



- Superior HD Image Resolution
- Powerful 30x Optical Zoom
- Electronic Image Stabilization
- Defog/Dehaze Analytics
- H.264/MJPEG Video Codecs
- Web Server Configuration, Operation and Viewing
- Wide Range, Variable Speed, Smooth Positioning Movements
- Presets, Tours, Patterns, Sectors and Privacy Masks
- Automated Event Actions
- Two Input, Two Output Digital I/O Support
- Pressurized IP67 Protection
- Temperature Range of -41°C to 75°C, with extended operation to 80C
- NTCIP 1205 over IP Communication Support
- 24Vac or PoE+ Power Input
- Single Connector Simplicity
- Pendant, Wall and Pole and Mounting Options
- ONVIF Profile S Compliant
- CE Certification

CohuHD's 3120^{HD} dome positioning system combines crystal clear HD image quality, bandwidth efficient H.264 compression, smooth variable speed positioning and pressurized IP67 protection delivering the CohuHD quality and performance you expect!

The 3120^{HD} includes a high definition 720p30 camera with a 30x optical zoom power, 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 3120^{HD} includes a defog/dehaze image analytics, enhancing video performance in snowy, rainy, hazy and foggy conditions encountered in surveillance and traffic monitoring applications.

The 3120^{HD} includes a variable hi-speed pan and tilt drive, with 360° continuous pan and +5 to -90° tilt. Fast positioning speeds result in 180° movements in less than two seconds.

Providing multiple video stream capability, the 3120^{HD} delivers two independently configured H.264 streams or an H.264 with MJPEG.

The 3120^{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, defining presets, tours, patterns and assigning camera ID labels.

The 3120^{HD} is designed to operate in harsh weather with its pressurized 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.

POSITIONING DRIVE

Pan Range	360° Continuous Rotation
Tilt Range	5° to -95° [Continuous tilt with image flip and rotation at -90°]
Pan Speed	0.5° to 110°/Sec
Tilt Speed	0.5° to 90°/Sec
Preset Speed	< 1 seconds for 180° movement
Manual Pan Speed	0.5° to 110°/second
Manual Tilt Speed	0.5° to 90°/second
Peak Preset Speed	Maximum 350°/second
Preset Speed	< 1 second for 180° movement
Repeatability	+/- 0.1°
Resolution	+/- 0.1°
Presets	64, Includes Pan, Tilt, Zoom
Tours	4, Includes 27 Presets with individual dwell times
Patterns	4, Up to 40 minutes of recorded patterns
Auto Park	Returns to a Preset, Tour or Pattern after timer expires, Timer Value [Off, 1 Minute to 999 Hours]
Sector Zones	8, Includes left/right boundary, enabled/disabled state, 24 Character Title
Privacy Zones	8 user programmable masks
Inverted Operation	Not Applicable

CAMERA

Sensor	1/3" CCD
Scanning	Progressive
Pixel Array	1296 x 966
Resolution	1280 x 720
Frame Rate	30 fps
Camera Format	Day/Night (Removable IR Cut)
Day/Night Modes	Auto, Color, B/W

SENSITIVITY @ 50 IRE

Color, 1/30, f1.6	0.5 lux (0.05 fc)
B/W, 1/30, f1.6	0.05 lux (0.005 fc)

SENSITIVITY @ 30 IRE

Color, 1/30, f1.6	0.3 lux (0.03 fc)
B/W, 1/4, f1.6	0.005 lux (0.0005fc)

OPTICS

Zoom Lens	30 x, 4.4 to 132mm
Aperture	f1.4 -> f4.6
HAFOV	62.9° to 2.2°
Focus	Auto / Manual [Near, Far]
Iris	Auto / Manual [Open, Close]
Digital Zoom	2 x

IMAGE PROCESSING

Defog Mode	Off/On [3 Levels + Color Saturation]
Image Stabilization	Off/On [5 Hz or 10 Hz]
Dynamic Range	On/Off
Back Light Comp	On/Off
Shutter/Integration	1/4 -> 1/10,000
S/N Ratio	> 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 (stream 2 must be <= to stream 1 frame rate)
Data Rates	Stream 1 (6 Mb to 256 Kb); Stream 2 (2 Mb to 256 Kb)
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/SDP Multicast	Eight (8) H.264, Eight (8) MJPEG
HTTP/SDP Multicast	Unlimited, H.264 and MJPEG
HTTP Tunneling	Two (2) H.264, Ten (10) MJPEG
MPEG2 TS	Unlimited, H.264 and MJPEG
HTTP MJPEG Pull	Ten (10)
HTTP MJPEG Push	Ten (10)

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	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
Preset ID	24 characters
Sector Zone	24 characters

Position	3 characters, absolute or compass reading
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
Position	3 characters (pan absolute or compass reading)

EVENT MANAGEMENT

DIGITAL I/O

Digital Inputs	Two (2) Sensor Inputs, Dry contact, N.O or N.C
Digital Outputs	Two (2) Control Outputs, Open collector, 500mA sink

TRIGGERS

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

ACTIONS

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

MECHANICAL

Construction/Finish	Powder coated aluminum. External parts corrosion protected with stainless steel fasteners.
Weight	12 lbs [5.4 Kg]
Dimensions	11.0"D x 13.8"H [281 mm x 349 mm]
Connector Type	18 Pin MS
Shipping Dim's	17 lbs, [7.7 Kg] 19" x 15" x 15" (482mm x 381mm x 381mm)

ELECTRICAL

Input Voltage	24 Vac or PoE+, Auto Detect
Power	PoE+: 15 W heater off, 30 watts max. 24 Vac: 15 W heater off, 60 watts max.
Transients/Surge	CISPR 24

ENVIRONMENTAL

Protection Rating	IP67, Pressurized with Dry Nitrogen, 3.5 psi
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Operating Temp	24Vac Input	-42°F to 167°F (-41°C to 75°C) Per NEMA TS2, para. 2.2.7.3 - 2.2.7.7, Profile 2-1 using CohuHD specified temperatures.
PoE+ Power		-30°F to 167°F (-34°C to 75°C) Per NEMA TS2, para. 2.2.7.3 - 2.2.7.7, Profile 2-1 using CohuHD specified temperatures.
Extended		Hi-Temp Range of 176F [80 C] up to 17 Hours
No Heaters		Minimum without heaters -13F [-25 C] Note: Minimum operating temperatures require a minimum 2 hour warm-up with heaters on.
Humidity		0-100%
Vibration		Compliant to NEMA TS2 Para 2.1.9, 2.2.3, 2.2.8
Shock		Compliant to NEMA TS2 Para 2.1.10, 2.2.4, 2.2.9
Salt Spray		ATSM-B117

CERTIFICATIONS

FCC Class A
CE
CISPR 22/24

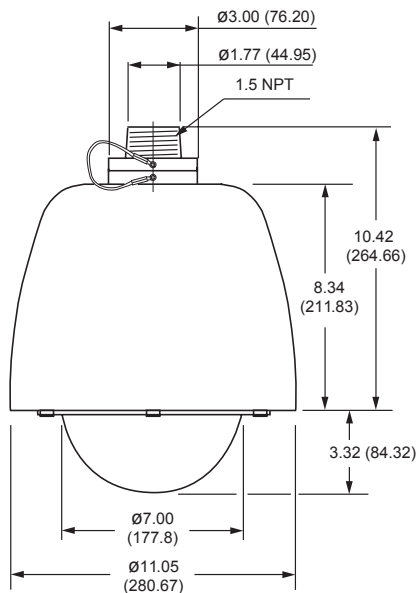
ACCESSORIES

Mounts	
Wall	7411420-001
Pole	8518-2
Cables	
CA275 Series	
Connectors	
Field Cable Mate	1310230-211
Power Supplies	
PoE+ (IP50)	7411539-001
24Vac (IP66)	7411543-010 (96 Watts, 115Vac or 220Vac Input)

ORDERING MODEL NUMBERS

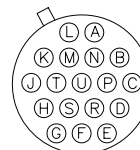
3124-1000	IP67, HD 720p, 30x PTZ Dome + Two Alarm I/O
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DIMENSIONS



NPT - National Pipe Thread

CONNECTOR PINOUT OPTIONS



Pin Location Diagram
MS-type Connector
View from the front (mating) side

PIN	SIGNAL	PIN	SIGNAL
F	Ethernet RX+	R	24 Vac Low
H	Ethernet RX-	S	24 Vac High
D	Ethernet TX+	U	Chassis/Earth Ground
E	Ethernet TX-	N	Alarm 1 Out
B	Ethernet POE Vdc+	P	Alarm 2 Out
C	Ethernet POE Vdc+	J	Alarm 1 In
T	Ethernet POE Vdc-	M	Alarm 2 In
K	Ethernet POE Vdc-	G	Alarm Common