



# Artisan Scientific

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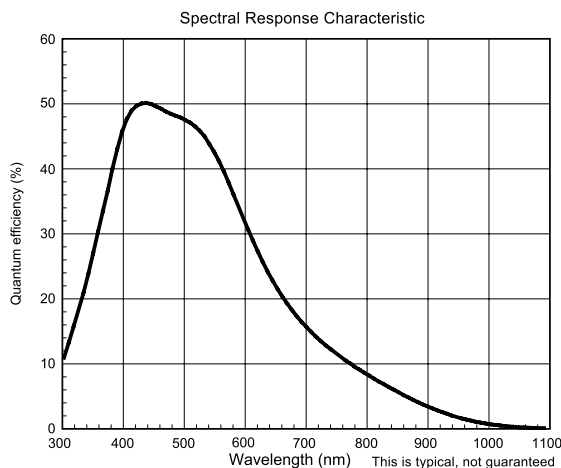
Talk to a live person: 888-88-SOURCE (888-887-6872) | Contact us by email: [sales@artisan-scientific.com](mailto:sales@artisan-scientific.com) | Visit our website: <http://www.artisan-scientific.com>

## High Performance Digital CCD Camera C7300

250 Hz Frame Rate / 60 dB dynamic  
Random Scan Readout



The C7300 realizes 13 Hz full resolution ( $1280 \times 1024$  pixels) readout from a 20 MHz pixel clock. It has the ability to readout up to 8 different randomly selected regions of interest ( $1280 \times 16$  pixels) at 250 Hz. The C7300 is well suited for applications requiring high speed imaging or critical applications requiring high resolution under low to moderate light level conditions.



### FEATURES

- MAX 250 Hz readout ( $1280 \times 16$ )
- ROI readout function
- Random scan function
- $2 \times 2$  binning
- 1.3M pixels
- MAX 12 bit output
- UV option (down to 193 nm)
- 60 nsec ultra fast imaging
- 1/10,000 to 1 second integration
- 15 electrons readout noise

## SPECIFICATIONS

CCD	Progressive scan interline CCD
Effective pixels	1280 (H) × 1024 (V)
Pixel size	6.7 μm × 6.7 μm
Sensitive area	2/3 inch format
Spectral response characteristics	Standard : 240 nm to 1100 nm UV option : 193 nm to 1100 nm
Anti-blooming	Vertical overflow drain structure
Frame rate	13 Hz (Full pixel readout), 25 Hz (2 × 2 binning)
Read out noise	Typ. 15 electrons
Sub-array function (ROI)	Max 250 Hz (1280 × 16) 16 line steps
Selectable ROI access function	Up to 8 selectable sub-arrays (ROI)
Dynamic range*	Typ. 60 dB
A/D resolution	8 bit / 10 bit / 12 bit
Integration time	1/10,000 to 1 second
Gated exposure (option)	2 image acquisitions with 60 ns or less intervals
Lens mount	C-mount

\* Calculated from the ratio of the maximum saturation change and average readout noise.

## TYPE NUMBER

C7300-10-□□ NR □

Bit number on  
A/D converter

08: 8 bit  
10: 10bit  
12: 12bit

No suffix: Standard

U: UV chip  
P: PIV option  
D: PIV option + UV chip

## OPTION

### • Gated exposure

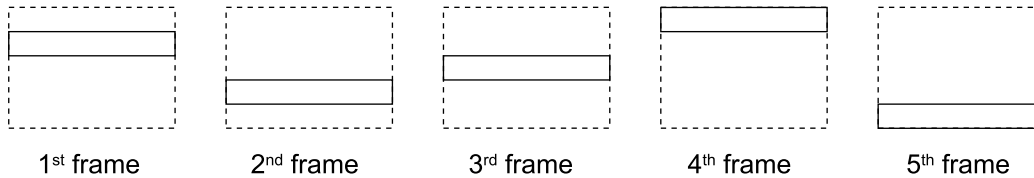
The C7300 can be set to acquire images with intervals as short as 60 ns at full resolution.

## FEATURE DESCRIPTIONS

### • Selectable sub-array (ROI) function

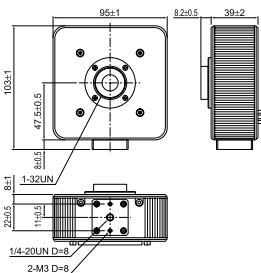
The C7300 can be set to readout sub-arrays of 1280 pixels by multiples of 16 lines by computer command.

Up to 8 sub-arrays may be selected from frame to frame at maximum frame rate.

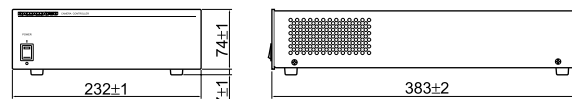


## DIMENSIONAL OUTLINES (UNIT:mm)

### • Camera head (approx. 0.7 kg)



### • Camera control (approx. 6.3 kg)



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# HAMAMATSU

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