H.264/H.265 High-Definition, IP68 Camera Positioning System



Lifetime Warranty Camera Head Moisture Ingress IP68 Protection







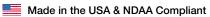












• Superior 1

Advanced Optics

- Superior 1080p60 image quality
- Powerful 30x optical zoom with 12x digital zoom (360x total)
- Extreme low-light sensitivity of 0.0000005 fc
- Image defog/dehaze analytics
- Electronic image stabilization (Super Stabilizer +)
- Superior Wide Dynamic Range of 130db

Rugged Construction

- Designed Specifically for the ITS market
- Operates in hurricane force winds
- Built-in electrical transient/surge protection to CISPR 24 levels
- Precision positioning of 0.05°
- Pressurized IP68 Camera Head
- NEMA® TS2 temperature, -40°C to 75°C
- Lifetime Warranty on moisture ingress into camera head enclosure

Command Core+™ Action Engine

- Automated camera responses
- Preset/Tour activations
- Digital I/O triggers and actions
- Image snapshots with FTP/EMAIL delivery
- Built-in Configuration Wizards

Installation and Interoperability

- ONVIF® Profile S and T compliant
- NTCIP 1205 compliant
- Hybrid IP/analog video-serial PTZ operation
- H.264, H.265 and MJPEG encoding
- Web server configuration, operation and viewing
- Inverted mounting capability
- Single CAT5e or CAT6 cable with PoE++
- Presets, tours, sectors and privacy zones
- LDAP, RADIUS, TACACS+ user authentication

Intelligent ITS Video Analytics:

- Vehicle Detection, Count and Speed, % Change of Speed (Included as standard feature in all models)
- Vehicle Classification*
- Traffic Incident Detection* (Stopped Vehicle, Wrong Way Direction)
- Pedestrian Detection*

CostarHD's 4260HD camera positioning system combines crystal clear HD image quality, bandwidth efficient H.264/H.265 compression, smooth variable speed positioning and IP68 protection delivering the CostarHD quality and performance you expect!

The 4260HD provides full 1080p60 imaging with 30x optical zoom, delivering full frame rate HD images over the entire zoom range for very cost effective long-range surveillance applications.

True day/night technology using a removable IR cut filter produces exceptional low light sensitivity down to 0.0000005 fc.

For installations subject to wind or vibration, electronic image stabilization assures steady, clear images.

The 4260HD includes defog/dehaze image processing, enhancing video performance

in foggy and hazy conditions encountered in surveillance and traffic monitoring applications.

The 4260HD includes variable hi-speed pan and tilt drive, with 360° continuous pan and 360° tilt. Fast positioning speeds result in 180° movements in less than 2 seconds.

Providing multiple video stream profiles, the 4260HD delivers up to 4 independently configured H.264/H.265/MJPEG streams as well as analog video output with serial RS422 camera PTZ control.

Use of the IP and analog output allows integration with analog systems today while providing a smooth transition to HD Video over IP tomorrow.

The 4260HD provides a full function web server using HTML5, allowing complete administrative, live video and operator control capabilities. Administrative features

include configuring network settings, user password assignments, setting video streaming properties, configuring camera imaging properties, defining presets and tours and assigning camera ID labels.

The RISE action engine generates automatic system responses to input triggers including digital inputs, date/time schedules and repetitive timers that can activate output actions including presets, image snapshots with FTP/EMAIL uploads, OSD displays and digital outputs.

The 4260HD is designed to operate in harsh weather with its purged and pressurized IP68 enclosure protection. This eliminates the effects of water intrusion, pollutants and corrosives.

CostarHD delivers years of clean, reliable images and backs it with a world class three-year warranty.









youtube.com/CostarHD linkedin.com/company/CostarHD twitter.com/CostarHD facebook.com/CostarHD CostarHD.com



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Sensor 1/2.8" STARVIS2 Scanning Progressive 1,920 x 1,080 (1080p) Resolution 60 fps

Capture Rate

Day/Night (IR Cut Filter) Camera Format

S/N Ratio >50db

SENSITIVITY

(f1.6, 1/30, 50 IRE) Standard 0.009 lux (0.0008 fc) Color 0.00008 lux (0.000007 fc) B/W **Digital Slow Shutter** (f1.6, 1/3, 30 IRE) Color 0.0012 lux (0.0001 fc) 0.000005 lux (0.0000005 fc) B/W

OPTICS

Zoom Lens 30x, 4.3 to 129mm f1.6 -> f4.7**Aperture** HAFOV 63.7° to 2.1°

Focus Modes Auto/Manual [Near/Far], Normal, Interval, Zoom

Trigger

Focus Sensitivity Normal/Low

Auto/Manual [Open/Close] Iris Lens Speed Three [Slow, Medium, Fast] Digital Zoom 12x, Off/On [Depth]

IMAGE PROCESSING

Day/Night Mode Auto, Color, B/W

Auto/Manual Exposure Mode Back Light Comp Off/On

Auto/Manual [1/1 -> Shutter

1/10,000]

Digital Slow Shutter Off/On [1/30->1/1] with

Limit Setting

Off/On/Auto [Defog Strength] Defog Mode

Image Stabilization Off/On

Dynamic Range

130db, On/Off [Normal, Enhanced]

White Balance Auto, Indoor, Outdoor,

> ATW, Sodium Vapor (Fix/ Auto/Outdoor Auto)

AGC 14 to 50db, Adjustable **Noise Reduction** Off/2D[NR Level]/3D [NR

Level]

IP STREAM

Video Streams 4 independently configurable

dependent on available processing budget

Video Codec H.264 [M, H]/H.265 [M],

MJPEG

Video Protocols RTSP/RTP

> **RTSP Interleave HTTP Tunneling** RTP Multicast

Video Resolution 1080p, 720p, D1 (NTSC and

PAL), VGA, CIF, QVGA

Video Frame Rate Up to 60 fps, 30 fps default

Video Data Rate 64Kbps to 8Mbps CBR, VBR Video Rate Cntrl

1 to 600, 30 default Video GOV Video Latency Four frames (0.133 sec.) Video Trans. 99.999% error free

NETWORK INTERFACE

Network Format 802.3u 100Base-T, MDI-X auto-sensing, full duplex **Network Protocol** TCP, UDP, IPv4, ICMP, DNS,

IGMPv2/v3, DHCP, RTP, RTSP,

RTCP, NTP, HTTP, SOAP, HTTPS, ARP, FTP, SMTP, SNMP v1|2|3, TLS, SSL, SMTP, QoS, NTCIP, Telnet, 802.1X, ONVIF Profile S and T, TACACS+, LDAP,

Radius, LLDP

Media Players VLC, Quick Time or any

> media player compliant with RFC 2326, 3984, 3550, 2435,

ISO/IEC 13818-1

ONVIF Profile S and T

Camera Protocols ONVIF Profile S and T, NTCIP

> 1205, CohuT, CohuHD legacy, FAST, Pelco D

Security 4 Levels: Admin, Operator,

> User, Anonymous [User Name + Password], Digest Authentication, Centralized Authentication

Updates File upload over network using camera web server

interface or OptiCore Stored in Non-Volatile

Memory

Browsers Edge, Firefox, Chrome

DIGITAL I/O INTERFACE

Configurations

Digital Circuits Four digital I/O circuits, user

defined as either input or

output

ANALOG INTERFACE

NTSC or PAL Video Format

Serial PTZ RS422, full/half duplex,

1,200 to 115k baud adjustment, data, stop and parity bit configuration.

Protocols CohuHD Legacy, Pelco D/P,

Ultrak, NTCIP 1205, A/D,

FAST, Javelin

VIDEO ANALYTICS (VA)

ITS Standard Included in all models.

> Vehicle Detection, Count and Speed, % Change of Speed, Multiple View Analytics/PTZ Presets

ITS Advanced* Includes ITS Standard plus

> Vehicle Classification, Traffic Incident Detection, Stopped

Vehicle, Wrong Way Direction

ITS Pedestrian Detection*

Includes ITS Standard plus

Pedestrian Detection

VA Notifications ONVIF Events, SNMP Traps,

Command Core+ Action Engine Output, CSV Files, Web Interface Display

SNMP Traps Vehicle Detected, Wrong

Way Vehicle, Incident, Stopped Vehicle, Speed

Change

COMMAND CORE+ ACTION ENGINE

Digital input, FTP error, **Input Triggers**

> Valid or invalid login, Tour stopped, Timer, Scheduler, Video Analytic Event, Preset reached, PTZ moved, Maintenance,

User command

Output Actions Digital Output, Activate

> Wiper, FTP Image, Send Email, Send Text, Send Text with Image, Start Preset or Tour, Display OSD Message, Timer and Scheduler On/Off Mode Control, Delay, Reset

System, Clear Analytics Stats User selectable mode.

Trigger Queuing Processes output actions

by trigger priority, first in,

or last in.

Multiple FTP and EMAIL Servers

> servers can be configured for use by camera system

ON SCREEN DISPLAY (OSD)

Up to 8 OSD Elements **OSD Capacity**

> can be selected for display on video

OSD Elements Text, Preset, Position,

Compass, Date/Time, Sector, Maintenance,

Action Event

OSD Characters Up to 40 characters per text

element

OSD Size Adjustable from 12, 18, 24,

30, 36, 42, 48, 54, 60, 72,

84 or 96 pt. size

OSD Color White, Black, Green, Red,

OSD Transparency Adjustable from 0-100% OSD Background Transparent, Black **OSD Location** Upper Right/Left, Lower

Right/Left, Center, Custom Banner Display On/Off, Top/Bottom, 4

OSD elements

BMP, GIF, JPEG, PNG Format, Logo Display

[x,y] Position, Transparency

^{*} License Fee Required

H.264/H.265 High-Definition, IP68 Camera Positioning System



PRIVACY MASKS

Up to 24 rectangular masks, Capacity displayed on 8 places per screen simultaneously.

Color Two colors

Mask Interlock Mask positions and size

are scaled and interlocked with PTZ movements

POSITIONING DRIVE

360° continuous rotation Pan Range

Tilt Range

Preset Speed Peak speed of 120°/sec 180° movement < 2 seconds

Manual Speed 0.05° up to 90°/second Tracking Speed 0.05° up to 90°/second

Speed Resolution Up to 100 variable speeds Repeatability +/- 0.05° +/- 0.05° Resolution

Presets Up to 256, Includes pan, tilt,

zoom, focus, preset ID, I/O

output state

Tours Up to 256, Includes presets

with dwell, speed, direction and recurrence properties Returns to a preset or tour

after timer expires, Timer Value [Off, 1 Minute to

999 Hours1

Auto focus/iris on PTZ, **Features**

> Proportional PTZ, Video freeze on preset, High wind/vibration mode, Set/Clear north calibration,

Inverted mounting mode

ELECTRICAL

Power

Auto Park

PoE++, 24VAC/DC or Input Voltage

> 120VAC, model dependent Typical 30W, up to 60W with

heaters ON

PoE++ and 120VAC - NEMA Voltage Range

standard TS 2-2003 section 2.2.7 tests C thru H 24Vac, 18VAC to 28VAC at camera connector

24VDC, 20VDC to 28VDC at

camera connector

Transient/Surge Certified to CISPR 24 levels Certified to CISPR 22 levels **Emissions**

Pigtail Cable(s) Approx. 24"

MECHANICAL

Weight 21.5 pounds (9.75 kg

Dimensions Refer to dim. diagram Construction Powder coated aluminum **Faceplate Optically Correct Glass** Faceplate Wiper Model Dependent, [On/Off,

Dwell, Time Out Settings]

Sunshield Included as standard Inverted Mounting Yes. Software selectable Connectors RJ45, AMP, MS, Model

dependent Color Light Gray Cardinal Coating

T241-GR142

ENVIRONMENTAL

Camera - IP68 per **Protection Rating**

> IEC 60529, Pressurized with Dry Nitrogen, 3.5 psi. Positioner Body - IP66

Operating Temp -29° to 165°F (-34° to 74°C)

> Per NEMA TS2 2.2.7 Heaters are software

Heaters controlled for managing

proper internal temperature of camera system. The faceplate heater is ITO coated glass designed to maintain outer faceplate surface temperature above

32° (0°C) down to -4° (-20°C) 0 to 100%, condensing

Humidity Vibration Per NEMA TS2 para. 2.2.8. 5-30Hz sweep @ 0.5g

applied in each of 3 mutually perpendicular planes.

Shock Per NEMA TS2 para. 2.2.9. 10g applied in each of 3 mutually perpendicular

planes

Corrosion MIL-STD-810H, Method

509.7, Paragraph 4.5.2 All external fasteners 304/316 Stainless Steel **IK10 Excluding ITO**

Impact Rating coated glass

Wind Survavability Up to 150mph

120mph for 45 minutes 150mph for 15 minutes

Per ISTA 3A, Package Drop

Sequence 3 and 6

CERTIFICATIONS

CE, FCC Part 15B (with ICES-003 issue 7), ROHS

CE Mark Europe/AS/NZS FCC CAN/CSA/North America EN 55032

EN 55035 IEC 61000-3-2 IEC 61000-3-3 IEC 61000-4-2

IEC 61000-4-3 per CISPR 35 IEC 61000-4-4 per CISPR 35

IEC 61000-4-5 per CISPR 35 IEC 61000-4-6 per CISPR 35 IEC 61000-4-8 per CISPR 35 IEC 61000-4-11 per CISPR 35 ACCESSORIES

Mounts

Pedestal 7411542-001, 7411444-001,

7411444-002, 7411444-003,

or 7411444-004

Wall 8425-7 Pole 8503-0 7.0" BC Plate 8481-9

IP Field Cables

8194603-xxx [where xxx CAT5e Cables

> = 025, 055, 100, 150, 200, 250, 300, 328] denoting cable length in feet. Includes RJ45 connectors at each end

of cable.

Accessory Cables

CA277, CA278 Series

Power Supply

7412007-003 PoE++, 60W, 110/220VAC

IP50, -34 to 74°C

7411543-010 24Vac, 100VA, 110/220VAC,

IP66. -34 to 74°C

7412007-004 PoE++, 60W, 12-48VDC Input, IP50, -40 to 74°C, DIN Rail

PD-9501GO-ET Outdoor IP67 Rated PoE++

Power Supply, Surface

Mount, -40 to 65°C

RJ45 Coupler

7610203-002 CAT5/6 RJ45 IP67 Coupler



Ethernet Surge Protection

7412009-001 Outdoor IP67 rated

ethernet/PoE++ surge protection device

WARRANTY

Three (3) years on camera and positioner system. Lifetime warranty on camera enclosure moisture ingress.

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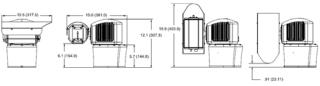
PIGTAIL CONFIGURATIONS

RJ45 Connector Pin Outs					
Pin	Function	on			
Pin	Pinout A	Pinout D			
1	ETHERNET TX+, POE++ [-]	ETHERNET TX+			
2	ETHERNET TX-, POE++ [-]	ETHERNET TX-			
3	ETHERNET RX+, POE++ [+]	ETHERNET RX+			
6	ETHERNET RX-, POE++ [+]	ETHERNET RX-			
5	POE++ [+]	N/C			
4	POE++ [+]	N/C			
7	POE++ [-]	N/C			
8	POE++ [-]	N/C			

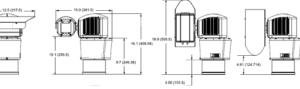
	Prepped Accessory Cable			
	Function			
Prepped Wires	Pinout B	Pinout E		
ORN	DIO 1	DIO 1		
WHT/BLK	DIO 2	DIO 2		
RED/GRN	DIO 3	DIO 3		
BLU	DIO 4	DIO 4		
YEL	N/A	N/A		
BRN	I/O COMMON	I/O COMMON		
WHT (26 AWG)	RS422 RX+	RS422 RX+		
BLK (26 AWG)	RS422 RX-	RS422 RX-		
RED (26 AWG)	RS422 TX+	RS422 TX+		
GRN (26 AWG)	RS422 TX-	RS422 TX-		
COAX VIDEO (WHT)	ANALOG VIDEO OUTPUT	ANALOG VIDEO OUTPUT		
COAX SHIELD (BLK)	ANALOG VIDEO SHIELD	ANALOG VIDEO SHIELD		
BLK (22 AWG)	N/C	24 VAC		
WHT (22 AWG)	N/C	24 VAC		

			MS Cable					
MS Connector	Function							
	Pinout C	Pinout F	Pinout G	Pinout H	Pinout I	Pinout M		
С	DIO 1	POE++ [-]						
к	DIO 2	POE++ [-]						
J	DIO 3	DIO 1						
P	I/O COMMON	I/O COMMON	I/O COMMON	I/O COMMON	VO COMMON	DIO 2		
M	RS422 RX+	RS422 RX+						
N	RS422 RX-	RS422 RX-						
S	RS422 TX+	RS422 TX+						
R	RS422 TX-	RS422 TX-						
L	ANALOG VIDEO OUTPUT	ANALOG VIDEO OUTF						
A	ANALOG VIDEO SHIELD	ANALOG VIDEO SHIE						
В	N/A	24 VAC	24 VAC	N/C	N/C	POE++ [+]		
T	N/A	24 VAC	24 VAC	120 VAC LO	120 VAC LO	POE++ [+]		
G	CHASSIS	CHASSIS	CHASSIS	CHASSIS	CHASSIS	CHASSIS		
U	N/C	N/C	N/C	120 VAC HI	120 VAC HI	I/O COMMON		
Н	N/C	N/C	ETHERNET RX-	ETHERNET RX-	N/C	ETHERNET RX-		
D	N/C	N/C	ETHERNET TX+	ETHERNET TX+	N/C	ETHERNET TX+		
E	N/C	N/C	ETHERNET TX-	ETHERNET TX-	N/C	ETHERNET TX-		
F	N/C	N/C	ETHERNET RX+	ETHERNET RX+	N/C	ETHERNET RX+		

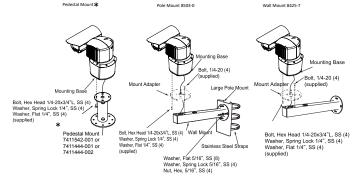
DIMENSIONS FOR 4261 THROUGH 4266 MODELS



DIMENSIONS FOR 4267 THROUGH 426B MODELS



MOUNTING EXAMPLES



MOUNTING BOLT PATTERN



MODEL INDEX CONFIGURATION

RISE 4260HD Series IP68 Camera Positione Power/Pigtail Options

- PoE++ Power, RJ45 Pigtail, Accessory Pigtail
- PoE++ Power, RJ45 Pigtail, MS Conn. Accessory Pigtail 24 VAC Power, RJ45 Pigtail, Accessory Pigtail, Wires
- 24 VAC Power, RJ45 Pigtail, Accessory Pigtail, MS Conn.
- 24 VAC Power, MS Connector Pigtail
- 120VAC Power, MS Connector Pigtail, Helios Pinout
- 120VAC Power, MS Connector Pigtail, RJ45 Whip, i-Series Pinout 120VAC Power, AMP Connector Pigtail, RJ45 Whip, i-Series Pinout
- 120VAC Power, AMP Connector Pigtail, Helios Pinout
- 120VAC Power, AMP Connector Pigtail, Caltrans D11 Pinout PoE++ Power, 10ft RJ45 Pigtail
- PoE++ Power, RJ45 Pigtail, 3" Pedestal Mount
- PoE++ Power, S2in RJ45 Pigtail
 PoE++ Power, MS Connector Pigtail
- PoE++ Power, 50ft RJ45 Pigtail

Camera Options

HD 1080p 30x Camera Module using Options

None

Faceplate Wiper Software Options

Accessory Kits

Contact Factory 0002 Contact Factory Contact Factory Model Number S

EXAMPLE: 4261-1100-0000-04

OPTIONAL ITS ANALYTICS

R-ITS-ADV Advanced ITS Analytics: Provides ITS Standard Features

PLUS Vehicle Size (Classification), Incident Detection, Stopped Vehicle, Wrong Way Direction.

R-ITS-PED Pedestrian Detection: Provides ITS Standard Features PLUS

Pedestrian Detection.

R-ITS-ADP Advanced ITS + Pedestrian: Provides ITS Standard Features

PLUS Advanced ITS & Pedestrian Detection Features.

CLEARANCE

RISE Series IP Video Cameras

Rugged Innovation with Superior Endurance

The RISE Series IP video cameras and designed and built by CostarHD for critical infrastructure applications demanding high-quality images, rugged construction and seamless interoperability. The RISE Series delivers advanced performance at unbeatable pricing.

About CostarHD™

CostarHD is a leading manufacturer of high-definition video systems designed to satisfy the demanding performance requirements for critical infrastructure applications. CostarHD solutions integrate the latest high-definition video imaging and compression technologies into ruggedized camera products for monitoring in critical, sensitive environments.