EIZO®

CuratOR® SC430-PTR
4K/60p Surgical Field Camera System

Ultra-High Definition Camera System
with Integrated Triaxial Mount
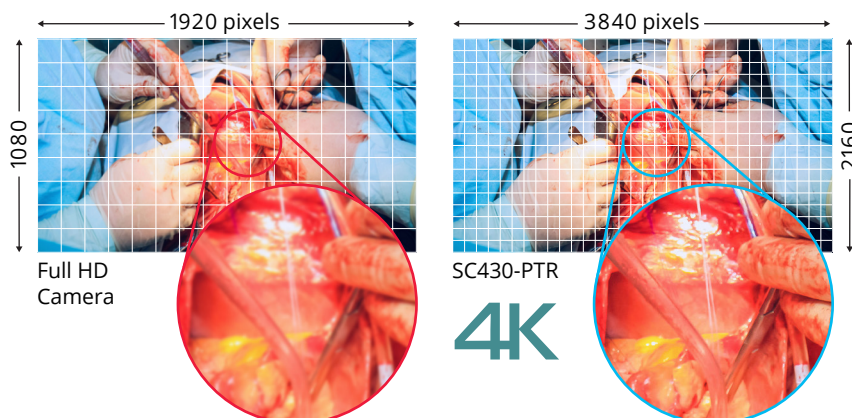for Capturing Surgical Proceedings

4K

Capturing surgical proceedings in detail is vital for various purposes. The CuratOR SC430-PTR clearly captures the surgical field in 4K UHD resolution, and comes fully integrated with a triaxial camera mount for versatile positioning.
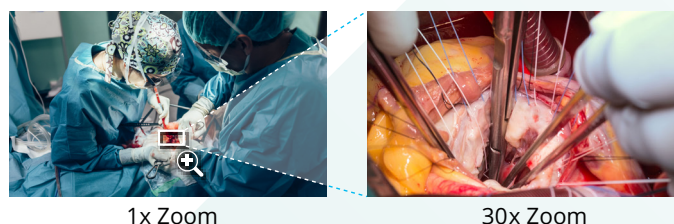
4K Ultra-High Definition Resolution

The surgical field camera captures images in 4K UHD resolution (3840 x 2160) with a progressive 60 Hz signal for smooth, high definition images of the surgical site.

1920 pixels

1080

Full HD Camera

3840 pixels

2160

SC430-PTR

4K

Zoom into Narrow Target Areas in Detail

The camera lens has up to 30x optical zoom, allowing the camera to easily zoom into small, target areas. Even when positioned at a safe distance, the camera can clearly zoom into and capture narrow surgical sites in detail.

1x Zoom

30x Zoom

Fully Integrated Camera Mount

The camera head comes fully integrated on a camera mount with +/-170 degrees pan, +90 to -30 degrees tilt, and +/-165 degrees roll to ensure that the field of view can be adjusted to the ideal location with ease.

+90°

-30°

+/-170°

+/-165°

Pan

Tilt
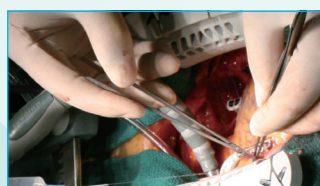
Roll

Smooth Positioning at High Zoom

With unique and intelligent stepping technology, as the camera zooms in, the pan, tilt, and roll movements slow down to prevent the field of view from moving too quickly. With easily controllable movements, even under high zoom, preparation for surgery is made quicker and easier.
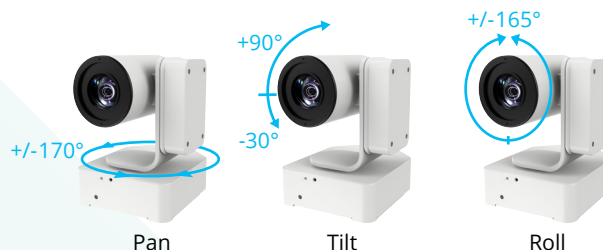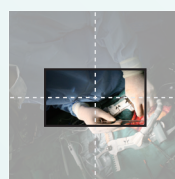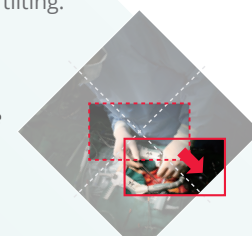
Movement

Without Stepping

With Stepping

Intuitive Panning and Tilting Direction

The camera head is integrated with the camera mount, allowing left and right, and up and down movements to remain parallel to the field of view, even after rolling. When panning or tilting, the camera head moves in relation to the field of view, rather than the position of the camera head like unintegrated cameras. This ensures intuitive and effortless panning and tilting.
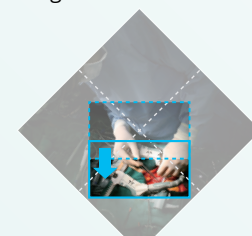
On typical camera mounts, roll and pan functions operate independently, which can sometimes make it difficult to move the camera in the intended direction.
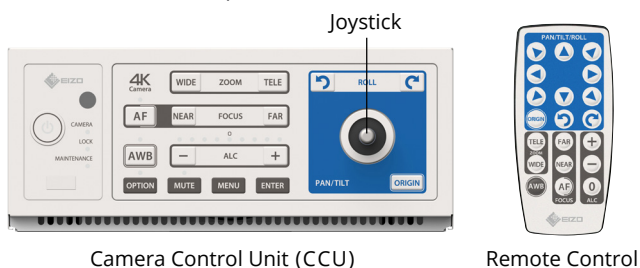
Preview

+

Without
Integrated Camera Mount
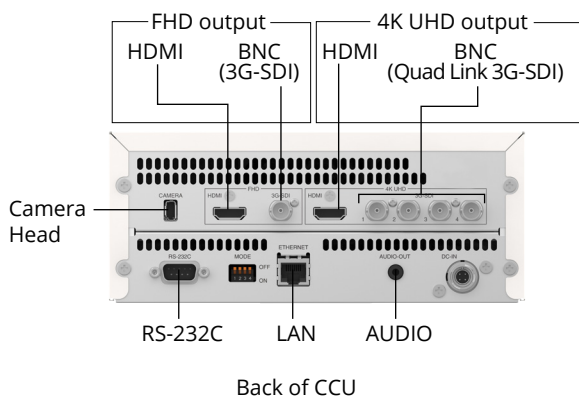
With
Integrated Camera Mount

Convenient Camera Control from Anywhere

Camera movement, focus, and white balance can be adjusted using the front panel of the Camera Control Unit (CCU), or the supplied wireless remote control. Additionally, the CCU panel and optional wired remote control come with a joystick for intuitive control. The camera can also be controlled from OR software, such as CuratOR Caliop.

Joystick

Camera Control Unit (CCU)

Remote Control

Versatile Connectivity

The SC430-PTR comes with 3G-SDI and HDMI output terminals, for outputting 4K or full HD video at 60p/50p.

FHD output
HDMI   BNC (3G-SDI)

4K UHD output
HDMI   BNC (Quad Link 3G-SDI)

Camera Head

RS-232C   LAN   AUDIO

Back of CCU

Voice Capture for Comprehensive Review

When reviewing surgical footage, audio is often required to hear how the doctors and nurses communicate. The SC430-PTR records sound at the same time as video, providing a high definition video with synced audio. This allows viewers to clearly hear and see the proceedings of a surgery.
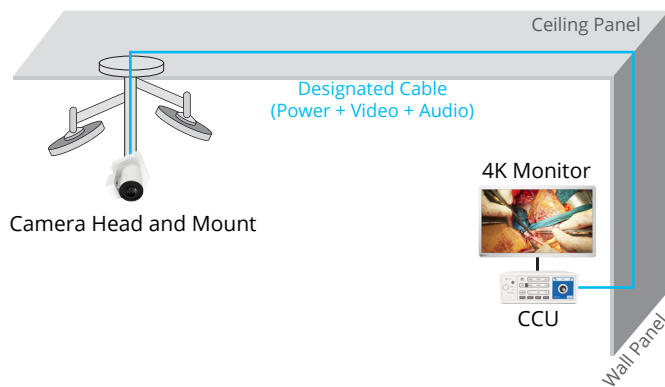
Obstruction-Free Viewing

Typical surgical field cameras attach to the center of surgical lights, where the surgeon's head or arms may obstruct the field of view. The SC430-PTR can be attached to designated ceiling arms, allowing it to be positioned independent of lighting to avoid possible obstructions.

One Cable Connection for Easy Installation

The integrated camera head and mount can be connected to the CCU via a single cable which not only supplies video and audio, but also power. This makes installation quick and easy, as well as reduces cable clutter.

Ceiling Panel

Designated Cable (Power + Video + Audio)

4K Monitor

Camera Head and Mount

CCU

Wall Panel

Installation Example

Easy Cleaning

The exterior can be safely sterilized with alcohol.

Rest Assured with Medical Qualifications

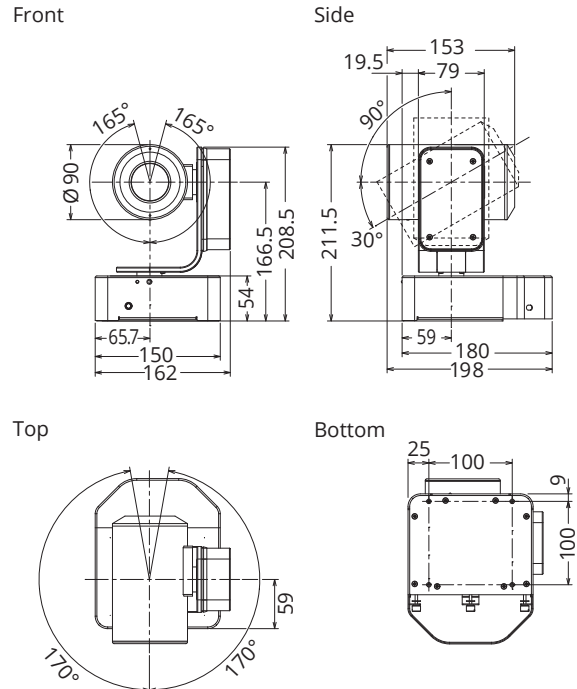The SC430-PTR meets strict medical, safety and EMC emission standards.
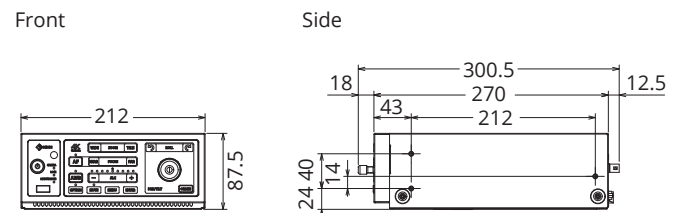
CuratOR® SC430-PTR

Specifications

Camera Head		
	Image Sensor	1/2.5 type CMOS, single chip type
	Effective Pixels	3840 x 2160
	Zoom	Optical 30x motorized zoom
	Focal Length (f=)	4.6 (W) - 135 (T) mm
	Horizontal Field of View (HFOV)	68 (W) - 2.6 (T) deg.
	Minimum Object Distance (M.O.D.)	1500 mm (throughout the zoom range) 1000 mm (with Close-up lens)
	Filter Diameter	72 mm
	Focus Control	Auto, Manual
	Iris Control	Auto, Manual
	Pan Range	+/-170 deg.
	Tilt Range	+90 / -30 deg.
	Roll Range	+/-165 deg.
	Pan Speed	8.6 - 0.05 deg/s, 7 steps
	Tilt Speed	8.6 - 0.05 deg/s, 7 steps
	Roll Speed	30 - 0.2 deg/s, 7 steps
	Built-in microphone	Yes
Features & Functions	Image Control	Auto Level Control (ALC), Center Weighting Metering, BT.2020 Emulation, White Balance, Sharpness
	Gain	Auto, Manual (0 - 45 db)
	Shutter Speed	[59.94 Hz output] 1/60 - 1/10000 [50 Hz output] 1/50 - 1/10000
	Picture Flip	Normal, Flip
Video Format	4K UHD	HDMI: 2160/59.94p, 2160/50p
		SDI: 2160/59.94p, 2160/50p
	FHD	HDMI: 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i
		SDI: 1080/59.94p, 1080/59.94i, 1080/50p, 1080/50i
General	Output Terminals	HDMI x2, BNC (Quad Link 3G-SDI), BNC (3G-SDI), Audio
	Remote Control	LAN, RS-232C, IR remote
	Power Requirements	DC 24 V (bundled AC adapter)
	Maximum Power Consumption	55 W
	Dimensions	Camera Head and Mount: 162(W) x 211.5(H) x 198(D) mm (with cable cover)
		Camera Control Unit: 212(W) x 87.5(H) x 270(D) mm (without projection and rubber feet)
	Net Weight	Camera Head and Mount: 3.1 kg (with cable cover)
		Camera Control Unit: 2.9 kg
	Hole Spacing	Camera Mount: 100 x 100 mm
	Operating Temperature	Camera Head and Mount: 0 - 40°C
		Camera Control Unit: 0 - 40°C
	Operating Humidity	20 - 80%RH
	Certifications & Standards	IEC60601-1, CE, CB, FCC-A, CAN ICES-3 (A), RoHS, WEEE
	Supplied Accesssories	AC adapter, AC power cord (2 m), Camera cable (25 m), IR remote, Rubber feet x 4, ND filter, Close-up lens, Cable cover, Thread-locking fluid, Instructions for Use, Quick Reference
	Warranty	2 Years

Dimensions (Unit : mm)

Camera Head and Mount

Front

Side

Top

Bottom

Camera Control Unit (CCU)

Front

Side

Accessory

The Ideal Cable for Compact Environments

A 5 meter camera cable for connecting the SC430-PTR Camera Head to the Camera Control Unit (CCU). The short length is perfect for compact environments where the camera and CCU are positioned near each other, to eliminate surplus cable length.

Short Camera Cable for Surgical Field Camera System

SCC500