AV COSTAR™

ConteraIP® Fisheye Megapixel Camera

12 Megapixel (MP) H.265/H.264 All-in-One 360º Panoramic True Day/Night Outdoor Dome IP Camera, WDR (Wide Dynamic Range), NightView,™ IR LEDs, Integrated Audio with Built-in Microphone and Video Analytics

H.265

The ConteraIP® Fisheye megapixel camera features 12-megapixel (MP) resolution with an integrated ultra wide-angle lens for excellent, optimal image quality and optimum performance. The ConteraIP Fisheye camera can replace multiple fixed or PTZ cameras by recording an entire 360º panoramic field of view, without blindspots, and the ability to zoom into multiple regions of interest for a return on investment that's easily measured. These cameras now support on-camera analytics. Several behaviors are available with the included standard analytic package. For even more powerful behaviors, optional advanced analytics are available.

Regardless of time-of-day, this camera is ideal for applications with challenging lighting conditions. The series combines a day/night mechanical IR cut filter for the highest image quality at any time of day. For applications with poor lighting conditions, WDR™ (wide dynamic range) at 100dB provides the best visual balance to shaded and bright light conditions. For clear color images in low-light, NightView™ offers strong low-light sensitivity for capturing details in extremely poor-lit scenes, which is further enhanced by integrated LED illumination.

AV Costar™ was the first to bring H.264 to the mainstream market. Today we are proud to offer our next generation H.265 capable of delivering high quality video while saving over 50% of the data rate to reduce or prevent strain on the network.

ConteraIP Fisheye is designed for demanding environments. Certified to rigorous dust and water tests, the camera carries an IP67 rating. The rugged dome housing is IK-10 rated for vandal-prone applications.

The microSDXC card slot supports up to 1TB of storage capacity for convenient onboard storage. The camera's power can be supplied via a Power-over-Ethernet (PoE - IEEE 802.3at) compliant network cable connection or a 12V DC power supply.

The ConteraIP Fisheye is ONVIF (Open Network Video Interface Forum) Profile S, G, T and M compliant, providing interoperability between network video products regardless of manufacturer.

| Single Sensor 360º Panoramic | NightView™ | Wide Dynamic Range | Advanced Video Analytics | Independently Configurable IR LEDs | True Day/Night with Mechanical IR Cut Filter | Tri-Encoder H.265/H.264/MJPEG | Impact / Weather Resistant IK-10 and IP66 Rated | All-in-One PoE and Integrated Lens | 1TB Max Capacity MicroSDXC Card Slot | Built In Microphone or Line In | Audio Line Out |

Series Features

- 12MP Resolution
- On-Camera Analytics
- Full 360º Panoramic Image without Blind Spots
- NightView™ for Strong Low Light Performance
- True Day/Night Functionality with Mechanical IR Cut Filter
- WDR: See Clearly in Shaded and Bright Light Conditions Simultaneously
- Privacy Mask, Motion Detection, Bit Rate Control, Multi-Streaming, Multicasting, Forensic Zooming, and Scaling
- On-Screen Display (OSD)
- Triple Encoder: H.265/H.264/MJPEG
- Network Protocols Include SNMP, HTTPS, IPv6, DHCP, 802.1x, and More

- All-in-One H.265/H.264 Total PoE Solution, PoE and Auxiliary Power: 12V DC
- Integrated IR Illumination with a Range of 50ft (15m) for Scenes with Low or No Ambient Light
- MicroSDXC Card Slot for Onboard Storage
- Outdoor Rated IP67 and IK-10 Impact-Resistant Housing
- Audio Microphone or Line In/Line Out
- On board and remote dewarpping. Onboard camera based, remote VMS based via AV Costar dewarp library
- Multiple On-Board Dewarping View Modes
- NDAA and TAA Compliant
- Built-in Microphone

ONVIF | SGTM

ConteraIP® Fisheye Megapixel Camera

Specifications

Camera Imaging Specifications

Model		AV12CFE-250
Image Sensor		12MP CMOS Progressive Sensor
Optical Format		1/1.7"
Minimum Illumination	Color (Day Mode)	0.3 Lux
	B/W (Night Mode)	0.09 Lux, IR sensitive
Full FOV Resolution		4000 H x 3000 V 12MP (2992 H x 2992 V 9MP effective)
Scaling *(See Scaling Resolutions Below)*		Yes
IR Illumination		Yes
Dynamic Range		100dB Digital WDR
Frame Rates*	Single Stream	Up to 30fps Max Resolution All Stream 1 Dewarp Modes H.265/H.264
	Dual Streams	Up to 15fps Max Resolution All Stream 1 Dewarp Modes H.265/H.264 + 15fps Max Resolution All Stream 2 Dewarp Modes H.265/H.264
Lens	Fisheye Lens	1.97mm, F2.3, H-FOV 180°, V-FOV 180°

Programmability

Optics	Fisheye Lens
Low-Light Performance	NightView™ technology
	IR Illuminators
Programmable Shutter Speed	Auto/Manual, shutter time: 1 ~ 1/100000s
Motion Detection	Up to 5 Areas
Privacy Masking	Up to 5 Areas
Backlight Compensation	Auto
White Balance Mode	Auto/manual
Gain Control	Auto
Image Rotation	Horizontal and Vertical Mirror (Independent or Combined)

Scaling	Stream 1	**Ceiling Perspective** **Fisheye Overview:** 2992x2992, 2048x2048, 1280x1280 **PTZ:** 2048x2048, 2048x1536, 1920x1080 **Quad View:** 3584x2688, 3584x2016, 2048x2048, 2048x1536, 1920x1080 **Panorama:** 4096x1024, 3584x1008, 2560x720 **Double Panorama:** 3584x2688, 3584x2016, 2560x1920, 2560x1440 **Panorama PTZ:** 3584x1344, 2560x960, 1920x720 **Double Panorama PTZ:** 3584x2688, 2560x1920, 1920x1440
		Wall Perspective **Fisheye Overview:** 2992x2992, 2048x2048, 1280x1280 **PTZ:** 2048x2048, 2048x1536, 1920x1080 **Panorama:** 3584x1344, 3584x1008, 2560x960, 2560x720, 1920x1080 **Double Panorama:** 3584x2688, 3584x2016, 2560x1920, 2560x1440
	Stream 2	**Ceiling Perspective** **Fisheye Overview:** 2992x2992, 2048x2048, 1280x1280, 960x960 **PTZ:** 2048x2048, 1920x1080, 1280x1280, 960x960 **Quad View:** 2560x1920, 2560x1440, 2048x2048, 2048x1536, 1920x1080, 960x960 **Panorama:** 2560x720, 2048x512 **Double Panorama:** 2560x1920, 2560x1440 **Panorama PTZ:** 2304x864, 1920x720, 1280x480 **Double Panorama PTZ:** 2048x1536, 1024x768
		Wall Perspective **Fisheye Overview:** 2992x2992, 2048x2048, 1280x1280, 960x960 **PTZ:** 2048x2048, 1920x1080, 1280x1280, 960x960 **Panorama:** 2560x960, 2560x720, 1920x1080, 960x540 **Double Panorama:** 2560x1920, 2560x1440
Wide Dynamic Range		100dB Digital
Miscellaneous		Color saturation, brightness, sharpness, contrast, white balance, day/night threshold, exposure control (including automatic gain control), hue, GOP length
On-Screen Display (OSD)		Time / Date / Camera Name / Custom Text
Display/Dewarp Modes		Fisheye Overview, PTZ, Quad View, Panorama, Double Panorama, Panorama PTZ, Double Panorama PTZ

Programmability (Cont.)

Standard Video Analytics[1]	Motion Detection
	Camera Tamper
	Intrusion Detection
	Line Crossing
	Loitering
Optional Advanced Video Analytics[1]	Object Classification (Person/Vehicle)[2]
	Object Left/Removed[2]
	People/Vehicle Counting[2]

Data Transmission

Compression Type	H.265/H.264 (MPEG-4, Part 10)/Motion JPEG
Bit Rate Control	**Stream 1:** Variable 500-12000 Kbps; Max 500-11000 Kbps; Constant 500-11000 Kbps **Stream 2:** Variable 500-8000 Kbps; Max 500-7000 Kbps; Constant 500-7000 Kbps
Transmission Protocols	TCP/IP, UDP, ICMP, IPv4, IPv6, SNMP v2c/v3, QoS, HTTP, HTTPS, SSH, SSL, SMTP, FTP, RTSP, UPnP, DHCP, DNS, NTP, RTP, RTCP, DynDNS support, 802.1x
	10/100Base-TX Auto-adaptive Ethernet network interface, RJ45
Multi-Streaming	2 x H.265/H.264 stream, 1 x M-JPEG stream
Users	Live viewing/Administrator for up to 31 clients

Event Management

Event Trigger	Motion Detection, Alarm Handler, Tampering Alarm, Network Failure
Notifications	Trigger Alarm Output, E-mail, SMTP, FTP, Record Video to SD Card and Network Storage

Compliance

Industry Standard	ONVIF Profile S, G, T, M conformant
Listings	UL 62368-1, E489591
FCC Compliance	47 CFR FCC Part 15B Class A
Environmental	RoHS, WEEE
Markings	**CE:** EN55032, EN55035,EN61000-3-2,EN61000-3-3 Class A
Mechanical	IK-10 (IEC62262), IP67 (IEC60529)

1. Analytics are not designed for heavy traffic locations such as roads and intersections
2. Requires Optional Advanced Video Analytic License

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Environmental

Operating Temperature	-40°C (-40°F) to 55°C (131°F)
Humidity	0% to 90% (non-condensing)

General Electrical

Alarm Input/Output	1 x input (wet contact)/1 x output (wet contact)
Power Over Ethernet	PoE IEEE 802.3at, Class 4
	Total PoE solution (no external power requirement)
Auxiliary Power	12VDC
Power Consumption	15W max

IR Illuminator

LEDs	6pcs, independently configurable
Projection Distance	50ft (15m) max

Audio Electrical

Streaming	Two-way
Compression	G.711 PCM 8 kHz/16 bits (A-Law/µ-Law)
Input/Output	Built In Microphone - Line Input* / Line Output

Mechanical

|		
Casing	Die-cast aluminum chassis with polycarbonate dome bubble	
Mounting Options	Ceiling, Wall	
Dimensions *(See Dimensions)*	Unit	Ø5.14" (130.5mm) x 2.24" H (57mm)
	Packaged	5.63" H (143mm) x 6.14" W (156mm) x 6.14" L (156mm)
Weight	Unit	1.45lbs (0.657kg)
	Packaged	1.92lbs (0.87kg)
On Board Storage	MicroSDXC slot up to 1TB (card not included)	
Body Color	AV Costar White (Pantone® Cool Gray 1C)	

Dimensions

Ø5.14" (130.5mm)   **2.24"** (57mm)

AV-PMJB-W   AV-WMJB-W

CLD-CAP-W

AV12CFE-ADPT
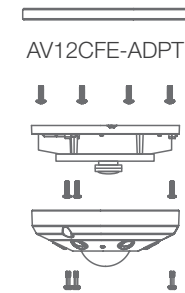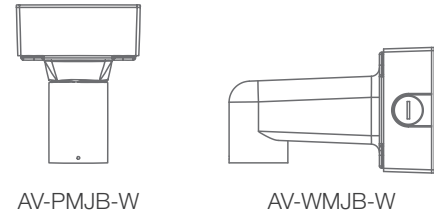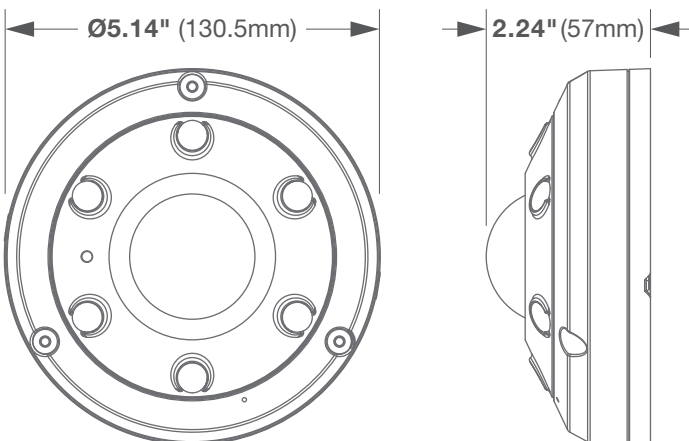
**Ceiling and Wall Mount
with Cap Options Assembly**

CLD-JBA-W

AV12CFE-ADPT
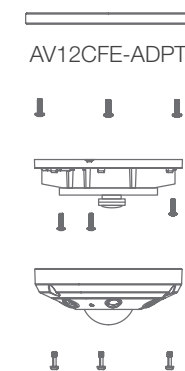
Junction Box Assembly

* Requires Amplification

See Next Page for Ordering Information

Model Numbers

12MP	AV12CFE-250	WDR

Optional Advanced Video Analytics License

C-SEC-ADV-1	ConteraIP Advanced Security Analytics Single Sensor License

Accessories

AV12CFE-ADPT	ConteraIP 2nd Gen Fisheye Mount Adapter (AV Costar White)
AV-CRMA-W	Corner Mount Adapter (AV Costar White)
AV-EBAPR	Electrical Box Adapter Plate (AV Costar White)
AV-PMA-W	Pole Mount Adapter (AV Costar White)
AV-PMJB-W	Pendant Mount Bracket with Standard Junction Box (AV Costar White) *(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*
AV-WMJB-W	Wall Mount Bracket with Standard Junction Box (AV Costar White) *(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*
CLD-CAP-W*	Mounting Cap for ConteraIP Outdoor Dome (AV Costar White)
CLD-JBA-W*	ConteraIP Outdoor Dome Round Junction Box (AV Costar White)

Configurations

Surface mount dome

Create Your Model   (Example: AV12CFE-250)

Megapixel Resolution	Contera Product Line	Body Type

AV → **12** → **C** → **FE** → **-250**

FE: Fisheye Dome

-250: Single-Sensor Panoramic Fisheye

* Requires AV12CFE-ADPT

AV COSTAR™

Rev 002.003

CE