



### Specifications:

- Ultra compact (approx 44 x 44 x 78mm) one-piece system
- Special CS-mount version of the Toshiba IK-HR1D
- Outputs full 1920 x 1080 pixels at 60 fps.
- Output selectable between 1080i and 1080p
- Utilises 1/3" CMOS 2.1 megapixel sensor
- On-screen menu
- Weight 150 g. (without lens)
- Digital DVI and Analogue RGB interface
- Auto and manual white balance
- Auto and manual electronic shutter
- C-CS adapter included
- 2 years warranty

### Description:

The SeeSense IK-HR1Q is a specially modified TOSHIBA IK-HR1D camera fitted with a CS-mount.

It is a lightweight 1/3" 1-CMOS High Definition (HD) compact camera having 1920 x 1080 output pixels (16:9 ratio) with DVI-I output.

This compact camera delivers true progressive scan imagery from a one piece camera body.

It is ideal for imaging objects in motion with sharp detail and little or no motion artifacts.

The special CS-mount gives access to a greater range of suitable megapixel lenses including Wide Angle and Wide Aperture lenses.

This can also increase the camera's low light operational capability.

Contact SeeSense for lens options for the IK-HR1Q

This camera has many suitable applications in the following industries:

- Broadcast
  - Natural History
  - In Car
  - Sports
  - Goal Camera
  - POV Camera
- Medical
- Scientific imaging / diagnostics
- Homeland security
- Industrial video / inspection
  - Underwater (compact housing or ROV)
  - Aerial including UAV

SeeSense are able to provide full technical assistance and back up for this camera as well as offering additional special modifications such as IR Sensitive, low light, etc.

Please contact SeeSense for details and advice.

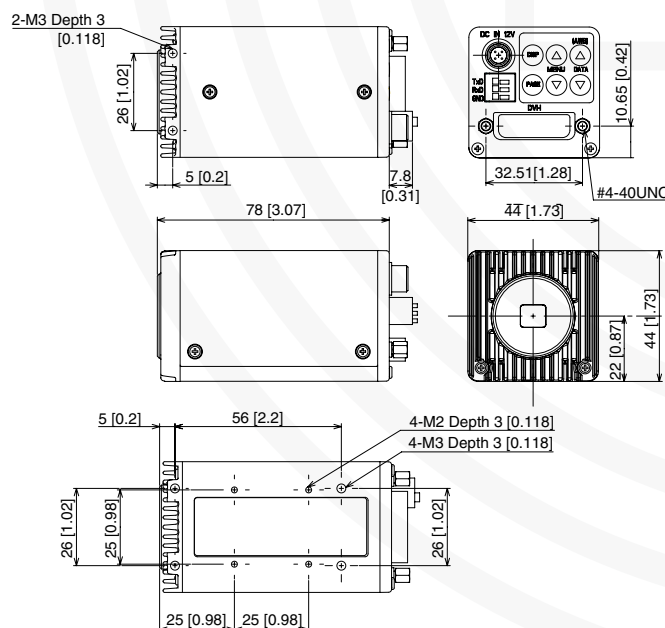
Rev: 2.020.0112 E&O.E.

### Specification Performance

Power Requirements	12 V DC $\pm$ 10% DCIN connector (4pin)
Power Consumption	Approx. 4 watts
Image Sensor	1/3" progressive scan CMOS
Output Pixels	Horizontal: 1920, Vertical: 1080
Scanning System	Progressive (1080p)/Interlace (1080i) Switchable
Sync / Freq	[Progressive (1080p)] - H:67.43kHz, V:59.94Hz [Interlace (1080i)] - H:33.71kHz, V:59.94Hz
Sensitivity	F/4 standard (2000 lux, 3000K)
Min. Illumination	16 lux standard (50 IRE, f1.4, gain + 12 dB), Gamma setting ON (setting value 0), 3000K
Frame Rate	60 fps 1080i and 1080p
Video Signal Output	Digital output (DVI-I connector output) 8bit X RGB Analogue output (DVI-I connector output)
Sync. Signal Output	Analogue output (DVI-I connector output) H: 5V + 0.5V/1.0V (p) V: 5V + 0.5V/-1.0V (p)
Sync. System	Internal
Camera Mount	CS-mount 12.5mm (in Air)
Dimensions	44 x 44 x 78mm
Weight	150 grammes.
Operating Temperature	0°C to + 40°C
Storage Temperature	-20°C to + 60°C
Humidity	Less than 90% (non-condensing)

### Specification Features

Shutter	Manual – Off (1/60s), 1/100s, 1/250s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/8000s, 1/16000s, 1/32000s Auto Level – range of -100 to 100 Synchronized Scan – Set by horizontal scanning time
Gain	MANUAL (manual), OFF (0dB)
White Balance	AWB (Automatic White Balance) ATW (Automatic Tracking White Balance) Manual (Manually Adjustable)
Gamma	OFF / MANUAL : 0 to 12dB (1dB/step)
Scene File Setting	5 Files A/B/C/D/E
Remote Control	RS-232C: Baud rate 9600bps/19200bps



### Recommended Accessories

#### Lenses

The following lenses (a small selection only) have been tested by SeeSense and are known to be compatible with this camera. (angles of view quoted are in the horizontal plane).

SeeSense	1.6 – 3.4mm	147 degrees (horizontal @2mm)
Fujinon	2.2 – 6mm	129 – 50 degrees (F1.3)
	2.8 – 6mm	111 – 51 degrees (F1.2)
	2.8 – 8mm	111 – 38 degrees (F1.3)
	3.8 – 13mm	107 – 30 degrees (F1.4)
Senko	1.87mm	180 degrees with C-CS adapter ring
	3 – 8.5mm	90 – 33 degrees (F1.0)
Tamron	2.4 – 6mm	111 – 47 degrees (F1.2)
	2.8 – 8,mm	100 – 35 degrees (F1.2)
	3 – 8mm	92 – 35 degrees (F1.0)
Theia	1.67mm	110 degree (rectilinear lens)
	1.28mm	125 degree (rectilinear lens)
	1.8 – 3mm	105 – 77 degrees (rectilinear lens)
	9 – 40mm	30 – 7 degrees

If you have a specific requirement please contact SeeSense for best advice.  
All lenses available from SeeSense

#### Accessories

SeeSense	C-CS adapter	Allows C-mount lenses to be fitted.
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#### Power Supply

Toshiba ACM-601E Medical grade power supply