



# Camera Selection Guide 2009

1<sup>st</sup> issue

Please check out the on-line  
Camera Selection Guide at

[www.jai.com](http://www.jai.com)



*See the possibilities*

# C3 Camera Suite

Unlimited  
Digital  
Switchability

## Make the switch to a new generation

The future of machine vision is digital. The industry is switching to better image quality, more flexible architectures, increased stability, and friendlier interfaces.

The C3 Camera suite is a complete digital machine vision camera family based on Core Camera Concept (C3). All cameras in the C3 suite share a common design philosophy, making it incredibly easy to switch from one to another to meet specific application and work environment needs - without changing cabling or software.

Read more about the C3 camera suite on JAI's web site <http://www.jai.com/switch>

## The C3 Camera Suite is made up of three product tiers

### C3 Advanced

- Large format imagers, highest resolution
- Includes prism-based multi-CCD models
- Extensive in-camera pre-processing



### C3 Basic

- Middle range model
- Multi-tap imager support
- In-camera pre-processing



### C3 Compact

- Entry-level model
- Easy switch from analog
- High frame rates, single tap



### C3 ADVANCED



#### AM-1600GE/AB-1600GE

16Megapixels GigE Vision

- 43.3mm diag. prog.scan CCD
- 4872(h) x 3248(v)
- Cell Size 7.4 x 7.4  $\mu$ m
- Pixel clock 30 MHz
- 3 frames/sec.
- M42 mount or \*F-mount
- Shutter 1/3 ~ 1/3,200 sec.
- 8/10/12bit GigE Vision
- 55(w) x 55(h) x 120(d) mm
- Color version AB-1600GE
- \*F-mount Factory Option



#### AM-1600CL/AB-1600CL

16Megapixels Camera Link

- 43.3mm diag. prog.scan CCD
- 4872(h) x 3248(v)
- Cell Size 7.4 x 7.4  $\mu$ m
- Pixel clock 30 MHz
- 3 frames/sec.
- M42 Mount or \*F-mount
- Shutter 1/3 ~ 1/3,200 sec.
- 8/10/12bit Camera Link
- 55(w) x 55(h) x 120(d) mm
- Color version AB-1600CL
- \*F-mount Factory Option



#### AT-200CL/AT-200GE

UXGA 3-CCD Camera

- 1/1.8" progressive scan CCD x 3
- 1620(h) x 1236(v)
- Cell size 4.40 x 4.40  $\mu$ m
- 15 frames/sec. (AT-200GE)
- 22 frames/sec. (AT-200CL)
- C-mount
- 24/30 bit RGB output (AT-200GE)
- 24/30/36 bit RGB output (AT-200CL)
- 55 (w) x 55(h) x 80(d) mm
- CL or GigE Vision



#### AT-140CL/AT-140GE

SXGA 3-CCD Camera

- 1/2" progressive scan CCD x 3
- 1392(h) x 1040(v)
- Cell size 4.65 x 4.65  $\mu$ m
- 20 frames/sec. (AT-140GE)
- 25 frames/sec. (AT-140CL)
- C-mount
- 24/30 bit RGB output (AT-140GE)
- 24/30/36 bit RGB output (AT-140CL)
- 55 (w) x 55(h) x 80(d) mm
- CL or GigE Vision



#### AD-080CL/AD-080GE

XGA 2CCD Camera

- (Color x Monochrome NIR)
- 1/3" progressive scan CCD x 2
  - 1024(h) x 768(v)
  - Cell Size 4.65 x 4.65  $\mu$ m
  - Pixel clock 33.75 MHz
  - 30 frames/sec.
  - C-mount
  - Shutter 1/30 ~ 1/50,000 sec.
  - Color RGB 24bit or Raw data 8/10bit
  - Mono.NIR 8/10bit CL or GigE Vision
  - 55(w) x 55(h) x 80(d) mm



#### AD-081CL/AD-081GE

XGA 2CCD Camera  
(Monochrome x Monochrome)

- 1/3" progressive scan CCD x 2
- 1024(h) x 768(v)
- Cell Size 4.65 x 4.65  $\mu$ m
- Pixel clock 33.75 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/50,000 sec.
- 8bit/10bit CL or GigE Vision
- 55(w) x 55(h) x 80(d) mm

### C3 BASIC



#### BM-500GE/BB-500GE

5Megapixels GigE Vision

- 2/3" progressive scan CCD
- 2456(h) x 2058(v)
- Cell Size 3.45 x 3.45  $\mu$ m
- Pixel clock 60 MHz
- 15 frames/sec.
- C-mount
- Shutter 1/15 ~ 1/10,000 sec.
- 8/10/12bit GigE Vision
- 55(w) x 55(h) x 55(d) mm
- Color version BB-500GE



#### BM-500CL/BB-500CL

5Megapixels Camera Link

- 2/3" progressive scan CCD
- 2456(h) x 2058(v)
- Cell Size 3.45 x 3.45  $\mu$ m
- Pixel clock 60 MHz
- 15 frames/sec.
- C-mount
- Shutter 1/15 ~ 1/10,000 sec.
- 8/10/12bit Camera Link
- 55(w) x 55(h) x 55(d) mm
- Color version BB-500CL



#### BM-141GE/BB-141GE

SXGA GigE Vision

- 2/3" progressive scan
- 1392 (h) x 1040 (v)
- Cell size 6.45 x 6.45  $\mu$ m
- Pixel clock 58 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/16,000 sec.
- 8, 10 or 12-bit GigE Vision
- 55(w) x 55(h) x 55(d) mm
- Color version BB-141GE



### Common features of the C3 Camera Suite

- Standardized interface
- Common Software Development Kit
- Monochrome and color versions
- Industrial Gigabit Ethernet connectors with locking screws
- Programmable General Purpose Input/Output ports (GPIO)
- Opto-isolated inputs and outputs
- Bandwidth of up to 120 MB/second
- Flexible system architectures with up to 100 meters of cable
- Round-the-clock global support
- Constantly updated online resources

C3 Cameras are named based on the following principle

**CM-200MCL**

**Interface:**

- CL= Camera Link
- MCL= Mini Camera Link
- PMCL= PoCL
- GE= GigE Vision

**Resolution:**

- 200= 2 Megapixels/UXGA
- 080= 0.8 Megapixels/XGA

**Type of Camera:**

- M= Monochrome
- B= Bayer Color (Raw data output)
- C= Color (RGB output)
- D= 2CCD (Dual)
- T= 3CCD (Triple)

**C3 Platform:**

- A= Advanced
- B= Basic
- C= Compact

### C3 COMPACT



#### CM-200GE/CB-200GE

UXGA GigE Vision Camera

- 1/1.8" progressive scan CCD
- 1624(h) x 1236(v)
- Cell Size 4.4 x 4.4 μm
- Pixel clock 65 MHz
- 25 frames/sec.
- C-mount
- Shutter 1/25 ~ 1/10,000 sec.
- 8/10bit GigE Vision
- 44(w) x 29(h) x 75(d) mm
- Color version CB-200GE



#### CM-200MCL/CB-200MCL

UXGA Mini-Camera Link

- 1/1.8" progressive scan CCD
- 1624(h) x 1236(v)
- Cell Size 4.4 x 4.4 μm
- Pixel clock 65 MHz
- 25 frames/sec.
- C-mount
- Shutter 1/25 ~ 1/10,000 sec.
- 8/10bit Mini-Camera Link\*
- 44(w) x 29(h) x 66(d) mm
- Color version CB-200MCL

\*PoCL version available



#### CM-140GE/CB-140GE

SXGA GigE Vision Camera

- 1/2" progressive scan CCD
- 1392(h) x 1040(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 65 MHz
- 31 frames/sec.
- C-mount
- Shutter 1/31 ~ 1/10,000 sec.
- 8/10bit GigE Vision
- 44(w) x 29(h) x 75(d) mm
- Color version CB-140GE



#### CM-140MCL/CB-140MCL

SXGA Mini-Camera Link

- 1/2" progressive scan CCD
- 1392(h) x 1040(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 65 MHz
- 31 frames/sec.
- C-mount
- Shutter 1/31 ~ 1/10,000 sec.
- 8/10bit Mini-Camera Link\*
- 44(w) x 29(h) x 66(d) mm
- Color version CB-140MCL

\*PoCL version available



#### CM-080GE/CB-080GE

XGA GigE Vision Camera

- 1/3" progressive scan CCD
- 1032(h) x 778(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 33.75 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/10,000 sec.
- 8/10bit GigE Vision
- 44(w) x 29(h) x 75(d) mm
- Color version CB-080GE



#### CM-040GE/CB-040GE

SVGA GigE Vision Camera

- 1/2" progressive scan CCD
- 776(h) x 582(v)
- Cell Size 8.3 x 8.3 μm
- Pixel clock 33.75 MHz
- 61 frames/sec.
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 8/10bit GigE Vision
- 44(w) x 29(h) x 75(d) mm
- Color version CB-040GE



#### CM-030GE/CB-030GE

VGA GigE Vision Camera

- 1/3" progressive scan CCD
- 656(h) x 494(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 90 frames/sec.
- C-mount
- Shutter 1/90 ~ 1/10,000 sec.
- 8/10bit GigE Vision
- 44(w) x 29(h) x 75(d) mm
- Color version CB-030GE



#### MP-100

Right Angle Adapter, "periscope" Compatible with C3 Compact cameras

NOTE: This adapter can be provided only as a "factory-installed option".



## COLOR PROGRESSIVE SCAN - DIGITAL OUTPUT CAMERAS



### RMC-4200CL/-4200GE

4.2 Megapixels Color Camera

- 1.2" progressive scan CCD
- 2048(h) x 2048(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 15 frames/sec.
- C-mount\*
- Shutter 1/15 ~ 1/16,000 sec.
- Raw data 8/10/12bit Camera Link or GigE Vision
- 51(w) x 51(h) x 74(d) mm /CL
- 51(w) x 51(h) x 85(d) mm /GE

\* F / M42 mount factory option



### RMC-2030CL/-2030GE

HDTV Color Camera

- 1.0" progressive scan CCD
- 1920(h) x 1080(v) aspect ratio 16:9
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 32/16 frames/sec.
- C-mount\*
- Shutter 1/32 ~ 1/16,000 sec.
- Raw data 8/10/12bit Camera Link or GigE Vision
- 51(w) x 51(h) x 74(d) mm /CL
- 51(w) x 51(h) x 85(d) mm /GE

\* F / M42 mount factory option



### CV-M8CL

UXGA Color Camera

- 1.0" progressive scan CCD
- 1600(h) x 1200(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 30/17 frames/sec. selectable
- C-mount
- Shutter 1/17 ~ 1/14,000 sec.
- Raw data 8bit/10bit Camera Link
- 50(w) x 40(h) x 120(d) mm



### RMC-2040GE

UXGA Color Camera

- 1" progressive scan CCD
- 1600(h) x 1200(v)
- Cell size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 34 frames/second
- C-mount\*
- Shutter 1/34 ~ 1/32,000 sec.
- 8, 10 or 12-bit GigE Vision
- 51(w) x 51(h) x 85(d) mm

\* F / M42 mount factory option



### RMC-1325CL

SXGA Color Camera

- 2/3" progressive scan CCD
- 1392(h) x 1040 (v)
- Cell size 6.45 x 6.45 μm
- Pixel clock 55/27.5 MHz selectable
- 30/15 frames/second
- C-Mount
- Shutter 1/30 ~ 1/16,000 sec.
- 8 or 10-bit Camera Link
- 44.5(w) x 44.5(h) x 63(d) mm



### RMC-1327GE

SXGA Color Camera

- 2/3" progressive scan
- 1392(h) x 1040(v)
- Cell size 6.45 x 6.45 μm
- Pixel clock 55 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/21,000 sec.
- 8 or 10-bit Gigabit Ethernet
- 51(w) x 51(h) x 85(d) mm



### RMC-1402CL

SXGA Color Camera

- 1/2" progressive scan
- 1392(h) x 1040(v)
- Cell size 4.65 x 4.65 μm
- Pixel clock 50/25 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/16,000 sec.
- 8 or 10-bit Camera Link
- 44.5(w) x 44.5(h) x 63(d) mm



### RMC-1405GE

SXGA Color Camera

- 1/2" progressive scan
- 1392(h) x 1040(v)
- Cell size 4.65 x 4.65 μm
- Pixel clock 50 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/21,000 sec.
- 8 or 10-bit Gigabit Ethernet
- 51(w) x 51(h) x 84(d) mm



### CV-M7+CL

SXGA Color Camera

- 2/3" progressive scan CCD
- 1380(h) x 1030(v)
- Cell Size 6.45 x 6.45 μm
- Pixel clock 40.49 MHz
- 24 frames/sec.
- C-mount
- Shutter 1/24 ~ 1/10,000 sec.
- Raw data 10bit Camera Link
- 50(w) x 40(h) x 90(d) mm



### CV-A70CL/CV-A70GE

SVGA Color Camera

- 1/2" progressive scan CCD
- 767(h) x 576(v)
- Cell Size 8.3 x 8.3 μm
- Pixel clock 36.15 MHz
- 60 frames/sec.
- C-mount
- Shutter 1/60 ~ 1/300,000 sec.
- Raw data 8/10bit CL og GigE Vision
- 44(w) x 35(h) x 80(d) mm
- RGB out. Digital Model CV-M71CL
- 50(w) x 40(h) x 80(d) mm
- RGB out. Analog Model CV-M71A
- 50(w) x 40(h) x 90(d) mm



### RMC-6740CL/-6740GE

VGA High Speed Color

- 1/3" progressive scan CCD
- 640(h) x 480(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 200 frames/sec.
- C-mount
- Shutter 1/200 ~ 1/64,000 sec.
- Rawdata 8/10bit Camera Link or GigE Vision
- 51(w) x 51(h) x 74(d) mm /CL
- 51(w) x 51(h) x 85(d) mm /GE



### CV-M77

XGA RGB Color Camera

- 1/3" progressive scan CCD
- RGB primary mosaic filter
- 1028(h) x 770(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 25 MHz
- 25 frames/sec.
- C-mount
- Shutter 1/25 ~ 1/10,000 sec.
- 50(w) x 40(h) x 90(d) mm



### CV-M9CL/-M9GE

XGA 3CCD Color Camera

- 1/3" progressive scan CCD x 3
- 1024(h) x 768(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 33.75 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/50,000 sec.
- RGB output 3 x 8bit/10bit
- Camera Link or GigE Vision
- 60(w) x 50(h) x 99(d) mm/CL
- 55(w) x 55(h) x 120(d) mm/GE

### CV-M91

3CCD Analog Color Camera

- 1/3" interlaced scan CCD x 3
- 744(h) x 575(v)
- Cell Size 6.5 x 6.25 μm
- Pixel clock 14.25 MHz
- 2:1 interlace/non-interlace
- C-mount
- Shutter 1/25 ~ 1/10,000 sec.
- RGB, VBS, Y/C output
- 60(w) x 50(h) x 130(d) mm

\*NTSC version is also available



### CV-L107CL

3CCD Line Scan Color Camera

- 2048 pixels x 3lines
- Cell Size 14.0 x 14.0 μm
- Pixel clock 40 MHz
- Line rate 19.048 kHz
- Nikon F-mount\*
- Flat-field, Shading correction
- RGB output 8/10bit Camera Link
- 90(w) x 90(h) x 90(d) mm

\*M42 mount factory option



## MONOCHROME PROGRESSIVE SCAN - DIGITAL OUTPUT CAMERAS



### RM-4200CL/-4200GE

4.2 Megapixels Monochrome

- 1.2" progressive scan CCD
  - 2048(h) x 2048(v)
  - Cell Size 7.4 x 7.4 μm
  - Pixel clock 40 MHz
  - 15 frames/sec.
  - C-mount\*
  - Shutter 1/15 ~ 1/16,000 sec.
  - 8/10/12bit Camera Link or GigE Vision
  - 51(w) x 51(h) x 74(d) mm /CL
  - 51(w) x 51(h) x 85(d) mm /GE
- \* F / M42 mount factory option



### RM-2030CL/-2030GE

HDTV Monochrome Camera

- 1.0" progressive scan CCD
  - 1920(h) x 1080(v) aspect ratio 16:9
  - Cell Size 7.4 x 7.4 μm
  - Pixel clock 40 MHz
  - 32/16 frames/sec.
  - C-mount\*
  - Shutter 1/32 ~ 1/16,000 sec.
  - 8/10/12bit Camera Link or GigE Vision
  - 51(w) x 51(h) x 74(d) mm /CL
  - 51(w) x 51(h) x 85(d) mm /GE
- \* F / M42 mount factory option



### CV-M2CL

UXGA Monochrome Camera

- 1.0" progressive scan CCD
- 1600(h) x 1200(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 30/17 frames/sec. selectable
- C-mount
- Shutter 1/17 ~ 1/14,000 sec.
- 8/10bit Camera Link
- 50(w) x 40(h) x 120(d) mm



### RM-2040GE

UXGA Monochrome Camera

- 1" progressive scan
  - 1600 (h) x 1200 (v)
  - Cell size 7.4 x 7.4 μm
  - Pixel clock 40 MHz
  - 34/17 frames/second
  - C-mount \*
  - Shutter 1/34 ~ 1/32000 sec.
  - 8, 10 or 12 Gigabit Ethernet
  - 51(w) x 51(h) x 85 (d) mm
- \* F / M42 mount factory option



### RM-1325CL

SXGA Monochrome Camera

- 2/3" progressive scan CCD
- 1392(h) x 1040(v)
- Cell size 6.45 x 6.45 μm
- Pixel clock 55/27.5 MHz selectable
- 30/15 frames/sec.
- C-Mount
- Shutter 1/30 ~ 1/16,000 sec.
- 8 or 10-bit Camera Link
- 44.5(w) x 44.5(h) x 63(d) mm



### RM-1327GE

SXGA Monochrome Camera

- 2/3" progressive scan
- 1392(h) x 1040(v)
- Cell size 6.45 x 6.45 μm
- Pixel clock 55 MHz
- 30 frames/second
- C-mount
- Shutter 1/30 ~ 1/21,000 sec.
- 8 or 10-bit Gigabit Ethernet
- 51(w) x 51(h) x 85(d) mm



### RM-1402CL

SXGA Monochrome Camera

- 1/2" progressive scan
- 1392(h) x 1040(v)
- Cell size 4.65 x 4.65 μm
- Pixel clock 50/25 MHz
- 30 frames/second
- C-mount
- Shutter 1/30 ~ 1/16,000 sec.
- 8 or 10-bit Camera Link
- 44.5(w) x 44.5(h) x 63(d) mm



### RM-1405GE

SXGA Monochrome Camera

- 1/2" progressive scan
- 1392(h) x 1040(v)
- Cell size 4.65 x 4.65 μm
- Pixel clock 50 MHz
- 30 frames/second
- C-mount
- Shutter 1/30 ~ 1/21,000 sec.
- 8 or 10-bit Gigabit Ethernet
- 51(w) x 51(h) x 84(d) mm



### CV-M4+CL

SXGA Monochrome Camera

- 2/3" progressive scan CCD
- 1380(h) x 1030(v)
- Cell Size 6.45 x 6.45 μm
- Pixel clock 40.49 MHz
- 24 frames/sec.
- C-mount
- Shutter 1/24 ~ 1/10,000 sec.
- 10bit Camera Link
- 50(w) x 40(h) x 90(d) mm



### CV-A10CL

SVGA Monochrome Camera

- 1/2" progressive scan CCD
- 767(h) x 576(v)
- Cell Size 8.3 x 8.3 μm
- Pixel clock 36.15 MHz
- 60 frames/sec.
- C-mount
- Shutter 1/60 ~ 1/300,000 sec.
- 8/10bit Camera Link
- 44(w) x 35(h) x 80(d) mm

## MONOCHROME PROGRESSIVE SCAN - ANALOG OUTPUT CAMERAS



### RM-6740CL/-6740GE

VGA High Speed Monochrome

- 1/3" progressive scan CCD
- 640(h) x 480(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 40 MHz
- 200 frames/sec.
- C-mount
- Shutter 1/200 ~ 1/64,000 sec.
- 8/10bit Camera Link or GigE Vision
- 51(w) x 51(h) x 74(d) mm /CL
- 51(w) x 51(h) x 85(d) mm /GE



### CV-A2

UXGA Monochrome Camera

- 1/1.8" progressive scan CCD
- 1620(h) x 1220(v)
- Cell Size 4.4 x 4.4 μm
- Pixel clock 36.15 MHz
- 15 frames/sec.
- C-mount
- Shutter 1/15 ~ 1/200,000 sec.
- 44(w) x 29(h) x 66(d) mm



### CV-A1/CV-A1UV

SXGA Monochrome Camera

- 1/2" progressive scan CCD
- 1380(h) x 1035(v)
- Cell Size 4.65 x 4.65 μm
- Pixel clock 28.63 MHz
- 16 frames/sec.
- C-mount
- Shutter 1/16 ~ 1/200,000 sec.
- 44(w) x 29(h) x 66(d) mm

\*UV Model CV-A1UV



### CV-M10SX CCIR

SVGA Monochrome Camera

- 1/2" progressive scan CCD
- 737(h) x 575(v)
- Cell Size 8.3 x 8.3 μm
- Pixel clock 12.27 MHz
- 25 frames/sec.
- C-mount
- Shutter 1/25 ~ 1/917,000 sec.
- 50(w) x 40(h) x 80(d) mm

\*EIA version is also available



### CV-A11

VGA Monochrome Camera

- 1/3" progressive scan CCD
- 648(h) x 492(v)
- Cell Size 7.4 x 7.4 μm
- Pixel clock 12.27 MHz
- 30 frames/sec.
- C-mount
- Shutter 1/30 ~ 1/200,000 sec.
- 44(w) x 29(h) x 66(d) mm

## MONOCHROME INTERLACED SCAN - ANALOG OUTPUT CAMERAS



### TM-700

Monochrome Camera

- 2/3" interlaced CCD
- 768(h) x 494(v)
- Cell size 11 x 13  $\mu\text{m}$
- C-mount
- 30 frames/sec.
- Shutter 1/60 ~ 1/10,000 sec.
- 45(w) x 45(h) x 46(d) mm



### RM-72EX/62EX

Monochrome Camera

- 2/3" Interlaced CCD
- 768(h) x 493(v) (EIA)
- Cell size 11 x 13  $\mu\text{m}$
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 30 frames/sec.
- 40(w) x 46(h) x 67(d) mm



### RM-745E/RM765E

Monochrome Camera

- 2/3" Interlaced CCD
- 768(h) x 493(v) (EIA)
- 756(h) x 581(v) (CCIR)
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 32(w) x 42(h) x 130(d) mm



### RM-745i/RM765i

Monochrome Camera

- 2/3" Interlaced CCD
- 768(h) x 493(v) (EIA)
- 756(h) x 581(v) (CCIR)
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 32(w) x 42(h) x 130(d) mm



### CV-A55IR

Monochrome Camera

- 1/2" interlaced CCD
- 768(h) x 494(v) (EIA)
- 752(h) x 582(v) (CCIR)
- Cell size 8.4 x 9.8  $\mu\text{m}$  / 8.6 x 8.3  $\mu\text{m}$
- 30/25 frames/sec.
- C-mount
- 35(w) x 44(h) x 58(d) mm



### CV-A50/CV-A60

Compact Monochrome Camera

- 1/2" IT CCD : CV-A50
- 1/3" IT CCD : CV-A60
- 737(h) x 575(v)
- Cell size 8.6 x 8.3  $\mu\text{m}$  : CV-A50  
8.4 x 9.8  $\mu\text{m}$  : CV-A60
- Pixel clock 14.18 MHz
- 2:1 Interlace / non-Interlace
- C-mount
- Shutter off ~ 1/10,000 sec.
- 44(w) x 29(h) x 66(d) mm
- Near IR model : CV-A50IR
- \*EIA version is also available



### CV-M300

Standard Monochrome

- 2/3" IT CCD
- 737(h) x 575(v)
- Cell Size 11.6 x 11.2  $\mu\text{m}$
- Pixel clock 14.1875 MHz
- 2:1 Interlace/non-Interlace
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 50(w) x 40(h) x 80(d) mm
- \*EIA version is also available



### RMC-7/6DSP

Color Camera

- 1/2" Interlaced CCD
- 768(h) x 494(v) (NTSC)
- Cell size 8.4 x 9.8  $\mu\text{m}$
- C-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 32(w) x 42(h) x 133(d) mm



### RMC-73M/63M

Color Camera

- 1/3" Interlaced CCD
- 768(h) x 494(v) (NTSC)
- Cell size 6.35 x 7.4  $\mu\text{m}$
- CS-mount
- Shutter 1/60 ~ 1/10,000 sec.
- 40 mm dia. x 73 mm



### CV-S3200/S3300

HighSensitivity Color Camera

- 1/2" IT Exview HAD CCD : CV-S3200
- 1/3" IT Exview HAD CCD : CV-S3300
- 752(H) x 582(V)
- Cell Size 8.6 x 8.3  $\mu\text{m}$  / S3200  
6.5 x 6.25  $\mu\text{m}$  / S3300
- 2:1 Interlace
- CS-mount
- Shutter off ~ 1/10,000 sec.
- VBS,Y/C video output
- 55(w) x 45(h) x 110.2(d) mm
- \*NTSC version is also available

## MONOCHROME $\phi$ 17MM REMOTE HEAD / ANALOG / DIGITAL CAMERAS



### CV-M536

$\phi$  17mm Remote Head  
Interlaced Scan Camera with  
2m cable

- 1/2" Hyper HAD IT CCD
- 737(h) x 572(v)
- Cell Size 8.6 x 8.3  $\mu\text{m}$
- 25 frames/sec.
- 2:1 Interlace/non-Interlace
- Lens mount M15.5 x 0.5
- Shutter off ~ 1/10,000 sec.
- 50(w) x 40(h) x 80(d) mm (CCU)
- $\phi$  17mm x 60mm (Head)
- Cable length 2m
- \*EIA version is also available



### CV-M538

$\phi$  17mm Remote Head  
interlaced Scan Camera with  
5m cable

- 1/2" Hyper HAD T CCD
- 737(h) x 572(v)
- Cell Size 8.6 x 8.3  $\mu\text{m}$
- 25 frames/sec.
- 2:1 Interlace/non-Interlace
- Lens mount M15.5 x 0.5
- Shutter off ~ 1/10,000 sec.
- 50(w) x 40(h) x 80(d) mm (CCU)
- $\phi$  17mm x 95mm (Head)
- Cable length 5m
- \*EIA version is also available



### CV-A436

$\phi$  17mm Remote Head  
Progressive Scan Camera

- 1/3" progressive scan CCD
- 648(h) x 492(v)
- Cell Size 7.4 x 7.4  $\mu\text{m}$
- Pixel clock 24.54 MHz
- 60 frames/sec.
- Lens mount M15.5 x 0.5
- Shutter 1/60 ~ 1/200,000 sec.
- 44(w) x 29(h) x 66(d) mm (CCU)
- $\phi$  17mm x 46mm (Head)
- Cable length 2m



### CM-030PMCL-RH

$\phi$  17mm Remote Head  
Progressive Scan Camera  
PoCL

- 1/3" progressive scan CCD
- 659(h) x 494(v)
- Cell Size 7.4 x 7.4  $\mu\text{m}$
- Pixel clock 58 MHz
- 120 frames/sec.
- Lens mount M15.5 x 0.5
- Shutter 1/120 ~ 1/30,000 sec.
- 8bit/10bit PoCL
- 44(w) x 29(h) x 66(d) mm (CCU)
- $\phi$  17mm x 46mm (Head)
- Cable length 2m

## CMOS



### CV-A20CL/CV-A80CL

HDTV Monochrome CMOS

- 2/3" progressive CMOS
- 1920(h) x 1080(v)
- Cell Size 5.0 x 5.0  $\mu\text{m}$
- 16:9 HDTV format
- Pixel clock 2 x 74.25 MHz
- 60 frames/sec.
- C-mount
- Shutter 1/60 ~ 1/20,000 sec.
- 8/10bit Camera Link
- Rolling shutter
- 44(w) x 35(h) x 58(d) mm
- Color version: CV-A80CL

## ACCESSORIES



### MP-50

Right Angle Adapter, "periscope"

Compatible with CV-M50, CV-M10SX, CV-M300, CV-M30, CV-M4+CL, CV-M7+CL & CV-M77

NOTE: Kit for field assembly includes all screws and flat ribbon cable.



### MP-70/MP-80

Right Angle Adapter, "periscope"

**MP-70**  
Compatible with CV-A50, CV-A60, CV-A11 & CV-A1

**MP-80**  
Compatible with CV-A10CL & CV-A70CL

NOTE: Kit for field assembly includes all screws and flat ribbon cable  
\*The picture is shown the adapter mounted on a camera.



### MP-90

Right Angle Adapter, "periscope"

Compatible with CV-M2CL, CV-M8CL, CV-M71CL & CV-M71A

NOTE: Kit for field assembly includes all screws and flat ribbon cable.



### MP-40

Tripod adapter plate  
Attaches to the camera with M3 screws

Compatible with JAI's CV-A series, CV-M series & C3 compact cameras, except CV-A10GE & CV-A70GE.

NOTE: Only use the supplied screws. Using longer screws can damage internal circuit boards.



### MP-41

Tripod adapter plate  
Attaches to the camera with M3 screws

Compatible with CV-A10GE, CV-A70GE, C3 Advanced and C3 Basic cameras.

NOTE: Only use the supplied screws. Using longer screws can damage internal circuit boards.



### TP-10

Tripod mounting plate for all other TM & RM model numbers (includes the TM/TM-745/765 models).



### TP-20

Tripod mounting plate for AccuPiXEL and Dual-Tap AccuPiXEL models (includes AG-7000 and TM/TMC-9730CL models).



### TP-30

Tripod mounting plate for TM-700 series cameras (does not include TM/TM-745/765 models).



### TP-40

Tripod mounting plate for TMC-73M, RMC-73M, TMC-63M, & RMC-63M cameras.

## ACCESSORIES FOR Ø17MM REMOTE HEAD CAMERA



### MP-30

Mounting bracket for remote head

For use with JAI Ø 17mm remote head cameras

- CV-M536
- CV-M538
- CV-A436
- CM-030PMCL-RH



### MP-20

Ø 17 mm to C-mount thread converter

For use with JAI Ø 17mm remote head cameras

- CV-M536
- CV-M538
- CV-A436
- CM-030PMCL-RH



### OP-700 series

Ø 17 mm camera lens

- OP-715  
1/2" 17mm mount F=2.1
- OP-724  
1/2" 17mm mount F=3.1
- OP-735  
1/2" 17mm mount F=1.6

## TYPICAL CAMERA APPLICATIONS



- Flat panel inspection



- Packaging & printing



- Automotive inspection



- Pharmaceuticals



- Surface quality



- Electronics & semicon



- Traffic enforcement



- Medical equipment



GigE Vision™ is a new Camera interface standard developed using the Gigabit Ethernet communication protocol. With GigE Vision, hardware and software from different vendors can interoperate seamlessly over GigE connections.

### GigE Vision™ offers many benefits

- High bandwidth (1000 Mbps)
- Long distance data transmission up to 100 meters without hub or Switcher
- Multiple Camera connection with a hub or multi-channel network interface card to single/multiple computer(s)
- Low cost cables & Easy connection Plug & Play with CAT5E or CAT6 and standard connectors

### JAI SDK and Control Tool

#### GigE Vision Camera Software

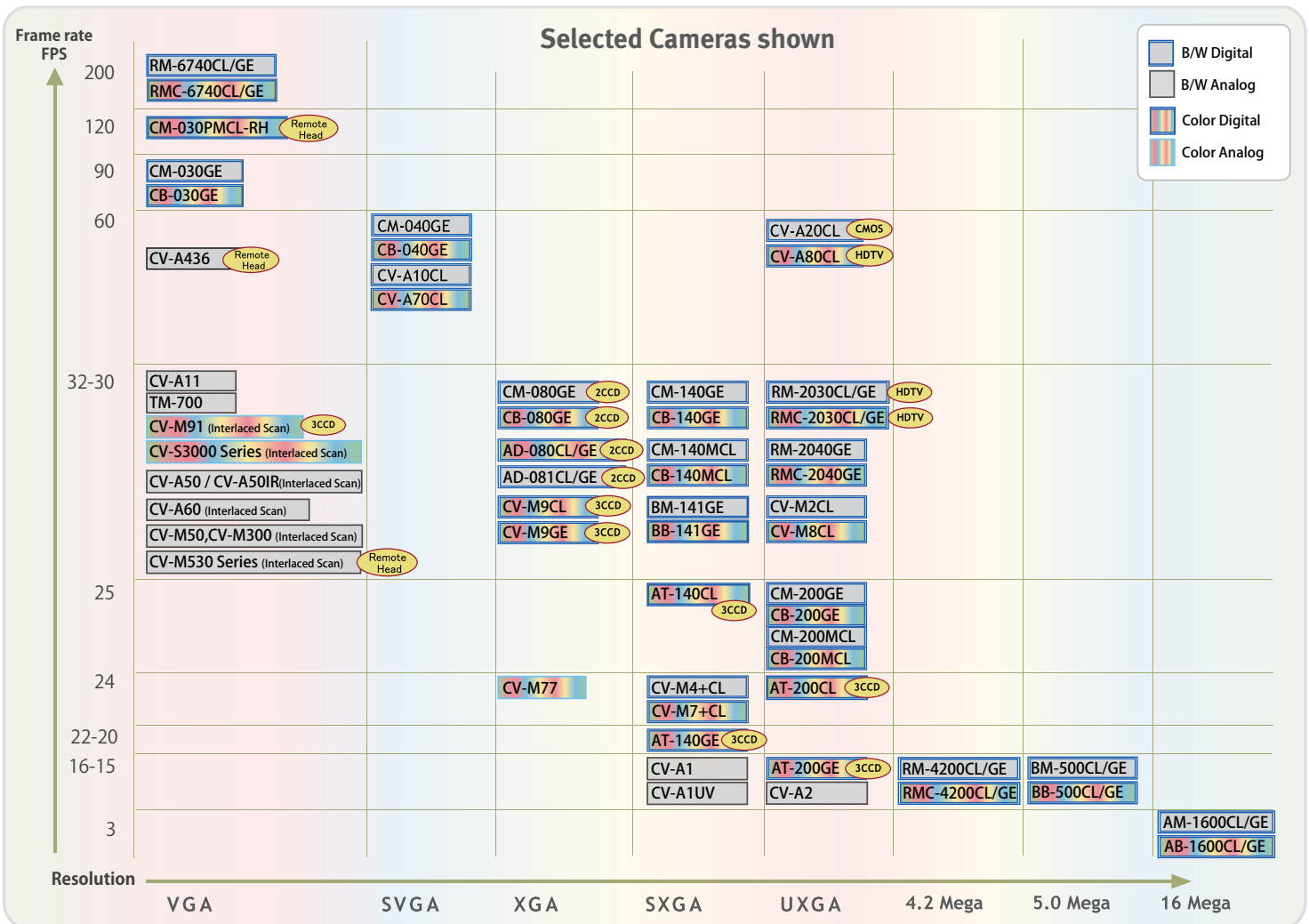


The JAI GigE Vision Camera Software package contains all SDK components required for easily integrating JAI GigE Vision compliant Cameras into vision applications.

The JAI Control Tool is a generic application that can be used for testing and evaluating all JAI GigE Vision Cameras.

The graphical user interface allows the user to see and activate the available features and functions of the connected Camera(s). Streamed video can be viewed live or saved to memory.

- Software development kit allows vision system developers to easily integrate Cameras
- Control Tool & viewer with automatic detection of single or multiple Cameras
- Camera features and functions automatically detected based on GeniCam
- JAI Filter Driver for efficient transmission of GigE Vision packets
- Detailed reference documentation and C++/C# sample code for Visual Studio NET
- Supports Windows XP, Windows Vista and Linux



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See the possibilities