



CP8210 is a single-chip video/image camera sensor that uses a unique WiDy™ technology developed by Clairepixel to allow video capture in extremely diverse lighting conditions, hence making it suitable for auto vehicle cameras and security systems. CP8210 is set up with a 1280x720 image array, outputs up to 60 frames (1280x720) per second, and supports various forms of digital output format and SMPTE296M format to support HD-SDI. CP8210 has various camera control functions, and can be programmed through a two-wire serial interface.

Features

- ClairPixel's Wideye™ , Wide Dynamic Range technology
- System-on-a-chip(SOC)-completely integrated camera system
- Integrated microcontroller for flexibility
- 8-,10-bit parallel digital output
- Bayer Noise Reduction, Lens Shading Compensation, Defective Pixel Compensation
- Color Correction, Gamma Correction,
- Hue/Saturation, Contrast/Brightness Control
- Edge Enhancement
- Parking Guide, OSD, Privacy Zone Mask,
- Automatic features : Auto Exposure, Auto White Balance, Anti-Flicker, Black Level Calibration
- 2 channel(Master, Slave) Two-wire serial interface

Application

- Automotive
- Machine Visions
- Security surveillance cameras

WDR, Digital Output, 1/3" , 1Mp

PARAMETER		TYPICAL VALUE
Optical Dimension	Optical Format	1/3 inch
	Pixel Size	4.0 um X 4.0 um
	Effective Resolution	1288(H) X 728(V)
	Effective Pixel Area	5.152 mm(H) X 2.912 mm(V)
Digital Output		10bit, 8bit RGB Bayer, YCbCr422, RGB565/555 SMPTE296M
Input Clock Frequency		27MHz
Maximum Frame Rate		1280x720, 60fps(Bayer)@74.25MHz 1280x720, 30fps(YCbCr)@74.25MHz
Shutter Type		Electronic Rolling Shutter
Sensitivity		3.2V / lux-sec
Dynamic Range		120 dB
SNR		39 dB
Max. Programmable Gain		analog (x400), digital (x32)
Supply Voltage	Pixel	3.3V ± 10%
	Analog	3.3V ± 10%
	Digital	1.5V ± 10%
	I/O	3.3V ± 10%
Power Consumption	Active	420mW
	Standby	[T.B.D]
Operating Temperature		-40°C ~ 85°C
Package Type		CLCC or Wafer Die