

# 3210HD Series

## Body Temperature Measurement/Radiometric Detection System



### Advanced Thermal Performance

- IRFPA uncooled micro bolometer technology
- 320 x 240 and 400 x 300 resolution options
- Superior thermal sensitivity of <math>< 50 \text{ mK}</math>
- On-board temp-detection algorithm
- Accuracy 0.3°C
- Body detection, up to 16 Targets
- Response Time 50ms
- 14 color palettes

### Superior Daytime Imaging

- Visible spectrum daytime color camera
- HD 1920 x 1080 image quality
- Autofocus, wide view optics
- Supports daytime thermal imaging for improved situational awareness

### Rugged Construction

- Wide operating temperature range
- Durable IP66 ingress protection
- 2 year standard warranty

### Installation and Interoperability

- ONVIF Profile S
- H.265/H.264 and MJPEG encoding
- Single CAT5e/CAT6 cable with PoE+
- Wall, pole mounting options

Temperature Measurement or Radiometry is a technology that can provide benefits in a wide range of applications.

Thermal cameras that employ temperature measurement features have enabled organizations to deploy solutions for security and protection, as well as predictive maintenance, cost effectiveness, firefighting support, game management, and search and rescue.

CohuHD Costar 3210HD series is a state of the art observation system, boasting an incredibly easy installation with day and

night capabilities and ONVIF support for full seamless third party integration.

Equipped with thermal and visible-light channels for day and night surveillance, the 3210HD series meets global ONVIF standards to ensure interoperability of hardware and software products for easy integration to both existing and new infrastructures, regardless of manufacturer.

The 3210HD series of cameras is a broad portfolio of high performance outdoor rated cameras for 24/7 perimeter surveillance, observation, and monitoring of critical

infrastructure, sensitive sites and body temperature measurements.

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



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### THERMAL CAMERA

Detector	Uncooled IRFPA
Resolution/Pixel Size	
3212-1000	320 x 240, 20 $\mu$ m
3212-2000	400 x 300, 17 $\mu$ m
Spectral Band	8 - 14 $\mu$ m
Sensitivity (NE $\Delta$ T)	
3212-1000	50 mK @ F1.0
3212-2000	40 mK @ F1.0
Frame Rate	25Hz
Image	Polarity LUT, DVE, Mirror, FCC, 3D DNR Brightness, Contrast, ROI
Palettes	Black-Heat/White-Heat/Rainbow/Iron-Red up to 14 modes
Lens Type	Fixed
Focus Control	Manual
Focal Length	8mm, F1.0
AFOV	
3212-1000	44° x 33°
3212-2000	46° x 35°

### VISIBLE CAMERA

Sensor	
3212-1000	1/2.8" CMOS
3212-2000	1/1.9" CMOS
Scanning	Progressive
Resolution	1080p [1,920 x 1,080]
Frame Rate	25 fps
Shutter (AES)	1/2 -> 1/64,000
Camera Format	Day/Night (IR Cut Filter)
S/N Ratio	>55 db
Sensitivity	(f1.2, 1/5, AGC ON)
Color	0.1 lux (0.01 fc)
B/W	0.01 lux (0.001 fc)
Lens	2.8 to 12mm
Aperture	f1.6 -> f2.9
HAFOV	105° ~ 32°

### BLACK BODY CALIBRATION TOOL

Temp. Range	5°C ~ 50° (50°F ~ 122° F)
Emissive Area	70mm x 70mm
Temp. Resolution	0.1°C (0.18° F)
Accuracy	+/-0.2° @ 40° C +/-0.36° @ 104° F
Stability	+/- 0.1° ~ 0.2° C / 30 min +/- 0.18° ~ 0.36° F / 30 min
Emissivity	.97 +/- 0.02
Power Supply	220Vac @ 50Hz, 50 W
Operating Temp.	0°C ~ 40° (2°F ~ 104° F)
Humidity	< 80% N.C
Dimensions	110(W) x 120(H) x 180(D) mm 4.3(W) x 4.72(H) x .71(D) in
Weight	1.8kg (3.97 lb)

### IP STREAM

Video Streams	Two (2) Video Streams
Video Codec	H.265, H.264, MJPEG
Video Data Rate	Up to 8Mbs
Video Rate Cntrl	Variable or Constant

### EMBEDDED INTELLIGENCE

Smart Alarm	Motion detection, Disk alarm, I/O alarm, Temperature alarm, IVS alarm
IVS	Smart Body Detection, Perimeter ,Single Virtual Fences ,Double Virtual Fences ,Object Left ,Object Removed

### NETWORK INTERFACE

Ethernet	RJ-45 (10/100Base-T)
Protocols:	IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, SIP ,802.1x
Interoperability	ONVIF, CGI, SDK
Streaming Method	Unicast
Max. User Access	10 Users
Edge Storage	NAS, Local PC for instant recording, Micro SD 128GB
Web Viewer	Chrome, Firefox
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian

### TEMPERATURE DETECTION

Detection Mode	Body temperature monitoring
Detection Preset	Max 16 goals
Temperature Alarm	Over temperature alarm, Temperature difference alarm
Accuracy	≤ 0.3°C (Emission rate,

Response Time	≤50ms
Temp Range	-20°C ~ 60°C (-4°F ~ 140°F)
Display Mode	Temp. target > 5°C; Display absolute temp. value; Temperature target ≤ 0.5°C; Display relative temp. value (temperature difference DEV= highestvalue-avg)

### ELECTRICAL

Input Voltage	DC12V/POE (IEEE 802.3af)
Power	10w

### MECHANICAL

Weight	4.4 lbs (2 kg) Camera
Dimensions	Refer to dimensional diagram
Construction	Metal

### ENVIRONMENTAL

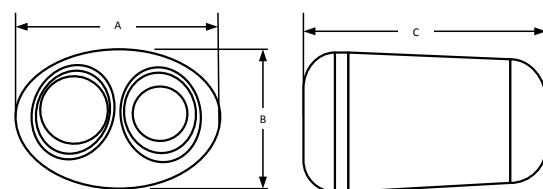
Protection Rating	IP66
Operating Temp	-30°C ~ 60°C (-22°F ~ 140 °F)
Storage Conditions	0~ 90% RH

### CERTIFICATIONS

CE, FCC

### ORDERING INFORMATION

3212-1000	320x240 Resolution Thermal Camera
3212-2000	400x300 Resolution Thermal Camera
3212-9000	Portable Black Body Calibration Tool



Dimension	3212-1000		3212-2000	
	Inches	mm	Inches	mm
A	6.81	173	7.17	182
B	4.72	120	5.35	136
C	8.27	210	8.35	212



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