

# Ikegami



3CMOS FULL HD Medical Grade Camera

# MKC-X300

Experience the pinnacle of visual clarity and brilliance



Immerse yourself in the unparalleled clarity and brilliance of the latest MKC camera series.

3CMOS FULL HD Medical Grade Camera

# MKC-X300

High Sensitivity & Outstanding Image Crispness



## FEATURES & FUNCTIONS

### Brilliantly Bright & Crystal-clear Image

Equipped with 1/2.8-inch CMOS sensors, the MKC-X300 camera system delivers remarkable sensitivity at F13/2000lux and an impressive S/N ratio of 63 dB. This outstanding sensitivity and signal-to-noise ratio enables you to capture exceptionally clear and bright images, even in low-light surgical conditions. Augmenting further sensitivity is achievable through the use of Hyper Gain, Line Mix, and Pixel Mix functions.

### Image Enhancement Functions

The MKC-X300 offers advanced image enhancement functions that harness the state-of-the-art Ikegami video processing algorithm to achieve optimal video images across diverse procedures and specialties.

#### 16-axis Color Correction

Colors are readily available for those who demand perfection. This function achieves precise and professional color fine-tuning by adjusting 16 color gamut axes, addressing both hue and saturation.



Original



After color correction

#### Chroma Correction

Designed to adjust color saturation across the entire image to optimize color vibrancy.

#### Sharpness Correction

Offers an enriched visual experience. Utilizing Ikegami's video processing algorithm for edge enhancement enables you to perceive finer details on the image.

#### Gamma Correction

The ability to match the monitor's gamma curves through gamma correction ensures the appropriate expression of image tones.

#### Flare Correction

Suppressing the white levels present in the darker areas of the image, facilitates clear visibility while maintaining an appropriate contrast.

### Scene File

Streamline your operations with a single touch.

Scene files provide the capability to preset up to four camera settings, whether they are frequently used or tailored to specific procedures, ready to be activated with a simple button press.

Additionally, scene file settings can be stored and loaded via a USB flash drive for added convenience.



### Function Switch

The F1 and F2 buttons are customizable to accommodate frequently used functions for quick and convenient access.

### Antibacterial Coating

An antibacterial coating has been applied to the camera head and CCU to continuously mitigate bacterial growth.

### Fluorescein Mode

Featuring a fluorescein mode, the MKC-X300 empowers the clear capture of fluorescent spots during ophthalmological slit lamp fluorescein testing. This function also allows the reduction of excitation light color and offers the convenience of color tone adjustments during fluorescein mode, with easy switching options assignable to a function button or through a foot switch.

### Compact and Lightweight Camera Head

The compact and lightweight camera head is a perfect choice for applications with limited space, such as when integrated with a microscope.





## Freeze Function

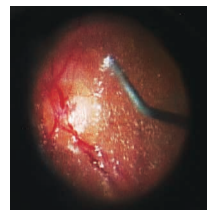
The capability to freeze the image allows for detailed examination in a high-quality still image. The Freeze function can be programmed to the function switch on the CCU or activated using the optional foot switch.

## Automatic Exposure Control

Featuring an electronic shutter function that continuously optimizes image brightness based on subject illumination, you can achieve precise exposure control. When paired with a microscope adapter supporting auto iris, it maintains the appropriate brightness through optical aperture control. Furthermore, the combination of a novel auto gain control method and electronic shutter allows for extensive exposure adjustments.

## Flip and Turn Function

To address optical inversion resulting from optical equipment, it incorporates digital processing technology to flip the monitor image correctly, both vertically and horizontally. Additionally, remote control is achievable using an optional foot switch.



Original Image



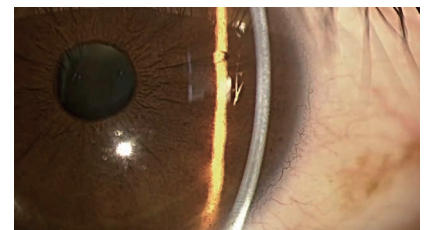
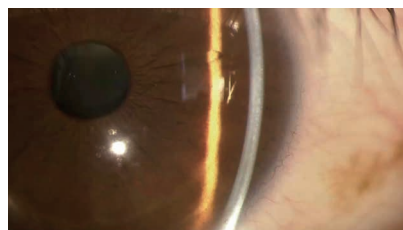
Flip + Rotation

## Extra Functions (Option)

Beyond the standard image enhancement functions, the MKC-X300 introduces additional functions that elevate image enhancement to a higher level.

### Advanced Sharpness

Boosting color contrast around edges enhances the clarity of texture perception.

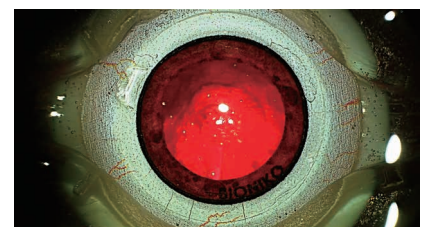
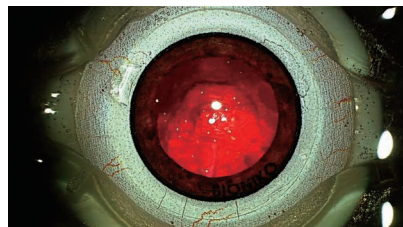


### Picture Effect

A distinct image processing technique is utilized to improve the visibility of the subject.

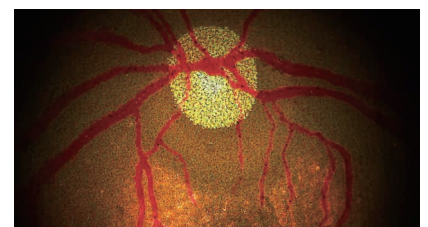
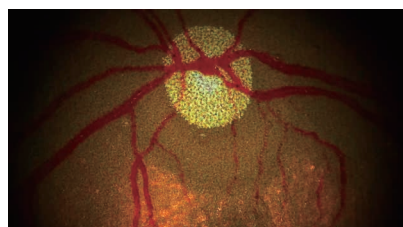
#### • Contrast Correction

Images become more viewer-friendly thanks to a contrast correction function that compresses the high-brightness area, elongates darker portions, and minimizes color distortion.



#### • Blood Vessels Highlight

Highlighting the patterns of blood vessels and the surface layer of mucous membranes enhances visual perception of the image.



\* Images are for demonstration purposes.

# Specifications

## Ratings

Optics	RGB prism
Image Pickup Device	1/2.8-inch CMOS sensor x3
Lens Mount	C-Mount
Output Signal	SDI x2
	1920x1080i/p, 59.94/50Hz
	HDMI x1
External Reference	1920x1080i/p, 59.94/50Hz
	HDTV Tri-Sync 1ch
Camera Cable	5m, 7m, 5+10m
Dimensions	Head: W34xH40xD40mm
	CCU: W210xH58xD270mm
Weight	Head: 100g or less
	CCU: 2.0kg or less
Power Requirement	AC100V-240V, 50Hz/60Hz
Power Consumption	40W or less
Operating Environment	Temperature: 0°C~+40°C
	Humidity: 30~90% (no condensation)
Input Signal	RS-232C, FOOT SW
Standards	EN60601-1, ANSI/AAMI ES60601-1

## Function

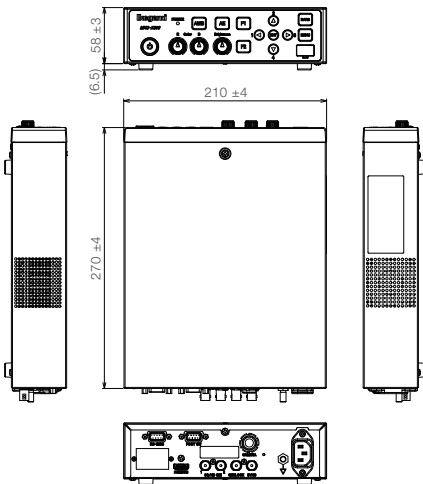
Electronic Shutter	OFF - 1/10,000s
Slow Shutter	59.94Hz : 1/30-1/4s 50Hz : 1/25-1/3s
Gain	Max. 33dB
Automatic Functions	Auto White Balance (AWB/ATW)
	Auto Gain Control
	Auto Shutter Control
	Auto Iris Control
	Auto Knee Control
Auto Flare Control	
Photometric Measurement Area	NARROW/MIDDLE/CIRCLE/USER
Digital Zoom	Max. x4 (in steps of x0.1)
Color Bar	On/Off button on the front panel
Color Correction (paint)	Red/Blue level adjustable via front CCU volume
Brightness Adjustment	Brightness level adjustable via front CCU volume
Accessories	AC power cable, Ferrite cores, Operation manual

## Performance

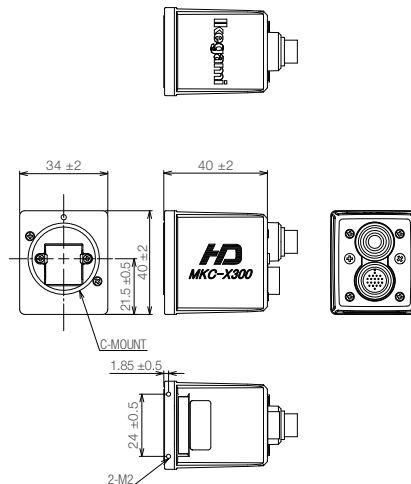
Resolution	1000 TV Line
S/N Ratio	63dB
Sensitivity	F13/2000 lx (Standard (1080p/59.94Hz) )
	F22/2000 lx (Hyper Gain ON)
	F26 equivalent/2000 lx (Line Mix, Pixel Mix ON)

## Dimensions (mm)

### ■CCU



### ■Camera Head



## Panel CCU Front•Rear



- CAUTION: Please read the operation manual carefully before use.
- CAUTION: This product is not a medical device.

## OPTIONAL ACCESSORIES

**Camera Cables**

- MCCMHPP-050 (5m)
- MCCMHPP-070 (7m)<sup>\*1</sup>

<sup>\*1</sup>: It is not compatible with the connection of other camera cables.

**Extension Cable**

- MCCMCJP-100 (10m)<sup>\*2</sup>

<sup>\*2</sup>: Intended for use with the MCCMHPP-050.

**Dual Foot Switch**  
OFLTV-SP

Design and specifications are subject to change without notice.

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