FCS-3095 v3

FCS-3095 is a fisheye network camera capable of providing a 360-degree panoramic image of its surveillance scene. The progressive scan CMOS sensor provides high-resolution images of up to 3504 × 3504..

- Heatmap: based on deep learning algorithms, the camera counts people and presents an intuitive map
- Multi dewarping modes: the image can be dewarped to normal image for viewing intuitively
- Built-in mic and speaker: the camera supports two-way audio for real-time audio security monitoring and communication
- Built-in IR light: an IR range of 15 meters provides good visibility in low or even zero-light environments
- High resolution 12 MP: capturing clear images even when dewarped into 4-image PTZ mode
- Each image is clear and detailed
- Panomorph lens RPL: 89VVT

▪ Specification

Camera	
Image Sensor	1/1.7" Progressive Scan CMOS
Max. Resolution	3504 × 3504
Min. Illumination	Color: 0.03 Lux @ (F2.2, AGC ON), B/W: 0.006 Lux @ (F2.2, AGC ON), 0 Lux with IR
Shutter Time	1 s to 1/100,000 s
Day & Night	IR Cut Filter
Lens	
Focal Length & FOV	1.29 mm, Horizontal FOV: 180°, vertical FOV: 180°
Lens Mount	M12
Aperture	F2.2
DORI	
DORI	D: 27.9 m, O: 11.1 m, R: 5.6 m, I: 2.8 m
Illuminator	
Supplement Light Type	3 IR LEDs, each LED is independently controlled
Supplement Light Range	Up to 15 m
IR Wavelength	850 nm
Smart Supplement Light	Yes
HEOP	
Open Resources	Memory: 60 MB, Smart RAM: 800 MB, eMMC: 2 GB
Computing Power	2 TOPS
Open Capability	HEOP 2.0 OpendevSDK
Deep Learning Structure	Caffe,PyTorch,TensorFlow
Programming Language	C,C++
Video	
Main Stream	Fisheye View: 3504 × 3504, 3024 × 3024, 2560 × 2560, 2048 × 2048 180 Panorama View: 3072 × 2304, 3072 × 1152 180 dual channel panorama: 3072 × 1152, 2560 × 960 Panorama View: 3072 × 2304, 3072 × 1152 4PTZ: camera 01: 1600 × 1200 camera 02: 1600 × 1200 camera 03: 1600 × 1200 camera 04: 1600 × 1200 Fisheye + 3PTZ: camera 01: 2560 × 2560, 2048 × 2048, 1280 × 1280 camera 02: 1600 × 1200 camera 03: 1600 × 1200 camera 04: 1600 × 1200 4 PTZ Fusion: 3200 × 2400, 1600 × 1200,, 1280 × 960, 1024 × 768

Sub-Stream	Fisheye View: 720 × 720, 480 × 480 180 Panorama View: 640 × 360, 320 × 240 180 dual channel panorama: 640 × 360, 320 × 240 Panorama View: 640 × 360, 320 × 240 Fisheye + 3PTZ: camera 01: 720 × 720 camera 02: not supported camera 03: not supported camera 04: not supported
Video Compression	Main stream: H.265+/H.265/H.264+/H.264 Sub stream: H.265/H.264/MJPEG
Video Bit Rate	32 Kbps to 16 Mbps
H.264 Type	Baseline Profile/Main Profile/High Profile
H.265 Type	Main Profile
Scalable Video Coding (SVC)	H.265 and H.264 encoding
Region of Interest (ROI)	4 fixed regions for main stream and sub-stream
Fisheye Display	
Mount Type	Support table, wall, and ceiling mounting
Decoding Mode	Support hardware decoding and software decoding
Display Mode	20 display modes in total, Software decoding: fisheye view, 180 panorama view, 360 panorama view, 360 panorama + PTZ, 360 panorama + 3PTZ, 360 panorama + 6PTZ, 360 panorama + 8PTZ, 2PTZ, 4PTZ, fisheye + 3PTZ, fisheye + 8PTZ, hemisphere, AR hemisphere, cylinder, Hardware decoding: fisheye view, 180 panorama view, 180 dual channel panorama, panorama view, 4PTZ, fisheye + 3PTZ, 4PTZ fusion
Audio	
Audio Type	Mono sound
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM/MP3/AAC-LC
Audio Bit Rate	64 Kbps（G.711）/16 Kbps（G.722.1）/16 Kbps（G.726） 32~192 Kbps(MP2L2) /16~64 Kbps（AAC）
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/48 kHz
Environment Noise Filtering	Yes
Network	
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, SFTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS, IPv4, IPv6, UDP, Bonjour, SSL/TLS, ISUP, ARP, WebSocket, WebSockets
Simultaneous Live View	Up to 20 channels
API	Open Network Video Interface (Profile S, Profile G, Profile T), ISAPI, SDK, ISUP
User/Host	Up to 32 users. 3 user levels, administrator, operator and user

Security	Password protection, complicated password, HTTPS encryption, 802.1X authentication (EAP-TLS, EAP-LEAP, EAP-MD5), watermark, IP address filter, basic and digest authentication for HTTP/HTTPS, WSSE and digest authentication for Open Network Video Interface, RTP/RTSP over HTTPS, control timeout settings, security audit log, TLS 1.2, host authentication (MAC address)
Network Storage	NAS (NFS, SMB/CIFS), auto network replenishment (ANR), CVR, NVR,Together with high-end memory card, memory card encryption and health detection are supported.
Web Browser	Chrome 57+, Firefox 52+, Safari 12+
Image	
Image Settings	Saturation, brightness, contrast, sharpness, AGC and white balance are adjustable by client software or web browser
Day/Night Switch	Day/Night/Auto/Schedule/Triggered by Alarm In
Wide Dynamic Range (WDR)	Digital WDR
Image Enhancement	BLC, HLC, defog, 3D DNR
Picture Overlay	LOGO picture can be overlaid on video with 128 × 128 24bit bmp format
Interface	
Ethernet Interface	1 RJ45 10 M/100 M/1000 M self-adaptive Ethernet port
On-Board Storage	Built-in memory card slot, support microSD/microSDHC/microSDXC/TF card, up to 256 GB
Built-in Microphone	Yes, 2 built-in microphone(s)
Built-in Speaker	Yes, 1 built-in speaker(s)
Audio	1 input (line in), 3.5 mm connector, max. input amplitude: 3.3 Vpp, input impedance: 4.7 KΩ, interface type: non-equilibrium, 1 output (line out), 3.5 mm connector, max. output amplitude: 3.3 Vpp, output impedance: 100 Ω, interface type: non-equilibrium
Alarm	1 input, 1 output (max. 24 VDC, 1 A)
RS-485	1 RS-485 (Half duplex, Pelco-P, Pelco-D, self-adaptive)
Reset Key	Yes
Event	
Basic Event	Motion detection, video tampering alarm, exception (network disconnected, IP address conflicted, illegal login, HDD full, HDD error)
Smart Event	Line crossing detection, intrusion detection, region entrance detection, region exiting detection, unattended baggage detection, object removal detection, audio exception detection
Linkage	Upload to FTP/NAS/memory card, notify surveillance center, send email, trigger alarm output, trigger recording *For people counting, heat map, and intersection analysis, only notifying surveillance center is supported.

Deep Learning Function	
People Counting	Counts people entering, exiting and passing by separately (The data is stored in the flash.) Supports real-time uploading and uploading by statistic cycle Sends email reports on daily, weekly, monthly or annually basis Supports up to 3 detection regions, and independent arming schedule and linkage method
Heat Map	A graphic description of visits (calculated by people number or by dwell time) in a configured area. Two heap map report types are available, space heat map and time heat map line chart
Queue Management	Supports up to 8 detection regions, and independent arming schedule and linkage method Supports 2 detection modes: regional people queuing-up, waiting time detection Generates reports to compare the efficiency of different queuing-ups and display the changing status of one queue Supports raw data export for further analysis Supports real-time data uploading and scheduled data uploading Regional people queuing-up: supports 4 alarm trigger conditions, including greater than threshold, less than threshold, equal to threshold, not equal to threshold Waiting time detection: supports 1 alarm trigger condition, including greater than threshold
Intersection Analysis	Detects and analyze flow in an intersection-like scene, and generate reports Support one intersection of up to 10 ways
General	
Power	12 VDC ± 20%, 0.75A, max. 9 W,two-core terminal block, PoE: IEEE 802.3af, Class 3, max.10 W
Material	Metal
Dimension	167.4 mm × 152.8 mm × 55 mm (6.6" × 6" × 2.2")
Package Dimension	260 mm × 230 mm × 135 mm (10.2" × 9.1" × 5.3")
Weight	Approx. 700 g (1.54 lb.)
With Package Weight	Approx. 1274 g (2.81 lb.)
Startup and Operating Conditions	-40 °C to +60 °C (-40 °F to +140 °F). Humidity 95% or less (non-condensing)
Language	33 languages: English, Russian, Estonian, Bulgarian, Hungarian, Greek, German, Italian, Czech, Slovak, French, Polish, Dutch, Portuguese, Spanish, Romanian, Danish, Swedish, Norwegian, Finnish, Croatian, Slovenian, Serbian, Turkish, Korean, Traditional Chinese, Thai, Vietnamese, Japanese, Latvian, Lithuanian, Portuguese (Brazil), Ukrainian
General Function	Anti-flicker, heartbeat, mirror, flash log, password reset via email, pixel counter, password protection, one-key reset,
Heater	Yes

Approval	
EMC	CE-EMC: EN 55032:2015+A1:2020, EN 50130-4:2011+A1:2014, EN IEC 61000-3-2:2019+A1:2021, EN 61000-3-3:2013+A1:2019+A2:2021, EN 50121-4: 2016+A1:2019, RCM: AS/NZS CISPR 32: 2015, IC: ICES-003: Issue 7, KC: KN32: 2015, KN35: 2015
Safety	UL: UL 62368-1, CB: IEC 62368-1: 2014+A11, LOA: IEC/EN 60950-1, CE-LVD: EN 62368-1: 2014/A11: 2017, BIS: IS 13252 (Part 1): 2010/IEC 60950-1: 2005
Environment	CE-RoHS: 2011/65/EU, WEEE: 2012/19/EU, Reach: Regulation (EC) No 1907/2006
Protection	IP67: IEC 60529-2013, IK10: IEC 62262:2002
Anti-Corrosion Protection	NEMA 4X (NEMA 250-2018)

▪ Available Model

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▪ Typical Application

LevelOne products are classified into three levels according to their anti-corrosion performance. Refer to the following description to choose for your using environment.

This model has NO SPECIFIC PROTECTION.

Level	Description
Top-level protection	LevelOne products at this level are equipped for use in areas where professional anti-corrosion protection is a must. Typical application scenarios include coastlines, docks, chemical plants, and more.
Moderate protection	LevelOne products at this level are equipped for use in areas with moderate anti-corrosion demands. Typical application scenarios include coastal areas about 2 kilometers (1.24 miles) away from coastlines, as well as areas affected by acid rain.
No specific protection	LevelOne products at this level are equipped for use in areas where no specific anti-corrosion protection is needed.