



ONVIF
Profile S

- Superior HD Image Quality
- Powerful 30x Optical Zoom
- Electronic Image Stabilization
- Defog/Dehaze Analytics
- H.264/MJPEG Codecs
- Web Server Configuration, Operation and Viewing
- Automated Event Actions
- Pressurized IP67 Protection
- NEMA TS2 Temperature Range, -40°C to 74°C
- NTCIP 1205 over IP Communication Support
- PoE+ Power
- Single Connector Simplicity
- Pendant, Wall, Pole and Corner Mounting Options
- ONVIF Profile S Compliant
- FCC, CE Certified

CohuHD's 3930^{HD} fixed camera system combines crystal clear HD image quality, bandwidth efficient H.264 compression and IP67 protection delivering the Cohu quality and performance you expect!

The 3930^{HD} includes a choice of 720p30 cameras with up to 30x* optical zoom, delivering full frame rate HD images over the entire zoom range.

The built-in zoom capability enables up to 30x optical magnification in high definition and achieves quick subject tracking through its high speed auto focusing system. True day/night technology using a removable IR cut filter produces exceptional low light sensitivity down to 0.005 lx*.

For installations subject to wind or vibration, electronic image stabilization* assures a steady, clear image and enables the system designer to utilize existing bridge sign and traffic light poles for camera mounting.

The 3930^{HD} includes defog* image processing capability, enhancing video performance in foggy conditions encountered in surveillance and traffic monitoring applications.

Providing multiple video stream capability, the 3930^{HD} delivers two independently configured H.264 streams or an H.264 with MJPEG output.

The 3930^{HD} provides a full function web server, allowing complete administrative and operator control capabilities. Administrative features include configuring network settings, user password assignments, setting video streaming properties, configuring camera imaging properties and assigning camera ID labels.

The 3930^{HD} is designed to operate in harsh weather with its IP67 enclosure protection. This eliminates the effects of water intrusion, pollutants and corrosives.

CohuHD delivers years of clean, reliable images and backs it with a world class two year warranty.

CAMERA

Sensor Type
Scanning System
Pixel Array
Active Resolution
Frame Rate
Camera Type
Day/Night Modes

18x CAMERA

1/3" CCD
Progressive
1296 x 966
1280 x 720
30 fps
Day/Night (IR Cut Filter)
Auto, Color, B/W

30x CAMERA

1/3" CCD
Progressive
1296 x 966
1280 x 720
30 fps
Day/Night (IR Cut Filter)
Auto, Color, B/W

SENSITIVITY

Color, 1/30, f1.6, 50 IRE
Color, 1/30, f1.6, 30 IRE
Monochrome, 1/30, f1.6, 50 IRE
Monochrome, 1/4, f1.6, 30 IRE

1.8 lux (0.18 fc)
0.74 lux (0.074 fc)
0.18 lux (0.018 fc)
0.02 lux (0.002 fc)

0.5 lux (0.05 fc)
0.3 lux (0.03 fc)
0.05 lux (0.005 fc)
0.005 lux (0.0005 fc)

LENS/OPTICS

Zoom Lens
Aperture (f stop)
HAFOV
Focus
Iris
Digital Zoom

18x, 4.7 to 84.6mm
1.6 -> 2.8
55.2° to 3.2°
Auto / Manual [Near, Far]
Auto / Manual [Open, Close]
Not Available

30x, 4.4 to 132mm
1.4 -> 4.6
62.9° to 2.2°
Auto / Manual [Near, Far]
Auto / Manual [Open, Close]
2x

IMAGE PROCESSING

Image Stabilization
Dynamic Range Mode
Back Light Comp Mode
Shutter/Integration
Defog Mode
S/N Ratio

Not Available
On/Off
On/Off
1/4 -> 1/10,000
Not Available
> 50db

Off/On [5 Hz or 10 Hz]
On/Off
On/Off
1/4 -> 1/10,000
Off/On [3 Levels + Color Saturation]
> 50db

IP VIDEO

Streams Two (2) Individually configurable streams
Codecs H.264 and MJPEG
Configurations H.264 + H.264
H.264 + MJPEG
Resolutions Stream 1 [720p, D1]
Stream 2 [D1, CIF]
Frame Rates 30, 15, 7.5, 6, 5, 3.75, 3, 2, 1.875, 1 [Note: Stream 2 must be <= to Stream 1 frame rate]
Data Rates Stream 1 [8 Mb to 256Kb]
Stream 2 [2 Mb to 256Kb]
Camera Latency Four (4) Frames [0.133 sec]

VIDEO CONNECTIONS

RTP/RTSP Eight (8) H.264, Eight (8) MJPEG
RTSP/Interleave Eight (8) H.264, Eight (8) MJPEG
RTSP Multicast Eight (8) H.264, Eight (8) MJPEG
HTTP Multicast Unlimited, H.264 and MJPEG
HTTP Tunneling Two (2) H.264, Ten (10) MJPEG
MPEG2 TS Unlimited, H.264 and MJPEG

NETWORK INTERFACE

Network Format Ethernet 802.3 (100BaseT-TX)
Network Protocol TCP, UDP, IPv4, IGMP, ICMP, DNS, DHCP, RTP, RTSP, NTP, HTTP, ARP, ONVIF Profile S
Media Players VLC, Quick Time or any media player compliant with RFC 2326, 3984, 3550, 2435, ISO/IEC 13818-1
ONVIF Support Profile S
Camera Protocols CoHu T, Profile S, NTCIP 1205
Security Yes, 4 Levels

ON SCREEN DISPLAY (OSD)

IP VIDEO OSD

Up to four OSD elements are selectable for inclusion in the camera's two IP video streams. (Note: Three elements maximum on a single stream. The OSD elements display on top or bottom of image, on right side of video. The logo element displays on top or bottom of image on left side.

Standard Font Size

Camera Title	24 characters
Time/Date	24 Hour Format, Time Zone
Logo Display	xxx.bmp format, 96 x 96 pixels maximum, in multiples of 32 pixels

Large Font Size

Camera Title	15 characters
--------------	---------------

EVENT MANAGEMENT

DIGITAL I/O

Digital Inputs	Two (2) Sensor Inputs, Dry contact, N.O or N.C
Digital Outputs	Two (2) Control Output, Open collector

TRIGGERS

Internal Timer	Interval [Off, 1 Second to 999 hours], Duration [Off, 1 Second to Indefinite]
Digital Inputs	Active Input Triggers Action

ACTIONS

FTP Snapshot	Captures Image and sends to FTP site folder
Digital Output	Activates a Digital Output
EMAIL	Sends message to EMAIL address

MECHANICAL

Construction	Powder coated aluminum. External parts corrosion protected with stainless steel fasteners.
Weight	5.5 lbs (2.5 Kg) w/o wiper 9 lbs (4.1 kg) w/wiper
Dimensions	No Wiper: 15.0" D x 5.1" W x 4.9" H [381 mm x 130 x 125] With Wiper: 15.0" D x 5.1" W x 7.5" H [381 mm x 130 x 191]
Connector Type	18 Pin MS
Shipping Dims	10 lbs [4.5 Kg], 20" x 13" x 13" [508 mm x 330 mm x 330 mm]

ELECTRICAL

Input Voltage	PoE+ 802.3at
Power	10 w heater/wiper off 25 w heater or wiper on
Transients	EN55022:2010 EN55024:2010

ENVIRONMENTAL

Protection Rating	IP67, Pressurized with Dry Nitrogen, 3.5 psi
Operating Temp	-40°F to 165°F (-40°C to 74°C) Per NEMA TS2, para. 2.2.7.3 - 2.2.7.7 Note: Minimum operating temperatures are with a 2 hour warm-up.
Water Spray	Per IEC 60529+A1, 1999, Para 14.2.6, Solid water stream delivered thru 12.5mm nozzle @ 25 gallons/minute @ 9 ft for 3 minutes
Humidity	0-100%
Vibration	Per Nema-TS2 para 2.1.10, 2.2.4
Shock	Per Nema-TS2 para 2.1.10, 2.2.4
Corrosion Prot.	Per Nema 250-2003, para 5.10

CERTIFICATIONS

FCC Class A
CE
EN55022:2010 CISPR22
EN55024:2010 CISPR24
RoHS Directive 2011/65/EU Effective 1/2/2013
WEEE Effective 8/3/2012
ASTM-B117 Marine

ACCESSORIES

Mounts

7411498-001 Mast Arm Mount
7411498-002 Pole Mount
7411499-001 Pedestal Mount
7411499-002 Wall Mount

Cables

CA257 Series
CA258 Series

Connectors

MS Type	1310230-011
---------	-------------

Power Supplies

PoE+ (IP50)	7411539-001
-------------	-------------

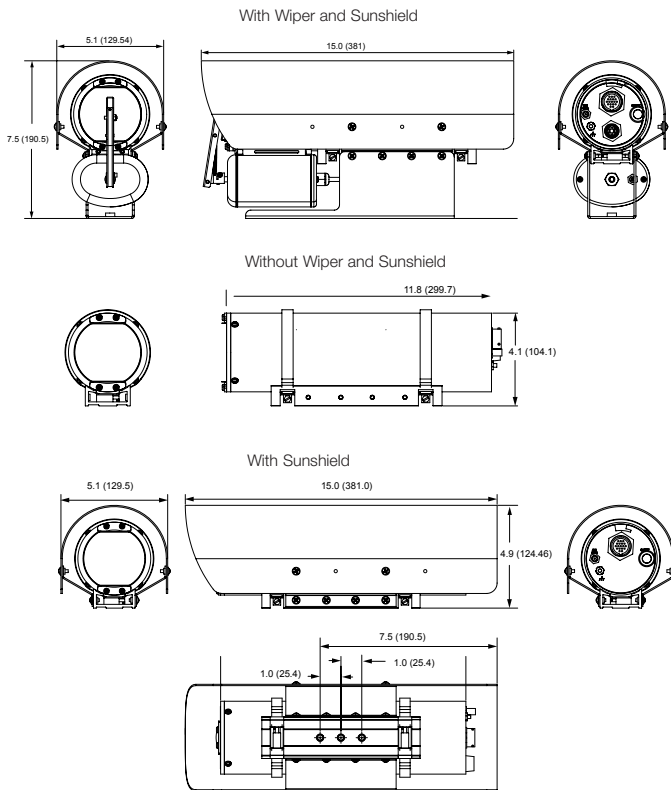
Wiper Blade

Replacement Assy	8139078-001
------------------	-------------

ORDERING MODEL NUMBERS

PRODUCT MODEL STRUCTURE		
HD1 X - X X X X	OPTIONS	OPTION DESCRIPTION
	PRODUCT SERIES	
HD1		HELIOS IP67 HIGH DEFINITION FIXED CAMERA SYSTEM
	OPERATING POWER	
1		POE, NETWORK SUPPLIED POWER
5		POE, INCLUDES MID-SPAN POE INJECTOR
	CAMERA OPTIONS	
1		720P30 x18 HDTV CAMERA
2		720P30 x18 HDTV CAMERA, WITH FACEPLATE WIPER
3		720P30 x30 HDTV CAMERA WITH EIS AND DEFOG
4		720P30 x30 HDTV CAMERA WITH EIS AND DEFOG WITH FP WIPER
	SOFTWARE OPTIONS	
0		STANDARD SUITE / NTCIP 1205 OVER IP
	UNASSIGNED	
0		NONE
	SUNSHIELD	
0		WITHOUT SUNSHIELD
1		WITH SUNSHILED

DIMENSIONS



Dimensions in inches (mm)

CONNECTOR PINOUT

Pin	Function
D	TX +
E	TX -
F	RX +
H	RX -
B	POE +
C	POE +
T	POE -
K	POE -
L	No Connection
A	No Connection
R	No Connection
S	No Connection
J	ALM IN 1
M	ALM IN 2
N	ALM 3 (I/O)
P	ALM 4 (I/O)
G	ALM COM
U	Cable Shield

