HAMAMATSU

DATA SHEET

X-Ray CCD Camera
C6086 Series



The C6086 series is a compact, lightweight, high resolution X-ray CCD camera. It consists of an X-ray sensitive scintillator (P43) coated on a tapered fiberoptic bundle direct coupled to a CCD camera.

The C6086-90 camera controller incorporates a 10-bit A/D converter for precise image acquisition and is also capable of a number of realtime image processing functions such as averaging, background subtraction and edge enhancement.



▲ Dedicated Control Box A6649 is Optional.

FEATURES

- High Spatial Resolution
  25 µm (C6086-03, 04)
  30 µm (C6086-53, 54)
  43 µm (C6086-13, 14)
  62 µm (C6086-23, 24)
- Effective X-ray tube voltage range
  10 to 100 kVp
- 10-bit A/D converter
- Contrast Enhancement
- Real Time Image Processing

SPECIFICATIONS

• Camera head

Type. number	C6086-03	C6086-04	C6086-13	C6086-14	C6086-23	C6086-24	C6086-53	C6086-54
Material of X-ray scintillator	P43 ($GdO_2S:Tb$)(Window material : Aluminum)							
Effective X-ray tube voltage range (kVp)	10 to 100							
Spatial resolution (μm)	25		43		62		30	
Effective field of view (mm^2)	8.8 × 6.5	8.6 × 6.4	19.9 × 14.9	19.5 × 14.6	32.4 × 24.2	31.6 × 23.8	12.7 × 9.5	12.4 × 9.3
Fiber type	Straight fiber		2.27:1 tapered fiber		3.69:1 tapered fiber		1.45:1 tapered fiber	
Imaging device	Interline-type CCD							
Video system	EIA	CCIR	EIA	CCIR	EIA	CCIR	EIA	CCIR
Video output	1.0Vp-p 75Ω terminated							
Power requirements / comsumption	DC +12 V (12P) / 1.6 W							

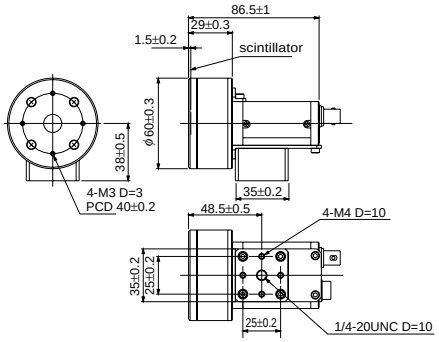
• Camera Controller C6086-90

A/D converter	10-bit
Frame memory	16-bit memory × 2 planes
Digital interface	SCSI Ⅱ (optional)
Image processing functions	Gain/Offset, On-chip integration, Image accumulation, Recursive average, Zoom, Background subtraction, Edge enhancement mask (selectable)
Operating / Storage temperature	0˚C to 40 ˚C / -10 ˚C to 40 ˚C
Operating / Storage humidity	Less than 70% (no condensation)
Line voltage / Power consumption	AC 100V, 117V, 220V, 240V ±10% 50/60Hz / Approx. 60VA

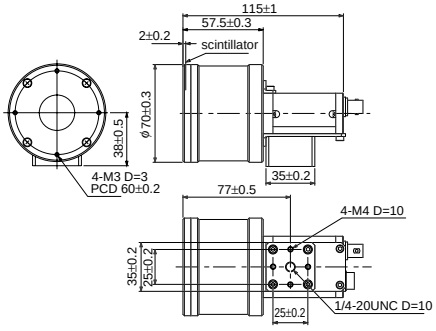
DIMENSIONAL OUTLINE (UNIT:mm)

• Camera head

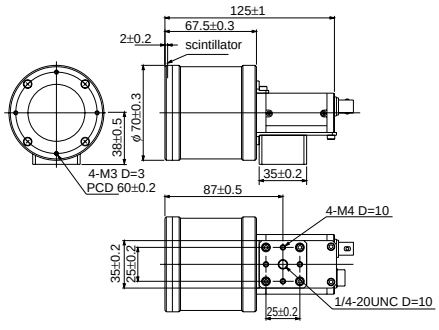
C6086-03,04 (Weight : Approx. 0.4 kg)



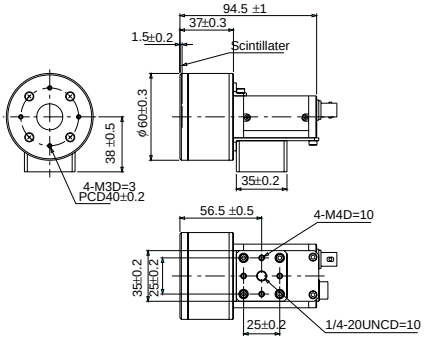
C6086-13,14 (Weight : Approx. 0.6 kg)



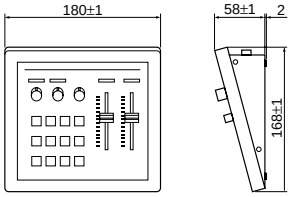
C6086-23,24 (Weight : Approx. 0.7 kg)



C6086-53,54 (Weight : Approx. 0.5 kg)



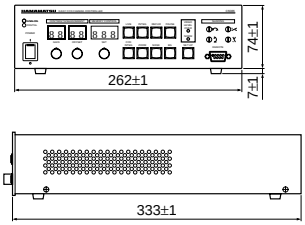
• Control Box A6649



(Weight : Approx. 0.9 kg)

• Camera Controller

C6086-90 (Weight : Approx. 5.0 kg)



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