IK-HD5UM

Rated for Medical Use
HD VIDEO CAMERA
3-CMOS 1080p with USB3.0

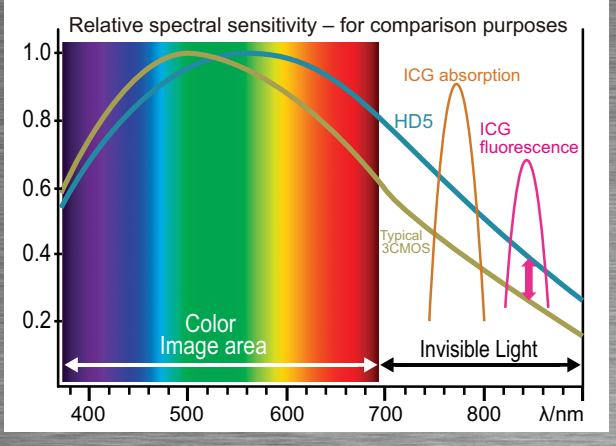
Features

- 60601-1 certified HD video camera
- DVI-D and USB3.0 output, 1920 x 1080
- Switchable between 1080p and 1080i
- Up to 1,000 TV lines resolution
- 5 User-configurable scene files
- Binning mode for 4x increase in sensitivity
- Image flip and mirror
- Gen-lock for 3D and multi-camera use
- Remote control via RS232
- C-mount lens mount
- 1920 x 1080 at 59.94fps via USB3.0 or 10fps in USB2.0
- Front panel freeze frame
- Long exposure mode up to 60 frames, (1 second)

For enhanced near-infrared applications

- Removable optical low pass filter
- Provides switchable output between full-HD video in visible and near-infrared spectrums
- Approximately 3dB increased sensitivity in near IR
- Expanded menu functions for red filter IR mode

Toshiba introduces the latest 3-CMOS, full-HD, progressive scan camera innovation which meets IEC60601 3rd edition requirements for use in various medical and surgical imaging applications. The new IK-HD5UM configuration features DVI-D and USB3.0 outputs and is adapted for use in various non-patient contact, non-diagnostic imaging applications including surgical microscopy, surgical light camera integration or surgical room monitoring and surveillance. Three-chip performance provides exceptional sensitivity, accurate color reproduction and sharp details through Toshiba's proprietary prism block technology. Use the camera to provide real-time, incredibly detailed reference images for education, documentation and in-room surgical staff. The IK-HD5UM offers improved sensitivity in near IR spectrums supporting applications which use fluorescing agents such as ICG.



Incorporating Toshiba's innovative three-chip technology, the IK-HD5 provides approximately 3dB increased sensitivity in the near-infrared spectrum through 700-870 nm. When equipped with the appropriate optics and filters, the IK-HD5 can be used for both visible light and near IR imaging applications such as indocyanine green (ICG) and other fluorescing agents.

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Leading Innovation

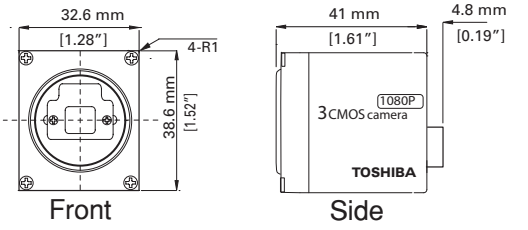
IK-HD5UM

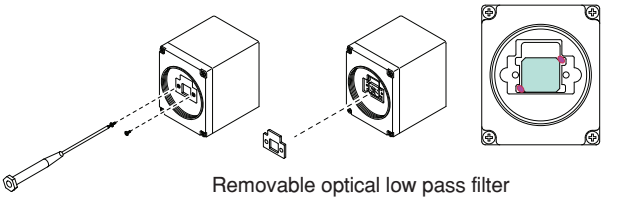
Camera Head Specifications

IK-HD5H

Image Sensor	3-CMOS, 1/2.9 inch, 2.1MP progressive
Output Resolution	Horizontal : 1920, Vertical : 1080
Resolution : H : V	1000 TV lines standard 1000 TV lines standard
Sensitivity	F10 standard (59.94 Hz setting) F11 standard (50 Hz setting) (at 2000 lx, 3000 K)
Minimum Illumination	4.8 lx (59.94 Hz setting) 4.0 lx (50 Hz setting)) at F2.2 , 20 dB, BINNING: ON 9.6 lx (59.94 Hz setting) 8.0 lx (50 Hz setting) at F2.2, 20 dB, BINNING: OFF
S/N Ratio	56 dB standard AGC: OFF, Gamma: OFF, Enhance: OFF
Operating Temperature	0˚C to 40˚C / 32˚F to 104˚F
Operating Humidity	Less than 90% (non-condensing)
Weight	Approx. 93 g (3.3 oz)
Dimensions	W: 32.6 mm H: 38.6 mm D: 41 mm (1.28" x 1.52" x 1.61") Protruding portion is not included

Camera Head Exterior Dimensions





Removable optical low pass filter

IK-HD5UM Controller Specifications

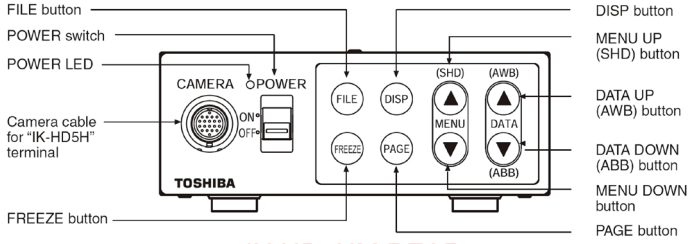
Power Supply	12V DC±10%
Power Consumption	11.6 W
Scanning System	Progressive / Interlaced (Selectable)
Scan Frequency	H: 67.433 kHz, V:59.94 Hz :1080p / 59.94 Hz H: 56.250 kHz, V:50 Hz :1080p / 50 Hz H: 33.716 kHz, V:59.94 Hz : 1080i / 59.94 Hz H: 28.125 kHz, V:50 Hz : 1080i / 50 Hz
Operating Temperature	0˚C to 40˚C / 32˚F to 104˚F
Operating Humidity	Less than 90% (non-condensing)
Weight	Approx. 850 g (1.9 lbs.)
Dimensions	W: 110 mm, H: 40 mm, D: 186 mm (4.33" x 1.58" x 7.32")
Scene Files	5 User-configurable scene files
White Balance	Auto / Manual (Selectable)
Gain	Auto (-15dB to 20dB); Manual (-15dB to 20 dB), OFF
Output Signal	DVI-D / USB Micro-B 1920 x 1080/59.94fps max. USB3.0 1920 x 1080 10fps max. USB2.0
Electronic Shutter	Auto / Manual (OFF 1/60 - 1/10,000) / Syncro Scan

EMC Immunity & Safety:
IEC/EN60601-1-2:2007/AC:2010, IEC/EN61000-4-2,-3,-4,-5,-6,-8,-11
FCC class B, CISPR 11 class A, CAN/CSA-22.2, CB per IEC60601-1

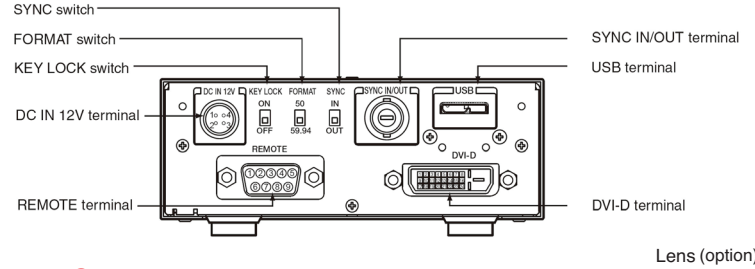
Compliance to medical ratings is dependent on using all components configured as tested.
Any modification, addition or substitution of components may affect their compliance.
Toshiba environmental management exceeds RoHS

Controller Front and Back Panels

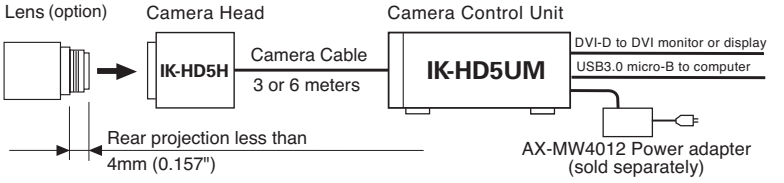
IK-HD5UM FRONT



IK-HD5UM REAR



Connection



System Components

For further details, contact your Toshiba ME/FA distributor.

CAMERA HEAD

IK-HD5H

CAMERA CONTROL UNIT

IK-HD5UM DVI-D / USB3.0 Micro-B

CAMERA CABLE

Model	Length
EXC-3HD03	3 m
EXC-3HD06	6 m
Power Adapter	
AC-MW4012 12VDC	

When used for medical imaging applications, the customer assumes full responsibility and liabilities to determine suitability for use as well as responsibility for documentation and testing to comply with relevant medical device standards. Toshiba assumes no liabilities for such applications.

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