VideoBloX Lite System

EMBEDDED VIDEO MATRIX

Honeywell's VideoBloX Lite Matrix System is a robust crosspoint video and audio matrix switch solution for applications with up to 96 cameras. Versatile in design, it makes integration to access control and other systems possible through a simple auxiliary control protocol. Its compact size and rugged chassis are designed to withstand harsh environments and require limited maintenance.

The VideoBloX Lite embedded CPU is a ½U size module programmed using Windows-based configuration software and includes eight titled outputs, eight alarm inputs and two relay outputs. The system can be scaled in size from 16x8 to 96x8 inputs and outputs. If the application involves multiple sites, systems can be networked together over a RS422 data connection and video trunks. Should your site grow beyond 96 camera inputs, the VideoBloX Lite CPU can be replaced with a standard VideoBloX CPU or a MAXPRO-Net CPU.

An easy-to-use sequence engine allows customization of system events. Programmed actions can be triggered by alarms, by time of day or by key presses on the HEGS5BLX keyboard as well as external triggers through the auxiliary port. The HVBPIT44 can be added to interface with serial device such as multiplexers or PTZ domes. When combined with the HEGS5BLX keyboard, the VideoBloX Lite System can control DVRs and up to 25 types of PTZ domes.

Market Opportunities

The VideoBloX Lite System is ideal for installations which require a high density video matrix with minimal maintenance. VideoBloX Lite is well suited to sites that are controlled locally such as retail outlets, correctional facilities, and airports.

Features

- Stainless steel fabrication

- High density, low profile design

- Modules are position independent

- Modules are "hot-swappable"

- Configuration updates done in real time, most without system interruption

- Powerful 1024x25 line sequence engine for custom event handling

- Powerful onscreen diagnostic monitoring tools

- Supply voltage monitor and internal processor watchdog

- Available Graphical User Interface for control without a keyboard

- Groups and scenes allow for logical camera selection

VideoBloX Lite System

SPECIFICATIONS

Combined Central Processing Unit (CPU) and Output Modules

The VideoBloX Lite System is an embedded CPU that contains many features to ensure its reliability – including a watchdog timer and supply voltage monitoring. The CPU communicates with peripherals through the rear termination panel utilizing four serial ports. Rear connectors on the unit provide an RS232 connection to the configuration PC and GUI control (only required for system configuration and editing), an RS232 connection for auxiliary control (e.g., an access control system), an RS422 connection for keyboards and protocol interface translators, a removable terminal block for the connection of eight alarm inputs and two control outputs and an I2C (a communications protocol) connection for alarm and control expansion.

Chassis and Video Input Modules

Constructed of brushed stainless steel, the chassis is available in 2U and 4U sizes and provides power and data connectivity to Input/Output (I/O) modules. Installed in the matrix chassis, the video input module occupies only a ½U slot, making it smaller and more efficient than PC-based switchers. Video input modules provide capacity for up to 16 BNC video inputs being switched to any of the eight video outputs on the rear termination panel of the CPU module. Front panel gain adjustment enables fine-tuning of the image and BNC connectors are provided on the rear termination panel. Each video input board performs video loss detection and incorporates its own processor and power regulation for true distributed processor architecture. An optional module provides looping connectors; however the module then increases to a 1U height. The input modules are hot swappable and are in a position independent environment. Due to the use of rear termination panels, removal of any input module can be done without disconnecting cables.

HEGS5BLX Keyboard

The HEGS5BLX is a programmable joystick keyboard controller. The keyboard provides the operator with full control of VideoBloX Lite. Basic functions such as switching video inputs to video outputs, controlling high speed domes and DVRs are all easily performed using the 16 multipurpose function keys. The function keys can be mapped to groups, scenes or sequences for a quick view of selected cameras. Firmware can be upgraded to internal flash memory through the serial port.

Protocol Interface Translator (PIT)

The PIT is a versatile device that provides the capability for interface to high speed PTZs and also converts VideoBloX protocol to that of other manufacturers – enabling retrofit installation to third party equipment. The VideoBloX System supports protocol from Honeywell and up to 25 other manufacturers utilizing RS232/RS485. Simple dipswitch configuration selects a variety of protocols through

Data Port Expander (DPE)

Two sizes of RS422 Data port expanders are available. The HVB422FT16 is a 1 input/16 output 1U RS422. The HVB422C4 is a 1 input/4 output data distributor. The DPE is used to connect multiple devices such as chassis and PITs to the controlling source.

Alarm Input/Output

Alarm inputs are utilized to activate sequence actions in response to alarm conditions. The CPU incorporates eight alarm inputs and two relay outputs. If additional alarm I/Os are needed, alarms can also be received using a PIT module on the RS422 port with the 16 channel I²C expansion modules connected to the PIT. This provides a total of 80 additional alarm inputs or control outputs or any combination of the two.
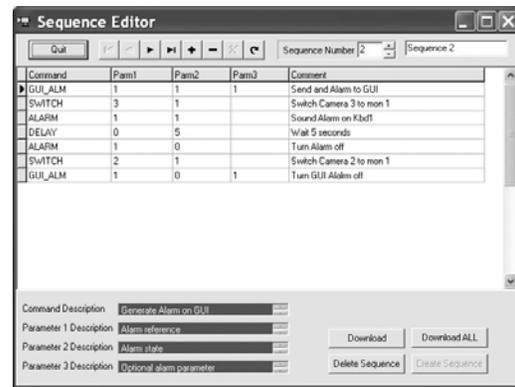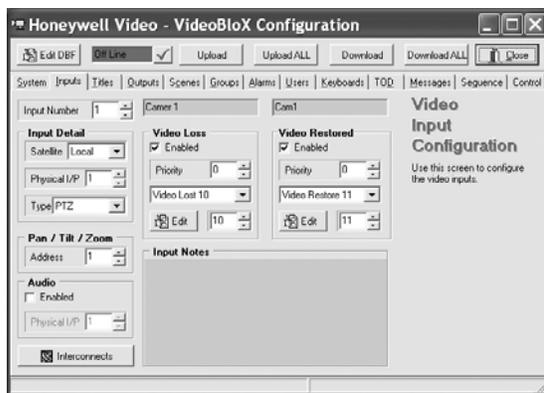
VideoBloX Lite System

SPECIFICATIONS

VideoBloX Configuration Software (VideoCFG)

The Windows-based configuration application enables the configuration software is a 32-bit application that is compatible with Windows 95/98/NT/2000, and provides easy-to-use programming for system configuration. The software is installed in a PC that is only required for system configuration and editing. It does not have to be permanently connected to the VideoBloX Lite CPU.

The system utilizes a 32-bit, ODBC-compliant, Borland Paradox 7.0 database manager. Data is organized into tabbed folders, each representing a logical function. Information is entered into named fields or selected from lists of parameters. Interactive "help" is available to assist the user. For the more experienced operator, system programming such as input/output configurations, system sizing, and group or scene configuration can be configured using the VideoCFG software.

VideoGUI Software

VideoGUI is a Graphical User Interface application run on a Windows-based PC. User access control is limited by user logon and associated keyboard credentials configured in the VideoBloX Lite CPU. PTZ control, camera switching, direct start and stop of sequences are controllable from the desktop. Flashing alarm icons are possible when using the AVServer application which allows the GUI to connect to the VideoBloX Lite CPU in a server client basis.

Custom device front panels can be designed through the Designer application installed with GUI. Graphic backgrounds are imported with *.wmf, *.jpg or *.bmp files. These may reside on network drive locations. Multiple sites consisting of multiple areas can be configured with tabs or icons.
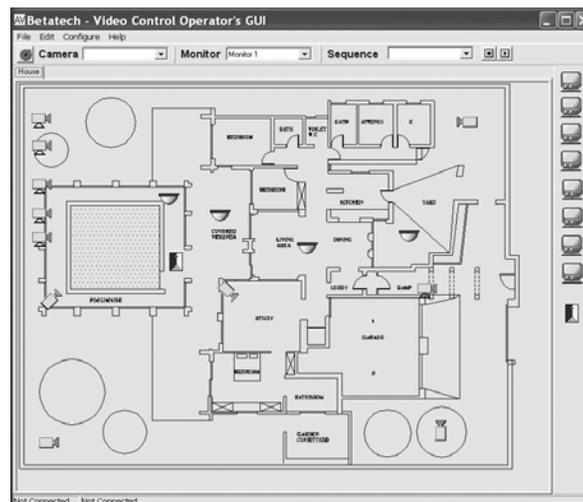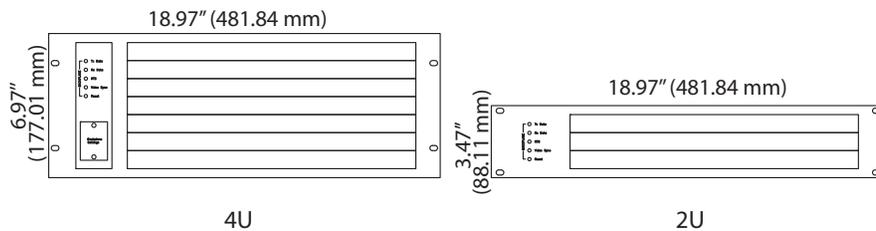
VideoBloX Lite System

SPECIFICATIONS

Operational	
Video Inputs	16 BNC
Bandwidth*	20 MHz @ -3db
Frequency Response*	12.1 @ ±0.5db
Differential Gain*	0.35%
Differential Phase*	0.78°
Luminance Non Linearity*	.48%
Crosstalk*	-62.8db @ 3.58 Mhz
Gain*	99.9%
Tilt*	.94%
SNR (EIA)*	-70.3 db
Switching time	<0.5 sec
Video Outputs	16 BNC
OSD	16 Lines x 44 characters

*Test condition: 12U chassis, 160x64 BNC input NTSC
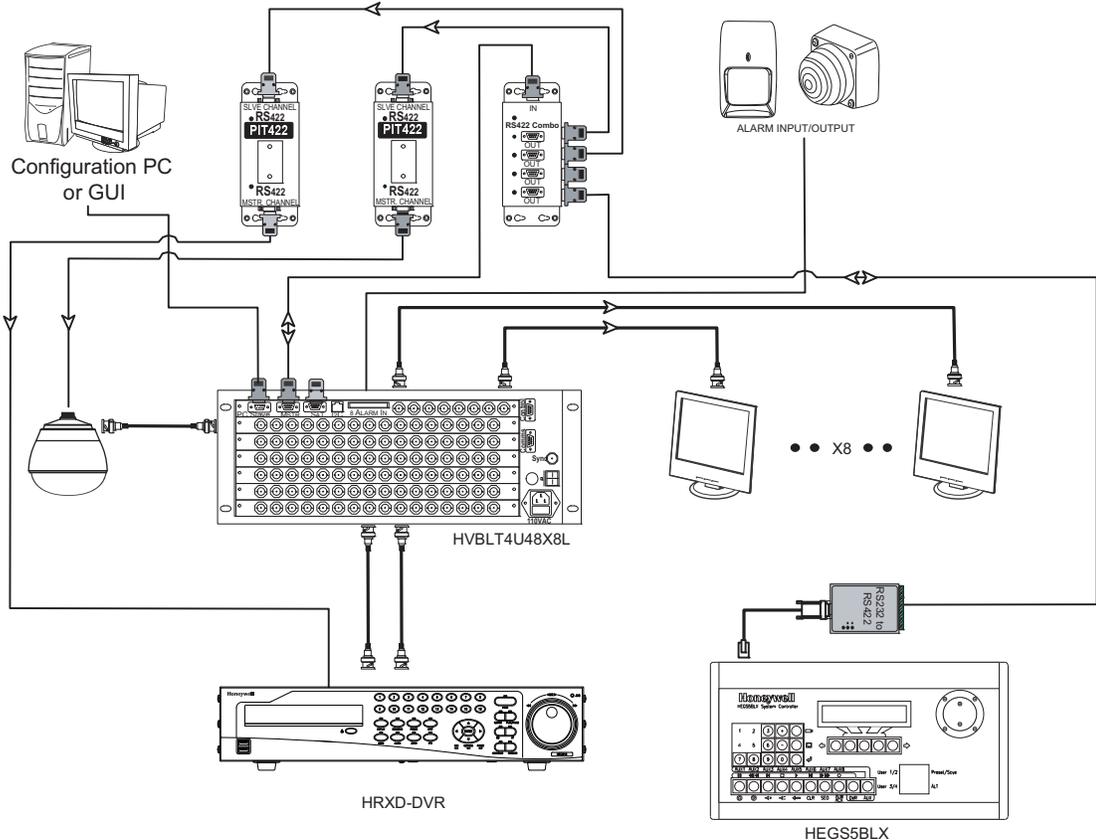
Electrical	
Chassis	2U: 24V AC 4U:110V/50 Hz or 220V/60 Hz AC
Chassis Redundant	24 VDC as backup supply (4U Only)
Power Consumption	2U: 40 VA 4U: 80 VA
Mechanical	
Construction	Chassis: Brushed stainless steel
Dimensions (W x H x D)	See Line Drawing
Weight	2U Chassis: 15 lbs (6.8 kgs) 4U Chassis: 30 lbs (13.6 kgs)
Environmental	
Temperature	32°F to 104°F (0°C to 40°C)
Relative Humidity	0–80% non-condensing
Regulatory	
Emissions	FCC Part 15, Subpart B, Class A CE: 61000-6-3:2007
Immunity	CE: 50130-4/A2:2003
Safety	CE: EN60065

18.97″ (481.84 mm)

6.97″ (177.01 mm)

4U

18.97″ (481.84 mm)

3.47″ (88.11 mm)

2U

Configuration PC
or GUI

SLVE CHANNEL
RS422
PIT422
RS422
MSTR. CHANNEL

SLVE CHANNEL
RS422
PIT422
RS422
MSTR. CHANNEL

IN
RS422 Combo
OUT
OUT
OUT
OUT

ALARM INPUT/OUTPUT

ALARM IN

Sync

110VAC

HVBLT4U48X8L

X8

RS232 to
RS422

Honeywell

HRXD-DVR

Honeywell
HEGS5BLX System Controller

User 1/2
User 3/4
Preset/Size
Alt

HEGS5BLX

VideoBloX Lite System

ORDERING

Ordering	
CPU and Software	
HVBLCPU (NTSC) HVBLCPUX (PAL)	Embedded CPU Controller and 8 Channel titled outputs, includes CPU module and rear termination. No accessories included.
WACPUACC	Accessories for CPU Controller, includes software, documentation and data cable. For use with HVBLCPU/HVBLCPUX
Chassis	
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	VideoBloX Chassis - 2U, supports 3 modules, maximum size is 32 inputs by 8 outputs. Requires 18 VAC or 24 VDC power.
HVB2U-KT	HVB2U and 24 VDC power supply
Video Input and Output Modules	
HVBM16	Video Input Module - 16 Inputs into 16 Outputs with BNC Terminals -Terminating
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	
HEGS5BLX	Control Keyboard with integral zoom joystick. Includes power supply for all regions.
HEGS5BLXKT	Includes HEGS5BLX and RS232-RS422 converter required for connection to CPU
Alarm Inputs/Outputs	
HVBI2C16I	I²C 16 Alarm Input Interface unit - For use with dry contact points - stainless housing
HVBI2C16O	I²C 16 output 1A/channel - total max. current 8 A - stainless housing

Ordering Continued	
Data Port Expanders	
HVB232422	Optically isolated RS232 to RS422 converter
HVB422C4	RS422 4 Channel Combiner/Splitter
HVB422FT16	RS422 Data Port Expander/Repeater 16 Channel, rack mountable
Protocol Interface Translator	
HVBPIT44-US	Protocol Interface Translator - RS422 In and RS422 Out - Primarily used to control Domes and PTZ units. -Common protocols and unit numbers per PIT - Pelco "D" - 255, Pelco "P"-32, Diamond/Ultrak - 128, American Dynamics RS485 - 64, VCL - 128, Vicon - 255. Includes North American power supply
HVBPIT44	Protocol Interface Translator - RS422 In and RS422 Out - Primarily used to control Domes and PTZ units. -Common protocols and unit numbers per PIT - Pelco "D" - 255, Pelco "P"-32, Diamond/Ultrak - 8, American Dynamics RS485 - 64, VCL - 128, Vicon - 255. Power supply not included
Pre Configured Systems	
HVBLT2U16X8	16 Inputs and 8 Outputs - Includes: 2U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT2U32X8	32 Inputs and 8 Outputs - Includes: 2U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT4U16X8	16 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT4U32X8	32 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT4U48X8	48 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT4U64X8	64 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules
HVBLT4U80X8	80 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules.
HVBLT4U96X8	96 Inputs and 8 Outputs - Includes: 4U Chassis, VideoBloX Lite CPU with 8 titled outputs and input modules

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

Honeywell