



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**

VENDOR

RFQ COPY  
 TYPE NAME/ADDRESS HERE

Electronic Specialty Company  
 1325 Dunbar Avenue  
 Dunbar, WV 25064

SHIP TO

DIVISION OF JUVENILE SERVICES  
 VARIOUS LOCALES AS  
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/11/2011				

BID OPENING DATE: **04/07/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		840-84		# 312,384 <sup>00</sup>
VIDEO SURVEILLANCE SYSTEMS						
INQUIRIES:						
WRITTEN QUESTIONS WILL BE ACCEPTED UNTIL CLOSE OF BUSINESS ON 03/23/2011. QUESTIONS MAY BE SENT VIA USPS, FAX, COURIER AND E-MAIL. IN ORDER TO ASSURE NO VENDOR RECEIVES AN UNFAIR ADVANTAGE, NO SUBSTANTIVE QUESTIONS WILL BE ANSWERED ORALLY. IF POSSIBLE, E-MAIL QUESTIONS ARE PREFERRED. ADDRESS INQUIRIES TO:						
TARA LYLE DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305						
FAX: 304-558-4115 E-MAIL: TARA.L.LYLE@WV.GOV						
CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.						

RECEIVED  
 2011 MAY -5 P 12:35  
 PURCHASING DIVISION  
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Tara Lyle</i>	TELEPHONE (304) 766-6277	DATE 5/5/2011	
TITLE VICE PRESIDENT	FEIN 55-0452548	ADDRESS CHANGES TO BE NOTED ABOVE	

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

## GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

### INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
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### Request for Quotation

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ADDRESS CORRESPONDENCE TO ATTENTION OF:  
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 304-558-2544

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DIVISION OF JUVENILE SERVICES  
 VARIOUS LOCALES AS  
 INDICATED BY ORDER

PROPERTY

SHIP TO

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/11/2011				

BID OPENING DATE: 04/07/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
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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.

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.

**NOTICE**

A SIGNED BID MUST BE SUBMITTED TO:

DEPARTMENT OF ADMINISTRATION  
 PURCHASING DIVISION  
 BUILDING 15  
 2019 WASHINGTON STREET, EAST  
 CHARLESTON, WV 25305-0130

THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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



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 VARIOUS LOCALES AS  
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03/11/2011				

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: ----- 04/07/2011 -----						
BID OPENING TIME: ----- 1:30 PM -----						
PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:						
----- (304) 766-6270 -----						
CONTACT PERSON (PLEASE PRINT CLEARLY):						
----- Todd Byrne -----						
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						<u>312,384.00</u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Tara Lyle</i>	TELEPHONE <b>304-766-6277</b>	DATE <b>5-5-11</b>
TITLE <i>Vice President</i>	FEIN <b>55-0452548</b>	ADDRESS CHANGES TO BE NOTED ABOVE

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 C520BCDNV 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 fps (NTSC) or 400 fps (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, stop 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 (-15 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<sup>®</sup>-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 @ 126 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  $\pm 1$  dB to 12 MHz, and a signal-to-noise ratio of  $-50$  dB with adjacent channel crosstalk limit of  $-55$  dB typical at 3.58 MHz.
- The matrix switcher/controller shall provide for differential gain of 0.03% and a differential phase of  $0.24^\circ$  typical.
- The matrix switcher/controller shall be rack-mountable in a standard EIA 19-inch rack.
- The matrix switcher/controller shall measure 6.25 (H) x 17.4 (W) x 12.25 (D) inches (15.88 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 Switcher or Equal
- 5. Pelco Model KBD300A Var-Speed PTZ Joystick or Equal
- 6. Pelco Model MX4016CD 16-Channel Duplex Multiplexer or Equal

### **FART 3 – PRODUCTS**

#### **3.1 FULL HIGH DEFINITION LCD MONITOR**

**A. The LCD monitor shall have 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 401 mm
  - 3. 42" 930 x 520 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-Tick
- 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 UTP
- B. Input Voltage
  - 12 VDC or 24 VAC (±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

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

#### 5.1.4 CAMERA SPECIFICATIONS

<b>A. Horizontal Resolution:</b>	
1. Wide Dynamic:	504 TV lines
2. Day / Night:	540 TV lines
<b>C. Minimum Illumination</b>	
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

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

**5.1.6 MECHANICAL SPECIFICATIONS:**

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

**5.1.7 PHYSICAL SPECIFICATIONS**

- |                         |   |
|-------------------------|---|
| <b>A. Construction:</b> | <b>Durable corrosion resistant camera mounting bracket and polycarbonate dome</b> |
| <b>B. Finish</b>        | <b>Rust resistant finish</b>  |

**5.1.8 CERTIFICATIONS**

- |                       |
|-----------------------|
| <b>A. CE Class B:</b> |
| <b>B. UL Listed</b>   |

**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 DIN, WDR Camera 3-9mm Lens or Equal**
- 17. Pelco Model IM10010-1 Indoor Fixed Dome Camera 2.8-10mm Lens or Equal**
- 18. Pelco Model IS90BCHV9 Indoor Fixed Mini-Dome Camera 3.9-9mm Lens or Equal**

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

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

**6.1.2 VIDEO SPECIFICATIONS**

- |                         |                    |
|-------------------------|--------------------|
| <b>A. Signal System</b> | <b>NTSC or PAL</b> |
|-------------------------|--------------------|

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

**C. Lens Type:**

1. Wide Dynamic (WDR) Varifocal with auto iris
2. Day/Night (DN) Varifocal 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. Peico 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 Vari-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
  - \* 1/0.1 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  $\frac{1}{2}$ -inch progressive scan CCD
  - 2. NTSC 768 (H) x 494 (V)
  - 3. PAL 752 (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/GCIR 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  $V_p-p$  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 SD40BW-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 switches, 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 DAS 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 DJ5010296

**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**

Doe Lory Place

Julian, WV 25529

**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 Emmett Rousch Dr.

Martinsburg, WV 25401

**DJS010296 - DVR Camera System Equipment**

Item #	Qty	Description	Model	Unit Price	Extended Amount
1	10	Pelco Model 3200N 120PCS 18 Channel 3008 120PS or Equal	ADHD160100	\$ 5,134.00	\$ 97,546.00
2	3	32 Channel or Equal	ADHD320200	\$ 7,164.00	\$ 21,492.00
3	4	64 Channel or Equal	ADHD320200/ADEIP2410	\$ 13,948.00	\$ 55,792.00
4	12	Pelco Model 3200N 120PCS 18 Channel 3008 120PS or Equal	ADMP48-E	\$ 3,004.00	\$ 36,048.00
5	12	64 Channel or Equal	AD2089	\$ 1,060.00	\$ 12,720.00
6	12	Pelco Model 3200N 120PCS 18 Channel 3008 120PS or Equal	DMV960-1	\$ 875.00	\$ 10,500.00
7	8	Pelco Model 3200N 120PCS 18 Channel 3008 120PS or Equal	ADDELL2410	\$ 785.00	\$ 6,280.00
8	8	18.5" Screen Monitor or Equal	ZM-L32A-HD	\$ 1,264.00	\$ 10,112.00
9	8	18.5" Screen Monitor or Equal	ZM-L42A-HD	\$ 1,899.00	\$ 15,192.00
10	12	18.5" Screen Monitor or Equal	ADMNTLCDWL	\$ 66.00	\$ 792.00
11	5	Pelco Model 183000 Multi Lock Box or Equal	PELCOLB3000	\$ 481.00	\$ 2,405.00
12	5	Pelco Model 183000 Multi Lock Box or Equal	ALTR2416300	\$ 271.00	\$ 1,355.00
13	5	Pelco Model 183000 Multi Lock Box or Equal	ALTR2432600	\$ 395.00	\$ 1,975.00
14	5	Pelco Model 183000 Multi Lock Box or Equal	ADCDEH0309TN	\$ 241.00	\$ 1,205.00
15	5	Pelco Model 183000 Multi Lock Box or Equal	ADCBW0309TU	\$ 397.00	\$ 1,985.00
16	5	Pelco Model 183000 Multi Lock Box or Equal	ADCBW0309TU	\$ 397.00	\$ 1,985.00
17	5	Pelco Model 183000 Multi Lock Box or Equal	ADCIPI355	\$ 853.00	\$ 4,265.00
18	5	Pelco Model 183000 Multi Lock Box or Equal	ADCFEH0309TN	\$ 241.00	\$ 1,205.00
19	5	Pelco Model 183000 Multi Lock Box or Equal	ADCD601-B0001	\$ 120.00	\$ 600.00
20	5	Pelco Model 183000 Multi Lock Box or Equal	ADCI121A	\$ 9.00	\$ 45.00
21	5	Pelco Model 183000 Multi Lock Box or Equal	ADCBW0309TU	\$ 332.00	\$ 1,660.00
22	5	Pelco Model 183000 Multi Lock Box or Equal	CPAKIWSHR2-12N	\$ 254.00	\$ 1,270.00
23	5	Pelco Model 183000 Multi Lock Box or Equal	ADSDU8220PCWN	\$ 1,746.00	\$ 8,730.00
24	5	Pelco Model 183000 Multi Lock Box or Equal	ADSDU8350PCWN	\$ 2,021.00	\$ 10,105.00
25	5	Hourly Rate		\$ 89.00	\$ 7,120.00
26	5	Installation			
<b>TOTAL</b>				\$ 43,046.00	\$ 312,384.00

\*PLEASE SEE ATTACHED FOR ADDITIONAL PRODUCT INFORMATION.

Bidder / Vendor Information:  
 Name: Electronic Specialty Company  
 Address: 1325 Dunbar Avenue  
 Dunbar, WV 25064  
 Phone #: (304) 766-6277  
 Email Address: todd@electronicspecialty.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

Ow Reynolds 5/5/11  
Signature Date

VICE PRESIDENT  
Title

Electronic Specialty Company  
Company Name

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Title

\_\_\_\_\_  
Agency/Division

WV-96  
Rev. 10/07

**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: Electronic Specialty Company

Signed: Bud Higitt

Title: VICE PRESIDENT

Date: May 5, 2011



RFQ No. DJS010296

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: Electronic Specialty Company

Authorized Signature: *Bud Vigi II* Date: 05/05/2011

State of West Virginia

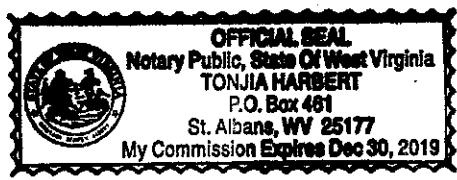
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 5 day of May, 2011.

My Commission expires December 30, 2019.

AFFIX SEAL HERE

NOTARY PUBLIC *Tonja Herbert*



# 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: Electronic Specialty Company

Signed: 

Date: 05/05/2011

Title: VICE PRESIDENT

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

**EXHIBIT 10**

**REQUISITION NO.:** ..... DJS010296

**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 ...X...

NO. 2 ...X..

NO. 3 ...X...

NO. 4 .....<sup>X</sup>

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.**

*Paul King Jr*  
.....  
**SIGNATURE**

Electronic Specialty Company  
.....  
**COMPANY**

05/05/2011  
.....  
**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 FOR CORRESPONDENCE TO ATTENTION OF  
**TARA LYLE  
 304-558-2544**

**RFQ COPY**  
 TYPE NAME/ADDRESS HERE

Electronic Specialty Company  
 1325 Dunbar Avenue  
 Dunbar, WV 25064

**DIVISION OF JUVENILE SERVICES**

**VARIOUS LOCALES AS  
 INDICATED BY ORDER**

DATE PRINTED	TERMS OF SALE	SHIP/WA	FOB	FREIGHT TERMS
04/05/2011				
BID OPENING DATE: 04/14/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT AND	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 1						
1. TO MOVE THE BID OPENING DATE FROM 04/07/2011 TO 04/14/2011.						
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. 1						
0001	1	LS		840-84		
VIDEO SURVEILLANCE SYSTEMS						
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Owsley</i>	TELEPHONE (304) 766-6277	DATE 05/05/2100
TITLE Vice President	FERN 55-0452548	ADDRESS CHANGES TO BE NOTED ABOVE

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

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4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
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12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**INSTRUCTIONS TO BIDDERS**

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State of West Virginia  
 Department of Administration  
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# Request for Quotation

RFQ NUMBER  
 DJS010296

PAGE  
 1

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

RFQ COPY  
 TYPE NAME/ADDRESS HERE

Electronic Specialty Company  
 1325 Dunbar Avenue  
 Dunbar, WV 25064

DIVISION OF JUVENILE SERVICES

VARIOUS LOCALES AS  
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
04/13/2011				

BID OPENING DATE: 04/28/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 2						
1. TO MOVE THE BID OPENING DATE FROM 04/14/2011 TO 04/28/2011.						
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. 2						
0001	1	LS		840-84		
VIDEO SURVEILLANCE SYSTEMS						
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Carol Higginitt</i>	TELEPHONE (304) 766-6277	DATE 05/05/2011
TITLE Vice-President	FEIN 55-0452548	ADDRESS CHANGES TO BE NOTED ABOVE

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# Request for Quotation

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 DJS010296

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 1

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 TARA LYLE  
 304-558-2544

### RFQ COPY

TYPE NAME/ADDRESS HERE

Electronic Specialty Company  
 1325 Dunbar Avenue  
 Dunbar, WV 25064

DIVISION OF JUVENILE SERVICES

VARIOUS LOCALES AS  
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/18/2011				

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		
VIDEO SURVEILLANCE SYSTEMS						
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>David Logan</i>	TELEPHONE (304) 766-6277	DATE 05/05/2011
TITLE Vice-President	FEIN 55-0452548	ADDRESS CHANGES TO BE NOTED ABOVE

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**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.



State of West Virginia  
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BID OPENING DATE: **05/05/2011** BID OPENING TIME **01:30PM**

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SIGNATURE <i>Paul Digg II</i>	TELEPHONE (304) 766-6277	DATE 05/05/2011
TITLE Vice-President	FEIN 55-0452548	ADDRESS CHANGES TO BE NOTED ABOVE

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

**GENERAL TERMS & CONDITIONS  
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)**

1. Awards will be made in the best interest of the State of West Virginia.
  2. The State may accept or reject in part, or in whole, any bid.
  3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
  4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
  5. Payment may only be made after the delivery and acceptance of goods or services.
  6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
  7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
  8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
  9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
  10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
  11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
  12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
  13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.htm](http://www.state.wv.us/admin/purchase/vrc/hipaa.htm) and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
  14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
  15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
  16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.
- I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

**INSTRUCTIONS TO BIDDERS**

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



PO Box 400  
 1325 Dunbar Ave  
 Dunbar, WV 25064  
 304-766-6277  
 800-642-5500  
 304-766-6270 fax

WV State Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Charleston, WV 25305  
 Purchaser: Tara Lyle

May 5, 2011  
 (Our 64th Year)  
 64th

**CONFIDENTIAL**

Quote #: 11-0505-03  
 Reference: RFQ# DJS010296  
 Division of Juvenile  
 Services Video  
 Surveillance

**Scope of Work**

- A complete submittal with shop drawings will be provided after receipt of a purchase order.

Item #	Qty	Model		Unit \$	Ext \$
1	19	ADHD160100	HDVR, 2U, 16 ch. analog/ 8IP, 1TB	\$5,134.00	\$97,546.00
2	3	ADHD320200	HDVR, 4U, 32 ch. analog/ 8IP, 2TB	\$7,164.00	\$21,492.00
3	4	ADHD320200/ ADEIP241Q	HDVR, 4U, 32 ch. analog/ 8IP, 2TB, Includes 4 241Q Encoders to Allow Expansion to 64 Analog Inputs (Approved In Addendum #3)	\$13,948.00	\$55,792.00
4	12	ADMP48-E	Matrix, MegaPower 48 Plus, 48X16, NTSC/PAL	\$3,004.00	\$36,048.00
5	12	AD2089	Keyboard, RS232, macro keys and digital recorder control, desktop, 120 VAC	\$1,060.00	\$12,720.00
6	12	DMV96Q-1	Multiplexer, MultiVision Quest, duplex, 16 chnl, color , 720x512, 230 VAC, PAL	\$875.00	\$10,500.00
7	8	ADDELL2410	Monitor, Dell 24in Widescreen LCD, 1920x1200	\$785.00	\$6,280.00
8	8	ZM-L32A-HD	32" LCD, 1920 X 1080, 16:9 format, (with BNC, HDMI DVI, VGA, S-Video, Trigger)	\$1,264.00	\$10,112.00
9	8	ZM-L42A-HD	42" LCD, 1920 X 1080, 16:9 format, (with BNC, HDMI DVI, VGA, S-Video, Trigger)	\$1,899.00	\$15,192.00
10	12	ADMMTLCDW L	LCD mount, VESA compliant, wall, w/ lanyard	\$66.00	\$792.00
11	5	PELCO LB3000	LOCKBOX	\$481.00	\$2,405.00
12	5	ALT R2416300	16 OUTPUT 12.5 AMP PS	\$271.00	\$1,355.00
13	5	ALT R2432600	32 OUTPUT 25 AMP PS	\$395.00	\$1,975.00
14	5	ADCDEH0309 TN	Discover, Mini Dome, Vandal, 540 TVL, 3.0-9.0, Smoke bubble, NTSC, White	\$241.00	\$1,205.00
15	5	ADCBW0309T U	Discover, WDR color, 504TVL, 3-9mm AI, in/outdr, VR, tint bubble, black, NTSC/PAL	\$397.00	\$1,985.00
16	5	ADCBW0309T U	Discover, WDR color, 504TVL, 3-9mm AI, in/outdr, VR, tint bubble, black, NTSC/PAL	\$397.00	\$1,985.00
17	5	ADCIP1355	Arecont AV1355 Megadome 1.3 MP H.264/MJPEG, 4-10mm lens	\$853.00	\$4,265.00
18	5	ADCBEH0309 TN	Discover, Mini Dome, Vandal, 540 TVL, 3.0-9.0, Smoke bubble, NTSC, Black	\$241.00	\$1,205.00
19	5	ADCD601- B0001	Discover 600 bullet cam, 520TVL, 3-9mm, 12VDC, NTSC	\$120.00	\$600.00
19	5	ADC1121A	Power Supply, for Discover 200/600 series. 12VDC, 1 amp, NTSC	\$9.00	\$45.00



20	5	ADCBW0309T U	Discover, WDR color, 504TVL, 3-9mm AI, in/outdr, VR, tint bubble, black, NTSC/PAL	\$332.00	\$1,660.00
21	5	CPAKIWSHR2 -12N	Cam Pack: color, 540 TVL, 2.8-12 mm AI, wall mnt, no hsg, NTSC	\$254.00	\$1,270.00
22	5	ADSDU822OP CWN	Dome kit, SDU8, outdoor, includes: ADSDU822N, ADSDUHOC, RHOLW	\$1,746.00	\$8,730.00
23	5	ADSDU835OP CWN	Dome kit, SDU8, outdoor, includes: ADSDU835N, ADSDUHOC, RHOLW	\$2,021.00	\$10,105.00
24	80	Labor		\$89.00	\$7,120.00

**Total Project..... \$312,384.00**

Thank you for your consideration on this project.  
Please review attached information for more detail

Approved by \_\_\_\_\_ Date \_\_\_\_\_ PO# \_\_\_\_\_

---

*Electronic Specialty Company, providing quality sales and service in West Virginia since 1947  
Electronic Specialty Company has a "Substance Detection" policy and a "Drug Free" workplace in effect.  
Electronic Specialty is a member of Association for Industrial Security (ASIS).*

**DELIVERY:** Equipment 4 weeks A.R.O. or sooner

**Your Consideration will be very much appreciated.**

**FOB:** Project Site

**ELECTRONIC SPECIALTY CO.**

**TERMS:** 30 days Each Invoice

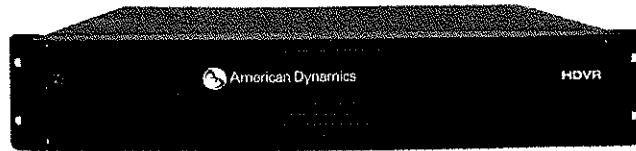
**Authorized by:** Todd Byrne  
Todd Byrne

This quotation is offered for your acceptance within 30 days of date  
WV Contractors License #WV 010229

# Announcing the HDVR Hybrid Digital Video Recorder

**INSIDE:**

Key HDVR Features ..... 2  
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FAQs ..... 16  
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Available Documentation and  
Contact Information ..... 18



**Executive Brief** | American Dynamics HDVR Hybrid Digital Video Recorder allows your customers to enjoy the benefits of a mixed environment of IP and analog cameras. It also protects their analog camera investment while they either consider transitioning to IP cameras, or enjoy the benefits of a mixed environment. HDVR supports a long list of IP and analog cameras and uses H.264 compression on both analog (one of the only in the industry!) and IP inputs, providing customers with superior storage capabilities.

## Key Features

- Supports a long list of analog and IP cameras
- Extremely intuitive interface
- Available in 4U or 2U rack-mount configurations
- Expandable up to 64 IP cameras, easily and cost-effectively add IP camera licenses
- Supports MPEG4, MJPEG and H.264 video compression
- Digital PTZ functionality on all cameras in live and record mode
- Common client connects to multiple HDVR servers to create scalable networks
- Easy-to-use, powerful video and audio export features
- Drag and drop cameras between monitors leveraging multi-monitor and wide-screen client display
- Easy-to-use multi-camera playback and export
- Definable user permissions and privileges
- Access video with most web browsers and mobile devices with Internet access
- Refine searches with Smart Search and graphical results display for all cameras and recorded audio
- RAID 5 storage
- Removable BNC plate makes it easy to service

# Feature Highlights

Supports an extensive list of IP cameras

HDVR supports IP camera handlers from many different vendors, making it easy for customers to bring the HDVR into an existing installation or start brand new.

[American Dynamics](#)  
[Arecont Vision](#)  
[Basler Vision Technologies](#)  
[CBC](#)  
[Digital ID View](#)  
[Honeywell](#)  
[ipx](#)  
[Panasonic](#)  
[Speco Technologies](#)  
[Vivotek](#)

[ACTi](#)  
[AXIS Communications](#)  
[Canon](#)  
[D-Link](#)  
[GE Security](#)  
[iOi](#)  
[IOinvision](#)  
[Sony](#)  
[StarDot](#)

## American Dynamics

### VideoEdge IP Box Cameras

[ADCIFEIDP \(POE\)](#)  
[ADCIFEIB24v](#)

### VideoEdge IP Dome Cameras

[ADCIFEIMD \(indoor\)](#)  
[ADCIFEOMD \(outdoor\)](#)

## ACTi

### Megapixel IP Box/Bullet Cameras

[ACM-1231/1232](#)  
[ACM-1511](#)  
[ACM-5601/5611](#)  
[TCM-5311](#)

### IP Bullet Cameras

[ACM-1011](#)  
[ACM-1100 series](#)  
[ACM-1311](#)  
[ACM-1431/1432](#)

### IP Cube Cameras

[ACM-4000/4001](#)  
[ACM-4100](#)  
**IP PTZ Cameras**  
[ACM-8201/8211](#)  
[ACM-8511](#)

### Single-Port Video Servers

[ACD-2100](#)  
[SED-2120](#)  
[SED-2140](#)  
[TCD-2500](#)

### Megapixel IP Fixed Dome Cameras

[ACM-3401/3411](#)  
[ACM-3511](#)  
[ACM-3701/3703](#)  
[ACM-7411](#)

### IP Speed Dome Cameras

[CAM-6200 series no PTZ](#)  
[CAM-6510](#)  
[CAM-6600 series](#)

### IP Fixed Dome Cameras

[ACM-3001](#)  
[ACM-3011](#)  
[ACM-3100 series](#)  
[ACM-3211](#)  
[ACM-3311](#)

### Multi-Port Video Servers

[ACD-2200](#)  
[ACD-2300](#)  
[ACD-2400](#)

### Megapixel IP Cube Cameras

[ACM-4200/4201](#)  
[TCM-4301](#)

### IP Box Cameras

[ACM-5001](#)  
[CAM-5100/5120](#)  
[ACM-5711](#)  
[CAM-5201/5221](#)  
[CAM-5301/5321](#)

[ACM-3601/3603](#)  
[CAM-7100 series](#)  
[CAM-7200 Series](#)  
[CAM-7300 series](#)

### Arecont Vision

H.264 Megapixel IP Cameras	H.264 MegaDome Cameras	Panoramic H.264 IP Cameras	MJPEG Megapixel IP Cameras
<a href="#">AV5105</a>	<a href="#">AV5155</a>	360 deg - <a href="#">AV8365</a>	<a href="#">AV5100</a>
<a href="#">AV3105</a>	<a href="#">AV3155</a>	180 deg - <a href="#">AV8185</a>	<a href="#">AV3130</a>
<a href="#">AV2105</a>	<a href="#">AV2155</a>		<a href="#">AV3100</a>
<a href="#">AV1305</a>	<a href="#">AV1355</a>	<b>Panoramic MJPEG IP Cameras</b>	<a href="#">AV2100</a>
		360 deg - <a href="#">AV8360</a>	<a href="#">AV1300</a>
		180 deg - <a href="#">AV8180</a>	

### AXIS Communications

Fixed Network Cameras	HDTV H.264 Network Camera	H.264 Network Cameras	1-Port Video Encoders
<a href="#">Axis 206/206M</a>	<a href="#">Axis Q1755</a>	<a href="#">Axis P1311</a>	<a href="#">Axis 241S</a>
<a href="#">Axis 207</a>	<a href="#">Axis P1346</a>	<a href="#">Axis P1343</a>	<a href="#">Axis 241SA</a>
<a href="#">Axis 207W</a>		<a href="#">Axis P1344</a>	<a href="#">Axis 242S IV</a>
<a href="#">Axis 207MW</a>	<b>Fixed Dome Network Cameras</b>	<a href="#">Axis M3011</a>	<a href="#">Axis 243SA</a>
<a href="#">Axis 210</a>	<a href="#">Axis 209FD</a>	<a href="#">Axis P3301*</a>	<a href="#">Axis 247S</a>
<a href="#">Axis 210A</a>	<a href="#">Axis 209FD-R</a>	<a href="#">Axis P3301-V*</a>	<a href="#">Axis Q7401</a>
<a href="#">Axis 211</a>	<a href="#">Axis 209MFD</a>	<i>* Axis P3301 &amp; P3301-V require firmware 5.01.1</i>	<a href="#">Axis M7001</a>
<a href="#">Axis 211A</a>	<a href="#">Axis 209MFD-R</a>	<b>PTZ Network Cameras</b>	<b>4-Port Video Encoders</b>
<a href="#">Axis 211M</a>	<a href="#">Axis 216FD</a>	<a href="#">Axis 212 PTZ</a>	<a href="#">Axis 240Q</a>
<a href="#">Axis 211W</a>	<a href="#">Axis 216MFD</a>	<a href="#">Axis 212 PTZ-V</a>	<a href="#">Axis 241Q</a>
<a href="#">Axis 221</a>	<a href="#">Axis 216FD-V</a>	<a href="#">Axis 213 PTZ</a>	<a href="#">Axis 241QA</a>
<a href="#">Axis 223M</a>	<a href="#">Axis 216MFD-V</a>	<a href="#">Axis 214 PTZ</a>	<a href="#">Axis 243Q</a>
<a href="#">Axis M1011</a>	<a href="#">Axis 225FD</a>	<a href="#">Axis 215 PTZ</a>	<a href="#">Axis Q7404</a>
<a href="#">Axis M1011-W</a>		<b>USB Video Surveillance Joystick</b>	<b>6-Port Video Encoders</b>
<a href="#">Axis M1031-W</a>	<b>PTZ Dome Network Cameras</b>	<a href="#">Axis 295</a>	<a href="#">Axis Q7406</a>
<a href="#">Axis P3343</a>	<a href="#">Axis 231D+</a>		
<a href="#">Axis P3343-V</a>	<a href="#">Axis 232D+</a>		
<a href="#">Axis P3343-VE</a>	<a href="#">Axis 233D</a>		
<a href="#">Axis P3344</a>	<a href="#">Axis Q6032-E</a>		
<a href="#">Axis P3344-V</a>			
<a href="#">Axis P3344-VE</a>			

**Basler Vision Technologies**
**Network Cameras**

<a href="#"><u>BIP-640c</u></a>	<a href="#"><u>BIP-1000c</u></a>	<a href="#"><u>BIP-1300c</u></a>	<a href="#"><u>BIP-1600c</u></a>
<a href="#"><u>BIP-640c-dn</u></a>	<a href="#"><u>BIP-1000c-dn</u></a>	<a href="#"><u>BIP-1300c-dn</u></a>	<a href="#"><u>BIP-1600c-dn</u></a>

**Canon**
**Network Cameras**

<a href="#"><u>VB-C50i</u></a>	<a href="#"><u>VB-C60</u></a>	<a href="#"><u>VB-C500D</u></a>
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**CBC Corp.**
**H.264 Megapixel IP Cameras**
[MP1DN](#)
[MP2DN](#)
[MP3DN](#)
[MP5DN](#)
**MJPEG Megapixel IP Cameras**
[MP1A](#)
[MP2A](#)
[MP3-DN-2](#)
[MP5](#)
**IP Dual-Codec Cameras**
[DDK-1500 \\*](#)
[DDK-1500D \\*](#)
**IP Fixed Dome Cameras**
[ZN-D2024](#)
**Panoramic Megapixel IP Cameras**
[180 deg - MP8P \\*\\*](#)
[360 deg - MP8D-L4 \\*\\*](#)
**IP Cameras**
[ZN-YH305](#)

\*\* requires firmware 64118 or newer

**D-Link**
**Network Cameras**

<a href="#"><u>DCS-6620</u></a>	<a href="#"><u>DCS-5220</u></a>
<a href="#"><u>DCS-6620G</u></a>	<a href="#"><u>DCS-2120</u></a>
<a href="#"><u>DCS-3420</u></a>	

**Digital ID View**
**Network Box Cameras**
[IV-LC-7222DNPOE](#)
**Network Dome Cameras**
[IV-LC-7233H](#)
**General Electric**
**CamPlus IP Rugged Dome**
[GEC-IPDR](#)
**2 Mpixel - [GEC-MP2](#)**
**3 Mpixel Day/Night -[GEC-MP3-DN](#)**

## Honeywell

### Megapixel IP Cameras

[HCX3](#)

[HCX5D](#)

[HCX13M](#)

## ioi

### ioiCam IP Cameras

[wdc100dn](#)

[mmp100dn](#)

[xptz100dn](#)

### ioiCam Video Encoders

[trk Series](#) - all

- *ioimage firmware 1.5.6 or above required*

## ipx

### Network Box Cameras

[IPX-DDK-1500](#)

### Network Dome Cameras

[IPX-DDK-1500D](#)

[IPX-DDK-1600D](#)

### Network Video Encoders

[IPX-VE-3500](#)

## IQinvision

### IQeye Sentinel Series

[IQ811](#)

[IQ802/IQ852](#)

[IQ803/IQ853](#)

[IQ805/IQ855](#)

### IQeye Alliance Series

[IOA10/IOA20](#)

[IOA11/IOA21](#)

[IOA12/IOA22](#)

[IOA13/IOA23](#)

[IOA15/IOA25](#)

### IQeye 4 Series

[IQ040SI](#)

[IQ041SI](#)

[IQ042SI](#)

[IQD40SI](#)

[IQD41SI](#)

[IQD42SI](#)

### Legacy Models

[IQ710DI/IQ712DI](#)

[IQ701](#)

[IQ301/IQ302/IQ303](#)

### IQeye 700/750 Series

[IQ711](#)

[IQ702/IQ752](#)

[IQ703/IQ753](#)

[IQ705/IQ755](#)

### IQeye 5 Series

[IQ540SI](#)

[IQ541SI](#)

[IQ542SI](#)

### IQeye 500 Series

[IQ511](#)

[IQ510](#)



**Panasonic**

<b>Fixed Network Camera</b>	<b>PTZ &amp; Dome Cameras</b>	<b>4 Channel MPEG4/JPEG Encoder</b>	<b>Megapixel IP Cameras</b>
<a href="#"><u>WV-NP244</u></a>	<a href="#"><u>WV-NW502S</u></a>	<a href="#"><u>WJ-NT304</u></a>	<a href="#"><u>WV-NF302</u></a>
<a href="#"><u>WV-NP1004</u></a>	<a href="#"><u>WV-NS202 *</u></a>		<a href="#"><u>WV-NP304</u></a>
	<a href="#"><u>WV-NS202A *</u></a>		<a href="#"><u>WV-NP502</u></a>
	<a href="#"><u>WV-NF284</u></a>		
	<a href="#"><u>WV-NW484S</u></a>		
	<a href="#"><u>WV-NS954</u></a>		
	<a href="#"><u>WV-NW964</u></a>		
	<i>* auto-tracking supported</i>		

**Sony**

<b>Fixed Network Cameras</b>	<b>Dome Cameras</b>	<b>Megapixel IP</b>	<b>PTZ Cameras</b>
<a href="#"><u>SNC-CS50N / SNC-CS50P</u></a>	<a href="#"><u>SNC-DF40N / SNC-DF40P</u></a>	<a href="#"><u>SNC-DM110</u></a>	<a href="#"><u>SNC-RX570N / SNC-RX570P</u></a>
<a href="#"><u>SNC-P1</u></a>	<a href="#"><u>SNC-DF50N / SNC-DF50P</u></a>	<a href="#"><u>SNC-CM120</u></a>	<a href="#"><u>SNC-RX550N / SNC-RX550P</u></a>
<a href="#"><u>SNC-CS11 / SNC-CS11P</u></a>	<a href="#"><u>SNC-DF70N / SNC-DF70P</u></a>	<a href="#"><u>SNC-DM160</u></a>	<a href="#"><u>SNC-RX530N / SNC-RX530P</u></a>
<a href="#"><u>SNC-CS10 / SNC-CS10P</u></a>	<a href="#"><u>SNC-DF80N / SNC-DF80P</u></a>		<a href="#"><u>SNC-RZ25N / SNC-RZ25P</u></a>
<a href="#"><u>SNC-CS20</u></a>	<a href="#"><u>SNC-DS10</u></a>		<a href="#"><u>SNC-RZ50N / SNC-RZ50P</u></a>
	<a href="#"><u>SNC-DS60</u></a>		<a href="#"><u>SNC-P5</u></a>

**Speco Technologies**

<b>IP Cameras</b>	<b>IP Megapixel Cameras</b>	<b>IP Servers</b>
<a href="#"><u>SIPB1/B2</u></a>	<a href="#"><u>SIPMPB</u></a>	<a href="#"><u>SIPS101</u></a>
<a href="#"><u>SIPT5</u></a>	<a href="#"><u>SIPMPD</u></a>	
<a href="#"><u>SIPD3/D4</u></a>	<a href="#"><u>SIPMPT5</u></a>	
<a href="#"><u>SIPSD10X</u></a>		

**StarDot**

<b>Megapixel Hybrid IP Camera</b>	<b>Network IP Camera</b>
<a href="#"><u>NetCam SC</u></a>	<a href="#"><u>NetCam XL</u></a>

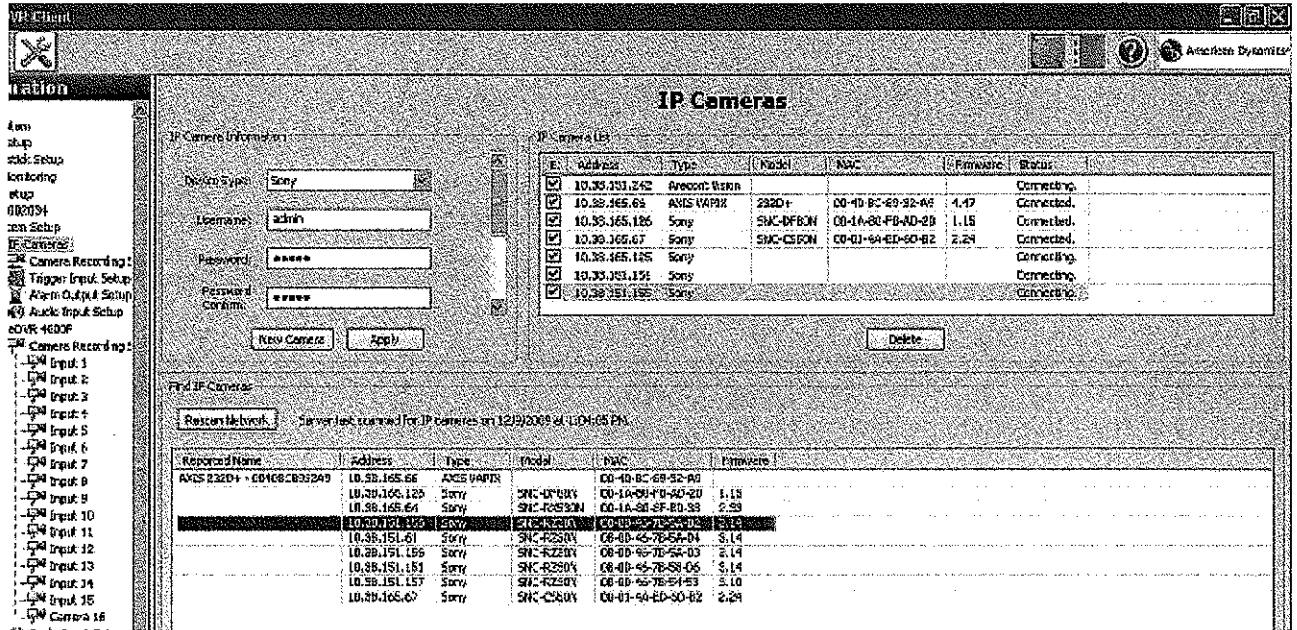
*StarDot notes:  
- StarDot firmware 1.1.61 or above required*



**Vivotek**
**Fixed Series**
IP6112/6122
IP6117/6127
IP7131
IP7132
IP7135
IP7137
IP7138
IP7139
IP7151
IP7142
IP7152
IP7251
IZ7151
IP7160
IP7161
IP7330
IP7361
**PTZ Series**
PZ6112/6122
PZ6114/6124
PT7135
RT7137
PZ711/PZ7121
PZ7131
PZ7132
PZ7151
PZ7152
**Dome Series**
FD6111V/6121V
FD6112V/6122V
SD6112V/6122V
FD7131
FD7141
SD7151
FD7160

Expandable up to 64 IP cameras; easily and cost-effectively add IP licenses

Customers can easily add cameras to their system without having to contact the camera manufacturer for additional licenses.



**IP Camera Information**

Device Type:

Username:

Password:

Password Confirm:

**IP Camera List**

<input type="checkbox"/>	Address	Type	Model	MAC	Firmware	Status
<input checked="" type="checkbox"/>	10.38.151.242	AVS200+	2320+	00-10-8C-69-32-A9	1.17	Connecting
<input checked="" type="checkbox"/>	10.38.165.61	Sony	SHC-DFB0N	00-1A-8C-FB-AD-29	1.15	Connected
<input checked="" type="checkbox"/>	10.38.165.67	Sony	SHC-CP0N	00-01-8A-ED-80-B2	2.24	Connected
<input checked="" type="checkbox"/>	10.38.165.125	Sony				Connecting
<input checked="" type="checkbox"/>	10.38.151.151	Sony				Connecting
<input checked="" type="checkbox"/>	10.38.151.155	Sony				Connecting

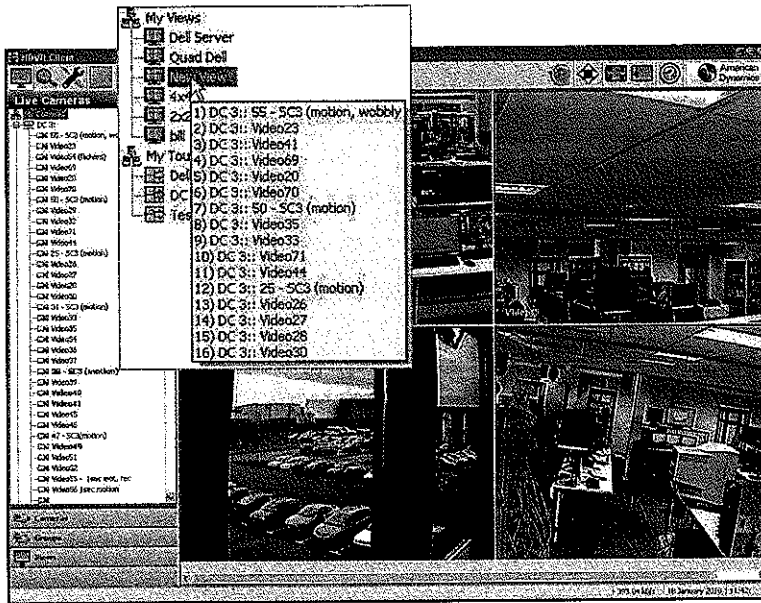
**Find IP Cameras**

Server last scanned for IP cameras on 12/9/2009 at 1:04:05 PM

Reported Name	Address	Type	Model	MAC	Firmware
AVS 2320+ - 001082B33249	10.38.165.66	AVS VAPIX		00-10-8C-69-32-A9	
	10.38.165.125	Sony	SHC-DFB0N	00-1A-8C-FB-AD-29	1.15
	10.38.165.67	Sony	SHC-CP0N	00-01-8A-ED-80-B2	2.24
	10.38.151.151	Sony	SHC-CP0N	00-01-8A-ED-80-B2	2.24
	10.38.151.61	Sony	SHC-R230N	00-00-42-7B-54-04	3.14
	10.38.151.155	Sony	SHC-R230N	00-00-42-7B-54-03	3.14
	10.38.151.151	Sony	SHC-R230N	00-00-42-7B-54-06	3.14
	10.38.151.157	Sony	SHC-R230N	00-00-42-7B-54-53	3.10
	10.38.165.67	Sony	SHC-CP0N	00-01-8A-ED-80-B2	2.24

Extremely intuitive interface makes HDVR the easiest to use in the industry

Like the look and feel of the familiar Microsoft Outlook and Windows Explorer? HDVR borrows from the comfortable navigation of Microsoft Outlook and Windows Explorer and adds its video-centric twist. Very intuitive icons and self-explanatory navigation windows make it extremely easy to navigate through the system.



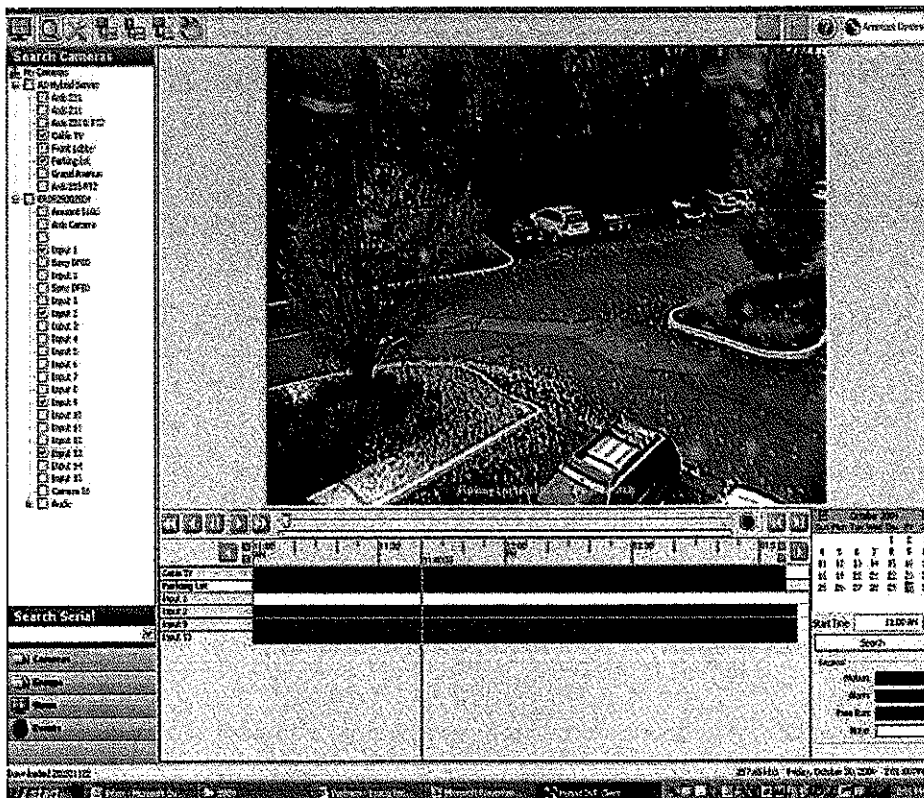
Available in 4U and 2U rack configurations

Make the most of your existing IT rack infrastructure with two flexible configurations.

	<b>2U 16-channel</b>	<b>4U 32-channel</b>
Dimensions W x H x D	48.26 x 8.89 x 57.79 cm (19 x 3.5 x 22.75 in)	48.26 x 17.78 x 57.79 cm (19 x 7.0 x 22.75 in)
Weight	12.25 – 14.51 kg (27-32 lbs)	20.87 – 25.40 kg (46-56 lbs)
Analog Video Inputs	16	32
Looping Video Outputs	16	32
Analog Video Outputs	1	2
Audio Inputs	16	32
Alarm Inputs	16	32
Alarm Outputs	8	16
Relay Outputs	1	2
Serial Connections	RS232, RS422/RS485	RS232, RS422/RS485
Power	120/240 VAC / 300W	120/240 VAC / 400W

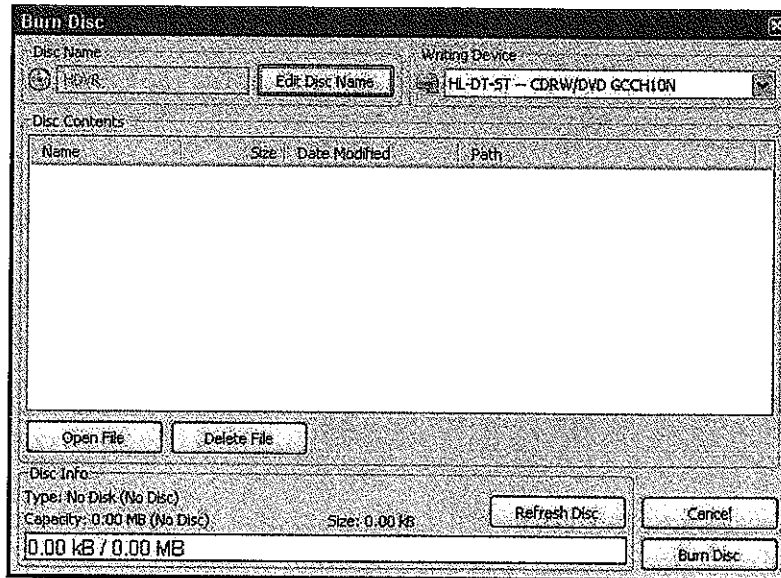
## Supports MPEG-4, MJPEG, and H.264 video compression

HDVR's unique hardware platform supports H.264 and MJPEG compression technology on all analog channels; H.264, MJPEG, and MPEG-4 on IP channels. This makes it one of the only hybrid recorders in the industry to support H.264 compression on both analog and IP inputs. H.264 is largely known to provide incredible video quality from even the smallest amount of video data. This ultra-efficient technology provides excellent results, and the fact that HDVR supports H.264 on both analog and IP cameras will certainly provide a huge differentiator.



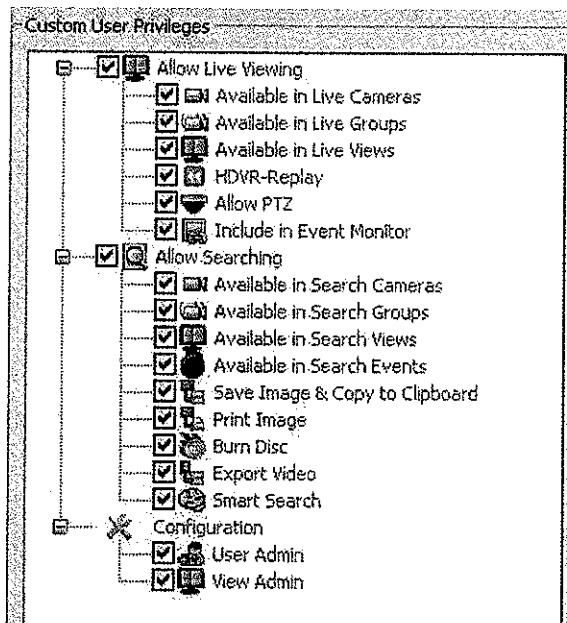
Easy-to-use, powerful video and audio export features

Sharing video and its relevant audio tracks is critical when it comes to providing auditing information, evidence to law enforcement, or simply for archiving. HDVR offers this capability with one mouse-click.



Definable user permissions and privileges

Ensure the integrity and accountability of the HDVR system with user-definable permissions and privileges.





Refine searches with Smart Search and graphical results display for all cameras and recorded audio

Robust, full-featured search capabilities let you search within saved views and groups, as well as search by date, time, motion event, audio, and text/POS. Smart Search makes searching even more powerful, giving you the ability to really narrow down your searches by specific video timeframes and even recorded audio.

Removable BNC panel makes it easy to service

A unique removable BNC interface makes maintenance virtually pain-free while providing the performance and reliability of fully integrated solutions; technicians can simply remove the plate, leaving all BNCs intact and limiting disruption of service.

# Competitive Brief

HDVR provides some very special differentiators that will help you in the market:

- One of the few hybrid recorders in the market to support H.264 on both analog and IP channels.
- Removeable BNC plate makes it incredibly easy to service, and virtually eliminates downtime for your customers.
- Extremely easy to use interface. From the icon structure to the navigation process, we have taken great care to create a user-friendly experience that requires minimal training.
- Very competitively priced against comparable hybrid recorders.
- Leverages AD RS422 protocol which allows customers to more easily control and manage dome cameras than others in the industry.
- More camera handlers than most hybrid video recorders in the industry (and growing).
- Easier camera licensing. Many manufacturers offer their licenses on a per camera basis. With American Dynamics, we offer licensing on a per server basis which provides the flexibility for customers to add cameras when and where they want.
- One of the few hybrid video recorders to have an audio channel for each video channel.

# Frequently Asked Questions

- Q. Will I need to register the MAC addresses for all of my camera devices when using the HDVR?**
- A. HDVR is designed using an open camera licensing schema; therefore we do not require individual cameras and encoders to be registered. Customers can easily remove and add any supported devices on the HDVR.
- Q. What operating systems has the HDVR client been qualified with?**
- A. The HDVR client has been qualified on the Windows XP, Windows Vista, and Windows 7 Operating Systems.
- Q. How many camera licenses are required for multi-sensor IP cameras or encoders?**
- A. In general, devices that are addressed by a single IP address require only a single license.
- Q. What operating system will the HDVR server software operate on?**
- A. The HDVR server currently ships with the Windows XP SP3 operating system. No other operating systems have been qualified with this software.
- Q. How many IP cameras can be connected to the HDVR server?**
- A. A maximum of 64 IP cameras can be connected to the 16 channel or 32 channel HDVR server. The actual number of cameras that will be supported depends greatly on the variety of IP cameras that are being used as well as the specific loading conditions that the HDVR server is being subjected to. An application not has been developed that provides guidelines on what be supported.
- Q. Is there a limit on the amount of storage that could be connected to the HDVR server?**
- A. There is no limit on the amount of storage that could be connected to the HDVR server. Any drive that shows up as a fixed disk to the Windows OS can be recorded upon.



# Available Documentation

English versions of the following documents are available on [www.americandynamics.net](http://www.americandynamics.net)

- **Datasheet**
- **Architect and Engineer Specifications**
- **Installation Guides and User Manuals**
- **Release Notes**

For information regarding a product demonstration or how to obtain a demo server, contact the product manager listed below.

Mike Tabola  
Product Manager  
T: 978-577-4263  
[mtabola@tycoint.com](mailto:mtabola@tycoint.com)

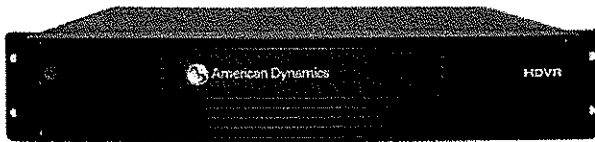
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## HDVR Hybrid Digital Video Recorder

### Features that make a difference:

- Manage analog and IP cameras from an intuitive interface
- Two flexible configurations available: 16 analog/8 IP cameras; 32 analog/8 IP cameras
- Each server is expandable to 64 IP cameras
- Supports H.264 and MJPEG on analog cameras; H.264, MPEG4, MJPEG on IP cameras
- Unique removable BNC panel improves serviceability
- 2U and 4U rack-mountable servers
- Supports a wide variety of IP cameras including multi-megapixel
- Easily and cost-effectively add IP camera licenses
- Common client allows you to connect to an unlimited number of HDVR servers
- Use multi-monitor and wide-screen client display for easy viewing
- Easy-to-use, powerful video and audio export features
- Easy-to-use multi-camera view playback and export
- User –definable permissions and privileges
- Access video with most web browsers and mobile devices
- Easily analyze search results with configurable color-coding
- RAID 5 storage



HDVR (Hybrid Digital Video Recorder) from American Dynamics protects your analog camera investment while you consider either transitioning to IP cameras, or enjoy the benefits of a mixed environment. The HDVR provides seamless integration and recording of both analog and IP video surveillance cameras on an enterprise class chassis.

The powerful, yet easy to operate client user interface installs on any standard computer running Microsoft Windows XP or Vista and can connect to multiple servers. Video from all HDVR systems can also be accessed with web browsers and mobile devices with access to the Internet.

Each HDVR server supports 16 or 32 analog inputs and 8 IP inputs, which can be easily expanded to 64 IP cameras per server. The unique hardware platform supports H.264 and MJPEG compression technology on all analog channels; H.264, MJPEG, and MPEG-4 on IP channels. A RAID 5 model provides redundant storage capabilities.

HDVR features a removable BNC panel, making it extremely easy to perform maintenance on the server without disrupting service; you simply replace the front of the unit while keeping all the BNCs intact.

**General**

Video Standard: .....NTSC (30 ips) / PAL (25 ips)  
 Recording Resolution (per analog camera.....352 x 240 – CIF@30 ips  
 NTSC); 704 x 280 – 2CIF@30 ips NTSC; 704 x 480 – 4CIF@30 ips NTSC  
 Compression  
 Analog Cameras.....H.264 / MJPEG  
 IP Cameras.....H.264/MPEG-4/MJPEG  
 Audio Output .....1  
 Network Interface .....(2) Gbit 1000Base-T RJ-45  
 USB2 Ports.....6 (2 front, 4 rear)  
 VGA/DVI Monitor Output.....1  
 Operating System.....Windows XP Pro  
 RAID5 Storage .....Optional

**Environmental**

Operating Temperature.....0° to 35°C (32° to 95°F)  
 Relative Humidity.....10% to 85% RH (noncondensing)  
 Storage Conditions.....-40° to 70°C (-40° to 158°F)

**Regulatory**

Emissions  
 FCC Part 15 Class A  
 EN55022:2006  
 EN61000-3 2 :2006  
 EN61000-3-3:1995 + A1:2001 + A2 :2005  
 EN50130-4 :1995 + A1 :1998 + A2 :2003  
 Safety  
 UL 60950-1  
 EN 60950-1: 2001+A11

**Hardware**

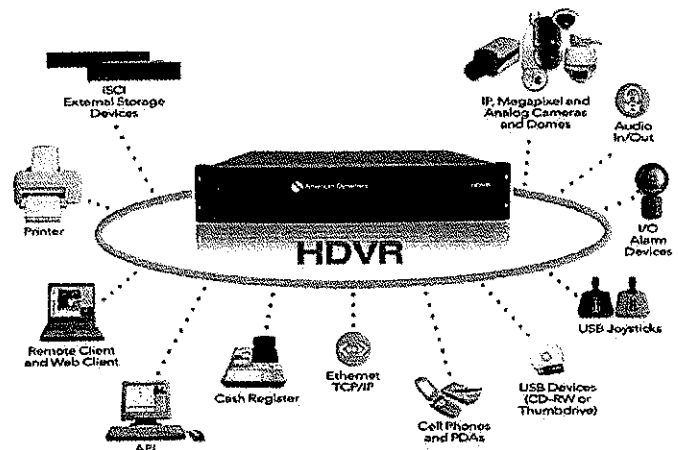
	<b>2U 16-channel</b>	<b>4U 32-channel</b>
Dimensions W x H x D	48.26 x 8.89 x 57.79 cm (19 x 3.5 x 22.75 in)	48.26 x 17.78 x 57.79 cm (19 x 7.0 x 22.75 in)
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Looping Video Outputs	16	32
Analog Video Outputs	1	2
Audio Inputs	16	32
Alarm Inputs	16	32
Alarm Outputs	8	16
Relay Outputs	1	2
Serial Connections	RS232, RS422/RS485	RS232, RS422/RS485
Power	120/240 VAC / 300W	120/240 VAC / 400W

**Minimum Specifications for Client Workstation**

Operating System..... Microsoft Windows XP or Vista  
 Processor ..... 2 GHz Celeron  
 Memory ..... 1 GB RAM  
 VGA..... Standard high performance  
 Web Browser Compatibility ..... Internet Explorer, Firefox, Apple  
 Safari, Opera, Google Chrome  
 Mobile Device Compatibility ..... iPhone, iPod Touch, BlackBerry,  
 Windows Mobile OS

**Model Numbers**

ADHD160100 ..... HDVR, 2U, 16 ch. analog/ 8IP, 1TB  
 ADHD160200 ..... HDVR, 2U, 16 ch. analog/ 8IP, 2TB  
 ADHD160300 ..... HDVR, 2U, 16 ch. analog/ 8IP, 3TB  
 ADHD160400 ..... HDVR, 2U, 16 ch. analog/ 8IP, 4TB  
 ADHD16R300..... HDVR, 2U, 16 ch. analog/ 8IP, 3TB, RAID5  
 ADHD320200 ..... HDVR, 4U, 32 ch. analog/ 8IP, 2TB  
 ADHD320400 ..... HDVR, 4U, 32 ch. analog/ 8IP, 4TB  
 ADHD320600 ..... HDVR, 4U, 32 ch. analog/ 8IP, 6TB  
 ADHD320800 ..... HDVR, 4U, 32 ch. analog/ 8IP, 8TB  
 ADHD32R600..... HDVR, 4U, 32 ch. analog/ 8IP, 6TB, RAID5  
 ADSHIP01 ..... Single IP Camera License  
 ADSHSSAIP01..... Software Update Subscription for single IP Camera  
 ADSH16SSA ..... Software Update Subscription for 16/8 HDVR  
 ADSH32SSA ..... Software Update Subscription for 32/8 HDVR

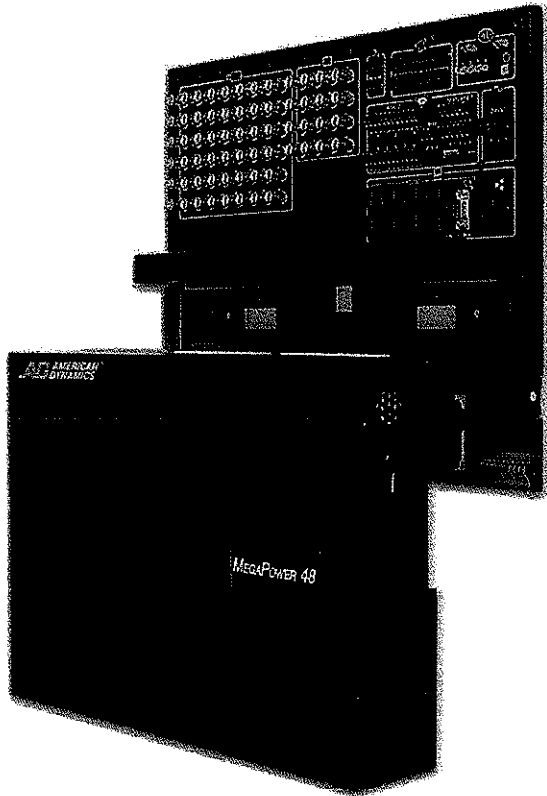
**System Diagram**


Product offerings and specifications are subject to change without notice. Actual products may vary from photos. Not all products include all features. Availability varies by region; contact your sales representative. Certain product names mentioned herein may be trade names and/or registered trademarks of other companies.

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[www.americandynamics.net](http://www.americandynamics.net)





## MegaPower 48 Plus

### Matrix Switcher/Controller System

#### Features That Make a Difference:

- Universal MEU supports both NTSC and PAL
- 3 flexible expansion modes using a primary/secondary configuration of up to 7 systems and 288 cameras
- Ethernet Cat 5 IP connection for multi-matrix communications and system setup
- EASY 48 configuration and monitoring software for Windows® XP, 2000, 95/98 and NT® 4.0-based systems
- Dome ping test and status display
- RS-422 dome support, including simplex RS-422
- DirectSet function control menu for SensorNet or RS-422 domes with ControlCenter 200/300 DirectSet key or ADTTE, and AD2088, and AD2089 site keys
- 48 video inputs
- 16 video outputs, 8 with text overlay
- Optional Unshielded Twisted Pair (UTP) Adaptor Module allows installation with simple UTP cable for video
- Full embedded system menus for easy setup
- Recorder control
- User-defined macros
- 4096 preset titles and 250 alarm titles
- Dedicated alarm programming tables differentiate between alarm sources
- RS-232 inputs expandable to 32
- 64 system tours and 64 salvos

MegaPower 48 Plus is an IP-enabled matrix switcher/controller system that can operate as a standalone system or as part of a network. Choose from one of three expansion modes and grow your system by up to 288 inputs. Whether used as a centralized or distributed system, MegaPower 48 Plus can be cost-effectively installed and optimized for the most challenging of site requirements.

The new EASY 48 system configuration software is a user-friendly MS Windows application that permits the administrator to program MegaPower 48 Plus either on-site or remotely via Ethernet or RS-232. Use it to remotely check the system status of cameras and monitors via an Ethernet connection or to back up and restore system data.

The slim modular wall-mount design saves space and reduces cabling costs by letting you install MegaPower 48 Plus in the location that is most central to your cameras. Because it doesn't have to be rack mounted in a control room, MegaPower 48 Plus can be installed anywhere in your facility – even an electrical closet, or maximize the space and fit in more devices in your standard rack by installing it at 90° angle behind other equipment. You can also rack mount MegaPower 48 Plus at other angles to facilitate easy cable connections with the optional rack mount kit.

# features

## System Expansion

Systems are expanded with a primary-to-secondary relationship. There are three modes of expansion, using Ethernet for command and control. If inter-matrix communication is disrupted, all secondary units continue functioning locally and the primary provides status to users of the fault condition.

Mode 0: Basic system, 48 video inputs, 16 full crosspoint video outputs.

Mode 1: The primary unit has 16 video trunk lines from each of up to three secondary units, providing 16 full crosspoint video outputs with up to 144 video inputs.

Mode 2: The primary unit has 12 video trunk lines from each of up to four secondary units, providing 12 full crosspoint video outputs with up to 192 video inputs. Each secondary has three local outputs with full crosspoint video switching of local cameras.

Mode 3: The primary unit has eight video trunk lines from each of up to six secondary units, providing 8 full crosspoint video outputs with up to 288 video inputs. Each secondary has seven local outputs with full crosspoint video switching of local cameras.

## Expansion Mode Chart

Mode	PRIMARY		SECONDARY			KEY-BOARDS		ALARMS		
	Inputs	Outputs	Units	Outputs Per	Total Outputs	Patch Panel	Dome	Video Loss	RS232 Alarms	
0	48	16	0	N/A	N/A	32	16	192	48	512
	80	16	1	0	0	64	32	320	80	512
	112	16	2	0	0	96	48	448	112	512
1	144	16	3	0	0	128	64	576	144	512
	84	12	1	3	3	64	32	336	84	512
	120	12	2	3	6	96	48	480	120	512
	166	12	3	3	9	128	64	624	166	512
2	192	12	4	3	12	160	80	768	192	512
	88	8	1	7	7	64	32	352	88	512
	128	8	2	7	14	96	48	512	128	512
	168	8	3	7	21	128	64	672	168	512
3	208	8	4	7	28	160	80	832	208	512
	248	8	5	7	35	192	96	992	248	512
	288	8	6	7	42	224	112	1152	288	512

## Camera Site Control

Users can control domes, pan/tilts, motorized lenses, auxiliary outputs, presets and patterns at suitably-equipped camera sites via SensorNet, RS-422 and Manchester outputs. To better support legacy SpeedDomes and installations that use simple RS-422 communication, the system allows presets to be stored in the dome.

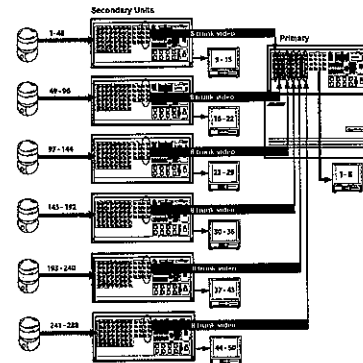
## System Programming

On-screen menus enable you to program system features from any full-system keyboard. Operators can use the monitors with text overlay to program the system. In addition, the EASY 48 system configuration software enables you to custom-configure using computers running Windows XP, 2000, 95/98 or NT 4.0. This software package provides simplified setup, archiving and retrieval of setup as well as the ability to load and retrieve that data via Ethernet or RS-232.

## RS-232 Communications

Eight direct ports allow standard communication with keyboards, alarm interface units, recorder control devices, computers, third party devices, modems (for text message paging), and more. Each port can expand to four ports with an optional port expander.

## Mode 3 Example



## Selectable On-Screen Text

Each of the first eight monitors can display the date/time, video input number, 16-character user-definable video input or preset title, alarm title, monitor status, and secondary status.

## Macro Control

The system's powerful macros allow each operator to customize their own ControlCenter 1100 or AD2088/AD2089 workstations to perform a multitude of tasks via simple, intuitive, easy-to-remember keystrokes.

## Recorder Control

Users can control all of the standard recorder functions directly from any suitably-equipped keyboard – play, stop, pause, record, rewind, fast forward, and eject.

## Pseudo Camera Numbers

Users can assign a four digit number to replace the default video input number for each video input, making it easier to identify cameras in multiple level buildings and similar situations.

## System and Monitor Tours

A tour is a sequence of video inputs with each input featuring an individual dwell time, a preset/pattern and an auxiliary action. Tours can run forward or in reverse. Video partitioned from a monitor is skipped.

## Event Timers

There are 35 user-programmable times available. These times may be independently designated for multiple days of the week to automatically call up system tours to video outputs. Event timers also enable you to activate and deactivate alarm contacts based on the time of day.

## Salvo Switching

Salvo switching allows multiple video inputs to be called simultaneously to multiple contiguous video outputs. Sixty-four individual groups (salvos) consisting of up to 16 video inputs (each with a preset, pattern and/or auxiliary action) can be called either manually or as part of a system tour.

## Automatic Alarm Callup

Alarm inputs can be programmed to call any video input or salvo to any one or more video outputs. For each alarm input, users can define a camera, preset, pattern, wireless text message, salvo, alarm message and/or auxiliary action (with individual dwell time for each to accommodate sequencing alarms). In addition, two local patch panel relays can be triggered upon any alarm event. Any combination of 25 alarm display/clearance methods may be selected independently for each video output. Alarms can hold or sequence on outputs. Blocks of monitors can be defined; normal, automatic and instant clearing are supported.

## Internal Video Loss Detection

Video loss detection is standard on all video inputs. Upon video loss, a system alarm is generated. Enabling video loss detection occupies video output 16.

## Text Message Paging on Alarm

MegaPower 48 Plus can transmit text messages to cellular phones and pagers when an alarm occurs, alerting users with a detailed description of the event and instructions for how to respond. With alarm programming, a single event can trigger multiple unique messages to one or more recipients. You can program as many as 64 different pager profiles and define up to 250 unique text messages for transmitting. The paging feature supports the TAP protocol via an external modem (not supplied).

## Status Output

System status output via an RS-232 printer port may be programmed to output both the occurrence and clearing of all alarms as well as power status and monitor messages.

## System Partitioning

System flexibility is further enhanced by defining authorized access to keyboards, video inputs and video outputs. System partitioning includes:

- Keyboard-to-Monitor Access: Restricts selected keyboards from accessing selected video outputs.
- Monitor-to-Camera Access: Restricts selected video outputs from displaying selected video inputs.
- Keyboard-to-Camera Access: Restricts selected keyboards from calling or controlling selected video inputs.
- Keyboard-to-Camera Control Access: Allows selected keyboards to access views from certain cameras but restricts those keyboards from controlling the cameras.

## Password and Priority Operation

Keyboards or users can be assigned one of eight priority levels for controlling remote camera sites. Up to 64 user codes, each with a unique password, can be assigned to operators. Access to certain system features may be restricted depending on a user's priority level.

## Diagnostics and Dome Information Screens

Built-in diagnostics clearly indicate power status and system health, allowing you to determine the status of the system's internal components. The dome information screen shows the video detection status, dome mnemonic, dome protocol, dome software version and whether the dome is responding to the system polls for each camera on the system. For troubleshooting purposes, the dome ping test screen allows the installer to verify the integrity of SensorNet and RS-422 communications and display dome firmware number, mnemonic, serial number and production date.

## Flash Memory Module for Data Backup

The system is comprised of a passive patch panel for all system wiring and a removable main electronics unit (MEU). There is also a flash memory module that is separate from the MEU and lets you automatically back up data without a PC. This allows you to replace a system and restore the existing data in less than one minute.

## Digital Video Management System Control

The AD2089 keyboard allows you to control Intellex digital video management systems including playback of archived video. This feature requires Intellex and Network Client v4.04.

**Model Numbers**

Each MegaPower 48 Plus system consists of a wall-mount assembly (bracket and patch panel assembly), main electronics unit (Universal, NTSC or PAL), pre-wired transformer assembly (selectable voltage), and documentation kit including CD with various languages.

**ADMP48-E** ..... MegaPower 48 Plus, Universal

**Optional Accessories**

**Keyboards**

**ADCC1100 - MegaPower 1100 keyboard**  
with smart card and macro keys

**ADTTE - Touch Tracker keyboard**

**ADCC0200P - ControlCenter 200 keyboard**  
with 2-axis joystick

**ADCC0300P - ControlCenter 300 keyboard**  
with joystick and programming access

**AD2089 - Full system keyboard**  
with macro keys and video recorder control (DVR or VCR)

**Other Accessories**

**AD2081, AD2081-1 Port Expander**

Expands one RS-232 port on a system into four ports, providing connections to multiple system keyboards.

**AD2096A, AD2096-1 Alarm Interface**

Monitors up to 64 alarm inputs and provides RS-232 ASCII alarm commands to the system. Up to eight units can be cascaded on a RS-232 line.

**AD2031, AD2031-1 Switcher Follower**

Activates relays when designated video inputs are called to designated video outputs. It interfaces via Manchester and provides up to 32 Form A relays that can be grouped in series and addressed to a single video output or in two groups of 16 relays for two specific video outputs.

**AD2032, AD2032-1 Alarm Responder**

Activates relays when associated video outputs are in an alarmed condition. Interfaces via Manchester and provides up to 32 Form A relays.

**AD2033, AD2033-1 Auxiliary Follower**

Activates relays when a specific auxiliary is triggered either manually or automatically for an associated video input. Interfaces with matrix switcher/controllers and provides up to 32 Form A relays via Manchester. Multiple units can be cascaded together.

**VR48RKIT Rack Mount Kit**

This enables the MegaPower 48 Plus system to be rack mounted in a standard 19-inch EIA rack mount.

**ADACTP01BNC - Unshielded Twisted Pair Adaptor Module**

This allows installation with simple UTP cable for video lines.

**VRCMKIT Cable Brackets**

Each kit contains three additional cable management brackets.

**Operational**

- Bandwidth ..... 10 MHz
- Frequency Response .....  $\pm 1.0$  dB to 6 MHz
- S/N Ratio ..... 60 dB (Vp-p vs. Vrms noise)
- Crosstalk
- Adjacent Channels .....  $\leq -55$  dB (at 3.58 MHz)
- Input to Input .....  $\leq -70$  dB (at 3.58 MHz)
- Differential Delay .....  $\pm 1.0^\circ$
- Differential Phase .....  $\leq 0.5^\circ$
- Differential Gain .....  $\leq 1.5\%$
- Tilt .....  $\leq 2.0\%$
- Gain ..... Unity  $\pm 1$  dB

**Return Loss**

- Input/Output ..... 40 dB
- DC Level (Video Signal) ..... 0 Volts ( $\pm 0.1$  V typical)
- Switching ..... Complete switching of crosspoint matrix  
EIA RS-170 and NTSC, CCIR and PAL
- Switching Speed ..... Less than 20 ms (typical)
- On-Screen Text ..... Date/time, video input number, video
- Outputs 1-8 ..... Input or preset title (16 characters), monitor  
status, alarm title (48 characters)
- Character Set ..... English, French, Italian, German, Spanish,  
Portuguese
- Video Inputs ..... 48 BNC composite, 0.5 to 2.0 Vp-p
- Video Outputs ..... 16 BNC composite, 1.0 Vp-p (with nominal input)
- RS-232 ..... Eight 8-pin RJ-45 optional port expander  
extends each port to four
- Network ..... Ethernet, IEEE 802.3, 10 Mbps, TCP/IP
- Utilization ..... < 2.5%
- Connection ..... RJ-45, Cat 5 wiring
- Protocol ..... IP, fixed addresses, supports gateway  
connection
- External Modem ..... One DB9 connector (Hayes AT compatible)
- SensorNet ..... Six ports through terminal screw connectors
- SEC RS-422 ..... Six ports through terminal screw connectors
- Manchester ..... One port through terminal screw connectors
- Alarm Inputs ..... 16 inputs through two 16-pin terminal  
screw connectors
- Relay Outputs ..... Two Form-C relays through two 3-pin terminal  
screw connectors
- Power ..... One 3-pin terminal screw connector
- Flash Memory Module ..... One 8-pin header

**Electrical**

- Power Source ..... 12 VDC external power supply, universal
- Supply Voltage ..... 100-240 VAC, 50-60 Hz
- Power Requirements ..... .5 amps, 42 VA

**Mechanical**

- Mounting ..... Vertical wall or 19-inch EIA rack mount
- Dimensions (H x W x D) ..... 50.8 x 43.8 x 8.9 cm (20 x 17.3 x 3.5 in)
- Unit Weight
- Wall Bracket ..... 1.54 kg (3.4 lbs)
- Patch Panel Assembly ..... 1.72 kg (3.8 lbs)
- Main Electronics Unit ..... 2.72 kg (6.0 lbs)
- Total Weight ..... 5.97 kg (13.2 lbs)
- Transformer Weight ..... 2.17 kg (4.8 lbs)
- Color ..... Black

**Environmental**

- Operating Temperature ..... 0° to 50° C (32° to 122° F)
- Humidity ..... 5 to 95% RH (non-condensing)
- Storage Temperature ..... -40° to 70° C (-40° to 155° F)

**Regulatory**

- Emissions ..... FCC Part 15, Class A  
EN55022 (CE)
- Immunity ..... EN50130-4 (CE)
- Safety ..... UL1950  
CSA 22.2, No. 950  
(cUL) EN60950 (CE)

**EASY 48**

- PC Recommendation ..... Windows XP, 2000, NT 4.0 or 95/98  
800 MHz Processor  
1 GB hard disk space  
256 MB RAM

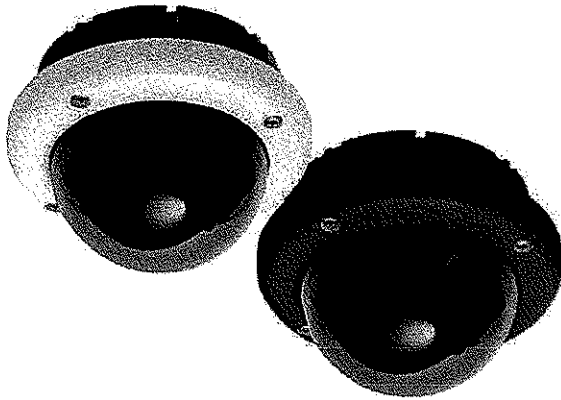
Product offerings and specifications are subject to change without notice. Actual products may vary from photos. Not all products include all features. Availability varies by region; contact your sales representative. Certain product names mentioned herein may be trade names and/or registered trademarks of other companies.



## Discover Indoor/Outdoor Mini-Domes

### Features That Make a Difference:

- High impact vandal resistant housing that retains shape even after forceful impact
- Snap-on bubble liner for an extra level of covertness
- Advanced pivoting axis provides greater viewing flexibility
- Two quality auto iris lens options for better image quality and improved low light performance
- High impact vandal resistant polycarbonate bubbles (clear and tinted)
- Multiple camera options, including WDR model with latest Pixim® technology and True Day/Night with moving IR filter
- Night-Saver mode for extreme low light conditions
- Easy installation with eight mounting options (surface, flush, pendant, wall, wall-pole, wall-exterior corner, inside corner, electrical box)
- Discover drone option
- IP66 and NEMA4-rated<sup>1</sup> for -30° to 50°C (-22° to 122°F)



The Discover series of Mini-Domes delivers a vandal resistant camera solution at a non-vandal resistant price. This series of high performance mini-domes includes high impact, vandal resistant dome housings built to withstand even the harshest environments. Unlike other dome housings in the industry, which are made of metal, the Discover series housing is made with extremely durable composite and polycarbonate materials that have "shape memory". The Discover housing comes with a choice of clear or tinted vandal resistant bubbles and includes a bubble liner to make it more covert. An advanced pivoting axis lets you position the camera at exactly the angle you need, while optimal white balance provides the clearest, most color-perfect images possible.

With three different types of mini-domes to choose from, there's a Discover solution just right for your particular requirements.

The Discover wide dynamic range (WDR) mini-dome uses over 504 lines of resolution and a pixel-by-pixel shutter speed that lets you see better in areas where both very bright and dark areas exist, such as an entranceway. This model also features up to a 2x digital zoom to get an even closer view of the action. Night-Saver mode improves performance in low light situations,

automatically switching from color to monochrome as light dims, and reverting back to color once light is restored. The WDR mini-dome also includes a DVR-Saver mode which helps conserve valuable hard drive space, reducing the size of video files by up to 30% when used with an Intellex digital video management system.

The Discover high resolution mini-dome has 540 TVL and also includes a user-selectable Night-Saver mode. For challenging lighting environments, a selectable expanded auto white balance mode is available. Vivid colors and powerful low light performance provide some of the best images available on the market today.

The True Day/Night model incorporates a moving IR cut filter and switches automatically from color to monochrome to provide enhanced IR-sensitive night viewing.

The Discover series includes a drone option—which looks like a mini-dome from the outside but without a camera inside—and is perfect for crime deterrence at an even greater cost savings.

(1) Self certified

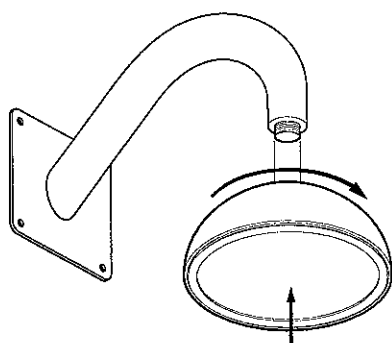


## Discover Mini-Dome Mounts

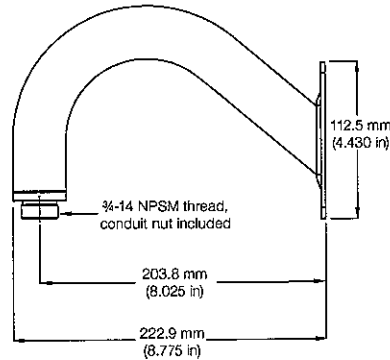
The Discover series of Mini-Domes includes eight mounting options that work with the vandal resistant cameras. Choose from surface, flush, pendant, wall, wall-pole, wall-exterior corner, inside corner, or electrical box-mounts. With eight mounting options, there is a mount to fit any installation situation. All the mounts are quick and easy to install. Installing the surface mount is easy and requires just four screws. Flush mounts have two automatic swing-out tabs that clamp onto the installation surface. An optional pendant cap provides a three-quarter inch thread for pendant mount installation while maintaining an environmental seal. The same pendant cap is available in an attractive wall mount configuration. A pole strap adapter is also available for the wall mount arm. A corner bracket adapter is available for wall-pole and inside corner mounting applications such as when needed for mounting inside an elevator. All of the eight mounts are available in black and white finishes.

Mounts		
White	Black	
ADCDMWALL	ADCBMWALL	Wall mount w/pendant cap
ADCDMCRNRO	ADCBMCRNRO	Outside corner adapter for use with ADCDMWALL or ADCBMWALL
ADCDMPEND	ADCBMPEND	Pendant cap, three-quarter inch thread
ADCDMCRNR	ADCBMCRNR	Corner mount
ADCDMPOLE	ADCBMPOLE	Pole mount for use with ADCDMWALL or ADCBMWALL
ADCDMELEC	ADCBMELEC	4S electrical box adapter
ADCDDRONE	ADCBDRONE	Drone, no camera or lens capability
Accessories		
ADCDHTR	Heater, 24V AC only, 7W	
ADCDSL	Video service lead cable	

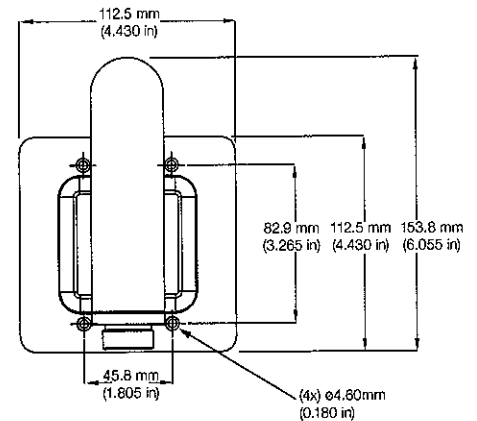
### Wall Mount with Pendant Cap (ADCDMWALL)



Angled View

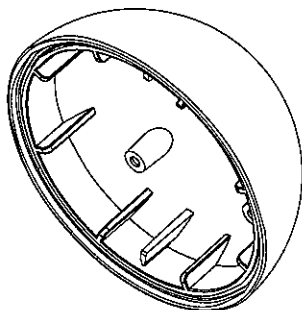


Side View

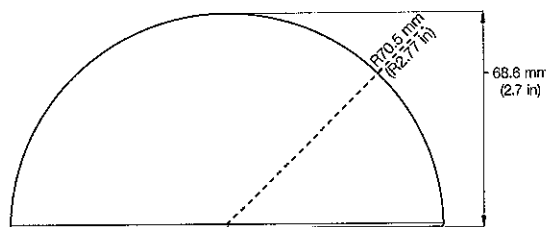


Front View

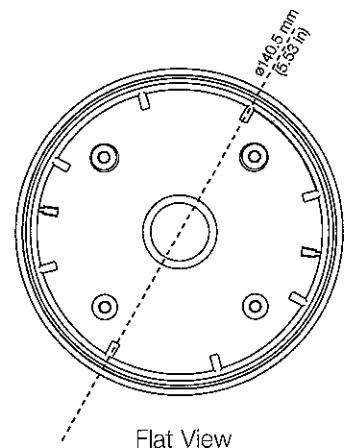
### Pendant Cap with Three-Quarter Thread (ADCDMPEND)



Angled View

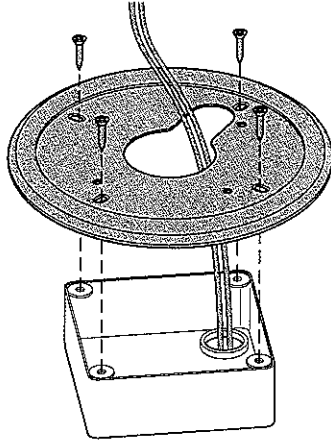


Side View

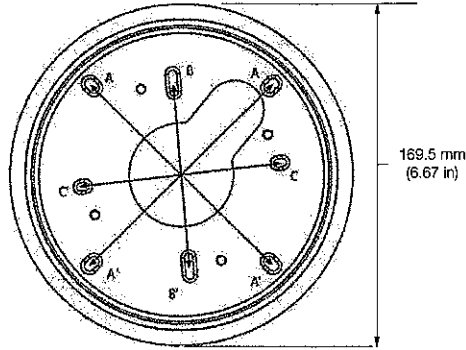


Flat View

### 4S Electrical Box Adapter (ADCDMELEC)



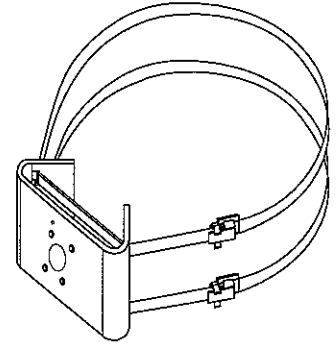
In Use



A.  $\emptyset=0.59$  cm (0.23 in), A-A=12.20 cm (4.80 in)  
 B.  $\emptyset=0.36$  cm (0.14 in), B-B=9.60 cm (3.78 in)  
 C.  $\emptyset=0.53$  cm (0.21 in), C-C=8.42 cm (3.32 in)

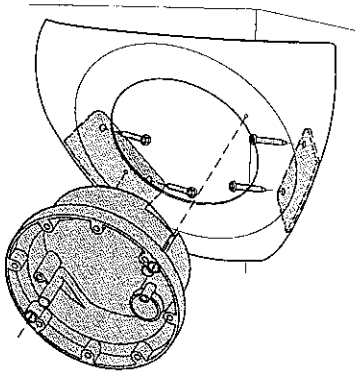
Flat View

### Pole Mount Adapter (ADCDMPOLE)

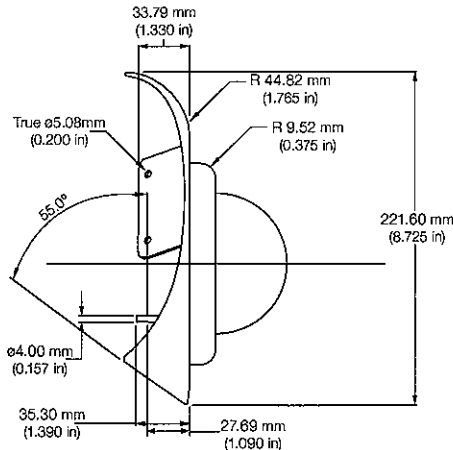


Angled View

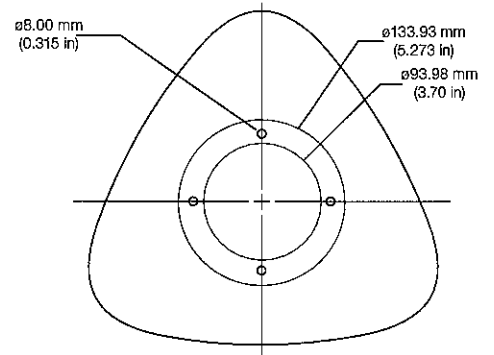
### Inside Corner Mount (ADCDMCRNR)



Angled View

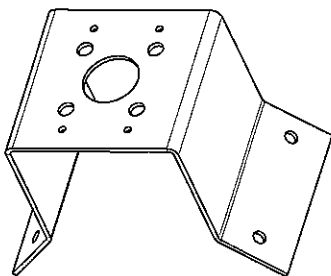


Side View

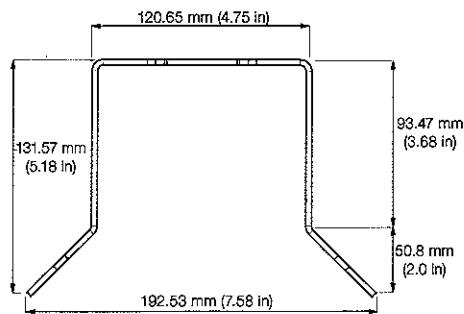


Flat View

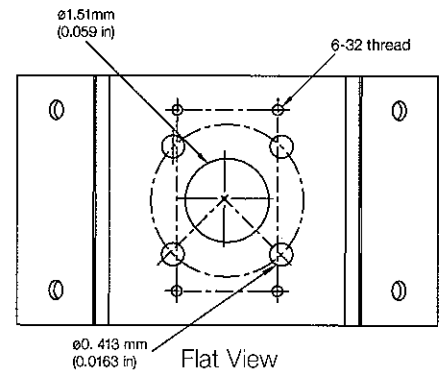
### Outside Corner Mount (ADCDMCRNRO)



Angled View



Side View



Flat View

# SPECIFICATIONS

General	Wide Dynamic Range	High Resolution	True Day/Night
Imager	Pixim orca sensor	1/3-inch CCD	1/3-inch CCD
Video Output	1.0 Vp-p/75-ohm, BNC	1.0 Vp-p/75-ohm, BNC	1.0 Vp-p/75-ohm, BNC
Horizontal Resolution	504+ TV lines	540 TV lines	540 TV lines
Active Pixel Count (H x V)	Universal: 720 x 540	NTSC: 768 x 494 (PAL: 752 x 582)	NTSC: 768 x 494 (PAL: 752 x 582)
Minimum Illumination	0.95 lux @ F1.2	Typ <sup>2</sup> : 0.65 lux @ F1.2 Min <sup>3</sup> : 0.19 lux @ F1.2	Day: 0.65 lux @ F1.2 Night: 0.07 lux @ F1.2
Digital Slow Shutter (DSS)	2x (default) – 32x	N/A	N/A
Wide Dynamic Range	120 dB/17-bit	N/A	N/A
Sync System	Line-lock, phase-adjustable or internal	Line-lock, adjustable or internal	Line-lock, adjustable or internal
S/N Ratio	>42 dB	50 dB	50 dB
White Balance	Automatic white balance (AWB), One-touch & manual	AWB	AWB
AWB Ranges—Normal (Extended)	2200 – 7500 K (2000 – 11000 K)	2700 – 11000 K (2000 – 18000 K)	2700 – 11000 K (2000 – 18000 K)
WDR Metering Zone	One zone adjustable	N/A	N/A
Backlight Compensation	N/A	Center weighted on/off	Center weighted on/off
Flickerless Mode	Selectable on/off	Selectable on/off	Selectable on/off
Night-Saver	Selectable on/off	Selectable on/off	N/A
DVR-Saver Mode	Selectable on/off	N/A	Selectable on/off
Digital Zoom	Scalable, up to 2x	N/A	N/A
Power Consumption	3 watts	2.8 watts	4.5 watts
Weight	0.9 kg (1.9 lbs)	1.0 kg (2.2 lbs)	1.0 kg (2.2 lbs)

## Common to all Discover Mini-Domes

Physical, Electrical, Environmental & Regulatory	Lenses
Dimensions (H x W)	3.0 – 9.0 mm auto iris lens <sup>6</sup>
Housing Color	F-Stop F1.2 ~ 360 Field of View (H x V) 90.0° x 66.2° (wide) & 31.8° x 23.9° (tele)
Environmental Rating	9.0 – 22 mm auto iris lens
Bubble Diameter	F-Stop F1.4 ~ 360 Field of View (H x V) 32.1° x 23.3° (wide) & 13.1° x 9.8° (tele)
Bubble Thickness	2.9 – 10 mm auto iris lens <sup>7</sup>
Bubble F-Stop	F-Stop F1.2 ~ 360 Field of View (H x V) 94.6° x 68.4° (wide) 28.8° x 21.6° (tele)
Pan & Effective Tilt (at 17 in) Range <sup>5</sup>	
Power Input	
Power Connection	
Operating Temperature (with heater)	
Operating Temperature (without heater)	
Humidity	
Storage Temperature	
Emissions	
Immunity	
Safety	

BRAND	FINISH	TYPE	LENS	BUBBLE	FORMAT
AD	XX	X	XXXX	X	X
AD	CD = Vandal resistant, White CB = Vandal resistant, Black	EH = High resolution	0309 = 3.0 – 9.0 mm   0922 = 9.0 – 22 mm	C = Clear T = Tinted	N = NTSC   P = PAL
		W = Wide dynamic range	0309 = 3.0 – 9.0 mm   0922 = 9.0 – 22 mm		U = Universal
		T = True Day/Night	2910 = 2.9 – 10 mm   0922 = 9.0 – 22 mm		N = NTSC   P = PAL

(2) Specified at 178mV (for comparison purposes)

(3) Specified at 78mV (usable signal level)

(4) Self certified

(5) Using a 2.5-6 mm lens at wide angle

(6) Offered on high resolution and wide dynamic range cameras only

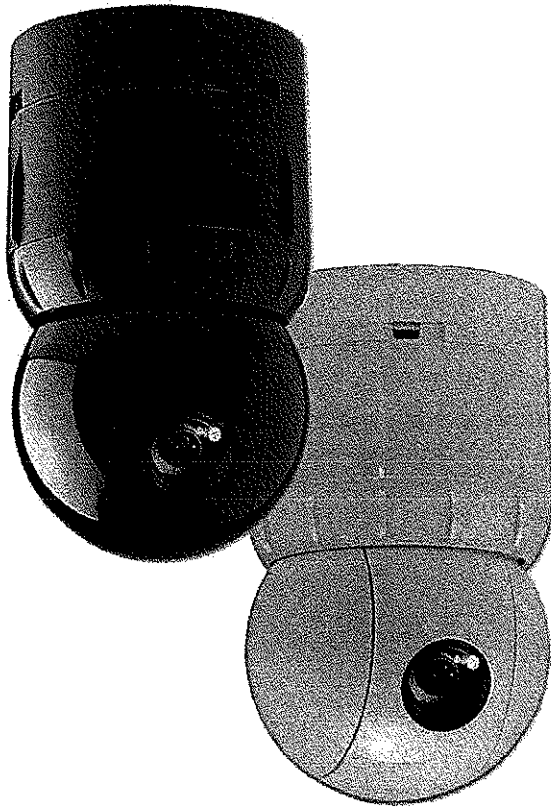
(7) Offered on True Day/Night cameras only

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www.americandynamics.net





## SpeedDome® Ultra 8 Programmable Dome Camera

### Features that make a difference:

- Two powerful series (22x and 35x optical zoom) let you choose the dome that's right for your application
- Powerful 35x optical zoom (ADSDU835) features 540 TVL and other advanced features for superior images
- Store presets and patterns within the base to eliminate reprogramming
- No fans ensure quiet operation and superior reliability
- Integrated Unshielded Twisted Pair (UTP) simplifies wiring and installation
- Covert design eliminates the need for an external bubble
- Innovative I/O base design simplifies installation
- Continuous autofocus provides the clearest images during full range of motion
- Dome usage statistics provide important information on how a dome is utilized
- Up to 8 privacy zones give you the flexibility to protect confidential areas or respect personnel privacy
- Advanced on-screen display with titles provides the detail you need to know exactly what you're looking at
- Supports SensorNet, RS-422, AD-UTC, Manchester and select manufacturers protocols<sup>1</sup>
- Supports NTCIP protocol, designed specifically for the transportation market
- 35x series offers Day/Night, Digital Slow Shutter (DSS) and Wide Dynamic Range (WDR) functionality to provide the flexibility to monitor any type of environment
- 35x series offers Electronic Image Stabilization (EIS) to reduce image blurriness when the mounted camera experiences movement

### SpeedDome Ultra 8 (35x series)

The 35x series offers the highest performance with 540TVL, 35x optical zoom, WDR, day/night, DSS and EIS. The day/night and DSS features allow you to clearly see images in scenes as dim as 0.00041 lux. EIS reduces the vibration so the image can be viewed properly. This feature is especially useful when the dome is installed in places that subject it to shaking or moving, such as a pole next to a highway. These features combine to make the SpeedDome Ultra 8 series an ideal solution for outdoor applications requiring high resolution images whether up close, far away or for indoor applications requiring the best picture possible, such as in casinos or retail establishments.

### SpeedDome Ultra 8 (22x series)

The 22x series delivers excellent color images in scenes as dim as .02 lux. Zoom ability consists of 22x optical and 11x digital zoom for 242x total zoom. Like the 35x series, the 22x offers advanced programmable features including DSS, automatic home position, dome usage statistics, privacy zones, advanced on-screen text, and freeze frame on presets to conserve digital recorder hard drive space. This series is well-suited for indoor applications requiring clarity, color and detail in well lit or low light conditions.

<sup>(1)</sup> Compatibility with other manufacturers is based upon known current protocols and controllers at time of test. However, compatibility may be affected if other manufacturers make changes to their products.

# features

## Superior Video Images

SpeedDome Ultra 8 features powerful zoom capabilities with either 420x total zoom (35x optical zoom with 12x digital magnifier) or 242x total zoom (22x optical zoom with 11x digital magnifier).

The 35x series includes some of the industry's most powerful features including the innovative WDR capability which compensates for very bright and dark conditions within the same scene without losing image clarity. For low light applications, a removable infrared (IR) cut filter provides effective viewing in lighting conditions as low as .00041 lux in black and white mode.

The 35x series also includes the innovative EIS feature which reduces the effect vibration has so an image can be viewed properly. This feature is especially useful when the dome is installed in places that subject it to shaking or moving, such as a pole next to a highway.

Both the 22x and 35x series allow you to further compensate for low lighting conditions using DSS technology that allows the CCD imager to accumulate more light. Additional image adjustments include automatic gain control (AGC) and white balance.

## Advanced Control and Positioning

SpeedDome Ultra 8 supports up to 96 preset positions<sup>2</sup> with user-defined titles and 16 preset sequences with a 10 minute dwell time for the ultimate in viewing flexibility. Sixteen patterns are supported and a preprogrammed default spiral pan pattern ("apple peel") covers the entire viewing area. Each pattern, which can be up to 10 minutes long, can store up to 99 PTZ commands. Using the Freeze Frame feature before moving to a preset minimizes hard drive usage when video is digitally recorded.

Alarms can be processed internally by the dome, externally by the controller or by both the dome and the controller. Each of the dome's alarm inputs can automatically call a preset or run a pattern when the alarm is activated.

To ensure key areas of a facility are continually monitored, an inactive or unattended dome can be configured to return to "home position" after it performs a pre-defined preset, sequence or pattern. When the dome tilts to its lower limits, an innovative automatic proportional flip feature automatically turns the dome 180°. Alternatively, you can manually flip the dome from the keyboard.

To protect sensitive areas, you can program up to 8 privacy zones of different sizes. These privacy zones automatically change size proportionally when zooming in or out.

Zoom adjusted programming (ZAP) automatically adjusts pan and tilt speeds in proportion to zoom position, even at maximum magnification.

In addition to SensorNet, Manchester, AD-UTC, NTCIP, SensorNet, and RS-422 protocols, the dome can be controlled via other select manufacturers' protocols<sup>3</sup> such as Pelco® P and Coaxitron, Panasonic® UTC and Vicon® RS-422, making it a perfect choice for customers wanting to replace older PTZs.

## Powerful On-Screen Display

SpeedDome Ultra 8 generates helpful on-screen text including dome, preset, pattern, alarm and area names as well as direction indicators. These indicators show the direction the dome is currently pointing and the direction in which it is moving. For example, you can assign up to sixteen areas of various sizes to identify boundaries within different areas. In addition, the direction indicators display the dome's azimuth (degree of tilt).

On-screen text also indicates zoom, focus and iris status. All information is user-definable and can be turned on or off. When on, you can set the text to appear solid or translucent white, and with or without black outline which makes it easy to ensure the text is always visible, but doesn't block important parts of the image.

On-screen text supports six languages: English, French, Italian, Spanish, German and Portuguese.

## Powerful Configuration and Maintenance

A convenient DirectSet feature provides fast access to all of your most frequently used dome features when used with a suitably equipped controller<sup>4</sup>. To ensure the integrity of your security settings, password protection prevents unauthorized use of the on-screen menus.

The following daisy chain configurations of control wiring are supported:

- RS-422: 10 domes over a maximum distance of 1 km (3000 ft) on two 22 AWG shielded twisted pairs (STP)
- For SensorNet: 32 devices over a maximum distance of 1 km (3000 ft) on one 22 AWG UTP
- For Manchester: 3 domes over a maximum distance of 1500 m (5000 ft) on one 18 AWG STP
- For AD-UTC: Maximum distance per dome is 700 m (2300 ft) on 20 AWG RG59U cable. (Note-This distance is for AD-UTC data only. See cable manufacturer's specifications for video capabilities).

Sensing of 50/60 Hz lines is automatic and does not require manual adjustment. The fully isolated power supply helps eliminate ground loops. Surge protection is provided for video, code, alarms and power connections.

(2) Controller dependent, see Preset Table for details.

(3) Compatibility with other manufacturers is based upon known current protocols and controllers at time of test. However, compatibility may be affected if other manufacturers make changes to their products.

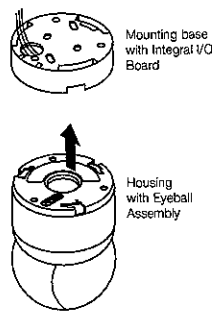
(4) A Matrix keyboard or a controller from which users can call DirectSet commands.

To ensure you have ample time to schedule maintenance, the dome maintains statistics on how long it has been on, duration of pan/tilt/zoom movements, number of presets selected and other usage information.

In the event that a camera needs to be changed, the new SpeedDome Ultra 8 I/O base now retains preset and pattern information so a user does not have to spend time reprogramming.

### Ease of Installation

The dome incorporates an innovative twist lock release from the mounting base for easy installation and servicing. Power, communication and video cables (or composite cable) are connected at one time to an I/O PC board in the mounting base so the assembly is simply twist-locked onto the base. Service and maintenance are easy and can be accomplished without a ladder or lift via the installation/removal tool. The I/O board mounting base supports four alarm inputs and four alarm outputs (indoor only) as well as power and communication LEDs.



### Model Numbers

- Housing /Eyeball Assembly without Mounting Base**  
 ADSDU835N . . . . .35x NTSC (black camera body)  
 ADSDU835WN . . . . .35x NTSC (white camera body)  
 ADSDU835P . . . . .35x PAL (black camera body)  
 ADSDU835WP . . . . .35x PAL (white camera body)  
 ADSDU822N . . . . .22x NTSC (black camera body)  
 ADSDU822WN . . . . .22x NTSC (white camera body)  
 ADSDU822P . . . . .22x PAL (black camera body)  
 ADSDU822WP . . . . .22x PAL (white camera body)
- Mounting Base without Housing/Eyeball Assembly**  
 ADSDUIOB . . . . .I/O Board Base (black base)  
 ADSDUIOBW . . . . .I/O Board Base (white base)
- Housing/Eyeball Assembly with Mounting Base**  
 ADSDU835ION . . . . .35x NTSC (black assembly and base)  
 ADSDU835WION . . . . .35x NTSC (white assembly and base)  
 ADSDU835IOP . . . . .35x PAL (black assembly and base)  
 ADSDU835WIOP . . . . .35x PAL (white assembly and base)  
 ADSDU822ION . . . . .22x NTSC (black assembly and base)  
 ADSDU822WION . . . . .22x NTSC (white assembly and base)  
 ADSDU822IOP . . . . .22x PAL (black assembly and base)  
 ADSDU822WIOP . . . . .22x PAL (white assembly and base)

### Options

#### Optional Bubbles for RHIUTH Top Hat Mount

- RUCLR . . . . . Clear Bubble (f0)  
 RUSLV . . . . . Silver Bubble (f2.0)  
 RUSMK . . . . . Smoked Bubble  
 RUGLD . . . . . Gold Bubble (f2.0)

#### Bubble Specifications

- Bubble diameter . . . . .176 mm (6.93 in)  
 Bubble depth . . . . .86.5 mm (3.4 in)  
 Bubble weight . . . . .0.13 kg (4.4 oz) with trim ring

### Dome Kit Model Numbers and What's Included

SpeedDome Ultra 8 domes can be ordered as pre-configured kits. A kit includes a camera module, base, mount and housing. Bubbles may be included as noted. Refer to the following chart for a description of the models included with each Dome Kit.

Mount or Housing Type	Kit Includes	35x Series Kits		22x Series Kits		
		NTSC	PAL	NTSC	PAL	
	Indoor hard ceiling w/ no bubble	SpeedDome Ultra 8, RHIUTH and RHIUHC	ADSDU835IHN	ADSDU835IHP	ADSDU822IHN	ADSDU822IHP
	w/ smoked bubble	includes above and RUSMK	ADSDU835IHSN	ADSDU835IHSP	ADSDU822IHSN	ADSDU822IHSP
	Indoor 2' x 2' drop ceiling w/ no bubble	SpeedDome Ultra 8 and RHIU2X2M	ADSDU835I2X2N	ADSDU835I2X2P	ADSDU822I2X2N	ADSDU822I2X2P
	w/ smoked bubble	includes above and RUSMK	ADSDU835I2X2SN	ADSDU835I2X2SP	ADSDU822I2X2SN	ADSDU822I2X2SP
	Outdoor housing	SpeedDome Ultra 8 and ADSDUHOC	ADSDU835OPCN	ADSDU835OPCP	ADSDU822OPCN	ADSDU822OPCP
	Outdoor housing w/ long wall mount and end cap assembly	includes above and RHOLW	ADSDU835OPCWN	ADSDU835OPCWP	ADSDU822OPCWN	ADSDU822OPCWP

### Number of Presets

Controller or Matrix Switcher	Protocol	Number of Presets
ADTT16E	SensorNet / RS-422*	96 /4
MegaPower LT	AD-UTC / SensorNet	96 /96
MegaPower 48 Plus	SensorNet / Manchester / RS-422	96 /64 /96
MegaPower 3200	Manchester** / RS-422***	64 /60
Intellex Digital Video Management Systems	SensorNet**** / RS-422*****	96 /96
EDVR	RS-422 (Simplex)	10
Third Party Interfaces	RS-485/RS-422	96

\*Using SensorNet to RS-422 converter (model number RCSN422)

\*\*Using Manchester code distributor (model number AD2091)

\*\*\*Using RS-422 code distributor (model number AD2083-02C)

\*\*\*\*Requires USB to RS-422 adaptor

\*\*\*\*\*Using USB CCTV Control Module (Model number ADACSNET)



# SPECIFICATIONS

	35x Series	22x Series
<b>Camera</b>		
Horizontal Resolution	540 lines	470 lines
Imager	Interline transfer 1/4-inch CCD array	Interline transfer 1/4-inch CCD array
Scanning System	2:1 Interface	2:1 interface
Wide Dynamic Range, EIS, Day/Night	Yes	No
Video Output	1.0 Vp-p, 75 composite	1.0 Vp-p, 75 composite
TS/N Ratio	>50 dB (typical)	>50 dB (typical)
Minimum Illumination (20IRE, AGC)	0.24 lux (Color); 0.028 lux (Color with 1/4 sec open shutter) 0.021 lux (B/W IR Mode); 0.00041 lux (B/W IR Mode with 1/2 sec open shutter)	0.3 lux (Color) 0.02 lux (Color with 1/4 sec open shutter)
White Balance	Through the Lens (TTL) Automatic Tracing White Balance (ATW)	Through the Lens (TTL) Automatic Tracing White Balance (ATW)
<b>NTSC (PAL)</b>		
Effective Pixels (H x V)	768 x 494 (752 x 582)	768 x 494 (752 x 582)
Scanning (lines/fields/frames)	525 /60 /30 (625 /50 /25)	525 /60 /30 (625 /50 /25)
Horizontal (kHz)	15.734 (15.625)	15.734 (15.625)
Vertical (Hz)	59.9 (50)	59.9 (50)
Shutter Speed (Auto/Manual)	1/2 - 1/30,000 (1/1.5 - 1/30,000)	1/2 - 1/30,000 (1/1.5 - 1/30,000)
<b>Lens</b>		
Aperture (Aspherical Design)	f1.4	f1.6
Focal Length	3.4 to 119 mm	4 to 88 mm
Wide Angle (field of view)	3.4 mm/55.8 (H) x 41.8 (V)	4 mm/47.0 (H) x 35.2 (V)
Telephoto (field of view)	119 mm/1.7 (H) x 1.3 (V)	88 mm/4.0 (H) x 3.0 (V)
Total/Optical/Digital Zoom	420x/35x/12x	242x/22x/11x

## Common Specifications for SpeedDome Ultra 8

Operational		Mechanical	
Manual Pan/Tilt	0.25°-100° per second (based on zoom position)	Height (includes base)	205 mm (8.0 in)
Preset Pan/Tilt Speed	360° per second, maximum (Pan) and 220° per second, maximum (Tilt)	Diameter	120 mm (4.7 in)
Pan Travel	360° continuous	Housing & Eyeball Weight	1.09 kg (2.40 lbs)
Tilt Travel	110°	Base (with I/O Board) Weight	0.16 kg (0.35 lbs)
Pan/Tilt Accuracy	± 0.5°	<b>Environmental</b>	
Zoom/Focus Accuracy	± 0.5%	Operating Temperature	-10° to 50°C (14° to 122°F)
Programmable Patterns/Sequences/Areas/Privacy Zones	16/16/16/8	Humidity	0 to 95% RH (noncondensing)
Direction Indicators	Yes	Storage Temperature	-20° to 65°C (-4° to 149°F)
Auto Synchronizations	Line-Locked with Remote V-phase adjustment or Internal with Built-in sync generator	<b>Regulatory VP SDU</b>	
Address Range		Emissions	FCC: 47 CFR Part 15 Subpart B Class A CE: EN55022 Class B CE: EN61000-3-2; 3-3 AS/NZS 3648, Class A CISPR22 ICES-003
RS-422/RS-485	1-99	Immunity	CE: EN50130-4
Manchester	1-64	Safety	UL 1950 CSA 22.2 No. 950 EN60950-1 IEC60950-1
SensorNet	1-255		
AD-UTC	Based on number of inputs		
Alarm Inputs with I/O Board (indoor only)	4 dry contacts/3.5 mA sink		
Alarm Outputs with I/O Board (indoor only)	3 open collector drivers at 12 VDC, 40mA		
Menu Languages	English, French, German, Italian, Spanish, Portuguese		
<b>Electrical</b>			
Input Voltage	18 to 30 VAC, 50/60 Hz Class 2 LPS		
Design Tolerance	16 to 36 VAC, 50/60 Hz		
Power	11 watts		
Power On In-Rush Current	1.5 amps		
Allowable Drop-Out	100 usec		
Surge Protection			
Video	Low-capacitance Zener suppressor of 6.5 V, 1500 watts		
SensorNet/Manchester	Isolation transformer coupled, 2000 Vrms; PTC resettable fuse protects transformer; 9.8V/1A, 500 watts, 8/20 usec impulse; 10kA impulse rated gas tube		
RS-422/RS-485	TVS rated at 9.8V/1A, 500 watts, 8/20 usec impulse		
Alarm Input/Aux Outputs	TVS rated at 9.8V/1A, 500 watts, 8/20 usec impulse		
Power Line	TVS rated at 60 V, 250 A, 1.5 joules, 8/20 usec impulse		

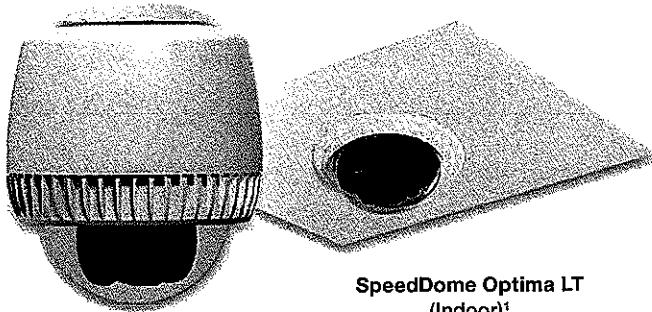
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www.americandynamics.net



**tyco** Fire & Security



**SpeedDome Optima  
(Outdoor)**

**SpeedDome Optima LT  
(Indoor)<sup>1</sup>**

SpeedDome Optima and SpeedDome Optima LT deliver the standard features of a programmable dome but are priced comparably to a PTZ. These series of domes provide an alternative for customers who prefer the convenience and programmability of a dome camera but previously considered domes to be price-prohibitive.

Choose from several innovative mounting options. Optima LT can be mounted in a hard ceiling, 2x2 tile, or on a wall using a pendant mount, while Optima includes a versatile outdoor pendant mount. Since the domes contain all of the necessary components, installation is a breeze – just 15 minutes from box to ceiling with the hard ceiling mount. The domes' power-on diagnostics and functional tests assist with fault isolation during install and service.

## SpeedDome Optima and Optima LT

Indoor and Outdoor Programmable  
Dome Cameras

### Features That Make a Difference:

- Color camera with up to 242x zoom (22x optical, 11x digital)
- 470 TVL horizontal resolution
- Zoom adjusted programming
- Auto focus and auto iris
- Auto white balance
- Automatic gain control
- Line-lock
- Supports Manchester, SensorNet, and RS-422<sup>2</sup> protocols
- Unshielded Twisted Pair (UTP) wiring video transmission
- Up to 96 user-definable presets
- Three user-definable patterns
- Power-on functional tests
- LEDs provide diagnostics
- Easy to install and service
- Priced comparably to a PTZ with more features and easier to install
- Stepper motors with micro-step control
- Selectable home position

The domes accommodate a variety of protocols, including Manchester, SensorNet, and RS-422<sup>2</sup>, making them compatible with select American Dynamics controller or matrix switcher/controller systems.

The domes feature a color camera with 22x optical zoom (11x digital) and 470 TVL resolution, providing a quality, high-resolution picture. The domes also provide user-programmable presets and patterns.

(1) RH2X2 Ceiling Mount Adaptor not included  
(2) SpeedDome Optima supports four wire RS-422



# features

## Additional Features

- Advanced third generation Digital Signal Processing (DSP) CCD camera delivers sharp, detailed images.
- Zoom Adjusted Programming (ZAP) automatically adjusts pan and tilt speeds in proportion to zoom position, even at 22x magnification.
- Automatic white balance allows the domes to automatically adjust the white balance of the image, providing optimal image quality.
- Automatic focus provides clear images without the need for manual adjustments.
- Auto iris provides visible scenes without the user having to manually compensate for diverse lighting conditions.
- Unshielded Twisted Pair (UTP) wiring video transmission saves wiring and installation costs.
- The automatic flip feature enables the dome to automatically turn 180° when the camera tilts to its lower limits and stays in that position for a brief speed-proportional delay.
- Vertical sync phase adjustment helps compensate for different phases of power when line-lock is enabled, making it ideal for single and multi-phase power installations.
- The domes have built-in surge protection to help prevent damage resulting from power loss and lightning strikes.
- The domes contain diagnostic LEDs for power, communication, network type, and failure mode.
- A fully isolated power supply helps eliminate ground loops.
- The domes automatically sense 50/60 Hz and do not require manual adjustment.
- The domes allow daisy-chain configuration of control wiring.
  - For RS-422: Ten domes at a maximum distance of 1 km (3,000 ft) on two 22 AWG shielded twisted pairs (STP).
  - For SensorNet: 32 devices at a maximum distance of 1 km (3,000 ft) on one 22 AWG UTP.
  - For Manchester: Three domes at a maximum distance of 1.5 km (5,000 ft) on one 18 AWG STP.

## Additional Features of SpeedDome Optima

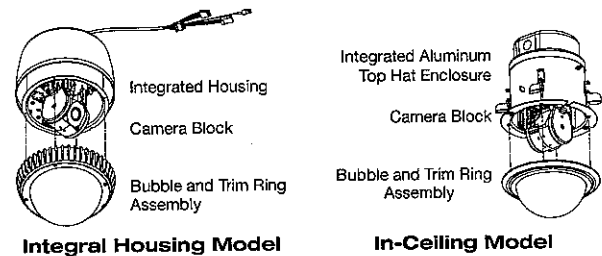
- SpeedDome Optima supports four wire RS-422 connection for alarm communication and is compatible with select American Dynamics controllers and matrix switchers.
- SpeedDome Optima alarms are processed externally by the controller and can automatically call a preset, run a pattern, or activate an auxiliary output when an alarm is activated.

## Two Housing Options

The integral pendant housing model, which is constructed of ABS plastic, is suitable for both indoor and outdoor applications. This model incorporates a flying lead connection for mechanical and electrical cabling. The outdoor version (SpeedDome Optima only) of the integral pendant housing

model is weather and tamper-proof and contains a heater/blower that protects the dome. In extreme temperatures, the housing's built-in fan prevents the dome from overheating and the built-in thermostat and heater prevent ice from forming on the outside bubble.

SpeedDome Optima LT is designed with an integrated aluminum top hat enclosure and plenum cap with swing-out tabs that grasp ceiling material, ensuring a secure and easy installation. This model utilizes an endcap connection for mechanical and electrical cabling. The in-ceiling model (SpeedDome Optima LT only) is for indoor applications only.



## SpeedDome Optima Model Numbers<sup>3</sup>

- RASONPC . . . . . Outdoor Pendant Mount, Clear Bubble (NTSC)
- RASONPC-1 . . . . . Outdoor Pendant Mount, Clear Bubble (PAL)
- RASONPS . . . . . Outdoor Pendant Mount, Smoked Bubble (NTSC)
- RASONPS-1 . . . . . Outdoor Pendant Mount, Smoked Bubble (PAL)



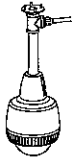
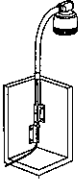


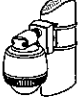
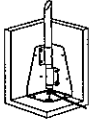

## SpeedDome Optima LT Model Numbers<sup>4</sup>

- RASELHC . . . . . Indoor Ceiling Mount, Clear Bubble (NTSC)
- RASELHC-1 . . . . . Indoor Ceiling Mount, Clear Bubble (PAL)
- RASELHS . . . . . Indoor Ceiling Mount, Smoked Bubble (NTSC)
- RASELHS-1 . . . . . Indoor Ceiling Mount, Smoked Bubble (PAL)
- RASELPC . . . . . Indoor Pendant Mount, Clear Bubble (NTSC)
- RASELPC-1 . . . . . Indoor Pendant Mount, Clear Bubble (PAL)
- RASELPS . . . . . Indoor Pendant Mount, Smoked Bubble (NTSC)
- RASELPS-1 . . . . . Indoor Pendant Mount, Smoked Bubble (PAL)

NUMBER OF PRESETS PER DOME				
Controllers, DVRs or Matrix Switchers	Protocol	SpeedDome Optima	SpeedDome Optima LT	
ADTT16E	SensorNet	96	96	
	RS-422 <sup>5</sup>	96	96	
MegaPower LT	AD-UTC	96	96	
	SensorNet	96	96	
MegaPower 48 Plus	SensorNet	96	96	
	Manchester	64	64	
	RS-422	96	96	
MegaPower 3200	Manchester <sup>6</sup>	64	64	
	RS-422 <sup>7</sup>	60	60	
Intellex® DVMS, Ultra and LT	SensorNet <sup>8</sup>	96	96	
	RS-422 <sup>9</sup>	96	96	
EDVR	RS-422 (Simplex)	96	96	
	Third party interfaces	RS-485	N/A	N/A
		RS-422	N/A	N/A

(3) Available in pendant mount version only  
 (4) Optional RH2X2 mount for 2x2 tile ceilings  
 (5) Using SensorNet to RS-422 converter (model number RCSN422)  
 (6) Using Manchester Code Distributor (model number AD2091)  
 (7) Using RS-422 code distributor (model number AD20B3-02C)  
 (8) Using USB CCTV control module (model number ADACSNET)  
 (9) Requires USB to RS-422 adaptor

# mounts and accessories

Indoor/Outdoor Mounting Options					
Mount	Description	Compatibility	Construction	Dimensions	Weight
<b>RHOSW:</b> Short Wall Mount with End Cap Assembly 	This mounting structure attaches directly to a flat wall. When used with the RHOWCA corner bracket adapter or RHOWPA pole strap adapter, it can be affixed to corners as well as poles. A mounting cover conceals the mounting plate for a more attractive appearance.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum, ABS plastic, and fiber-filled PVC	With dome installed 366 x 218 x 282 mm (14 x 9 x 11 in)	1.3 kg (3 lbs)
<b>RHOLW:</b> Long Wall Mount with End Cap Assembly 	This mount attaches directly to a flat wall, positioning the dome away from the wall, so that it can see over furniture, shelving, and displays. When used with the RHOWCA corner bracket adapter or RHOWPA pole strap adapter, it can be affixed to corners as well as poles. A mounting cover conceals the mounting plate for a more attractive appearance.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum, ABS plastic, and fiber-filled PVC	With dome installed 366 x 218 x 587 mm (14 x 9 x 23 in)	1.7 kg (3.8 lbs)
<b>RHOPN:</b> Outdoor Pendant Mount 	This mount suspends an outdoor dome housing from an outdoor ceiling or horizontal surface. It can be installed using either new or existing 1.25" NPT threaded pipe or rigid conduit up to 3 meters (10 feet) in length.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum, ABS plastic	115 x 120 x 120 mm (4.5 x 5 x 5 in)	1.8 kg (4 lbs)
<b>RHOTR:</b> Over-the-Roof Mount with End Cap Assembly 	This mount affixes directly to any wall, rooftop wall or parapet, positioning the dome away from the wall, so that it can see over awnings, soffits and landscaping. Opposing wing brackets secure installation to the roof surface, while allowing the pole to be repositioned for easy service access.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum, ABS plastic, and fiber-filled PVC	1098 x 243 x 473 mm (43 x 10 x 19 in)	5.7 kg (12.7 lbs)
<b>RH2X2:</b> 2' x 2' Tile Mount Plate 	This mount enables the dome to be recessed in a 2' x 2' drop tile ceiling. The ceiling tile is removed and the tile mount is simply dropped in its place.	SpeedDome Optima/Optima LT Indoor Ceiling Mount Models	Painted aluminum	47 x 605 x 605 mm (2 x 23 x 23 in)	1.7 kg (3.8 lbs)
Indoor/Outdoor Adapter Options					
Adapter	Description	Compatibility	Construction	Dimensions	Weight
<b>RHOWCA:</b> Corner Bracket Adapter 	This adapter attaches the long and short wall mounts (RHOSW & RHOLW) to affix to outside corners. Powder-coated aluminum construction ensures an extremely sturdy installation.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum	185 x 210 x 125 mm (7 x 8 x 5 in)	.79 kg (1.75 lbs)
<b>RHOWPA:</b> Pole Strap Adapter 	This adapter attaches the long and short wall mounts (RHOSW & RHOLW) to outside corners. This kit contains stainless steel straps that can be daisy-chained to accommodate any size pole and all the necessary mounting hardware.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum and stainless steel	138 x 79 x 27 mm (5 x 3 x 1 in) Straps support 53 to 951 mm (2 to 30 in) pole diameter	.5 kg (1.1 lbs)
<b>ROTRF:</b> Floor Adapter for RHOTR 	This adapter installs the RHOTR over-the-roof mount on horizontal and vertical roof/parapet surfaces. Multiple fastening positions provide versatility for mounting on any combination of surfaces and angles.	SpeedDome Optima/Optima LT Pendant Mount Models	Powder-coated aluminum	369 x 240 x 240 mm (15 x 10 x 10 in)	2.59 kg (5.75 lbs)
<b>ROENDC:</b> End Cap Assembly 	This mounting assembly retrofits any existing outdoor SpeedDome wall, pole, corner, or over-the-roof mount to accommodate newer outdoor housings. A modular design lets you mount the housing to the end cap on the ground, before installing it on the mounting pole, making the process safe and easy.	SpeedDome Optima/Optima LT Pendant Mount Models	Fiber-filled PVC	64 x 103 x 194 mm (3 x 4 x 8 in)	.32 kg (.7 lbs)

**Operational**

Manual Pan/Tilt Speed ..... 1° to 50° per second (based on zoom position)  
 Preset Pan/Tilt Speed. .... 100° per second, maximum  
 Pan Travel ..... 360° continuous  
 Tilt Travel ..... > 90°  
 Pan/Tilt Accuracy ..... ± 0.5°  
 Zoom/Focus Accuracy ..... ± 0.5%  
 Optical Zoom ..... 22X  
 Digital Zoom ..... 11X  
 Bubble Density ..... Clear (f0.0) or smoked (f1.0)  
 Programmable Patterns ..... Three  
 Auto Synchronization  
   Line-Locked ..... Remote V-phase adjustment  
   Internal ..... Built-in sync generator  
 Address Range  
   RS-422/RS-485 ..... One to 96  
   Manchester ..... One to 64  
   SensorNet ..... One to 255  
 Alarm Inputs ..... One (Optima only)  
 Auxiliary Relay  
 Outputs ..... One (Optima only)

**Electrical**

Input Voltage ..... 24 to 30 VAC, Class 2 LPS  
 Design Tolerance ..... 16 to 36 VAC  
 Line Frequency ..... 50/60 Hz  
 Power Consumption  
   Indoor ..... 21 W maximum  
   Outdoor ..... 80 W maximum  
 Power-On In-Rush Current ..... 3 A  
 Allowable Drop-Out ..... 33 ms  
 Surge Protection  
   Video ..... Low-capacitance Zener suppressor of 6.5 V, 1500 W  
   SensorNet/Manchester ..... Isolation transformer coupled, 2000 Vrms; PTC resettable fuse protects transformer; TVS rated at 5.6 V, 40 A, 0.1 J; 10 kA impulse rated gas tube, 8/20 µsec impulse  
   RS-422/RS-485 ..... Series resistors of 33 Ω; TVS rated at 5.6 V, 40 A, 0.1 J (Optima only)  
   Resettable fuse, 0.6 A, 60 V, 1.2 Ω; 90 V, 10 kA impulse rated gas tube (Optima LT only)  
   Alarm input ..... Series resistors of 33 Ω; TVS rated at 5.6 V, 40 A, 0.1 J (Optima only)  
   Auxiliary Output ..... 100 V isolation form 1-C relay (Optima only)  
   Power Line ..... TVS rated at 60 V, 250 A, 1.5 J; 10 kA impulse rated gas tube, 8/20 µsec impulse

**Camera**

Imager ..... Interline transfer 1/4 in CCD array  
 Scanning System ..... 2:1 interlace  
 Video Output ..... 1.0 Vp-p, 75 Ω composite  
 S/N Ratio ..... 48 dB (typical)  
 Horizontal Resolution ..... 470 lines at center  
 Minimum Illumination ..... 1.5 lux (20 IRE, AGC on)  
 Gain Control ..... Automatic (AGC)  
 White Balance ..... Through the Lens (TTL) Automatic Tracing  
   White Balance (ATWB)

**NTSC**

Pickup Device ..... 768 (H) x 494 (V) pixels  
 Scanning ..... 525 lines, 60 fields, 30 frames  
 Horizontal ..... 15.734 kHz  
 Vertical ..... 59.9 Hz

**PAL**

Pickup Devices ..... 752 (H) x 582 (V) pixels  
 Scanning ..... 625 lines, 50 fields, 25 frames  
 Horizontal ..... 15.625 kHz  
 Vertical ..... 50 Hz

**Lens**

Design ..... Aspherical  
 Aperture ..... f1.6  
   4 mm ..... 47.0° (H) x 35.2° (V)  
   88 mm ..... 4.0° (H) x 3.0° (V)  
 Focal Length ..... 4 to 88 mm  
 Field of View Formulas  
   Horizontal View = (.8 x A)/B  
   Vertical View = (.6 x A)/B  
   A = distance from camera in meters or feet  
   B = zoom power (e.g. 1-242x)

**Mechanical**

Dimensions (H x D)  
   In-Ceiling Model  
     Total ..... 301 x 190.5 mm (11.9 x 7.5 in)  
     Above Ceiling ..... 207.4 x 190.5 mm (8.2 x 7.5 in)  
     Below Ceiling ..... 92.7 x 178 mm (3.65 x 7.0 in)  
   Integral Pendant Housing Model  
     Total ..... 303 x 243.5 mm (11.9 x 9.6 in)  
 Unit Weight  
   In-Ceiling Model ..... 2.5 kg (5.5 lbs)  
   Integral Pendant Housing Model  
     Indoor ..... 2.7 kg (6.1 lbs)  
     Outdoor ..... 3.0 kg (6.6 lbs)

**Environmental**

Weatherproof Standard  
   Outdoor Models ..... IP66/NEMA4  
 Operating Temperature  
   Indoor ..... -10° to 50°C (14° to 122°F)  
   Outdoor ..... -40° to 50°C (-40° to 122°F)  
 Humidity ..... 0 to 95% RH (noncondensing)  
 Storage Temperature ..... -20° to 65°C (-4° to 149°F)  
 Wind Loading ..... Sustain winds of 240 km/hr (150 miles) when properly installed and mounted (wall, pole, ceiling, and over-the-roof mount with proper support). (Outdoor model only)

**Regulatory**

Emissions ..... FCC: 47 CFR Part 15, Subpart B Class A  
   CE: EN55022 Class B  
   CE: EN6100-3-2  
   CE: EN6100-3-3  
   AS/NZS 3548, Class A  
   CISPR22  
   ICES-003  
 Immunity ..... CE: EN50130-4  
 Safety ..... UL: UL1950  
   CUL: CSA 22.2 No. 950  
   CE: EN60950  
   IEC950

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