

# Cognex MVS-8000 Series

## MVS-8100L Hardware Manual



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# MVS-8100L Hardware Description

This chapter describes the hardware specifications for the Cognex MVS-8100L frame grabber. The MVS-8100L is a 32-bit PCI bus frame grabber that fits into a single slot in an industry-standard PC. The MVS-8100L can:

- Acquire 8-bit images from monochrome cameras
- Support up to four camera inputs
- Transfer acquired images over the PCI bus to memory on the host PC
- Display the images being acquired on the host PC

Table 3 summarizes the capabilities of the MVS-8100L. More detail about each feature is provided later in this chapter.

| Frame Grabber Feature                       | MVS-8100L                                                                               |
|---------------------------------------------|-----------------------------------------------------------------------------------------|
| Image acquisition timing supported          | CCIR or EIA RS-170                                                                      |
| Acquired image size                         | 640x480, 640x240 (EIA RS-170)<br>760x574, 760x287 (CCIR)                                |
| Acquired image resolution                   | 8 bits per pixel                                                                        |
| Camera input ports                          | 4 (2 on baseboard, 2 with expansion panel)                                              |
| Camera power supplied by board              | Yes                                                                                     |
| Source of synchronization signals           | Camera or MVS-8100L                                                                     |
| Overlapped image acquisition and processing | Yes                                                                                     |
| External trigger support                    | One high-speed optically isolated trigger input                                         |
| Strobe support                              | One high-speed open-collector strobe output                                             |
| Output signal line                          | One optically isolated accept/reject/status control                                     |
| Board power requirements                    | The PCI connector is slotted only for 5 V signaling and must be placed in 5 V PCI slot. |

Table 3. MVS-8100L features

# Mechanical Specifications

The Cognex MVS-8100L is 107 mm (4.2 inches) high by 175 mm (6.8 inches) long and occupies a single PCI bus slot. Figure 10 shows the major components of the MVS-8100L.

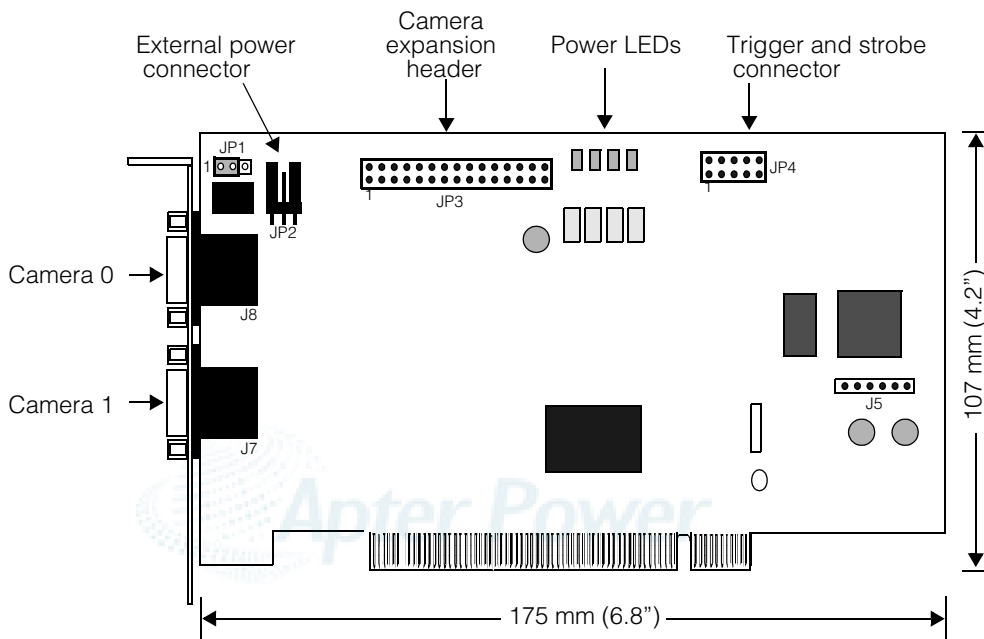


Figure 10. MVS-8100L component location

Two camera ports are located on the back panel. Camera port 0 is the upper port. Camera port 1 is the lower port.

Optional expansion panels for the MVS-8100L are available. One expansion panel provides access for camera ports 2 and 3. Another expansion panel provides access to external I/O signals. Each expansion panel occupies a back panel slot of the host PC but does not connect to the bus.

## Environmental Requirements

Table 4 lists the environmental requirements for the MVS-8100L frame grabber. These specifications are for the environment inside the PC in which the MVS-8100L is installed.

|                                     | Operating Conditions | Storage Conditions |
|-------------------------------------|----------------------|--------------------|
| <b>Temperature</b>                  | 10° to 50° C         | –40° to 65° C      |
| <b>Humidity</b><br>(non-condensing) | 10% to 90%           | 10% to 90%         |

Table 4. Environmental requirements

