

Specifications

| Ratings                               |                                      |                                                        |
|---------------------------------------|--------------------------------------|--------------------------------------------------------|
| Optics                                | RGB prism                            |                                                        |
| Image Pickup Device                   | 1/2.8-inch CMOS sensor x3            |                                                        |
| Lens Mount                            | C-Mount                              |                                                        |
| Output Signal                         | 4K<br>3840 x 2160p<br>59.94/50Hz     | 12G-SDI x 4                                            |
|                                       |                                      | or                                                     |
|                                       |                                      | Quad Link 3G-SDI (2SI) x 1                             |
|                                       |                                      | HDMI* x 1                                              |
|                                       | HDTV<br>1920 x 1080i/p<br>59.94/50Hz | 3G or HD-SDI x 2<br>HDMI* x 1<br>DVI x 1               |
| Camera Cable                          | 5m, 7m, 5+10m                        |                                                        |
| Dimensions<br>(excluding protrusions) | Camera Head                          | W34 x H40 x D40mm<br>(W1.34 x H1.57 x D1.57 inches)    |
|                                       | CCU                                  | W210 x H88 x D274mm<br>(W8.27 x H3.46 x D10.79 inches) |
| Weight                                | Camera Head                          | 100g (0.22lbs) or less                                 |
|                                       | CCU                                  | 3.1kg (6.83lbs) or less                                |
| Power Requirement                     | AC100V~240V 50/60Hz                  |                                                        |
| Power Consumption                     | 72W or less                          |                                                        |
| External Control                      | RS-232C x 1                          |                                                        |
|                                       | FOOT SW x 1                          |                                                        |

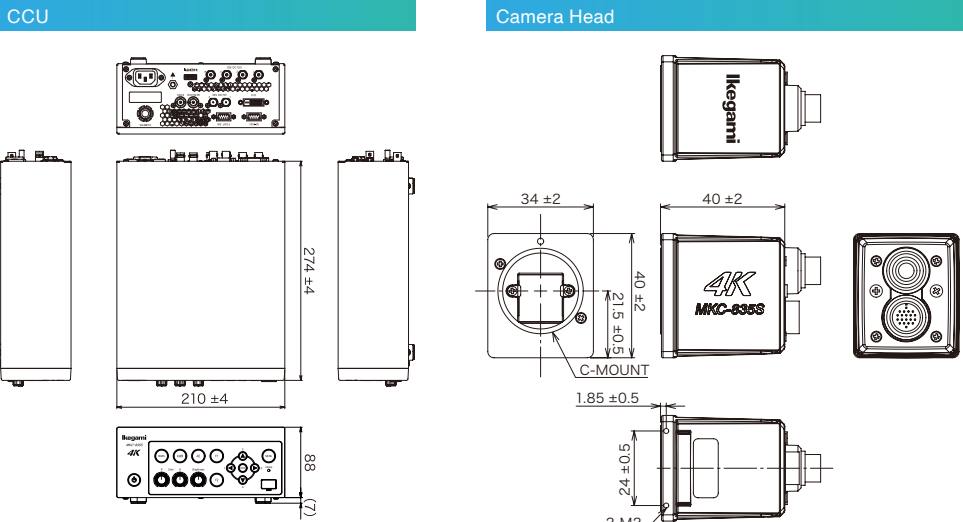
\*The 4K and HD HDMI outputs share the same port.

| Accessories                      |
|----------------------------------|
| AC power cable, Operation manual |

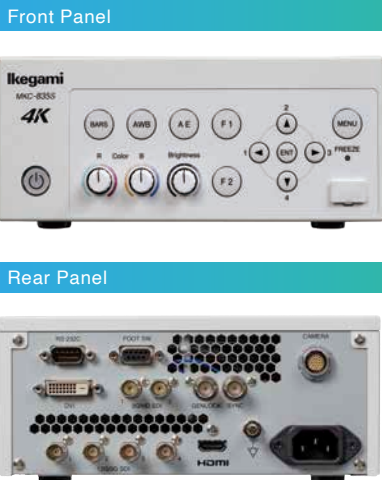
| Performance                  |                                                                  |
|------------------------------|------------------------------------------------------------------|
| Resolution                   | 1600TVL                                                          |
| S/N Ratio                    | 63dB                                                             |
| Sensitivity                  | F13/2000lx (Standard (Line Mix OFF))                             |
|                              | F22/2000lx (Hyper Gain ON)                                       |
|                              | F26 equivalent/2000lx (Line Mix, Pixel Mix ON)                   |
| 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 Iris Control               |
|                              | •Auto Gain Control                   •Auto Knee Control          |
|                              | •Auto Shutter Control               •Auto Flare Control          |
| Photometric Measurement Area | NARROW / MIDDLE / CIRCLE / USER<br>Select from the area settings |
| 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                 |

| Operating Environment  |                                                       |
|------------------------|-------------------------------------------------------|
| Temperature / Humidity | 0°C~+40°C (32 °F ~+104°F) / 30%~90% (no condensation) |

Dimensions (mm)



Panel CCU Front•Rear



●CAUTION: Please read the operation manual carefully before use.

Design and specifications are subject to change without notice.

Ikegami

4K

3CMOS HIGH-SENSITIVITY 4K CAMERA

MKC-835S

Visual Fidelity. Perfected in 4K.

4K | 3840×2160  
QUALITY

F26 equivalent | 2000lx  
SENSITIVITY





# Capture Every Detail in 4K —Even in Low Light

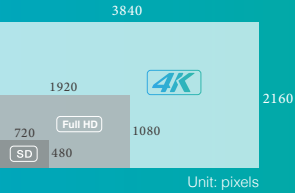
## 3CMOS HIGH-SENSITIVITY 4K CAMERA MKC-835S

### Superior 4K Image Quality

Featuring a 4K (3840 x 2160) digital processing system, the MKC-835S achieves four times the resolution of conventional Full HD (1920 x 1080) systems. A horizontal resolution of 1600 TV lines and an S/N ratio of 63 dB ensure exceptional image quality.

#### What is 4K?

4K provides a resolution of 3840 x 2160, which is four times that of Full HD (1920 x 1080). It delivers highly detailed and immersive images, enabling superior visual performance even on large displays where image quality beyond Full HD is required.



### High Sensitivity

Equipped with 1/2.8-inch CMOS sensors, the MKC-835S camera system delivers remarkable sensitivity at F13/2000lx \* and an impressive S/N ratio of 63 dB. This enables you to capture exceptionally clear and bright images, even in low-light surgical conditions. Sensitivity can be further enhanced using Hyper Gain, Line Mix, and Pixel Mix functions.

\* Standard setting (Line Mix OFF)

## FEATURES & FUNCTIONS

### Flexibility for Every Clinical Environment

The camera cable can be separated into a 5m section on the camera head side and a 10m section on the CCU side, allowing safe and efficient movement and installation of the surgical microscope and monitor cart. This camera system is also compatible with ceiling-mounted surgical microscopes. In addition, antibacterial coatings applied to both the camera head and CCU help suppress bacterial growth.

### Compact Design

Small and lightweight camera head. Designed for installation on surgical microscopes with limited space, without compromising operability.



### Image Enhancement Functions

The MKC-835S 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.

All Four Functions from the Previous Model Included as Standard

16-axis Color Correction

Chroma Correction

Gamma Correction

Flare Correction

#### Two New Standard Functions

Beyond the standard image enhancement functions, the MKC-835S introduces additional functions that elevate image enhancement to a higher level.

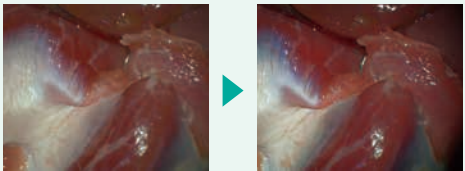
NEW

Picture Effect

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

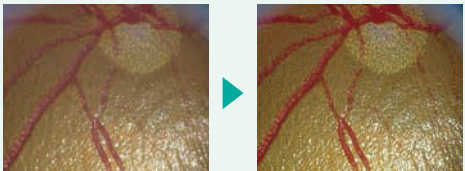
#### Contrast Correction\*

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



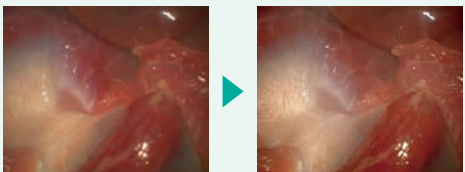
#### Blood Vessels Highlight\*

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



#### Defog\*

Improves image visibility by enhancing contrast in scenes affected by smoke or haze that cause a washed-out appearance.

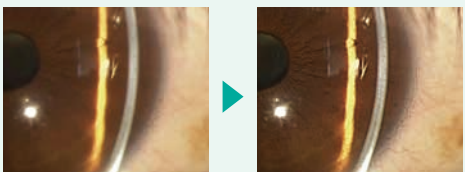


NEW

Advanced Sharpness

#### Edge Enhancement\*

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



### Scene File

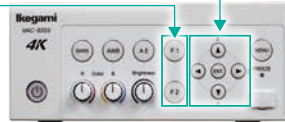
Streamline your operations with a single touch.

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.



### Fluorescein Mode

Featuring a fluorescein mode, the MKC-835S 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.

### 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.

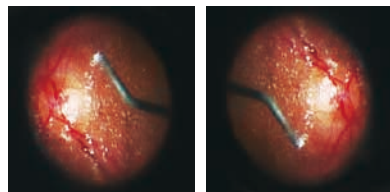
### Automatic Exposure Control

Featuring an electronic shutter function that continuously optimizes image brightness based on subject illumination, you can achieve precise exposure control.

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

## ACCESSORIES

#### Camera Cables

- MCCMHPP-050 (5m)
- MCCMHPP-070 (7m)\*1

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



#### Extension Cable

- MCCMCJP-100 (10m)\*2

\*2: Intended for use with the MCCMHPP-050.



#### Dual Foot Switch OFLT V-SP



#### Microscope Adaptor



\* Images shown are for illustrative purposes only.