



Double-Speed VGA Monochrome
Analog Camera with 1/3" Type CCD



Key Features

HIGH-SPEED IMAGE PROCESSING: The CS8550D-50i has twice the driving frequency of conventional cameras (60FPS)

ALL-PIXEL READOUT mode permits all pixel signals in the effective area to be output for greater accuracy and speed

SQUARE GRID PIXEL ARRAY facilitates computation for faster image processing without blurring

HIGH VERTICAL RESOLUTION even under RTS mode, images experience no deterioration in vertical resolution

ULTRA-COMPACT & LIGHTWEIGHT camera design solves space restriction problems

RESTART/RESET function, when set on, lets the camera capture images at any timing given by R.R. pulse input (VD input)

CS8550D-50i

SPECIFICATIONS

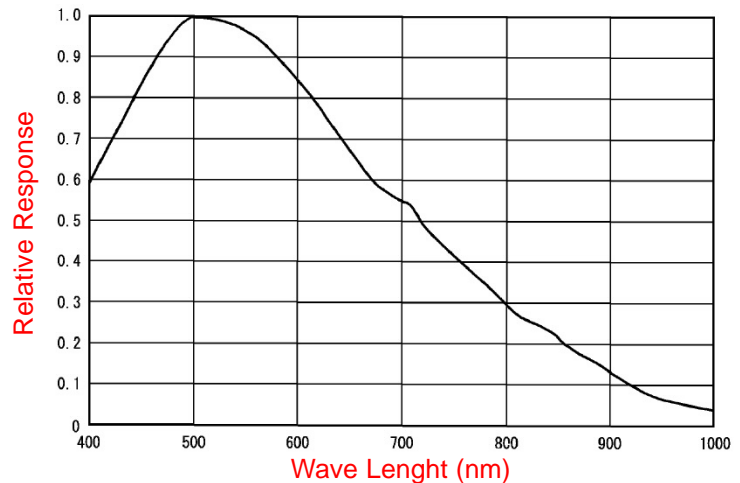
Image sensor	All Pixel's Data Read-out Interline CCD
Total pixels	692(H) x 504(V)
Active pixel	659(H) x 494(V)
Video output pixels	648(H) x 494(V) (Under non-interlace)
Scanning area	4.88(H) x 3.66(V) mm (Equivalent to 1/3 type CCD size)
Unit cell size	7.4(H) x 7.4(V) micro m (Square-grid array)
TV system	Special format (Non-conforming to EIA)
Scanning lines	525 lines
Interlace	1/60s Non-interlace mode 1/120s 2:1 Interlace mode Switching via rear-panel DIP SW
Sync system	Internal/External automatic switch-over
Aspect ratio	4:3
Video output	VS 1.0V(p-p) / 75, DC coupled, 1 line (AC as [Option])
Resolution	485 TV lines(H) 485 lines (350 TV lines)(V)
S/N	Standard: 52dB(p-p)/rms (Initial factory setting)
Illumination	Standard 400 lx (F5.6) Minimum 4 lx (F1.4) (GAIN MAX, Approx. 50% video output)
Gain	FIX (Fixed) gain: Factory-shipped preset level MANU (Manual) gain: Setting through GAIN VR FIX / MANU switching via rear-panel DIP SW
Gamma correction	Gamma = 1 (Fixed)
White-clip level	Approx. 840mV(p-p) (Excluding SYNC)
Power source	DC12V \pm 10% Ripple voltage: 50mV(p-p) or less
Power consumption	Approx. 1.8W
Internal sync	
Base clock frequency	24.545MHz (1CLK) \pm 200ppm
H sync frequency	31.468kHz (1H = 780CLK)
V sync frequency	59.94Hz (Under non-interlace) 119.88Hz (Under 2:1 interlace)
External sync	
Ext. sync input signal	HD/VD
Input level	From 2 through 4V (p-p)
Input impedance	75-ohm / High impedance 10k-ohm (switching via rear-panel SW)
Interlace	1/60s non-interlace or 1/120s 2:1 interlace
Polarity	Negative
Pulse width	HD: 3.2 +/- 1 micro s (LOW) VD: From 125 through 400 micro s (LOW)
Repeating frequency	fH = 31.468kHz +/- 1% fV = fH/262.5 or fH/525
Phase difference	HD/VD: 0 +/- 5.0 micro s, 1/fH/2 +/- 5.0 micro s
Electronic shutter	8 steps (OFF, 1/200s, 1/500s, 1/1000s, 1/2000s, 1/4000s, 1/8000s, 1/20000s)
External dimension	29 x 29 x 39.5(D) mm
Weight	Approximately 50g
Lens mount	C mount
Operating Condition	0 through 40 degrees C, 10 to 90% Humidity

Typical Applications

Video image capture applications for the CS8550Di-50 include high-speed machine vision, factory automation, inspection, quality control, positioning and many others.

Typical Spectral Response

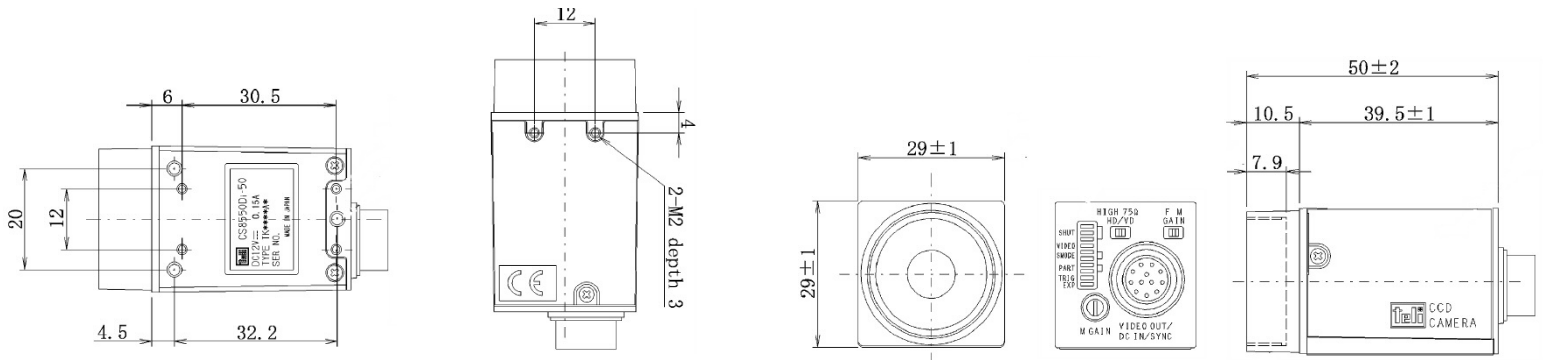
(lens characteristics and light source is not reflected in table)



DC IN/SYNC CONNECTOR ASSIGNMENT

Camera Connector: HR10A-10P-12S (Hirose Denki)

PIN	SIGNAL (STANDARD)	SIGNAL (OPTION)	INTERNAL SYNCHRONIZATION
1	DC12V GND		DC12V GND
2	DC12V		DC12V
3	VIDEO GND		VIDEO GND
4	VIDEO OUT		VIDEO OUT
5	HD GND		HD GND
6	HD IN		HD IN
7	VD IN		VD IN
8	TRIG GND	NC	TRIG GND
9	NC	TRIG IN	NC
10	WEN OUT	GND	WEN OUT
11	TRIG IN	DC12V	TRIG IN
12	VD GND	PARTIAL	VD GND



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