

# Ikegami

## 4K/HD Multi Purpose Camera

# 4K

# HDR

## UHL-F4000



The UHL-F4000 is a 4K/HD 3CMOS Multi-Purpose separate optics 2-piece camera, featuring a compact, lightweight, and low power consuming camera head (optical block), which makes the camera especially well suited for helicopter camera applications.

As the succeeding model of the HDL-F3000, the F4000 is newly equipped with Global Shutter CMOS sensors, which capture natural images completely clear of geometric distortion during still frame analysis and flash band effects.

The F4000 is also newly capable of outputting 4K and Cutout HD images, but its significant low light capability has been passed down from its former model.

Additional improvements in its image processing functions such as Variable Contrast Control, Image Sharpening Function, and Digital Zoom Function (from 1.01x to 10.0x) will broaden the F4000's usage.

### Compact Size

A compact and power saving camera head has been achieved in order to suit its application as a helicopter camera system. The 1.5kg camera head fits in small sized gimbals for example.

### Digital Zoom Function

The UHL-F4000 has a digital zoom function from 1.1x to 10.0x in increments of 0.1, allowing a very smooth and natural zoom. Combined with the optical zoom, the overall zooming of the image looks more natural.



### Quality Picture Under Any Condition

#### ■ High Sensitivity

There is virtually no loss of quality caused by the difference in illumination, it can produce high quality pictures under any conditions, day or night.



Conventional Cameras



UHL-F4000

#### ■ Variable NR Control

The remote control panel includes a variable control so the operator can adapt the camera in real time for optimum noise reduction when shooting at night with high gain.

#### ■ Image Sharpening Function

The Image Sharpening Function boosts an image's edge level when the image is zoomed in for instance. This function can be effective when shooting a car license plate.

#### ■ Variable Contrast Control

The operator can easily reproduce clear images with proper contrast even in situations of bad visibility such as shooting through fog and smoke.



Original



With Variable Contrast Control

## Other Features

### ■ Optical Fiber Connection

An Optical Fiber connection is employed between the camera head and CCU, allowing them to be separated by a distance up to 10km. This allows different configuration for a range of applications, such as weather cameras, surveillance cameras, as well as studio robotic camera systems. \* The camera head needs a connection for power in addition to the fiber connection.

### ■ Focus Assist Function

Focus Assist Function is achieved by placing the edge components of the 4K image on the HD MON OUT signal. Therefore it is possible to critically focus 4K images using an HD monitor.

### ■ Image Reversal Function

The UHL-F4000 can output an up-down reversed image, which is applicable if the camera is set upside down.

## RATING

Signal Format	2160p 59.94 or 50 Hz 1080p 59.94 or 50 Hz 1080i 59.94 or 50 Hz 720p 59.94 or 50 Hz					
Image Sensor	Three CMOS					
Optical System	2/3-inch RGB Prism					
Lens Mount	BTA S-1005B					
Motorized Optical ND Filter (Options are assignable for CC5)		1	2	3	4	5
	ND	CLR	1/4	1/16	1/64	1/256
	CC	CLR	4300K	6300K	CROSS	OP
Input Voltage	Camera Head :DC +11 ~ 16V CCU :DC +18 ~ 33V(T.B.D.)					
Operating Temperature	-20°C ~ +45°C					
Storage Temperature	-30°C ~ +60°C					
Operating Humidity	30% ~ 90%					
Dimensions	Camera Head :W100mm x H128mm x D90mm W3.9inch x H5.0inch x D3.5inch					
	CCU :W150mm x H160mm x D190mm W5.9inch x H6.3inch x D7.4inch					
Weight	Camera Head :1.5kg CCU :2.8kg					



Rear Panel for Camera Head



Rear Panel for CCU

## PERFORMANCE

SN Ratio	HD 62dB (typ.)
Limiting Resolution	1000 TVL (typ.) @ HD
Sensitivity	F12 @ 4K 2000 Lux
	F12 @ HD Reflectivity 89.9%
Minimum Illumination	0.0015 Lux @ F1.4 *Video Level 50%
GAIN	-6, -3, 0, +3, +6, +9, +12, +18, +24, +30, +36, +42, +48, +54, +60, +66, +72dB
GAMMA	OFF, 0.35, 0.4, 0.45, CUSTOM1 - 5 *HLG is available for CUSTOM1 - 5
Electronic Shutter	1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 *Variable shutter available

Design and specifications are subject to change without notice.

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