

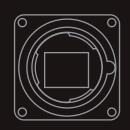
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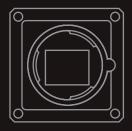
41–3, Burim–ro 170 beon–gil, Dongan–gu, Anyang–si, Gyeonggi–do, 14055 Republic of Korea Tel +82–70–7011–6161 Fax +82–31–386–8631 E-mail vision@vieworks.com Web vision.vieworks.com

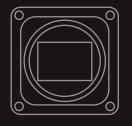
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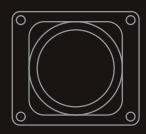




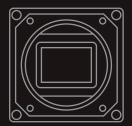


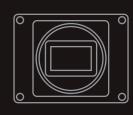


Vieworks Industrial Camera
Selection Guide





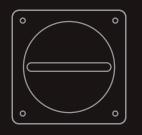


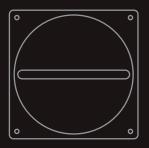














# **VHR** Area Scan Camera



Since the first industrial camera series launched in 2008, Vieworks has advanced in the industrial imaging industry with our ultra-high resolution area scan cameras. Relentless pursuit of innovation and discovery drives us to create cameras that advance the industry. Thanks to the successful integration of nano-stage pixel shifting and TEC technologies in our industrial imaging solutions, the VN, VP, and VNP series cameras have been adopted by the world's top display manufacturers. With the VN, VP, and VNP series, Vieworks has become the world's leader in area scan cameras for flat panel inspection systems. Vieworks' area scan cameras deliver unique and unparalleled performance in the most demanding applications.

Image	Series Name	Feature	Max. Resolution	Max. Frame Rate	Sensor	Interface	Page
0	VC Series	High Speed CMOS Cameras	14192 × 10640	337.6 fps	CMOS	Camera Link / CoaXPress	Page 4 Page 5
0	VN Series	Ultra High Resolution Pixel Shifting Cameras	23760 × 18012	72 fps	CMOS	CoaXPress	Page 6
	VP Series	Thermoelectric Cooled Cameras	14192 × 10640	31 fps	CMOS	Camera Link / CoaXPress	Page 7
	VNP Series	Pixel Shifting Cameras with TEC Integrated	28384 × 21280	30 fps	CMOS	CoaXPress	Page 8
June (	VQ Series	Ultra-compact & Cost-effective CMOS Cameras	5472 × 3648	291 fps	CMOS	GigE	Page 9
	VX Series	Aerial Imaging / Surveillance Camera	5120 × 5120	4.7 fps	CMOS	GigE	Page 10

# **VTDI** TDI Line Scan Camera



Time Delayed Integration (TDI) line scan is an advanced technology used in applications where faster line rates and higher sensitivity are required. To achieve higher sensitivity at faster scanning speeds, TDI line scan cameras accumulate multiple exposures of the same object by using multiple stages. TDI line scan cameras provide dramatically increased sensitivity, which increases proportionally to the number of stages. Using cutting edge technology, Vieworks has developed hybrid TDI line scan sensors. Then, in 2016, Vieworks proudly introduced the "VTDI" series, the world's first hybrid TDI line scan cameras, which combines the strengths of both the CCD and CMOS image sensors. With the VTDI series, customers in the industrial imaging market can take advantage of CCD's high–quality imaging and CMOS's high–speed imaging capabilities. VTDI sets a new standard for the industrial imaging industry that goes far beyond existing TDI line scan camera technology.

### Color

Image	Series Name	Feature	Max. Resolution	Max. Line Rate	Sensor	Interface	Page
	VTC Series - M42	High Sensitivity & High Speed Color TDI Line Scan Cameras	2160 x 80	140 kHz	Vieworks	Camera Link / CoaXPress / GigE	Page 11

### Monochrome

Image	Series Name	Feature	Max. Resolution	Max. Line Rate	Sensor	Interface	Page
C	VT Series - M42	High Sensitivity & High Speed TDI Line Scan Cameras	6560 × 256	250 kHz	Vieworks	Camera Link / CoaXPress / GigE	Page 12 Page 13
$\in$	VT Series - M72	High Sensitivity & High Speed TDI Line Scan Cameras	17824 × 256	250 kHz	Vieworks	Camera Link / CoaXPress	Page 12 Page 13
	VT Series - M95	High Sensitivity & High Speed TDI Line Scan Cameras	23360 × 256	300 kHz	Vieworks	CoaXPress	Page 12 Page 13



# **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 camera
- Easy to update firmware
- Camera Link and CoaXPress interfaces
- Global shutter and rolling shutter





FPD (Flat Panel Display)



Electronics



Aerial Imaging



Surveillance



Pharmaceutical

Food, Beverages



ITS (Intelligent Transportation Systems)



Motion Analysis



Life Sciences





	- 1.1	Frame			Sei	nsor Size			Pixel Size
Model	Resolution	Rate	Pixel Data	Interface	$H \times V$ (mm <sup>2</sup> )	Diagonal	Optical	Sensor	(µm²)
VC-2MC-M/C 150	2048×1088	148.5 fps	8/10 bits	Camera Link	11.26×5.98	12.75 mm	2/3"	CMV 2000	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 mm	2/3"	CMV 2000	5.5×5.5
VC-3MC-M/C 280	1696×1710	285 fps	8 bits	Camera Link	13.57×13.68	19.27 mm	1"	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 mm	1"	CMV 4000	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 mm	1"	CMV 4000	5.5×5.5
VC-12MC-M/C 65	4096×3072	64.3 fps	8/10 bits	Camera Link	22.53×16.90	28.14 mm	APS-like	CMV 12000	5.5×5.5
VC-25MC-M/C 30	5120×5120	30.9 fps	8/10 bits	Camera Link	23.04×23.04	32.58 mm	35 mm	VITA-25K	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 mm	35 mm	PYTHON-25K	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 mm	1.1"	GMAX0505	2.5×2.5
VC-50MC-M/C 18	7920×6004	17.5 fps	8/10/12 bits	Camera Link	36.43×27.62	45.72 mm	35 mm	CMV 50000	4.6×4.6
VC-71MC-M/C 4	10000×7096	4.2 fps	8/10/12 bits	Camera Link	31.00×24.11	38 mm	-	CHR 70M	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 mm	-	IMX461	3.76×3.7
VC-151MC-M/C 5 H	14192×10640	5.5 fps	8/10/12 bits	Camera Link	53.36×40.01	66.7 mm	-	IMX411	3.76×3.7

Camera Link

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

### CoaXPress

									•
Model	Resolution	Frame	Pixel Data	Interface	Se	nsor Size		Concor	Pixel Size
Model	Resolution	Rate	Pixel Dala	Interface	$H \times V$ (mm <sup>2</sup> )	Diagonal	Optical	Sensor	(µm²)
VC-12MX-M/C 180	4096×3072	180 fps	8 bits	CoaXPress	22.53×16.90	28.14 mm	APS-like	CMV 12000	5.5×5.5
VC-12MX-M/C 330 F	4096×3072	330 fps	8 bits	CoaXPress	22.53×16.90	28.14 mm	APS-like	CMV 12000	5.5×5.5
VC-25MX-M/C 72	5120×5120	72 fps	8/10 bits	CoaXPress	23.04×23.04	32.58 mm	35 mm	VITA-25K	4.5×4.5
VC-25MX-M/C 81 D	5120×5120	81 fps	8 bits	CoaXPress	23.04×23.04	32.58 mm	35 mm	PYTHON-25K	4.5×4.5
VC-25MX-M/C 91 I	5120×5120	91 fps	8/10 bits	CoaXPress	12.8×12.8	18.1 mm	1.1"	GMAX0505	2.5×2.5
VC-50MX-M/C 30	7920×6004	30 fps	8/10/12 bits	CoaXPress	36.43×27.62	45.72 mm	35 mm	CMV 50000	4.6×4.6
VC-65MX-M/C 31 I	9344×7000	31 fps	8/10/12 bits	CoaXPress	29.9×22.4	37.4 mm	-	GMAX3265	3.2×3.2
VC-65MX-M/C 35 I	9344×7000	35.5 fps	8/10 bits	CoaXPress	29.9×22.4	37.4 mm	-	GMAX3265	3.2×3.2
VC-101MX-M/C 9 H	11648×8742	8.7 fps	8/10/12 bits	CoaXPress	43.80×32.87	55 mm	-	IMX461	3.76×3.7
VC-151MX-M/C 6 H	14192×10640	6.2 fps	8/10/12 bits	CoaXPress	53.36×40.01	66.7 mm	-	IMX411	3.76×3.7

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

Link

**Coa**/Press



# **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.



FPD (Flat Panel Display)



# 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

# Better Usability

- Programmable camera
- Easy to update firmware
- FFC (Flat Field Correction)
- Pixel defect correction

### CoalPress

Madal	Resolution	Extended	Frame	Pixel Data	Interface	Se	nsor Size		Sansar	Pixel Size
Model	Model Resolution	Resolution	Rate	Pixel Dala	Interface	$H \times V$ (mm <sup>2</sup> )	Diagonal	Optical	Sensor	(µm²)
VN-25MX-M/C 72	5120×5120	15360×15360	72 fps	8/10 bits	CoaXPress	23.04×23.04	32.58 mm	35 mm	VITA-25K	4.5×4.5
VN-200MX-M/C 30	7920×6004	23760×18012	30 fps	8/10/12 bits	CoaXPress	36.43×27.62	45.72 mm	35 mm	CMV-50000	4.6×4.6

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

# **VP** Series

FPD

(Flat Panel Display)

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.



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 camera
- Easy to update firmware
- FFC (Flat Field Correction)
- Pixel defect correction
- Camera Link and CoaXPress interfaces

									Coaperess
Model	Resolution	Frame Rate	Pixel Data	Interface	Ser	nsor Size		Sensor	Pixel Size
Model	Resolution	Frame Rate	Pixel Data	Interface	H×V (mm²)	Diagonal	Optical	Sensor	(µm²)
VP-25MC-M/C 30	5120 × 5120	30.9 fps	8/10 bits	Camera Link	23.04 × 23.04	32.58 mm	35 mm	VITA-25K	4.5  imes 4.5
VP-71MC-M/C 4	10000×7096	4.2 fps	8/10/12 bits	Camera Link	31.00×24.11	39.27 mm	35 mm	CHR 70M	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 mm	-	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 mm	-	IMX411	3.76×3.76
VP-50MX-M/C 30	7920×6004	30 fps	8/10/12 bits	CoaXPress	36.43×27.62	45.72 mm	35 mm	CMV 50000	4.6×4.6
VP-65MX-M/C 31 I	9344×7000	31 fps	8/10/12 bits	CoaXPress	29.9×22.4	37.4 mm	-	GMAX3265	3.2×3.2
VP-101MX-M/C 9 H	11648×8742	8.7 fps	8/10/12 bits	CoaXPress	43.80×32.87	55 mm	-	IMX461	3.76×3.76
VP-151MX-M/C 6 H	14192×10640	6.2 fps	8/10/12 bits	CoaXPress	53.36×40.01	66.7 mm	-	IMX411	3.76×3.76

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

### Coal Press



# **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.



FPD

(Flat Panel Display)

# 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

## Better Usability

- Programmable camera
- Easy to update the firmware
- FFC (Flat Field Correction)
- Pixel defect correction

### CoalPress

Model	Resolution	Extended	Frame	Pixel Data	Interface	Se	nsor Size		Soncor	Pixel Size
Model	Resolution	Resolution	Rate		H×V (mm²)	Diagonal	Optical	Sensor	(µm²)	
VNP-200MX-M/C 30	7920×6004	23760×18012	30 fps	8/10/12 bits	CoaXPress	36.43×27.62	45.72 mm	35 mm	CMV-50000	4.6×4.6
VNP-604MX-M/C 6 H	14192×10640	28384×21280	6.2 fps	8/10/12 bits	CoaXPress	53.36×40.01	66.7 mm	-	IMX411	3.76×3.76

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

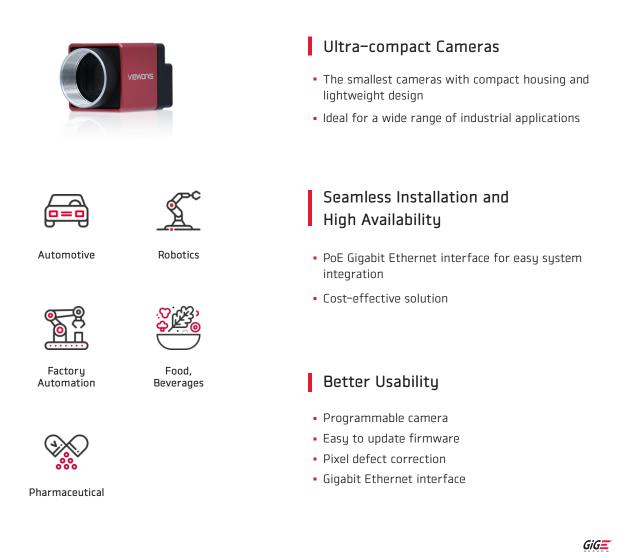
Document

Scanning

# **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.



Model	Resolution	Frame Rate	Interface		Sensor Size		Sensor	Pixel Size
Model	Resolution	Frame Rate	Interface	H×V (mm²)	Diagonal	Optical	Sensor	(µm²)
VQ-400G2-M/C 291 H	728×544	291 fps	GigE	5.02×3.75	6.3 mm	1/2.9"	IMX287	6.9×6.9
VQ-1600G2-M/C 77 H	1440×1080	77 fps	GigE	4.97×3.73	6.3 mm	1/2.9"	IMX273	3.45×3.45
VQ-2MG2-M/C 52 H	1920×1200	52 fps	GigE	6.62×4.14	7.9 mm	1/2.3"	IMX392	3.45×3.45
VQ-3MG2-M/C 38 H	2048×1536	38 fps	GigE	7.07×5.30	8.9 mm	1/1.8"	IMX265	3.45×3.45
VQ-5MG2-M/C 24 H	2448×2048	24 fps	GigE	8.45×7.07	11.1 mm	2/3"	IMX264	3.45×3.45
VQ-12MG2-M/C 10 H	4096×3000	9.9 fps	GigE	14.13×10.35	17.6 mm	1.1"	IMX304	3.45×3.45
VQ-20MG2-M/C 6 H	5472×3648	6 fps	GigE	13.13×8.76	15.86 mm	1"	IMX183	2.4×2.4

 $\star$  C-mount is available for VQ Series. Contact us to request a custom mount.



# **VX** Series

Aerial Imaging / Surveillance Camera

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.



# Optimal Solution for Outdoors

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

# Easy Control

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

## Better Usability

- Programmable camera
- Easy to update firmware
- FFC (Flat Field Correction)
- Pixel defect correction
- Anti-smear
- Gigabit Ethernet interface

Model	Resolution	Frame Rate	Pixel Data	Interface	Se	Sensor Size		Sensor	Pixel Size
Model	Resolution	Traine Nate	T INCL Data	interface	H×V (mm²)	Diagonal	Optical	561301	(µm²)
VX-25MG-M 5	5120×5120	4.7 fps	8 bits	GigE	23.04×23.04	32.58 mm	35 mm	VITA-25K	4.5×4.5

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





Aerial Imaging

Surveillance

# **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.







Food.

Beverages

Print Scanning



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 140kHz
- 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 variety of triggers
   External trigger, frame start trigger, software trigger
- Provides "Rescaler Mode" to set the accuracy

# Better Usability

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

<i>GiG</i>	Link	Coa Press
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Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (µm²)
VTC-2K10.5G-C19	2160×80	19 kHz (Max 100 kHz)	80	8/10/12 bits	GigE	Vieworks	10.5×10.5
VTC-2K10.5C-C100	2160×80	100 kHz	80	8/10/12 bits	Camera Link	Vieworks	10.5×10.5
VTC-2K10.5X-C140	2160×80	140 kHz	80	8/10/12 bits	CoaXPress	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 antiblooming. 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 300kHz
- Higher dynamic range
- Lower power consumption

### Flexibility for Lens Selection

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

## Better Usability

- Programmable camera
- Easy to update firmware
- FFC (Flat Field Correction)
- DSNU, PRNU Correction
- Gigabit Ethernet, Camera Link, CoaXPress interfaces

### Various Trigger Methods

- Supports 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

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

### GiGE Link CoalPress

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (µm²)
VT-3K7G-H 38	3200×128	38 kHz	32/64/96/128	8/10/12 bits	GigE	Vieworks	7.0×7.0
VT-4K5G-H 26	4640×256	26 kHz	64/128/192/256	8/10/12 bits	GigE	Vieworks	5.0×5.0
VT-6K3.5G-H 19	6560×256	19 kHz	64/128/192/256	8/10/12 bits	GigE	Vieworks	3.5×3.5
VT-3K7C-H 100	3200×128	100 kHz	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-3K7C-E 100	3200×32	100 kHz	32	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-4K5C-H 100	4640×256	100 kHz	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-4K5C-E 100	4640×64	100 kHz	64	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-6K3.5C-H 100	6560×256	100 kHz	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-6K3.5C-E 100	6560×64	100 kHz	64	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-3K7X-H 250	3200×128	250 kHz	32/64/96/128	8/10/12 bits	CoaXPress	Vieworks	7.0×7.0
VT-3K7X-E 250	3200×32	250 kHz	32	8/10/12 bits	CoaXPress	Vieworks	7.0×7.0
VT-4K5X-H 200	4640×256	200 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-4K5X-E 200	4640×64	200 kHz	64	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-6K3.5X-H 160	6560×256	160 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	3.5×3.5
VT-6K3.5X-E 160	6560×64	160 kHz	64	8/10/12 bits	CoaXPress	Vieworks	3.5×3.5

 $\star$  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

### Link Coal Press

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (µm²)
VT-4K7C-H 120	4096×128	125 kHz	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-4K14C-H 120	4096×64	125 kHz	16/32/48/64	8/10/12 bits	Camera Link	Vieworks	14.0×14.0
VT-9K7C-H 80	8912×128	94 kHz	32/64/96/128	8/10/12 bits	Camera Link	Vieworks	7.0×7.0
VT-12K5C-H 60	12480×256	67 kHz	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	5.0×5.0
VT-18K3.5C-H 40	17824×256	47 kHz	64/128/192/256	8/10/12 bits	Camera Link	Vieworks	3.5×3.5
VT-6K10X-H 170	6240×128	172 kHz	32/64/96/128	8/10/12 bits	CoaXPress	Vieworks	10.0×10.0
VT-9K7X-H 120	8912×128	125 kHz	32/64/96/128	8/10/12 bits	CoaXPress	Vieworks	7.0×7.0
VT-9K7X-H 250	8912×128	250 kHz	32/64/96/128	8/10/12 bits	CoaXPress	Vieworks	7.0×7.0
VT-12K5X-H 100	12480×256	100 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-12K5X-H 200	12480×256	200 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-18K3.5X-H 80	17824×256	80 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	3.5×3.5
VT-18K3.5X-H 140	17824×256	142 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	3.5×3.5

• M95 Mount – 16k / 23k TDI Line Scan

### Coa Press

Model	Resolution	Line Rate	TDI Stage	Pixel Data	Interface	Sensor	Pixel Size (µm²)
VT-16K5X-H 140	16384×256	140 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-16K5X-H 300 A	16384×256	300 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	5.0×5.0
VT-23K3.5X-H 100	23360×256	100 kHz	64/128/192/256	8/10/12 bits	CoaXPress	Vieworks	3.5×3.5

# **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 the costs by minimizing the number of repeaters and cables needed.



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

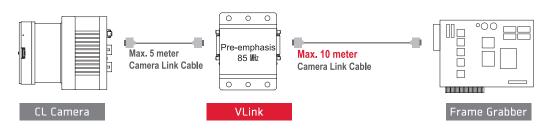
Link

Model	VLink-Base	VLink-Full	
Camera Link Configuration	Base Base / Medium		
Pixel Clock	20	- 85	
Connector Type	MDR 26 / Po	CL Compliant	
Operating Temperature	0 - 50°C		
Power Requirements	8 - 24 V DC		
Power Supply	Power adapter (not included) or PoCL compliant		
Power Consumption	Тур. 2 W Тур. 4W		
Dimension (W $\times$ H $\times$ L) / Weight	92 mm $ imes$ 23 mm $ imes$ 68 mm / 160 g	92 mm $ imes$ 23 mm $ imes$ 87.5 mm / 400 g	

		*Max. Cable Length by Pixel Clock	
Configuration		Camera to VLink	VLink to VLink or Grabber
	40 MHz	< 10 m	< 20 m
Cable Length	60 MHz	< 8 m	< 15 m
	85 MHz	< 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



# 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 2.3
- SDK (VwGigE API and VwCXP API) Supporting C/C++, .Net sample
- Supported Platforms Windows 7, Windows 8

### VIS 6.X – SDK for GigE Vision Cameras

VIS 6.X is the SDK for all Vieworks cameras with GigE Vision interface.

It provides customers with software libraries and sample programs that help users quickly develop various machine vision applications. Viewer software with a user-friendly interface is also included.

- GenlCam standard version 2.3
- Windows device driver for GigE Vision
- SDK (VwGigE API) Supporting C/C++, .Net sample
- Supported Platforms Windows XP, Windows 7

### VIS-Shadow – GigE SDK for Linux

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

- GenlCam 2.3.1 and GenTL 1.3 compliant
- Qt 4.8.1 compliant
- Ubuntu 12.04 (32 bit / 64 bit) 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.