

MKC-X800

4K+ NATIVE



Value for the new Generation

The new Generation

With MKC-210HD Ikegami offers one of the best single chip Full HD Cameras on the Market.

Now, nine years later, we once again prove that Ikegami is a leading manufacturer in the camera market with the all new and improved single chip Camera Generation

MKC-210HD

1/3" 1CMOS FULL HD
Ultra Compact Colour Camera

Since: 2010



NEW

MKC-X800



1/2.5" 1CMOS 4K Native Color Camera

Since: 2019



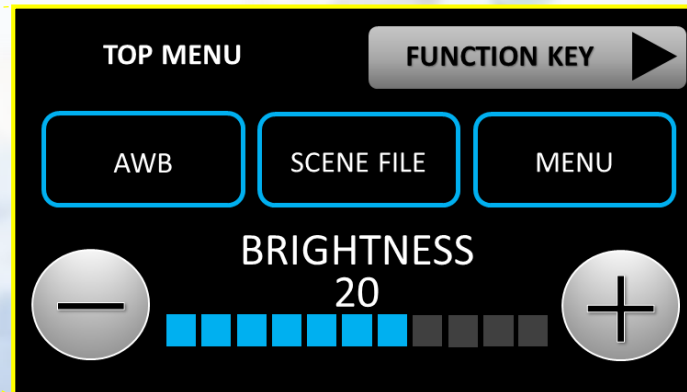
MKC-X800

NEW

“Newest Technology for 4K surgical camera”

MKC-X800 is the beginning of Ikegami’s new camera generation for 4K resolution with brand-new, worldwide first design on CCU such as:

OSD controlling by LCD panel on the front and Jog dial for surgical camera.



**Launch in Europe
since September
2019!!**

Ikegami has developed a sophisticated and user-friendly new GUI design for the CCU (Camera Control Unit) touch panel. The GUI provides easier understanding and easier operation.

Special feature of MKC-X800

Multi language support

As a state-of-the-art global medical device, the camera's GUI and OSD menu both support English, German, French and Spanish multi-language.



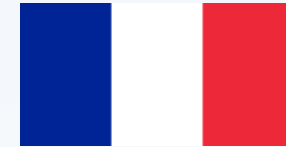
English



Deutsch



Español



français

Name-Editable Scene File

4 scene files are provided to store pre-set memories of various control functions for convenient use. The name of each scene file is editable by touch panel operation.

Special feature of MKC-X800

Various image outputs

MKC-X800 provides various 4K outputs as 12G-SDI (or 3G-SDI x4) or HDMI2.0.

4K and HD(1080p/1080i) images can be output simultaneously.
It also matches the existing HD system.



Antibacterial Coating

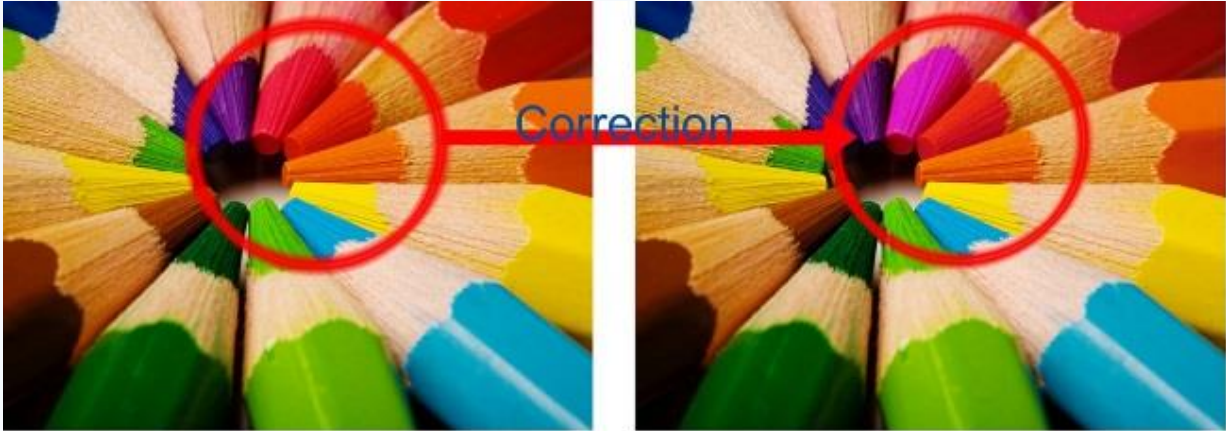
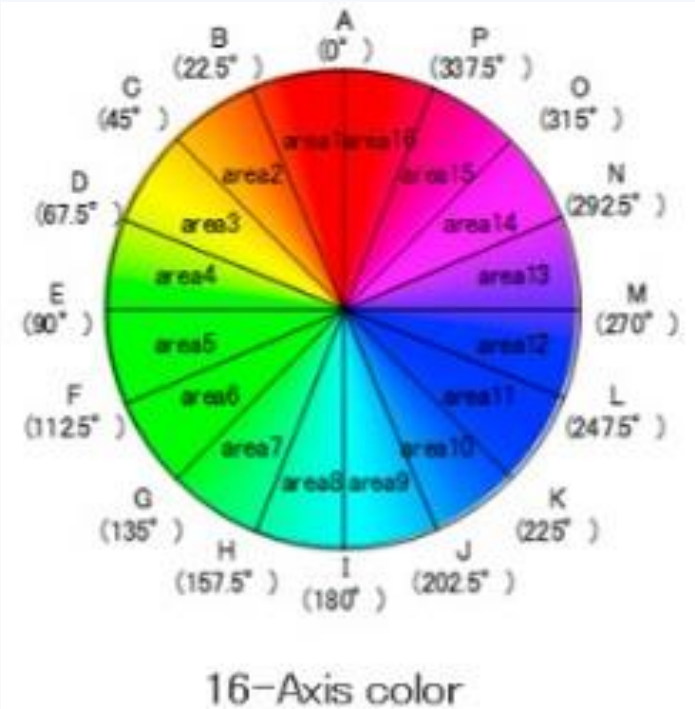


The camera head and CCU are coated to improve infection control.

Special feature of MKC-X800

16-Axis Colour correction

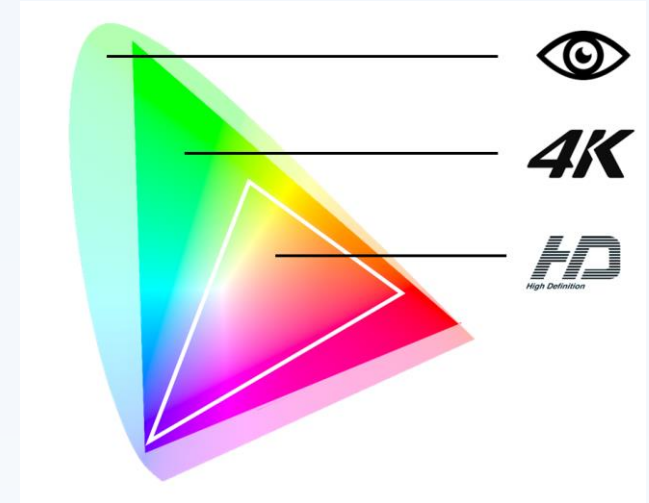
The color correction function enables precise color adjustment.
16 axes of the color gamut can be fine tuned in both hue and saturation.



Special feature of MKC-X800

Wide Color Gamut (BT2020)

Higher color reproductively displaying.
For example, very fine detail such as small veins to help specify the blood point.



HDR Mode

HDR Mode delivers wide dynamic range reproduction of the video.
This function ensures that high quality display extends both to dark and bright areas of the image.



OFF



ON

Special feature of MKC-X800

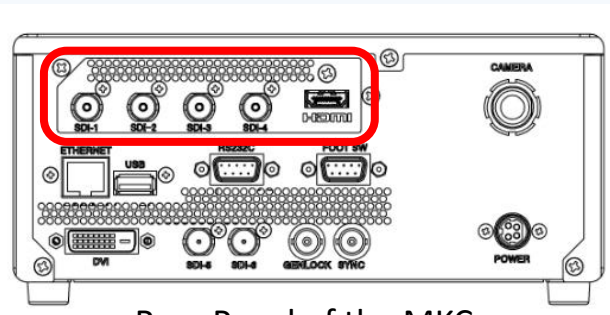
Other Feature / Function

Customizable camera cable	External sync function	High Sensitivity Mode	Flip & mirror
External command control	Easy update with USB (Option)	3D support	Compact Size

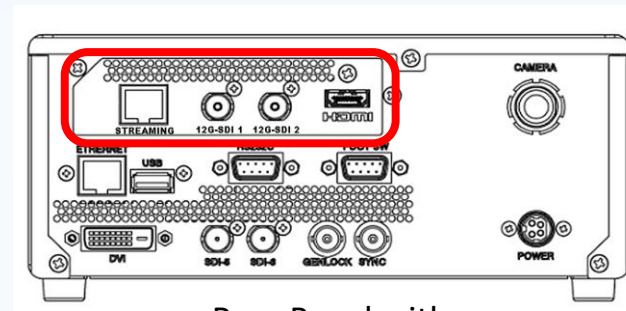
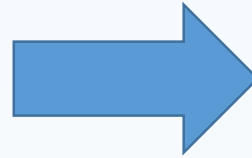
Unique idea for MKC-X800

Overview

- A Video Output I/F Board with Recording Function for Ikegami MKC-X800 Series Multi Platform CCU
- Integrated into the CCU Housing of MKC-X800 CCU by replacing the Ikegami genuine 4K I/F Board
- H.265/HEVC recording of 4K 2160p/59.94, 50 video
- 4K Recording provides 2 Selections: 4K Recording or 2K downscaled Recording



Rear Panel of the MKC-X800 CCU (Original)



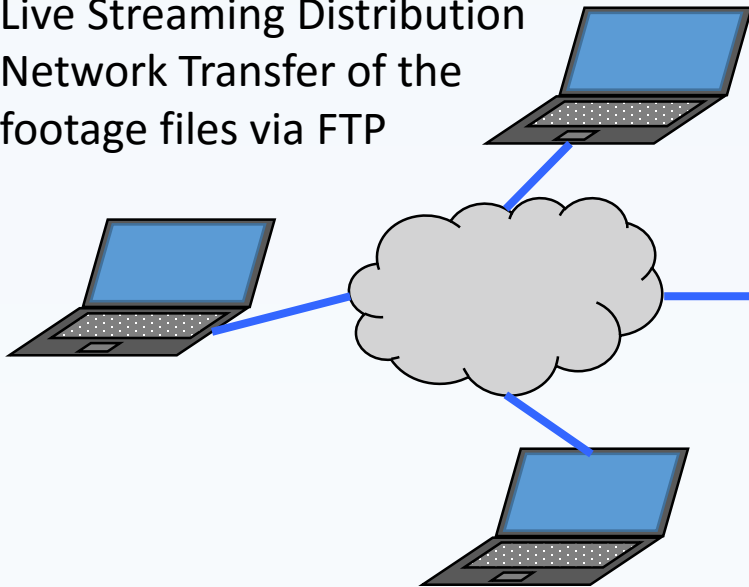
Rear Panel with 4K Recording I/F

Unique idea for MKC-X800

Features

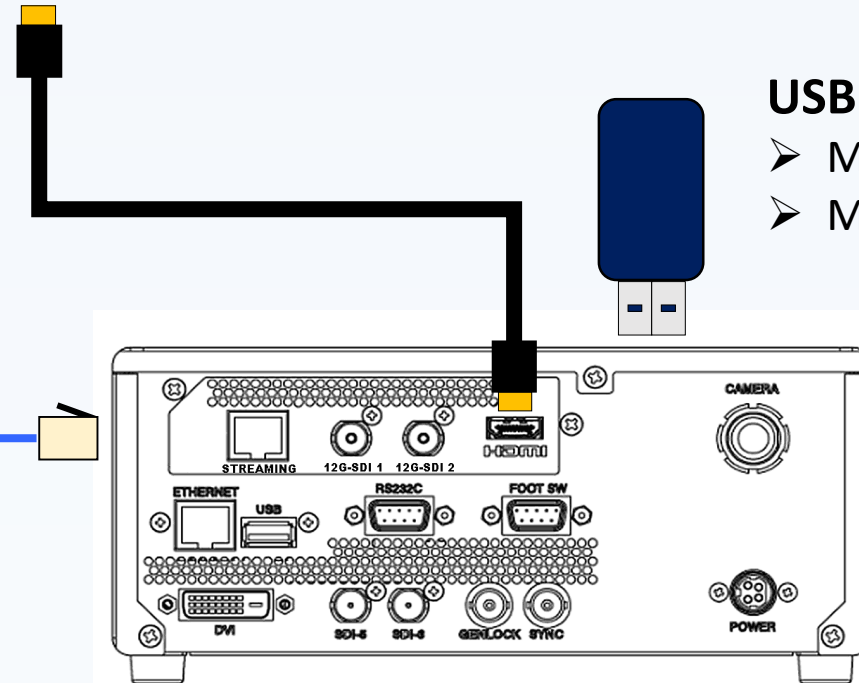
Streaming Output

- Live Streaming Distribution
- Network Transfer of the footage files via FTP



2K/4K Video Output

- Uncompressed & No delay
- Single link connection (HDMI 2.0 & 12G-SDI)



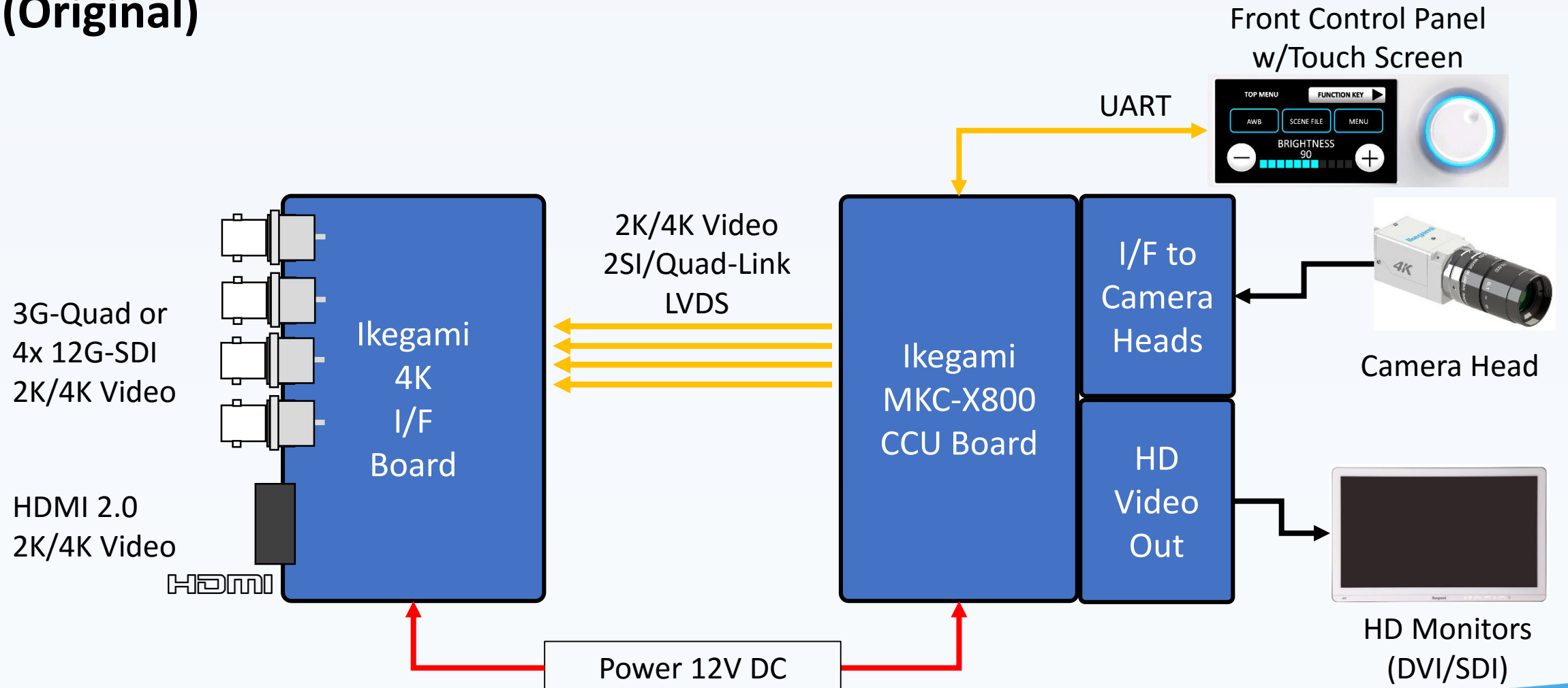
USB Recording

- Max. 72 hours in 4K quality
- Max. recording 290 hours ... with 512GB Stick

**MKC-X800 Series CCU
with 4K REC I/F Board**

Unique idea for MKC-X800

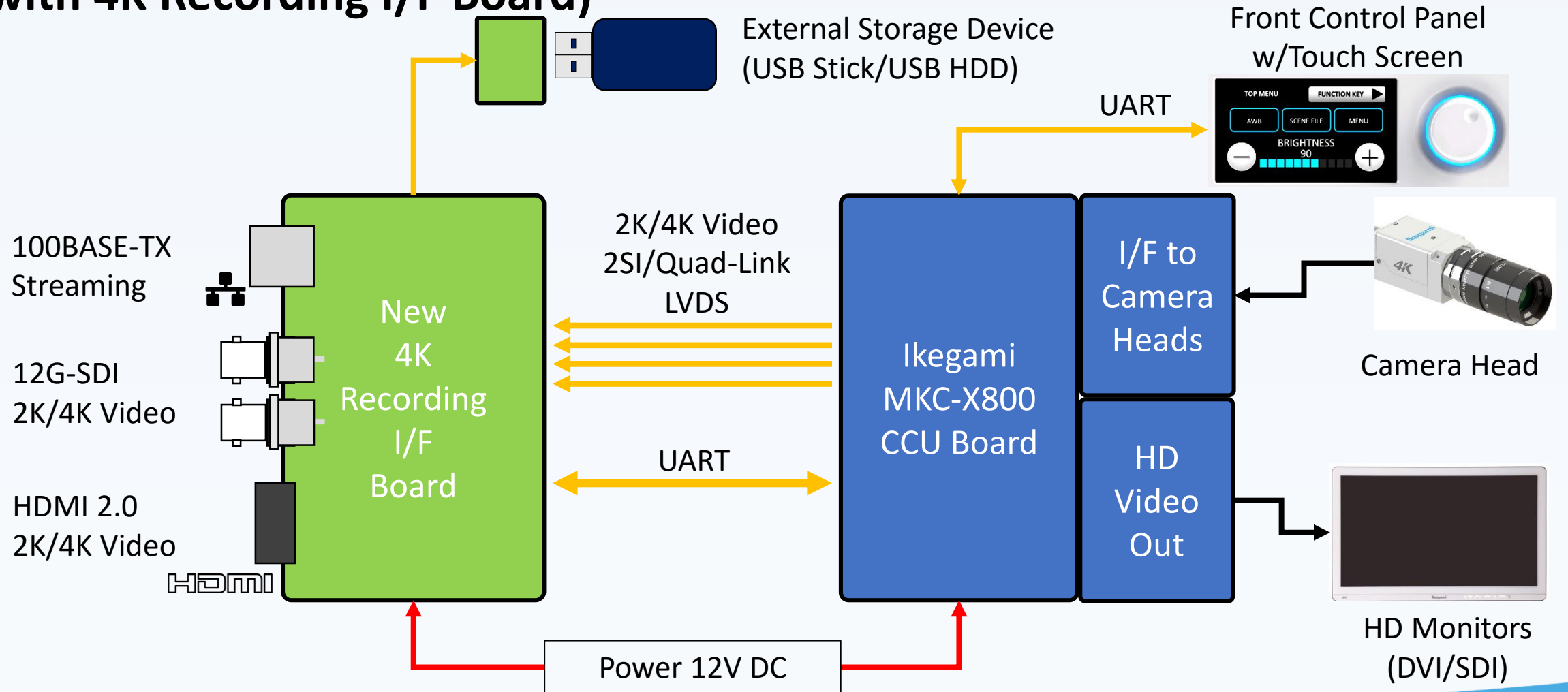
MKC-X800 System View (Original)



Unique idea for MKC-X800

MKC-X800 System View

(with 4K Recording I/F Board)



Ikegami fulfills required standards as Medical grade products manufacture

All Ikegami products are applied Safety regulation approval as **CE medical grade Class 1**. Also Ikegami certificated **ISO13485**, strives for improvement of its quality management system continuously to promise Customer's Satisfaction with its quality and technology.



ISO13485

**Quality Management
Certification**



Class 1 Medical Grade camera

Testimony from a surgeon

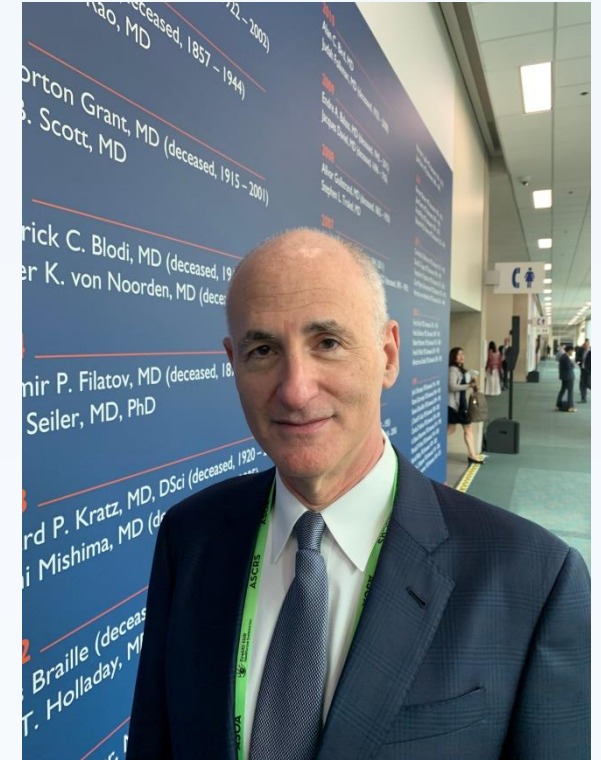
A leading ophthalmologist, Dr. James Lewis evaluating the MKC-X800

*“Ikegami's MKC-X800 is the first native 4K medical grade microscope imaging system for the ophthalmic surgeon. The sensor produces high resolution, well-illuminated, color-balanced, 60 frame per second video for both anterior and post segment procedures. The camera is compact, light-weight, and easily customized to your lighting preferences. **For the busy eye surgeon there is no better option for publication quality ophthalmic video.**”*

Dr. James Lewis is a leading ophthalmologist in Philadelphia, Pennsylvania and is affiliated with multiple hospitals in the area, including Children's Hospital of Philadelphia and Doylestown Hospital. He contributes extensively to Eyetube, an Eye Doctor Only Video Sharing website for teaching surgical techniques and disease management.



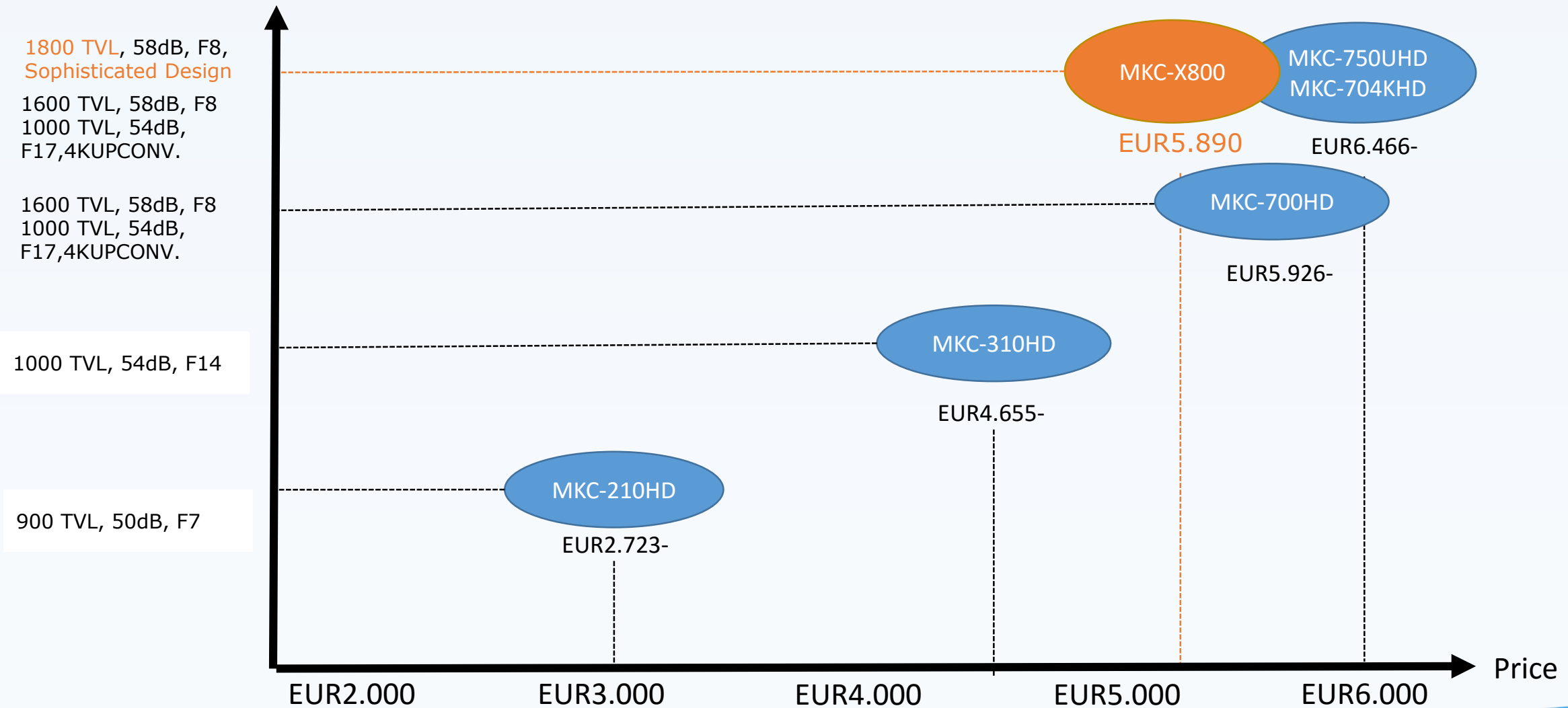
JAMES S. LEWIS, MD



Dr. James Lewis

Target on the market

Performance



Surgical Cameras with 4K resolution

MKC-704KHD

Ultra high sensitivity

- 1/3-inch 3CMOS
- 4K (Upscaled)
- 2000 lx **F17**/3200 K
- 2K out put: 3G-SDI / DVI
4K out put: 4 x 3G-SDI
- Resolution: 1000 TV Line



MKC-750UHD Type. H

4K High Resolution

- 1/3-inch 3CMOS
- 4K (Pixel Shift)
- 2000 lx F8/3200 K
- 2K out put: 3G-SDI / DVI
4K out put: HDMI2.0
4 x 3G-SDI
- Resolution: **1600 TV Line**



MKC-X800

Ikegami's Newest 4K camera

- 1/2.5-inch 4K native sensor
- 2000 lx F5.6/3200 K
- 2K out put 3G-SDI/DVI/HDMI
**4K out put: HDMI2.0/
4 x 3G-SDI or 12G-SDI**
- Resolution: **1800 TV Line**



4K Cameras comparison Chart

Ikegami



Panasonic

Model Name	MKC-X800	MKC-750UHD	MKC-704KHD	4Klear	GP-UH532 series
Sensor	½.52 4K Sensor	1/3 CMOS x3	1/3 CMOS x3	Native ½” 4K CMOS	1/3 CMOS x3
Pixels	3840 x 2160	1920x1080	1920x1080	3840 x 2160	1920x1080
Resolution	1800 TV Lines	1600 TV Lines	1000 TV Lines	1900+ TV lines	1600 TV Lines
Sensitivity	F8 (Line mix ON)	F11 (Line mix ON)	F17 (Line mix ON)	-	F8
S/N Ratio	58 dB	58 dB	58 dB	-	54 dB
Iris	SHUTTER	OPTICAL/ SHUTTER	OPTICAL/ SHUTTER	-	SHUTTER
Digital Zoom	x1.1 to x4.0	x1.1 to x4.0	x1.1 to x4.0	-	X1.1 to 2.5
4K output	12G-SD x1 3G-SDI x4 HDMI2.0 x1	12G-SD x1 3G-SDI x4 HDMI2.0 x1	3G-SDI x4	12G-SD x1 3G-SDI x4 HDMI2.0 x1 Display Port1.2 x1	N/A
2K output	3G-SDI x2, DVI x1, HDMI x1	3G-SDI x2, DVI x1, HDMI x1	3G-SDI x2, DVI x1	3G-SDI x1	3G-SDI x4, HDMI x2

Surgical Cameras with FHD resolution

MKC-210HD

Entry model

- 1/3-inch 1 CMOS
- 1920 x 1080p(DVI)
- 2000 lx F7/3200 K
- Gain <18 dB
- SDI / DVI / S-Video



MKC-310HD

Accurate color reproduction

- 1/3-inch 3 CMOS
- 1920 x 1080p
- 2000 lx **F10**/3200 K
- Gain <30 dB
- 3G SDI / DVI / S-Video



MKC-700HD

Ultra high sensitivity

- 1/3-inch 3 CMOS
- 1920 x 1080p
- 2000 lx **F16**/3200 K
- Gain <18 dB
- 3G SDI / DVI / S-Video



High End 2K Cameras comparison Chart

Ikegami

SONY

Panasonic

Model Name	MKC-700HD	MCC-1000MD	GP-UH332 series
Sensor	1/3 CMOS x3	½.8 CMOS x3	1/3 CMOS x3
Pixels	1920x1080	1920x1080	1920x1080
Resolution	1000 TV Lines	1000 TV Lines	1000 TV Lines
Sensitivity	F17 (Line mix ON)	F20 (High sensitivity ON)	F16
S/N Ratio	58 dB	63 dB	54 dB
Iris	OPTICAL/SHUTTER	SHUTTER	SHUTTER
Digital Zoom	x1.1 to x4.0		X1.1 to 2.5
2K output	3G-SDI x2, DVI x1	3G-SDI x2, HDMI x1	3G-SDI x5

Entry model 2K Cameras comparison Chart

Ikegami

Panasonic

Model Name	MKC-210HD	MKC-310HD	MCC-500MD
Sensor	1/3 CMOS x1	1/3 CMOS x3	½.9 CMOS x1
Pixels	1920x1080	1920x1080	1920x1080
Resolution	900 TV Lines	1000 TV Lines	900 TV Lines
Sensitivity	F7	F10	F5.6
S/N Ratio	50 dB	54 dB	55 dB
Iris	SHUTTER	OPTICAL/SHUTTER	SHUTTER
Digital Zoom	x1.1 to x4.0	x1.1 to x4.0	
2K output	HDSDI x2, DVI x1	3G-SDI x2, DVI x1	HDSDI x1, HDMI x1

Specification comparison table

NEW

Model Name	MKC-210HD	MKC-310HD	MKC-700HD	MKC-704KHD	MKC-750UHD	MKC-X800
SENSOR	1/3 CMOS x1	1/3 CMOS x3	1/3 CMOS x3	1/3 CMOS x3	1/3 CMOS x3	1/2.5 CMOS Native 4K
PIXELS	1920x1080	1920x1080	1920x1080	1920x1080	1920x1080	3840x2160
RESOLUTION	900 TV Lines	1000 TV Lines	1000 TV Lines	1000 TV Lines	1600 TV Lines	1800 TV Lines
SENSITIVITY	F7 (2000lx/3200K)	F10 (2000lx/3200K)	F16 (2000lx/3200K)	F17 (2000lx/3200K)	F8 (2000lx/3200K)	F5.6 (2000lx/3200K)
S/N Ratio	50dB (γ and detail off)	54dB (γ and detail off)	56dB (γ and detail off)	58dB (γ and detail off)	58dB (γ and detail off)	58dB (γ and detail off)
IRIS	SHUTTER	OPTICAL/SHUTTER	OPTICAL/SHUTTER	OPTICAL/SHUTTER	OPTICAL/SHUTTER	OPTICAL/SHUTTER
DIGITAL ZOOM	x1.0 to x4.0	x1.0 to x4.0	x1.0 to x4.0	x1.1 to x4.0	x1.1 to x4.0	x1.1 to x4.0
4K output	—	—	—	4K output	4K output	4K output
3G-SDI output	—	3G output	3G output	3G output	3G output	3G output
Resolution Enhancer	—	—	Super Resolution	Super Resolution	—	16-Axis-Colour correction
TCP/IP	OPTION	OPTION	Available	—	—	—
SD card interface (HD capturing)	OPTION	OPTION	HD recording	—	—	—
USB interface (HD recording)	OPTION	OPTION	HD recording	—	—	—

Thank you.
ありがとうございました。

