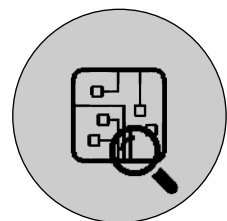# APPLICATIONS

- PCB Inspection
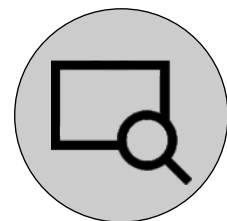- Virtual & Augmented Reality
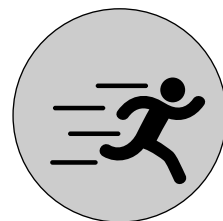- Scientific Research
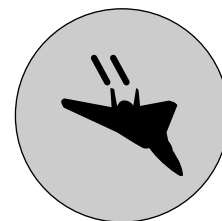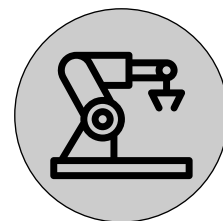- Motion Capture
- LCD Inspection
- Slow Motion Imaging
- Aerospace & Defense
- Factory Automation

VICTOREM™ SERIES

INDUSTRIAL COAXPRESS CAMERAS

FRAME RATE CHART (8-bit, Single/Dual-Link)

	4B523	16B276	24A164	32B55	32B216	51B163	89B64	89B93	120B68	262G41	205R26
320 x 240	1088 / 1088	1106 / 1106	640 / 640	322 / 322	1230 / 1230	1230 / 1230	483 / 483	711 / 711	711 / 711	832 / 832	61 / 61
640 x 480	587 / 587	597 / 597	429 / 429	171 / 171	660 / 660	660 / 660	266 / 266	391 / 391	391 / 391	431 / 431	61 / 61
800 x 600	-	485 / 485	343 / 343	138 / 138	536 / 536	536 / 536	217 / 217	319 / 319	319 / 319	347 / 347	61 / 61
1280 x 720	-	409 / 409	286 / 286	116 / 116	451 / 451	451 / 451	183 / 183	270 / 270	270 / 270	291 / 291	61 / 61
1920 x 1080	-	-	190 / 190	78 / 78	277 / 306	276 / 306	125 / 125	184 / 184	184 / 184	195 / 195	61 / 61
2064 x 1544	-	-	-	55 / 55	183 / 216	182 / 216	89 / 89	130 / 130	130 / 130	137 / 137	61 / 61
2048 x 2048	-	-	-	-	-	139 / 164	67 / 67	99 / 99	99 / 99	104 / 104	61 / 61
2464 x 2056	-	-	-	-	-	116 / 163	67 / 67	99 / 99	99 / 99	103 / 103	61 / 61
4096 x 2160	-	-	-	-	-	-	64 / 64	66 / 94	66 / 94	65 / 98	61 / 61
4112 x 3008	-	-	-	-	-	-	-	-	47 / 68	46 / 71	32 / 32
4096 x 4096	-	-	-	-	-	-	-	-	-	34 / 52	-
5120 x 5120	-	-	-	-	-	-	-	-	-	22 / 41	-
5472 x 3672	-	-	-	-	-	-	-	-	-	-	26 / 26

ACCESSORIES

Part Number	Description
VICPWR	AC to12V DC Power Adapter (Universal), for use if PoCXP not supplied
VICPWRIO	AC to 12V DC Power Adapter (Universal) with (2) BNC for TTL I/O
CABVICIO	TTL I/O cable, 6-pin Hirose to (2) BNC, 0.1m length, no power adapter (use PoCXP)
VICLENSMOUNT-A	Lens Adapter, C to Active EF-mount, requires VICPWRIO2
VICPWRIO2	AC to 12V DC Power Adapter (Universal) with cable for VICLENSMOUNT-A
VICMOUNT	Tripod Mounting Plate, can be installed on all sides of camera
VICMOUNT-A	Tripod Mounting Plate (tall), for use with VICLENSMOUNT-A

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IO INDUSTRIES

SPECIFICATIONS

Camera Model	4B523	16B276	24A164	32B55	32B216	51B163	89B64	89B93	120B68	262G41	205R26
Sensor	Sony IMX287	Sony IMX273	Sony IMX174	Sony IMX265	Sony IMX252	Sony IMX250	Sony IMX305	Sony IMX255	Sony IMX253	Gpixel GMAX0505	Sony IMX183
Sensor Size (H x V)	720 x 544	1456 x 1088	1936 x 1216	2064 x 1544	2064 x 1544	2464 x 2056	4112 x 2176	4112 x 2176	4112 x 3008	5120 x 5120	5472 x 3672
Max. Frame Rate (8 / 10 / 12-bit)	523 / 436 / 319	276 / 226 / 165	164 / 164 / 128	55 / 55 / 55	216 / 191 / 167	163 / 144 / 89	63 / 63 / 63	93 / 88 / 63	68 / 64 / 46	41 / 35 / 28	26 / 26 / 22
Max. Single-Link Frame Rate	523 / 436 / 319	276 / 226 / 165	164 / 164 / 128	55 / 55 / 55	183 / 146 / 118	116 / 93 / 77	63 / 52 / 43	65 / 52 / 43	47 / 38 / 31	21 / 17 / 14	26 / 23 / 19
Optical Format (Diagonal)	1/3" (6.3mm)	1/3" (6.3mm)	1/1.2" (13.4mm)	1/1.8" (8.9mm)	1/1.8" (8.9mm)	2/3" (11.1mm)	1" 16.1mm)	1" (16.1mm)	1.1" (17.6mm)	1.1" (18.1mm)	1" (15.9mm)
Sensor Type	CMOS										
Shutter Type	Global Shutter										Rolling (Global Reset)
Sensor Options	Monochrome or Color (Bayer)			Color (Bayer)	Monochrome or Color (Bayer)		Color (Bayer)	Monochrome or Color (Bayer)			
Pixel Size	6.9 x 6.9µm	3.45 x 3.45µm	5.86 x 5.86µm	3.45 x 3.45µm						2.5 x 2.5µm	2.4 x 2.4µm
Dynamic Range	76.5 dB	73.6 dB								65.8dB	72.0 dB
SNRmax	43.2 dB	40.4 dB	44.8 dB	40.4 dB						36.5dB	41.8 dB
Output Configurations	CoaXPress (v1.1), 1 or 2 links at 2.50Gbps (CXP-2), 3.125Gbps (CXP-3), 5.0Gbps (CXP-5) or 6.25Gbps (CXP-6)										
Multiple ROI	Not Supported	Up to 2	Up to 4	Not Supported	Up to 8		Not Supported	Up to 8			Not Supported
Pixel Bit Depth	8 / 10 / 12-bit										
Exposure Control	Trigger width, timed, or auto-exposure control										Timed or Auto
Image Correction	Black level correction, bad pixel replacement										
Color Processing	Auto white balance (tracking or manual), programmable LUTs										
Camera Configuration	GenICam or Victorem Control software										

MECHANICAL / ELECTRICAL

Dimensions	33.0 mm x 44.0 mm x 53.7 mm (WxHxD)
Lens Mount	C-mount or Active EF-mount
Weight	140 g
Power Requirements	24V via PoCXP or 7-30 V direct DC, 3-4 W
Additional I/O	TTL-level trigger input / output
Operating Temperature	-30°C to 65°C, 20-85% humidity (non-condensing)
Storage Temperature	-40°C to 85°C, 10-90% humidity (non-condensing)
Operational Shock	Tested per MIL-STD-810G Method 516.6, 3-axis Shock 75G
Operational Vibration	Tested per MIL-STD-810G Method 514.6, 3-axis Vibration Cat. 20

ORDERING

Example: 51B163CCX-N

Camera
51B163

Filter Option
-N - No IR Filter
(color cameras only)

Sensor Type
M - Monochrome
C - Color
N – NIR-Enhanced Monochrome
(262G41 model only)

Interface
CX - CoaXPress

LENS COMPATIBILITY

Depending on the depth and diameter of the rear element, some C-mount lenses may not be mechanically compatible. Ensure the rear element does not exceed the maximum depth listed below.

Cameras With No IR Filter
Ø > 22.0mm: 5.5mm
Ø < 21.0mm: 9.7mm
Ø < 22.0mm: 12.4mm

Color Cameras With IR Filter
Ø > 22.0mm: 5.5mm
Ø < 21.0mm: 9.7mm
21.0 < Ø < 22.0mm: 8.0mm

Tolerance for measurements above: +/- 0.25mm

DIAGRAMS

Front

44.0
(4x) M3 x 0.5
Optical Center
33.0
26.9
16.76
6.6
21.98
5.0
39.0

Side

Adjustable C-mount extends 0.2-0.7mm from front face
72.4
47.6
26.9
(2x) M3 x 0.5
6.6
4.0
53.7

Rear

LINK-1
STATUS
23.5
11.6
10.0
LINK-2
20.5
27.5
34.0

Bottom

4.0
39.3
4.3
11.8
(4x) M3 x 0.5
20.3
11.8