



High-Speed 24-Bit Color Camera  
with SXGA and Camera Link™

ES6910CE



## Key Features

**HIGH RESOLUTION** 1/4" Honeycomb CCD with 630,000 effective pixels produces up to SXGA (1280 x 960) size images with better color fidelity and higher sensitivity

**24-BIT COLOR** for excellent results, outputs in RGB and YUV mode

**HIGH FRAME RATE** allows 1280 x 960 full frame images to be output at 30 frames per second

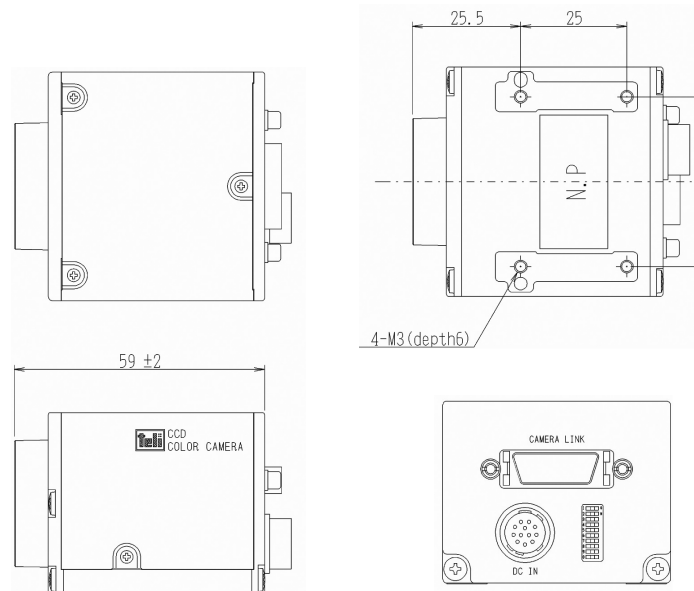
**RANDOM TRIGGER SHUTTER** function provides images in any timing by input of an external trigger signal

**COMPACT & LIGHTWEIGHT** with outside dimensions of 54(W) x 43(H) x 59(D) mm and weight of 150g, making it easy to integrate into industrial vision equipment and systems

**CAMERA LINK™** enables fast, cost-effective set-ups, interfaces with Camera Link™ compatible grabber board for PC control & transfer

## SPECIFICATIONS

Image Sensor	1/4 type CCD
Readout Method	All Pixel Simultaneous read/horizontal 2-time read
Scanning System	Progressive Scan
Total Pixels	680(H) x 504(V) (685,440 pixels)
Active Pixels	648(H) x 486(V) (630,000 pixels)
Pixel Size	3.8(H) x 3.8(V) micron m
Chip size	5.0(H) x 4.52(V) mm
Area Size Of Active Pixels	3.4992(H) x 2.6244 (V) mm
Color Filter	G square grid array, R/B interpolation point sequential
Aspect Ratio	4:3
Frame Rate	
SXGA 1280 x 960	30fps
SXGA 1280 x 960	15fps
VGA 640 x 408	30fps
Pixel Clock	
SXGA 30fps	49.0909MHz
SXGA 15fps	24.5454MHz
VGA 30fps	24.5454MHz
Video output	Digital Output RGS each 8 bit (Camera Link) Analog output NTSC <i>not available to output simultaneously</i>
Signal-To-Noise Ratio	50db
Electronic Shutter	Auto: 1/15000-13, Manual 1/15000-4 sec
White Balance	Full Auto/One Push Auto/Manual
Gamma Characteristics	0.45/0.65/1.0 User Setting
Sync Method	Internal Synchronization
Gain Control	Possible
Resolution	600(H) x 600(V) TV Lines or more
Sensitivity	Standard: 3000 lx (F8, 5100K) Minimum: 30 lx (F1.4, +6dB, 50%)
Trigger Input	Random Trigger Shutter
Edge Enhancement	Possible
Lens Mount	C-Mount
Power Supply	DC12V
Power Consumption	approx. 300mA
Dimensions	54mm(W) x 43mm(H) x 59mm(D)
Weight	approx. 150g
Operating Conditions	0 to 40°C, 20 to 80% Humidity

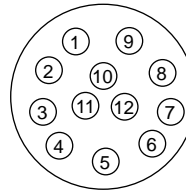


## Typical Applications

Video image capture applications for the CS6910CL include color-based machine vision, microscopy, OCR/DCR reading, gauging, robotics, inspection, precision surveillance, scientific and many others.

## Camera Link Port Assignment

Port	I/O	Function
Port A(7:0)	Out	ROUT(7:0) (R Image Output)
Port B(7:0)	Out	GOUT(7:0) (G Image Output)
Port C(7:0)	Out	BOUT(7:0) (B Image Output)
CC1	In	TRG (Trigger Input)
CC2	In	Reserved
CC3	In	Reserved
CC4	In	Reserved

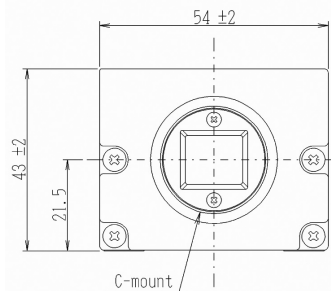


## Power Supply & Sync Signal Input/Output DC IN

Pin Number	I/O	Signal Name
1	-	GND
2	In	+12V
3	-	GND
4	Out	VBS OUT
5	-	GND
6	Out	HD OUT
7	Out	VD OUT
8	-	N.C.
9	-	N.C.
10	Out	WEN OUT
11	In	TRIG IN
12	-	GND

## Video Output/Controlling Connector (Camera Link™) MDR 26-PIN

Pin Number	I/O	Signal Name
1	-	GND
2	O	TxOUT0-
3	O	TxOUT1-
4	O	TxOUT2-
5	O	Tx CLK OUT-
6	O	Tx OUT3-
7	I	Ser TC(RxD) +
8	O	Ser TFG (TxD) -
9	I	CC1(TRIG) -
10	I	CC2 (MULTI) +
11	I	CC3-
12	I	CC4+
13	-	GND
14	-	GND
15	O	Tx OUT0+
16	O	Tx OUT1+
17	O	Tx OUT2+
18	O	Tx CLK OUT+
19	O	Tx OUT3+
20	I	Ser TFG (RxD) -
21	O	Ser TFG (TxD) +
22	I	CC1(TRIG) +
23	I	CC2 (MULTI) -
24	I	CC3+
25	I	CC4-
26	-	GND



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