

Low power 4-Ch Video Decoder with 4-Ch PCM Voice Codec

NVP1104

NVP1104 is the specialized Video Decoder for surveillance systems including 4-Ch Video Decoder and 4-Ch Voice Codec. 4-Ch Video Decoder delivers high quality images. It accepts separate 4 CVBS inputs from Camera, TV, VCR and the other video signal sources. It digitizes and decodes NTSC/PAL video signal into digital video components which represents 8-bit CCIR656 4:2:2 format with 27MHz or 54MHz/108MHz multiplexed. 4-Ch Voice Codec is 4-Ch PCM Voice Codec which handles voice band signals(300Hz~3400Hz) with 8-bit/16-bit linear PCM, 8-bit G.711(u-law, A-law) PCM. Built-in voice controller can generate digital outputs for recording/mixing and accepts digital input for playback.



Features

Video Decoder

- Accepts NTSC-M/J/4.43, PAL-B/G/H/I/D/K/L/M/N/Nc/60
- Inputs : 4 * CVBS with 10-bit 4-Ch ADC
- Output : 4 * 4:2:2 8-bit ITU-R.656 (27M/54M/108M)
- On chip analog AGC/CLAMP
- 3H/5H 2-D Adaptive comb filter and notch filter
- Programmable vertical peaking
- Programmable brightness, contrast, saturation, hue
- White peak detection & peak AGC
- Color transient improvement
- Color compensation for PAL

Audio Codec

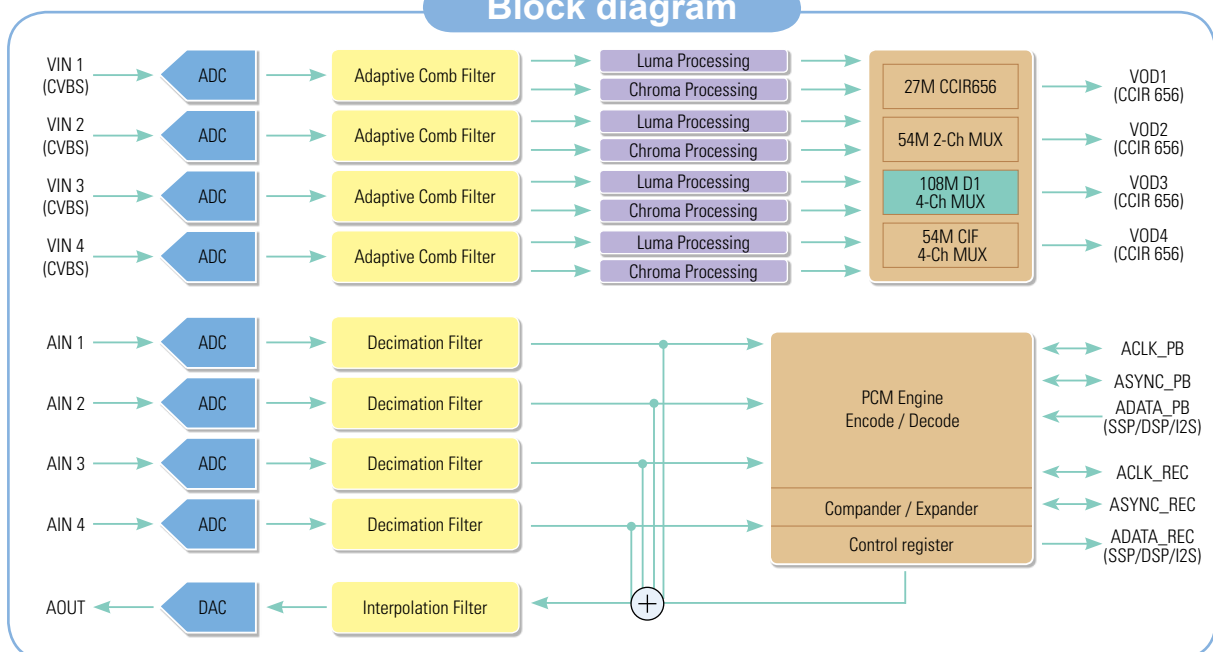
- 4-Ch PCM Voice Codec
 - : Linear PCM(8/16KHz, 8/16-bit)
 - : G.711 A-law/u-law Compand/Expand (8/16KHz, 8-bit)
- 4-Ch voice record, 1-Ch playback
- Analog gain control
 - : Input Gain : Gain Range : 0 ~ 21dB (3dB step)
 - : Output Gain : Gain Range : -6 ~ 6dB (0.75dB step)
- Input mixing, digital volume, mute detection
- SSP/DSP/I2S Interface (master/slave mode)

- Cascade mode (up to 4-cascade support) : 16-Ch recording, mixing output, playback

Miscellaneous

- 3.3V I/O, 1.8V Core, I2C Interface
- Ultra low power consumption (typical 0.4W)
- Package (100-TQFP, 12mm×12mm, 0.4P)

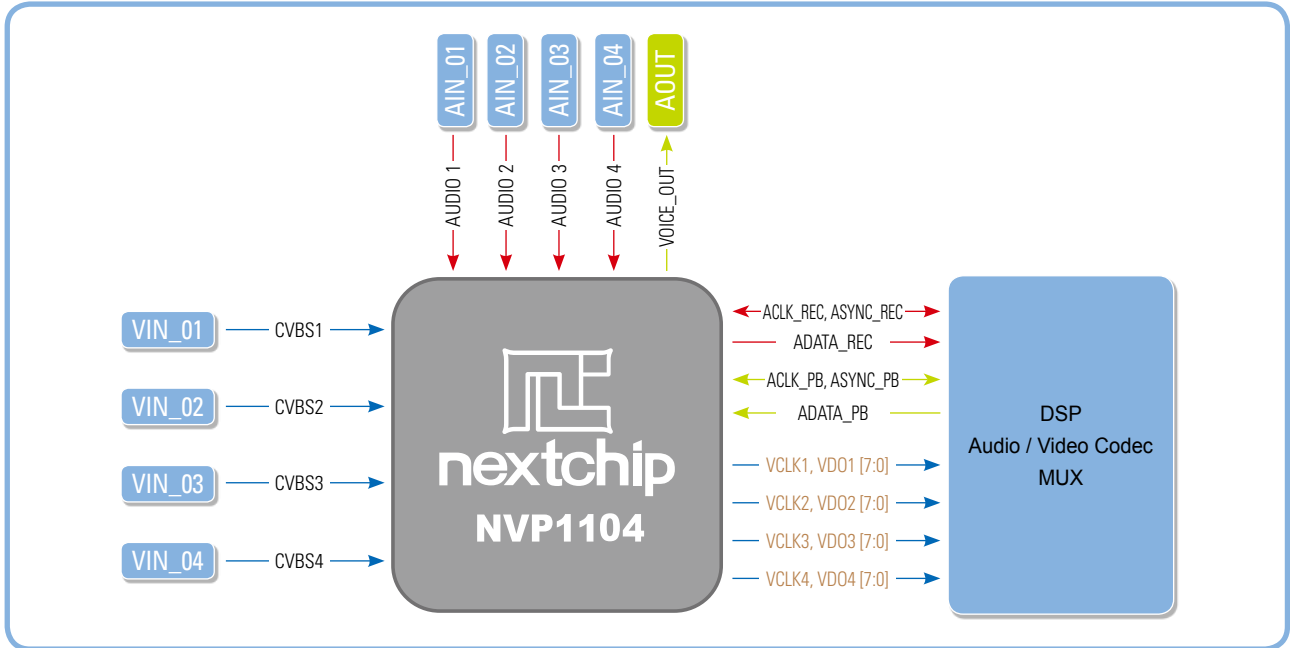
Block diagram



Note that. This function will be available when external 108M oscillator is used.

Application Diagram

Application : 4-Ch DVR



Application : 16-Ch DVR

