

SENTECH

Sentech Monochrome DSP CCD Cameras



STC-820

STC-820 Monochrome DSP CCD Cased Camera

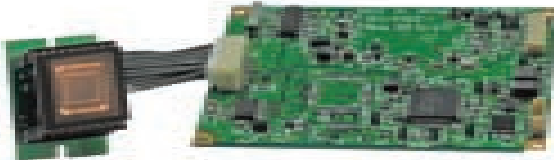
The STC-820 is a first-of-its-kind digital signal processing (DSP) monochrome CCD camera. Based on Sentech's vast experience in developing color DSP CCD cameras, this powerful technology has been adapted to expand the capabilities and functionality of machine vision monochrome CCD cameras. Machine vision, factory automation, and other critical inspection markets will realize more dynamic control of the camera's setup and functionality. Best of all, the STC-820 offers remote control of the cameras set up and operation allowing users to adjust the camera on the fly.

STC-820 Features:

- *Programmable/Controllable Digital Signal Processing*

STC-R920M Monochrome DSP CCD Board-Level Camera

The STC-R920M is a board level B/W DSP camera specifically developed for silicon wafer inspection. This camera features a 10 Bit DSP which is programmable by Sentech for your application. The STC-R920M is a single compact board, slightly larger than a credit card, with a remote head CCD. The CCD board is 25 (W) x 20 (H) mm with a 67mm (2.7") wire harness separating it from the CCU board.



STC-R920MB

SENTECH

Sentech Monochrome DSP CCD Cameras

STC-820 / R920M General Specifications:

STC-820 (EIA): 1/2" 570 TVL, 768 (H) x 494 (V) Pixels
 STC-825 (CCIR): 1/2" 560 TVL, 752 (H) x 582 (V) Pixels
 STC-R920M (EIA): 1/2" 560 TVL, 768 (H) x 582 (V) Pixels

Effective Pickup Area:	768 (H) x 494 (V)
CCD Size:	7.40 (H) x 5.95 (V) mm
Pixel Cell Size:	8.4 (H) x 9.8 (V) μ m
Scanning Area:	6.45 (H) x 4.84 (V) mm
Pixel Clock Frequency:	14.318 MHz
Horizontal Sync Frequency:	15.734 KHz
Vertical Sync Frequency:	59.94 Hz
Vertical Resolution:	STC-820/R920M Field: 350 TV Lines (EIA) Frame: 485 TV Lines STC-825 Field: 410 TV Lines (CCIR) Frame: 575 TVL
Integration:	Field/Frame
Scanning Systems:	2:1 Interlace
Video Output:	1.0 vpp, 75 Ω
S/N Ratio:	56 dB (Gain Minimum)
Minimum Illumination:	0.05 Lux @ F1.2 (50 IRE)
Operating Voltage:	DC +12 Volts \pm 10%



Monochrome DSP

STC-820 / R920M Differences:

STC-820		STC-R920M	
Lens Mount:	C-Mount	Lens Mount:	N/A
Gamma:	Selectable: 0.45, 0.6, and 1.0 or S-Curve DSP Selectable	Gamma:	1.0 (Sentech Programmable)
Accumulation:	Field or Frame Accumulation	Accumulation:	Field or Frame Accumulation
DSP: User Programmable	Mirror Image Aperture Control (horizontal and vertical) Analog Gain Control (AGC) 8-22dB Digital Gain Control (DGC) 0-14dB AGC/Fixed Gain (Selectable) Video Setup Level	DSP: Sentech Programmable	Mirror Image Aperture Control (horizontal and vertical) Analog Gain Control (AGC) 8-22dB Digital Gain Control (DGC) 0-14dB AGC/Fixed Gain (Selectable) Video Setup Level
Electronic Shutter:	1/30 (1/25), 1/60 (1/50), 1/100 (1/120), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000	Electronic Shutter:	1/30 (EIA) (Default Setting)
Gain:	AGC On (8-22dB), DGC (0-14dB) DSP Selectable	Gain:	Sentech Programmable
Dimensions:	31.0 (W) x 29.0 (H) x 72.7 (D) mm	Dimensions:	Main Board: 50 (W) x 11.2 (H) x 75 (D) mm/CCD CCD Board: 25 (W) x 20 (H) x 9 (D) mm Not Including Connectors
Power Consumption:	180mA	Power Consumption:	147mA
Weight:	87g (3.07 oz.)	Weight:	23g (.84 oz.)
Connections: (Cased Camera)	BNC (Video) 12-Pin Hirose (Power, Sync, Video)* 3-Pin (Serial I/O - RS-232C for DSP) *Mates with Hirose HR10A-10P-12S (Cable Connector)	Connections:	10-pin wire harness (Power, Sync, Video)