

# CS 8550i

**Single Speed B/W  
Progressive Scan CCD Video Camera**



- **1/3" Progressive Scan CCD Sensor with Square pixel**
- **Single Speed 30 fps**
- **Ultra Compact and Light Weight**
- **Restart / Reset, Internal/External Sync**
- **Random Trigger Shutter (RTS)**
- **Multiple Shutter**
- **Partial Scan Mode**
- **Application**
  - Machine vision
  - Factory automation
  - Quality control

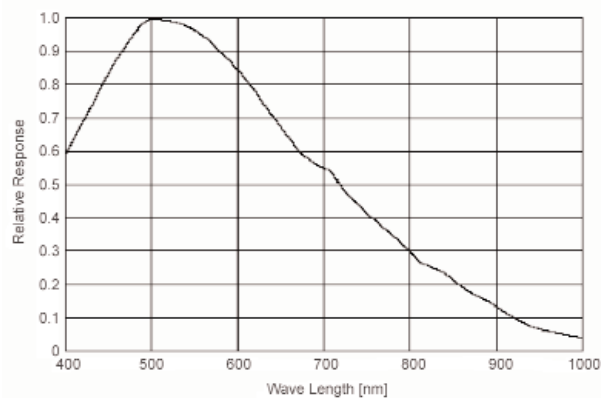


# Technical Data

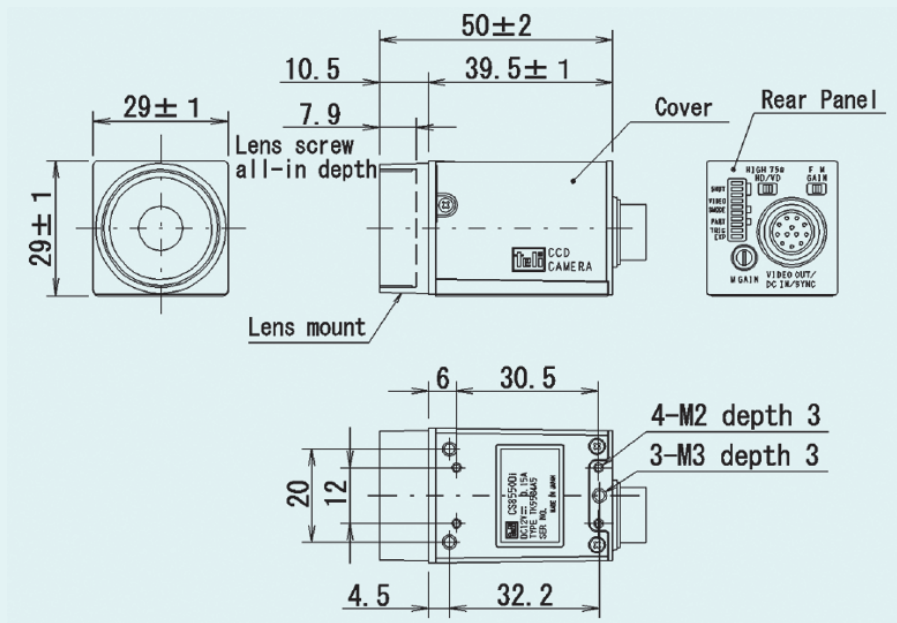
<b>Type</b>	<b>CS 8550i</b>
<b>Image sensor</b>	Progressive Scan Interline CCD
<b>Total pixel</b>	Type: ICX 424 AL
<b>Video output pixels</b>	692 (H) x 504 (V)
<b>Scanning area</b>	640 (H) x 480 (V)
<b>Unit pixel size</b>	4.88(H) x 3.66(V) mm (=equivalent to 1/3" type)
<b>Image Area</b>	7.4 (H) x 7.4 (V) $\mu$ m (Square grid array)
<b>Scanning lines</b>	4.8 (H) x 3.6 (V) mm
<b>TV system</b>	525 lines
<b>Video output format</b>	Conform to EIA
	1/30s Non-interlace mode
	1/60s 2:1 Interlace mode
<b>Partial Scan</b>	1/2 or 1/4 screen with increased frame rate
<b>Sync system</b>	Internal/External automatic switch-over
<b>Aspect ratio</b>	4:3
<b>Illumination</b>	4 Lux (F1.4)
<b>Video output</b>	VS 1.0V(p-p)/75 Ohm
<b>Resolution</b>	485 TV lines (H)
<b>S/N</b>	Standard: 52 dB(p-p)rms
<b>Illumination</b>	Standard 400 Lux (F5.6)
	Minimum 2 Lux (F1.4) (GAIN MAX. approx. 50% video output)
<b>Gain</b>	Fix (Fixed) gain
	MANU (Manual) gain
<b>Gamma correction</b>	Gamma = 1
<b>White-clip level</b>	Approx. 860mV(p-p)
<b>Power source</b>	DC12V +/-10%, Ripple voltage: <50mV(p-p)
<b>Power consumption</b>	Approx. 1.3W
<b>Internal sync spec</b>	
<b>Base clock frequency</b>	12.273MHz (1CLK) +/-200ppm
<b>H sync frequency</b>	16.734kHz (1H=780CLK)
<b>V sync frequency</b>	29.97Hz (non-interlace), 59.94Hz (interlace)
<b>External sync spec</b>	
<b>Ext. sync input signal</b>	HD/VD
<b>Input level</b>	2~4V(p-p)/10kOhm
<b>Input impedance</b>	75Ohm/High impedance
<b>Interlace</b>	1/30s non-interlace or 1/60s 2:1 interlace
<b>Polarity</b>	Negative
<b>Pulse width</b>	HD: 6.4 +/- 2 $\mu$ s (LOW), VD: From 250 through 800 $\mu$ s (LOW)
<b>Repeating frequency</b>	$f_H = 17.734$ kHz +/-1%, $f_V = f_H/262.5$ or $f_H/525$
<b>Phase difference</b>	HD/VD: 0 +/-5.0 $\mu$ s, 1/FH/2 +/-5.0 $\mu$ s
<b>Trigger spec</b>	
<b>Input level</b>	LOW level: 0-0.5V(p-p), HIGH level: 4-5V(p-p)
<b>Input impedance</b>	High impedance (10k Ohm)
<b>Capture timing</b>	Rising edge detection (Positive) / Falling edge detection (Negative)
<b>Pulse width</b>	Minimum 4 $\mu$ s, Maximum 1/4s
<b>Electronic shutter spec</b>	
<b>Normal Shutter</b>	Shutter speed setting via rear-panel SW (Initial:OFF)
	8 steps selectable (=OFF, 1/100,1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000s)
<b>RTS (Random Trigger Shutter)</b>	Operation mode, Multiple shutter
<b>Restart / Reset</b>	Restart/reset available
<b>Mechanical spec</b>	
<b>External dimension</b>	29 x 29 x 39.5(D)mm
<b>Weight</b>	App. 50g
<b>Lens mount</b>	C-Mount
<b>Ambient condition</b>	
<b>Operation</b>	Performance guaranteed: Temperature from 0 through 40°C / Humidity from 30 through 90% (no condensing)
<b>Storage</b>	-5°C to 50°C / Humidity 10% to 90%
<b>EMI</b>	-20°C to 60°C / Humidity 10% to 90%
	Conform to EN50081-2
<b>Output Connector</b>	HR10A-10P-12S

## Relative Spectrum Response

\*Including lens characteristics, excluding light source characteristics



## Outline



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