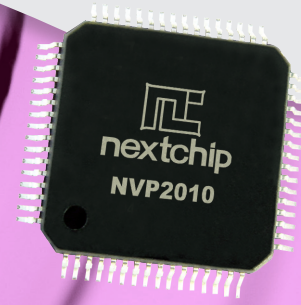


CCD Image Signal Processor



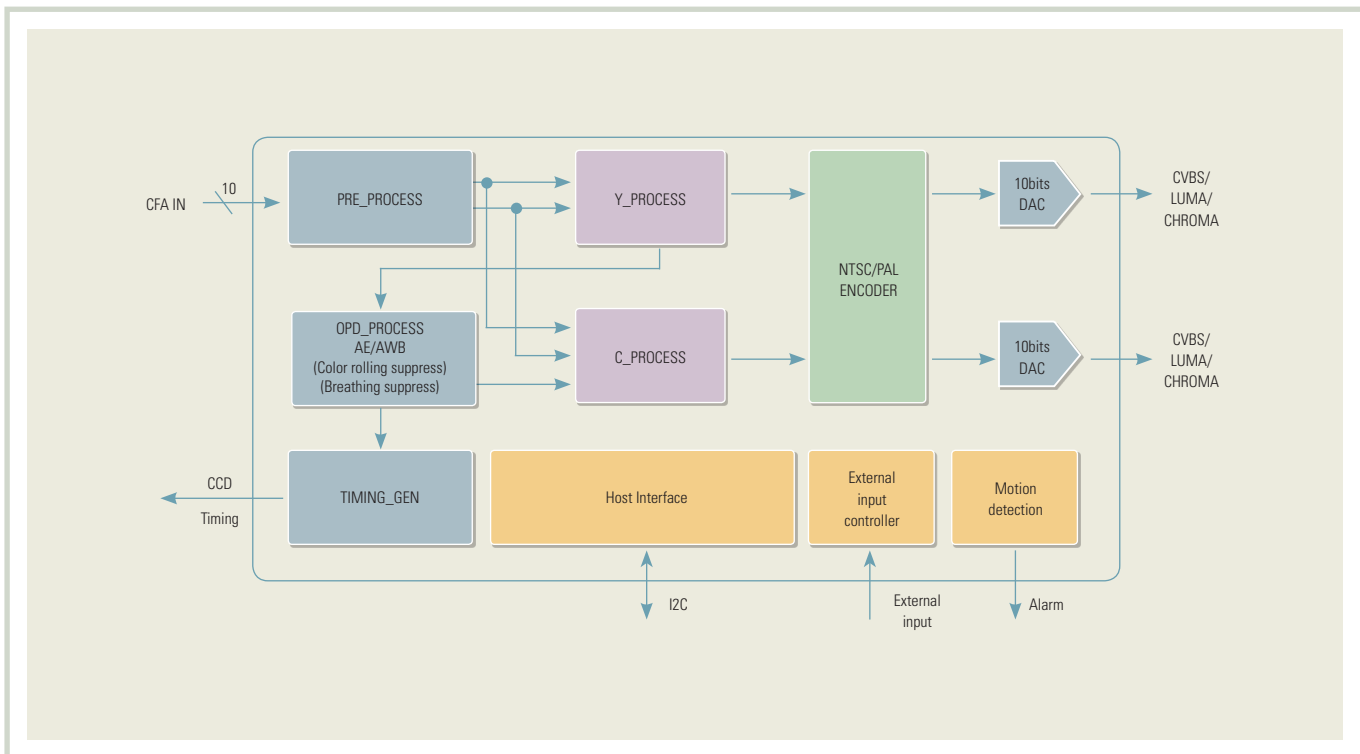
NVP2010

The NVP2010 outputs CVBS or S-Video after receiving CFA patterns from the color-interlaced CCD, which are processed through an internal encoder and DAC. Equipped with built-in AE/AWB algorithms, timing generation module, the NVP2010 can be operated without MCU. The NVP2010 shows higher resolution output than 520 TV lines and includes enhanced BLC function and motion detection function in 64 areas.

Features

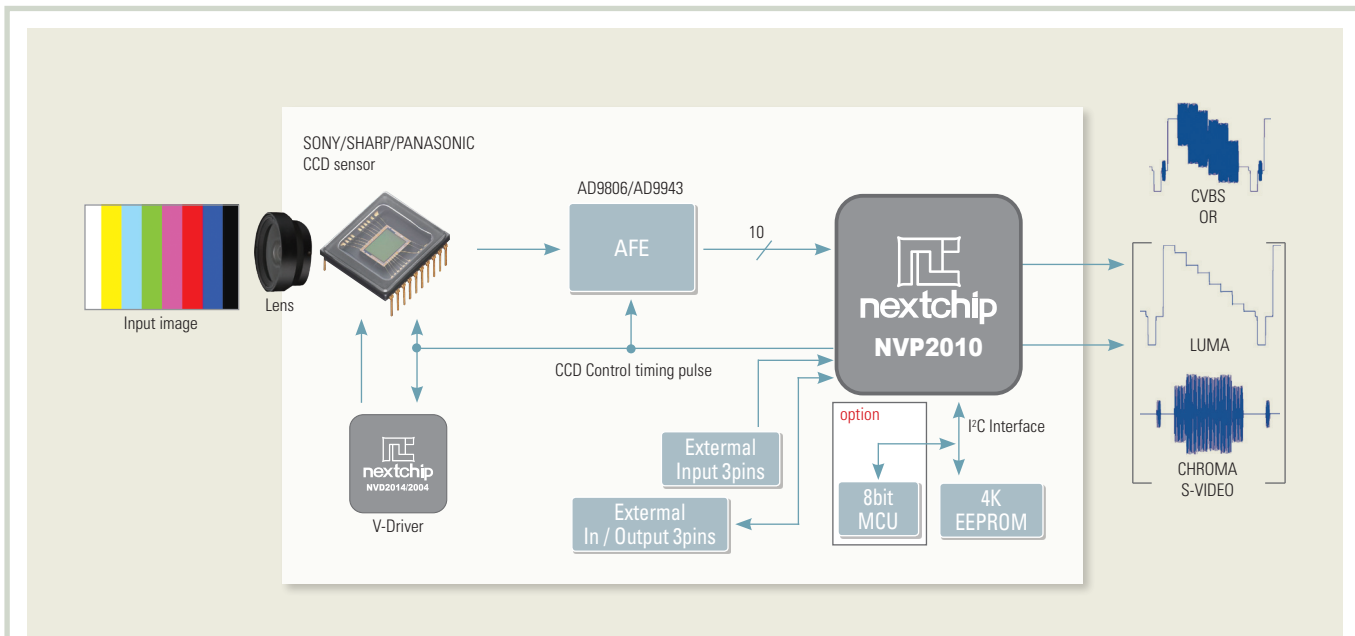
- Input : NTSC/PAL, 510H/760H CCD format
- Output : NTSC/PAL analog S-Video or CVBS
- 3-line color processing
- Programmable GAMMA processing
- H/V Aperture
- High quality color processing
- Horizontal MIRROR
- Blemish compensation 32 points (Auto/Manual)
- Color rolling suppress
- Breathing suppress
- Supports horizontal resolution above 520 TV lines
- Motion detection (ON/OFF)
- On-chip AE/AWB
- On-chip CCD timing generator
- On-chip NTSC/PAL video encoder
- On-chip DAC (S-video or CVBS)
- I2C interface for EEPROM (MCU-less camera)
- Serial interface for AFE
- 3.3V operation
- Package (64-TQFP, 7mm×7mm, 0.4P)

Block diagram



Application Diagram

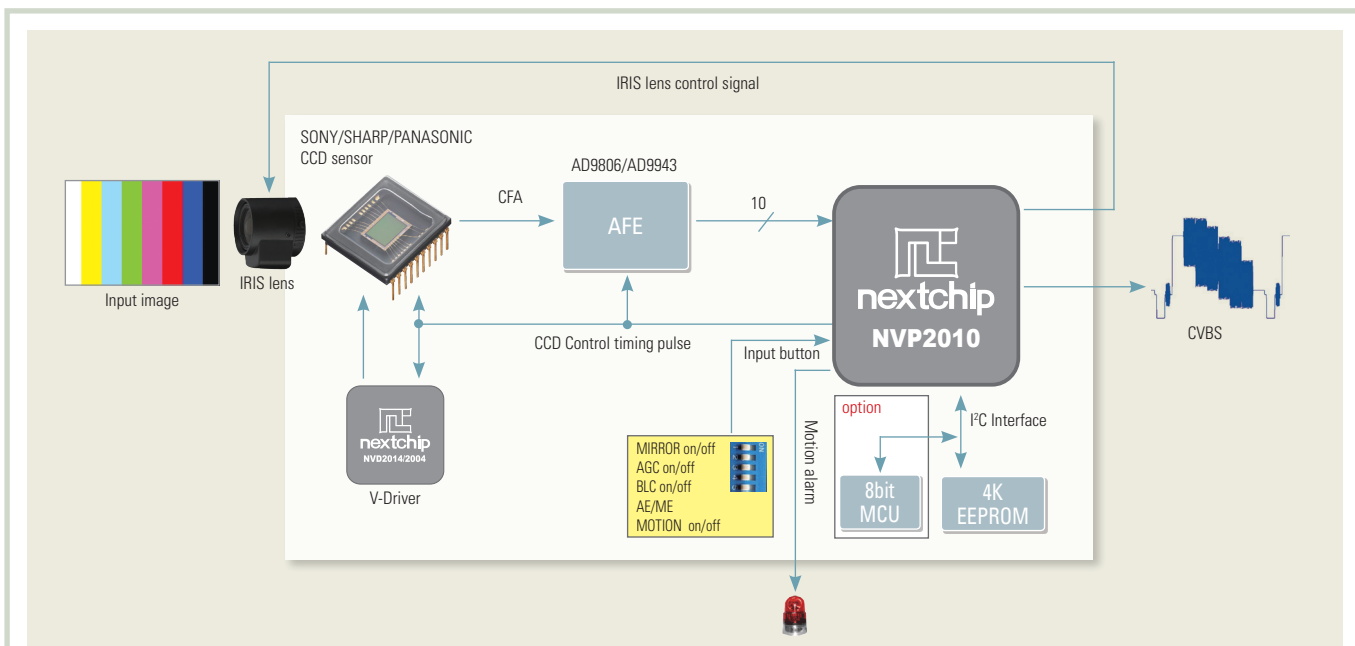
CCD Camera Application



■ NOTE (The following pulse assigned to external pins)

- | | | | | | | |
|----------|-----------------|----------------------|--------------|----------------|-------------|-----------------|
| * INPUT | · MIRROR ON/OFF | · DAY & NIGHT ON/OFF | · AGC ON/OFF | · BLC ON/OFF | · AE/ME | · SSM[0] |
| | · SSM[1] | · SSM[2] | · IRIS_LEFT | · IRIS_RIGHT | · IRIS_LENS | · MOTION ON/OFF |
| * OUTPUT | · DAY_MOTOR | · DAY_IR | · PWR | · MOTION_ALARM | | |

External in/output pin application with IRIS lens and motion alarm



■ NOTE (The following pulse assigned to external pins)

- | | | | | | | |
|----------|-----------------|----------------------|--------------|----------------|-------------|-----------------|
| * INPUT | · MIRROR ON/OFF | · DAY & NIGHT ON/OFF | · AGC ON/OFF | · BLC ON/OFF | · AE/ME | · SSM[0] |
| | · SSM[1] | · SSM[2] | · IRIS_LEFT | · IRIS_RIGHT | · IRIS_LENS | · MOTION ON/OFF |
| * OUTPUT | · DAY_MOTOR | · DAY_IR | · PWR | · MOTION_ALARM | | |