



Progressive Scan Machine Vision
Camera with Firewire Output and 60 fps

CS8550DIF



Key Features

ULTRA-FAST double-speed scan processing reads data twice as fast as other machine vision cameras

IEEE1394 (FireWire) video output at transfer rates of 400Mbps. Non-compressed VGA format video data (640x480) output at 60fps. FireWire eliminates frame grabber, allows control by PC.

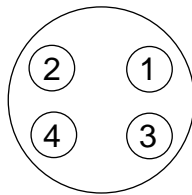
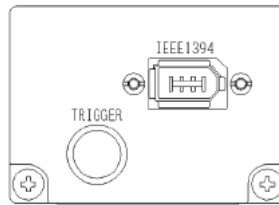
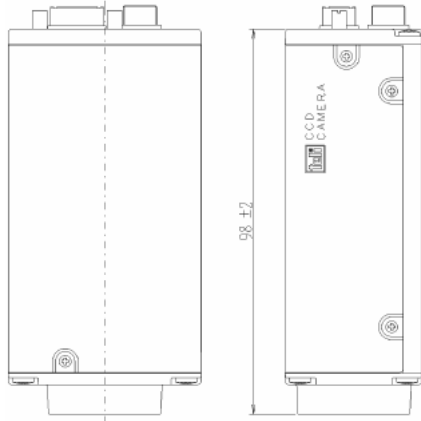
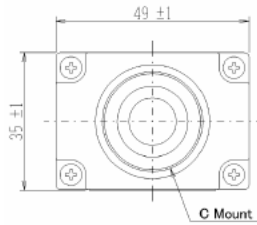
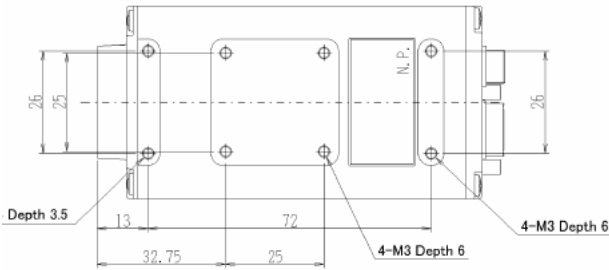
COMPACT DIMENSIONS for space-sensitive applications. Measures 49 x 35 x 98mm, weighs 210g

PROGRESSIVE-SCAN 1/3 Type CCD with square-grid-array

RANDOM TRIGGER shutter function captures fast-moving subjects at constant position

SPECIFICATIONS

Image Sensor	1/3 Type CCD All Pixel Sensor
Scanning System	Progressive Scan
Total Pixels	692(H) x 504(V)
Active Pixels	640(H) x 480(V)
Pixel Size	7.4(H) x 7.4(V) micron m
Frame Rates	60, 30, 15, 7.5, 3.75 FPS
Minimum Illumination	4 lx
Subject Illumination	400lx (F5.6)
Gamma	1.0 Fixed
Power Supply	DC+8V to DC+20V (via IEEE 1394 cable)
Power Consumption	3.2W (at +12V)
Interface	Firewire IEEE 1394a-2000
Transfer Speed	400Mbps
Protocol	Conforms to 1394 Digital Camera Spec. v. 1.3
Input Signal	
Shutter Trigger	VL = 0 to 0.5V (100kΩ), VH = 2 to 5 V(100kΩ)
Grabbing Timing	Rising/Falling Edge Detection Selectable
Pulse Width	Min 2 μs, Max 1 s
Electronic Shutter	OFF to 1/20,000 (8 step, selectable)
Random Trigger	1/60 to 1/20000 (9 step, selectable)
Gain Adjustment	± 6dB (90 steps)
Lens Mount	C-Mount
Operating Temperature	-5° C to 45° C, Humidity 30 to 90%
Dimensions	49(W) x 35(H) x 98(D) mm
Weight	170 g

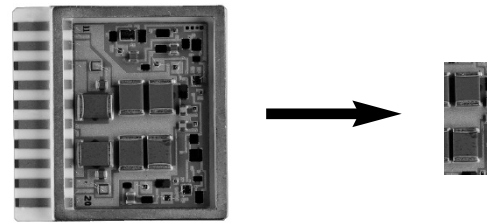
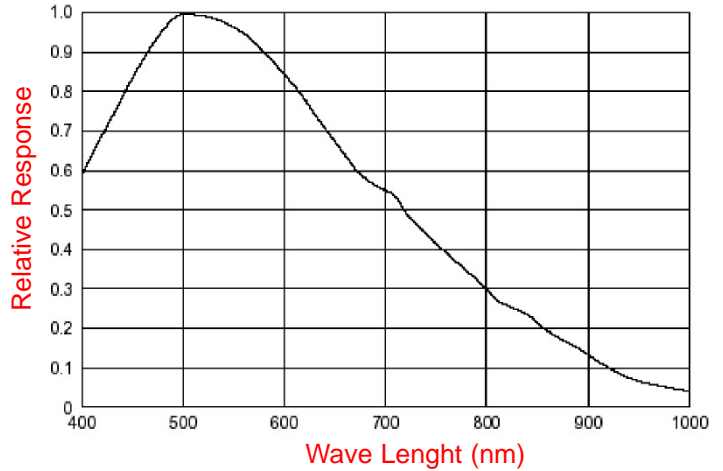


Typical Applications

Video image capture applications for the CS8550DiF include high-speed machine vision, inspection, high contrast image, quality control, positioning and many others.

Typical Spectral Response

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



Scalable Mode

The CS8550DiF's scalable mode lets it read out a defined area of the screen that is read at the standard speed while the unnecessary portions of the screen are scanned through at high speed, so the trigger interval can be shorter.

IEEE 1394 Connection

Firewire Connector: HSB-ARD62-SN15A (DDK Ltd.)

Recommended Harness: HSB-HC-A07 (DDK Ltd.)

PIN NUMBER	SIGNAL NAME	I/O
1	POWER	1
2	POWER (GND)	1
3	TPB-	I/O
4	TPB+	I/O
5	TPA-	I/O
6	TPA+	I/O

DATA IN/OUT Connection

PIN NUMBER	SIGNAL NAME	I/O	NOTES
1	TRIG	I	
2	TRIG (GND)	I	
3	N.C	-	Used in open
4	S.G.	-	Used in open



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