

7,300 Pixels, 120MHz(R/G/B), Camera Link compliant Digital Color Line Scan Camera

TLC-7300UCL



Lens: optional

Overview

- The TLC-7300UCL is industrial use digital line scan camera using the CCD linear image sensor.
RGB x 7,300 photo diodes are located lineally in the package of the sensor.
- The video signal is output is compliant with Camera Link (Base / Medium Configuration) in 8-bit resolution.
- The high speed operation at 120MHz data rate (Medium configuration mode) and 80MHz data rate (Base configuration mode).
- Easy to control data rate, gain, offset and balance of odd/even pixel via serial communication through the capture board.

Specifications

	TL-7300UCL	
Number of pixels	7300×3 line	
Pixel size	10μm×10μm	
Photo array length	73mm	
Data rate	80MHz (RGB)	60MHz×2 (RGB)
Scan rate	10kHz	15kHz
Line transfer pulse input	100μsec (Min)	66μsec (Min)
Video output (Digital output)	8Bit Base Configuration	8Bit Medium Configuration
Sensitivity	50V/lx.sec (at Gain setting:1)	
Saturation exposure	0.19 lx.sec (on the element)	
Dynamic range	250 (on the element)	
Flange focus	28.8mm	
Output ununiformity	10% standard at 50% of saturation output(on the element)	
Power supply	108(W)×110(H)×55.5(D)mm	
Operational ambient temperature	0~+40℃	
Operational humidity range	85%MAX	
Storage teperature range	-10℃~+65℃	
Lens mount	M80, P = 0.75mm	
External dimension	108(W)×110(H)×55.5(D)mm	
Weight	720gor less	

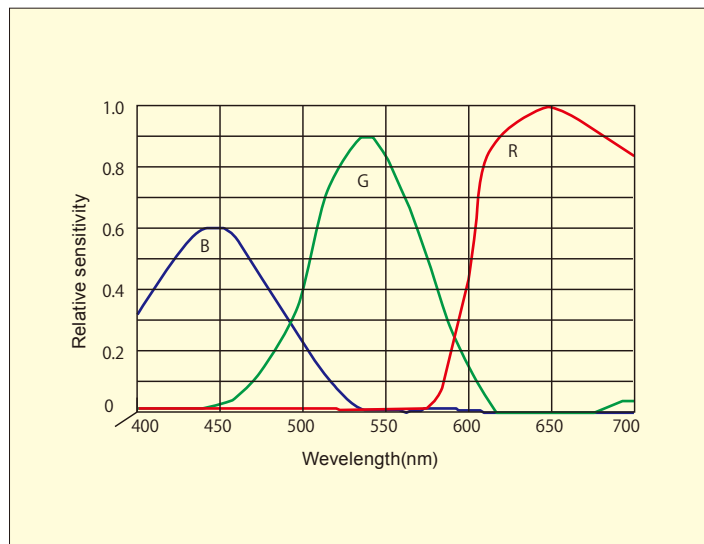
Features

- High-resolution image processing system can be built by connecting the various capture boards of each manufacturer.
- High S / N images are obtained with 10 micron square size sensor.
- Simplified shutter speed control function provides stable constant image output regardless of a change in a period of the external encoder pulse input.
- Equipped with Color gap correction function.
- Equipped with FFC and White balance function.
- Possible to get stable video signal despite a change of ambient temperature, as the dark current correction circuit is incorporated.
- Operation with a single DC12 power source.
- The small and lightweight product by original design.

Applications

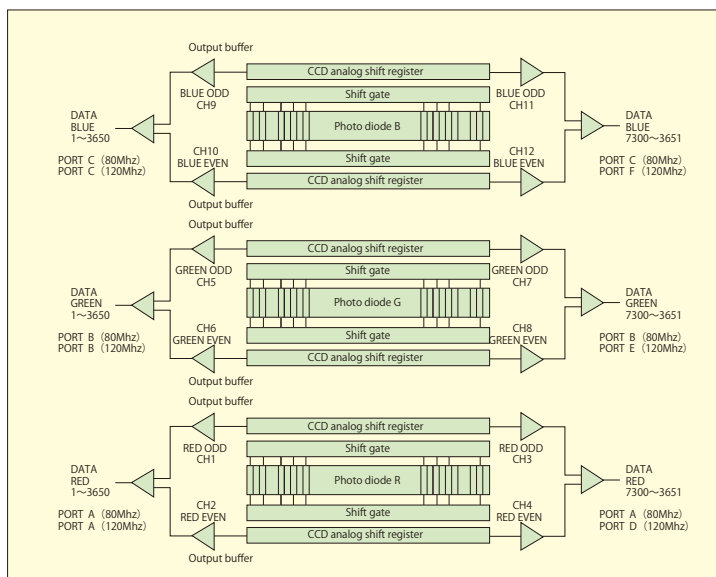
- Image processing device for image inspection
- Inspection equipment for liquid crystal panel
- Application for inspection of high-density printed circuit boards
- Surface inspection device for sheet-like object
- High-resolution pattern inspection instrument
- Data entry device for image processing unit employing computer

Spectral Sensitivity



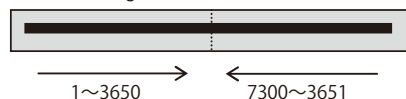
● Note that specifications are subject to change without notice for improvement.

CCD Image sensor

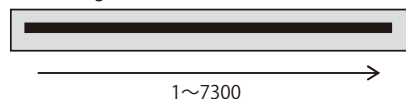


Sensor block diagram

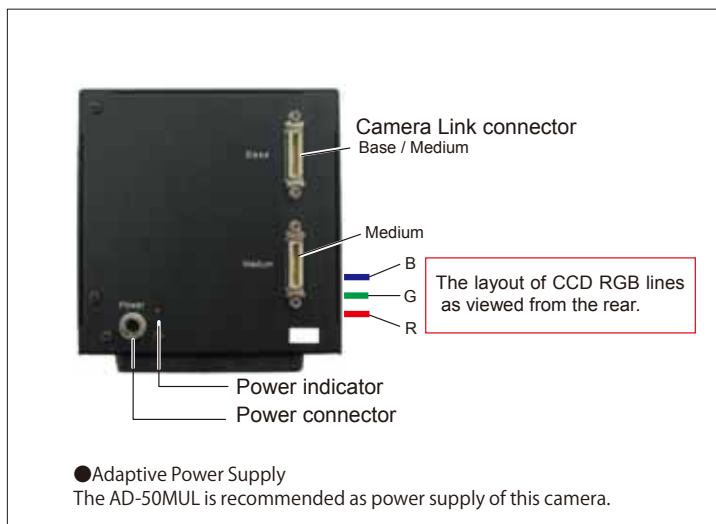
Medium configuration mode (RGB each)



Base configuration mode (RGB each)



Back panel



Connectors

● Power connector (HR 10A-7R-6PB)

Pin No.	Signal name	Pin No.	Signal name
1	+12V	4	GND
2	+12V	5	GND
3	+12V	6	GND

● Camera Link connector

Base Configuration Connector

Pin No.	Signal name	Pin No.	Signal name
1	Shield	14	Shield
2	X0-	15	X0+
3	X1-	16	X1+
4	X2-	17	X2+
5	Xclk-	18	Xclk+
6	X3-	19	X3+
7	Ser TC+	20	Ser TC-
8	Ser TFG-	21	Ser TFG+
9	CC1-	22	CC1+
10	CC2+	23	CC2-
11	CC3-	24	CC3+
12	CC4+	25	CC4-
13	Shield	26	Shield

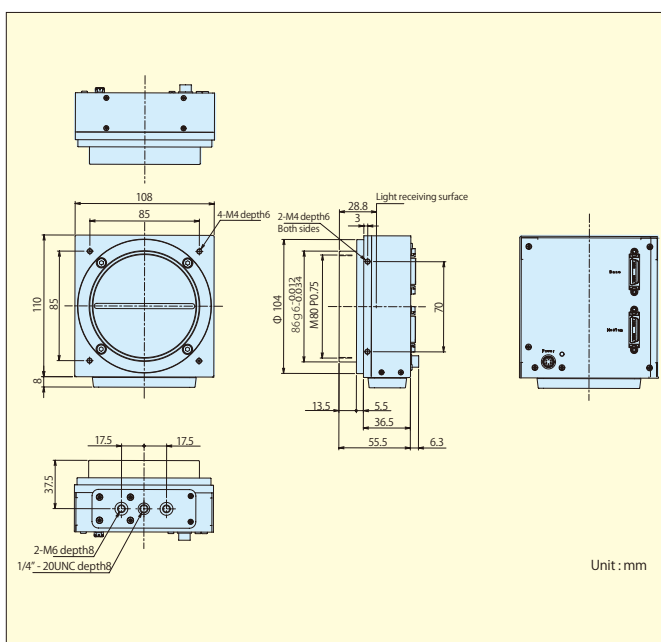
Medium Configuration Connector

Pin No.	Signal name	Pin No.	Signal name
1	Shield	14	Shield
2	Y0-	15	Y0+
3	Y1-	16	Y1+
4	Y2-	17	Y2+
5	Yclk-	18	Yclk+
6	Y3-	19	Y3+
7	100Ω	20	terminated
8	Z0-	21	Z0+
9	Z1-	22	Z1+
10	Z2-	23	Z2+
11	Zclk-	24	Zclk+
12	Z3-	25	Z3+
13	Shield	26	Shield

● Connection of the external synchronization signals

Signal name	Connection
CC1	EXSYNC
CC2	Spare
CC3	Spare
CC4	Spare

Dimensional Outline Drawing



- It may be changed without a notice about all items (product name, a model, specifications, external form dimensions, materials, the price) explained by this catalogue.
- We do not take responsibility about any accident damage by an error in the use of deficiency in the construction and deficiency of the maintenance check and this product, the natural disaster (surge, including lightning-induced).



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