

# Avocent HMX Extender System

## Matrix Switching System with Remote Access to Computer Resources over IP Network

Infrastructure Management & Monitoring for Business-Critical Continuity™

### Key Technical Features

#### Rich User Experience:

The user gets a rich computer experience, even though the computer is located remotely, including:

- Single or dual head DVI video up to 1920x1200
- USB 2.0 compatibility supporting many types of USB devices
- CD audio
- USB keyboard/mouse
- Interoperability between HMX1070 and 2050 families
- Full matrix switching capability
- Allows for USB keyboard/mouse plus USB human interface device, including pen tablets, touch screen monitors, jog/shuttle wheels, CAC readers and more

#### Central Management:

Manage the HMX extender solution from one central console, including one database to manage user authentication and access. The HMX Manager includes features such as:

- Flexible Access Modes
- Logging and Reporting
- Desktop Pooling

#### Secure Access:

128-bit AES encryption on all data passing through the network and an authentication guarantee assuring that access to any computing resource is managed securely

#### Ethernet Operation:

Allows the computer and user to be located anywhere on the GIG-e required network with full routing of data across routers, switches and subnets

#### Full Hardware Solution:

No software or drivers required; provides access regardless of the state of the operating system (OS) or BIOS

#### Digital KVM Matrix:

- A powerful upgrade to traditional analog KVMs
- Full matrix switching over TCP/IP

### ORDERING DETAILS

PART #	DESCRIPTION
HMXMGR	HMX management appliance
HMX 1050	HMX user station, single-head DVI-I
HMIQDI	HMX IQ module/transmitter, single-head DVI-I
HMX 1070	HMX user station, Single-head DVI-I
HMIQSHDI	HMX module/transmitter, single-head DVI-D or VGA
HMX 2050	HMX user station, dual-head DVI-I
HMIQDHDD	HMX IQ module/transmitter, dual-head DVI-D

Note: The 1050/HMIQDI does not communicate with other models

## Extend your desktop any distance from the computer over a standard TCP/IP network using HMX extender system access over IP solutions

Access over IP solutions are designed for desktop administrators who need to physically separate the computer from the user in the work environment. Physical separation of computer and user can be critical where security and/or environmental issues are major concerns. The Avocent HMX extender system access over IP solution provides the ideal solution for these environments. The HMX system can be easily deployed over a local area network (LAN) and supports a comprehensive range of peripherals, including DVI-I video, CD audio, USB mass storage, keyboard, mouse and many USB devices. The HMX Manager provides administration and connection management control from a central location, enabling the desktop administrator to effectively and efficiently manage the desktop computing resource without compromising the user experience.

### Enhanced Security

In many modern organizations, the competitive advantage, revenue and profitability of the organization are becoming increasingly dependent on the efficient use of computing resources and technology. In fact, more often than not, the revenue of a company may be directly dependent on or produced by the computing resources of the company. HMX takes proactive steps to protect the data and intellectual property that is crucial to the long term success of the company through a unique two part approach to added security.

While many companies security is strictly focused on external threats HMX allows companies to easily add more internal security measures. HMX can significantly limit the potential physical threats from accidental damage and unauthorized access to equipment by removing hardware from the user environment and allowing companies to move expensive equipment to secure centralized locations.

In addition system administrators can implement HMX to require secondary user authentication via the HMX interface as an extra layer of security with full centralized authentication and detailed access logs.

### Award-Winning Solution

The technological breakthroughs that the Avocent HMX extender system introduced to the industry have garnered significant and wide spread recognition and have allowed HMX to be the technology leader in the KVM extension segment.

This leadership position is illustrated by HMX being recognized as the only Digital KVM over LAN solution to receive the coveted STAR and Mario Awards given by TV Technology.



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### Extending the Reach of the Computer

Many companies would like to extend and expand the reach and use of computers in the workplace. The challenges presented to the desktop administrator in this environment are very different than those encountered in a typical desktop/office environment.

The challenges/problems include:

- Local environment of the computer may not be suitable for a person because of noise, heat, chemical or dust pollution; electromagnetic fields; or excessive vibration
- Operator needs to operate several machines or pieces of equipment from one central location
- Noise and heat of the computer may not be desirable in the vicinity of the working location
- Administrator needs to provide redundancy to control computers and prevent downtime of the production line
- Avoiding budget overruns by setting a maximum threshold of power usage
- Working conditions can be impacted by the proximity of a computer (i.e., test labs, sterile lab environments, etc.)
- Supports shared viewing and control of computers from multiple locations

All of these problems can be solved by moving the computer and/or user and employing the Avocent HMX over IP extender system solution.

### HMX Manager

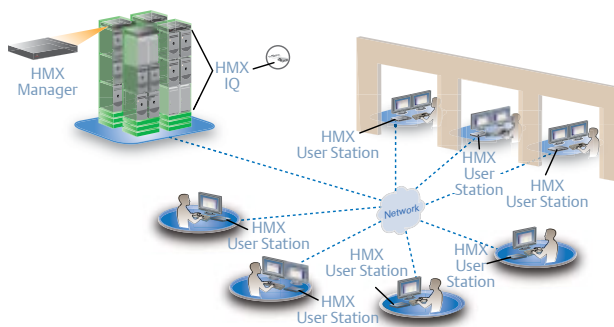
The HMX Manager provides administration and connection management for Avocent HMX system components along with a rich suite of access profiles and internal authentication options. The HMX Manager is delivered as a hardened appliance with secure browser-based access. The HMX Manager can be connected to two simultaneous networks, allowing one network to be used for deployment of the HMX system and the other network to be used by the desktop administrator to monitor, manage and control the HMX system. The HMX Manager makes firmware upgrades fast and easy, provides detailed reporting—including authentication connect/disconnect details and provides e-mail-based alerting for administrators.

### HMX User Stations

Users can connect to a comprehensive range of peripherals using a number of different HMX user stations. User station selection depends on the type and number of displays to be supported and the video to be shown on these displays. The HMX user station has an Ethernet connection to allow for connection to the TCP/IP network and to communicate across the network to a Computer Interface Module. All information and data received from the Computer Interface Module is encrypted to 128-bit AES SSL.

### HMX IQ Modules/Transmitters

Target computers can be connected to the TCP/IP Area Network using a number of different HMX IQ modules (also called transmitters). HMIQ modules or HMX IQ modules selection depends on type and number of displays to be supported and the video that is generated by the computer. All HMX IQ modules/transmitters are hardware based and require no software or drivers to be loaded onto the target computer. All HMX IQ modules/transmitters are OS independent, enabling the solution to function with Windows®, Mac®, Linux or Unix computers.



## Increased Productivity and Efficiency

**Reliability and Service:** In the event of a fault, users can be “remapped” to an alternate computer, thus reducing their downtime and improving the service provided by the desktop administrator.

**Increased Productivity:** Remapping the user to another computer enables the desktop administrator to conduct fault analysis and repairs “offline,” ensuring there is no impact on the productivity of the user.

**Access:** Placing the computers in a central location simplifies the desktop administrator’s task of gaining access to the computers.

**Ease of Migration:** Desktop administrators can easily install and deploy new computing resources. Migrating users is achieved without impacting productivity, ensuring users gain access to the latest versions of computing power without disruption.

**Improved Virus Control:** The computers are now situated remotely from the user, so the introduction of virus-infected files is more difficult and, through the use of appropriate software policies, can be eliminated completely.

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