



# CM93 PTZ CAMERA 4K60 30X ZOOM



## The standard in 4K60 PTZ cameras

The CM93 is the most versatile PTZ camera from Avonic, delivering 4K Ultra HD output at 60fps. Designed for fixed installations, the CM93 comes with a powerful 30x zoom in 4K Ultra HD and an impressive 50x zoom in Full HD, setting the new standard in ultra-low latency performance. With a 59.2° wide-angle lens and simultaneous HDMI 2.0, 3G-SDI, USB 2.0, and IP stream outputs, this camera offers unparalleled versatility. The CM93 is also a popular choice in rental environments, often used for large conferences, live events, and broadcast settings where reliability and image quality are critical

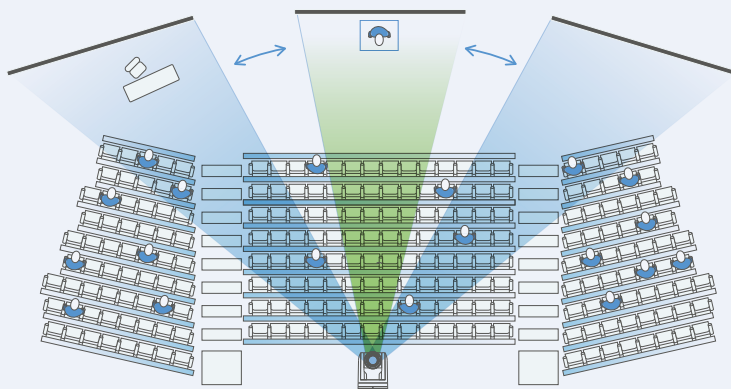
## Fast over IP

Distribute high-quality video over IP, fast and reliable with close to zero latency. This new standard in ultra-low latency encoding, using open standards like H.264 and HVEC, is the closest thing to real-time available on the market today. Less delay means a better experience for everyone watching. From streaming and recording lectures and large conferences to healthcare applications

## Features

- 4K60
- Pan, Tilt, Zoom
- 30x zoom (4k), 50x zoom (HD)
- IP, NDI, Dante, SRT
- Tracking
- Broadcast image quality

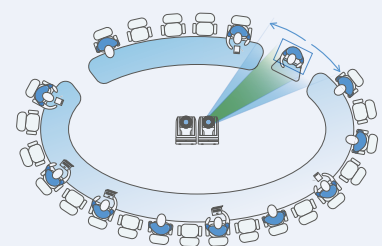
## TRACKING FEATURES



Hybrid Tracking



Presenter Tracking



Conference Tracking

# SPECIFICATIONS

## Camera

<b>Resolution</b>	Up to 4K60
<b>Video Systems HDMI</b>	2160p60, 2160p59, 2160p50, 2160p30, 2160p25, 1080p60, 1080p59, 1080p50, 1080i60, 1080i59, 1080i50, 1080p30, 1080p29, 1080p25, 720p60, 720p59, 720p50
<b>Video Systems SDI</b>	1080p60, 1080p59, 1080p50, 1080i60, 1080i59, 1080i50, 1080p30, 1080p29, 1080p25, 720p60, 720p59, 720p50
<b>Sensor</b>	Sony 1/1.8", 8.42MP, 16:9 High SNR CMOS Sensor
<b>Shutter</b>	Auto/ Manual 1/60th ~ 1/10000th
<b>Scanning mode</b>	Progressive/ Interlace
<b>Zoom/Aperture/Focal length</b>	30x zoom (4k)*, 50x zoom (HD)* / F1.6 ~ F11/ 7mm ~ 172mm (+/-5%)
<b>Minimal Illumination</b>	0.05LUX @F1.6
<b>White Balance</b>	Auto, Manual, One Push, Manual 2400 ~ 7100K in 100K steps
<b>Backlight Compensation</b>	Supported
<b>Digital Noise Reduction</b>	Supported
<b>Signal Noise Ratio</b>	>50 dB
<b>Horizontal FOV</b>	59.2° - 2.5°
<b>Vertical FOV</b>	34.6° - 1.4°
<b>Horizontal rotation</b>	+/- 170°
<b>Vertical rotation</b>	120° (30° down, 90° up)
<b>Pan speed range</b>	0.15° ~ 120° p/sec
<b>Tilt speed range</b>	0.15° ~ 70° p/sec
<b>H&amp;V image flip</b>	Supported
<b>Number of presets</b>	255 with 0.1° accuracy
<b>Control</b>	UVC, IR Remote, IP, Serial
<b>Control protocol</b>	PELCO (Serial), VISCA (Serial/ IP), HTTP API (IP)
<b>IP Features</b>	
<b>Video coding standard</b>	H.265 / H.264 / MJPEG
<b>H.264 Profiles</b>	Main
<b>H.264 Profiles</b>	Base, Main, High
<b>Main stream resolution</b>	3840x2160 / 1920x1080 / 1280x720
<b>Main stream max frame-rate</b>	60fps
<b>Main stream bitrate</b>	64 ~ 81920 Kbps
<b>Sub stream resolution</b>	1920x1080 / 720x480 / 640x480 / 640x360 / 320x240
<b>Sub stream max frame-rate</b>	30fps max
<b>Sub stream bitrate</b>	64 ~ 5120 Kbps
<b>Video bitrate type</b>	CBR, VBR
<b>Supported protocols</b>	RTSP, RTMP, ONVIF, SRT, Multicast, Unicast
<b>Audio standard</b>	AAC
<b>Audio bitrate</b>	32, 64, 96, 128 Kbps
<b>Audio sample rate</b>	48Khz
<b>Audio line in</b>	Balanced audio by 5-way Phoenix connector

## Input / Output Interface

<b>HDMI output</b>	HDMI 2.0 up to 4K60
<b>SDI output</b>	3G-SDI, 1080p60 max.
<b>USB Output</b>	USB2.0 Type B, 2160p30 max.
<b>Network interface</b>	RJ45 1 Gb.
<b>Serial interface</b>	RS232 mini DIN-8, RS485 2-pin phoenix

## General Specifications

<b>Input Voltage</b>	12V
<b>PoE</b>	PoE 802.3AT (PoE+) at 18 watt
<b>Power consumption</b>	18W
<b>Power supply</b>	12V2A
<b>Power connector</b>	EIAJ-4 - Philmore 255 plug
<b>Operating temperature</b>	-5°C ~ 35°C
<b>Storage temperature</b>	-20°C ~ 60°C
<b>Operating humidity</b>	20% ~ 95% non-condensing
<b>Bottom fastening screw thread</b>	1/4" 20 UNC
<b>Features</b>	SRT and Tally Light
<b>Color</b>	Black, White
<b>Dimensions product wtxhd</b>	300 x 235 x 300mm
<b>Weight product</b>	2.5 kg
<b>Dimensions box</b>	30 x 30 x 24 cm
<b>Weight box</b>	3.4 kg
<b>Included</b>	Power adapter, Remote control, RS232 cable, RS485 2-way Phoenix connector, Line-In 5-way Phoenix connector

## SKU'S

<b>Black</b>	CM93-IP-B • CM93-NDI-B • CM93-DAV-B
<b>White</b>	CM93-IP-W • CM93-NDI-W • CM93-DAV-W

## CM93-IP

<b>Video over IP</b>	H.265, H.264
<b>PTZ control over IP</b>	Visca over IP

## CM93-NDI

<b>NDI standard</b>	NDI® HX 2 & NDI® HX 3
<b>PTZ control over NDI</b>	Enable via WebGUI

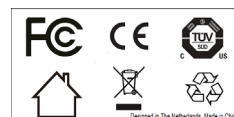
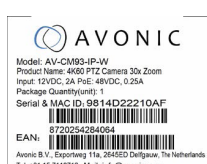
## CM93-DAV

<b>Dante standard</b>	Dante AV-H
<b>PTZ control over Dante</b>	Visca over IP

## License required features

<b>Feature</b>	Tracking
<b>Tracking distance</b>	2 meters minimum **
<b>License SKU</b>	AV-LC90-1
<b>License type</b>	Life-time License

## Product label markings



\*Avonic's Optimal Zoom  
 \*\* As distance increases, test the tracking behaviour before definitive implementation.