

**Item 1, description (Hamamatsu Part Number: S7171-0909-01):**

High dynamic range, low readout noise, wide spectrum range back-thinned CCD image sensor with built-in thermoelectric cooler

**Specifications:**

Image Size [mm (H) x mm (V)]	12.288 x 12.288
Pixel Size [ $\mu\text{m}$ (H) x $\mu\text{m}$ (V)]	24 x 24
Number of effective Pixels	512 x 512
Wavelength Range [nm]	200 – 1100
Full Well Capacity [ke <sup>-</sup> ]	320
Dark Current (Max. at 0°C) [e <sup>-</sup> /pixel/s]	100
Readout Noise [e <sup>-</sup> rms]	8
Frame Rate (area scanning) [frame/s]	0.9
Dynamic Range (area scanning)	40000

**Item 2, description (Hamamatsu Part Number: C7181):**

Multichannel detector head

**Features:**

- Designed for back-thinned CCD area image sensor
- Choice of line binning operation / area scanning operation
- Built-in driver circuit
- Highly stable temperature controller
- Compact configuration

Item 3, description (Hamamatsu Part Number: C7557-01):

Multichannel detector head controller

Features:

For control of multichannel detector head and data acquisition

Easy control and data acquisition using supplied software via USB interface