



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

# Request for Quotation

RFQ NUMBER:  
**DJS010296**

PAGE:  
**1**

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

**RFQ COPY**

TYPE NAME/ADDRESS HERE

**NewTech Systems, Inc.**  
**420 16th Street**  
**PO Box 310**  
**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
04/26/2011				
BID OPENING DATE: 05/05/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO. 4						
1. TO MOVE THE BID OPENING DATE FROM 04/28/2011 TO 05/05/2011.						
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. 4						
0001	1	LS		840-84		
VIDEO SURVEILLANCE SYSTEMS						
***** THIS IS THE END OF RFQ DJS010296 *****						<b>\$311,932.00</b>

**RECEIVED**  
 2011 MAY -5 AM 9:53  
 WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Michael Berry</i>	TELEPHONE 304-766-0000	DATE 5/4/2011
TITLE General Manager	FEIN 20-5736303	ADDRESS CHANGES TO BE NOTED ABOVE

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

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

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

Michael Bryant  
SIGNATURE

Newtech Systems Inc  
COMPANY

May 4, 2011  
DATE



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
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TYPE NAME/ADDRESS HERE

NewTech Systems, Inc.  
 420 16th Street  
 PO Box 310  
 Dunbar, WV 25064

DIVISION OF JUVENILE SERVICES

VARIOUS LOCALES AS  
 INDICATED BY ORDER

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	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		
VIDEO SURVEILLANCE SYSTEMS						
<p>INQUIRIES:</p> <p>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:</p> <p>TARA LYLE          DEPARTMENT OF ADMINISTRATION          PURCHASING DIVISION          2019 WASHINGTON STREET, EAST          CHARLESTON, WV 25305</p> <p>FAX: 304-558-4115          E-MAIL: TARA.L.LYLE@WV.GOV</p> <p>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.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Michael J. Borja</i>	TELEPHONE 304-766-0000	DATE 5/4/2011
TITLE General Manager	FEIN 20-5736303	ADDRESS CHANGES TO BE NOTED ABOVE

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



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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
<p><b>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.</b></p> <p><b>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.</b></p> <p><b>NOTICE</b></p> <p><b>A SIGNED BID MUST BE SUBMITTED TO:</b></p> <p><b>DEPARTMENT OF ADMINISTRATION          PURCHASING DIVISION          BUILDING 15          2019 WASHINGTON STREET, EAST          CHARLESTON, WV 25305-0130</b></p> <p><b>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</b></p>						

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SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

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VENDOR

RFQ COPY  
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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
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:						
				304-766-0003		
CONTACT PERSON (PLEASE PRINT CLEARLY):						
				Mike Bryant		
***** THIS IS THE END OF RFQ DJS010296 ***** TOTAL:						<u>\$311,932.<sup>00</sup></u>

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'

DJS019296 - DVR Camera System Equipment

Item #	Qty	Description	Model	Unit Price	Extended Amount
1	19	Pelco Model 3540M 102POS 18 Channel 500SB 120FPS or Equal	Sec Attached Info	\$ 5,250.00	\$ 99,750.00
2	2	32 Channel or Equal		\$ 7,330.00	\$ 21,990.00
3	4	64 Channel or Equal		\$ 14,660.00	\$ 58,640.00
4	12	Pelco Model CM4800E 48 IN X 8 Out Matrix Switch or Equal		\$ 3,073.00	\$ 36,876.00
5	12	Pelco Model KB2000A VHS Speed PTZ Keyboard or Equal		\$ 1,084.00	\$ 13,008.00
6	12	Pelco Model WX401609 16 Channel Duplex Multiplexer or Equal		\$ 895.00	\$ 10,740.00
7	8	Pelco Model PMCL326A 26" Flat Screen Monitor or Equal		\$ 946.00	\$ 7,568.00
8	8	PMCL 532A 32" Flat Screen Monitor or Equal		\$ 1,062.00	\$ 8,496.00
9	8	PMCL 542F 42" Flat Screen Monitor or Equal		\$ 1,775.00	\$ 14,200.00
10	12	Thin Wall Mount Bracket for Monitors		\$ 67.00	\$ 804.00
11	5	Pelco Model LB3000 Wall Lock Box or Equal		\$ 548.00	\$ 2,740.00
12	5	Pelco Model RCS165-16 Out Fused 10Amp Power Supply or Equal		\$ 165.00	\$ 825.00
13	5	Pelco Model RGS92F20 20 Out Fused 20Amp Power Supply or Equal		\$ 243.00	\$ 1,215.00
14	5	Pelco Model ST10DNV9 Day Night Camera 3.9mm Lens or Equal With Wallmount		\$ 180.00	\$ 900.00
15	5	Pelco Model ST10CWX9 Day Wide Dynamic Range Camera 3.9mm Lens or Equal With Wallmount		\$ 339.00	\$ 1,695.00
16	5	Pelco Model ST10DNV8 Combo D/N VDRS Camera 3.9mm Lens or Equal With Wallmount		\$ 180.00	\$ 900.00
17	5	Pelco Model M10C10-1 Indoor Fixed Dome Camera 2.8-11mm Lens or Equal		\$ 464.00	\$ 2,320.00
18	5	Pelco Model 1888BPM9 Indoor Fixed Mini-Dome Camera 3-9.5mm Lens or Equal		\$ 180.00	\$ 900.00
19	5	Pelco Model 15810BPM9 Indoor/Outdoor Variable Infrared Bullet Camera 3-9.5mm Lens or Equal		\$ 148.00	\$ 740.00
20	5	Pelco Model 1580BDM9 Indoor Infrared Fixed Mini-Dome Camera 3-9.5mm Lens or Equal		\$ 339.00	\$ 1,695.00
21	5	Pelco Model 33751H2 Indoor Variable Digital Camera 2.8-12mm Lens or Equal		\$ 259.00	\$ 1,295.00
22	6	Pelco Model SD435PM9 6-ET 28xPTZ Camera or Equal		\$ 1,787.00	\$ 8,935.00
23	6	Pelco Model SD435-PTZ-E1 35x6/7 PTZ Camera or Equal		\$ 2,068.00	\$ 10,340.00
24	80	Hourly Rate - Installation		\$ 67.00	\$ 5,360.00
<b>TOTAL</b>					\$ 311,932.00

Bidder / Vendor Information:  
 Name: NEWTECH SYSTEMS INC  
 Address: 420 16th St  
 Phone #: DUNBAR WV 25064  
 Email Address: 304-766-0000  
 Email Address: newtechwv.com

**To:** Division of Juvenile Services  
**Attn:** Various Locations

**Quote:** MVOTQ1485  
**Date:** 05/04/11  
**Terms:** Net 45  
**Sales Tax:** Not Included  
**FOB:** Included  
**Expires:** 60 Days

**Phone:**

**Fax:**

**Project:** Thank you for the opportunity to provide the following proposal based on RFQ DJS010296.

Prices include shipping to site.  
Price does not include state Sales Tax or Locale B&O.

Qty	Manufacturer	Part Number	Description	Unit	Extended
19	AD	ADHD160100	Hybrid Digital Video Recorder 16CH Analog/8IP 1TB	\$5,250.00	\$99,750.00
3	AD	ADHD320200	Hybrid Digital Video Recorder 32CH Analog/8IP 2TB	\$7,330.00	\$21,990.00
4	AD	ADHD320200X2	Hybrid Digital Video Recorder 64CH Analog/16IP 4TB (Qty 2 ADHD320200)	\$14,660.00	\$58,640.00
12	AD	AMP48-E	Matrix MegaPower 48 Plus 48x16 with Rack Kit	\$3,073.00	\$36,876.00
12	AD	AD2089	Keyboard	\$1,084.00	\$13,008.00
12	AD	DMV96Q-1	Multiplexer Duplex 16ch Color	\$895.00	\$10,740.00
8	Orientech	VZ-26RTC	26 Inch LCD Monitor	\$946.00	\$7,568.00
8	Orientech	VZ32RTC	32 Inch LCD Monitor	\$1,062.00	\$8,496.00
8	Orientech	VZ-42RTH	42 Inch LCD Monitor	\$1,775.00	\$14,200.00
12	Orientech	VZ-VM50	Tilt Wall Mount for up to 130lbs	\$67.00	\$804.00
5	Pelco	LB3000	Lock Box, wall mount security box	\$548.00	\$2,740.00
5	Altronix	ALTV2416300UL	24 OR 28 WALL MNT 16 OUT UL PS	\$165.00	\$825.00
5	Altronix	ALTV2432600UL	ALTV2432600UL 24 OR 28V 32 OUT	\$243.00	\$1,215.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	AD	ADCBW0309TU	DiscoverMini Dome Vandal WDR 3-9mm AI	\$339.00	\$1,695.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	Avigilon	1.0MP-HD-H264-D 1	1.0 Megapixel (720p) Day/Night Indoor Dome, 3-9mm f/1.2 lens	\$464.00	\$2,320.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	AD	ADCD601-B0001	Discover 600 Bullet IR Camera 3-9mm AI with Altronix VR1T	\$148.00	\$740.00
5	AD	ADCBW0309TU	DiscoverMini Dome Vandal WDR 3-9mm AI	\$339.00	\$1,695.00
5	AD	CPAKWSHR2-12N	Camera and Lens	\$259.00	\$1,295.00
5	AD	ADSDU822OPCW N	PTZ 22x Dome Camera Kit	\$1,787.00	\$8,935.00
5	AD	ADSDU835OPCW N	PTZ 35x Dome Camera Kit	\$2,068.00	\$10,340.00
80	Labor	Inst	Installation based on Prevailing Wage Rates	\$67.00	\$5,360.00

**Grand Total: \$311,932.00**

Normal Hours are 8:00am - 5:00pm M-F.  
Building Permits, Licenses or Fees will be the responsibility of the owner.

If you should have any questions, please call.

Sincerely,



Michael Bryant

# 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: Newtech Systems Inc.      Signed: *Mike Bryant*  
 Date: 5-4-2011      Title: VP / Gen Mgr

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



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: Newtech Systems Inc

Authorized Signature: [Signature] Date: May 4, 2011

State of WV

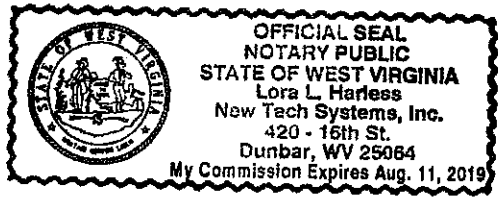
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 4<sup>th</sup> day of May, 2011

My Commission expires 8/11, 2019

AFFIX SEAL HERE

NOTARY PUBLIC Lora L Harless





PO Box 310 ■ 420 16<sup>th</sup> ST  
Dunbar, WV 25064  
Office: 304-766-0000  
Fax: 304-766-0003

RFQ DJS010296

Division of Juvenile Services

Video Surveillance Systems



420 16th Street  
 Dunbar, WV 25064  
 office: 304-766-0000  
 fax: 304-766-0003  
 www.newtechwv.com

**To:** Division of Juvenile Services  
**Attn:** Various Locations

**Quote:** MVOTQ1485  
**Date:** 05/04/11  
**Terms:** Net 45  
**Sales Tax:** Not Included  
**FOB:** Included  
**Expires:** 60 Days

**Phone:**

**Fax:**

**Project:** Thank you for the opportunity to provide the following proposal based on RFQ DJS010296.

Prices include shipping to site.  
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5	Altronix	ALTV2416300UL	24 OR 28 WALL MNT 16 OUT UL PS	\$165.00	\$825.00
5	Altronix	ALTV2432600UL	ALTV2432600UL 24 OR 28V 32 OUT	\$243.00	\$1,215.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	AD	ADCBW0309TU	DiscoverMini Dome Vandal WDR 3-9mm AI	\$339.00	\$1,695.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	Avigilon	1.0MP-HD-H264-D 1	1.0 Megapixel (720p) Day/Night Indoor Dome, 3-9mm f/1.2 lens	\$464.00	\$2,320.00
5	AD	ADCDEH0309TN	Discover Mini Dome, Vandal, 540TVL, 3-9mm AI	\$180.00	\$900.00
5	AD	ADCD601-B0001	Discover 600 Bullet IR Camera 3-9mm AI with Altronix VR1T	\$148.00	\$740.00
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5	AD	CPAKWSHR2-12N	Camera and Lens	\$259.00	\$1,295.00
5	AD	ADSDU822OPCW N	PTZ 22x Dome Camera Kit	\$1,787.00	\$8,935.00
5	AD	ADSDU835OPCW N	PTZ 35x Dome Camera Kit	\$2,068.00	\$10,340.00
80	Labor	Inst	Installation based on Prevailing Wage Rates	\$67.00	\$5,360.00

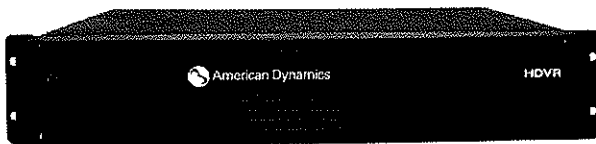
**Grand Total: \$311,932.00**

Normal Hours are 8:00am - 5:00pm M-F.  
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If you should have any questions, please call.

Sincerely,

Michael Bryant



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.

## 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

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 .....H.264 / MJPEG  
 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

	2U 16-channel	4U 32-channel
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

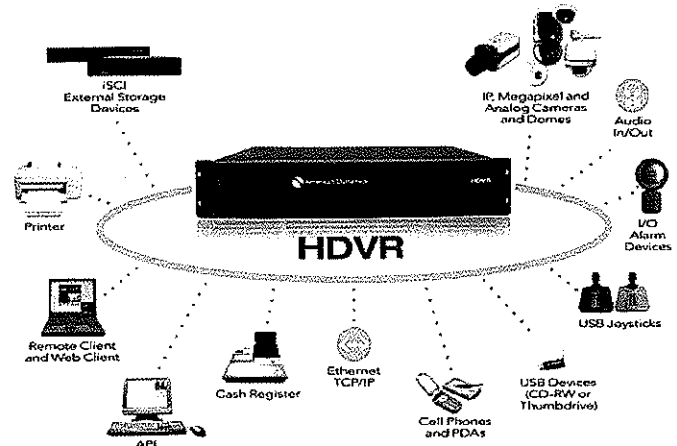
### Minimum Specifications for Client Workstation

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

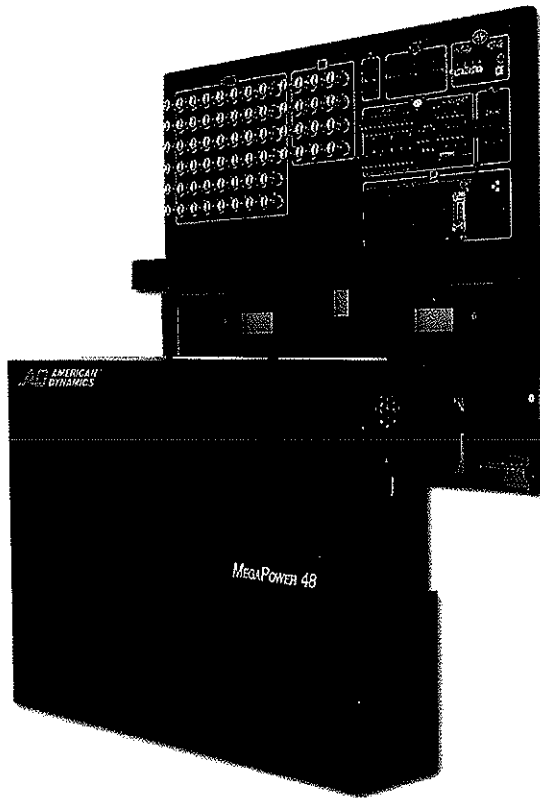
### System Diagram



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## 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
1	80	16	1	0	0	64	32	320	80	512
	112	16	2	0	0	96	48	448	112	512
	144	16	3	0	0	128	64	576	144	512
2	84	12	1	3	3	64	32	336	84	512
	120	12	2	3	6	96	48	480	120	512
	156	12	3	3	9	128	64	624	156	512
3	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
	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 simplex RS-422 communication, the system allows presets to be stored in the dome.

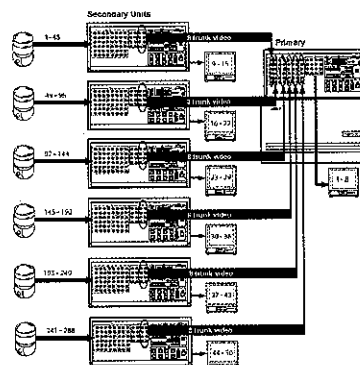
## System Programming

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



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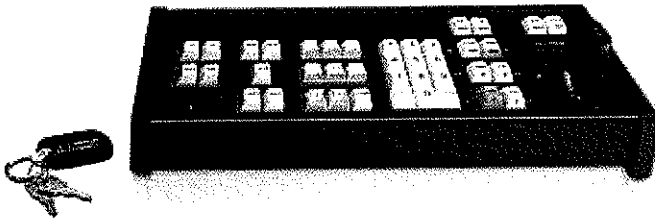
[www.americandynamics.net](http://www.americandynamics.net)

## AD2089

### Full-Function CCTV System Keyboard

#### Features That Make a Difference:

- Variable-speed, vector solving, twist-to-zoom joystick for pan/tilt/zoom control
- Camera, monitor, DVR, VCR and satellite site selection
- 1000 user-defined macros
- Eight customizable macro keys
- DVR control
- LED display with brightness control
- Tactile full-travel keys
- Preset, pattern and auxiliary control
- Joystick push-button for dome flip function
- Lens control
- Tour and salvo control
- Alarm control
- Supports American Dynamics Intellex® digital video management systems



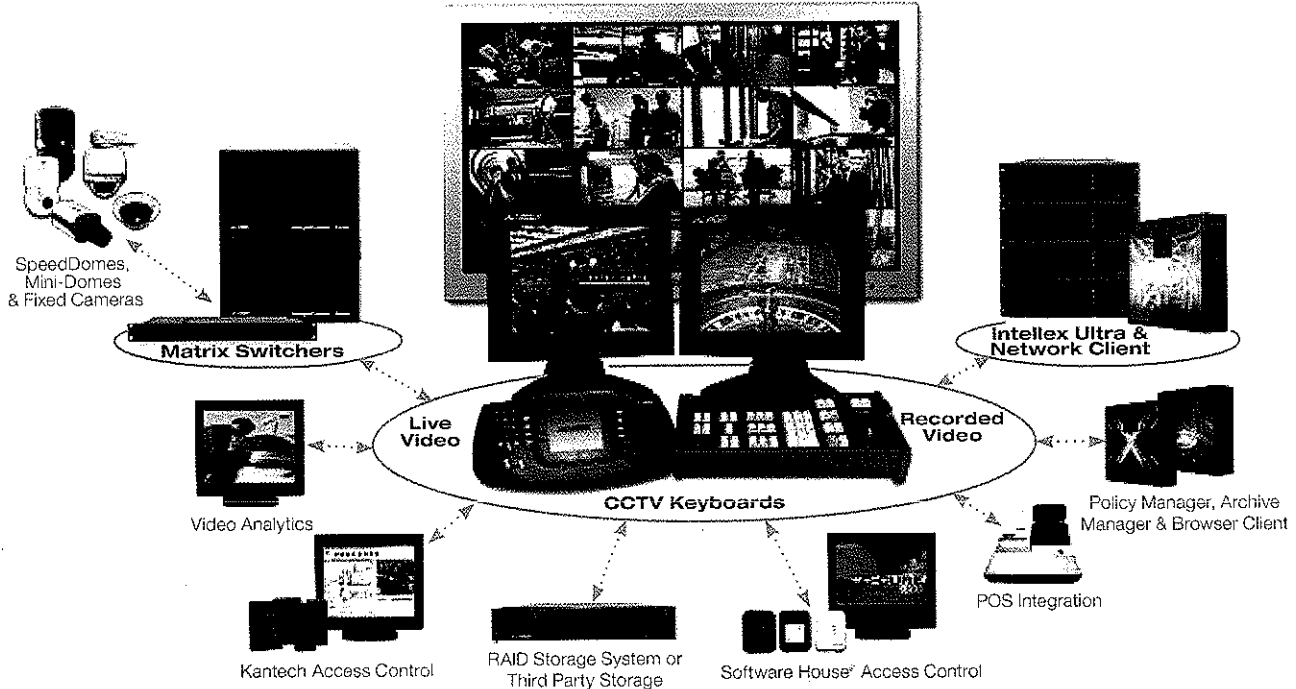
The AD2089 series includes robust, full-function CCTV system keyboards available in desktop and rack mount versions and are compatible with MegaPower™ Matrix Switcher/Controller Systems and Intellex Digital Video Management Systems.

The keyboards feature full-travel keys that provide true tactile feel. Dedicated keys enable user log-on, intuitive site and monitor/DVR/VCR selection, and camera or salvo call-up. All system activities, including tours and alarms, can be controlled directly from the keyboard. AD2089 keyboards provide user-defined macro keys that make even the most complex and demanding installations easy to manage. Each operator can customize his or her own keyboard to perform a multitude of system tasks via simple, easy to remember keystrokes.

The keyboard also offers recorder control for digital video recorders. The keyboard's vector-solving joystick provides one-handed control of the selected variable-speed pan/tilt or programmable dome. The joystick's twist action feature provides zoom control of motorized lenses. The push-button at the top of the joystick enables users to quickly flip a compatible dome 180° for uninterrupted surveillance of subjects who pass directly underneath the dome.

The keyboard's internal beeper sounds for five seconds upon receipt of an alarm. It has adjustable baud rates to properly match the keyboard to the network and matrix switcher/controller system, and a self-test mode to verify both hardware and software operation of the communications port, LEDs, joystick, beeper, and memory.

Basic System Diagram



Model Numbers

- AD2089 ..... 120 VAC, 50/60 Hz Desktop
  - AD2089R ..... 120 VAC, 50/60 Hz Rack mount
  - AD2089-1 ..... 230 VAC, 50/60 Hz Desktop
  - AD2089R-1 ..... 230 VAC, 50/60 Hz Rack mount
- Note: AC wall-type transformer and terminal block supplied (9 VAC for 120 V, 8 VAC for 230 V).

Connectors

- RJ-45 ..... RS-232, Power

Electrical

- Supply Voltage
- AD2089 Series ..... 120 VAC, 50/60 Hz
- AD2089-1 Series ..... 230 VAC, 50/60 Hz
- Power Consumption ..... 5.0 watts (nominal)
- Non-Volatile Memory ..... User-defined programming stored in EEROM indefinitely

Mechanical

- Dimensions (H x W x D)
- Desktop ..... 76.2 x 419 x 133 mm (3.0 x 16.5 x 5.25 in)
- Rack Mount ..... 133.4 x 482.6 x 38.1 mm (5.25 x 19 x 1.5 in)
- Weight ..... 2.55 kg (5.5 lbs)
- Shipping Weight ..... 3.65 kg (8.0 lbs)
- Color ..... Black

Environmental

- Operating Temperature ..... 0° to 40°C (32° to 104°F)
- Humidity ..... 5-90% RH (non-condensing)
- Storage Temperature ..... -40° to 70°C (-40° to 155°F)

Regulatory

- Emissions ..... FCC Part 15, Subpart B Class A  
CE: EN55022 Class B
- Immunity ..... CE: EN50082-1
- Safety ..... UL2044  
CSA 22.2 No. 1 (cUL)  
CE: EN60950

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tyco Fire & Security



## Multivision Quest DUPLEX MULTIPLEXER

The Multivision Quest Duplex series offers advanced features not typically found in standard multiplexers. The duplex capability allows users to view live or recorded video while also recording at the same time. Video inputs can be programmed as covert so that certain cameras are recorded but not viewable on the monitors.

Three types of alarm events are supported: video loss, alarm inputs via the rear panel, and motion detection. Motion detection for each individual camera is programmed via a detection grid. Each alarm event can be programmed to put the multiplexer into alarm mode, which can result in on-screen alarm text, an internal buzzer sounding, and a relay being triggered. Triggered alarm inputs can be programmed to increase the camera record rate. Alarm dwell time is user selectable from 1 to 9,999 seconds. In addition, as these events occur they are stored in a non-volatile event history log. The most recent 255 events are kept in the list.

For installations where cameras are located at long distances and video signal integrity is affected, the gain control for each individual camera can be adjusted to restore picture quality.

The multiplexer has two passwords: one for resetting the unit to factory settings, one for configuring the unit during installation.

### FEATURES

- 4, 9 and 16-channel versions
- B/W and color models
- 720 x 480 (NTSC) / 720 x 576 (PAL) pixel display with 256 grays and 16 million colors
- Covert camera programming
- Intelligent video motion detection
- History log for up to 255 alarms, video loss or motion detection events
- User-friendly on-screen menus
- Two levels of password protection
- Adjustable gain control for each camera
- Ability to freeze live and recorded images
- Up to three pre-programmed main monitor sequential switching modes

# AMERICAN DYNAMICS MULTIVISION QUEST DUPLEX MULTIPLEXER

## SPECIFICATIONS

### Model Numbers

DMV14Q	Duplex, 4 channel, B/W multiplexer. 120VAC, NTSC
DMV19Q	Duplex, 9 channel, B/W multiplexer. 120VAC, NTSC
DMV16Q	Duplex, 16 channel, B/W multiplexer. 120VAC, NTSC
DMV94Q	Duplex, 4 channel, color multiplexer. 120VAC, NTSC
DMV99Q	Duplex, 9 channel, color multiplexer. 120VAC, NTSC
DMV96Q	Duplex, 16 channel, color multiplexer. 120VAC, NTSC
DMV14Q-1	Duplex, 4 channel, B/W multiplexer. 230VAC, PAL
DMV19Q-1	Duplex, 9 channel, B/W multiplexer. 230VAC, PAL
DMV16Q-1	Duplex, 16 channel, B/W multiplexer. 230VAC, PAL
DMV94Q-1	Duplex, 4 channel, color multiplexer. 230VAC, PAL
DMV99Q-1	Duplex, 9 channel, color multiplexer. 230VAC, PAL
DMV96Q-1	Duplex, 16 channel, color multiplexer. 230VAC, PAL

### Accessories

MQRPNL	Remote Panel, 60/50Hz
--------	-----------------------

### Operational

Video Inputs	4, 9 or 16 depending upon model
Video Resolution	720 x 480 display (NTSC) 720 x 576 display (PAL)
Display Formats	1, 4, and 9 windows (9 Channel) 1, 4, 9, and 16 windows (16 Channel)
Gain Control	1 to 16 (70 to 150%)
Motion Detection Grid	192 points, 16 horizontal x 12 vertical
Motion Detection Settings	Adjustable sensitivity
Event History Log	255 alarm contact, video loss or motion detection events
Alarm Duration	Programmable 1 to 9,999 seconds

### Video Inputs/Outputs

Video Inputs	4, 9 or 16 looping composite, 1Vp-p, selectable 75 Ω or High-Z, BNC
VCR Input	Composite, 1Vp-p, 75 Ω, BNC S-Video, 1Vp-p, 75 Ω, 4-pin mini-DIN
VCR Output	Composite, 1Vp-p, 75 Ω, BNC S-Video, 1Vp-p, 75 Ω, 4-pin mini-DIN
Main Monitor Output	Composite, 1Vp-p, 75 Ω, BNC S-Video, 1Vp-p, 75 Ω, 4-pin mini-DIN
Call Monitor Output	Composite, 1Vp-p, 75 Ω, BNC

### Connectors

Alarm Input	4, 9 or 16, one per camera, programmable as normally open or normally closed
Common Alarm Output	One normally open or closed form C relay, 0.5A/120VAC or 2.0A/24VDC
VCR Trigger	One, TTL input
Set Alarm	One, contact closure or TTL/CMOS input
Reset Alarm	One, contact closure or TTL/CMOS input
RS-485	Two, RJ-11 ports
Remote Panel	One, RJ-45 port

### Electrical

Input Voltage	Regulated, 12VDC ± 10%
Power	16 Watts
Power Supply	12VDC ± 10%, 2 A, 2.1 mm pin-jack, positive center conductor

### Mechanical

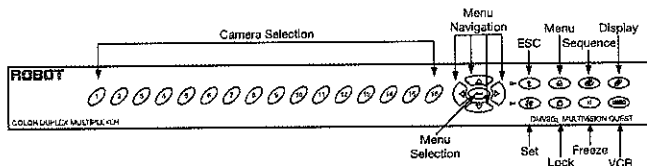
Dimensions (H x W x D)	44 x 432 x 270 mm (1.7 x 17.0 x 10.6 in.)
Unit Weight	3.2 kg (7.0 lbs)
Shipping Weight	5.0 kg (11.0 lbs)
Color	Black
Rack Mounting Kit	Two L-shaped brackets 1U rack height (included)

### Environmental

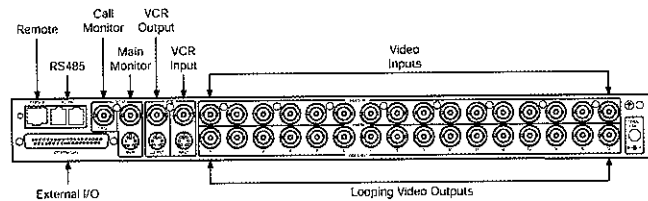
Operating Temperature	5° to 40°C (41° to 104°F)
Storage Temperature	-20° to 70°C (-4° to 158°F)
Humidity	10%-90% RH, non condensing

### Regulatory

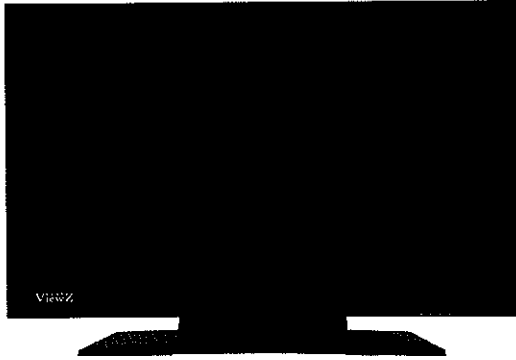
Emissions	FCC Part 15, Subpart B, Class A EN55022, 1998 Class A
Immunity	EN50082-i 1997 CISPR 22: 1997, Class A
Safety	UL and CUL 1950 EN60950



Front Panel



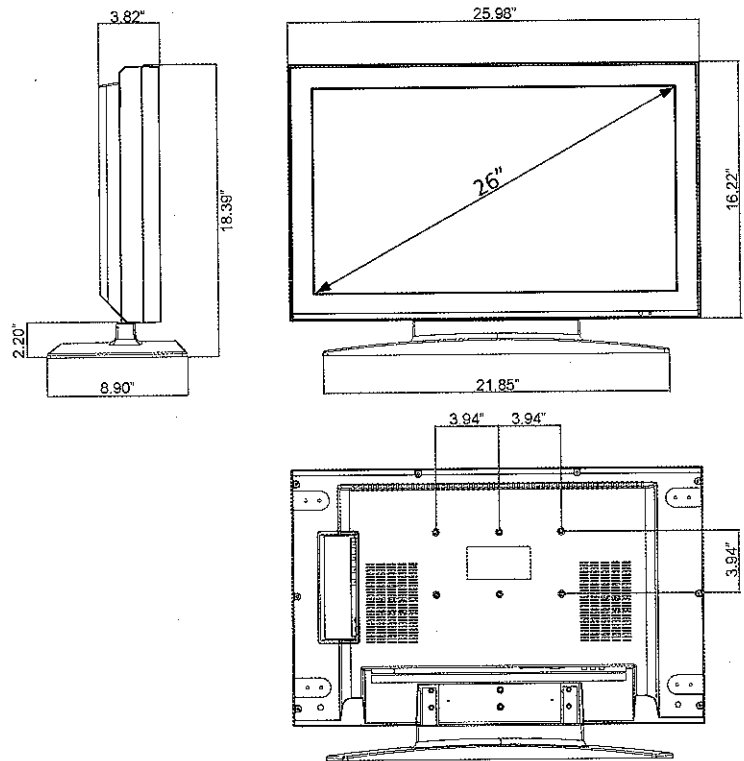
Rear Panel



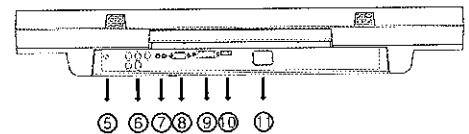
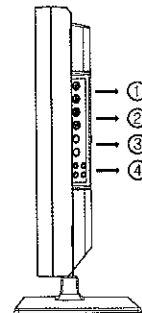
MODEL #	VZ-26RTC
<b>DISPLAY</b>	
Screen Size	26"
Max. Resolution	1366 x 768 @60Hz
Pixel Pitch	0.412mm x 0.412mm
Brightness	450cd/m²(Typical)
Contrast Ratio	3000:1
Aspect Ratio	16 : 9
Viewing Angle (H/V)	178°/178°
Display Color	16.7 Million
Response Time	<6.5ms
Video System	NTSC / PAL
Frequency (H)	31 ~ 64KHz
Frequency (V)	56 ~ 75Hz
<b>INTERFACE</b>	
AV(Composite) In/ Out	2 / 2
S-Video In / Out	1 / 1
RGB In(15Pin D-Sub)	1
Component(Y, Pb, Pr, Sound L/R) In	1
DVI-In	1
HDMI In	1
Trigger In	1
AV(Composite) Sound In/Out (RCA Type)	2 / 2
PC Stereo In/Out	1 / 1
<b>AUDIO</b>	
Built in speaker	2W x 2
<b>SPECIAL FEATURES</b>	
Multi Display Function	PIP / PBP / VOV
Filter Type	3D Comb filter / DeInterlace
LCD Protection Glass	YES
Trigger Sensor / Image Rotation	YES / YES
Video Resolution(Max)	600 TV Line
Camera Mounting Hole	Not Available
Multi-lingual Language	English, Spanish, French, German, Italian, Portuguese, Dutch
<b>DIMENSIONS</b>	
Outline Dimension (W x H x D)	25.99" x 16.23" x 3.83" (660.2mm x 412.2mm x 93.3mm)
Net Weight	44.10 lbs (20.0kg)
<b>MOUNT</b>	
VESA	200mm x 100mm
<b>GENERAL</b>	
Transmitter - IR Remote Control	YES
Power - Electrical Ratings	AC100 ~ 240V(50/60Hz)
- Consumption	120W
Warranty - Parts/ Labor	3 Year / 3 Year
- MTBF (Approx.)	50,000 Hours
Operating Temperature	32 - 104°F / 0 - 40°C
Regulations	TUV-NRTL (=UL), CB, FCC(B), CE-Emc(LVD)
Compatible Mounts - WALL	VZ-WM31, VZ-WM40, VZ-WM50
- CEILING	VZ-CMK07
- Rack	Not Available

### VZ-26RTC ADVANTAGES:

- 26" LCD CCTV Monitor
- BNC, VGA, HDMI, DVI
- 3D Comb-filter, De-interlace, Built-in Speakers
- 3-Year Warranty
- Image Rotation Feature Prevents "Burn-In"



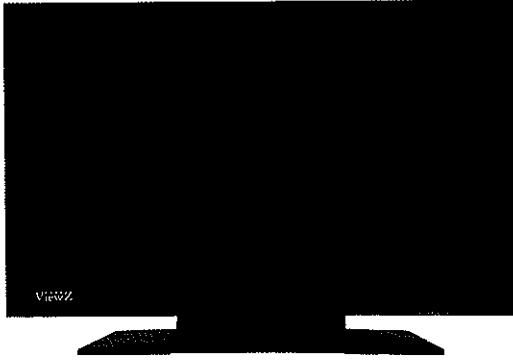
### INTERFACE



1. AV(composite)1 IN/OUT
2. AV(composite)2 IN/OUT
3. S-VIDEO IN/OUT
4. AV(composite) SOUND IN/OUT
5. TRIGGER IN
6. COMPONENT
7. PC STEREO IN/OUT
8. VGA
9. DVI
10. HDMI
11. AC110V IN

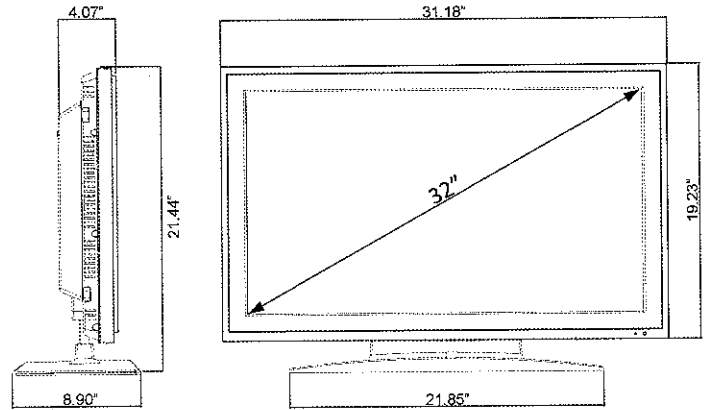
### Contact ViewZ

- Address: 1220 N.Kraemer Blvd, Anaheim, CA, 92806
- Phone: (714)630-3380, Fax: (714)630-2335
- Sales: sales@viewzusa.com

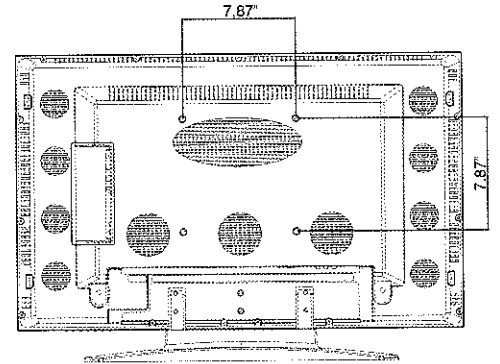


### VZ-32RTC ADVANTAGES:

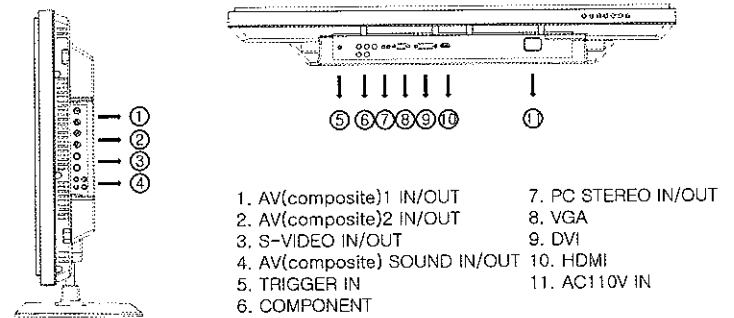
- 32" LCD CCTV Monitor
- BNC, VGA, HDMI, DVI
- 3D Comb-filter, De-interlace, Built-in Speakers
- 3-Year Warranty
- Image Rotation Feature Prevents "Burn-In"



MODEL #	VZ-32RTC
<b>DISPLAY</b>	
Screen Size	32"
Max. Resolution	1366x768 @60Hz
Pixel Pitch	0.510mm x0.510mm
Brightness	500cd/m <sup>2</sup> (Typical)
Contrast Ratio	3000:1
Aspect Ratio	16 : 9
Viewing Angle (H/V)	178°/178°
Display Color	16.7 Million
Response Time	< 8ms
Video System	NTSC / PAL
Frequency (H)	31 ~ 64KHz
Frequency (V)	56 ~ 75Hz
<b>INTERFACE</b>	
AV(Composite) In/ Out	2 / 2
S-Video In / Out	1 / 1
RGB In(15Pin D-Sub)	1
Component(Y, Pb, Pr, Sound L/R) In	1
DVI-In	1
HDMI In	1
Trigger In	1
AV(Composite) Sound In/Out (RCA Type)	2 / 2
PC Stereo In/Out	1 / 1
<b>AUDIO</b>	
Built in speaker	2W x2
<b>SPECIAL FEATURES</b>	
Multi Display Function	PIP / PBP / VOV
Filter Type	3D Comb filter / DeInterlace
LCD Protection Glass	YES
Trigger Sensor / Image Rotation	YES / YES
Video Resolution(Max)	600 TV Line
Camera Mounting Hole	Not Available
Multi-lingual Language	English, Spanish, French, German, Italian, Portuguese, Dutch
<b>DIMENSIONS</b>	
Outline Dimension (W x H x D)	31.18" x 19.23" x 4.07"
	(792.0mm x 488.5mm x 103.5mm)
Net Weight	46.30 lbs (21.0kg)
<b>MOUNT</b>	
VESA	200mm x 200mm
<b>GENERAL</b>	
Transmitter - IR Remote Control	YES
Power - Electrical Ratings	AC100 ~ 240V(50/60Hz)
- Consumption	120W
Warranty - Parts/ Labor	3 Year / 3 Year
- MTBF (Approx.)	50,000 Hours
Operating Temperature	32 - 104°F / 0 - 40°C
Regulations	TUV-NRTL (=UL), CB, FCC(B), CE-Emc(LVD)
Compatible Mounts - WALL	VZ-WM31, VZ-WM40, VZ-WM50
- CEILING	VZ-CMK07, VZ-CMK10
- Rack	Not Available

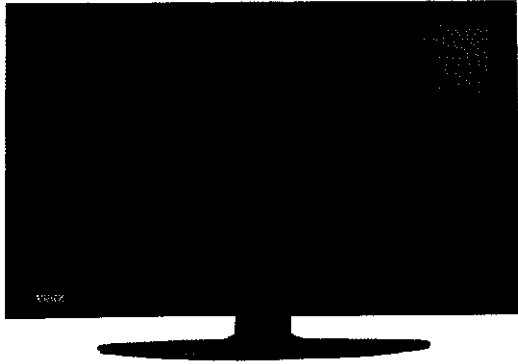


### INTERFACE



### Contact ViewZ

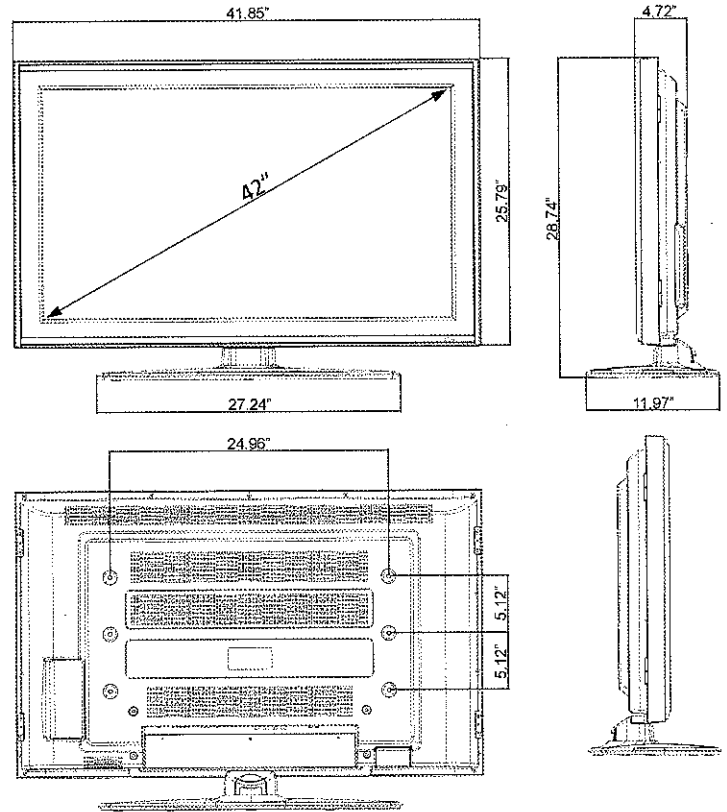
- Address: 1220 N.Kraemer Blvd, Anaheim, CA, 92806
- Phone: (714)630-3380, Fax: (714)630-2335
- Sales: sales@viewzusa.com



### VZ-42RTH ADVANTAGES:

- 42" LCD CCTV Monitor
- HD 1080p Resolution
- BNC, VGA, HDMI, DVI
- 3D Comb-filter, De-interlace, Built-in Speakers
- 3-Year Warranty
- Image Rotation Feature Prevents "Burn-In"

MODEL #	VZ-42RTH
<b>DISPLAY</b>	
Screen Size	42"
Max. Resolution	1920 x 1080 @ 60Hz
Pixel Pitch	0.4845mm x 0.4845mm
Brightness	400cd/m <sup>2</sup> (Typical)
Contrast Ratio	4000:1
Aspect Ratio	16:9
Viewing Angle (H/V)	178°/178°
Display Color	16.7 Million
Response Time	< 6.5ms
Video System	NTSC / PAL
Frequency (H)	31 ~ 80KHz
Frequency (V)	56 ~ 75Hz
<b>INTERFACE</b>	
AV(Composite) In/Out	2 / 2
S-Video In / Out	1 / 1
RGB In(15Pin D-Sub)	1
Component(Y, Pb, Pr, Sound L/R) In	1
DVI-In	1
HDMI In	1
Trigger In	1
AV(Composite) Sound In/Out (RCA Type)	2 / 2
PC Stereo In/Out	1 / 1
<b>AUDIO</b>	
Built in speaker	7W x 2
<b>SPECIAL FEATURES</b>	
Multi Display Function	PIP / PBP / VOV
Filter Type	3D Comb filter / DeInterlace
LCD Protection Glass	Not Available
Trigger Sensor / Image Rotation	YES / YES
Video Resolution(Max)	600 TV Line
Camera Mounting Hole	Not Available
Multi-lingual Language	English, Spanish, French, German, Italian, Portuguese, Dutch
<b>DIMENSIONS</b>	
Outline Dimension (W x H x D)	41.85" x 25.79" x 4.72" (1063.0mm x 665.0mm x 120.0mm)
Net Weight	68.30 lbs (31.0kg)
<b>MOUNT</b>	
VESA	(130x130)mm x 634mm
<b>GENERAL</b>	
Transmitter - IR Remote Control	YES
Power - Electrical Ratings	AC100 ~ 240V(50/60Hz)
Consumption	200W
Warranty - Parts/ Labor	3 Year / 3 Year
MTBF (Approx.)	50,000 Hours
Operating Temperature	32 - 104°F / 0 - 40°C
Regulations	TUV-NRTL (=UL), CB, FCC(B), CE-Emc(LVD)
Compatible Mounts - WALL	VZ-WM60, VZ-WM70
- CEILING	VZ-CMK10
- Rack	Not Available



### INTERFACE



1. AC110V IN
2. AV(composite) SOUND IN/OUT
3. S-VIDEO IN/OUT
4. AV(composite)2 IN/OUT
5. AV(composite)1 IN/OUT
6. TRIGGER IN
7. COMPONENT
8. PC STEREO IN/OUT
9. VGA
10. DVI
11. HDMI

### Contact ViewZ

- Address: 1220 N. Kraemer Blvd, Anaheim, CA, 92806
- Phone: (714)630-3380, Fax: (714)630-2335
- Sales: sales@viewzusa.com



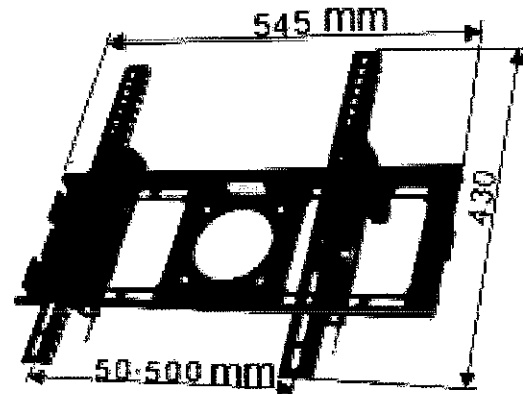
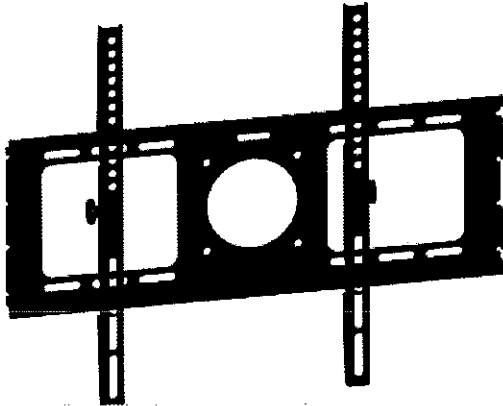
# ViewZ

1220 N. Kraemer Blvd  
Anaheim CA 92806  
TEL: 714-630-3380

## MODEL WM-50

### TILTING WALL MOUNT FOR ViewZ 26RTC/32RTC and 26PVM/32PVM DISPLAYS

#### SPECIFICATIONS



- TILT UP TO 15degrees-FAST AND SIMPLE INSTALLATION
- SLIM DISTANCE TO WALL 83mm
- CONVENIENT BUILT IN LEVEL INDICATOR
- FOR ALL ViewZ DISPLAYS LISTED ABOVE
- MAY BE USED WITH NON-VESA MOUNT COMPATIBLE DISPLAYS
- VESA MOUNT COMPATIBLE UP TO 500x400mm AND MAX WGT 132Lbs
- LATERAL ADJUSTMENT
- RUGGED BLACK POWDERCOAT FINISH
- UL/GS LISTED

CTN WGT 8.3Lb  
CTN DIMENSIONS 22.4"x8.2"x4"

#### INCLUDED WITHIN KIT

WALLMOUNT FOR 26"-32"DISPLAYS
COMPLETE ATTACHMENT HARDWARE
INSTALLATION GUIDE

#### ARCHITECTURAL SPECIFICATIONS

The Flat Panel Tilt Wall Mount shall be ViewZ Model WM-50 , with 15 degrees tilt. and UL listed. It shall be installed at all locations as listed per plans. Assembly and install shall be done according to the Manufacturer's install guide. by a professional installation crew.

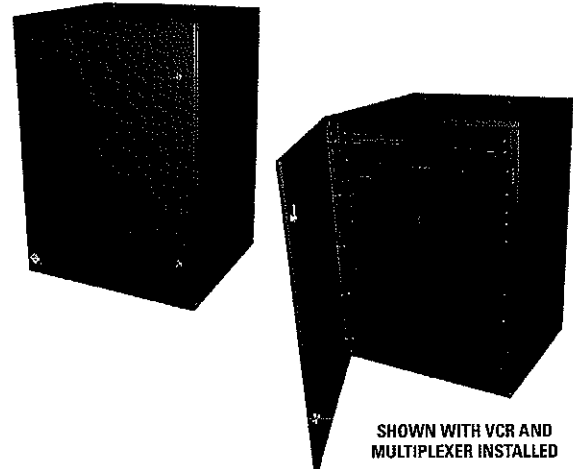
Specifications subject to change without notice.

# LB3000 Series Lock Box

## WALL MOUNT, TAMPER RESISTANT

### Product Features

- Holds VCR, Multiplexer, and Tapes
- Monitor Can Be Placed on Top of Lock Box
- Vented Top and Bottom Panels
- Wall Mount; Wiring Access Through Wall
- Tamper-Resistant Top and Side Panel Access for Connections
- LB3000PS Includes Integral Camera Power Supply



SHOWN WITH VCR AND MULTIPLEXER INSTALLED

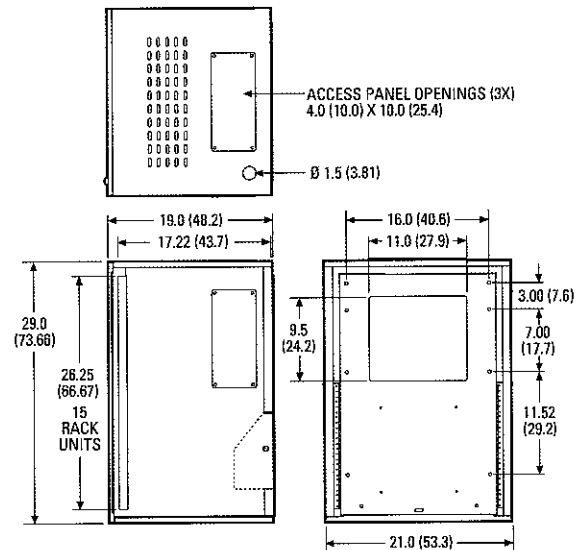
The **LB3000 Series** lock box provides a secure housing for a VCR, multiplexer, manuals, and up to 32 VCR tapes. Two keyed locks on the front door prevent unauthorized entry.

The **LB3000** and **LB3000PS** are designed for mounting to wall studs. Installation is easy: A mounting plate is attached to the wall over a standard outlet electrical box, and then the lock box is quickly fastened to the mounting plate. Cables for video and power cables are brought into the lock box through a hole in the wall. Panels with tamper-resistant screws in the top and sides of the lock box permit access for wiring.

An integral master power supply is provided with the **LB3000PS** to provide 24 VAC power to cameras that are connected to the multiplexer. The power supply can handle as many as 16 cameras.

Ventilation holes in the top and bottom of the **LB3000/LB3000PS** allow air to circulate through the unit so heat generated by the equipment can escape.

Inside the lock box, space is provided at the top for a rack-mounted multiplexer, such as Pelco's Genex® Series multiplexer. Below the multiplexer there is a shelf to place a VCR, such as Pelco's TLR3096 or TLR3168. Beneath the VCR is a small shelf for storage of documentation. Finally, two shelves in the bottom of the lock box permit storage of 16 video tapes each. A monitor, such as Pelco's PMC14H, can be set on top of the lock box to view surveillance activity.



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.



C1907 / REVISED 11-07-08



International Standards Organization Registered Firm; ISO 9001 Quality System



# TECHNICAL SPECIFICATIONS

## MODELS

LB3000	Wall mount lock box for VCR, multiplexer, and VCR tapes
LB3000PS	Same as LB3000 except includes integral master power supply with 16 fused 24/28 VAC outputs

## RELATED PRODUCTS

MX4000 Series	Genex multiplexer, 9- or 16-channels, color/monochrome, simplex/duplex
PMC14H	14-inch, high resolution color monitor
TLR3096	96-hour time-lapse VCR
TLR3168	168-hour time-lapse VCR

## ELECTRICAL

### (Model LB3000PS Only)

Input Voltage	120 or 240 VAC, 50/60 Hz
Output Voltage	24/28 VAC
Outputs	16
Supply Current	10 A
Maximum Current per Channel	3 A
Required Input Current	
120 VAC	2.20 A
240 VAC	1.15 A
Surge Protection	Yes
Output Fuse Rating	3 A
Output Connectors	Screw-type barrier strips
Output Wire Size	12-22 gauge, solid or stranded wire
Recommended Wiring Distances	Refer to chart below

The following are the recommended maximum distances (transformer to load) and are calculated with a 10-percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC-powered devices.) Distances are calculated in feet; values in parentheses are meters.

**Recommended Wiring Distance Chart**

Input Voltage	Total VA Consumed	Wire Gauge					
		20 AWG (0.5 mm <sup>2</sup> )		18 AWG (1.0 mm <sup>2</sup> )		16 AWG (1.5 mm <sup>2</sup> )	
24 VAC	10	283	(86)	451	(137)	716	(218)
	20	141	(42)	225	(68)	358	(109)
	30	94	(28)	150	(45)	238	(72)
	50	56	(17)	90	(27)	143	(43)
28 VAC	10	386	(117)	614	(187)	975	(297)
	20	193	(58)	307	(93)	487	(148)
	30	128	(39)	204	(62)	325	(99)
	50	77	(23)	122	(37)	195	(59)

## GENERAL

Maximum Load	65 lb (29.4 kg)
Mounting	8, 3/8-inch mounting holes
Cable Entry	Opening in back of lock box: 11.0" W x 9.5" H (27.9 x 24.1 cm)
Environment	Indoor
Dimensions	19.0" D x 21.0" W x 29.0" H (48.2 x 53.3 x 73.6 cm)
Construction	
Lock Box	Aluminum
Mounting Plate	Steel
Mounting Plate Support	Steel
Finish	Charcoal gray polyester powder coat
Weight	<u>Unit</u> <u>Shipping</u>
LB3000	48 lb (21.7 kg)      59 lb (26.7 kg)
LB3000PS	65 lb (29.4 kg)      76 lb (34.4 kg)

## CERTIFICATIONS

- CE compliant



**Pelco, Inc. Worldwide Headquarters:**  
 3500 Pelco Way, Clovis, California 93612-5699 USA  
**USA & Canada** Tel: (800) 289-9100 • FAX: (800) 289-9150  
**International** Tel: +1 (559) 292-1981 • FAX: +1 (559) 348-1120  
[www.pelco.com](http://www.pelco.com)

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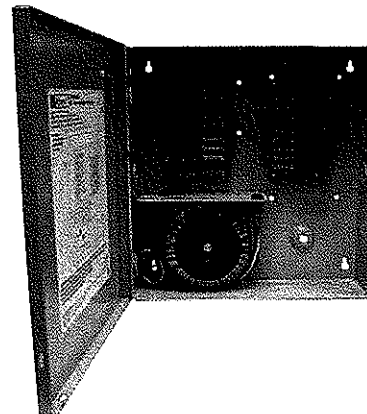


# ALTV2416300UL, ALTV2416300ULCB UL Listed AC CCTV Power Supply

Rev. DSALTV2416300UL - E26I

## Overview

These Altronix AC Wall Mount CCTV Power Supplies provide 24VAC or 28VAC distributed via sixteen (16) fuse or Class 2 Rated PTC protected power limited outputs for powering CCTV Cameras, heaters and other video accessories.



## Specifications

- Input 115VAC, 50/60Hz, 2.7 amp.
- 24VAC @ 12.5 amp (300VA) or 28VAC @ 10 amp (280VA) supply current.
- Main fuse rated @ 10 amp/250V.
- Illuminated power disconnect circuit breaker with manual reset.
- Surge suppression.
- AC power LED.
- Spare fuse(s) provided (all models w/primary and/or secondary fuses).
- Unit maintains camera synchronization.
- Ease of installation saves time and eliminates costly labor.

## Models

### ALTV2416300UL

- Sixteen (16) fuse protected outputs.
- Outputs are rated @ 3.5 amp.

### ALTV2416300UL3

ALTV2416300UL w/3-wire Line Cord.

### ALTV2416300ULCB

- Sixteen (16) Class 2 Rated PTC protected power limited outputs.
- Outputs are rated @ 2.5 amp.

### ALTV2416300ULCB3

ALTV2416300ULCB w/3-wire Line Cord.

## Agency Approvals



UL Listed for Commercial CCTV Equipment (UL 2044).



European Conformity



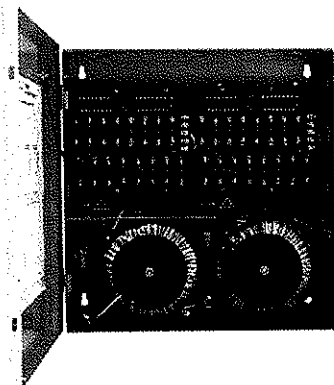
CUL Listed - CSA Standard C22.2 No.1-98, Audio, Video and Similar Equipment.



# ALTV2432600UL, ALTV2432600ULCB UL Listed AC CCTV Power Supply

Rev. DSALTV2432600UL - A19F

## Overview



- These Altronix AC Wall Mount CCTV Power Supplies provide 24VAC or 28VAC distributed via thirty-two (32) fuse or Class 2 Rated PTC protected power limited outputs for powering CCTV Cameras, heaters and other video accessories.

### ALTV2432600UL

- Thirty-two (32) fuse protected outputs.
- Outputs are rated @ 3.5 amp.

### ALTV2432600UL3

ALTV2432600UL w/3-wire Line Cord.

### ALTV2432600ULCB

- Thirty-two (32) Class 2 Rated PTC protected power limited outputs.
- Outputs are rated @ 2.5 amp.

### ALTV2432600UCB3

ALTV2432600ULCB w/3-wire Line Cord.

## Specifications

- Input 115VAC, 50/60Hz, 5.4 amp.
- 24VAC @ 25 amp (600VA) or 28VAC @ 20 amp (560VA) supply current.
- Illuminated power disconnect circuit breaker with reset.
- Surge suppression.
- AC power LEDs.
- Spare fuse(s) provided (all models w/primary and/or secondary fuses).
- Unit maintains camera synchronization.
- Ease of installation saves time and eliminates costly labor.

## Agency Approvals



UL Listed for Commercial CCTV Equipment (UL 2044).



CUL Listed - CSA Standard C22.2 No.1-98, Audio, Video and Similar Equipment.

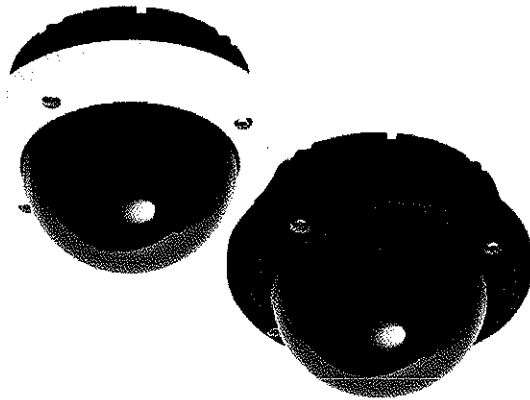


European Conformity

## 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.

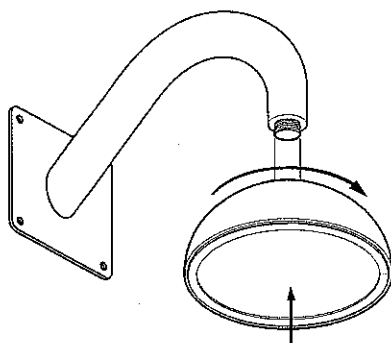
### Mounts

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

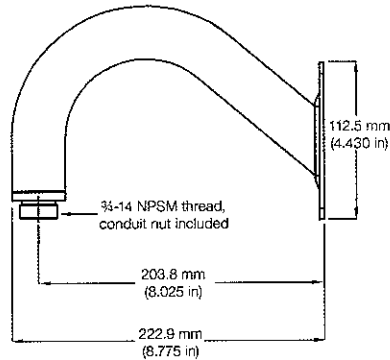
### Accessories

ADCDHTR	Heater, 24V AC only, 7W
ADCDSL	Video service lead cable

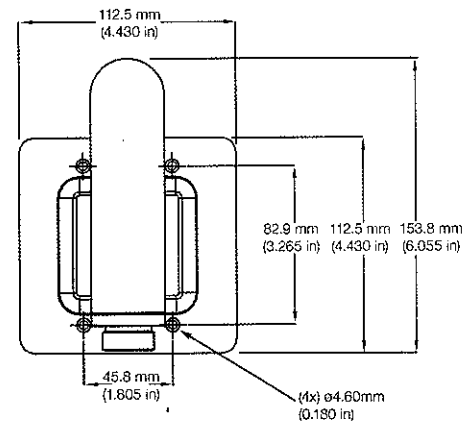
## Wall Mount with Pendant Cap (ADCDMWALL)



Angled View

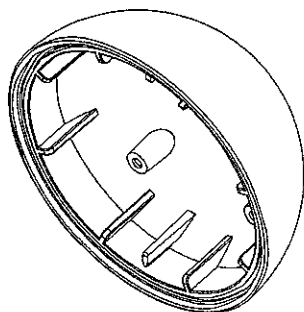


Side View

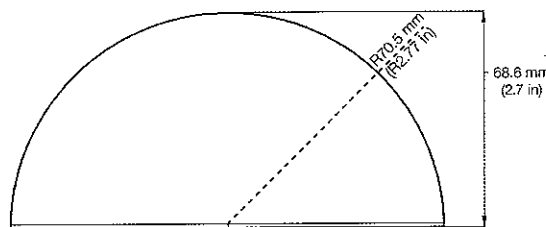


Front View

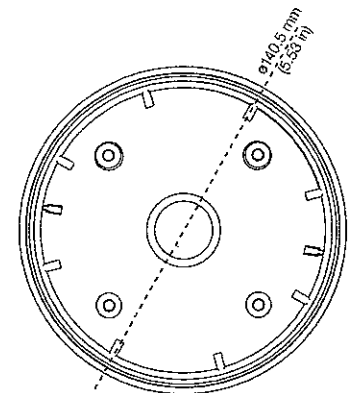
## Pendant Cap with Three-Quarter Thread (ADCDMPEND)



Angled View

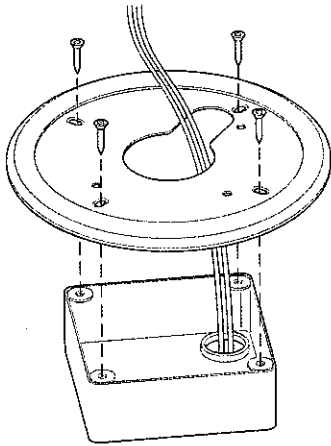


Side View

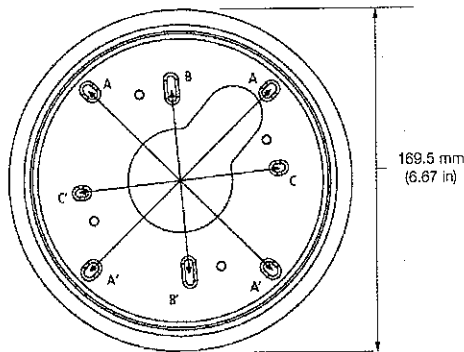


Flat View

**4S Electrical Box Adapter (ADCDMELEC)**



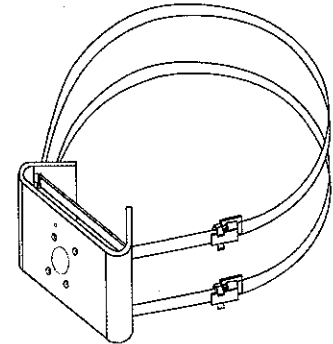
In Use



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

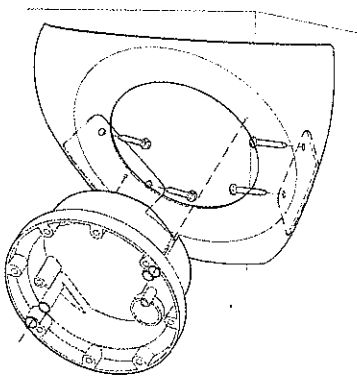
Flat View

**Pole Mount Adapter (ADCDMPOLE)**

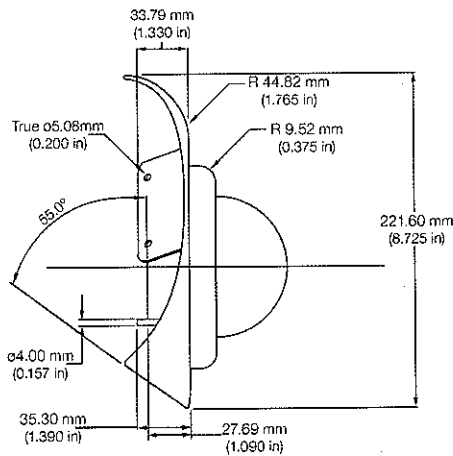


Angled View

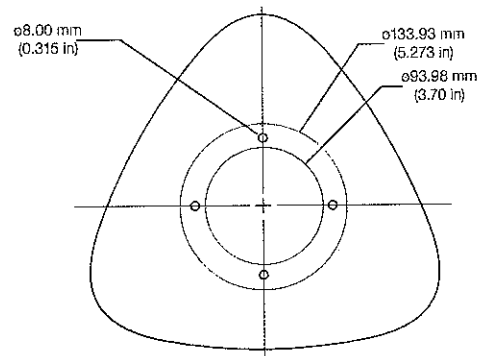
**Inside Corner Mount (ADCDMCRNR)**



Angled View

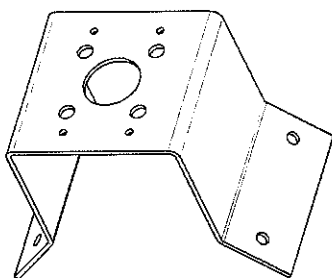


Side View

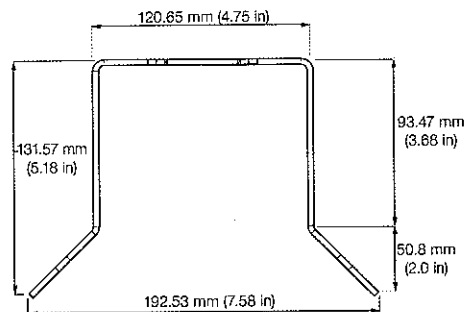


Flat View

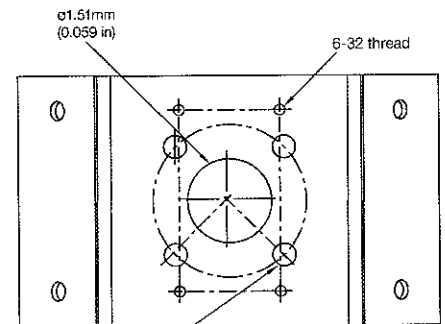
**Outside Corner Mount (ADCDMCRNRO)**



Angled View



Side View



Flat View





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>	360° & 180° (+/-90°)
Power Input	12 VDC -10% +20% 24 VAC +/-20%, 50/60 Hz
Power Connection	Flying lead or plug
Operating Temperature (with heater)	-30°C to 50°C (-22°F to 122°F)
Operating Temperature (without heater)	-10°C to 50°C (14°F to 122°F)
Humidity	90% (noncondensing)
Storage Temperature	-20° to 60°C (-4° to 140°F)
Emissions	FCC part 15 Class B EN55022 ICES-003
Immunity	EN50130-4
Safety	IEC 60950, UL 60950, CSA C22.2 No. 60950

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

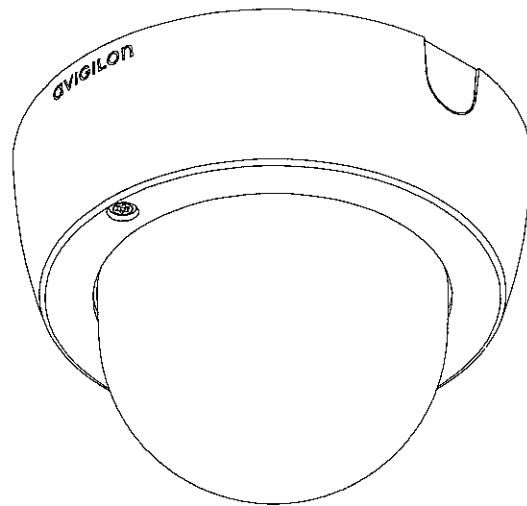
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# 1.0 Megapixel Day/Night High Definition H.264 Indoor IP Dome Camera



## Description

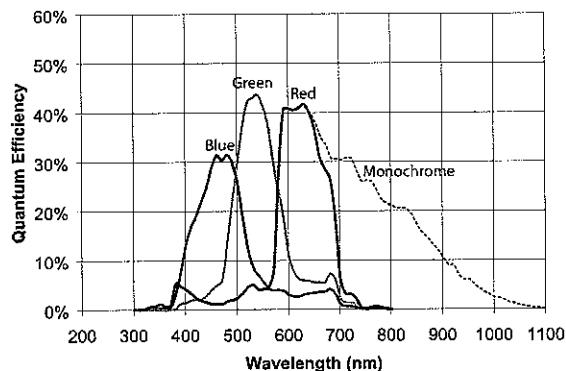
The Avigilon 1.0 megapixel day/night high definition H.264 IP indoor dome camera is a progressive scan CMOS camera designed for a wide range of surveillance applications. An integrated fully motorized lens provides remote zoom and focus for easy installation and unsurpassed image quality. It transmits images over 100BASE-TX using H.264 technology to achieve the lowest network bandwidth, and requires minimal storage for video at high frame rates with superior image quality.

The camera's advanced image acquisition system automatically adjusts the exposure time, iris aperture and removable IR cut filter to ensure all available evidence is captured throughout the full range of day and nighttime scenes. The camera is designed for indoor surface mounting and can be mounted to an electrical box.

The camera seamlessly integrates with Avigilon Control Center NVMS and High Definition NVRs. The camera uses standard network technology to create a network based surveillance solution with unmatched performance, ease of use, and ease of installation. ONVIF compliance provides support from other leading video management systems. Camera power is provided by either Power over Ethernet, 12 VDC, or 24 VAC.

## Features

- 1.0 megapixel progressive scan CMOS sensor
- Unsurpassed image quality
- 3-9 mm, F1.2 lens with remote focus and zoom
- 30 images per second at full resolution
- 69 dB true dynamic range
- 0.2 lux minimum illumination in color mode and 0.02 lux minimum illumination in monochrome mode
- H.264 and JPEG compression
- ONVIF compliant API
- Multiple video streams
- Automatic exposure and iris control
- Automatic removable IR cut filter for sensitivity at night
- Power over Ethernet, 24 VAC or 12 VDC power input
- Audio Input
- Analog Video Output
- External I/O



# Specifications

## Camera

Image Sensor	1/2.7" progressive scan CMOS
Active Pixels	1280 (H) x 720 (V)
Imaging Area	5.9 mm (H) x 3.3 mm (V) 0.231" (H) x 0.129" (V)
Minimum Illumination	0.2 lux ( F1.2) in color mode 0.02 lux ( F1.2) in monochrome mode
Dynamic Range	69 dB
Lens	3-9 mm, F1.2, DC-iris, remote focus and zoom
Angle of View	35°-88°
Image Compression Method	H.264 (MPEG-4 Part 10/AVC), Motion JPEG
Image Rate	30 (all resolutions)
Streaming	Multi-stream H.264 and Motion JPEG
Resolution Scaling	Down to 352 x 240
Motion Detection	Selectable sensitivity and threshold
Electronic Shutter Control	Automatic, Manual (1/30 to 1/8000 sec)
Iris Control	Automatic, Manual
Day/Night Control	Automatic, Manual
Flicker Control	50 Hz, 60 Hz
White Balance	Automatic, Manual
Privacy Zones	Up to 4 zones
Audio Input	Line input, A/V mini-jack (3.5 mm)
Audio Compression Method	G.711 PCM 8 kHz
Video Output	NTSC/PAL, A/V mini-jack (3.5 mm)
External I/O Terminals	Alarm In, Alarm Out

## Network

Network	100BASE-TX
Cabling Type	CAT5
Connector	RJ-45
API	ONVIF compliant (www.onvif.org)
Security	Password protection, HTTPS encryption, digest authentication, WS authentication, user access log
Protocols	IPv4, HTTP, HTTPS, SOAP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, Zeroconf, ARP
Streaming Protocols	RTP/UDP, RTP/UDP multicast, RTP/ RTSP/TCP, RTP/RTSP/HTTP/TCP, RTP/RTSP/HTTPS/TCP, HTTP

## Mechanical

Dimensions (ØxH)	140 mm x 104 mm 5.5" x 4.1"
Weight	0.55 kg (1.2 lbs)
Dome Bubble	Polycarbonate, clear
Body	Plastic
Housing	Surface mount, tamper resistant
Finish	Plastic, RAL 9003
Adjustment Range	360° pan, 180° tilt, 360° azimuth

## Electrical

Power Source	VDC: 12 V VAC: 24 V PoE: IEEE802.3af Class 3 compliant
Power Consumption	5 W
Power Connector	2-pin terminal block

## Environmental

Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Storage Temperature	-10 °C to +70 °C (14 °F to 158 °F)
Humidity	20 - 80% Relative humidity (non-con- densing)

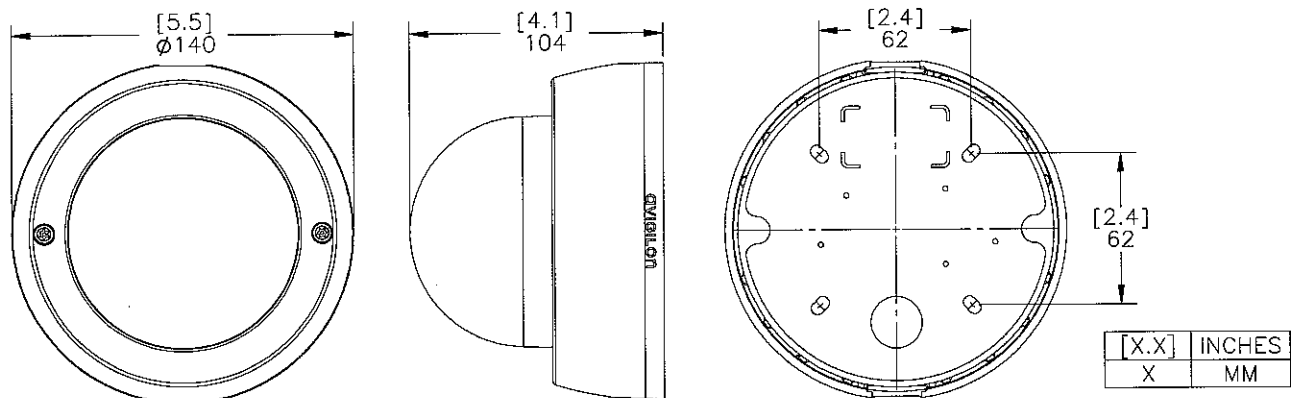
## Certifications

CE, Class B  
FCC, Class B  
UL/cUL Listed

## Ordering Information

1.0MP-HD-H264-D1	1.0 Megapixel Day/Night High Definition H.264 Indoor IP Dome Camera
HD-H264-D-SMOKE	Dome Camera Cover with Smoked Bubble

## Outline Dimensions



Specifications subject to change without notice. V1.0  
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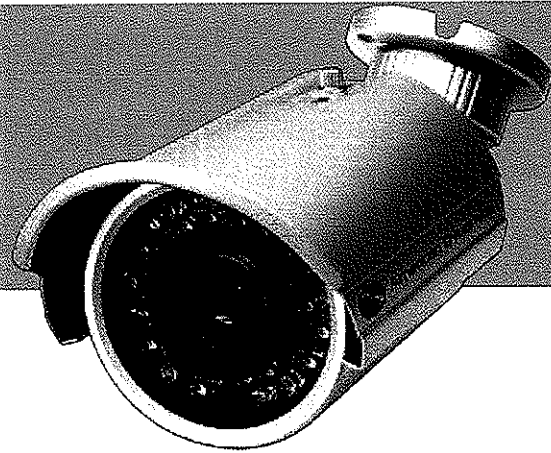


**American Dynamics**

*A Tyco International Company*

## Discover 600 Series Cameras

### Bullet



#### Features That Make a Difference:

- Super high resolution 520 TVL camera
- Day/Night switching for low light conditions
- IR corrected, 3X vari-focal lens
- Built-in infrared illumination
- IP66-rated housing for outdoor use
- Complete with lens and universal mount
- Provided with a wall/ceiling mount fitted

The Discover 600 Series Bullet cameras offer high performance and features, to provide excellent image quality under many lighting conditions. Both cameras in the series offer backlight compensation (BLC), automatic gain control (AGC), Auto Electronic Shutter (AES) and automatic white balance (AWB). These high performance models offer many advanced and easy-to-use features including Day/Night functionality, 3X zoom IR corrected lens, Infrared (IR) array and IP66 rated housing.

The Discover 600 Series bullet cameras are the ideal choice for applications requiring 540 TVL to provide super high resolution images and accurate color rendition.

For scenes with typical lighting conditions such as daylight or lit indoor applications, these cameras provide 520 TVL ultra high resolution images. When light levels drop, the camera automatically turns on the built-in IR illuminators and switches from color to black and white to capture images in very low light.

Cameras are available in NTSC or PAL formats and are provided in IP66-rated housings to meet a variety of installation requirements. These cameras are extremely reliable, easy-to-install, and ideally suited for areas where high performance in a variety of lighting conditions is required.

## Specifications

### Operational

Imager . . . . . Interline transfer 1/3 inch CCD array  
 Video Output . . . . . 1.0 Vp-p/75 ohm, composite  
 Horizontal Resolution . . . . . 520 TVL  
 Active Pixel Count NTSC . . . . . 768 x 494 pixels  
 Active Pixel Count PAL . . . . . 752 x 582 pixels  
 Lens . . . . . 3-9 mm  
 Min. Scene Illumination . . . . . 0.0 lux (F/1.6 lens, AGC on, IR on)  
 S/N Ratio . . . . . 48 dB (AGC Off)  
 Synchronization . . . . . Internal  
 IR Wavelength . . . . . 850 nm  
 IR Distance . . . . . Up to 25 m (80 ft)  
 Gain Control . . . . . Auto<sup>1</sup>  
 White Balance . . . . . Auto (2,500°K to 9,500°K)  
 Electronic Shutter . . . . . Auto (1/60 (1/50) ~ 1/100,000 sec.)  
 Backlight Compensation . . . . . On/Off  
 Day/Night . . . . . Auto

### Connectors

Input Power . . . . . In-line socket  
 Composite Video . . . . . BNC

### Electrical

DC Voltage . . . . . 12VDC (±10%)<sup>2</sup>  
 Power . . . . . 5.5 Watts maximum

### Mechanical

Dimensions (Diameter x H) . . . . . 57 mm x 68 mm (2.24 in x 2.67 in)  
 Unit Weight . . . . . 610 g (1.35 lb) including mount  
 Construction . . . . . Metal  
 Ingress protection . . . . . IP66  
 Color . . . . . Gray

### Environmental

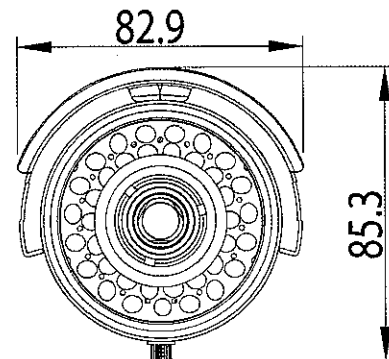
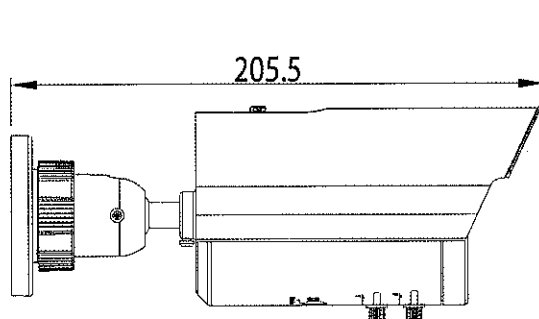
Operational Temperature . . . . . -10°C to 50°C (14°F to 122°F)  
 Storage Temperature . . . . . -20°C to 60°C (-4°F to 140°F)  
 Relative Humidity . . . . . 90%  
 Ingress Protection . . . . . IP66 (noncondensing)

### Regulatory

Emissions . . . . . FCC: Part 15, Class B  
 CE: EN61000, Class B  
 Immunity . . . . . CE: EN50130-4  
 Safety . . . . . NTSC: UL60950, CSAC22.2 No 60950  
 PAL: IEC60950

## Ordering Information

Model Numbers	Description
ADCD600-B0001	bullet cam, 520TVL, 4.3mm, IR, 12VDC, NTSC
ADCD600-B0002	bullet cam, 520TVL, 4.3mm, IR, 12VDC, PAL
ADCD601-B0001	bullet cam, 520TVL, 3-9mm, IR, 12VDC, NTSC
ADCD601-B0002	bullet cam, 520TVL, 3-9mm, IR, 12VDC, PAL



## Accessories:

Power Supply ADC1121A

- (1) SNR 44dB at this setting
- (2) Regulated power supply required

## Related Products



## Approvals



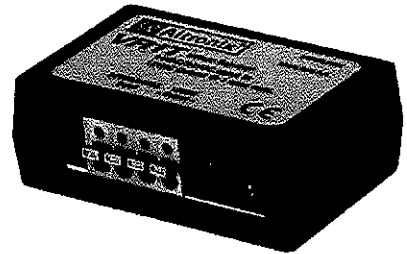
[www.americandynamics.net](http://www.americandynamics.net)

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### Overview

- Converts a 24VAC or 24VDC input into a regulated 12VDC output.



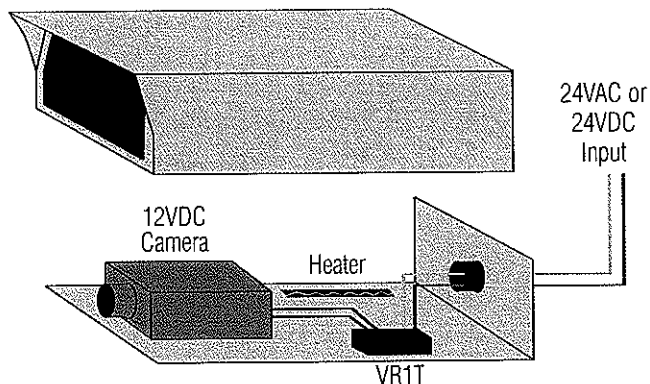
### Specifications

- 1 amp of continuous supply current output.
  - Power LED indicator.
  - Electronically filtered and regulated output.
  - Built-in overload protection.
  - Spring terminal blocks (wire gauge 14-20AWG).
  - High impact insulated housing.
  - Compact design allows for integration in a wide range of camera housings.
- Dimensions (approximate): 1.625"L x 2.375"W x 1"H

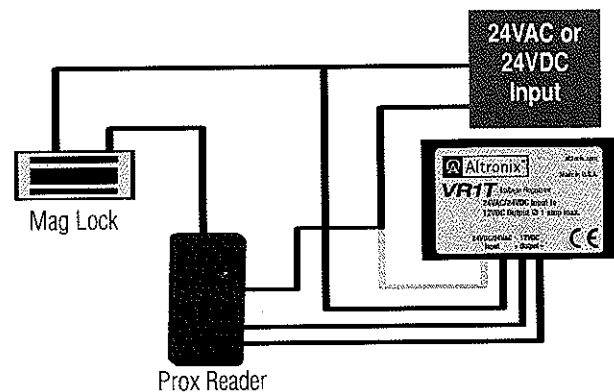
### Applications

- Power for 12VDC CCTV cameras and accessories, Fiber Optic Transmitters, REX PIR's, Prox Readers, etc.

#### CCTV Applications:

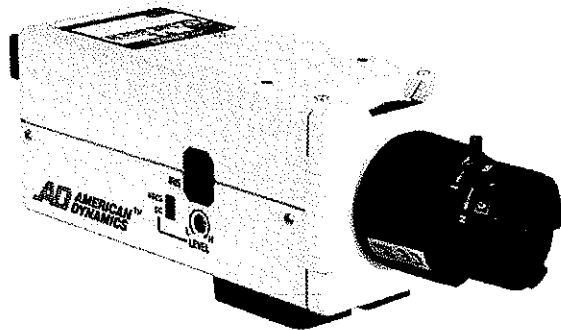


#### Access Control Applications:

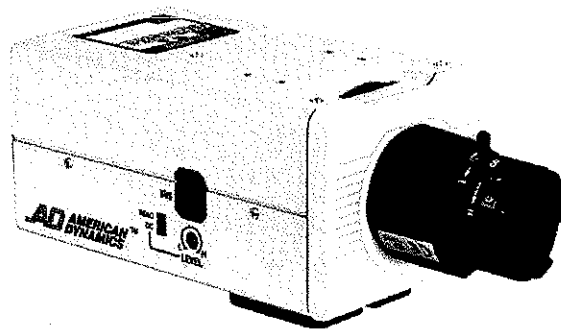


### Agency Approvals





**ADCSHR2412 Series**  
Camera shown with lens attached\*



**ADCTDN2412 Series**  
Camera shown with lens attached\*

ADCSHR series fixed cameras are the ideal choice for applications requiring 540 TVL to provide super, high resolution images and true color rendition. Depending upon the scene and lighting conditions, the camera offers AWB, AGC, AES, and BLC controls which you can set to optimize image performance. The Night-Saver mode automatically switches the cameras to B/W in scenes with less lighting to provide you with better low-light detail performance. These cameras feature internal and phase adjustable line-lock options for "roll-free" switching. The cameras are available in NTSC or PAL formats with 24 VAC/12 VDC voltages to meet a variety of application requirements. A 230 VAC mains version is also available in a PAL format.

ADCTDN cameras offer the same features as the ADCSHR series but also include a moving mechanical IR cut filter that provides True Day/Night functionality. For scenes with typical lighting such as daylight or lit indoor applications, the camera provides a 540 TVL super, high resolution image. When light levels drop, the camera automatically removes its' IR cut

## 540 TVL Super High Resolution Fixed Cameras and 540 TVL True Day/Night Fixed Cameras

### Features That Make a Difference:

- 540 TVL models with Night-Saver mode and True Day/Night models with moving mechanical IR cut filter
- Available in 24 VAC/12 VDC NTSC, 24 VAC/12 VDC PAL or mains 230 VAC PAL
- Superior low-light performance
- Auto white balance (AWB) adjusts for accurate colors across a multitude of lighting conditions
- Automatic gain control (AGC), automatic electronic shutter (AES), and backlight compensation (BLC)
- Phase adjustable line-lock or internal synchronization
- Compatible with C/CS lenses, video, or DC auto iris versions, including choice of IR corrected, vari-focal lenses for use with True Day/Night camera models
- Available as camera pre-packs for easy ordering and installation
- Day/Night models also include:
  - Focus adjust mode for ease of installation and focus accuracy
  - On-screen menu display for easy programming (such as camera titles)
  - Monitor mode to optimize output for CRT or LCD displays
  - Advanced pixel correction
  - Factory default settings
  - Auxiliary input and output
  - Selectable 4 zone BLC
  - Manual shutter mode

filter and switches from color to B/W to capture images in very low light. This action can also be triggered manually via an auxiliary input or can trigger an auxiliary output to turn on optional accessories such as IR illuminators. ADCTDN cameras also offer many advanced, easy-to-use features, like on-screen menu programming with default settings. Advanced pixel correction, focus adjust mode for focus accuracy, selectable four zone BLC, manual shutter mode, and a monitor mode to optimize for CRT or LCD displays are also included. For a total solution, IR corrected lenses are available for use with the ADCTDN series.

Both series of American Dynamics cameras are extremely reliable, easy-to-install, and designed for use in a wide variety of applications. These cameras are ideally suited for use in areas where high performance in a variety of lighting conditions is required.

(\* ) lenses sold separately

	Super High Resolution Cameras		True Day/Night Cameras	
	ADC SHR2412N ADC SHR2412P	ADC SHR0230P	ADC TDN2412N ADC TDN2412P	ADC TDN0230P
<b>Operational</b>				
Imager	Interline Transfer 1/3-inch CCD	Interline Transfer 1/3-inch CCD	Interline Transfer 1/3-inch CCD	Interline Transfer 1/3-inch CCD
Video Output	1.0 Vp-p/75Ω, Composite	1.0 Vp-p/75Ω, Composite	1.0 Vp-p/75Ω, Composite	1.0 Vp-p/75Ω, Composite
Active Pixel Count (H x V)	NTSC: 768 x 494 PAL: 752 x 582	N/A PAL: 752 x 582	NTSC: 768 x 494 PAL: 752 x 582	N/A PAL: 752 x 582
Minimum Scene Illumination				
Color Mode	0.7 lux, f1.2, AGC on	0.7 lux, f1.2, AGC on	0.4 lux, f1.2, AGC on	0.4 lux, f1.2, AGC on
Black & White Mode	0.5 lux, f1.2, AGC on	0.5 lux, f1.2, AGC on	0.02 lux, f1.2, AGC on	0.02 lux, f1.2, AGC on
Horizontal Resolution	540 TVL	540 TVL	540 TVL	540 TVL
Auto Iris Lens Type	Video Iris/DC Iris	Video Iris/DC Iris	Video Iris/DC Iris	Video Iris/DC Iris
Backlight Compensation	On/Off	On/Off	4 zones/Off	4 zones/Off
Synchronization	Internal/Line-lock	Internal/Line-lock	Internal/Line-lock	Internal/Line-lock
White Balance	ATW or Manual mode (adjustable)	ATW or Manual mode (adjustable)	ATW/ATW wide AWC (one touch) Manual mode (adjustable)	ATW/ATW wide AWC (one touch) Manual mode (adjustable)
S/N Ratio	-50 dB	-50 dB	-50 dB	-50 dB
<b>Connectors</b>				
Input Power	2-pin Screw Terminal	Line cord with Euro plug	2-pin Screw Terminal	Line cord with Euro plug
Composite Video	BNC	BNC	BNC	BNC
Auxiliary Input/Output	N/A	N/A	2-pin Push Terminal	2-pin Push Terminal
DC/Video Auto Iris	4-pin Square	4-pin Square	4-pin Square	4-pin Square
<b>Electrical</b>				
AC Voltage	NTSC: 24 VAC (+20%, -20%) @ 60 Hz PAL: 24 VAC (+20%, -20%) @ 50/60 Hz	N/A PAL: 230 VAC (220 to 240 VAC) @ 50/60 Hz	NTSC: 24 VAC (+20%, -20%) @ 60 Hz PAL: 24 VAC (+20%, -20%) @ 50/60 Hz	N/A PAL: 230 VAC (220 to 240 VAC) @ 50/60 Hz
DC Voltage	12 VDC (+10%, -10%)		12 VDC (+10%, -10%)	
Power Consumption	4.7 watts (380 mA)	57 mA	4.8 watts (400 mA)	75 mA
<b>Physical</b>				
Lens Mount	C/CS	C/CS	C/CS	C/CS
Camera Mount	1/4-inch x 20 (top or bottom)	1/4-inch x 20 (top or bottom)	1/4-inch x 20 (top or bottom)	1/4-inch x 20 (top or bottom)
Dimensions (W x H x L)	52 x 58 x 126 mm (2.0 x 2.28 x 4.96 in)	67 x 63 x 126 mm (2.56 x 2.48 x 4.96 in)	67 x 63 x 126 mm (2.56 x 2.48 x 4.96 in)	67 x 63 x 126 mm (2.56 x 2.48 x 4.96 in)
Unit Weight	370 g (0.82 lbs)	713 g (1.57 lbs)	480 g (1.06 lbs)	700 g (1.54 lbs)
Shipping Weight	600 g (1.32 lbs)	1.0 kg (2.2 lbs)	700 g (1.54 lbs)	1.1 kg (2.42 lbs)
Body Color	Light Gray (Pantone 427c)	Light Gray (Pantone 427c)	Light Gray (Pantone 427c)	Light Gray (Pantone 427c)
<b>Environmental</b>				
Operating Temperature	-10° to 50°C (14° to 122°F)	-10° to 50°C (14° to 122°F)	-10° to 50°C (14° to 122°F)	-10° to 50°C (14° to 122°F)
Storage Temperature	-30° to 60°C (22° to 140°F)	-30° to 60°C (22° to 140°F)	-30° to 60°C (22° to 140°F)	-30° to 60°C (22° to 140°F)
Humidity	<90% RH (noncondensing)	<90% RH (noncondensing)	<90% RH (noncondensing)	<90% RH (noncondensing)
<b>Regulatory</b>				
Emissions	NTSC: FCC Part 15 Class B ICES-003 PAL: EN61000-6-3	N/A N/A EN61000-6-3 EN61000-3-2, EN61000-3-3	NTSC: FCC Part 15 Class B ICES-003 PAL: EN61000-6-3	N/A N/A EN61000-6-3 EN61000-3-2, EN61000-3-3
Immunity	PAL: EN50130-4	EN50130-4	PAL: EN50130-4	EN50130-4
Safety	NTSC: UL2044; CSA C22.2	EN60950-1	NTSC: UL2044; CSA C22.2	EN60950-1

To complete your camera solution with mounts, lenses, housings, accessories or pre-packs, please refer to our other product data sheets.

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.

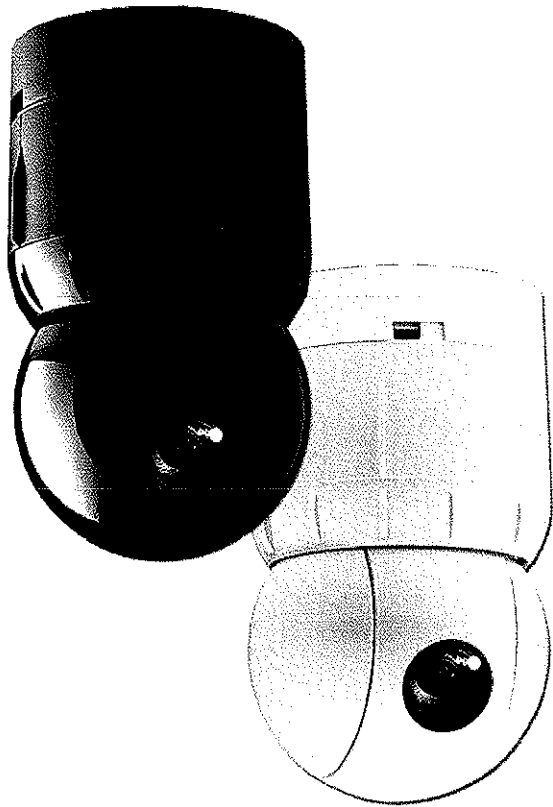
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**tyco**





## SpeedDome Ultra 8 Programmable Dome Camera

### Features that make a difference:

- **NEW!** Motion detection provides the ability to trigger multiple user-specified actions
- 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 enhanced 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. 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 effects of vibration. 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 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.

The 35x series also includes a motion detection function which monitors areas of interest and, when triggered, provides the ability to call a preset, generate an alarm to a matrix or a controller, initiate a sequence, set an output, or monitor an area as long as motion is present.

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, and RS-422 protocols, the dome can be controlled via other select manufacturers' protocols<sup>3</sup> such as Pelco® P, Coaxitron, Panasonic® UTC, Vicon® RS-422, and Bosch® Biphase, 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 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 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.

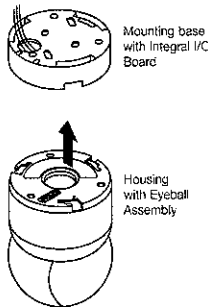
(4) A Matrix keyboard or a controller from which users can call DirectSet commands.

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

ADSDUCLR . . . . . Clear Bubble (f0)  
 RUSLV . . . . . Silver Bubble (f2.0)  
 ADSDUSMK . . . . . Smoked Bubble (f1.0)  
 RUGLD . . . . . Gold Bubble (f1.0)

#### 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 ADSDUSMK	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 ADSDUSMK	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)

	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**

<b>Operational</b>		<b>Mechanical</b>	
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	1-99	Emissions	FCC: 47 CFR Part 15 Subpart B Class A CE: EN55022 Class B CE: EN61000-3-2; 3-3 AS/NZS 3548, Class A CISPR22 ICES-003
RS-422/RS-485	1-64	Immunity	CE: EN50130-4
Manchester	1-255	Safety	UL 1950 CSA 22.2 No. 950 EN60950-1 IEC60950-1
SensorNet	Based on number of inputs		
AD-UJC	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 µsec		
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 µsec impulse; 10kA impulse rated gas tube		
RS-422/RS-485	TVS rated at 9.8V/1A, 500 watts, 8/20 µsec impulse		
Alarm Input/Aux Outputs	TVS rated at 9.8V/1A, 500 watts, 8/20 µsec impulse		
Power Line	TVS rated at 60 V, 250 A, 1.5 joules, 8/20 µsec impulse		

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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