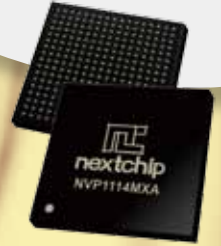


4-Ch DVR Video Processor with Audio, SDRAM SiP for Low Power, Compact Size



NVP1114MXA

The NVP1114MXA is a 4-Ch video and audio processor for DVR and security applications.

In video path, it accepts 4 analog camera inputs and 4 digital PB inputs, and produces 3 digital outputs and 2 analog outputs. It supports digital input/output with 8bit ITU.R BT656 standard. It has high quality of H/V scale function, field/frame freeze, linear zoom, edge enhancement, motion tracing, graphic OSD, mouse interface and overlay functions for LIVE/PB and SPOT display in infinite cascade connection. And it also supports 60-field/sec, 30-frame/sec switching and 120-CIF/sec with time scheduling function for record output up to 16-Ch cascade connection. Furthermore, it supports real-time output for 4-Ch in D1 size and CIF size. In audio path, it accepts 4 analog audio inputs to 4 ADCs and generates 1 analog audio output from DAC. Built-in PCM voice codec can generate digital outputs for recording/mixing and accept digital input for playback.

In addition, the NVP1114MXA has PS/2 mouse, keypad(6x6), remote controller interface and parallel host interface for user's convenience. The NVP1114MXA is SiP(System in Package) product including 128Mbit mobile SDRAM and it will be the best cost effective and high performance solution for security applications.

Features

Video Decoder

- Accepts NTSC-M/J/4.43, PAL-M/N/B/D/G/H/I/60
- High-performance 3H/5H 2D adaptive comb filter
- Programmable peaking filter for luminance
- Programmable brightness/contrast/saturation/hue

Live/PB/Spot Display Engine

- High quality H/V scale (1/1, 3/4, 2/3, 1/2, 1/3, 1/4, 1/5, 1/6)
- H/V mirror function
- Motion tracer with programmable area selection
- Edge enhancement
- High quality play back image using field enhancing algorithm

- Digital linear zoom processor($\times 1 \sim \times 128$)
- Field/Frame freeze, 3-PIP operation
- Anti-rolling operation for live
- 12 Programmable single boxes
- Graphic user interface with bitmap, mouse pointer
- Infinite cascade connection

Record Engine

- 720/704 H-resolution for frame/field
- 360/352 H-resolution for CIF/Quad
- Various record format with 2 queues(128-depth)
- Various index structure
- BW mode support
- Supports median filter or mean filter

- Internal trigger operation
- Private region function(1 region/channel)
- Graphic user interface with bitmap (bitmap overlay)
- Cascade connection up to 16-Ch

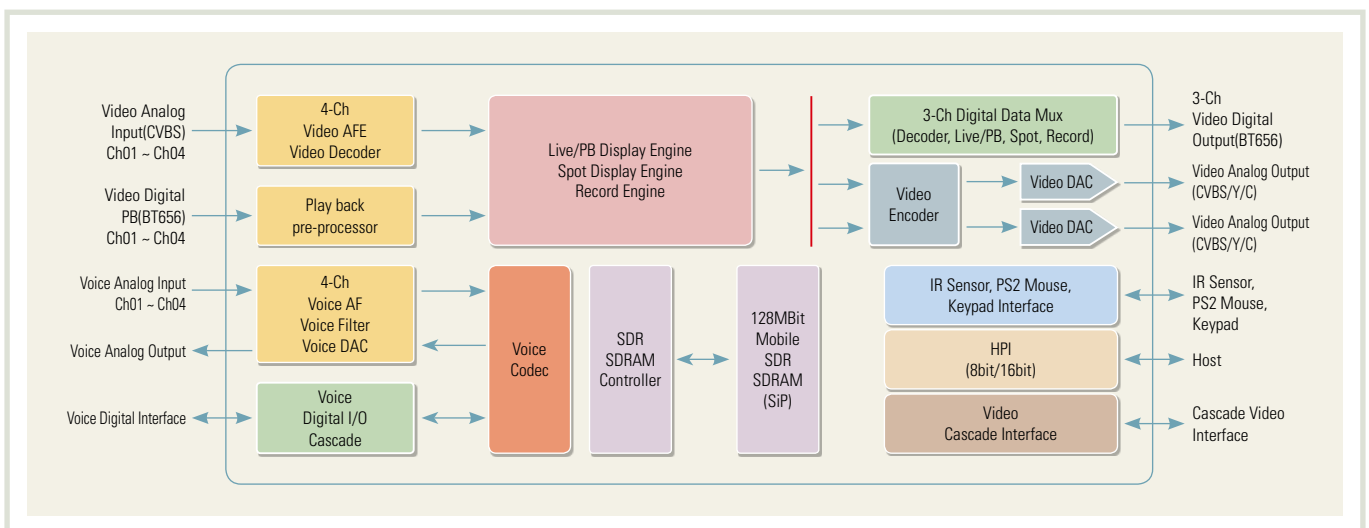
Video Encoder/DAC

- 2 Analog outputs
- Supports internal color bar pattern generator

Miscellaneous

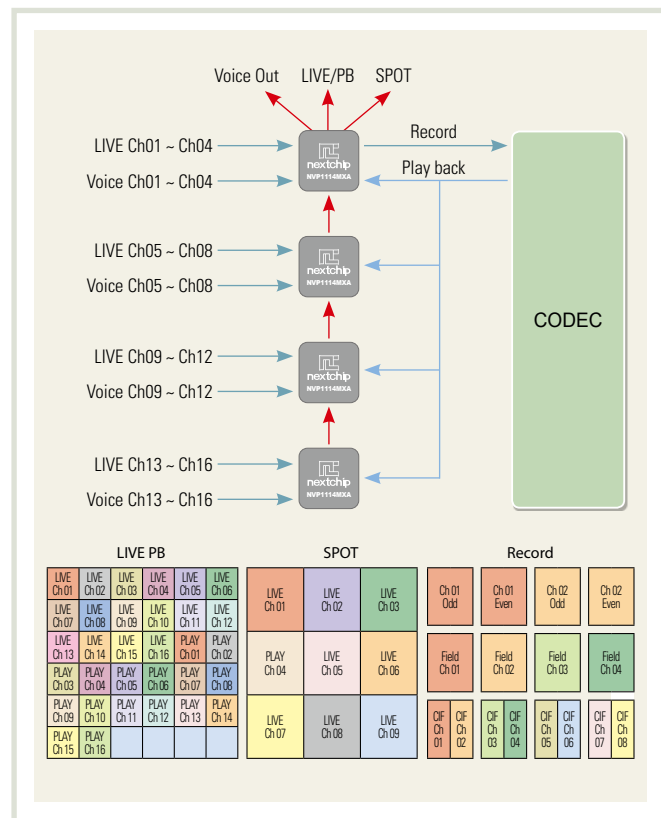
- -20°C ~ 85°C(industrial spec)
- Package(289-LFBGA, 15mm×15mm, 0.8P)

Block diagram

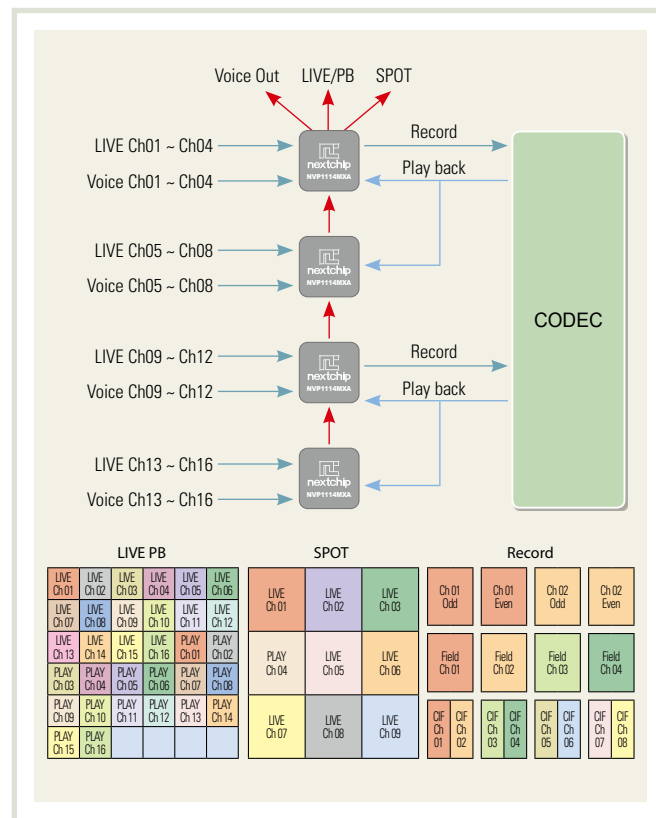


Application Diagram

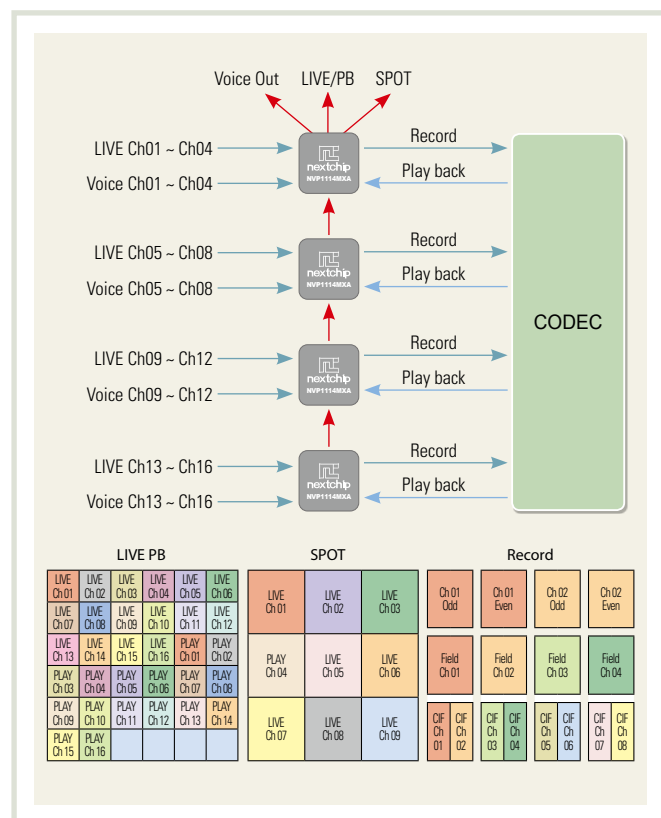
120-FPS application with 16-Ch



240-FPS application with 16-Ch



480-FPS application with 16-Ch



Real-time Full D1 application with 16-Ch

