3 ㎜	1/2.9"	IMX273	3.45×3.45
VQ-2MG2-M/C 52 H	1920×1200	52 fps	8/10/12/16 bits	GigE	6.62×4.14	7.9 ㎜	1/2.3"	IMX392	3.45×3.45
VQ-3MG2-M/C 38 H	2048×1536	38 fps	8/10/12/16 bits	GigE	7.07×5.30	8.9 ㎜	1/1.8"	IMX265	3.45×3.45
VQ-5MG2-M/C 24 H	2448×2048	24 fps	8/10/12/16 bits	GigE	8.45×7.07	11.1 ㎜	2/3"	IMX264	3.45×3.45
VQ-12MG2-M/C 10 H	4096×3000	9.9 fps	8/10/12/16 bits	GigE	14.13×10.35	17.6 ㎜	1.1"	IMX304	3.45×3.45
VQ-20MG2-M/C 6 H	5472×3648	6 fps	8/10/12/16 bits	GigE	13.13×8.76	15.86 ㎜	1"	IMX183	2.4×2.4

* C-mount is available for VQ Series. Contact us to request a custom mount.

VX Series

Aerial Imaging / Surveillance Cameras

VX Series is ideal for aerial imaging and ground surveillance applications that require photographic quality resolution and easy-to-use system integration. Taking pictures with this camera is made easy with features such as auto exposure, auto gain, auto focus, lens aperture control, and several innovative functions.

Aerial Imaging

Surveillance

Optimal Solution for Outdoors

- Robust cameras that pass strict reliability tests such as the 10G vibration test and the 70G shock test
- Stable operation in wide-temperature environments, from -50 ℃ to 80 ℃

Easy Control

- Various functions to support easy control of the camera
- Auto exposure, auto focus, auto gain, and lens aperture control

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- Pixel defect correction
- Anti-smear
- Gigabit Ethernet interface

Model	Resolution	Frame Rate	Pixel Data	Interface	Sensor Size			Sensor	Pixel Size (㎛²)
					H×V (㎟)	Diagonal	Optical		
VX-25MG-M 5	5120×5120	4.7 fps	8 bits	GigE	23.04×23.04	32.58 ㎜	35 ㎜	VITA25K	4.5×4.5

* F-mount and interface for Canon-EF adapter are available for VX Series. Contact us to request a custom mount.

VTC Series

High Sensitivity & High Speed Color TDI Line Scan Cameras

VTC Series is a line of Time Delayed Integration (TDI) color line scan cameras that provide faster line rates and higher sensitivity than existing line scan cameras. With hybrid TDI line scan technology combining the strengths of both CCD and CMOS image sensors, the series can acquire True Color images at faster line rates with higher sensitivity. VTC Series is available for Camera Link, CoaXPress, and GigE interfaces to meet application-specific requirements.

Print Scanning

Food, Beverages

Web Inspection

Pharmaceutical

The World's First Hybrid TDI Line Scan Sensor

- Combines light sensitivity of CCD-based TDI pixel array with CMOS readout electronics
- High sensitivity of 80 stages
- Faster speed up to 140 kHz
- Higher dynamic range
- Lower power consumption

True Color

- 24-bit RGB to display excellent color reproduction
- Excellent color image processing: color correction matrix, white balance, gamma

Various Trigger Methods

- Supports a variety of triggers
  - External trigger, frame start trigger, software trigger
- Provides "Rescaler Mode" to set the accuracy

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- Pixel defect correction
- Gigabit Ethernet, Camera Link, CoaXPress interfaces

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VTC-2K10.5G-C 19	2160×80	19 ㎑ (Max 100 ㎑)	20/40/60/80	8/10/12 bits	GigE	Vieworks	10.5×10.5
VTC-2K10.5C-C 100	2160×80	100 ㎑	20/40/60/80	8/10/12 bits	Camera Link	Vieworks	10.5×10.5
VTC-2K10.5X-C 140	2160×80	140 ㎑	20/40/60/80	8/10/12 bits	CXP-6 2 Lanes	Vieworks	10.5×10.5

* C and F mounts are also available for the M42-based VTC Series. Contact us to request a custom mount.

VT Series

High Sensitivity & High Speed TDI Line Scan Cameras

VT Series, Time Delayed Integration (TDI) line scan cameras, offers a wide variety of resolutions. Vieworks' advanced TDI line scan technology, which uses outstanding hybrid image sensors, captures images with up to 256 times higher sensitivity and up to 300 kHz. The series provides three different models based on the mount sizes M42, M72, and M95, all of which are ideal cameras for various applications. In addition, the series adopts various interfaces such as GigE, Camera Link, and CoaXPress for simple system integration. All cameras have exposure control with anti-blooming. Featuring high speed and high sensitivity, this series is ideal for demanding applications such as flat panel display inspections, wafer inspections, printed circuit board inspections, and high performance document scanning.

The World's First Hybrid TDI Line Scan Sensor

- Combines light sensitivity of CCD-based TDI pixel array with CMOS readout electronics
- High sensitivity of 256 stages
- Faster speed up to 300 kHz
- Higher dynamic range
- Lower power consumption

Better Usability

- Programmable cameras
- Easy firmware updates
- FFC (Flat Field Correction)
- DSNU, PRNU Correction
- Gigabit Ethernet, Camera Link, CoaXPress interfaces

Flexibility for Lens Selection

- M42, M72, and M95 mounts (C & F mounts)

Various Trigger Methods

- Supports a variety of triggers
  - External trigger, frame start trigger, software trigger
- Provides the “Rescaler Mode” to set the accuracy

FPD
(Flat Panel Display)

Semiconductor

Web Inspection

DNA Sequencer

M42 Mount – 3k / 4k / 6k TDI Line Scan

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VT-3K7G-E 38	3200×32	38 ㎑	32	8/10/12 bits	GigE	Vieworks	7.0×7.0
VT-3K7G-H 38	3200×128	38 ㎑	32/64/96/128	8/10/12 bits	GigE	Vieworks	7.0×7.0
VT-4K5G-E 26	4640×64	26 ㎑	64	8/10/12 bits	GigE	Vieworks	5.0×5.0
VT-4K5G-H 26	4640×256	26 ㎑	64/128/192/256	8/10/12 bits	GigE	Vieworks	5.0×5.0
VT-6K3.5G-E 19	6560×64	19 ㎑	64	8/10/12 bits	GigE	Vieworks	3.5×3.5
VT-6K3.5G-H 19	6560×256	19 ㎑	64/128/192/256	8/10/12 bits	GigE	Vieworks	3.5×3.5
VT-3K7C-E 100	3200×32	100 ㎑	32	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-3K7C-H 100	3200×128	100 ㎑	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-4K5C-E 100	4640×64	100 ㎑	64	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-4K5C-H 100	4640×256	100 ㎑	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-6K3.5C-E 100	6560×64	100 ㎑	64	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-6K3.5C-H 100	6560×256	100 ㎑	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-3K7X-E 250	3200×32	250 ㎑	32	8/10/12 bits	CXP-6 2 Lanes	Vieworks	7.0×7.0
VT-3K7X-H 250	3200×128	250 ㎑	32/64/96/128	8/10/12 bits	CXP-6 2 Lanes	Vieworks	7.0×7.0
VT-4K5X-E 200	4640×64	200 ㎑	64	8/10/12 bits	CXP-6 2 Lanes	Vieworks	5.0×5.0
VT-4K5X-H 200	4640×256	200 ㎑	64/128/192/256	8/10/12 bits	CXP-6 2 Lanes	Vieworks	5.0×5.0
VT-6K3.5X-E 160	6560×64	160 ㎑	64	8/10/12 bits	CXP-6 2 Lanes	Vieworks	3.5×3.5
VT-6K3.5X-H 160	6560×256	160 ㎑	64/128/192/256	8/10/12 bits	CXP-6 2 Lanes	Vieworks	3.5×3.5

* C and F mounts are also available for the M42-based VT Series. Contact us to request a custom mount.

M72 Mount – 4k / 6k / 9k / 12k / 18k TDI Line Scan

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VT-4K7C-E 120	4096×32	125 ㎑	32	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-4K7C-H 120	4096×128	125 ㎑	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-4K14C-E 120	4096×16	125 ㎑	16	8/10/12 bits	Camera Link	Vieworks	14.0×14.0
VT-4K14C-H 120	4096×64	125 ㎑	16/32/48/64	8/10/12 bits	Camera Link	Vieworks	14.0×14.0
VT-9K7C-E 80	8912×32	94 ㎑	32	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-9K7C-H 80	8912×128	94 ㎑	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-12K5C-E 60	12480×64	67 ㎑	64	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-12K5C-H 60	12480×256	67 ㎑	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-18K3.5C-E 40	17824×64	47 ㎑	64	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-18K3.5C-H 40	17824×256	47 ㎑	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	3.5×3.5

M72 Mount – 4k / 6k / 9k / 12k / 18k TDI Line Scan

CoaXPress

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VT-6K10X-E 170	6240×32	172 ㎑	32	8/10/12 bits	CXP-6 4 Lanes	Vieworks	10.0×10.0
VT-6K10X-H 170	6240×128	172 ㎑	32/64/96/128	8/10/12 bits	CXP-6 4 Lanes	Vieworks	10.0×10.0
VT-9K7X-E 120	8912×32	125 ㎑	32	8/10/12 bits	CXP-6 4 Lanes	Vieworks	7.0×7.0
VT-9K7X-H 120	8912×128	125 ㎑	32/64/96/128	8/10/12 bits	CXP-6 4 Lanes	Vieworks	7.0×7.0
VT-9K7X-E 250	8912×32	250 ㎑	32	8/10/12 bits	CXP-6 4 Lanes	Vieworks	7.0×7.0
VT-9K7X-H 250	8912×128	250 ㎑	32/64/96/128	8/10/12 bits	CXP-6 4 Lanes	Vieworks	7.0×7.0
VT-12K5X-E 100	12480×64	100 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-12K5X-H 100	12480×256	100 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-12K5X-E 200	12480×64	200 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-12K5X-H 200	12480×256	200 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-18K3.5X-E 80	17824×64	80 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5
VT-18K3.5X-H 80	17824×256	80 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5
VT-18K3.5X-E 140	17824×64	142 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5
VT-18K3.5X-H 140	17824×256	142 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5

* Contact us to request a custom mount.

M95 Mount – 16k / 23k TDI Line Scan

CoaXPress

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VT-16K5X-E 140	16384×64	140 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-16K5X-H 140	16384×256	140 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	5.0×5.0
VT-16K5X-E 300	16384×64	300 ㎑	64	8/10/12 bits	CXP-6 8 Lanes	Vieworks	5.0×5.0
VT-16K5X-H 300	16384×256	300 ㎑	64/128/192/256	8/10/12 bits	CXP-6 8 Lanes	Vieworks	5.0×5.0
VT-23K3.5X-E 100	23360×64	100 ㎑	64	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5
VT-23K3.5X-H 100	23360×256	100 ㎑	64/128/192/256	8/10/12 bits	CXP-6 4 Lanes	Vieworks	3.5×3.5

* Contact us to request a custom mount.

VL Series

High Performance & Cost-Effective Line Scan Cameras

VL Series offers line scan camera models with wide-ranging resolution from 2k to 16k, delivering greater speed and more sensitivity than ever before. The VL-16K3.5C-M50 F-1 model delivers a maximum line rate of 50 kHz at 16k resolution. Even higher line rate, 80 kHz at 8k resolution can be achieved using the VL-8K7C-M80 F-2 model. The 8k, 4k, and 2k models are available in both monochrome and color. All VL Series camera models have exposure control with 100× anti-blooming.

High Performance and Cost-Effective Solution

- High resolution up to 16k
- Fast speed up to 200 kHz
- Camera Link interface

Better Usability

- Compact size for the easy integration into machine vision systems
- M42/M72 mount and customized mount size

Various Image Modes (VL-8K monochrome model only)

- Single Line
- Dual Line (High Sensitivity)
- Horizontal Binning
- Vertical Binning
- H & V Binning

Web Inspection

Print Scanning

- Monochrome – 2k / 4k / 8k / 16k Line Scan

Model	Resolution	Line Rate	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VL-2K7C-M200 I-2	2048×2	200 ㎑	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VL-4K7C-M200 I-2	4096×2	200 ㎑	8/10/12 bits	Camera Link	GL0402	7.0×7.0
VL-8K7C-M80 F-2	8192×2	80 ㎑	8/10/12 bits	Camera Link	DR-2x8k-7	7.0×7.0
VL-16K3.5C-M50 F-1	16384×1	50 ㎑	8/10/12 bits	Camera Link	DR-16k-3.5	3.5×3.5

- Color – 2k / 4k / 8k Line Scan

Model	Resolution	Line Rate	Pixel Data	Interface	Sensor	Pixel Size (㎛²)
VL-2K7C-C100 I-2	2048×2	100 ㎑	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VL-4K7C-C100 I-2	4096×2	100 ㎑	8/10/12 bits	Camera Link	GL0402	7.0×7.0
VL-8K7C-C80 F-2	8192×2	80 ㎑	8/10/12 bits	Camera Link	DR-2x8k-7	7.0×7.0

* Contact us to request a custom mount.

Accessories

VLink Series

Camera Link Repeater

VLink Series is a cost-effective Camera Link repeater that can dramatically increase the maximum distance between a camera and frame grabber. It amplifies video signals that are attenuated on the Camera Link cable and triples the cable length through the LVDS output connector equipped with a pre-emphasis feature. VLink Series not only allows the streaming of machine vision systems, but it also saves costs by minimizing the number of repeaters and cables needed.

- Triples the maximum distance between cameras and frame grabber
- Supports Camera Link Base/Medium/Full
- PoCL compatibility allows the use of PoCL cameras and frame grabbers
- Supports cascade configuration to extend for greater distances
- Optional power input receptacle to be used with the non-PoCL frame grabber

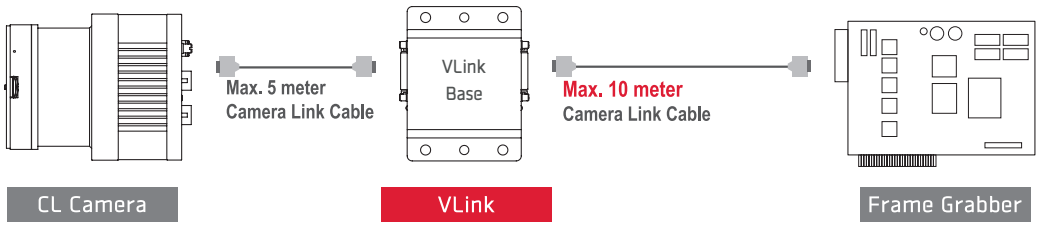
Model	VLink-Base	VLink-Full
Camera Link Configuration	Base	Base / Medium / Full
Pixel Clock	20 – 85	
Connector Type	MDR 26 / PoCL Compliant	
Operating Temperature	0 – 50℃	
Power Requirements	8 – 24 V DC	
Power Supply	Power adapter (not included) or PoCL	
Power Consumption	Typ. 2W	Typ. 4W
Dimension (W × H × L) / Weight	92 ㎜ × 23 ㎜ × 68 ㎜ / 160 g	92 ㎜ × 23 ㎜ × 87.5 ㎜ / 400 g

*Max. Cable Length by Pixel Clock

Configuration		Camera to VLink	VLink to VLink or Grabber
Cable Length	40 ㎒	< 10 m	< 20 m
	60 ㎒	< 8 m	< 15 m
	85 ㎒	< 5 m (4 m at 10 Tap)	< 10 m

* Max. cable length may vary depending on the type of cables and systems. Standard Camera Link cables are recommended.

- Triples the Link Distance



LCM Series

EF Lens Controller Module

LCM is an EF lens controller module designed specifically for Vieworks' industrial cameras. With Vieworks' LCM, users can utilize their PC for an easier adjustment of the lenses and acquire images with more precision. Used with EF lenses, LCM streamlines the image capturing process by controlling the focus and iris of a lens via software or commands from PC.

- Easy remote control of an EF lens via electrical signals
- All parts in one compact body
- Rigid and reliable aluminum construction without plastic parts
- Wide range of supported cameras with various mounts
- Easy-to-use interface functioning on PC regardless of OS types

Item	Description
Power Supply	DC 12V, 500 mA (6 W)
Temperature	Operating: -20 ~ 70 ℃ Storage: -30 ~ 80 ℃
Interface	RS-232 serial port (Default communication speed: 115200 baud, 8 data, no parity 1 stop) RS-232 Tx typical +-5V 6, RS-232 Rx min swing 0.8V/2.4V, max swing -25V/+25V
Compatible Lens	Cameras with EF Lenses
Lens Input	1
Lens Mount	Vieworks V-mount (Available to customize with M42, T, M58)
Compliance	KC, FCC, CE
Software	Windows GUI

Software

Vieworks Imaging Solution

VIS 7.X – SDK for GigE Vision & CoaXPress Cameras

The new version of VIS includes full support for the new CoaXPress interface as well as the GigE Vision interface. VIS 7.X not only supports the CoaXPress interface but also includes powerful tools such as Device Observer, IP Changer and Spider Logger which have been added to the latest version of VIS 6.X.

- GenICam standard version 3.0
- SDK (VwGigE API and VwCXP API) – Supporting C/C++, .Net sample
- Supported Platforms – Windows 7, Windows 10

VIS–Shadow – GigE SDK for Linux

The VIS–Shadow is a software package for operating Vieworks GigE cameras with Linux operating systems.

- GenICam 3.0 and GenTL 1.3 compliant
- Qt 4.8.1 compliant
- Ubuntu 18.04 (32 bits / 64 bits) supported

Configurator – Control Software for Camera Link

Configurator is designed to operate with all Vieworks Camera Link cameras.
This is the ideal tool for testing and evaluating Vieworks machine vision cameras. It enables users to control all advanced camera features and determine the best settings for their applications.

Download

The latest VIS, VIS–Shadow and Configurator, can be downloaded from the Vieworks download center download.vieworks.com.