



1.5 Megapixel Monochrome Machine Vision Camera with 10 Bit LVDS Output

ES3910BH



Key Features

HIGH RESOLUTION performance through adoption of Megapixel CCD (1.5 million pixels) for 1392(H) x 1040(V) resolution

SQUARE-GRID PATTERN 2/3 TYPE CCD makes it easier and faster to perform computation correctly for image processing

FULL FRAME SHUTTER reads out all pixels even under RTS mode with no deterioration in vertical resolution up to 15 FPS

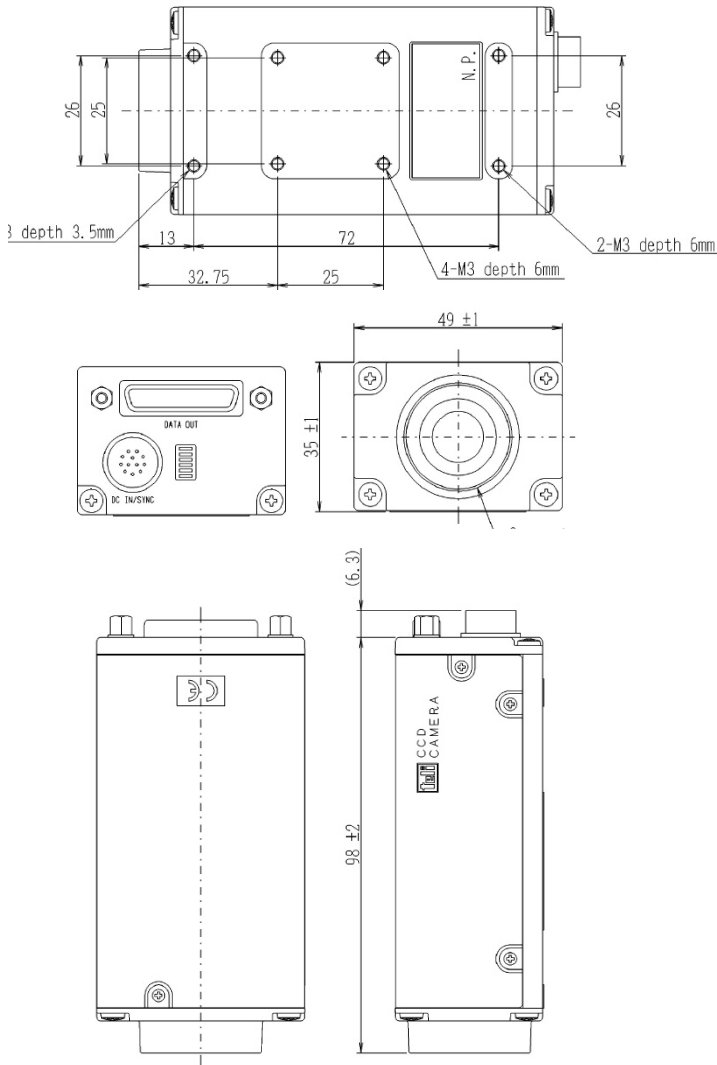
RANDOM TRIGGER SHUTTER is built in to enable the camera to capture images at any given times (1/30s to 1/10,000s)

LVDS DIGITAL OUTPUT is available (EIA-644 single channel 10 bit)

MULTI-SPEED MODES give user option of All Pixel Read Out (1/15 FPS), High-Speed Draft (1/60 FPS) and Partial Scan (screen center 1/2)

SPECIFICATIONS

Image Sensor	2/3 Type Interline CCD
Scanning System	Progressive Scan
Total Pixels	1432(H) x 1050(V)
Active Pixels	1392(H) x 1040(V)
Pixel Size	6.45(H) x 6.45(V) micron m
Aspect Ratio	4:3
Sync System	Internal/External Auto Switchover
Illumination	200lx (F8, 3200K)
Gamma	1.0 (fixed)
Video Output	LVDS EIA-644, 10bit (28.63636MHz)
Scanning Frequency	15.92Hz (All Pixel) or 60.37Hz (High-Speed)
AGC	±6dB
Power Source	DC12V ±10%
Power Consumption	2.7W
Signal-To-Noise	50dB
Shutter Speed	8 scales from 1/30s to 1/10000s
RandomTrigger Shutter	ON/OFF selectable, Fix, Pulse
Partial Scan	ON/OFF selectable
Multiple Shutter	ON/OFF selectable, Flx, Pulse
Lens Mount	C Mount
Dimensions	49(W) x 35(H) x 98(D)mm
Weight	170g
Operatating Temperature	-5 to 45 degree Celsius

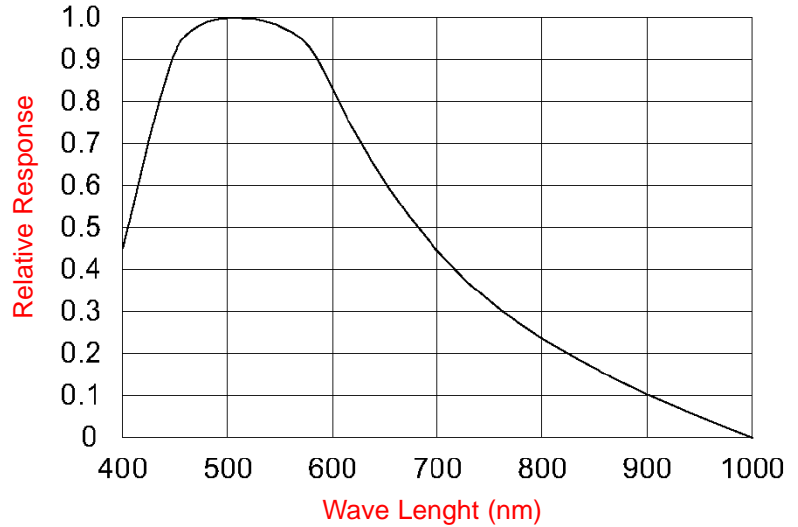


Typical Applications

Video image capture applications for the CS3910BH include machine vision, factory automation, inspection, quality control, positioning and many others.

Typical Spectral Response

(lens characteristics and light source is not reflected in table)



DATA OUT

Pin Number	Signal Name
1	DATA0-H
2	DATA0-L
3	DATA1-H
4	DATA1-L
5	DATA2-H
6	DATA2-L
7	DATA3-H
8	DATA3-L
9	DATA4-H
10	DATA4-L
11	DATA5-H
12	DATA5-L
13	DATA6-H
14	DATA6-L
15	DATA7-H
16	DATA7-L
17	DATA8-H
18	DATA8L
19	DATA9-H
20	DATA9-L
21	VD OUT-H
22	VD OUT-L
23	HD OUT-H
24	HD OUT-L
25	CLK-H
26	CLK-L
27	TRIG IN
28	E.HD IN
29	E.VD IN
30	N.C.
31	BUSY
32	WEN
33	N.C.
34	N.C.
35	GND
36	GND

DC IN/SYNC

Pin Number	Signal Name
1	GND
2	+12V
3	N.C.
4	N.C.
5	HD GND
6	E.HD IN
7	E.VD IN.
8	GND
9	N.C.
10	WEN
11	TRIG
12	VD GND



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