MAXPRO-Net System

VIDEO MANAGEMENT SYSTEM

Honeywell's MAXPRO-Net system is a premium level video and audio management system that is intelligent and highly expandable. It is well suited to integrating the video matrix with current and future digital networking video recorders and other security control solutions such as access control, fire, building management, intercom and perimeter systems.

The MAXPRO-Net System is composed of the MAXPRO-Net Server and associated switching and control hardware. The MAXPRO-Net Server is the system CPU and is Honeywell's enterprise level, Windows-based video management system. The server offers flexibility and customization through an extremely powerful macro language and supports up to 10,000 inputs and 256 outputs on a single node. Ethernet connectivity allows for connection to peripheral devices, network nodes and remote administration over LAN/WAN.

The MAXPRO-Net System offers redundant servers through the use of the MegaPIT hot changeover device. The MegaPIT also acts as a serial port expander for connection to matrix switching bays, keyboards, PTZs and device control hardware, and other security control interfaces.

Video and audio switching is handled by the ultra compact VideoBloX switching and control hardware. The standard 64 output bus chassis offers unparalleled space over competitive systems. Simple RJ45 video interconnecting between chassis allows for clean, compact system designs. Matrix inputs can either be traditional BNC or UTP (RJ45). UTP inputs further simplify system design by incorporating the active UTP receiver and switching hardware on one 16 channel input board. Major PTZ protocols are supported and new device control protocols can be incorporated through macro language programming.

Market Opportunities

The MAXPRO-Net System is ideal for any new or retrofit security or surveillance application. From small video matrix switch environments, to complete network integrated systems found in casinos, retail outlets, health care facilities, correctional institutions, airports and other locations that require multiple security components. The power and flexibility of MAXPRO-Net is designed to meet the challenges of today's growing security needs.

Features

- Intuitive installation wizards for simple and fast basic setup
- Remote monitoring and configuration over Ethernet
- UltraKey support over Ethernet
- Plug and play, position independent, modular system
- Distributed processing for switching bays
- High quality images, near broadcast quality performance
- High density compact design
- Flexible, ultra powerful macro language
- Large library of PTZ protocols
- Configuration updates done without a reboot
- High level interface for integration with third party matrix switchers, digital recording equipment, access control and alarm management systems
- Customizable touch screen controllers (UltraKey)
- Patented features
  - PTZ Call , PTZ Flashback
  - Recorder Management
  - Logical Camera Selection

MAXPRO-Net System

SPECIFICATIONS

CPU

The MAXPRO-Net System server is a high performance Windows CPU that communicates with input devices such as keyboards, alarm I/O and third party systems through a PCI 8–port serial card and onboard Ethernet connection.

MegaPIT, 10 Channel Auto Changeover

MegaPIT is used to combine two MAXPRO-Net Servers to increase system reliability with automatic changeover in the event of a CPU failure. MegaPIT serves as a port expander to attach multiple keyboards, chassis and other peripherals that communicate with the MAXPRO-Net Server. Connectivity is a combination of RJ11/RJ45 with RS232/RS485/RS422 and Ethernet supported. Ports are multi-functional allowing for keyboards, chassis and PTZ data from the same unit.

Chassis with Video Input, Output Modules and Chassis Interlinking Modules

Designed specifically to reduce the space required for a matrix switch, the chassis has a high density, low profile format. It will mount in an industry standard 19 inch rack and has a depth of less than 10 inches. The compact design reduces rack size, saves space, limits the amount of interconnection cabling, produces less heat and is easier to install – all of which adds up to lower installation and maintenance costs. System chassis are available in 2U, 4U, 8U and 12U sizes and all except the 2U support 64 output bus channels.

Power and data connectivity to I/O modules are provided by the chassis in a hot swappable, position-independent environment. Removal of any input/output module is done without disconnecting cables by using the rear termination panels. Multiple chassis can be interlinked – providing the system designer with the flexibility of distributing the system throughout the site or even to remote sites with the appropriate communications network.

The chassis includes a power supply module, which connects to the main power, preferably an uninterruptible power source (UPS). A secondary 24 VDC power supply provides added security and system availability.

Composite video is received into the chassis through the 16 channel BNC rear termination panel or in the case of the unshielded twisted pair (UTP) input board through four RJ45s. Three versions of video input boards switch video from the 16 inputs to any one of 16, 32 or 64 output bus channels. Each video input board performs video loss detection and incorporates its own processor and power regulation for true distributed processor architecture.

Video output modules connect 16 of the available 64 output bus channels to monitors or other video receivers. The rear termination consists of 16 BNCs. Video output modules overlay system titling in a 16 line by 44 character array with changeable fonts and multi-language character support.

Keyboards, UltraKey Plus

The UltraKey Plus (HJK7000) flexible touch screen control solution. With RS232/RS422 or LAN connectivity. Touch screen menu's can be created and customized to suit many applications. A touch wheel is used for DVR/NVR control.

Keyboard, HJC5000

The UltraKey Lite (HJC5000) provides a cost-effective joystick control solution. With RS232/RS422 or LAN connectivity and configurable keys to suit custom MAXPRO-Net software. A touch wheel is used for DVR/NVR control.

Video Input/Output Modules

Composite video is received into the chassis through the 16 channel BNC rear termination panel or, in the case of the UTP input board, through four RJ45s. Three versions of video input boards switch video from the 16 inputs to any one of 16, 32 or 64 output bus channels. Each video input board performs video loss detection and incorporates its own processor and power regulation for true distributed processor architecture.

Each Input card has power and communications LED and the UTP card has LEDs for each video input. UTP input modules have a range selection for 0-1500' and 1500-3000' as well as a gain potentiometer for each input. Additional versions of rear termination allow video to be looped out of the chassis, either using BNCs or an IDC style mini coax cable to a remote rackmount BNC panel.

Video output modules connect 16 of the available 64 output bus channels to monitors or other video receivers. The rear termination consists of 16 BNCs. Video output modules overlay system titling in an 18 line by 44 character array with changeable fonts and multi-language character support. The video output module contains a web browser that allows the system firmware to be upgraded remotely.

Alarm Input/Output, PTZ Data and DVR Control
GPIO Module

The GPIO module fits in the VideoBloX chassis and occupies 1/2U. It has 4 PTZ data ports that are individually selectable between 3 Honeywell and 5 other manufacturer PTZ protocols. The GPIO also has a unique "user defined protocol" that allows the end user to program a protocol that the GPIO may not support.

The GPIO supports 24 (N/O, N/C or EOL) alarm inputs and four relay outputs. The module has an Ethernet port for firmware upgrading and local board configuration. One of the PTZ ports can be configured to control third party devices. This requires the serial control protocol of that device to be added to the NetCPU devices database.

Data Port Expander (DPE)

The Data Port Expander is a 1 input/16 output 1U RS422 data distributor. DPE is used to connect multiple devices such as chassis and PITs to the controlling source.

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Operational	
Server	
Motherboard	Intel Pentium Dual Core 3.2 GHz, 2 GB, XP OS, 250 GB Hard Drive
Ethernet	Port 1 10/100 RJ-45
Serial	Moxa 8 Port x RS232 DB9 (PCI) 1 x RS232 DB9 on board
Software	
Database	Microsoft SQL Desktop Engine
Supported Video Input	Fixed and PTZ Cameras, VCR/NVR, Smart and Standard Devices, Trunk Video Inputs (Networked System), Black Source
Supported Video Outputs	Monitors, VCR/NVR, Smart and Standard Devices, Trunk Video Inputs (Networked System), Black Source
Input Descriptors	18-character description
Source Groups	99, used for partitioning
Video Fail Detection	Each input
Operator Priority Levels	Up to 99
Operators	Up to 99
Keyboards	Up to 99
Inputs	10,000
Pseudo Digits	4 digit
Outputs	256 per node
Nodes	99
Alarm Inputs	30,000
Alarm Outputs	10,000
Chassis	
Video Inputs	16 BNC or RJ45 for UTP option
Bandwidth*	20 MHz @ -3 dB
Frequency Response*	12.1 @ ±0.5 dB
Differential Gain*	0.35%
Differential Phase*	0.78°
Luminance Non-Linearity*	.48%
Crosstalk*	-62.8 dB @ 3.58 MHz
Gain*	99.9%
Tilt*	.94%
Signal to Noise Ration (EIA)*	-70.3 dB
Switching time	<0.5 sec
Video Outputs	16 BNC
OSD	16 Lines x 44 Characters
Connection	8 Port RS232 DB9, expandable to 20 ports

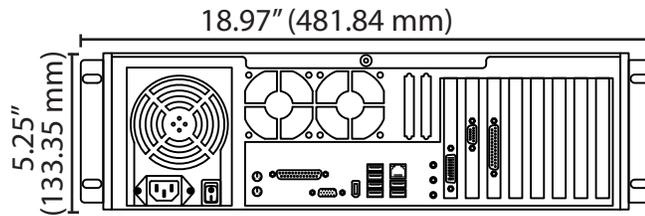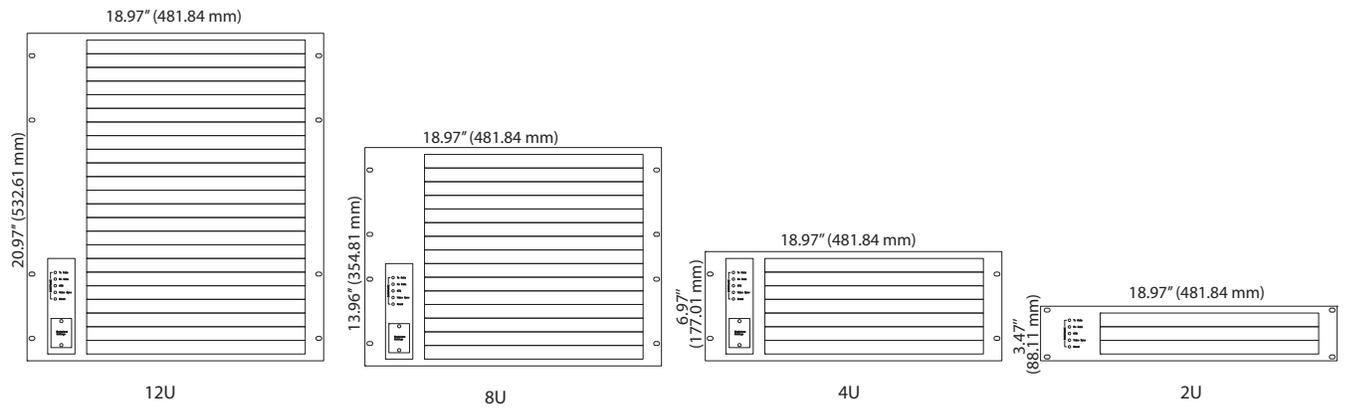*Test condition: 12U chassis, 160x64 BNC input NTSC

Electrical	
Input Voltage	Chassis: 110/220 VAC 50/60 Hz Redundant Chassis: 24 VDC as a backup supply MAXPRO-Net Server: 110/220 VAC 50/60 Hz
Power Consumption	Chassis: 2U - 40 VA 4U - 80 VA 8U - 120 VA 12U - 160 VA MAXPRO-Net Server: 400 VA
Mechanical	
Construction	Chassis: Brushed stainless steel MAXPRO-Net server: Steel, Black
Dimensions (W x H x D)	See Line Drawing
Weight	2U Chassis: 15 lbs (6.8 Kg) 4U Chassis: 30 lbs (13.6 Kg) 8U Chassis: 60 lbs (27.2 Kg) 12U Chassis: 90 lbs (40.8 Kg) MAXPRO-Net Server: 45 lbs (20.4 Kg)
Environmental	
Temperature	32°F to 104°F (0°C to 40°C)
Relative Humidity	5-95% non-condensing

MAXPRO-Net Master

MAXPRO-Net Slave

MegaPIT

UltraKey

HMX1600

Alarm In

Control Out

12U Chassis

12U Chassis

X64

UTP Option

110 Block

Encoder

Enterprise Server

SCSI

SCSI

Raid 5

UltraKey

LAN

High Level Interface (HLI) with Decoder

MAXPRO-Net System

SPECIFICATIONS

18.97″ (481.84 mm)

20.97″ (532.61 mm)

12U

18.97″ (481.84 mm)

13.96″ (354.81 mm)

8U

18.97″ (481.84 mm)

6.97″ (177.01 mm)

4U

18.97″ (481.84 mm)

3.47″ (88.11 mm)

2U

18.97″ (481.84 mm)

5.25″ (133.35 mm)

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www.honeywellvideo.com

ORDERING

Ordering	
CPU and Software	
MAXPRONET	MAXPRO-Net server and system software for two system controllers and unlimited users - 8 Serial Ports
Chassis	
HVB12U (NTSC) HVB12UX (PAL)	VideoBloX Chassis - 12U, supports 23 modules, maximum size is 336 inputs by 32 outputs or 304 inputs by 64 outputs,
HVB8U (NTSC) HVB8UX (PAL)	VideoBloX Chassis - 8U, supports 15 modules, maximum size is 208 inputs by 32 outputs or 176 inputs by 64 outputs,
HVB4U (NTSC) HVB4UX (PAL)	VideoBloX Chassis - 4U, supports 7 modules, maximum size is 80 inputs by 32 outputs or 48 inputs by 64 outputs
HVB2U (NTSC)	VideoBloX Chassis - 2U, supports 3 modules, maximum size is 32 inputs by 16 outputs. Requires 18 VAC or 24 VDC power
Video and Audio Input and Output Modules	
HVBM16	Video and Audio Input Module - 16 Inputs into 16 Outputs with BNC Terminals - Terminating
HVBM32	Video and Audio Input Module - 16 Inputs into 32 Outputs with BNC Terminals - Terminating
HVBM64	Video and Audio Input Module - 16 Inputs into 64 Outputs with BNC Terminals - Terminating
HVB16M64ATP	Video Input Module - 16 Input into 64 Outputs with active UTP receivers on RJ45 and IDC ribbon looping output
HVB16M64TP	Video Input Module - 16 Input into 64 Outputs with active UTP receivers on RJ45 and with BNC looping out
HVB16M64Y	Video Input Module - 16 Input into 64 Outputs with IDC Ribbon Cable input and looping BNC Terminal outputs or reverse
HVB16M64B	Crosslink Style "B" rear termination for video output capacity expansion beyond 128 Outputs - Rear termination only
HVB16COAX2M	Crosslink ribbon cable - 16 channel video coax interconnect – 79" (200cm) long. Use with HVB16M64B and HVB16M64Y
HVBNET16TO	Video Output Module - 16 Outputs with titles with BNC Terminals
HVB16AO	Audio Output Module - 16 balanced outputs

Ordering Continued	
Chassis Interlink Modules	
HVB32LKI	Video Interlink Input Module with RJ45 Interconnections - 32 Interlinks, for connecting chassis for input expansion
HVB32LKO	Video Interlink Output Module with RJ45 Interconnections - 32 Interlinks, for connecting chassis for input expansion
Chassis Accessories	
HVB16MLP	Rear Termination Panel with 16 looping inputs, 1U
HVB2BLANK	Blank Cover Set (front and rear), 1U
HVBBLANK	Blank Cover Set (front and rear)
Keyboards	
HEGSA002	UltraKey MAX-1000 keyboard with programmable touch screen display. Includes 12 VDC transformer.
HEGS5300	Full function MAX-1000 keyboard with 3D joystick and generic lexan overlay. 12 VDC transformer included.
PTE102	Line Driver Set - RS232 to RS422 to RS232 Required if keyboard is more than 50 feet from CPU.
Data Port Expanders	
HS10PIT	MegaPIT, RS232/RS422 Port expander and Auto changeover unit (Failover)
HVB232422	Optically Isolated RS232 to RS422 converter
HVB422C4	RS422 4 Channel Combiner/Splitter
HVB422FT16	RS422 Data Port Expander/Repeater 16 Channel, rack mountable

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ORDERING

Ordering Continued	
PTZ Data and Alarm Inputs/Outputs	
HMX1600	Input/Output Subrack, 16 Channels
RD105	Subrack Controller card for HMX1600
RD316	PTZ - HRHD DVR Control Module, 16 devices per card (RS422/Manchester Code) Use with HMX1600
MX440	Relay Output Module, 8 Channel, use with HMX1600
RD400	Alarm Input Module, 8 Channel, use with HMX1600
HMXPS9	Power Supply for HMX1600, 4 Port
HVBPIT44	RS422 In and RS422 Out - Primarily used to control domes and PTZ units with VB protocol
HVBI2C16I	0.45" I²C 16 Alarm Input Interface unit - For use with dry contact points - stainless housing
HVBI2C16O	I²C 16 output 1A/channel - total max. current 8A - stainless housing
Cables	
HVBD9FF1	PC to VideoBloX 9 pin serial cable with female ends, straight through (pin to pin) connection 12" (30 cm) long.
HVBD9FF6	PC to VideoBloX 9 pin serial cable with female ends, straight through (pin to pin) connection - 72" Long (183 cm)
HVBD9FF15	PC to VideoBloX 9 pin serial cable with female ends, straight through (pin to pin) connection - 180" Long (457 cm)
HVBD9MM1	RS422 to VideoBloX 9 pin serial cable with male ends, straight through (pin to pin) connection – 12" long (30 cm)
HVBD9MM6	RS422 to VideoBloX 9 pin serial cable with male ends, straight through (pin to pin) connection – 72" long (183 cm)
HVBD9MM15	RS422 to VideoBloX 9 pin serial cable with male ends, straight through (pin to pin) connection – 180" long (457 cm)
HVBD9M15ST	RS422 to VideoBloX 9 pin serial cable with male ends, cross over (use with HVBMATPIT43) – 180" long (457 cm)

Miscellaneous	
HVB16VDA3	Chassis Distribution Amplifier - 16 inputs with 3 outputs per input
HVBBLXMTNG	Rack Mounted Plate for Alarm Terminal and PIT or I²C Modules
HVBPITMTNG	Rack mounted plate for PIT or I²C modules
HVBMATPIT43	RS422 In and RS232 Out - Used to convert MAX SUB data to VB Backplane comms
HVB16TPTX	UTP Transmitter 16 Port Active with RJ45. Does not include power supply, Transformer Model number N8167

NOTE: Honeywell reserves the right, without notification, to make changes in product design or specifications.

Honeywell