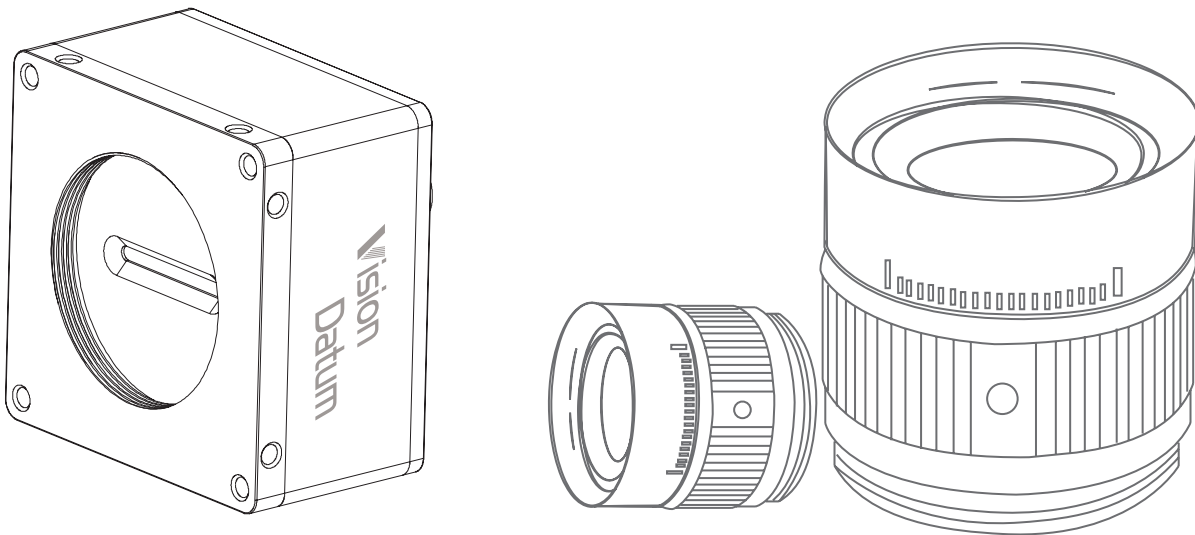




# LINE SCAN COLLECTION

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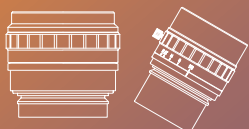
Vision Datum provide line scan cameras, large format lenses, line scan lenses and line scan illumination. These products can be used for intelligent inspection, vehicle bottom inspection system, web inspection, PCB, OLED, LCD, automotive, robotics and printing, logistics management, military, technology, steel and glass manufacturing inspections, etc.



*Subject to change without prior notice.  
For more information, please contact our sales representatives.*

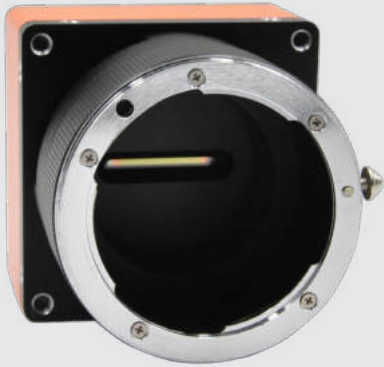
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# LINE SCAN CAMERA

# CAMERA



## LINE SCAN CAMERA

Vision Datum Line Scan industrial cameras are available in resolution of 2k, 4K, 8K and 16K , in both color and monochrome. It's specifically designed to bring affordable, flexible and simple high speed solutions to your current raw material inspection system.

## APPLICATION

Widely used in agriculture sorting; vehicle bottom inspection; PCB inspection;web inspection;paper surface inspection; railway inspection;photofinish system;textile surface inspection and grain sorting etc.

## 2K/4K/8K/16K Line Scan Camera

### FEATURES

1. Adopts GigE and Cameralink interface
2. Resolution from 2K to 16K for various applications
3. Line rate up to 180KHz, and the pixel size range from 3.5 $\mu$ m to 14 $\mu$ m



Part name	Resolution	Line Frequency	Data Bit	Interface	Pixel ( $\mu$ m)	Color	Dynamic Range	Mount
Mars2048C-L49gm	2048 × 1	49 K	12 bit	GigE	14 × 14	Mono	66dB	M42*1,FBL12mm
Mars2048C-L49gc	2048 × 2	49 K	12 bit	GigE	14 × 14	Color	66dB	M42*1,FBL12mm
Mars2048G-L49gm	2048 × 1	49 K	12 bit	GigE	14 × 14	Mono	66dB	M42*1,FBL12mm
Mars2048G-L49gc	2048 × 2	49 K	12 bit	GigE	14 × 14	Color	66dB	M42*1,FBL12mm
Mars2048G-L59gm <b>TDI</b>	2048 × 4	59 K	12 bit	GigE	7 × 7	Mono	65.5dB	C-Mount
Mars2048G-L59gc	2048 × 3	59 K	12 bit	GigE	7 × 7	Color	65.5dB	C-Mount
Mars4096C-L28gm	4096 × 1	28 K	12 bit	GigE	7 × 7	Mono	66dB	M42*1,FBL12mm
Mars4096C-L28gc	4096 × 2	28 K	12 bit	GigE	7 × 7	Color	66dB	M42*1,FBL12mm
Mars4096G-L28gm	4096 × 2	28 K	12 bit	GigE	7 × 7	Mono	66dB	M42*1,FBL12mm
Mars4096G-L28gc	4096 × 2	28 K	12 bit	GigE	7 × 7	Color	66dB	M42*1,FBL12mm
Mars4096G-L29gm <b>NEW</b>	4096 × 2	28 K	12 bit	GigE	7 × 7	Mono	66dB	M42*1,FBL12mm
Mars8001-L13gm	8192 × 1	13 K	12 bit	GigE	7 × 7	Mono	66dB	M72*0.75,FBL12mm
Mars4096G-L62cc	4096 × 2	62 K	12 bit	CameraLink	7 × 7	Color	66dB	M42*1,FBL12mm
Mars4096G-L120cm	4096 × 2	120 K	12 bit	CameraLink	7 × 7	Mono	66dB	M42*1,FBL12mm
Mars4096C-L92cc <b>NEW</b>	4096 × 2	92 K	8 bit	CameraLink	7 × 7	Color	66dB	M42*1,FBL12mm
Mars4096C-L180cm <b>NEW</b>	4096 × 2	180 K	12 bit	CameraLink	7 × 7	Mono	66dB	M42*1,FBL12mm
Mars8001C-L80cm	8192 × 1	74 K	12 bit	CameraLink	7 × 7	Mono	66dB	M72*0.75,FBL12mm
Mars8004G-L100cm <b>TDI</b>	8192 × 4	100 K	10 bit	CameraLink	5 × 5	Mono	62dB	M72*0.75,FBL12mm
Mars8006G-L34cc <b>TDI</b>	8192 × 6	34 K	10 bit	CameraLink	5 × 5	Color	62dB	M72*0.75,FBL12mm
Mars8006G-L34cc-V2 <b>NEW</b>	8192 × 6	34 K	10 bit	CameraLink	5 × 5	Color	62dB	M72*0.75,FBL12mm
Mars8016GS-L100cm <sup>1</sup> <b>TDI</b>	8192 × 4	100 K	10 bit	CameraLink	5 × 5	Mono	62dB	M72*0.75,FBL12mm
Mars16001-L50cm	16384 × 1	50 K	12 bit	CameraLink	3.5 × 3.5	Mono	64dB	M72*0.75,FBL12mm

<sup>1</sup>. Supports sequence strobe control function, achieve multiple lights control to select different light modes and image modes.

## 2K/4K/8K/16K Line Scan Camera

### FEATURES

1. Adopts GigE, 10GigE, Cameralink and CoaXPress interface
2. Resolution from 2K to 16K for various applications.
3. Support a variety of ISP and algorithms



Part name	Resolution	Line Frequency	Data Bit	Interface	Pixel (μm)	Color	Dynamic Range	Mount
LEO 2048-L56gm	2048 × 1	56 K	8/10/12 bit	GigE,PoE	7 × 7	Mono	60dB	M42*1,FBL12mm
LEO 2048-L32gc	2048 × 2	32 K	8/10/12 bit	GigE,PoE	7 × 7	Color	60dB	M42*1,FBL12mm
LEO2 2048G-L56gm	2048 × 1	56/100 K	8/10/12 bit	GigE,PoE	14 × 14	Mono	63.4dB	M42*1,FBL12mm
LEO2 2048G-L19gc	2048 × 2	19/40 K	8/10/12 bit	GigE,PoE	14 × 14	Color	63.4dB	M42*1,FBL12mm
LEO2 2048G-L58gm <b>TDI</b>	2048 × 2	58/86 K	8/10/12 bit	GigE,PoE	7 × 7	Mono	68dB	M42*1,FBL12mm
LEO2 2048G-L58gc	2048 × 3	58/70 K	8/10/12 bit	GigE,PoE	7 × 7	Color	68dB	M42*1,FBL12mm
LEO2 4096G-L19gc	4096 × 2	19/80 K	8/10/12 bit	GigE,PoE	7 × 7	Color	65.6dB	M42*1,FBL12mm
LEO2 4096G-L28gm <b>TDI</b>	4096 × 2	28/80 K	8/10/12 bit	GigE,PoE	7 × 7	Mono	65.6dB	M42*1,FBL12mm
LEO 4096G-L28gm-V2 <b>TDI NEW</b>	4096 × 3	28 K	8/10/12 bit	GigE	7 × 7	Mono	66.2dB	M42*1,FBL12mm
LEO 8192G-L14gm <b>TDI</b>	8192 × 4	14/40 K	8/10/12 bit	GigE	5 × 5	Mono	54.8dB	M72*0.75,FBL12mm
LEO 8192G-L14gc <b>TDI</b>	8192 × 6	14/40 K	8/10 bit	GigE	5 × 5	Color	54.8dB	M72*0.75,FBL12mm
LEO 8192G-L14gm-V2 <b>TDI NEW</b>	8192 × 2	14/33 K	8/10/12 bit	GigE	7 × 7	Mono	63.4 dB	M72*0.75,FBL12mm
LEO 8192G-L14gc-V2 <b>NEW</b>	8192 × 3	14/33 K	8/10 bit	GigE	7 × 7	Color	63.4 dB	M72*0.75,FBL12mm
LEO 4KT2-100cm <b>TDI</b>	4096 × 2	50/100 K	10/12 bit	CameraLink	7 × 7	Mono	65.6dB	M42*1,FBL12mm
LEO 4K-100cc	4096 × 2	100 K	8 bit	CameraLink	7 × 7	Color	65.6dB	M42*1,FBL12mm
LEO 8K-80CM	8192 × 1	80 K	8/10/12 bit	CameraLink	7 × 7	Mono	64.7dB	M72*0.75,FBL12mm
LEO 8KT2-100cm <b>TDI</b>	8192 × 2	100 K	8/10/12 bit	CameraLink	7 × 7	Mono	63.4dB	M72*0.75,FBL12mm
LEO 8K-34cc	8192 × 3	33.7 K	8/10/12 bit	CameraLink	7 × 7	Color	63.4dB	M72*0.75,FBL12mm
LEO 8KT4-100cm <b>TDI</b>	8192 × 4	100 K	8/10/12 bit	CameraLink	5 × 5	Mono	62dB	M72*0.75,FBL12mm
LEO 8KT4S-100cm <sup>1</sup> <b>TDI</b>	8192 × 16	5/100 K	8/10 bit	CameraLink	5 × 5	Mono	57.8dB	M72*0.75,FBL12mm
LEO 8KT2-34cc <b>TDI</b>	8192 × 6	34 K	8 bit	CameraLink	5 × 5	Color	62dB	M72*0.75,FBL12mm
LEO 8KT4-34cc <b>TDI</b>	8192 × 12	34 K	8/10 bit	CameraLink	5 × 5	Color	62dB	M72*0.75,FBL12mm
LEO 8KGT2-L200Tgm <b>TDI NEW</b>	8192 × 2	200 K	8 bit	10 GigE	7 × 7	Mono	63.4dB	M72*0.75,FBL12mm
LEO 8KG-L66Tgc <b>NEW</b>	8192 × 3	66.6 K	8 bit	10 GigE	7 × 7	Color	63.4dB	M72*0.75,FBL12mm
LEO 16K-50cm <b>TDI NEW</b>	16384 × 1	50 K	8/10/12 bit	CameraLink	3.5 × 3.5	Mono	56.7dB	M72*0.75,FBL12mm
GAL 16K-30cm	16384 × 1	30 K	8/10 bit	CameraLink	3.5 × 3.5	Mono	55dB	M72*0.75,FBL12mm
GAL 16K-17cc <b>NEW</b>	16384 × 2	17 K	8 bit	CameraLink	3.5 × 3.5	Color	65dB	M72*0.75,FBL12mm
GAL 16K-50cx <b>NEW</b>	16384 × 2	50 K	8/10 bit	CoaXPress	3.5 × 3.5	Color	65dB	M72*0.75,FBL12mm

<sup>1</sup>. Supports sequence strobe control function, achieve multiple lights control to select different light modes and image modes.

# LARGE FORMAT LENSES

F/T/M72  
/M58  
MOUNT



## LARGE FORMAT LENSES

Developed for large-format area camera and line-scan cameras. Vision Datum has developed 29M large format (full-frame) lenses to satisfy the demands of large-format cameras. The focal length of 29MP series F Mount lenses varies from 35mm to 90mm.

Vision Datum's large format lenses stand out in their class with low price and good performance.

## APPLICATION

Phone screen and glass cover inspections  
Inspections on LED, LCD and OLED  
Inspections on AOI, SPI and printing  
Solar panel inspection



# Large Format F/T Mount Lenses for 4k Line Scan Sensors

## FEATURES

1. Wide wavelength from 400~950nm
2. Full-frame design covering  $\phi 43.2\text{mm}$
3. Support 4K line scan cameras
4. Low cost



Part name	EFL (mm)	Resolution (lp/mm)	Format (mm)	Aperture (F/#)	Distortion (%)	M.O.D. (m)	Angle of View(D) (deg)	Filter Size	Mount
VT-LHF2428MP5	24	30lp/mm(5MP)	43	F2.8~F22	<-4%	0.15m	84°	M52 × 0.75	F
VT-LHT2428MP5	24	30lp/mm(5MP)	43	F2.8~F22	<-4%	0.15m	84°	M52 × 0.75	M42× 1(T)
VT-LHF2828MP5	28	30lp/mm(5MP)	43	F2.8~F22	<-3%	0.3m	74°	M52 × 0.75	F
VT-LHT2828MP5	28	30lp/mm(5MP)	43	F2.8~F22	<-3%	0.3m	74°	M52 × 0.75	M42× 1(T)
VT-LHF3525MP5	35	30lp/mm(5MP)	43	F2.5~F22	<-3%	0.3m	52.3°	M52 × 0.75	F
VT-LHT3525MP5	35	30lp/mm(5MP)	43	F2.5~F22	<-3%	0.3m	52.3°	M52 × 0.75	M42× 1(T)
VT-LHF5018MP5	50	30lp/mm(5MP)	43	F1.8~F22	<-1%	0.4m	45°	M52 × 0.75	F
VT-LHT5018MP5	50	30lp/mm(5MP)	43	F1.8~F22	<-1%	0.4m	45°	M52 × 0.75	M42× 1(T)

# 8k5 $\mu$ Large Format Lenses

**NEW**

## FEATURES

1. Ultra-high resolution to 3.2 $\mu$
2. Suitable for high-precision detection of large format
3. Standard focal lengths and magnifications are available
4. Support 29-65MP sensor



Part name	EFL (mm)	Format (mm)	Mag. (x)	WD (mm)	FFL (mm)		Aperture (F/#)	TV Distortion (%)	FOV (D) (deg)	ENP Diameter (mm)	Mount
					V.A	V.B					
VT-LEN58-2540MP65	25±5%	Ø46	0-0.2x	100-∞	12	11.48	F4-22	<0.2%	83.8°	Ø47.2	M58 × 0.75
VT-LEN72-2540MP65	25±5%	Ø46	0-0.2x	100-∞	12		F4-22	<0.2%	83.8°	Ø47.2	M72 × 0.75
VT-LEN58-3540MP65	35±5%	Ø42	0-0.2x	150-∞	12	11.48	F4-22	<0.7%	59°	Ø40	M58 × 0.75
VT-LEN72-3540MP65	35±5%	Ø42	0-0.2x	150-∞	12		F4-22	<0.7%	59°	Ø40	M72 × 0.75
VT-LEN58-5036MP65	50±5%	Ø46	0.02-0.5x	80-2500	12	11.48	F3.6-22	<0.2%	43.4°	Ø47.2	M58 × 0.75
VT-LEN72-5036MP65	50±5%	Ø46	0.02-0.5x	80-2500	12		F3.6-22	<0.2%	43.4°	Ø47.2	M72 × 0.75
VT-LEN58-8036MP65	80±5%	Ø46	0.041-0.39x	235-2000	12	11.48	F3.6-22	<0.2%	26.8°	Ø47.2	M58 × 0.75
VT-LEN72-8036MP65	80±5%	Ø46	0.041-0.39x	235-2000	12		F3.6-22	<0.2%	26.8°	Ø47.2	M72 × 0.75

## High Resolution F Mount Lenses for 29MP Sensors

### FEATURES

1. Wide wavelength from 400~950nm
2. Optical performance is superior to lens of SLR
3. Support 5 $\mu$ m pixel 29MP High resolution
4. High Cost Performance



Part name	EFL (mm)	Format (mm)	Aperture (F/#)	Mag. Range (x)	Standard Mag.(x)	WD (mm)	TV Distortion (%)	FFL (mm)	Filter Size	Mount
VT-LEMF3528MP29-0.1X	35	Ø45	2.8-16	0.05x-0.25x	0.1x	350.9	< 0.4%	46.5	M58 × 0.75	F
VT-LEMF3528MP29-0.03X	35	Ø45.3	2.8-16	0.01x-0.1x	0.03x	1158.7	< 0.5%	46.5	M67 × 0.75	F
VT-LEMF4028MP29-0.01X	40	Ø43.2	2.8-22	0.01x-0.25x	0.1x	409	< 0.2%	46.5	M62 × 0.75	F
VT-LEMF5028MP29-0.06X	50	Ø43	2.8-22	0.02x-0.1x	0.06x	862.1	0.2%	46.5	M62 × 0.75	F
VT-LEMF5028MP29-0.062X	50	Ø44	2.8-22	0.014x-0.24x	0.062x	833.4	< 0.3%	46.5	M50 × 0.5	F
VT-LEMF6040MP29-0.167X	60	Ø64	4.0-32	0.04x-0.33x	0.167x	384.9	0.19%	46.5	M65 × 0.75	F
VT-LEMF8056MP29-0.3X	80	Ø58	5.6-32	0.2x-0.4x	0.3x	306.2	< 0.01%	46.5	M52 × 0.75	F
VT-LEMF9040MP29-0.05X	90	Ø43.2	4.0-16	0.01x-0.1x	0.05x	1985	< 0.01%	46.5	M62 × 0.75	F

## Large Resolution F Mount Lenses: 100Mega Pixels

### FEATURES

1. Ultra-low distortion, high peripheral brightness ratio
2. Optimize the optical design for different magnifications
3. The F interface structure is detachable for easy expansion of other interfaces
4. Image size  $\phi$ 46mm, support large target area array and 8K 5 $\mu$ m line array camera



Part name	EFL (mm)	F/#	M.O.D. (m)	Format (mm)	Angle of View (deg.)	Filter Size	TV Distortion (%)	Mega Pixels (MP)	Mount
VT-LEMF3528MP100	35	2.8	0.13	Ø46	41.96°× 35.44°× 24.05°	M58 × 0.75	0.40%	100	F
VT-LEMF5040MP100	50	4.0	0.15	Ø46	47.02°× 39.77°× 27.11°	M52 × 0.75	-0.22%	100	F (ScalableV)
VT-LEMF8040MP100	80	4.0	0.23	Ø46	30.41°× 25.47°× 17.13°	M52 × 0.75	0.04%	100	F (ScalableV)

## Large Format M72 Mount Lenses: 150 Mega Pixels

**NEW**

### FEATURES

1. Low magnification lens, suitable for large size inspection
2. Large aperture, low distortion, high relative illumination
3. Ultra-high resolution and clarity consistency



Part name	EFL (mm)	F/#	Mag. (x)	Format (mm)	WD (mm)	Filter Size	Distortion (%)	Mega Pixels (MP)	Mount
VT-LEN72-5545MP150	55	4.5	0.01x-0.5x	Ø67	98 ~ inf	-	0.05%	150	M72
VT-LEN72-8528MP150	85	2.8	0.001x-0.2x	Ø62	460 ~ inf	M77 × 0.75	0.04%	150	M72
VT-LEN72-9040MP150	90	4.0	0.08x-0.14x	Ø67	722 ~ 1229	M58 × 0.75	0.01%	150	M72



# LINE SCAN LENSES

## V-MOUNT



### LINE SCAN LENSES

Targeted at the large format camera in the market, Vision Datum has developed lenses for 8K, 12K and 16K sensors. More than 30 models in this series with magnification varying from 0.0358X-3X, which could be applied in a variety of high resolution applications.

Vision Datum's line scan lenses stand out in their class with low price and good performance.

### APPLICATION

Phone screen and glass cover inspections  
Inspections on LED, LCD and OLED  
inspections on AOI, SPI and printing  
Solar panel inspection

### LINE SCAN CAMERA & V-MOUNT LENS CONNECTION DIAGRAM



## Compact Line Scan Lenses

### FEATURES

1. Designed for compact line scan cameras
2. High resolution up to 5 $\mu$ m pixel size
3. Small magnification for the application of large size inspection
4. Standard filter thread
5. Interface could be changed from V-Mount to M42, M58 or F-Mount



Part name	EFL (mm)	Mag. (x)	WD (mm)	Format (mm)	Aperture (F/#)	Distortion (%)	Mount	Conjugate distance (mm)	Flange back (mm)	Resolution
VTL-2045-0.03X	20	0.1 - 0.02	198.7 - 998.7	Ø30	F4.5	0.20%	V	261.7 - 1060.1	12	4k7 $\mu$
VTL-2840-0.1X	29	0.3 - 0.05	103 - 594.7	Ø30	F4.0	0.10%	V	177.2 - 661.5	26	4k7 $\mu$
VTL-3545-0.08X	35	0.1 - 0.04	408.49 - 1008.49	Ø30	F4.5	<0.05%	V	475.31 - 1072.89	38.22-35.81	4k7 $\mu$
VTL-4028-0.1X	40	0.33 - 0.04	140.7 - 1051.4	Ø43	F2.8	<0.62%	V	218.65 - 1117.3	49.34-37.31	4k7 $\mu$
VTL-6040-0.16X	60	0.33 - 0.04	218.97 - 1557.4	Ø64	F4.0	<0.6%	V	321.05 - 1641.73	73.48-55.73	8k7 $\mu$
VTL-8056-0.3X	80	0.4 - 0.2	253.68 - 453.71	Ø64	F5.6	<0.03%	V	393.11 - 577.11	110.83-94.8	12k5 $\mu$
VTL-9040-0.1X	90	0.14 - 0.08	722 - 1229.2	Ø62	F4.0	0.01%	V	856.86 - 1358.34	87-81.3	16k3.5 $\mu$
VTL-9540-0.05X	95	0.03 - 0.08	1253.35 - 3274.18	Ø66	F4.0	0.005%	V	1388.36 - 3404.23	84.11-79.26	16k3.5 $\mu$
VTL-10045-0.2X	100	0.25 - 0.15	538 - 860	Ø60	F4.5	0.005%	V	717.1 - 1026.7	129.2-117	8k7 $\mu$

## 5.5k5 $\mu$ Line Scan Lenses

### FEATURES

1. Designed for high resolution upto 5.5k5 $\mu$
2. Support 4K line scan camera
3. Large aperture FNo. 4.0

Part name	EFL (mm)	Mag. (x)	Format (mm)	Aperture (F/#)	Distortion (%)	Min Working Distance (mm)	Best Working Distance (mm)	Mount	Flange back (mm)	Resolution
VTL-5.5K-0.1X-A	50	0.0946	Ø30	F2.8	-0.61%	574	600-700	M42 $\times$ 1	12	5.5K 5 $\mu$
VTL-5.5K-0.1X-B	50	0.0946	Ø30	F2.8	-0.61%	574	600-700	M42 $\times$ 1	5.9	5.5K 5 $\mu$
VTL-5.5K-0.09X-A	50	0.094	Ø30	F4.0	-0.61%	574	600-700	M42 $\times$ 1	12	5.5K 5 $\mu$
VTL-5.5K-0.09X-B	50	0.094	Ø30	F4.0	-0.61%	574	600-700	M42 $\times$ 1	5.9	5.5K 5 $\mu$

## 16K3.5 $\mu$ /16k5 $\mu$ Line Scan Lenses

### FEATURES

1. Designed for high resolution upto 16k5 $\mu$  and 16k3.5 $\mu$  sensors
2. Image resolution can reach 160lp/mm
3. High resolution can maximize the performance of 16k3.5 $\mu$  cameras
4. Minimum optical distortion less than 1 pixel
5. Large aperture FNo. 3.8



Part name	EFL (mm)	Mag. (x)	Imae size (Dia. mm)	Aperture (F/#)	Distortion (%)	Working distance (mm)	Mount	Conjuguate distance (mm)	Flange back (mm)	Resolution
VTL-16K-0.26X	114	0.26x	Ø66	F4.2	0.01%	497.5	V-mount	627.16	128.3	16k3.5 $\mu$
VTL-16K-0.3X	116	0.33x	Ø66	F4.2	<0.001%	412	V-mount	595	137	16k3.5 $\mu$
VTL-16K-0.42X	116	0.42x	Ø66	F3.8	0.007%	339.74	V-mount	530.1	144.5	16k3.5 $\mu$
VTL-16K-0.5X	116	0.5x	Ø66	F3.8	0.0008%	296.2	V-mount	496	153.3	16k3.5 $\mu$
VTL-16K-0.67X	116	0.67x	Ø66	F3.8	0.10%	237.4	V-mount	453.5	170.2	16k3.5 $\mu$
VTL-16K-0.7X	116	0.7x	Ø66	F3.8	0.0001%	229.4	V-mount	447.2	174.4	16k3.5 $\mu$
VTL-16K-0.75X	100	0.75x	Ø66	F3.8	0.0008%	220.8	V-mount	444.8	180.5	16k3.5 $\mu$
VTL-16K-1.0X	116	1.0x	Ø66	F3.5	0.0005%	184.16	V-mount	439.45	209.47	16k3.5 $\mu$

## 16k5 $\mu$ Line Scan Lenses

### FEATURES

1. Designed for high resolution upto 16k5 $\mu$ .
2. The lenses can reach 82mm image size, fit for 16k5 $\mu$  cameras.
3. Resolution can reach 160lp/mm which provide higher contrast for the cameras.
4. Minimum optical distortion less than 1 pixel
5. Large aperture FNo. 3.8

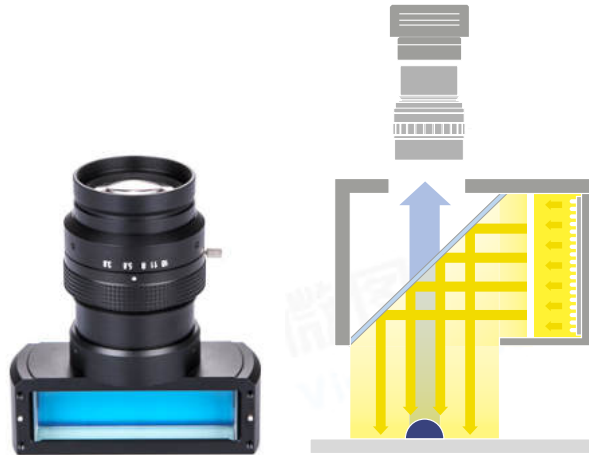


Part name	EFL (mm)	Mag (x)	Imae size (Dia. mm)	Aperture (F/#)	Distortion (%)	Working distance (mm)	Mount	Conjuguate distance (mm)	Flange back (mm)	Resolution
VTL-16KP-0.26X	120	0.26x	Ø82	F4.0	0.001%	663.4	V-mount	874.3	160.95	16k5 $\mu$
VTL-16KP-0.3X	120	0.3x	Ø82	F4.0	0.005%	586.4	V-mount	805.5	166.5	16k5 $\mu$
VTL-16KP-0.5X	120	0.5x	Ø82	F4.0	0.002%	390.66	V-mount	636.99	165	16k5 $\mu$
VTL-16KP0.62X	116	0.625x	Ø82	F3.8	0.17%	245.9	V-mount	455.3	163.6	16k5 $\mu$
VTL-16KP-1.3X	116	1.33x	Ø84	F3.8	0.0003%	156.3	V-mount	444.5	243.7	16k5 $\mu$
VTL-16KP-1.5X	116	1.5x	Ø84	F3.8	0.08%	143.9	V-mount	453.7	263.8	16k5 $\mu$
VTL-16KP-1.7X	116	1.7x	Ø84	F3.8	0.05%	137.8	V-mount	470	286.1	16k5 $\mu$
VTL-16KP-2.0X	120	2.0x	Ø82	F4.0	0.002%	166.35	V-mount	636.99	424.31	16k5 $\mu$
VTL-16KP-3.0X	120	3.0x	Ø82	F4.0	0.001%	143.02	V-mount	757.63	568.28	16k5 $\mu$

# Coaxial Illumination Line Scan Lenses

## FEATURES

1. This series is designed for coaxial illumination light source system which eliminates the declined resolution caused by the use of beam-splitting prism and meets the requirements of high resolution and high contrast applications
3. It is a fit for 16k5 $\mu$ , 16k3.5 $\mu$ , and 12k5 $\mu$  cameras.
4. Standard with 30 $\times$ 80mm beam-splitting prism.
5. Minimum optical distortion less than 1 pixel.
6. Large aperture FNo. 3.8



Part name	EFL (mm)	Mag (x)	Format (mm)	Aperture (F/#)	Distortion (%)	Relative illumination (%)	Working distance (mm)	Mount	Conjugate distance (mm)	Flange back (mm)	Resolution
VTCL-16KP-1.0X	116	1.0x	Ø82	F3.8	0.0005%	90%	157.39	V-mount	449.53	212.09	16k5 $\mu$
VTCL-16KP-1.3X	120	1.3x	Ø82	F4.0	0.0003%	90%	156.36	V-mount	444.5	245	16k5 $\mu$
VTCL-16KP-1.5X	120	1.5x	Ø82	F4.0	0.08%	90%	143.9	V-mount	453.7	265	16k5 $\mu$
VTCL-16KP-1.7X	120	1.7x	Ø82	F4.0	0.05%	90%	137.84	V-mount	470	283	16k5 $\mu$
VTCL-16KP-2.0X	120	2.0x	Ø82	F4.0	0.0005%	90%	135.95	V-mount	641.94	424.66	16k5 $\mu$
VTCL-16KP-3.0X	120	3.0x	Ø82	F4.0	0.005%	90%	112.6	V-mount	759.5	565.5	16k5 $\mu$

# 4/3" C-Mount Fixed Lenses

**HOT!**

## FEATURES

1. Suitable for 5 mega up to 10 mega pixels sensors.
2. High resolution at whole range of WD and excellent brightness.
3. Robust design, suitable for most machine vision applications.
4. Professional MTF optimization
5. Lockable focus and iris screws prevent movement during vibrations or shocks.
6. High cost-performance ratio



## HOT! 4/3" C-MOUNT FIXED LENSES

Part name	Focal Length (mm)	Aperture (F/#)	M.O.D. (m)	Angle of View (deg.)	Filter Size	Mega Pixels (MP)	Weight (g)	Design Wavelength (nm)	Type
VT-LEM0828CE-H2	8	2.8	0.2	108° x96° x80.4°	M86× 1	12	-	420-1100	
VT-LEM08528CD-H2	8.5	2.8	0.5	107.38°× 94.89°× 77.93°	M77× 0.5	12	-	420-1100	Standard
VT-LEM1220CD-H2	12	2.0	0.15	89.02°× 75.46°× 61.08°	M77× 0.75	10	447	420-1100	Standard
VT-LEM1620CD-H2	16	2.0	0.1	72.92°× 60.92°× 47.28°	-	10	338	420-1100	Standard
VT-LEM2520CD-H2	25	2.0	0.15	49.7°× 40.6°× 31°	M46× 0.75	10	251	420-1100	Standard
VT-LEM3520CD-H2	35	2.0	0.2	36.6°× 29.6°× 22.4°	M40.5× 0.5	10	173	420-1100	Standard
VT-LEM5020CD-H2	50	2.0	0.3	25.9°× 20.9°× 15.7°	M40.5× 0.5	10	170	420-1100	Standard
VT-LEM8520CD-H2	85	2.0	1.2	15.4°× 12.1°× 9.3°	M77× 0.75	10	-	420-1100	Standard



# LINE SCAN ILLUMINATION

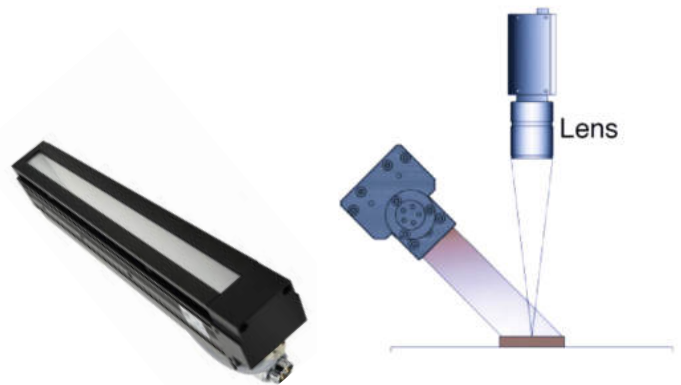
## APPLICATION

It is widely used in industrial inspection, circuit board inspection, automation, electronic communication, semiconductor, biomedicine, scientific research and other fields. Surface inspection of steel, rail, high-speed rail, etc

## Line Scan Illumination - Li Series

### FEATURES

1. Converging lights with optics cylindrical lens to reduce diffusion
2. The width of emitting surface is variable as the distance between LED board and lens is adjustable.
3. Light color, cooling method and emitting surface length can be customized according to request. The emitting surface length is specified in 100mm increments, up to 3000mm.



Model No.	Optical spec.		Electrical specifications (GREEN / NIR / UV Accept Custom)			Dimensions		
	Length (mm)	Width (mm)	Supply Voltage (v)	Power cons. (w) ●	Power cons. (w) ● ○ ●	Length (mm)	Width (mm)	Height (mm)
VT-LT3-Li150	150	17	24	15.4	23.1	188	45	71
VT-LT3-Li300	300	17	24	30.8	46.1	338	45	71
VT-LT3-Li450	450	17	24	46.1	69.2	488	45	71
VT-LT3-Li600	600	17	24	61.5	92.2	638	45	71
VT-LT3-Li750	750	17	24	76.8	115.2	788	45	71
VT-LT3-Li900	900	17	24	92.2	138.3	938	45	71
VT-LT3-Li1050	1050	17	24	107.6	161.3	1088	45	71
VT-LT3-Li1200	1200	17	24	122.9	184.4	1256	45	71
VT-LT3-Li1350	1350	17	24	138.3	207.4	1406	45	71
VT-LT3-Li1500	1500	17	24	153.6	230.5	1556	45	71
VT-LT3-Li1650	1650	17	24	168.9	253.4	1706	45	71
VT-LT3-Li1800	1800	17	24	184.3	276.4	1856	45	71
VT-LT3-Li1950	1950	17	24	199.6	299.5	2006	45	71
VT-LT3-Li2100	2100	17	24	215.0	322.5	2156	45	71
VT-LT3-Li2250	2250	17	24	230.4	345.6	2306	45	71
VT-LT3-Li2400	2400	17	24	245.7	368.6	2456	45	71
VT-LT3-Li2550	2550	17	24	261.1	391.6	2606	45	71
VT-LT3-Li2700	2700	17	24	276.4	414.7	2756	45	71
VT-LT3-Li2850	2850	17	24	291.8	437.7	2906	45	71
VT-LT3-Li3000	3000	17	24	307.2	460.8	3056	45	71



## Highlight Line Scan Illumination - LiN+ Series

### FEATURES

1. With high power LEDs, the light intensity is times higher than standard one.
2. Aluminum housings ensure an optimal heat dissipation and dispose of various practical mounting possibilities.



Model No.	Optical spec.		Electrical specifications (GREEN / NIR / UV Accept Custom)			Dimensions		
	Light Area		Supply Voltage (v)	Power cons. (w) ● ○ ●	Length (mm)	Width (mm)	Height (mm)	
Length (mm)	Width (mm)							
VT-LT3-LiN+100	100	17	48	-	143	58	90.1	
VT-LT3-LiN+168	168	17	48	48	211	58	101.6	
VT-LT3-LiN+200	200	17	48	-	243	58	90.1	
VT-LT3-LiN+300	300	17	48	96	343	58	92.5	
VT-LT3-LiN+400	400	17	48	129.6	443	58	92.5	
VT-LT3-LiN+500	500	17	48	172.8	543	58	92.5	
VT-LT3-LiN+600	600	17	48	216	643	58	92.5	
VT-LT3-LiN+650	650	17	48	259.2	693	58	90.1	
VT-LT3-LiN+700	700	17	48	-	770	58	90.1	
VT-LT3-LiN+800	800	17	48	336	870	58	90.1	
VT-LT3-LiN+900	900	17	48	384	970	58	90.1	
VT-LT3-LiN+1000	1000	17	48	393.6	1070	58	90.1	
VT-LT3-LiN+1100	1100	17	48	432	1170	58	90.1	
VT-LT3-LiN+1200	1200	17	48	480	1270	58	90.1	
VT-LT3-LiN+1800	1800	17	48	518.4	1870	58	90	
VT-LT3-LiN+2200	2200	17	48	778	2270	58	90	
VT-LT3-LiN+3400	3400	17	48	952	3470	-	91	

## Coaxial Line Scan Illumination - LiC+ Series

### FEATURES

1. Coaxial function suite, realize the characteristic of line scan illumination coaxial.
2. Match Li or Li+ series line light source to use.



Model No.	Optical spec.		Electrical specifications (GREEN / NIR / UV Accept Custom)			Dimensions		
	Light Area		Supply Voltage (v)	Power cons. (w) ●	Power cons. (w) ● ○ ●	Length (mm)	Width (mm)	Height (mm)
Length (mm)	Width (mm)							
VT-LT3-LiC140	140	15	48	15.4	23.1	170	51	93
VT-LT3-LiC290	290	15	48	30.8	46.1	320	51	93
VT-LT3-LiC440	440	15	48	46.1	69.2	470	51	93
VT-LT3-LiC+100	100	17	48	48	48	120	28.45	54.4
VT-LT3-LiC+200	200	17	48	96	96	220	28.45	54.4
VT-LT3-LiC+300	300	17	48	129.6	129.6	320	28.45	54.4
VT-LT3-LiC+400	400	17	48	172.8	172.8	420	28.45	54.4
VT-LT3-LiC+500	500	17	48	216	216	520	28.45	54.4
VT-LT3-LiC+600	600	17	48	259.2	259.2	620	28.45	54.4

## Multi-Angle Line Scan Illumination- MLI Series

### FEATURES

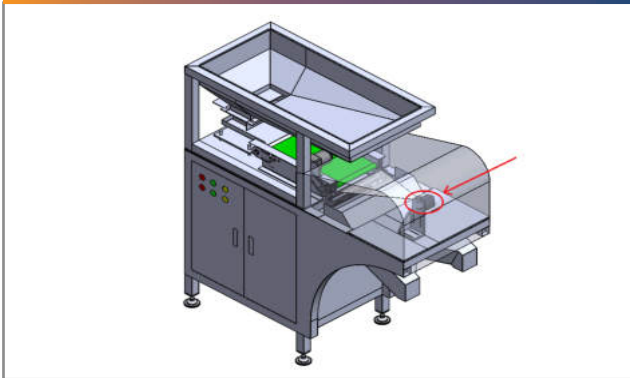
1. Characteristic
2. Brightness up to 1 million LUX.
3. The angle can be adjusted to suit different needs.
4. Multiple groups of highly concentrated light beams from different angles are focused on the same point to achieve multi-angle light effects.



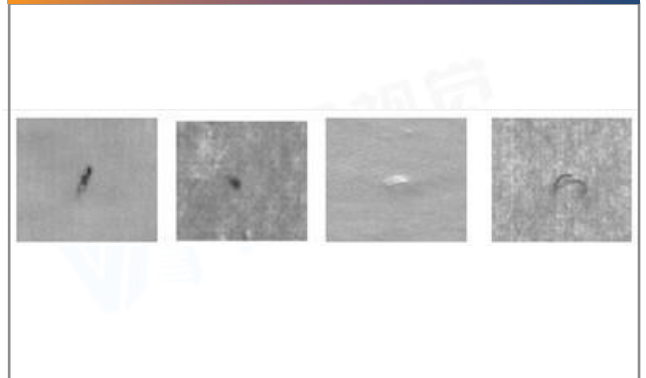
Model No.	Optical spec.		Electrical specifications		Dimensions		
	Light Area		Supply Voltage (v)	Power cons. (w) ○	Length (mm)	Width (mm)	Height (mm)
Length (mm)	Width (mm)						
VT-LT2-MLi300	300	6	48	576	316	310	80
VT-LT2-MLi305	305	10	48	241.92	328	300	150

# Line Scan Applications

## GRAIN SORTING



## WEB INSPECTION



## VEHICLE BOTTOM INSPECTION



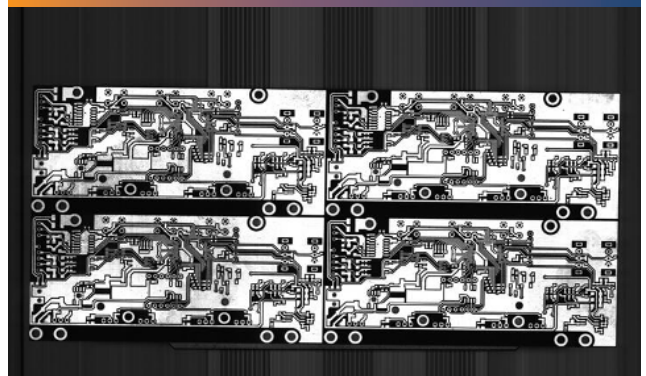
## PHOTOFINISH SYSTEM



## CIRCUIT BOARD INSPECTION



## PCB INSPECTION



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