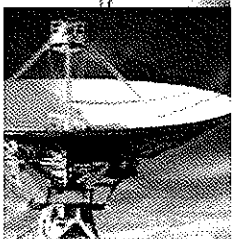




LAUTTAMUS

COMMUNICATIONS



Proposal For
West Virginia
Dept. of Administration

Buyer: TL/32
RFQ No. DJS010296 → 28
Bid Opening Date: 4/27/2011
Bid Opening Time: 1:30 P.M.

Prepared For:
Tara Lyle and
WV Division of Juvenile Services

Call Center
Order Entry
Order Fulfillment
Paging
Security
Alarm Monitoring
Two-Way Radio
Telephone Hotlines
Telemetry
Comm. Towers
CCTV
Access Control
Wireless Comm.
Consulting
Elevator Service
Medical Alerting

www.lauttamus.com 24 X 7 X 365 Customer Care: 866-9ANSWER

RECEIVED

2011 APR 27 A 10: 26

PROCURING DIVISION
STATE OF WV

Submitted By:

Name of Contact Persons: Dave Koehler

Organization: A.V. Luttamus Communications, Inc.

Address: 1344 Cove Hill Road
Weirton, WV 26062

Website: www.luttamus.com

Phone Numbers: 304-723-5555
800-285-2197
304-780-2343

Fax Number: 304-723-1539

E-mail Addresses: davekoehler@luttamus.com

Awards and Honors: Governor Manchin Service Award
Sam Walton Businessman of Year
Ernst and Young Entrepreneur of Year
Rotarian of Year
Who's Who, WV State Journal
WV State Journal, 40 Under 40
WV 211 Call Center Provider
Paul Harris Fellow

References: Mittal Steel
Allegheny Energy
Anchor Hocking
State of West Virginia
American Red Cross
West Virginia University Hospital
Mylan Pharmaceuticals

EXHIBIT 10

REQUISITION NO.: DJ5010296

ADDENDUM ACKNOWLEDGEMENT

I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.

ADDENDUM NO.'S:

- NO. 1
- NO. 2
- NO. 3
- NO. 4
- NO. 5

I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS. VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.

Dave Koelbe
SIGNATURE

A.V. Lattamus COMM INC.
COMPANY

4-25-2011
DATE



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 DJS010296

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 TARA LYLE
 304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE

VENDOR

*AV Lauffamus Comm Inc.
 1344 Cove Hill Road
 Weirton, WV 26062*

SHIP TO

DIVISION OF JUVENILE SERVICES

VARIOUS LOCALES AS
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/18/2011	<i>Net 10</i>	<i>Best Way</i>	<i>Destination</i>	<i>PP & Add</i>
BID OPENING DATE: 04/28/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 3						
1. QUESTIONS AND ANSWERS ARE ATTACHED. 2. ADDENDUM ACKNOWLEDGEMENT IS ATTACHED. THIS DOCUMENT SHOULD BE SIGNED AND RETURNED WITH YOUR BID. FAILURE TO SIGN AND RETURN MAY RESULT IN DISQUALIFICATION OF YOUR BID.						
END OF ADDENDUM NO. 3						
0001	1	LS		840-84	<i>See Attached</i>	
VIDEO SURVEILLANCE SYSTEMS						
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						<u><i>409,380.75</i></u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *Dave A. Kachler* TELEPHONE *304-723-5355* DATE *4-25-2011*
 TITLE *Sales* FEIN *311416682* ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**Request for
 Quotation**

RFQ NUMBER
 DJS010296

PAGE
 2

ADDRESS CORRESPONDENCE TO ATTENTION OF
 TARA LYLE
 304-558-2544

RFQ COPY

TYPE NAME/ADDRESS HERE
 AN. Lauttamus Comm. Inc
 1344. Cove Hill Rd.
 Weirton, WV 26062

SHIP TO

DIVISION OF JUVENILE SERVICES
 VARIOUS LOCALES AS
 INDICATED BY ORDER

DATE PRINTED 03/11/2011	TERMS OF SALE Net 10	SHIP VIA Best way	F.O.B. Destination	FREIGHT TERMS PP & Add
BID OPENING DATE: 04/07/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE MODEL/BRAND/SPECIFICATIONS NAMED HEREIN ESTABLISH THE ACCEPTABLE LEVEL OF QUALITY ONLY AND ARE NOT INTENDED TO REFLECT A PREFERENCE OR FAVOR ANY PARTICULAR BRAND OR VENDOR. VENDORS WHO ARE BIDDING ALTERNATES SHOULD SO STATE AND INCLUDE PERTINENT LITERATURE AND SPECIFICATIONS. FAILURE TO PROVIDE INFORMATION FOR ANY ALTERNATES MAY BE GROUNDS FOR REJECTION OF THE BID. THE STATE RESERVES THE RIGHT TO WAIVE MINOR IRREGULARITIES IN BIDS OR SPECIFICATIONS IN ACCORDANCE WITH SECTION 148-1-4(F) OF THE WEST VIRGINIA LEGISLATIVE RULES AND REGULATIONS.</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>[Signature]</i>	TELEPHONE 304-723-5335	DATE 4-15-2011
TITLE VP	FEIN 311416652	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 DJS010296

PAGE
 3

ADDRESS CORRESPONDENCE TO ATTENTION OF
 TARA LYLE
 304-558-2544

RFQ COPY
 TYPE NAME/ADDRESS HERE

*AV. Lantamas Comm. Inc.
 1344. Cove Hill Rd.
 Weirton, WV 26062*

DIVISION OF JUVENILE SERVICES

VARIOUS LOCALES AS
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
03/11/2011	<i>NET 10</i>	<i>Best Way</i>	<i>Destination</i>	<i>PP&ADD</i>
BID OPENING DATE:	04/07/2011	BID OPENING TIME		01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
SEALED BID						
BUYER: -----				TL/32	-----	
RFQ. NO.: -----				DJS010296	-----	
BID OPENING DATE: -----				04/ ²⁸ 07 /2011	-----	
BID OPENING TIME: -----				1:30 PM	-----	
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
-----				304-232-2476	-----	
CONTACT PERSON (PLEASE PRINT CLEARLY):						
-----				DAVE A. KOEHLER	-----	
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						<i>See Attached</i>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
<i>Chris Lantamas</i>	304-723-5335	4-13-2011
TITLE	FAX	ADDRESS CHANGES TO BE NOTED ABOVE
<i>VP</i>	31 141 6652	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

The Division of Juvenile Services is soliciting bids for Surveillance Equipment to be used at our Detention and Correctional facilities. The equipment will be used to monitor and record the areas of our facilities frequented by the juveniles in our custody. The Contract will be awarded to the lowest bidder based on the projected dollar value of their bid based on our projected usage of the items bid. The projected usage reflected on the attached bid form in no way guarantees that level of purchases will be required, but represents our best estimate of our usage during the contract period.

RFQ# DJS010296 Bid Specifications for Surveillance Equipment

Warranty

The successful bidder shall warrant the functional operation of all procured equipment for three years after date of acceptance.

PART I Products

1.1 GENERAL SPECIFICATIONS

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer's system. DVR system must be compatible with the following existing cameras: ARM C540MDVAI, C540MDVAIDNIR and C620BCDNV FIR, LTC045521, WV-CF224EX and Bosch LTC series.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll-free, 24-hour technical assistance program (TAP) from the manufacturer. The TAP shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge for as long as the product is installed.
- D. All systems and components shall be provided with a one-day turnaround repair express and 24-hour parts replacement. Vendor will have 24 hrs to ship and install replacement parts. All parts will be shipped FOB Destination. The repair and parts express shall be guaranteed by the manufacturer on warranty and non-warranty items. After warranty expiration, the vendor will invoice parts on Cost plus % mark-up basis.

1.1.1 DIGITAL VIDEO RECORDER

- A. The Digital Video Recorder shall be a combination of a database server and video acquisition unit that captures up to 480 ips (NTSC) or 400 ips (PAL) with up to 128 camera inputs and 4 audio channels. The recorder shall provide scalability, allowing an increase in the number of inputs as the need grows. Image capture rates shall be adjustable per camera and be able to increase automatically during an alarm event.

- B. The Digital Video Recorder shall support up to 16 IP cameras in a hybrid configuration and up to four channels of video analytics. The recorder shall be HD-enabled, capable of recording and displaying high-quality images captured by IP cameras with HD technology.
- C. Video from a Digital Video Recorder shall be viewable through a matrix switcher.
- D. The Digital Video Recorder security software shall be IT-focused, with scalable solutions that allow users to manage all data and hardware devices from a single user interface. The system shall be open architecture and allow users to choose IP cameras or encoders that fit the application.
- E. The Digital Video Recorder shall use redundant power supplies to eliminate the power supply as a single point of failure.
- F. The Digital Video Recorder shall be capable of continuous scheduled alarm/event and motion recording. Pre- and post-alarm recording shall also be available and shall be fully programmable on a per channel basis. The Digital video recorder shall maximize storage efficiency and upon user selection, shall automatically reduce the recorded frame rates of video after a programmed delay period, ensuring that the user has access to real-time video when needed most. The system shall not reduce the frame rate on alarm- or motion-based video.
- G. All video shall be digitally signed before being written to the hard disk drives. Video authentication shall be verified on the system before being played back with the Digital video player.
- H. All Digital Video Recorders shall run the same software allowing users to monitor video, audio, and transactional data from the client user interface.
- I. Event-based and alarm-based video shall be displayed simultaneously with live camera views and with pre- and post-event video clips. The system shall queue and display these events in a first-in, first-out order, or by time. At the time of an alarm the event-based pre-recording mode shall automatically switch to continuous recording mode with pre- and post-alarm video capturing.

Playback - live and recorded video shall be played back with full VCR control (play, fast forward, rewind, and pause, step forward and backward).

Image Enhancement - image contrast, brightness, sharpness, and zoom shall be controlled on live and recorded video for each camera.

On-Screen Display Text - the camera name, image time, and/or date shall be overlaid on video on the user interface. Camera names shall be up to 32 characters in length.

- J. The Digital Video Recorder shall meet or exceed the following design and feature specifications:
 - * The Digital Video Management System shall support up to 128 Video inputs.
 - * The Digital Video Management System shall support advanced IVEX compression.

- The Digital Video Management System shall have the capability to record at seven (7) frames per second with a storage capacity of 14 days based on a forty-eight (48) camera system.
- The Digital Video Management System shall support IP cameras with HD technology.
- The Digital Video Management System shall support the recording of H.264 streams from IP cameras.
- The Digital Video Management System shall support external RAID storage up to 18TB for long-term video storage.
- The Digital Video Management System shall have a watchdog system in place to send alerts when the system fails or powers down.
- The Digital Video Management System shall have immediate video authentication with quick review of up to 90 minutes of video.
- The Digital Video Management System shall have a 10/100/1000 Base-T Network.
- PTZ camera interface shall be RS-232, RS-422, RS-485.
- The Digital Video Management System shall have 16 dry contact alarm inputs.
- The Digital Video Management System shall include ControlPoint Client User Interface for remote access and management of the System.

1.1.2 POWER SPECIFICATIONS

- | | |
|----------------------|-----------------------------------|
| A. Power Input | 100 to 240 VAC, 50/60 Hz |
| B. Power Consumption | 115 VAC 335 W, 2.95 A, 1143 BTU/H |

1.1.3 ENVIRONMENTAL SPECIFICATIONS

- | | |
|------------------------------|---|
| A. Operating Temperature | 50° to 95°F (10° to 35°C) at unit air intake |
| B. Operating Humidity | 20% to 80%, non condensing |
| C. Maximum Humidity Gradient | 10% per hour |
| D. Operating Altitude | 50 ft to 10,000 ft (-16 m to 3,048 m) |
| E. Operating Vibration | 0.25 G at 3 Hz to 200 Hz at a sweep rate of 0.5 octave/min. |

1.1.4 CERTIFICATIONS

- A. CE, Class A
- B. FCC, Class A
- C. UL Listed

1.1.5 PRODUCTS

Provide Unit Pricing for the Following Digital Recorders Including Control Point Software:

1. Pelco Model 35401V1C2DOS 16 Channel, 500GB, 120 FPS or Equal

2. Pelco Model 35401V2C5DOS 32 Channel, 1 TB, 240 IPS or Equal
3. Pelco Model 35401V4C5DOS 64 Channel, 2 TB, 480 IPS or Equal

PART 2 - PRODUCTS

2.1 MICROPROCESSOR-BASED, CROSS-POINT VIDEO MATRIX SWITCHING SYSTEM

- A. The microprocessor-based, cross-point video matrix switching and control system shall consist of an integrated CPU/controller, matrix switcher, interface for control keyboard(s), dry contact alarming inputs programmable for N.O./N.C., isolated relay control outputs and RS-422 serial port PTZ control and multiplexer control, built-in video loss detection alerts, and all software and graphics accessories necessary to make a complete operating video switching and control system. The following optional equipment for expanding functions shall be available: Alarm Interface Unit and Relay Interface Unit. The matrix and all optional equipment shall be capable of being mounted in standard EIA 19-inch racks.
- B. The system shall be configured for a maximum 48 video inputs, 8 video outputs, and up to 18 keyboard controllers. Forty of the video inputs shall provide looping BNC jacks and individual termination switches on the back panel of the unit.
- C. The system shall be expandable to a capacity of 96 video inputs, 16 video outputs, and up to 18 keyboard controllers by adding a second, identical switcher unit interconnected to the first unit with a control cable and a coaxial ribbon cable. The expanded unit shall operate as one system.
- D. The CPU/controller shall meet or exceed the following design and performance specifications:
 - The matrix switcher/controller shall utilize an embedded microprocessor running a real-time operating system.
 - The matrix switcher/controller shall include a bit-mapped character generator for each analog output, which displays system status and programming in NTSC/PAL formats.
 - The matrix switcher/controller shall include a Windows[®]-based software management system that speeds system setup, enables system users to program the switcher remotely, allows for external storage of all setup items in the switcher, and logs system activity, including events and alarms.
 - The matrix switcher/controller shall provide password protection for control of system operations and programming.
 - The matrix/switcher controller shall provide for logical camera numbering, in which the user can assign his own reference numbers to physical camera inputs.
 - The matrix/switcher shall have programmed event timers to activate sequences or macros automatically.
 - The matrix/switcher controller shall use flash technology for firmware updates in the field.

- The matrix/switcher controller shall provide eight internal alarm inputs on the rear panel. Up to 256 external alarms can be added by connecting Alarm Interface Units. Alarms shall be assigned to one or more alarm groups and shall be defined as high or low priority. Each alarm group shall be assigned to one or more monitors for display processing. System must have capability of re-programming of alarms.
- The matrix switcher/controller shall provide user-enabled/selectable character displays that show the following: time in 24-hour or AM/PM format, date in four different modes, camera number, and a 20-character title for ease of identification on the video screen. Each of these on-screen segments shall be on/off selectable independently for each monitor.
- The matrix switcher/controller shall allow configuration, set-up, and programming from any system keyboard.
- The matrix switcher/controller shall provide two PTZ control ports programmable by the user, two RS-485 I/O ports, two RS-485 ports with power to operate a local keyboard, two RS-232 I/O ports, and two I/O ports that can be configured for either RS-232 or RS-485. The ports shall be programmable from the system keyboard or MGR software for all communication parameters and functions without having to remove the switcher/controller cover or set any switches or jumpers. Control of PTZ devices and connection to external equipment shall be accomplished through the use of the CPU/controller's RS-422 communication ports.
- The matrix switcher/controller shall provide two auxiliary relay outputs rated at 0.5 amp @ 125 VAC, 1 amp @ 30 VDC, 60 milliohms contact resistance. There shall be one open collector (TTL) output rated at 15 VDC maximum, 25 mA maximum.
- The matrix switcher/controller shall feature the capability of pre-programming commonly occurring events through macro programming. Macros shall be activated manually via keyboard control or automatically by alarm inputs or at a specific time.
- The matrix switcher/controller shall be capable of 32 macros, each capable of 72 steps.
- The matrix switcher/controller shall accept ASCII data, allowing for direct communication with external equipment, such as computer-based access control, fire, burglar, and PLC systems, to activate alarms, to select cameras, and to activate preset positions, auxiliaries, and macros. The matrix must be capable of generating an ASCII output of all alarm events as they occur.
- The matrix switcher/controller shall provide a video bandwidth of 15 MHz, a flat frequency response to 8 MHz and 21 dB to 13 MHz, and a signal-to-noise ratio of -50 dB with adjacent channel crosstalk limit of -55 dB typical at 3.68 MHz.
- The matrix switcher/controller shall provide for differential gain of 0.03% and a differential phase of 0.24° typical.
- The matrix switcher/controller shall be rack-mountable in a standard EIA 19-inch rack.
- The matrix switcher/controller shall measure 5.25 (H) x 17.4 (W) x 12.25 (D) inches (13.34 x 44.20 x 31.12 cm).

E. The CPU/controller shall meet or exceed the following design and performance specifications:

2.1.2 ELECTRICAL SPECIFICATIONS

A. Input Voltage: 120 / 230 VAC, 50/60 Hz

2.1.3 ENVIRONMENTAL SPECIFICATIONS:

A. Operating Temperature 20° to 120°F (-7° to 49°C)

B. Operating Humidity 10% to 90%, non condensing

2.1.4 CERTIFICATIONS

- A. CE, Class B
- B. FCC, Class A
- E. UL/CUL listed

2.1.5 PRODUCTS

Provide Unit Pricing for the Following Matrix Switcher and Devices:

4. Pelco Model CM6800E 48-In X 8-Out Matrix Switch or Equal
5. Pelco Model KBD300A Vari-Speed PTZ Joystick or Equal
6. Pelco Model MX4018CD 16-Channel Duplex Multiplexer or Equal

PART 3 – PRODUCTS

3.1 FULL HIGH DEFINITION LCD MONITOR

A. The LCD monitor shall the following features: VGA and digital visual interface (DVI) inputs, picture-in-picture (PIP), looping BNC output, and full high definition resolution.

B. The LCD monitor shall provide a front panel that allows the user to adjust image quality, brightness, size, position, and geometry for optimal viewing.

C. The LCD monitor shall have improved airflow and thermal reduction allowing for longer component life; ensuring reliability in a 24/7 security installation environment.

D. The LCD monitor shall be constructed of a lightweight, durable material for desktop or wall-mount installations. Monitor shall come equipped with stationary table mount with the availability to convert to optional wall mount bracket. The monitors shall provide built-in hand holds in the rear cover for easy installation and handling.

E. The LCD monitor shall be compatible with industry-leading megapixel technology, providing a minimum of 1920 x 1080p native resolution that is used with the latest megapixel video security cameras.

F. The LCD monitor shall meet or exceed the following design and performance specifications.

3.1.2 ELECTRICAL SPECIFICATIONS

- A. Input Voltage 100 to 240 VAC, 50/60 Hz
- B. Video Input Interfaces 2 BNC, looping; 1 S-Video, looping; 1 RGB; 1 DVI; 1 component
- C. Audio Input Interfaces 2 audio L/R, RCA Jack
- D. Horizontal Frequency 31 to 69 kHz
- E. Vertical Frequency 56 to 85 Hz
- F. Sync Format NTSC/PAL

3.1.3 ENVIRONMENTAL SPECIFICATIONS

- A. Operating Temperature 32° to 104°F (0° to 40°C)
- B. Operating Humidity 20% to 80%, non-condensing

3.1.4 GENERAL SPECIFICATIONS

- A. Native Resolution 1366 x 768 WXGA
- B. Panel Aspect Ratio 16:9
- C. Viewing Area
 - 1. 26" 576 x 324 mm
 - 2. 32" 698 x 461 mm
 - 3. 42" 930 x 523 mm
- D. Video Formats 480i, 480p, 576i, 576p, 720p, 1080i
- E. Panel Life 50,000 hours
- F. Displayable Colors 16.7 million

3.1.5 CERTIFICATIONS

- A. CE, Class A
- B. FCC, Class A
- C. TUV Listed
- D. C-Trek
- E. UL/cUL listed

3.1.6 PRODUCTS

Provide Unit Pricing for the Following LCD Monitors:

- 7. Pelco Model PMCL526A 26" Flat Screen Monitor or Equal

- 8. Pelco Model PMCL532A 32" Flat Screen Monitor or Equal
- 9. Pelco Model PMCL542F 42" Flat Screen Monitor or Equal
- 10. Tilt Wall Mount bracket for Monitors

PART 4- PRODUCTS

4.1 WALL MOUNT LOCK BOX WITH POWER SUPPLY

A. The Wall or Desk mounted Lock Box shall provide a secure housing for the Recorders, Matrix Switches, Multiplexers, Storage, and Power Supply. The Box shall have two keyed locks on the front door to prevent unauthorized entry. Panels with tamper resistant screws in the top and sides of the Lock Box shall permit access for wiring.

B. The power supply shall occupy one rack unit (1 RU) and shall provide power for a minimum of eight devices. The power supply shall allow for indoor use, and it shall plug into any 120 VAC duplex wall receptacle having a center screw. Removable strip terminals with clamp-down connectors shall be provided along the rear panel for easy connection on the 26 VAC output to eight or more devices. The unit fuses shall protect against power supply or camera failure.

C. The power supply shall meet or exceed the following design and performance specifications.

4.1.2 ELECTRICAL SPECIFICATIONS POWER SUPPLY

- A. Input Voltage 115 VAC 60Hz or 230 VAC 50Hz ($\pm 10\%$), selectable
- B. Output Voltage 26 VAC
- C. Output Current 20 Amp maximum
- D. Overload Protection External Fuses for 8, 16, 32 Output
- E. Input Connectors 115 VAC 60Hz or 230 VAC 50Hz ($\pm 10\%$), selectable
- F. Output Connectors 2 screw terminals

4.1.3 PHYSICAL SPECIFICATIONS

- A. Construction Steel
- B. Finish Rust resistant enamel finish
- C. Environment Indoor

4.1.4 CERTIFICATION SPECIFICATIONS

- A. UL Listed

4.1.5 PRODUCTS

Provide Unit Pricing for the Following Lock Boxes and Rack Mount Power Supplies:

11. Pelco Model LB3000 Wall Lock Box or Equal
12. Pelco Model RCS16F10 16-Out Fused 10 Amp Power Supply or Equal
13. Pelco Model RCS32F20 32-Out Fused 20 Amp Power Supply or Equal

5. PRODUCTS

5.1 INDOOR/OUTDOOR FIXED MINI DOME CAMERA SYSTEM

- A. The indoor/outdoor fixed mini dome camera system shall be quick and easy to install and is ideal for both indoor and outdoor applications. It shall have a versatile design allowing for multiple mounting options.
- B. The indoor/outdoor fixed mini dome camera system shall be vandal resistant.
- C. The indoor/outdoor fixed mini dome camera system's back box shall have three conduit openings.
- D. The indoor/outdoor fixed mini dome camera system shall offer a large selection of camera and lens options, including a clear or smoked bubble lower dome.
- E. The indoor/outdoor fixed mini dome camera system shall meet or exceed the following design and performance specifications.

5.1.2 ELECTRICAL SPECIFICATIONS

- | | |
|----------------------|---|
| A. Connectors | 1 composite BNC
1 NTP |
| B. Input Voltage | 12 VDC or 24 VAC ($\pm 10\%$), autosensing |
| C. Power Consumption | |
| 1. Wide Dynamic | ≤ 3 W maximum |
| 2. Day / Night | ≤ 4 W maximum |
| 3. Heaters | 10 W when active; thermostatically controlled |

5.1.3 VIDEO SPECIFICATIONS

- | | |
|-------------------|-----------------------------|
| A. Imaging Device | |
| 1. Wide Dynamic | 1/3-inch pixel based imager |
| 2. Day / Night | 1/3-inch imager |
| B. Signal System | NTSC or PAL |

C. Video Output	
1. Composite	1 Vp-p, 75 ohms
2. UTP	1 Vp-p, 100 ohms
D. Picture Elements	
	<u>NTSC</u> <u>PAL</u>
1. Wide Dynamic	720 (H) x 540 (V) 720 (H) x 540 (V)
2. Day / Night	768 (H) x 494 (V) 752 (H) x 582 (V)
E. Dynamic Range 102 dB typical / 120 dB maximum (CW/DW models)	
F. Scanning System 2:1 Interlace (progressive option for CW/DW)	
G. Synchronization Internal	
H. Electronic Shutter Range	
1. Wide Dynamic	Auto: (1/15 to 1/22,000)
2. Day / Night	Auto: (1/60 to 1/100,000)
I. Lens Type	
1. Wide Dynamic (WDR)	Varifocal with auto iris
2. Day / Night (DN)	Varifocal with auto iris
J. Focal Length:	
	3.0 mm - 9.5 mm (varifocal)
	9.0 mm - 22.0 mm (varifocal)
K. Operation <u>Varifocal</u>	
1. Iris	Auto (DC-drive)
2. Focus	Manual
3. Zoom	Manual

5.1.4 CAMERA SPECIFICATIONS

A. Horizontal Resolution:	
1. Wide Dynamic	504 TV lines
2. Day / Night	640 TV lines
C. Minimum Illumination	
1. Wide Dynamic	Color: 0.8 lux, SEN 8X: 0.2 lux B/W: 0.08 lux, SEN 8X: 0.02 lux (f/1.0, 40 IRE, AGC on, 75% scene reflectance)
2. Day / Night	Color: 0.15 lux at full frame rate B/W: 0.015 lux at full frame rate (f/1.0, 40 IRE, AGC on, 75% scene reflectance)

5.1.5 ENVIRONMENTAL SPECIFICATIONS

A. Environment:	Low temperature, indoor/outdoor
B. Operating Temperature:	-50°F to 122°F (-45°C to 50°C); de-ices to 25°F (-4°C)
C. Thermostat Operation:	Heater is thermostatically controlled to activate ON at 50°F (10°C) and OFF at 80°F (27°C)

5.1.6 MECHANICAL SPECIFICATIONS:

- | | |
|-------------------------------|--|
| A. Pan/Tilt Adjustment | Manual |
| 1. Pan | 360° |
| 2. Tilt | 140° (20° to 160° range) |
| 3. Rotation | 360° |
| B. Light attenuation: | f/1.5 light loss, smoked bubble
Zero light loss, clear bubble |

5.1.7 PHYSICAL SPECIFICATIONS

- | | |
|------------------------|---|
| A. Construction | Durable corrosion resistant camera mounting bracket and polycarbonate dome |
| B. Finish | Rust resistant finish |

5.1.8 CERTIFICATIONS

- | |
|----------------------|
| A. CE Class B |
| B. UL Listed |

5.1.9 PRODUCTS

Provide Unit Pricing for the Following Fix Dome Cameras with Wall Mount:

- 14. Pelco Model IS110-DNV9 Day / Night Camera 3-9mm Lens or Equal**
- 15. Pelco Model IS110-GWV9 Wide Dynamic Range Camera 3-9mm Lens or Equal**
- 16. Pelco Model IS110-DWV9 Combo D/N, WDR Camera 3-9mm Lens or Equal**
- 17. Pelco Model IM10C10-1 Indoor Fixed Dome Camera 2.8-10mm Lens or Equal**
- 18. Pelco Model IS90BCHV9 Indoor Fixed Mini-Dome Camera 3.9-5mm Lens or Equal**

6 PRODUCTS**6.1 COLOR VARI-FOCAL INFRARED BULLET CAMERA****6.1.1 ELECTRICAL SPECIFICATIONS**

- | | |
|--------------------------|---|
| A. Input Voltage: | 12 VDC or 24 VAC (+10%), autosensing |
| B. Connectors: | 1 composite BNC
1 UTP |

6.1.2 VIDEO SPECIFICATIONS

- | | |
|-------------------------|--------------------|
| A. Signal System | NTSC or PAL |
|-------------------------|--------------------|

- B. Video Output
- | | |
|--------------|------------------|
| 1. Composite | 1 Vp-p, 75 ohms |
| 2. UTP | 1 Vp-p, 100 ohms |

C. Lens Type:

- | | |
|-----------------------|---------------------------|
| 1. Wide Dynamic (WDR) | Vari-focal with auto iris |
| 2. Day / Night (DN) | Vari-focal with auto iris |

6.1.3 CAMERA SPECIFICATIONS

- A. Horizontal Resolution
- | | |
|--------------------|--------------|
| 1. High Resolution | 504 TV lines |
| 2. Day / Night | 540 TV lines |

6.1.4 ENVIRONMENTAL SPECIFICATIONS

- A. Environment Indoor/Outdoor
- B. Operating temperature: -50°F to 122°F

6.1.5 MECHANICAL SPECIFICATIONS

- A. Pan/Tilt/Adjustment:
Manual 180° pan; 180° tilt

6.1.6 PHYSICAL SPECIFICATIONS

- A. Construction Durable corrosion resistant camera mounting bracket and polycarbonate Dome
- B. Finish Rust resistant finish

6.1.7 PRODUCTS

19. Pelco Model IS310BDWV9 Indoor/Outdoor Vari-Focal Infrared Bullet Camera 3-9.5mm Lens or Equal

7.1 DIGITAL VARIFOCAL COLOR CAMERA

7.1.2 ELECTRICAL SPECIFICATIONS

- A. Power Requirements 18-30 VAC or 10-36 VDC
- B. Power Connector 2-pin terminal strip push in type
- C. Video Connector BNC

7.1.3 VIDEO SPECIFICATIONS

- A. Signal System NTSC

B. Video Output 1 Vp-p, 75 ohms

7.1.4 CAMERA SPECIFICATIONS

A. Horizontal Resolution 480 TV lines

7.1.5 ENVIRONMENTAL SPECIFICATIONS

A. Environment Indoor

B. Operating temperature 14°F to 122°F

7.1.6 PRODUCTS

20. Pelco Model IS90BDWV9 Indoor Infrared Fixed Mini-Dome Camera 3-9.5mm Lens or Equal

21. Pelco Model C3751H-2 Indoor Var-Focal Digital Camera 2.8-12mm Lens or Equal

8.1 INDOOR/OUTDOOR PAN-TILT-ZOOM DOME CAMERA SYSTEM

- A. The Pan-Tilt-Zoom (PTZ) dome camera system shall be quick and easy to install and is ideal for both indoor and outdoor applications. It shall have a versatile design allowing for multiple mounting options.
- B. The outdoor PTZ dome camera shall include Heater and fan for environmental conditions.
- C. The PTZ dome camera shall be autofocus, high resolution integrated low light color camera / optics package. The camera shall include Window Blanking, Camera Title Overlay with 20 user definable characters, On-Screen Compass and Tilt Display, Built-in Surge and Limited Lightning Protection, and Password Protection.
- D. The PTZ camera dome drive shall include the following:
- 64 Presets
 - +/- 0.1 Deg. Preset Accuracy
 - RJ-45 Data Port for Software Update and Setup
 - 400 Deg. / sec. Pan Preset Speed and 200 Deg. / sec. Tilt Preset Speed
 - Variable Scan Speed Configurable between 1 to 40 Deg. / sec.
 - Pan Motion allows 0.1 to 150 Deg. / sec. Pan Speed
 - Auto-sensing Protocol (Pelco P, Pelco D, Sensormatic, and Vicon)
 - Includes 1 alarm input and 1 auxiliary form C relay
 - Freeze Frame between Presets
 - 8 zones configurable in size
 - Rotating Discreet Liner with Sealed Fixed Bubble
 - Patterns: 1 On-Screen, User-Defined Configurable Pattern. Includes Pan, Tilt, Zoom, and Preset Functions
 - Proportional Pan / Tilt: Continually Decreases Pan / Tilt Speeds in Proportion to Depth of Zoom
 - Configurable Limit Stops for Auto / Random / Frame Scan Modes
 - Built-in Menu System for Setup of Configurable Functions

- Auto-Flip to rotate Dome 180 Deg. At bottom of Tilt Travel

E. The PTZ dome camera system shall meet or exceed the following design and performance specifications.

8.1.2 ELECTRICAL SPECIFICATIONS

A. Connectors	1 composite BNC
B. Input Voltage	12 to 32 VAC ($\pm 10\%$), autosensing
C. Input Power	
1. Without Heater	23 VA nominal
2. With Heater	73 VA nominal
3. Fuse	1.25 amp

8.1.3 CAMERA / OPTICS

A. Signal Format	
1. NTSC	
2. PAL	
B. Image Sensor	
1. Effective Pixels	1/4-inch progressive scan CCD
2. NTSC	768 (H) x 494 (V)
3. PAL	762 (H) x 582 (V)
C. Horizontal Resolution	
1. NTSC / PAL	540 TV Lines
D. Lens	f/1.6 (focal length, 3.6 – 82.8 mm)
E. Zoom	23x optical, 12x digital
F. Zoom Speed	2.9 / 4.2 / 5.8 seconds
G. Maximum Sensitivity at 35 IRE	
1. NTSC/EIA	0.65 lux at 1/60 sec color
2. PAL/CCIR	0.55 lux at 1/50 sec color
H. Horizontal Angle of View	54 Deg. At 3.6 mm / 2.5 Deg. At 82.8 mm
I. Focus	Automatic with manual override
J. White Balance	Automatic with manual override
K. Iris Control	Automatic Iris control with manual override
L. Gain Control	Automatic / Off
M. Video Output	Vp-p, 75 ohms
N. Video Signal-to-Noise	>50 db

8.1.4 ENVIRONMENTAL SPECIFICATIONS

- A. Environment: Low temperature, indoor/outdoor
- B. Operating Temperature: 32°F to 122°F (0°C to 50°C); de-ices to 25°F (-4°C)

8.1.5 MECHANICAL SPECIFICATIONS DRIVE DOME

- A. Pan Movement: 360 Deg. Continuous pan rotation
- B. Vertical Tilt: Unobstructed +2 Deg. To -92 Deg.
- C. Manual Pan/Tilt Speeds
 - 1. Pan: 0.1 Deg. To 80 Deg. / sec. manual operation
150 Deg. / sec Turbo
 - 2. Tilt: 0.1 Deg. To 40 Deg. / sec. manual operation
- D. Preset Speeds: Pan: 400 Deg. / sec. Tilt: 200 Deg. / sec.

8.1.6 PHYSICAL SPECIFICATIONS:

- A. Construction: Durable corrosion resistant camera mounting bracket and Acrylic Bubble

8.1.7 CERTIFICATIONS

- A. CE, Class B
- B. FCC, Class B
- C. UL / cUL Listed
- D. C-Tick
- E. NEMA Type 4X and IP66 standards
- F. NEMA Type 1, IP40

8.1.8 PRODUCTS

Provide Unit Pricing for the Following Pan-Tilt-Zoom (PTZ) Cameras with Wall Mount:

- 22. Pelco Model SD4CBW-PG-E1 23x PTZ Camera or Equal
- 23. Pelco Model SD435-PG-E1 35x D/N PTZ Camera or Equal

9.1 LABOR

Vendor will be responsible for the initial setup of all equipment. This includes the installation of the DVR's, matrix switchers, monitors and security cabinets and all other components of the system. DJS will install the necessary cables and mount the cameras. Vendor will connect and finish the installation. Vendor will bid an hourly rate for labor/installation. This is to be entered on the bid form. (Item # 24)

10.2 TRAINING

On-site training will be provided by the successful vendor to the DJS Staff. Training will consist of the use and operational capabilities of the DVR and Matrix System Equipment as well as all components upon installation. At a minimum there will be four (4)

employees at each facility to be trained. Training will vary with the system installed as well as the number of employees.

Vendor will also supply training manuals for DJS staff use, in the form of print and or electronic form such as a DVD to help facilitate the training. Vendor will provide a toll free number for customer assistance.

List of Facilities for WV Division of Juvenile Services DJS010296

WV Industrial Home for Youth

7 Industrial Blvd.
Salem, WV 26426

Sam Perdue Juvenile Center

843 Shelter Road
Princeton, WV 24740

Rubenstein Center

141 Forestry Camp Road
Davis, WV 26260

Tiger Morton Juvenile Center

60 Manfred Holland Way
Dunbar, WV 25064

Donald R. Kuhn Juvenile Center

One Lory Place
Julian, WV 25929

Robert L. Shell Juvenile Center

2 O'Hanlon Place
Barboursville, WV 25504

Lorrie Yeager Juvenile Center

907 Mission Drive
Parkersburg, WV 26101

Gene Spadaro Juvenile Center

106 Martin Drive
Mt. Hope, WV 25880

J.M. Chick-Buckbee Juvenile Center

One Jerry Lane
Augusta, WV 26704

Vickie Douglas Juvenile Center

900 Emmet Rousch Dr.
Martinsburg, WV 25401

DJSU10296 - DVR Camera System Equipment

Qty	Description	Model	Unit Price	Extended Amount
1	Pelco Model 16501V162DGS-16 Channel 500GB 120FPS or Equal	HF416Y8R500N	\$ 7,357.60	\$ 139,794.40
2	32 Channel or Equal	HF432Y8R170N	\$ 11,807.00	\$ 35,421.00
3	64 Channel or Equal	HF432Y8R170N	\$ 11,807.00	\$ 94,456.00
4	Pelco Model CM6800E-48-16x9-OUT Matrix Switch or Equal	PE-CM6800E48	\$ 3,262.00	\$ 39,144.00
5	Pelco Model KBD300A-Video Speed Ptz-30x30 or Equal	HJC 4000	\$ 497.17	\$ 5,966.00
6	Pelco Model WX4016GD-16 Channel Duplex MultiLens or Equal	PE-MX4016GD	\$ 1,515.46	\$ 18,185.48
7	Pelco Model PMS326A-28" Flat Screen Monitor or Equal	NLA		
8	PMS326A-32" Flat Screen Monitor or Equal	PE-PMCL532F	\$ 1,114.95	\$ 8,919.58
9	PMCL542F-42" Flat Screen Monitor or Equal	PE-PMCL542F	\$ 2,142.53	\$ 17,140.24
10	TriK Wall Mount Bracket for Monitors	NS-YMPL50AB1	\$ 99.00	\$ 1,188.00
11	Pelco Model B3000-Wall Lock Box or Equal	PE-LB3000	\$ 499.00	\$ 2,495.00
12	Pelco Model B0510510-10-OUT Paged 19Amp Power Supply or Equal	HPTY2416UL	\$ 185.62	\$ 928.10
13	Pelco Model RGS89E-20-32-00-1-20Amp Power Supply or Equal	HPTY2416UL	\$ 185.62	\$ 1,856.20
14	Pelco Model S170N19-Dynamic Camera 3.9mm Lens or Equal With Wall Mount	HD4D3	\$ 312.11	\$ 1,560.55
15	Pelco Model S170C19-3 Day Wide Dynamic Range Camera 3.9mm Lens or Equal With Wall Mount	HD4UL	\$ 409.98	\$ 2,049.90
16	Pelco Model S170N19-Combo D/A WDR Camera 3.9mm Lens or Equal With Wall Mount	HD4UL	\$ 409.98	\$ 2,049.90
17	Pelco Model IV10C-16-1 Indoor Fixed Dome Camera 3.8-10mm Lens or Equal	HD3D	\$ 251.28	\$ 1,256.40
18	Pelco Model IS90BC19V-Indoor Fixed Mini Dome Camera 3.8-9mm Lens or Equal 9mm Lens or Equal	HD3UL	\$ 289.00	\$ 1,445.00
19	Pelco Model IS109DW19-Indoor Outdoor Variable Infrared Bullet Camera 3.8-9mm Lens or Equal	HLD92534	\$ 449.00	\$ 2,245.00
20	Pelco Model IS90BD19V-Indoor Infrared Fixed Dome Camera 3.8-9mm Lens or Equal	HLD92534	\$ 449.00	\$ 2,245.00
21	Pelco Model C12E-11-2 Indoor Variable Digital Camera 2.8-12mm Lens or Equal	HLD92534	\$ 449.00	\$ 2,245.00
22	Pelco Model SP46B19P-C-E1-28xPZ Camera or Equal	HDXFNWACW	\$ 2,099.00	\$ 10,495.00
23	Pelco Model SP46B19E-E1-36x6N Ptz Camera or Equal	HDXGNWACW	\$ 2,299.00	\$ 11,495.00
24	Hourly Rate - 85.00 Installation		\$ 85.00	\$ 6,800.00
	TOTAL		\$ 47,975.30	\$ 409,390.75

Bidder Vendor Information:

Name: A.V. Lattamus Communications Inc.

Address: 1344 Cove Hill

Phone #: Weston, WV 26062

Email Address: 304-790-2343

davekoehler@lattamus.com

ATTACHMENT

P.O.# _____

This agreement constitutes the entire agreement between the parties, and there are no other terms and conditions applicable to the licenses granted hereunder.

Agreed

[Handwritten Signature] 4-13-11
Signature Date

VP
Title

AV LANTHANUS INC.
Company Name

Signature Date

Title

Agency/Division

AGREEMENT ADDENDUM

In the event of conflict between this addendum and the agreement, this addendum shall control:

1. **DISPUTES** - Any references in the agreement to arbitration or to the jurisdiction of any court are hereby deleted. Disputes arising out of the agreement shall be presented to the West Virginia Court of Claims.
2. **HOLD HARMLESS** - Any clause requiring the Agency to indemnify or hold harmless any party is hereby deleted in its entirety.
3. **GOVERNING LAW** - The agreement shall be governed by the laws of the State of West Virginia. This provision replaces any references to any other State's governing law.
4. **TAXES** - Provisions in the agreement requiring the Agency to pay taxes are deleted. As a State entity, the Agency is exempt from Federal, State, and local taxes and will not pay taxes for any Vendor including individuals, nor will the Agency file any tax returns or reports on behalf of Vendor or any other party.
5. **PAYMENT** - Any references to prepayment are deleted. Payment will be in arrears.
6. **INTEREST** - Should the agreement include a provision for interest on late payments, the Agency agrees to pay the maximum legal rate under West Virginia law. All other references to interest or late charges are deleted.
7. **RECOUPMENT** - Any language in the agreement waiving the Agency's right to set-off, counterclaim, recoupment, or other defense is hereby deleted.
8. **FISCAL YEAR FUNDING** - Service performed under the agreement may be continued in succeeding fiscal years for the term of the agreement, contingent upon funds being appropriated by the Legislature or otherwise being available for this service. In the event funds are not appropriated or otherwise available for this service, the agreement shall terminate without penalty on June 30. After that date, the agreement becomes of no effect and is null and void. However, the Agency agrees to use its best efforts to have the amounts contemplated under the agreement included in its budget. Non-appropriation or non-funding shall not be considered an event of default.
9. **STATUTE OF LIMITATION** - Any clauses limiting the time in which the Agency may bring suit against the Vendor, lessor, individual, or any other party are deleted.
10. **SIMILAR SERVICES** - Any provisions limiting the Agency's right to obtain similar services or equipment in the event of default or non-funding during the term of the agreement are hereby deleted.
11. **ATTORNEY FEES** - The Agency recognizes an obligation to pay attorney's fees or costs only when assessed by a court of competent jurisdiction. Any other provision is invalid and considered null and void.
12. **ASSIGNMENT** - Notwithstanding any clause to the contrary, the Agency reserves the right to assign the agreement to another State of West Virginia agency, board or commission upon thirty (30) days written notice to the Vendor and Vendor shall obtain the written consent of Agency prior to assigning the agreement.
13. **LIMITATION OF LIABILITY** - The Agency, as a State entity, cannot agree to assume the potential liability of a Vendor. Accordingly, any provision limiting the Vendor's liability for direct damages to a certain dollar amount or to the amount of the agreement is hereby deleted. Limitations on special, incidental or consequential damages are acceptable. In addition, any limitation is null and void to the extent that it precludes any action for injury to persons or for damages to personal property.
14. **RIGHT TO TERMINATE** - Agency shall have the right to terminate the agreement upon thirty (30) days written notice to Vendor. Agency agrees to pay Vendor for services rendered or goods received prior to the effective date of termination.
15. **TERMINATION CHARGES** - Any provision requiring the Agency to pay a fixed amount or liquidated damages upon termination of the agreement is hereby deleted. The Agency may only agree to reimburse a Vendor for actual costs incurred or losses sustained during the current fiscal year due to wrongful termination by the Agency prior to the end of any current agreement term.
16. **RENEWAL** - Any reference to automatic renewal is hereby deleted. The agreement may be renewed only upon mutual written agreement of the parties.
17. **INSURANCE** - Any provision requiring the Agency to insure equipment or property of any kind and name the Vendor as beneficiary or as an additional insured is hereby deleted.
18. **RIGHT TO NOTICE** - Any provision for repossession of equipment without notice is hereby deleted. However, the Agency does recognize a right of repossession with notice.
19. **ACCELERATION** - Any reference to acceleration of payments in the event of default or non-funding is hereby deleted.
20. **CONFIDENTIALITY**: -Any provision regarding confidentiality of the terms and conditions of the agreement is hereby deleted. State contracts are public records under the West Virginia Freedom of Information Act.
21. **AMENDMENTS** - All amendments, modifications, alterations or changes to the agreement shall be in writing and signed by both parties. No amendment, modification, alteration or change may be made to this addendum without the express written approval of the Purchasing Division and the Attorney General.

ACCEPTED BY:

STATE OF WEST VIRGINIA

Spending Unit: _____

Signed: _____

Title: _____

Date: _____

VENDOR

Company Name: AV Lauttamus Communications Inc.

Signed: *Paul Lauttamus*

Title: V.P.

Date: April 12 2011

RFQ No. _____

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: A.V. Lautamus Comm. INC

Authorized Signature: [Signature] Date: 4-13-11

State of W.V

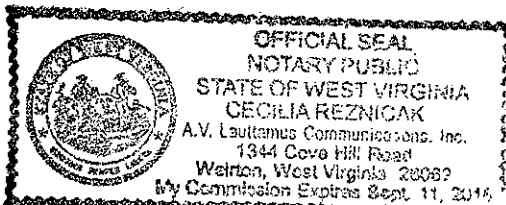
County of FLANCOCK, to-wit:

Taken, subscribed, and sworn to before me this 13th day of April, 2011.

My Commission expires Sept. 11, 2016.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]



State of West Virginia VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

- 1. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
- 2. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
- 3. **Application is made for 2.5% resident vendor preference for the reason checked:**
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
- 4. **Application is made for 5% resident vendor preference for the reason checked:**
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
- 5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
- 6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: AV. Law Hamm Comm. Signed: Paul J. Williams
 Date: 4-13-2011 Title: VP

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

**ADDENDUM NO. 3
DJS010296**

Clarifications to specifications:

C1. The Division of Juvenile Services is not replacing older parts. This equipment will be added to the facilities. Please use the bid form as provided in the RFQ.

C2. To remove Section 1.1, General Specifications – Subsection D in its entirety and replace with the following:

D. All systems and components shall be provided with a 72-hour turnaround repair express and 72-hour part replacement. Vendors will have 72 hours to ship and install replacement parts. All parts will be shipped FOB Destination. The repair and parts express shall be guaranteed by the manufacturer on warranty and non-warranty items. After warranty expiration, the vendor will invoice parts on cost plus percentage mark-up basis.

Questions and Answers:

Q1. Bid document states that questions will be accepted until 03/23/11 but I do not see the actual due date of the bid.

A1. The original bid opening was scheduled for 04/07/2011. Addendum No. 1 extended the bid opening to 04/14/2011. Addendum No. 2 extended the bid opening to 04/28/2011 at 1:30 pm.

Q2. The itemized spread sheet shows on line 24 a qty of 80 hours and a hour rate to be listed. Will the awarded contractor only be given 80 to complete this project?

A2. This is on page #18 9.1 covering vendor.

Q3. Page 18 section 9.1 states that DJS will install the cameras, does this mean that they are responsible for focusing? Also it states that the contractor is responsible for security cabinet installation. There are no security cabinets in the bill of material, will DJS be providing the cabinets.

A3. This is covered on page #11 4.1, 4.1.2, and 4.1.3.

Q4. Do you accept vendors from out of state? Our service technician will reside locally to provide timely support.

A4. Yes.

Q5. Per the bid instruction, we will need to pay \$125 to be property registered, is that correct?

A5. You do not need to be a registered vendor in order to submit a bid. However, if you are the apparent successful vendor, you will need to register prior to the award of the contract. For more information, please see the following website:

<http://www.state.wv.us/admin/purchase/vrc/wv1.pdf>

Q6. How many pelco DVRs or VCRs do you have that require the matrix switch from Pelco? Do you know that Pelco does not product matrix switch anymore? Can we provide client servers that allow you to control the view for multiple monitors?

A6. Yes, please use the bid form as provided in the RFQ.

Q7. Do you still have VCRs that you are requiring the multiplexer for? Do you know that Pelco does not produce multiplexers anymore? Can we provide you with the DVRs so that you do not need to keep any of the VCRs?

A7. Yes, please use the bid form as provided in the RFQ.

Q8. What kind of security cabinet do you need? Are you going to mount them on the wall?

A8. Wall and floor. Please see page #11 4.1, 4.1.2, and 4.1.3 of the specifications.

Q9. Do you expect our dealers to mount the monitors? For each monitor, how many cameras do you wish to view? Do you have spot monitor, main monitor, etc for set up?

A9. Monitors will vary depending on facility size. We have spot monitor and main monitors. Please use the bid form as provided in the RFQ.

Q10. On the 4 64 ch hybrid, do you need them to support 16 ch IP? Does that mean it needs to support 48 analog cameras?

A10. Yes.

Q11. On the 3, 32 ch hybrid, do you need them to support 16 ch IP? Does that mean it needs to support 16 analog cameras?

A11. Yes.

Q12. How many existing analog vs IP cameras do you have in all the 10 sites that you have.

A12. All of the facilities have both analog and IP cameras. This information will be released to the successful vendor. Please use the bid form as provided in the RFQ.

Q13. Out of the analog cameras that you have, how many are PTZ cameras? What is the model number for the PTZ cameras? Are they using RS485 for PTZ control? Or are they using the coaxtron controller?

A13. RS485. The software has to be compatible.

Q14. What would you like to achieve with the multiplexers? Is there any display function (such as display 16 cameras at one time) that you desire to achieve via the multiplexers?

A14. Yes, we would like to achieve video to Charleston from all of the facilities.

Q15. Can the quoted Hybrid be used as a substitute for the requested 64 channel recorder? American Dynamics part numbers

ADHD320200

ADHD320400

ADHD320600

ADHD320800

[http://www.americandynamics.net/Products/Hybrid Digital Video Recorders.aspx](http://www.americandynamics.net/Products/Hybrid_Digital_Video_Recorders.aspx)

The quoted Hybrid will support 32 analog channels at 4 CIF 480 FPS, 32 Audio channels and 64 IP channels at HD, 30 FPS with Analytics per IP camera. With the use of 16 channels encoders and still retain 32 channels of IP growth.

A15. Yes, as long as it's compatible with ARMS.

Q16. For the bid #DJS010296 Video Surveillance Systems, do you have any existing PTZs?

A16. Yes.

Q17. If so, would you please give me the manufacturer and model #?

A17. This product is compatible with existing PTZs and analog camera. Please use the bid form as provided in the RFQ.

Q18. What protocol are you using? RS485 or using the coaxtron controller?

A18. RS485

Q19. In the DVR Camera System equipment list, there are total 26 hybrid DVRs and 50 cameras. Would you please let us know how you want to install them in 10 facilities?

A19. Please use the bid form as provided in the RFQ. This information will be provided to the successful vendor upon award of the contract.

Q20. If the quoted Hybrid will support 32 analog channels at 4 CIF 480 FPS, 32 Audio channels and 64 IP channels at HD, 30 FPS with Analytics per IP camera. With the use of 16 channels encoders and still retain 32 channels of IP growth, can the quoted Hybrid be used as a substitute for the requested 64 channel recorder?

A20. Yes, please use the bid form as provided in the RFQ.

Q21. Can 16 channel DVRs be used to fulfill 32 and 64 channel locations?

A21. Yes.

Q22. Do we add an estimated amount of wiring and powering needs to the bid? What suggested distances should we quote?

A22. Page #18, Section 9.1.

Q23. Will standard wall mounts be needed for camera installations? Any other known mounts needed?

A23. Page #18, Section 9.1.

Q24. Should we change the total estimated hours to reflect needs for installing quoted equipment?

A24. The bid form calls for approximately 80 hours. Please use the bid form as provided in the RFQ.

Q25. In the RFQ for Video Surveillance Systems for the Division of Juvenile Services, a Pelco Model IM10C10-1 Indoor Fixed Dome Camera with a 2.8-10mm Lens or Equal is specified in Section 5.1.9 Products (Page 14). Because this is an IP camera, a license must be issued and purchased in order for it to function as a component within a video surveillance system. Please clarify whether or not the cost of the required license is to be included in the bid price of that specific camera.

A25. Please include any costs in your bid.

Q26. Is Pelco the just basis of design or the required product?

A26. The specifications are written for Pelco or equal products.

Q27. I would like to know if we can do partial bid on this project?

A27. The purchase order will be awarded to the vendor with the most complete bid with the lowest grand total amount.

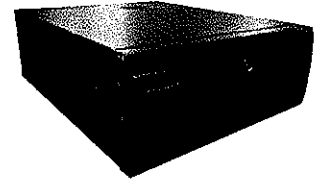
Fusion IV DVR Series

BRIDGING THE GAP BETWEEN ANALOG AND IP

The Fusion IV hybrid DVR Series sets a new standard for recording. Expanding beyond the analog DVR role, Fusion IV bridges the gap between DVRs and NVRs; it is a full featured hybrid digital recording system. The system is designed to record, search, and transmit up to 32 channels of analog or IP video sources, up to 16 channels of audio, and POS/ATM text data.

Benefits of the system include significantly expanded support for digital video sources; including IP cameras, network encoders and megapixel cameras. Fusion IV offers up to 32 channels of hybrid (analog and/or IP) camera support. H.264 implementation provides superior video quality with small file sizes for improved performance across a network. Furthermore, H.264 is now a standard compression option for all cameras recorded on the DVR.

The Fusion IV hardware enhancements ensure efficient multi-tasking of simultaneous operations including network cameras, megapixel cameras, point-of-sale, video analytics and more. Dual video ports have also been added. Relying on the Windows® XP embedded operating system, the Fusion IV provides network security and firewall protection, while eliminating the need to format DVDs before backup. The front panel provides easy access to the standard DVD-RW drive, dual USB 2.0 ports and the four field-replaceable hard drives.



Market Opportunities

Global market adoption of IP and megapixel camera technologies drive the need for new surveillance capabilities offered by the Fusion IV DVR. Supporting both analog and IP cameras, Fusion IV is ideal for systems requiring transition to IP to maximize the cost-savings benefits associated with IP networking. Additional benefits are realized for systems adding new capabilities such as unparalleled image clarity using megapixel cameras. Applications include educational, municipal and corporate campus environments, large retail with IDM (Integrated Data Manager) point-of-sale integration, and hotels or resorts. When the need is for a hybrid digital recording solution, the answer is the Fusion IV DVR.

Features:

Hardware

- Analog and IP recording up to 32 channels
- Global recording rates for 120/100 to 480/400 at CIF resolution (NTSC/PAL)
- Recording resolutions up to 720 × 480 (D1)
- VGA and DVI-D ports for local video viewing
- Available with 8, 16 and 32 looping video inputs
- Internal storage capacity from 500 GB to 8 TB
- External storage options from 5 TB to 32 TB
- 16 sensor inputs and 16 control outputs
- Optional multiplexed or switched spot outputs
- 16 channels of audio standard on select models
- 10/100/1000 gigabit network standard
- Keyboard control of camera selection and PTZ control
- Windows® XP embedded operating system

Software

- Hybrid operation for analog/IP camera mix based on DVR model - 8/16/32 channel video input
- User software included with each DVR:
 - Fusion Server Software** - Local user interface
 - HFRVS Remote Software** - Connect to a single DVR
 - HFVMS Remote Management Software** - Connect to multiple DVRs
- Dynamic DNS support
- Microsoft® Active Directory integration
- Smart Motion, Preview and Index Searches
- Integrated camera discovery protocol
- Integrated POS/ATM/access control with Pro-Watch®, WIN-PAK® and IDM
- Powerful API available for third party software integration
- Analytics support, up to 4 video channels

Fusion IV DVR Series

FEATURES

Fusion IV consists of three major components included with each unit:

- **Server Unit:** 8, 16 or 32 channel models with global recording rates of 120/100 through 480/400 and the powerful Fusion Server Software
- **HFRVS, Fusion Remote View Software:** allows remote connections to a single Fusion DVR
- **HFVMS, Fusion Video Management Software:** allows remote operation, configuration and management of multiple Fusion DVRs

The powerful combination of Fusion Server, the feature rich HFRVS and HFVMS user software suites creates a hybrid digital recording solution that differentiates the Fusion IV DVR series from the competition.

Fusion Server Software

(included with every DVR)

- Complete local configuration and administration.
- High resolution rates - Fusion is able to record up to 720 x 480 and has an image capture rate of up to 480 ips.
- Instant access to information through advanced index searching capabilities and motion-based object search functionalities.
- The Preview Search function gives users a quick overview of a 24-hour period. The search can be narrowed down from ten-minute increments to one-minute increments.
- The Fusion Server Software gives users the option of POS integration.
- Remote notification of alarm events and health check.
- Multiple types of searching capabilities including Preview Search, Smart Motion Search and Index Search.
- Supports five simultaneous connections via HFVMS and HFRVS.

HFRVS Remote View Software

(included with every DVR)

- Looks and functions in the same manner as the Fusion Server Software.
- Remotely connect to a single Fusion DVR.
- Live audio.
- Remotely search and export video from the Fusion DVR.
- Control PTZ cameras connected to the Fusion DVR.
- Microsoft Windows XP® and Vista® compatible.
- Remotely set up cameras, schedules, sensors, audio, and network functions video the HFRVS Remote Software.

HFVMS Video Management Software

(single workstation license included with every DVR - can also be ordered separately.)

- Complete local configuration and administration.
- Remotely monitor video, audio and alarms.
- Access and export recorded video.
- Create infinite customized user accounts.
- Create remote backup schedules.
- Create custom live camera views.
- Configure Fusion DVRs remotely.
- Perform remote DVR software upgrades.
- Connect to multiple Fusion DVRs all at one time.
- Microsoft Windows XP and Vista compatible.
- Maps feature allows importing of .dxf, .jpg, .wmf and other formats.
- Control cameras with advanced PTZ features.
- Point-of-sale search capabilities.
- Live audio.

HFRVS and HFVMS Software (Workstation Requirements)

Minimum:

- Intel Core 2 Duo 2.8 GHz (or equivalent)
- 1 GB system memory
- DirectX 9 or higher
- 256 MB+ Nvidia or ATI video card
- 256k network connection
- TCP/IP installed
- Microsoft Windows XP® or Vista
- 1280 x 1024 optimal display resolution
- 32-bit color depth

Recommended*:

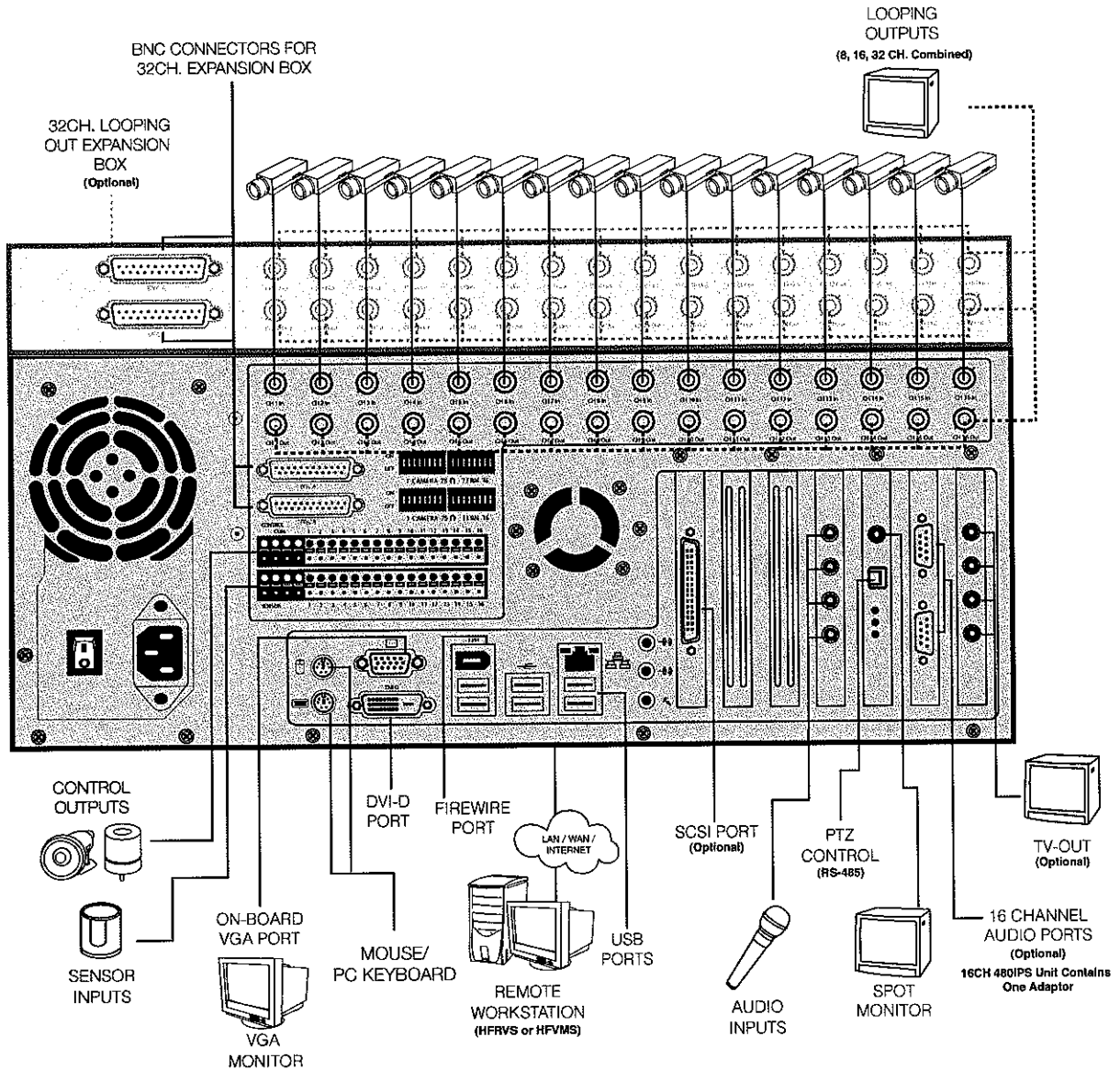
- Intel Core 2 Quad – Q8200 (or equivalent)
- 2 GB system memory
- DirectX 9 or higher
- Nvidia 8600 video card (or equivalent)
- 256k network connection
- TCP/IP installed
- Microsoft Windows XP® or Vista
- 1280 x 1024 optimal display resolution
- 32-bit color depth

*Minimum requirements for H.264 solutions and highly recommended for megapixel image rendering.

Fusion IV DVR Series

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SYSTEM DIAGRAM



Fusion IV DVR Series

SPECIFICATIONS

Fusion IV Unit	
Remote Sessions	Maximum of 5 simultaneous
Web Sessions	Maximum of 50
Video Standard	NTSC: 720 × 480 max; PAL: 720 × 576 max
Image Compression	User selectable per camera (H.264, MJPEG, MJPEG)
3-4 Kbytes Per Frame (analog)	360 × 240
Record/Viewing	(analog) Up to 480 ips (network video) Dependent on camera
Internal Storage Media	500 GB to 8 TB
Video Inputs	
Composite	Analog Input: BNC 1.0 - Vp-p @75 Ohms
IP	MPEG-4 / MJPEG / H.264 stream from network
Video Outputs	
Composite	RCA connector 1.0 - Vp-p @ 75 Ohms
SVGA	15 pin D-type port for a PC monitor connection (standard and wide screen monitor support)
DVI-D	24 pin port for a digital video display

	480 - 32 Ch	480 - 16 Ch	
Fusion Specifications (480 ips)			
Cameras	32	16	
Looping Outputs	32	16	
Sensors	16	16	
Control Outputs	16	16	
IP Cameras (max)	8	8	
	Performance Package	32	16
	Performance Package & NVR Upgrade	32	32
Display - Live (L) or Recorded (R)	L	L	
Frame Setup - Individual (I) or Global (G)	I	I	
Resolution - Individual (I) or Global (G)	I	I	
Resolution - 720 × 480 (720) or 640 × 480 (640)	720	720	
Resolution - 720 × 240 (720) or 640 × 240 (640)	720	720	
Resolution - 360 × 240 (360) or 320 × 240 (320)	360	360	
Audio - Line In	8	16	
Spot Monitor - Multi-Screen Controllable/Switched	M	M	
Intensive Record - Selectable (S) or Max (M)	S	S	
USB 2.0 Ports	8	8	

	240 - 32 Ch	240 - 16 Ch	240 - 8 Ch
Fusion Specifications (240 ips)			
Cameras	32	16	8
Looping Outputs	32	16	8
Sensors	16	16	8
Control Outputs	16	16	8
IP Cameras (max)	8	8	8
	Performance Package	16	16
	Performance Package & NVR Upgrade	32	32
Display - Live (L) or Recorded (R)	L	L	L
Frame Setup - Individual (I) or Global (G)	I	I	I
Resolution - Individual (I) or Global (G)	I	I	I
Resolution - 720 × 480 (720) or 640 × 480 (640)	720	720	720
Resolution - 720 × 240 (720) or 640 × 240 (640)	720	720	720
Resolution - 360 × 240 (360) or 320 × 240 (320)	360	360	360
Audio - Line In	8	4	4
Spot Monitor - Multi-Screen Controllable/Switched	M	M	M
Intensive Record - Selectable (S) or Max (M)	S	S	S
USB 2.0 Ports	8	8	8

	720 - 16 Ch	
Fusion Specifications (120 ips)		
Cameras	16	
Looping Outputs	16	
Sensors	16	
Control Outputs	16	
IP Cameras (max)	8	
	Performance Package	16
	Performance Package & NVR Upgrade	32
Display - Live (L) or Recorded (R)	L	
Frame Setup - Individual (I) or Global (G)	I	
Resolution - Individual (I) or Global (G)	I	
Resolution - 720 × 480 (720) or 640 × 480 (640)	720	
Resolution - 720 × 240 (720) or 640 × 240 (640)	720	
Resolution - 360 × 240 (360) or 320 × 240 (320)	360	
Audio - Line In	4	
Spot Monitor - Multi-Screen Controllable/Switched	M	
Intensive Record - Selectable (S) or Max (M)	S	
USB 2.0 Ports	8	

Note Frame Rate ÷ number of inputs = max frame rate per camera

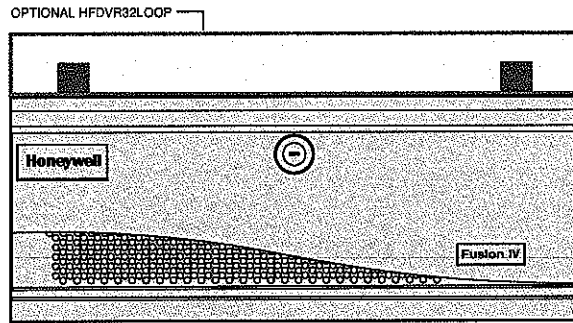
Electrical	
Input Voltage	115 - 230 VAC, 50 - 60 Hz 10/7A
Operating Voltage	115V/230V Auto Sensing
Power Consumption	Up to 465 W
Mechanical	
Dimensions	7" × 17.3" × 21.75"
	180 mm × 440 mm × 552 mm
Weight	Unit: 64 lbs (29 kg)
	Shipping: 64 lbs (29 kg) to 84 lbs (38 kg)
Construction	Housing: Steel Chassis
Finish	Housing: Black Matte Paint
Environmental	
Temperature	Operating: 40°F to 105°F (5°C to 40°C)
	Storage: 14°F to 150°F (-10°C to 65°C)
Relative Humidity	Operating: 0% to 90% non-condensing
Regulatory	
Emissions	FCC Part 15, Subpart B, Class A, EN55022 + A1:1995 and A2:1997 EN61000-3-3 EN61000-3-2
Immunity	EN 55024:1998 + A1:2001 and A2:2003
Safety U.S. and Canada International	UL, cUL listed; UL 60950-1:2003; IEC/EN 60950-1:2001 CB report and certificate
Recording Archive	
On Board Device	DVD-RW, USB
Network	LAN, WAN
Base System	
Includes	HFRVS & HFVMS Software, Keyboard, Mouse, Rack Mounts, DVD-RW, Audio In, Network Connectivity, Web Access, USB Port, Keyboard and Mouse PS2 Ports, and RS-485/232 Ports.

Fusion IV DVR Series

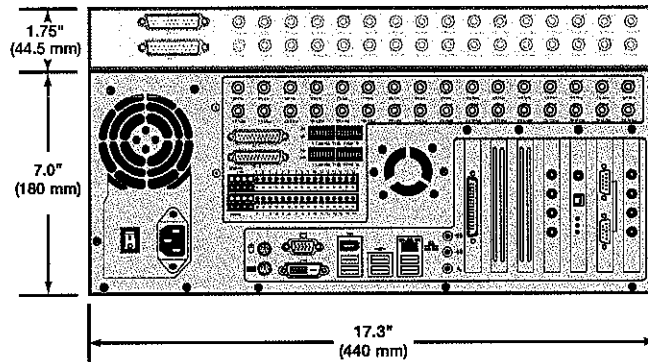
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SYSTEM DIMENSIONS

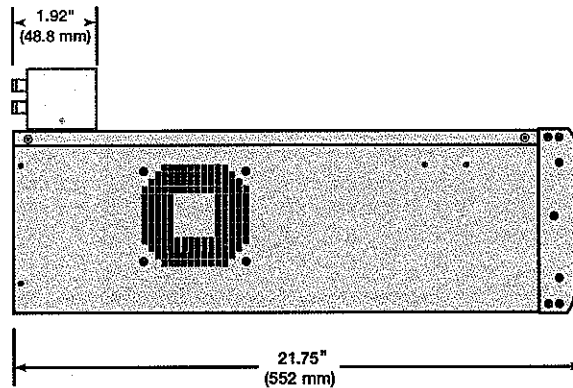
Front View



Back View

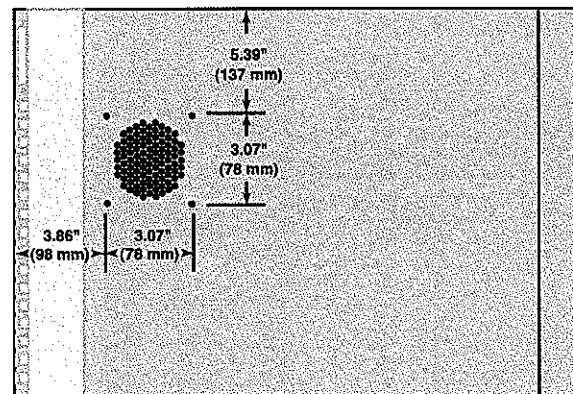


Side View



Top View

Keep Clear
(CPU EXHAUST FAN)



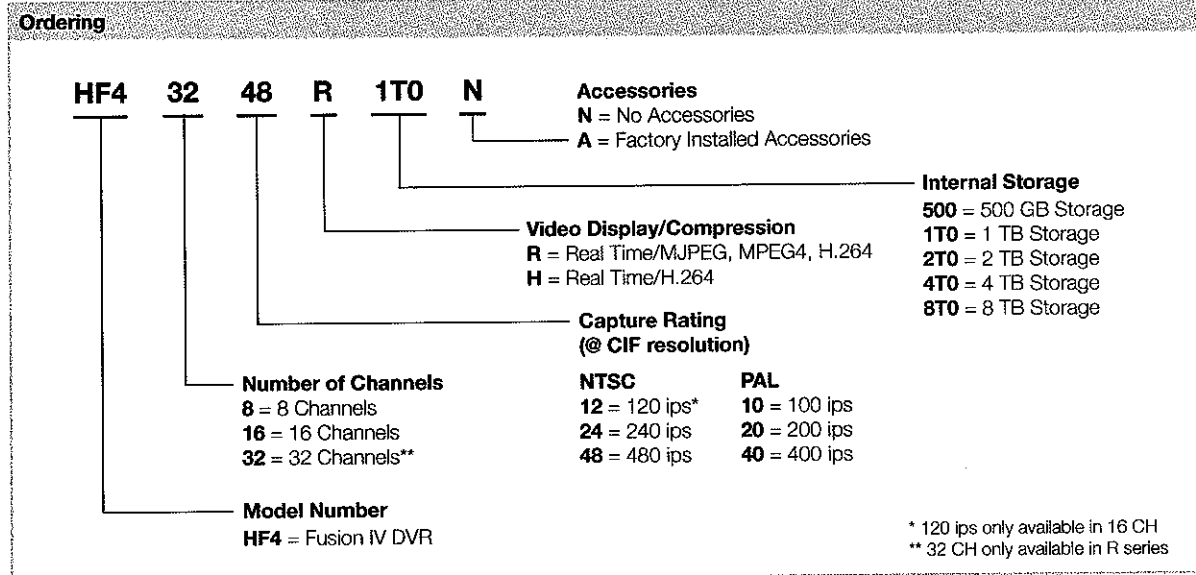
Fusion IV DVR Series

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ACCESSORIES AND ORDERING

Factory Installed Accessories	
HF4HWUPCPU	Fusion IV Hardware Performance Package CPU & Memory Factory Upgrade
HF4RS	Fusion IV Internal RAID 5 Configuration
HFDVRSCSI	SCSI Interface Card — for external storage
HFDVRG6NIC	Gigabit Network Interface — adds 2nd Ethernet Port
HFDVR4VOUT	4 CH Analog TV Output Card
HF4VOUTM	4 CH Multiplexed Analog TV Output Card
HFDVR16AUDIO	16 CH Audio Input Card
External Storage Accessories	
HFDVREXT8T	External storage 8 TB — includes SCSI adapter
HFDVREXTR5T	External RAID 5 TB — requires separate SCSI adapter (HFDVRSCSI)
HFDVREXTR8T	External RAID 8 TB — requires separate SCSI adapter (HFDVRSCSI)
HFDVREXTR16T	External RAID 16 TB — requires separate SCSI adapter (HFDVRSCSI)

Field Installed Accessories	
HF4HWUPCPUF	Fusion IV Hardware Performance Package CPU & Memory Field Upgrade
HFDVR32LOOP	32 Channel Looping Expansion Box
HF4HD2T0	Fusion IV 2 TB Upgrade Kit
HF4HD1T0	Fusion IV 1 TB Upgrade Kit
HF4HD500	Fusion IV 500 MB Upgrade Kit
Software Part Numbers	
HFVRS	Fusion Remote View Software
HFVMS	Fusion Video Management Software
HFVMSR	Fusion to Rapid Eye Remote Software
HFVMSF	Fusion to HRDP Remote Software
HFLICDATA	1 CH Fusion Alarm Panel for POS Data License
NVR Software Licenses	
HFLICNVR1	Adds 1 CH of NVR to Fusion IV
HFLICNVR4	Adds 4 CH of NVR to Fusion IV
HFLICNVR8	Adds 8 CH of NVR to Fusion IV
HFLICNVR16	Adds 16 CH of NVR to Fusion IV
Other Recommended Accessories	
Analog and IP cameras, ACUIX PTZ, Megapixel HZJTP	See Honeywell's full line of indoor and outdoor cameras, housings, lenses and Infrared illuminators PTZ camera and DVR controller



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

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L/FUSNV4D/D
November 2009
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UltraKey Lite

www.honeywellvideo.com

VIDEO MATRIX KEYBOARD

Honeywell's UltraKey Lite keyboard is an industry-leading design for reliable, user-friendly control of video management systems. It works on both the MAXPRO-Net and VideoBloX Matrix controllers to provide a uniform user interface regardless of system controller.

The UltraKey Lite incorporates a touch wheel for rapid camera selections and digital or networked video recorder control, and a touch ring with four keys for various functions. Dedicated DVR/NVR buttons are programmable for device control. Laser cut keys with blue backlight provide a fade free, familiar QWERTY keyboard feel, and the rubber wrist pad is user replaceable.

Multiple control interfaces include TCP/IP, RS232, RS422 and RS485 through convenient RJ45 connector. A breakout box is available to convert to screw terminal or DB9 for RS232, and a USB port is also available for future connection options. The DC power supply connector uses a unique twist-lock mechanism to prevent accidental unplugging. Power over Ethernet (PoE) option is also available. The UltraKey Lite has its own web browser for simple configuration and firmware upgrades.

The UltraKey Lite has a two-line LCD that offers system feedback and simple keyboard configuration, and a 3-axis variable speed joystick with twist zoom controls variable speed PTZ mechanisms. The addition of focus controls on the left and right of the joystick allows either left or right-handed persons to use the controller effortlessly.

In VideoBloX mode, 20 function keys are available for sequence triggering or groups and scenes. In addition, the Mon A, Mon B, Tour and MUX keys trigger specific sequences in the VideoBloX CPU.

In MAXPRO-Net mode, standard keys such as PTZ call, alternate camera selection, sequence selection, tours, mux selection and NVR control functions are present. Through MAXPRO-Net Setmax, each key can be intercepted and the desired function programmed using macros.

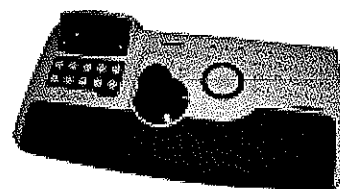
Market Opportunities

For both MAXPRO-Net and VideoBloX CPU matrix options, the UltraKey Lite provides a real-time intuitive method of control for small to large matrix opportunities. The UltraKey Lite is a mid-tier keyboard option for MAXPRO-Net systems with added advantages of TCP/IP connectivity and the option to use RS422 for remote applications. This eliminates the need for external RS422 adapters, especially when used in conjunction with the MegaPIT™.

The UltraKey Lite is a direct replacement to the HEGS5BLX or PCK variants for the VideoBloX and VideoBloX Lite CPUs. With the VideoBloX NetCPU, the TCP/IP option offers connectivity over a LAN.

Features

- Touch wheel for DVR/NVR control
- Multiple connectivity options (RS232/422/485 and TCP/IP)
- Web browser for easy upgrading and configuring
- Keys are backlit with pleasant adjustable blue LED
- Keys are laser cut and fade free
- Mon A, Mon B keys for quick monitor selection
- MAXPRO-Net and VideoBloX compatible
- Power over Ethernet



UltraKey Lite

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SPECIFICATIONS

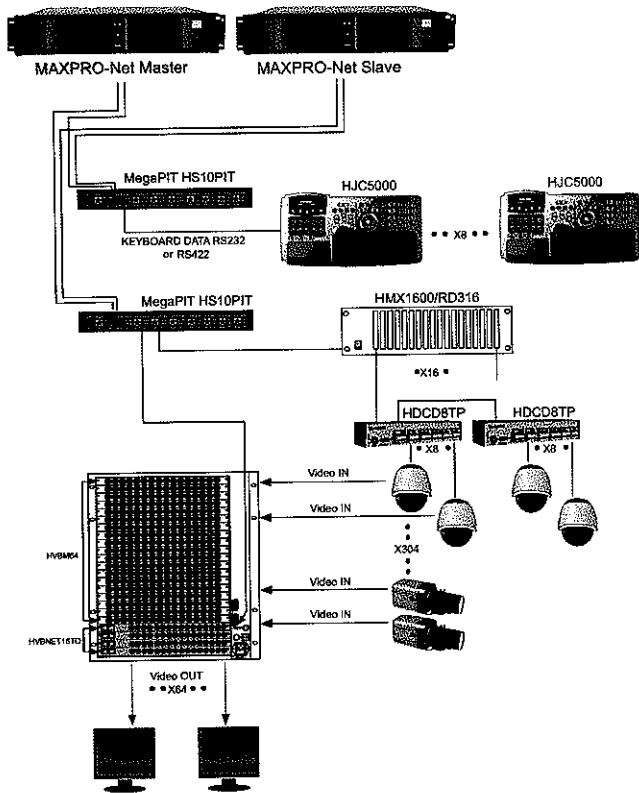
Operational	
Modes	MAXPRO-Net and VideoBloX
Baud Rates	1200, 4800, 9600, 19200, 57600
Operating Distance	RS232: 50' (15.2m) RS422: 4000' (1219m) LAN: 328' (100m)
Joystick	3-axis proportional control
Keys	Laser cut with blue backlight
Touch Wheel	Both Modes: DVR/NVR control VideoBloX: Camera selection
Standard Keys	0-9,Clr,Ent,Cam,Mon,Mux,Device,Alarm,Seq,Login
Camera Function Keys	View,Tour,PTZ Call,Alt,Undo,Set,Iris, (2) Focus,MonA,MonB
DVR/NVR Keys	Rec/Stop,Play Fwd,Play Rev,Review, Search,Touch Pad and Ring for FF,REW, Step FWD,REV
Function Keys	MAX Mode: (18) F1-9, F10+F1-9 VideoBloX: (20) F1-10, Alt+F1-F10
LCD	STN, Positive image, 122 x 32 Dots, Blue White backlight
Electrical	
Input Voltage	110-240 VAC (50 or 60 Hz)
Operating Voltage	12 VDC or POE (48 VDC, Class 3)
Power Consumption	1 A @ 12 VDC (12 W)
Mechanical	
Dimensions (W x H x D)	16" x 4.1" x 8.5" 408 mm x 105 mm x 215 mm
Gross Weight	7 lbs (3.2 Kg)
Construction	ABS+PC (Cool Gray)

Connections	
LAN	RJ45 with POE
COM 1 and 2	20% to 80%, non-condensing
USB	Type A, Version 1
Regulatory	
Emissions	FCC: CFR 47 Part 15 Class B CE: Class B (EN 61000-6-3:2001 2004/108/EC) ICES-003 CISPR 22:2005 (AS/NZS 4417.1:1996)
Immunity	EN50130-4/A2:2003
Safety	UL 60950-1 EN 60065:2006 (2006/95/EC)

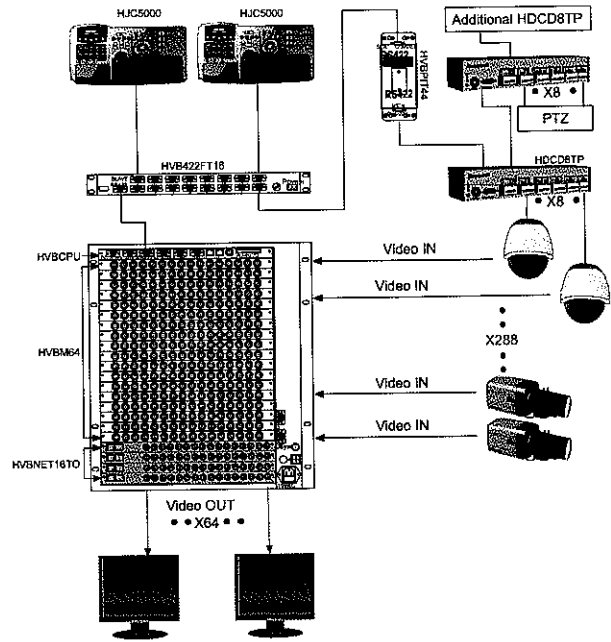
UltraKey Lite

TYPICAL SYSTEM DRAWING

Typical Redundant MAXPRO-Net Application



Typical VideoBloX Application

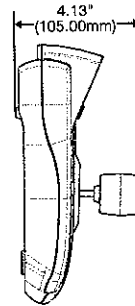
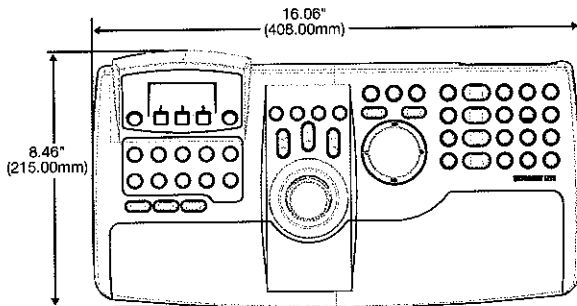


UltraKey Lite

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ACCESSORIES, DIMENSIONS, ORDERING

Included Accessories	
Power Supply	100-240 VAC, 12 VDC, 50-60 Hz, 1 A, 12 W
AC Plug Adapter	UK, US, Australia, Europe
DB9 Female Adapter	(2) RJ45 to DB9F, for RS232
DB9 Male Adapter	RJ45 to DB9M, for RS422
LAN Patch	(2) RJ45 network cable, 2m
LAN Crossover	RJ45 Cross-over Ethernet Cable, 2m, Blue
RJ11 Cable	RJ11 4X6 Flat Ribbon Cable, 2m
Break Out Box	RJ45 to Screw Terminal and DB9M
Function key overlay	Function Key Label, Blank



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

Ordering	
HJC5000	Keyboard controller for VideoBloX and MAXPRO-Net

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October 2010
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Honeywell

HD4U

www.honeywellvideo.com

ULTRA WIDE DYNAMIC TRUE DAY/NIGHT (TDN) COLOR RUGGED MINI-DOME CAMERA

Honeywell's HD4U is the ideal camera for environments with high contrast and changing light conditions. Using the Digital Pixel System® (DPS) Sensor Technology, light photons are converted from analog to a digital format within each pixel immediately after the image is captured. Even in high contrast lighting conditions, the HD4U delivers higher quality images and significantly better dynamic range (>100 dB) than conventional CCD cameras.

The HD4U uses a removable infrared (IR) cut filter in color mode and an optical low-pass filter (OLPF) in black and white mode, guaranteeing optimal image quality at any time of day. The HD4U also comes with a one-button camera setup lever control to access the on-screen display menu. Seven wide dynamic presets allow quick and easy setup for various applications such as ATMs, loading docks, lobbies, and scenes with intense glare from spotlights or car headlights.

This rugged integrated camera system is loaded with high performance features and is a snap to install. With solid die-cast aluminum housing and a scratch-resistant 3.5 mm-thick clear polycarbonate dome cover and dome liner, this unit can withstand heavy external impacts and is IP66 rated for safe outdoor installations. The compact surface mount design allows for fast, easy installation to a ceiling or wall. A 4S adapter plate for mounting over an electrical box is supplied with the unit. A service/monitor cable is included for easy on-site adjustments, and a wall mount kit can be ordered, if needed.

Market Opportunities

The HD4U True Day/Night Series camera is designed for cost effective installations that require the highest image quality possible, where light conditions are less than optimal, including locations where high contrast and variable light conditions exist. This provides optimum performance for both indoor and outdoor applications including banks, lobbies, atriums, vestibules, gated entrances, foyers, loading docks, port security and parking garages.

Features

- 1/3" Ultra Wide Dynamic DPS imager
- 540 TV lines of resolution
- 32-bit digital processing
- 7 Wide Dynamic presets for easy setup and camera configuration
- Dynamic range: 102 dB typical/120 dB max – 100 to 200 times greater than conventional CCD cameras
- 12 VDC/24 VAC with line lock
- 3-D axis gimbal bracket
- Higher frame rates – 50/60 fps progressive video capture for sharp image definition in all lighting conditions
- 0.4 lux @ F1.4 for true color representation in daytime and black and white at night
- Local video output for setup
- Vandal resistant aluminum alloy housing with polycarbonate dome



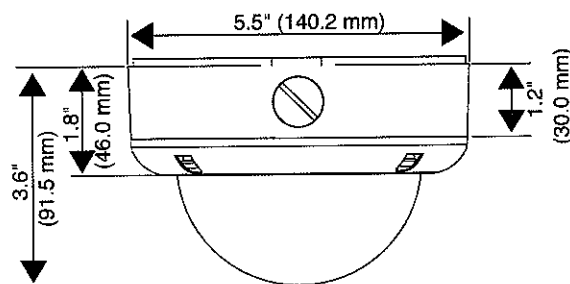
HD4U

www.honeywellvideo.com

SPECIFICATIONS

Operational	
Video Standard	NTSC, PAL
Scanning System	525/60 lines (Progressive) (NTSC), 625/50 lines (Progressive) (PAL)
Image Sensor	1/3" WDR digital image device
Number of Pixels (H x V)	720 x 540 (NTSC) 720 x 540 (PAL)
Minimum Illumination	0.4 lux @ F1.4 (AGC on, 50 IRE) 0.0 lux @ F1.4 (with external IR illumination)
Horizontal Resolution	540 TVL
Video Output	1.0 Vp-p, composite @ 75 Ohms
Sync System	12 VDC: Internal, 24 VAC: Line lock
S/N Ratio	52 dB typical (AGC Off)
Auto Gain Control	On/Off, selectable
ALC	Variable iris control for DC Drive Lenses
Automatic Electronic Shutter	1/60 – 1/100,000 second (NTSC) 1/50 – 1/100,000 second (PAL)
White Balance	AWB/ATW/ATW Xtnd/Manual
Dynamic Range	102 dB typical/120 dB max.
Line Lock Phase Adjustment	Adjustable (available only with 24 VAC)
BLC	Variable depending on WDR Preset
Flickerless	On/Off, selectable
Lens Type	2.8-10 mm, Vari-focal Auto Iris, F1.4
Angle of View	Tele: 35.8° (D), 28.7° (H), 21.6° (V) Wide: 123.3° (D), 97.1° (H), 71.8° (V)
Electrical	
Input Voltage	12 VDC/24 VAC
Input Range	11-16 VDC, 17-28 VAC
Surge Suppression	1.5 kW transient
Power Consumption	3.5 W (max)
Cable Entry	One 1" (19 mm) NPT threaded opening on side and one on base
Mechanical	
Dimensions (W x H x D)	See Diagram
Weight	2.5 lb (1.1 kg) max
Construction	Housing: Die cast aluminum Dome: Polycarbonate Finish: Off white powder coat
Connectors	Video Output: BNC connector Power Input: Screw terminal block
Cable Entry	One 1" (19 mm) NPT threaded opening on side and one on base

Environmental			
Temperature	Operating: -4°F to 122°F (-20°C to 50°C) Storage: -4°F to 140°F (-20°C to 60°C)		
Relative Humidity	0% to 90% non-condensing		
Regulatory			
Emissions	FCC, CE (EN55022)		
Immunity	CE (EN50130-4)		
Safety	UL60065, EU: 2006/95/EC		
Accessories			
Mounts			
HD4-WK	Wall mount kit, Off white		
IR Illuminators			
SWIR-AC	Combined wide and narrow sweep, 24 VAC input		
SWIR-DC	Combined wide and narrow sweep, 12 VDC input		
SWIRW-AC	Wide sweep, 24 VAC input		
SWIRW-DC	Wide sweep, 12 VDC input		
Transformers			
HPT2420	24 VAC, 20 VA Class 2 plug-in with thermal cut-out		
HPT12DC500	12 VDC, 500 mA plug-in regulated 2.1 mm coaxial plug UL Listed/CSA Certified		
Power Supplies			
UL listed	Fused	Smart Fused	Description
HPTV2404UL	HPTV2404	HPTV2404CB	4 A, 4 Output
HPTV2408UL	HPTV2408	HPTV2408CB	4 A, 8 Output
HPTV2416UL	HPTV2416	HPTV2416CB	8 A, 16 Output



Ordering	
HD4U	1/3" Ultra Wide Dynamic, True Day/Night Dome Camera, Off White Housing, 540 TVL, 2.8-10 mm VFAI, NTSC
HD4UX	1/3" Ultra Wide Dynamic, True Day/Night Dome Camera, Off White Housing, 540 TVL, 2.8-10 mm VFAI, PAL

Digital Pixel System is a registered trademark of Pixim, Inc.

Honeywell Security

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July 2008
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Honeywell

HD4D Series

www.honeywellvideo.com

TRUE DAY/NIGHT MINI DOME CAMERA

The HD4D is a high-resolution True Day/Night camera that switches from color to black and white mode, depending upon available light. The HD4D uses a removable infrared (IR) cut filter in color mode and an optical low-pass filter (OLPF) in black and white mode, guaranteeing optimal image quality at any time of day.

The HD4D incorporates the latest DSP (Digital Signal Processing) and DNR (Digital Noise Reduction) technology to produce extremely sharp and clear images regardless of lighting levels. DNR removes noise artifacts, increasing the performance of motion detection and typically providing longer recording durations on digital and network video recorders. Producing 540 TV lines, the HD4D reproduces sharper images down to the smallest detail with outstanding accuracy.

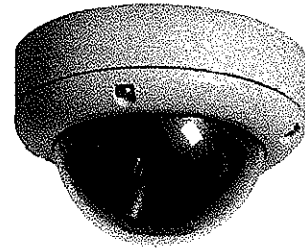
The HD4D series consists of two models, HD4D3 (3.3 - 12mm Vari-focal auto iris lens) and HD4D9 (9 - 22mm Vari-focal auto iris lens), that cover a wide range of viewing angles. With solid die-cast aluminum and a scratch-resistant 3.5mm thick polycarbonate dome cover, this unit can withstand heavy external impacts and is IP66 rated for safe outdoor installations. The HD4D comes completely assembled for quick, easy installation. It is designed to mount directly to a ceiling, wall or to a 4S single or double electrical box using the supplied adapter plate. The unit also comes with a pan/tilt/rotation mechanism and a second video service cable for simple camera adjustments.

Market Opportunities

The HD4D is a surveillance solution designed for object recognition that is required in locations where low light and variable light conditions exist. Setup is quick and easy and can be customized with user-friendly on-screen displays and preset modes. The compact, one-piece design allows for fast, easy installation in commercial, government, school, professional and any other quality-sensitive, high-risk environments, such as prisons, airports, and train stations.

Features

- Two models:
 - HD4D3: 3.3-12mm (F1.5) Vari-focal Auto Iris lens, IR Corrected
 - HD4D9: 9-22mm (F1.4) Vari-focal Auto Iris lens, IR Corrected
- High Resolution Color: 540 TVL - 1/3" Sony Super HAD CCD
- Digital Noise Reduction technology for noise free images
- On Screen Display menu for easy setup of camera
- Privacy Image Masking - 4 Programmable zones
- 3-Axis gimbal bracket
- Local video output for setup
- Dual 12 VDC/24 VAC voltage

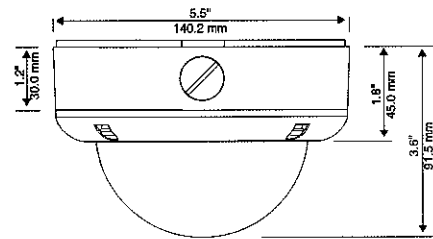


HD4D Series

www.honeywellvideo.com

SPECIFICATIONS

Operational			
Video Standard	NTSC, PAL		
Scanning System	525/60 lines (NTSC) 625/50 lines (PAL)		
Image Sensor	1/3" Sony Interline CCD sensor		
Number of Pixels (H x V)	768 x 494 (NTSC) 752 x 582 (PAL)		
Minimum Illumination	HD4D3: 0.06 lux @ 50 IRE F1.5 – BW, Sens up (Auto) 0.45 lux @ 50 IRE F1.5 – Color Sens up off HD4D9: 0.04 lux @ 50 IRE F1.4 – BW, Sens up (Auto) 0.24 lux @ 50 IRE F1.4 – Color Sens up off		
Horizontal Resolution	540 TVL		
Video Output	1.0 Vp-p, composite @ 75 Ohms		
Sync System	12 VDC: Internal 24 VAC: (Internal or Line Lock)		
S/N Ratio	50 dB or more (AGC Off)		
Auto Gain Control	On/Off, selectable		
Automatic Electronic Shutter	1/60–1/120,000 second (NTSC) 1/50–1/120,000 second (PAL)		
White Balance	ATW/AWC/Manual		
Line Lock Phase Adjustment	On/Off		
BLC	Low/Middle/High/Off		
Gamma	0.45		
DNR	High/Medium/Low		
DSS	Off/Auto (selectable limit 2X–128X)		
Privacy Function	On / Off (4 Programmable Zone)		
Lens Type	HD4D3: 3.3 – 12mm Vari-focal Auto Iris, IR Corrected F1.5, DC Drive HD4D9: 9 – 22mm Vari-focal Auto Iris, IR Corrected F1.4, DC Drive		
Angle of View	HD4D3: Tele: 29.8° (D), 24.0° (H), 18.0° (V) Wide: 104.2° (D), 80.2° (H), 58.6° (V) HD4D9: Tele: 16.1° (D), 12.8° (H), 9.6° (V) Wide: 40.2° (D), 31.2° (H), 22.8° (V)		
Electrical			
Input Voltage	12 VDC/24 VAC		
Input Range	11–16 VDC, 17–28 VAC		
Surge Suppression	1.5 kW transient		
Power Consumption	12 VDC: 4.8 W / 24 VAC: 3.8 W (max)		
Mechanical			
Dimensions (W x H x D)	See Diagram		
Weight	2.5 lb (1.1 kg)		
Construction	Housing: Die cast aluminum Dome; Polycarbonate Finish: Light gray powder coating		
Cable Entry	One 3/4" (19.1mm) NPT threaded opening on side and one on base		
Connector	Main Video Output: BNC connector Aux Video Output: 2-pin connector for video test cable (supplied) Power Input: Tinned leads		
Environmental			
Temperature	Operating: -13° F to 131° F (-25° C to 55° C) Storage: -49° F to 167° F (-45° C to 75° C)		
Relative Humidity	0% to 95%, non-condensing		
Rating	IP66		
Regulatory			
Emissions	FCC: Part 15, Class B CE: EN 55013		
Immunity	CE: EN 50130-4		
Safety	UL2044, EU: 73/23/EEC LVD		
Accessories			
Transformers			
HPT2420	24 VAC, 20 VA Class 2 plug-in with thermal cut-out		
HPT2440	24 VAC, 40 VA Class 2 plug-in with thermal cut-out		
HPT12DC1000	12 VDC, 1000 mA plug-in regulated 2.1mm coaxial plug UL Listed/CSA Certified		
Power Supplies			
UL Listed	Fused	Smart Fused	Description
HPTV2404UL	HPTV2404	HPTV2404CB	4 A, 4 Output
HPTV2408UL	HPTV2408	HPTV2408CB	4 A, 8 Output
HPTV2408UL	HPTV2416	HPTV2416CB	8 A, 16 Output
Housing Mount			
HD4-WK	Wall Mount Kit		



Ordering	
HD4D3	1/3" Sony Super HAD CCD True Day/Night (TDN) Vandal Dome Camera with DNR, 540 TVL, 3.3 – 12mm VFAI, NTSC
HD4D3X	1/3" Sony Super HAD CCD True Day/Night (TDN) Vandal Dome Camera with DNR, 540 TVL, 3.3 – 12mm VFAI, PAL
HD4D9	1/3" Sony Super HAD CCD True Day/Night (TDN) Vandal Dome Camera with DNR, 540 TVL, 9 – 22mm VFAI, NTSC
HD4D9X	1/3" Sony Super HAD CCD True Day/Night (TDN) Vandal Dome Camera with DNR, 540 TVL, 9 – 22mm VFAI, PAL

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

Honeywell Security & Data Collection

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L/HD4DD/D
March 2009
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Honeywell

HD3D/HD3DB

SUPER HIGH RESOLUTION TRUE DAY/NIGHT (TDN) COLOR INDOOR MINI-DOME CAMERAS

Honeywell's True Day/Night HD3D Series integrates a camera and lens into a single piece, tamper proof, compact unit designed to be surface or flush mounted for fast and easy installation. The HD3D is a True Day/Night camera that automatically switches from color to black and white mode depending upon available light. It uses a removable infrared (IR) cut filter and an optical low-pass filter (OLPF) in black and white mode to guarantee superior image quality at any time of day or night. Setup is quick and easy with easy-to-access switches on top of the camera. The compact surface mount or flush one-piece mount design allows for fast, easy installation and a wall/pendant mount kit is available in off white or black for inconspicuous installation in virtually any application. The housing is designed to easily mount directly to a ceiling or wall, and a 4S adapter plate is supplied with the unit for mounting over an electric box. A service/monitor cable is also included for easy on-site adjustments.

The HD3D incorporates a 1/3" CCD that offers 540 TV lines of crisp, clear horizontal resolution with a minimum illumination of 0.4 lux (or 0.0 lux with external IR illumination). The cameras come equipped with a 2.8 – 10 mm (F1.3) aspherical IR corrected Vari-focal Auto Iris lens to cover a wide range of viewing angles, and picture adjustment after installation is easy with the 3-D axis gimbal that is capable of 360° of pan, 180° of tilt and 360° of horizontal rotation. The HD3D also features a tamper-resistant lockable cover and a "cable management" housing design for installations requiring the video and power connectors to be contained within the housing base.

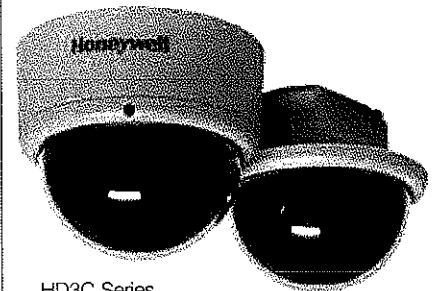
The HD3D accepts either 12 VDC or 24 VAC (auto sensing) for proper operation and flexible installation. The Backlight Compensation (BLC) and Auto Tracking White Balance (ATW) ensure crisp color images in dark or backlit environments such as windows and doorways. The Automatic Gain Control (AGC) feature increases the signal strength from the camera when scene lighting is low, keeping the picture sharp and viewable.

Market Opportunities

The HD3D True Day/Night Series camera is designed for cost effective installations that require the highest image quality possible, where light conditions are less than optimal. It is ideal in commercial or residential sites, daycare centers, retail stores or hospitals – anywhere surveillance must be discreet.

Features

- 1/3" Sony Interline CCD
- Super high resolution color: 540 TV lines with mechanical IR cut filter technology
- Single model for surface mount and recessed ceiling applications, 4S adapter plate also supplied
- Tamper resistant dome offers secure installation
- Polycarbonate housing and dome
- Easy to use "cable management" housing design
- Clear dome with liner for discretion with no light loss
- 2.8 – 10 mm (F1.3) IR Corrected Aspherical Vari-focal Auto Iris lens
- Local video output for setup
- 3D - axis gimbal
- Line Lock with phase adjustment (24 VAC)
- Dual 12 VDC/24 VAC voltage
- Housing available in Off White or Black
- Pendant and wall mount kit available



HD3C Series
shown with
mount ring for
surface mount

HD3C Series
shown without
mount ring for
flush mount

HD3D/HD3DB

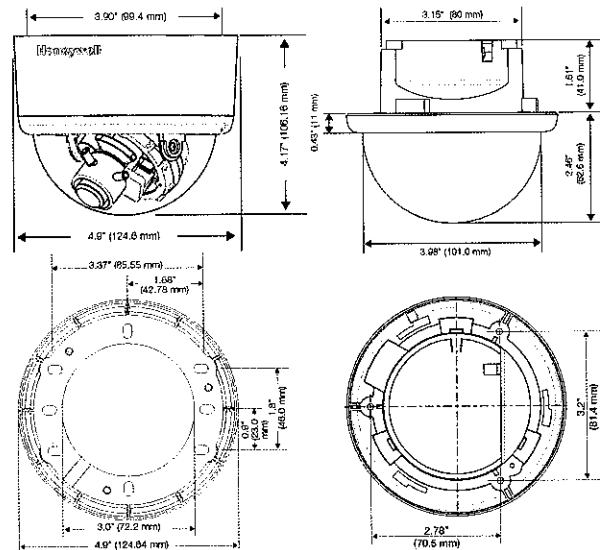
www.honeywellvideo.com

SPECIFICATIONS

Operational	HD3D, HD3DB	HD3DX, HD3DBX
Video Standard	NTSC	PAL
Scanning System	525/60 lines	625/50 lines (PAL)
Image Sensor	1/3" Sony CCD color image sensor	
Number of Pixels (H x V)	768 x 494 (NTSC)	752 x 582 (PAL)
Minimum Illumination	0.4 lux @ F1.3 (AGC on, 50 IRE) 0.0 lux @ F1.3 (with external IR illumination*)	
Horizontal Resolution	540 TVL	
Video Output	1.0 Vp-p, composite @ 75 Ohms	
Sync System	12 VDC: Internal, 24 VAC: Line lock	
S/N Ratio	50 dB (AGC Off)	
Auto Gain Control	On/off, selectable	
ALC	Auto Iris: DC drive	
Automatic Electronic Shutter	1/60 – 1/100,000 second (NTSC) 1/50 – 1/100,000 second (PAL)	
White Balance	ATW/AWC	
Line Lock Phase Adjust	Adjustable (available only with 24 VAC)	
BLC	On/off, switchable	
Flickerless	On/off, switchable	
Lens Type	2.8 to 10 mm, Vari-focal Auto Iris, F1.3	
Angle of View	Tele: 34.3° (D), 27.4° (H), 20.5° (V) Wide: 129° (D), 100.2° (H), 73.3° (V)	
Electrical		
Input Voltage	12 VDC/24 VAC	
Input Range	11-16 VDC, 17-28 VAC	
Surge Suppression	1.5 kW Transient	
Power Consumption	3.5 W (max)	
Mechanical		
Dimensions (W x H x D)	See Diagram	
Weight	0.66 lb (.3 kg) max	
Construction	Housing: Polycarbonate Dome: Polycarbonate Finish: Matte texture, Off White or Black	
Connectors	Video Output: BNC connector Power Input: (Screw terminal block)	

*IR Illuminator sold separately.

Environmental	
Temperature	Operating: 14°F to 122°F (-10°C to 50°C) Storage: -4°F to 140°F (-20°C to 60°C)
Relative Humidity	0% to 90% non-condensing
Regulatory	
Emissions	FCC, CE (EN55022)
Immunity	CE (EN50130-4)
Safety	UL60065, EU: 73/23/EEC LVD
Accessories	
Mounts	
HD3-MK	Wall/Pendant Mount Kit, Off White
HD3-MKB	Wall/Pendant Mount Kit, Black
IR Illuminators	
SWIR-AC	Combined Wide and Narrow Sweep, 24 VAC Input
SWIR-DC	Combined Wide and Narrow Sweep, 12 VDC Input
SWIRW-AC	Wide Sweep, 24 VAC Input
SWIRW-DC	Wide Sweep, 12 VDC Input



Ordering	
HD3D	1/3" CCD High Resolution True Day/Night Dome Camera, Off White Housing, 540 TVL, 2.8 - 10 mm VFAI, NTSC
HD3DX	1/3" CCD High Resolution True Day/Night Dome Camera, Off White Housing, 540 TVL, 2.8 - 10 mm VFAI, PAL
HD3DB	1/3" CCD High Resolution True Day/Night Dome Camera, Black Housing, 540 TVL, 2.8 - 10 mm VFAI, NTSC
HD3DBX	1/3" CCD High Resolution True Day/Night Dome Camera, Black Housing, 540 TVL, 2.8 - 10 mm VFAI, PAL

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February 2008
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Honeywell

HD3U

ULTRA WIDE DYNAMIC DAY/NIGHT INDOOR COLOR DOME CAMERA

Honeywell's HD3U employs the only all-digital technology in the industry – the Digital Pixel System® (DPS) capture technology. With this technology thousands of self-adjusting pixels act like individual cameras, eliminating image-compromising visual noise and delivering the highest resolution, natural color and clarity, even in challenging lighting conditions. The HD3U delivers higher quality images, significantly better dynamic range (120 dB max), and higher frame rates than conventional CCD cameras.

The HD3U also comes with a one-button camera setup lever control to access the on-screen display menu. Seven wide dynamic presets allow quick and easy setup for various applications such as ATMs, loading docks, lobbies, and scenes with intense glare from spotlights or vehicle headlights.

This integrated camera system is loaded with high performance features, and is a snap to install. With solid polycarbonate housing and a thick clear polycarbonate dome cover and dome liner, this one-piece, compact surface mount design allows for fast, easy installation to a ceiling or wall. The 3-D axis gimbal allows versatile positioning and instant centering of the video image. A service/monitor cable is also included for easy on-site adjustments.

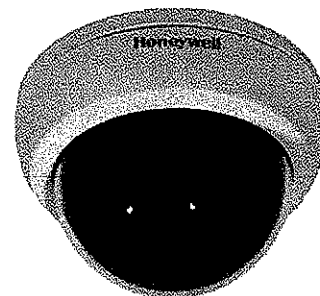
The HD3U accepts either 12 VDC or 24 VAC (auto sensing) for proper operation and flexible installation. The cameras come equipped with a 2.8-10.5 mm (F1.4) aspherical Vari-focal Auto Iris lens to cover a wide range of viewing angles. Picture adjustment after installation is easy with the 3-D axis gimbal that is capable of 360° of pan, 180° of tilt and 360° of horizontal rotation.

Market Opportunities

The HD3U Series day/night camera is designed for cost effective installations that require the highest image quality possible, where light conditions are less than optimal. This provides optimum performance for both indoor applications including banks, ATMs, lobbies, atriums, vestibules, foyers, warehouses and schools.

Features

- 1/3" Ultra Wide Dynamic DPS imager – 540 TV lines of resolution
- 32-bit digital processing
- 7 Wide Dynamic presets for easy setup and camera configuration
- Dynamic range: 102 dB typical/120 dB max – 100 to 200 times greater than conventional CCD cameras
- Higher frame rates – 50/60 fps progressive video capture for sharp image definition in all lighting conditions
- 0.4 lux @ F1.2 for true color representation in daytime and black and white at night
- 12 VDC/24 VAC with line lock
- 3-D axis gimbal bracket
- Local video output for setup
- Polycarbonate housing and dome



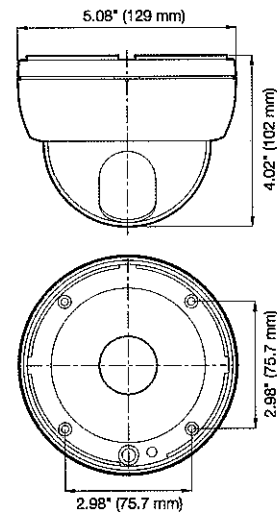
HD3U

www.honeywellvideo.com

SPECIFICATIONS

Operational	HD3U	HD3UX
Video Standard	NTSC	PAL
Scanning System	525/60 lines (Progressive)	625/50 lines (Progressive)
Image Sensor	1/3" WDR digital image device	
Number of Pixels (H x V)	720 x 540	720 x 540
Minimum Illumination	0.4 lux @ F1.2 (AGC on, 50 IRE)	
Horizontal Resolution	540 TVL	
Video Output	1.0 Vp-p, composite @ 75 Ohms	
Sync System	12 VDC: Internal, 24 VAC: Line lock	
S/N Ratio	52 dB typical (AGC Off)	
Auto Gain Control	On/Off, selectable	
ALC	Variable Iris Control for DC Drive Lenses	
Automatic Electronic Shutter	1/60-1/100,000 second (NTSC) 1/50-1/100,000 second (PAL)	
White Balance	AWB/ATW/ATW Xtn/Manual	
Dynamic Range	102 dB typical/120 dB max	
Line Lock Phase Adjustment	Adjustable (available only with 24 VAC)	
BLC	On/Off, selectable	
Flickerless	On/Off, selectable	
Lens Type	2.8-10.5 mm, Vari-focal Auto Iris, F1.2	
Angle of View	Tele: 27.4° (H), 20.6° (V) Wide: 99.5° (H), 73.2° (V)	
Electrical		
Input Voltage	12 VDC/24 VAC	
Input Range	11-16 VDC, 17-28 VAC	
Surge Suppression	1.5 kW transient	
Power Consumption	3.5 W (max)	
Mechanical		
Dimensions (W x H x D)	See Diagram	
Weight	0.8 lb (0.366 kg)	
Construction	Housing: Polycarbonate Dome: Polycarbonate Finish: Off-white, matte texture	
Connectors	Main Video: BNC connector Aux Video: 2-pin connector for video test cable (supplied) Power Input: screw terminal block	

Environmental	
Temperature	Operating: 14°F to 122°F (-10°C to 50°C) Storage: -4°F to 140°F (-20°C to 60°C)
Relative Humidity	0% to 90% non-condensing
Regulatory	
Emissions	FCC, CE (EN55022)
Immunity	CE (EN50130-4)
Accessories	
Transformers	
HPT2420	24 VAC, 20 VA Class 2 plug-in with thermal cut-out
HPT12DC500	12 VDC, 500 mA plug-in regulated 2.1 mm coaxial plug UL Listed/CSA Certified
Power Supplies	
HPTV2404UL	PSU, 4 Outputs, 24VAC, 4A, UL
HPTV2408UL	PSU, 8 Outputs, 24VAC, 4A, UL
HPTV2416UL	PSU, 16 Outputs, 24VAC, 8A, UL



Ordering	
HD3U	1/3" Ultra Wide Dynamic, Indoor Day/Night Dome Camera, Off-White Housing, 540 TVL, 2.8-10.5 mm VFAI, NTSC
HD3UX	1/3" Ultra Wide Dynamic, Indoor Day/Night Dome Camera, Off-White Housing, 540 TVL, 2.8-10.5 mm VFAI, PAL

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L/HD3UD/D
February 2010
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Honeywell

ACUIX™ PTZ Dome

www.honeywellvideo.com

HIGH SPEED DOME SYSTEM

The ACUIX™ PTZ dome features five housing configurations and four integrated high-resolution, auto-focus cameras for virtually any application. The color camera is available with an 18X zoom lens and 470 TVL (460 TVL PAL) of resolution. The Wide Dynamic Range (WDR) and True Day/Night (TDN) models feature 18X, 26X and 35X zoom lenses and up to 540 TVL (530 TVL PAL) of resolution. The 35X model also includes Electronic Image Stabilization (EIS) for improved image quality in unstable mounting situations.

The ACUIX PTZ dome uses Honeywell proprietary technology that allows users to remotely upload firmware to all domes and permits secure storage of all camera settings such as labels, presets, tours, and privacy zones.

The ACUIX PTZ dome comes with many software features that increase performance and make installation and operation easy. Dynamic Privacy Zones allow a user to mask up to 32 regions to ensure absolute privacy for sensitive areas. Password protection prevents unauthorized users from changing the system settings. Other features include Flashback for quick review of two scenes and StillShot to save storage space during tours. Multi-language menus are provided for English, French, German, Dutch, Italian, Polish, and Spanish.

Market Opportunities

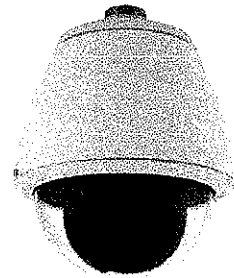
The combination of the latest in digital technology, advanced video processing, and aesthetically pleasing design makes the ACUIX ideally suited for retailers, airports, government installations, schools and campuses, industrial environments, and anywhere detailed surveillance is essential. Highly reliable, the ACUIX offers world-class performance and seamless system integration.

Features

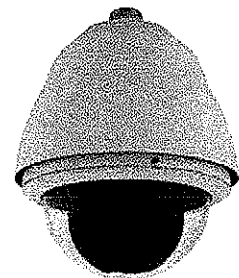
- 35X, 540 TVL, 128X Wide Dynamic Range (WDR), True Day/Night Motion Detection, and Electronic Stabilization (HDXG series)
- 18X & 26X, 530 TVL, 128X Wide Dynamic Range (WDR), True Day/Night (HDXJ & HDXF Series)
- 18X Color, 470 TVL, (HDXA Series)
- Indoor in-ceiling and pendant housings
- IP66 outdoor pendant and rugged housings
- Remote firmware updates
- Secure backup of all camera settings
- Active UTP video output standard in all domes
- 4 dry contact inputs
- Up to 150 user-defined presets
- 16 preset tours of 64 presets each
- 32 Dynamic Privacy Zones
- Password protection prevents unauthorized users from altering system settings
- Built-in surge and lightning protection
- Menus are provided for English, French, German, Dutch, Italian, Polish, and Spanish



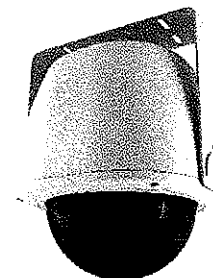
In-ceiling



Indoor Pendant



Outdoor Pendant



Rugged

ACUIX™ PTZ Dome

www.honeywellvideo.com

SPECIFICATIONS

CAMERA	HDXA	HDXJ	HDXF	HDXG
Image Sensor	1/4" Ex-view HAD CCD	1/4" Ex-view HAD CCD	1/4" Ex-view HAD CCD	1/4" Ex-view HAD CCD
Lens	18X optical zoom, f=4.1mm (wide) to 73.8mm (tele), F1.4 to F3.0	18X optical zoom, f=4.1 mm (wide) to 73.8 mm (tele), F1.4 to F3.0	26X optical zoom, f=3.5 mm (wide) to 91.0 mm (tele), F1.6 to F3.8	35X optical zoom, f=3.4 (wide) to 119mm (tele), F1.4 to F4.2
Horizontal Resolution	>470 TVL (NTSC) >460 TVL (PAL)	>530 TVL (NTSC) >520 TVL (PAL)	>530 TVL (NTSC) >520 TVL (PAL)	>540 TVL (NTSC) >530 TVL (PAL)
Moveable IR filter	No	Yes	Yes	Yes
Wide Dynamic Range	No	Yes, 128X	Yes, 128X	Yes, 128X
Digital Zoom	12X (216X total zoom)	12X (216X total zoom)	12X (312X total zoom)	12X (420X total zoom)
Angle of View (H)	48° (wide end) to 2.8° (tele end)	48° (wide end) to 2.8° (tele end)	54.2°(wide end) to 2.2° (tele end)	55.8°(wide end) to 1.7° (tele end)
Sync System	Internal/AC line lock	Internal/AC line lock	Internal/AC line lock	Internal/AC line lock
Minimum Illumination	See Minimum Illumination chart below			
S/N Ratio	> 50 dB	> 50 dB	> 50 dB	> 50 dB
Electronic Shutter	1/1 to 1/10,000 sec	1/1 to 1/10,000 sec	1/1 to 1/10,000 sec	1/2 to 1/30,000 sec
White Balance	Auto, ATW, Indoor, Outdoor, Manual	Auto, ATW, Indoor, Outdoor, Manual	Auto, ATW, Indoor, Outdoor, Manual	Auto, Indoor, Outdoor, Manual
Gain	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Backlight Compensation	On/Off/Auto	On/Off/Auto	On/Off/Auto	On/Off/Auto
Focusing System	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual
Electronic Image Stabilization (EIS)	No	No	No	Yes, up to 12 dB suppression

Minimum Illumination					
Image and Shutter Speed	Video Signal Level	HDXA	HDXJ	HDXF	HDXG
		18X Color	18X WDR&TDN	26X WDR&TDN	35X WDR&TDN
Color Image	50 IRE	0.7 lux	0.7 lux	1.00 lux	0.5 lux
Shutter speed = 1/60 sec	30 IRE	0.35 lux	0.35 lux	0.5 lux	0.25 lux
Color Image	50 IRE	0.1 lux	0.07 lux	0.09 lux	0.05 lux
Shutter speed = 1/4 sec	30 IRE	0.05 lux	0.035 lux	0.05 lux	0.03 lux
Color Image	50 IRE	0.05 lux	0.035 lux	0.045 lux	0.025 lux
Shutter speed = 1/2 sec	30 IRE	0.025 lux	0.018 lux	0.023 lux	0.015 lux
Black & White Image	50 IRE	n/a	0.15 lux	0.15 lux	0.15 lux
Shutter speed = 1/60 sec	30 IRE	n/a	0.08 lux	0.08 lux	0.075 lux
Black & White Image	50 IRE	n/a	0.01 lux	0.01 lux	0.01 lux
Shutter speed = 1/4 sec	30 IRE	n/a	0.005 lux	0.005 lux	0.005 lux
Black & White Image	50 IRE	n/a	0.005 lux	0.005 lux	0.005 lux
Shutter speed = 1/2 sec	30 IRE	n/a	0.0025 lux	0.0025 lux	0.0025 lux

ACUIX™ PTZ Dome

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SPECIFICATIONS

Operational	
Angular Travel	Horizontal: 360° continuous Tilt: 5° above horizontal to 90° down
Speed (Manual Mode)	Pan: variable from 0.10° to 480°/sec. Tilt: variable from 0.10° to 240°/sec.
Speed to Preset	<0.5 sec.
Preset Accuracy	± 0.09°
Presets Per Dome	150 with IntelliBus and Diamond protocols, 132 with MAXPRO Mode, 99 with VCL protocol
Preset Tours	16 tours with up to 64 presets per tour
Still Shot™ Feature	Freeze-frame of video between presets during tour
Mimic Tours	16 2-minute mimic tours
Sector Identification	16 independent sectors or zones
Dynamic Privacy Zones	32 Dynamic Privacy Zones
Installation in Housing	Simple electrical quick disconnect and mechanical slide mount
Default Function	Activates preset tours and mimic tours after programmable period of inactivity.
Flashback	Recalls the last preset position observed whether in manual, preset tour or mimic tour. Presets can be toggled between last two
Digital Zoom Label	Provides on-screen identification of digital zoom setting (i.e., 2X, 4X, 12X). User selectable.
24 VAC Line-Lock	Unit is 24 VAC line locked with 0-359° phase adjust
Alarm Processing	4 on-board inputs for dry contacts
Protocols Supported	IntelliBus, Diamond, Maxpro mode, VCL, VCL up-the-Coax and Pelco "P" & "D"
Receiver/Driver	Digital Communication: RS485 Addressing: 4 numeric rotary switches Protocol: 8 position DIP switch Battery-backed memory
UTP Output	Active UTP output with video frequency and gain adjustments in OSD

In-ceiling and Indoor Pendant	
Environmental	
Temperature	Operating: 14°F to 131°F (-10°C to 55°C) Storage: -40°F to 140°F (-40°C to +60°C)
Relative Humidity	0 to 95%, non-condensing
Regulatory	
Emissions	FCC: Part 15, Class B CE: EN55022, Class B
Immunity	EN50130-4
Safety	UL60065/EN60065

Outdoor Pendant and Rugged	
Environmental	
Temperature	Absolute Max: +140°F (60°C) Operating: -40°F to 122°F (-40°C to 50°C) Storage: -40°F to 140°F (-40°C to 60°C)
Relative Humidity	0 to 95%, non-condensing
Protection Classification	IP66 NEMA4X
Regulatory	
Emissions	FCC: Part 15, Class B CE: EN55022, Class B
Immunity	EN50130-4
Safety	UL60065/EN60065

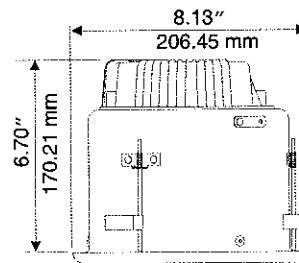
ACUIX™ PTZ Dome

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SPECIFICATIONS

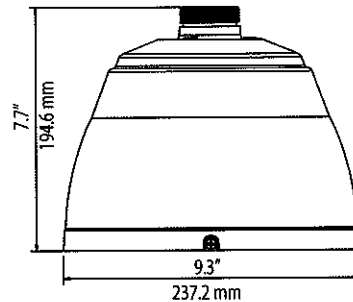
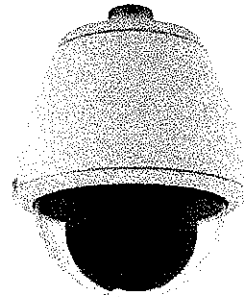
In-ceiling

Electrical	
Input Voltage	24 VAC @ 50/60 Hz, Class 2 LPS
Input Tolerance	21 to 27 VAC
Power Consumption	41 W Peak
	29 W Idle
Mechanical	
Dimensions	6.7" H x 8.13" Dia (170.21 mm H x 206.45 mm Dia)
Weight	6.0 lbs (2.72 kg)
Construction	Housing: Aluminum Lower Dome: Optical Grade Acrylic
Mounting Method	7-5/8" (193.8 mm) diameter mounting hole with 3 wing tabs



Indoor Pendant

Electrical	
Input Voltage	24 VAC @ 50/60 Hz, Class 2 LPS
Input Tolerance	21 to 27 VAC
Power Consumption	41 W Peak
	29 W Idle
Mechanical	
Dimensions	Housing: 7.7" H x 9.3" Dia (194.6 mm H x 237.2 mm Dia) Lower Dome: 7.5" Dia (191 mm Dia)
Weight	6.0 lbs (2.72 kg)
Construction	Housing: Aluminum Lower Dome: Optical Grade Acrylic Finish: Available in warm gray or black matte
Mounting Method	1.5" NPT



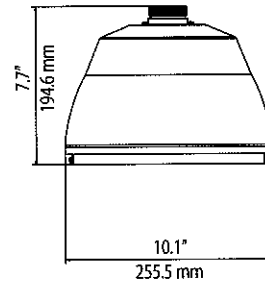
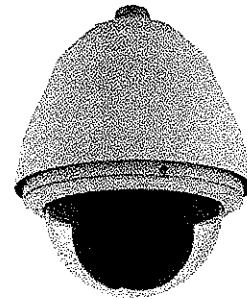
ACUIX™ PTZ Dome

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SPECIFICATIONS

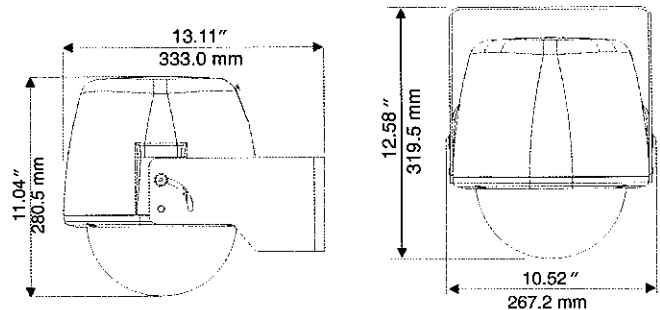
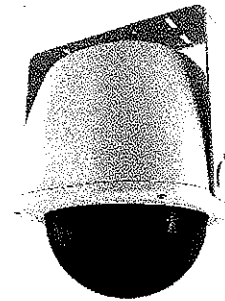
Outdoor Pendant

Electrical	
Input Voltage	24 VAC @ 50/60 Hz, Class 2 LPS
Input Tolerance	21 to 27 VAC
Power Consumption	55 W Peak
	41 W Idle
Mechanical	
Dimensions	Housing: 7.7" H x 10.1" Dia (194.6 mm H x 255.5 mm Dia) Lower Dome: 7.5" Dia (191 mm Dia)
Weight	6.7 lbs (3.04 kg)
Construction	Housing: Aluminum Lower Dome: Optical Grade Acrylic Finish: warm gray
Mounting Method	1.5"NPT



Rugged

Electrical	
Input Voltage	24 VAC @ 50/60 Hz, Class 2 LPS
Input Tolerance	21 to 27 VAC
Power Consumption	55 W Peak
	41 W Idle
Mechanical	
Dimensions	Housing: see line drawing Lower Dome: 7.5" Dia (191 mm Dia)
Weight	14.75 lbs (6.69 kg)
Construction	Housing: Die-cast aluminum Lower Dome: Optical Grade Acrylic
Mounting Method	Integral bracket providing 90° tilt



ACUIX™ PTZ Dome

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ACCESSORIES AND ORDERING

Accessories:	
Mounts	
HDVWM1	Indoor Wall Mount
HDXWM2	ACUIX Indoor and Outdoor Wall Mount
HDPRM2	Parapet and Flat Roof Mount
HDCM1	Ceiling mount for Indoor Pendant
HDXPMA1	ACUIX Pole Mount Adapter for HDXWM1 and rugged housing
HDXCMA1	ACUIX Corner Mount Adapter for HDXWM1 and rugged housing
Power Supplies	
HPTV2401WPZ	24 VAC, 8 A with surge protection for power, video and data, NEMA 4X enclosure
HPTV2401Z	24 VAC, 8 A with surge protection for power, video and data, indoor enclosure

System Compatibility

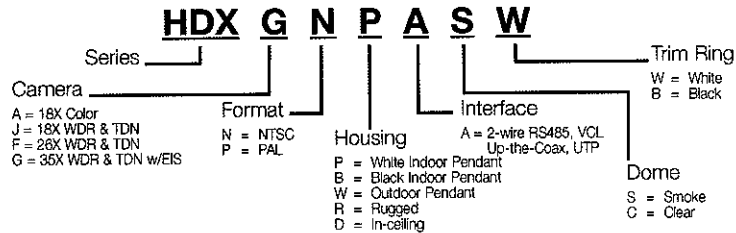
The ACUIX high speed dome system is supported by a comprehensive line of video management systems and accessories. Honeywell's digital video recorders (Fusion, Rapid Eye, HRXD), network video recorders (Enterprise and DVM), and matrix switchers (VideoBloX and MAXPRO-Net) all provide complete compatibility with the ACUIX high speed dome. In addition, Honeywell's protocol interface translators allow ACUIX to be installed in most competitors' systems.

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

Ordering

HOW TO ORDER

Example:
HDXGNWACW =
35X WDR & TDN
w/EIS/NTSC/Outdoor
Pendant/Analog/
Clear/White



Honeywell Security Group

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L/ACUIXAND/D
 November 2009
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