

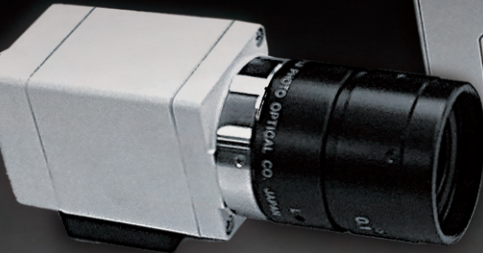
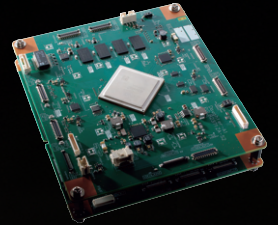
PRO

Preliminary

4K2MOS IR Camera Head
GP-H243R



Camera Control Unit
GP-CS24/34/44



SPECTROLUX Pro

High precision and realistic images.
Make the invisible visible.

2MOS ULTRA high-definition camera head with NIR sensitivity in a compact size.

In recent years, fluorescence-based visualization applications have been gaining attention in the medical field. In particular, there is an increasing demand for near-infrared (NIR) cameras. We currently offer 4K4MOS (RGB + IR) cameras globally. As an addition to our NIR camera lineup, we are introducing the 4K2MOS camera system, which features a native 4K sensor and a compact camera head.

Camera technology to see what was previously invisible

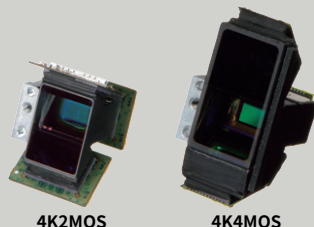
Realistic 4K Ultra High Definition with Native 4K

See more with 4K Technology. Our unique technology, refined over many years, enables amazing ultra-high definition and faithful color reproduction.

- Supports 4K resolution (3840 x 2160), offering four times the pixel count of Full HD, and a horizontal resolution of 1800 TV lines.
- Supports 59.94p/50p frame rates for smooth and natural video output..
- 4K UHD cameras provide high color reproduction, realistic detailed textures, and the ability to capture even the slightest movements — ideal for surgical microscopes, rigid endoscopes, and life science microscopes.

Compact Camera Head

- Features a camera head approximately 50% smaller than our 4K4MOS model, with a 2MOS prism system.

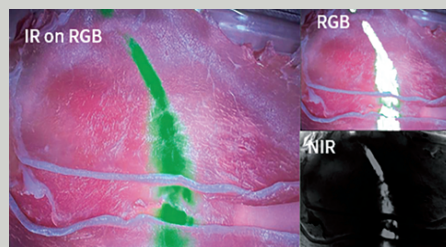


Simultaneous Visible and NIR imaging

- Capture and output of visible and IR images simultaneously with a single camera. unit
- Supports high frame rates up to 60fps without requiring lighting control.
- Independent control of visible and IR images allows for easy and flexible image adjustments.
- Multiple camera models are available with varying IR shift amounts, ensuring focus accuracy for both visible imaging, regardless of the scope lens used.

Versatile Video Output

- Supports multi-screen display with RGB, NIR, and superimposed images shown simultaneously on a single screen.
- Enables simultaneous output of RGB and NIR video for flexible and versatile video applications.



SPECIFICATIONS

Camera	Module		BOX
	Optical Block only	With TG Board	
COMPONENT*	GP-H243RA1-0N / -0N1 / -0N8*	GP-H243RB1-0N / -0N1 / -0N8* GP-H243RB1-0F / -0F1 / -0F8*	GP-H243RX1-0F / -0F1*
Prism	1/3 type 2-channels (Visible+IR) prism		
Model Variations	IR shift : available** / not available BCF : No	IR shift: available** / not available BCF : Yes / No	IR shift : available** / not available BCF : Yes
Image Sensor	1/3 type 4K sensor (Visible) + 1/3 type 2K sensor (IR)		
Scanning Method	Progressive Scan, Rolling Shutter		
Resolution	1,800 TV lines Typ.		
Sensitivity	F8 (2000 lx, 3200 K, Head Gain Off)		
Frame Rate	59.94 / 50 fps		
S/N Ratio	54 dB (Gain OFF, Head Gain Off)		
Camera Head Switch	–	Switch 1~4	–
Lens Mount	–		C-mount
Operating Temperature **	Tc : 0°C to 70°C (+ 32 °F to + 158 °F)		Ta: 0 °C to 40 °C (+32 °F to + 104 °F)
Operating Humidity	30 % - 90 % (without condensation)		
Dimension (W x H x D)	18.1 mm x 18.6 mm x 17.3 mm		27 mm x 30 mm x 43 mm
Weight	13 g	17 g	65 g

* When the 13th digit is F, IR Cut Filter is bundled. When the 13th digit is N, IR Cut Filter is not bundled. ** For information on the IR shift amount, please contact our sales representatives.

*** Ta: Ambient Temperature, Tc: Device Case Temperature

CCU		Module			BOX
COMPONENT		for 1&2MOS Cameras	for 1-3MOS Cameras	for 1-4MOS Cameras	for 1-4MOS Cameras
Model Variations	CCU Board CCU Board w / Connector board	GP-CS24B00-0 GP-CS24C00-0	GP-CS34B00-0 GP-CS34C00-0	GP-CS44B00-0 GP-CS44C00-0	– GP-CS44X10-0
Camera Head to be connected		GP-H143CX, GP-H243R series	GP-UH532H, GP-H143C, GP-H243R, GP-H343C series	GP-UH532H, GP-UH832H, GP-H143C, GP-H243R, GP-H343C, GP-H443R series	GP-UH532H, GP-UH832H, GP-H143CX0. GP-H243RX1, GP-H323CX1, GP-H343CX1, GP-H443RX1
Video Output : HDMI		HDMI-1 : HDMI 2.0 (4K) HDMI-2 : HDMI 2.0 (4K / Full HD)			
Video Output : SDI		SDI1 : 12G-SDI (4K) SDI2 : 12G / 3G-SDI x2ch (4K / Full HD)			
Visible / IR Output : HDMI / SDI		HDMI-1 / SDI-1 : Visible / IR / Mixed IR / PinP HDMI-2 / SDI-2 : Visible / IR / Mixed IR			
External Control	Foot SW	Yes			ø3.5 mm stereo mini jack (two inputs)
	External Control	Yes			ø3.5 mm stereo mini jack
	Synchronization	Yes			(3-poles serial, RS232C signal compliant)
	USB	–			BNC terminal
	Earth Terminal	–			Yes
General	Power source and consumption	12 V DC : 3.0 A (including camera head)			12 V DC 2.5 A (including camera head)
	Dimension (W x H x D)	120 mm (W) x 140 mm (D) with cutout, without cables and small boards			185 mm x 60 mm x 195 mm
	Weight	Approx. 0.33 kg (0.73 lbs)			Approx. 2 kg (4.42 lbs)
Safety Standard		–			UL62368-1, CAN / CSA C22.2 NO.62368-1, IEC62368-1, EN IEC 62368-1

CCU Function	
Exposure Control	(Visible) AE, Shutter, Gain, Head Gain, Binning, Long Exposure (IR) AE, Shutter, Gain, Head Gain, Binning, Long Exposure
Picture Adjustment	(Visible) White Balance, Detail Enhancement, 2DNR, 3DNR, Color level, Matrix Color Adjustment, Moire Reduction (IR) 2DNR, 3DNR
Contrast Adjustment	(Visible) Gamma, Knee, Pedestal, Image Enhancement (IR) Gamma, Knee, Pedestal
IR mix functions	Color (Single-Color 1-6 / Multi-Color (Heatmap)), Gradation (Low / High / High(Knee))
General Functions	User Profile (6 profiles), Profile ID / Label, Fluorescence Mode, Flip / Mirror, Color Bar, Foot SW Control, Digital Zoom, H / V Phase Adjustment, Synchronization, OSD, White Shading, Freeze



https://i-pro.com/products_and_solutions/en/imv/products

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Important

- In case Final Product, which equips the Product(s), is used under insertion in the human body, i-PRO shall not be responsible for Safety.
- Quality and Safety shall be ensured by Buyer of the Product(s), and the Buyer shall be responsible for that usage.
- Masses and dimensions are approximate.