CP5810

CP5810 is a CMOS ISP (Image Signal Processor) for FHD (1080P) / Mega (1280H) – Analog security camera application with outputting digital Interface. It features advanced functions such as XDR (Extreme Dynamic Range), D–WDR, and natural Defog, which is a processing to eliminate the lighting effects adaptively to be able to bring the object's real fine image as like as a process of human eyes. It is a capable ISP for versatile surveillance camera application together with many useful functions such as automatic image control functions (AE/AWB/AF), enhancement functions, privacy zone masking, motion detection, OSD, and etc.

FEATURES & SPECIFICATIONS

H/W Specification

· Supported CMOS Image Sensor Type :
  1080P 30 fps

· Multimedia :
  - Embedded 32-bit RISC Processor
  - Embedded Program SRAM
  - Timer, UART, SPI, PWM, WDT, GPIO, I2C
  - On-chip Encoder for CVBS (1CH DAC)
  - On-chip ADC (2CH MUX)

· Operating Power :
  - Analog : 1.2 V, 3.3 V
  - I/O Digital : 1.8 V or 3.3 V
  - Core : 1.2 V

· Operating Temperature : -20 ℃ ~ +70 ℃

· Package Type : 88-pin QFN (10 x 10 mm 0.4p)

Output Specification

· Video Output Mode :
  Analog Output Mode : NTSC / PAL, 960H / 1280H
  Digital Output Mode : 10bit -RAW / YUV422 / BT.656 / BT.1120

Image Processing Features

· Advanced RGB Interpolation for High Resolution
· 2D Digital Noise Reducer
· Adaptive Contrast Enhancer (XDR)
· Defog
· Lens Shading Compensation
· Live Defect Detection & Correction
· Automatic Image Control Functions : AE, AF, AWB
· Edge Enhancement

· Programmable RGB Gamma Correction
· Y/C Processor : Saturation, Hue, Contrast,
· Brightness, Sharpness
· Dynamic Motion Detection
· Privacy Zone Masking (Polygon Type : 6 ea)
· Font OSD

APPLICATIONS

· Surveillance Camera System with CIS
· Car Driving Recorder

· Video Door Phone
· Automotive Monitoring Camera