ONCAM C-12
OUTDOOR PLUS

ONCAM C-SERIES KEY FEATURES

INDUSTRY LEADING FRAME RATES

Capture every movement in sharp detail with market leading **55 fps at full 9MP** resolution or **maintain** your chosen frame rate up to **30 fps** on primary stream with 3 other streams running. Alternatively, experience best in class performance of **25 fps with TrueDetail HDR**.

STREAMLITE COMPRESSION TECHNOLOGY

Lower bandwidth and storage by an **average of 50% or more** on both H.264 and H.265, and over 90% when there is no motion and Dynamic FPS is enabled. Integrated VMS / NVR partners have access to **StreamLite+**, and can achieve an additional **20%** thanks to **ColorMap Compression**[5].

TRUEDETAIL HDR TECHNOLOGY

Reveal the **hidden details** in both dark and bright areas of the same scene. Correctly expose every detail with dual concurrent exposures.

ADVANCED LIGHT MANAGEMENT TECHNOLOGY

Dynamically manage the available light to optimize image quality to **produce clearer, full-color, lower noise videos**. Maintain the sharpness of static or moving objects in challenging low and mixed light conditions.

MULTI-MODE

Simultaneously stream up to four different views from a choice of five (inc. dewarped views)[6]

C12-OPC1-O

FEATURE-RICH SURVEILLANCE

- Powerful, robust and feature-rich 12MP camera, built upon Oncam's expertise in 360-degree IP video technology
- Crisp images in tough external conditions
- IP66, IP67, IP68, IP69K and IK10 rated, offering protection in harsh environments and against vandalism.
- Edge dewarping for additional streaming flexibility (Fisheye only, Panoramic+ only or Multi-Mode[6])
- Plus Board features make the camera perfect for more demanding installations
- Range of mounting options and accessories for added versatility, including Panoramic+ Tilt Adaptor and rainguard
- Optional Heater Module for cold starting in temperatures as low as -40°C / -40°F
- Market leading 3D dewarping software supported by major VMS / NVR partners
- 5-year warranty

PLUS BOARD FEATURES

- 8-28 VDC support
- Alarm I/O support x2 in x1 out
- LED Lamp support x2
- Audio support

Technical Specifications

General

Field of view	180° Horizontal, 180° Vertical
Image sensor	12.4MP (approx.) CMOS sensor
Lens	180°, 1.6mm, F 2.0, all-glass, fixed focus, fixed Iris, fisheye
Day/Night IR cut filter	Automatic, manual
Minimum illumination	Color: 0.1 lux at 50 IRE F/2.0 Mono: 0.1 lux at 50 IRE F/2.0
Video motion detection	16 configurable polygonal regions
External alarm	2x contact input 1x contact ouput
External LED control	2x contact output
Audio input	Audio IN through screw terminal connections, G.711/AAC codec
Audio input level	MIC input level range is approximately 5 mV to 50 mV
Advanced event management	Configurable Triggers: Motion regions, External contact input, Network message, Link down
	Configurable Actions: External contact output, SMTP (snapshot), Local recording, LED output
Networking	IPv4, TCP/IP, UDP, HTTP, DHCP, DNS, NTP, SMTP, RTP, RTSP, WEB RTC, RTCP, HTTPS, WS-Discovery, TLS, ARP and SNMP v2c or V3
Privacy	5 configurable privacy regions/masks
SD card	Built in MicroSD card slot, up to 512GB (FAT32), minimum class 10
White balance Range	Auto White Balance (Range = approx. 2,500 K ~ 8,000 K)
Security	Password protection WS-Username token RTSP authentication HTTP Digest authentication Authorization levels Brute force protection IP address filtering User access log Encrypted TLS 1.2 HTTPS encryption IEEE 802.1x Authentication EAP-MD5, EAP-TLS, EAP-PEAP

Video

Frame rate	max 55 fps at full resolution[1] or 25 fps with TrueDetail HDR
Video compression	H.264, H.265, MJPEG and VP8 (WEB RTC)
Smart compression	StreamLite H.264 and H.265 StreamLite+ H.264 and H.265 (with ColorMap compression[5])

Fisheye stream 1 (Primary - 360° Fisheye Stream H.264/H.265)	55 fps[1]: 2992 x 2992 (9.0 MP, max resolution) 30 fps when multi-streaming[2] Up to 60 fps[1]: 2800 x 2800 (7.8 MP) 2304 x 2304 (5.3 MP) 1920 x 1920 (3.7 MP) 1440 x 1440 (2.1 MP) 992 x 992 (0.98 MP) 512 x 512 (0.26 MP)[3]
Fisheye stream 2[4] (Secondary - 360° Fisheye Stream H.264/H.265)	Up to 15 fps: 2992 x 2992 (9.0 MP, max resolution) 2800 x 2800 (7.8 MP) 2304 x 2304 (5.3 MP) 1920 x 1920 (3.7 MP) 1440 x 1440 (2.1 MP) 992 x 992 (0.98 MP) 512 x 512 (0.26 MP)[3]
Fisheye stream 3 (Tertiary - 360° Fisheye Stream H.264/H.265)	Up to 30 fps: 1920 x 1920 (3.7 MP, max resolution) 1440 x 1440 (2.1 MP) 992 x 992 (0.98 MP) 512 x 512 (0.26 MP)[3]
Fisheye stream 4 (Low resolution - 360° Fisheye Stream H.264/H.265/MJPEG)	Up to 10 fps: 512 x 512 (0.26 MP, max resolution)[3]
Camera modes[6]	Fisheye only, Panoramic+ only, Multi-Mode
Multi-stream capacity	4 multiple streams can run concurrently. Primary stream maintains a frame rate of 30 fps[2]
Dewarped views[6]	Panoramic+ (180° view): 3040 x 1216 to 800 x 320 Corridor+ (ceiling split corridor view): 2432 x 1520 to 640 x 400 T Corridor+ (three-way split corridor view): 3456 x 1440 to 768 x 320 VCam (up to 4): 1280 x 720 to 576 x 432
Image settings	Brightness, contrast, saturation, sharpness, exposure compensation, exposure priority, imaging preference, text overlay, 180° rotate, multiple color spaces
Image enhancement	TrueDetail HDR up to 25 fps. TrueDetail HDR maximum dynamic range 120dB
PTZ functionality	10x zoom with Oncam 3D client-side dewarping software
VMS/NVR support	ONVIF Profile S, G and T conformant. Contact Oncam for the up-to-date VMS compatibility list
Web browser compatibility	Supported minimum browsers versions: Chrome 95, Firefox 94, Edge 95 and Safari 14.1.1

[1] High Speed Mode[6], single stream only, set to 60 fps, exposure priority set to frame rate, 60Hz. Max achievable fps is dependant on VMS support
[2] Maintain 30 fps ±5%. 25 fps in TrueDetail HDR Mode, 60Hz
[3] MJPEG at 10 fps, <5,000 kbps supported
[4] Resolution and video source view shared with Primary Stream in TrueDetail HDR Mode
[5] Dependent on VMS support
[6] Firmware version 2.0.x and above required

Unicast	Up to 20 simultaneous users depending on the resolution settings	Cold start temperature range with optional heater (CA-GHM1-O)	-40° C to +55° C (-40 to +131° F)
Multicast	Supported for all streams (Audio, Video and Metadata[6])	Operating Humidity	up to 95% Relative Humidity non-condensing
Bit rate control	Fixed Quality (Capped Bitrate) or Constant Bit Rate	Ingress protection	IP66, IP67, IP68 and IP69K
		Impact resistance	IK10

Electrical

Ports	RJ45 for 100/1000BASE-Tx
Power input	Power over Ethernet (PoE), IEEE standard 802.3af. Screw Terminals, 8-28 VDC, 15W LPS, NEC Class 2 power supply.
Power consumption (maximum)	< 12.95W (IEEE 802.3af, PoE 48VDC) < 12.95W (DC 8-28VDC)

Mechanical

Camera mount	Surface , Pendant and Panoramic+ Tilt
Weight	1.00 kg (2.20 lbs)
Dimensions (D x W x H)	150 x 150 x 88 mm (5.9 x 5.9 x 3.4 in)

Environmental

Operating temperature range	-40° C to +55° C (-40 to +131° F)
Cold start temperature range	-20° C to +55° C (-4 to +131° F)

Certifications

Approvals	IEEE802.3af
	CE, UKCA
	AS/NZS CISPR 32: 2015 AMD 1: 2020
	EN 55032:2015/A11:2020, Class B EN 55035: 2017/A11: 2020 EN 61000-6-3:2007+A1: 2011/ AC:2012, EN50130-4: 2011+A1:2014
	FCC CFR Title 47 Part 15 Subpart B: 2020 Class B
	ICES-003 Issue 7:2020, Class B ANSI C63.4-2014, ANSI C63.4a-2017, CAN/CSA-CISPR 32:17
	UL/cUL 62368-1, EN 62368-1:2014/A11:2017
	UL60950-part 22
	RoHS
	REACH
	IP66, IP67, IP68, IP69K and IK10
	BIS IS13252(Part1)/IEC 60950-1
	NEMA Type 4 & 6

Dimensions
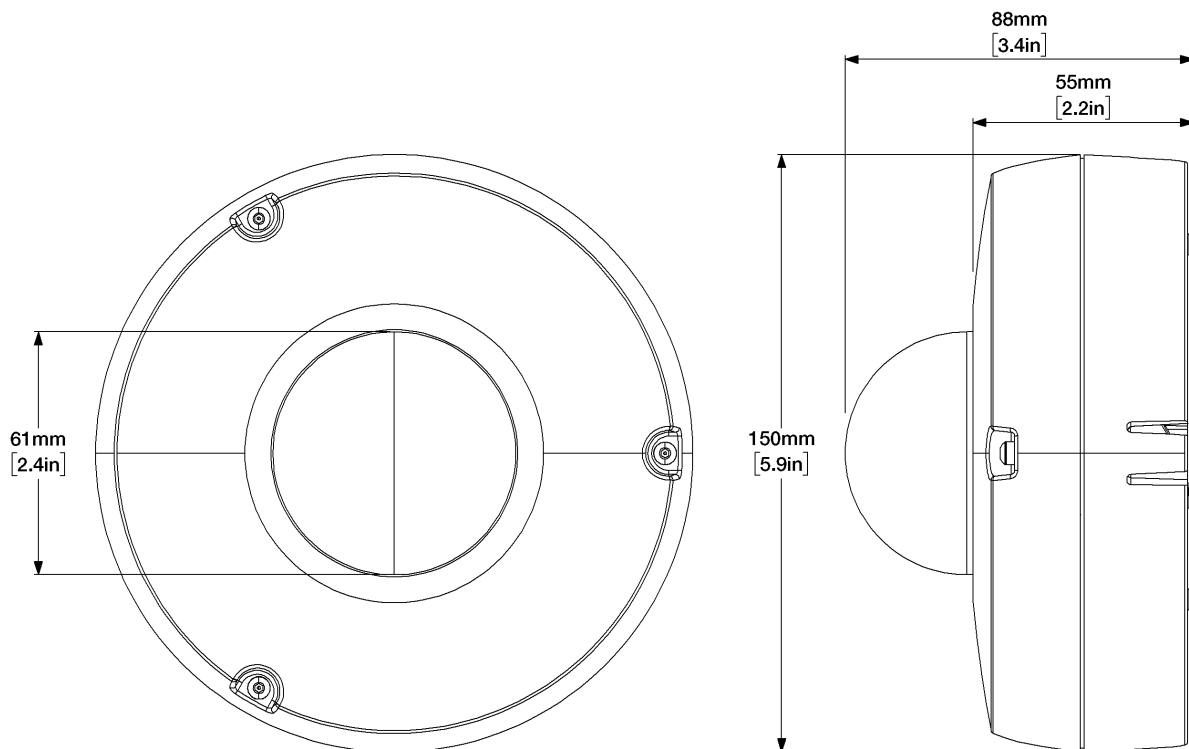
Optional Accessories

Outdoor Pendant Kit

SKU Number	CA-OPK1-O

Pendant Mount Adaptor

Thread	1½" NPT
	Male
Construction	ADC12 Aluminum
Form factor	Low profile
Installation	Pendant mount
Weight	0.20 kg (0.44 lbs)
Dimensions	Ø145 mm (5.7 in)

Sunshield

Construction	ADC12 Aluminum
Installation	Pendant mount
Weight	0.26 kg (0.57 lb)
Dimensions	Ø170 mm (6.7 in)
Assembled	

Heater Module

SKU Number	CA-GHM1-O
Installation	Base of camera module
Operating temperature	As low as -40°C/°F
Functionality	Automatic on/off
Weight	0.05 kg (0.11 lb)
Dimensions	68 mm (2.7in)

Pole Mount Bracket

SKU Number	CA-OPB1-O
Thread	1½" NPT
	Female
Construction	Aluminum
Weight	0.61 kg (1.34 lbs)
Dimensions (D x W x H)	265 x 130 x 114 mm (10.4 x 5.1 x 4.5 in)

Wall Mount Bracket

SKU Number	CA-OWB1-O
Thread	1½" NPT
	Female
Construction	Aluminum
Weight	0.41 kg (0.9 lb)
Dimensions (D x W x H)	150 x 94 x 114 mm (5.9 x 3.7 x 4.5 in)

Corner Wall Bracket
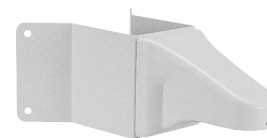
SKU Number	CA-OCB1-O
Thread	1½" NPT
	Female
Construction	Aluminum
Weight	0.62 kg (1.36 lbs)
Dimensions (D x W x H)	295 x 185 x 114 mm (11.6 x 7.3 x 4.5 in)

Panoramic+ Tilt Adaptor[6]

SKU Number	CA-OTA1-O
Angle	0° to 90°
Thread	1½" NPT
	Male to mounting bracket, Female to pendant mount
Construction	Aluminum
Weight	0.28 kg (0.61 lbs)
Dimensions (D x W x H)	57 x 70 x 116 mm (2.2 x 2.8 x 4.6 in)

Panoramic+ Rain Guard[6]

SKU Number	CA-ORG1-O
Mounting	Surface or Pendant
Construction	Polymer
Weight	0.06 kg (0.13 lb)
Dimensions (D x W x H)	114 x 170 x 180 mm (4.5 x 6.7 x 7.1 in)

Panoramic+ Pendant Mount Adaptor[6]

SKU Number	CA-OPM1-O
Thread	1½" NPT
	Male
Construction	ADC12 Aluminum
Form factor	Low profile
Installation	Pendant mount
Weight	0.20 kg (0.44 lb)
Dimensions	Ø145 mm (5.7 in)