

Cognex MVS-8000 Series

MVS-8120 Hardware Manual



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MVS-8120 Components

This section describes the MVS-8120 frame grabber and its components.

PCI Bus Interface

The PCI bus interface of revision C or later of the MVS-8120 is a universal voltage 32-bit interface that conforms to the PCI 2.1 standard. Revisions A and B of the MVS-8120 use a 5-volt only 32-bit PCI interface.

Input Video System

Input video on the MVS-8120 is provided by a Cognex Video Module (CVM). Different models of the MVS-8120 have different CVMs, to meet different customer requirements. CVMs are *not* customer-upgradeable and are factory-installed purchase options only.

The input video capabilities of available CVMs are discussed in *Cognex Video Modules and Cameras* on page 89.

Parallel I/O

The MVS-8120 frame grabber communicates with devices such as strobes, triggers, sensors, and programmable controllers over parallel signal interface lines. An internal connector on the frame grabber provides the following signals:

- Eight transistor-to-transistor logic (TTL) inputs
- Eight TTL outputs
- Eight bidirectional TTL lines
- Four opto-isolated outputs

Parallel I/O options for the MVS-8120 frame grabber are described in *Cognex Parallel I/O Board Options* on page 44.

Video Output

MVS-8120 image output is passed through the PCI bus to an AGP or PCI-based video display adapter on the same bus, under the control of the host PC's operating system.

Mechanical Specifications

This section describes the mechanical layout, environmental requirements, and standards for the MVS-8120 frame grabber.

Layout

The MVS-8120 frame grabber is a short length PCI card, measuring 6.875 x 4.2 inches (175 x 107 mm). Figure 12 shows the dimensions and user-accessible components on the MVS-8120.

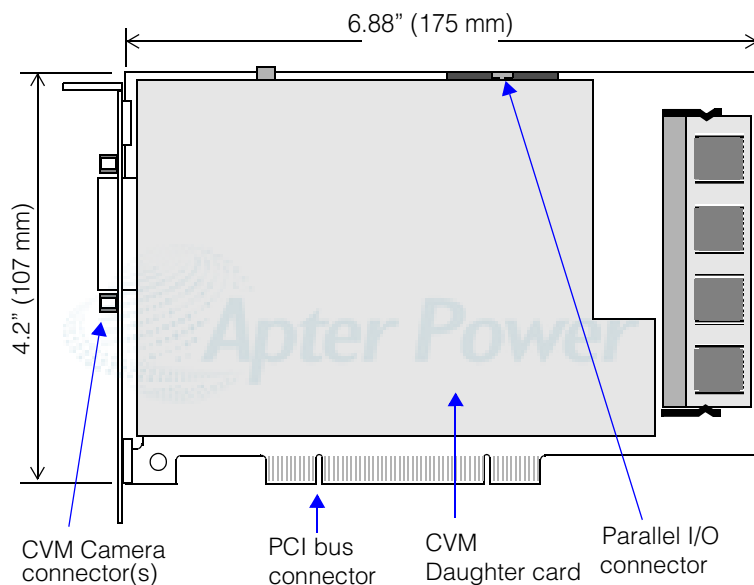


Figure 12. MVS-8120 frame grabber layout

A Cognex Video Module (CVM) daughter card is factory-installed on the MVS-8120 board. The configuration and number of connectors on the CVM depends upon the CVM installed.

Environmental Requirements

Table 5 lists the environmental requirements for the MVS-8120 frame grabber. These specifications are for the environment inside the PC where the MVS-8120 is installed.

	Operating Conditions	Storage Conditions
Temperature	0° to 50° C	–40° to 65° C
Humidity (non-condensing)	10% to 90%	10% to 90%

Table 5. Environmental requirements for the MVS-8120

Shipping

All Cognex MVS-8120 frame grabbers are shipped in protective packaging and antistatic bags. Save all packing materials in case you need to ship the MVS-8120.

Standards

The MVS-8120 is designed and manufactured to meet the following worldwide standards for safety, electromagnetic compatibility, and electrostatic sensitivity when installed in a compliant PC enclosure:

European Community

- Safety: EN 60 950, EN 60 204-1
- Electromagnetic emissions: EN 55 022 Class A
- Electromagnetic compatibility: EN 50 082-1

United States

- Underwriters Laboratories
 - Safety: UL-1950
 - Flammability: UL 94V-0
- Code of Federal Regulations Part 15: Federal Communications Commission Class A radio frequency emissions standard