

# 4 ch Color Video Display ASIC Solution for Multiplexer

## NVC1001

NVC1001 is a 4 ch Color Video Controller for Multiplexer application. This processor accepts 4 inputs, 1 PB input, produces 2 analog outputs and 2 digital outputs which have video format in 8-bit CCIR656 4:2:2. NVC1001 has various display features such as Full, Quad, 9 pictures, PIP, POP screen and Image capture & replay function. It has built-in 2 ch NTSC/PAL video encoder & DAC. At the same time, NVC1001 supports field switching and Quad in record path.



## Features

### Interface

- Input : CCIR656 4:2:2 format (4 ch camera + 1 ch PB)
- Output : 2 ch NTSC/PAL Analog S-Video or CVBS  
(Available digital CCIR656 4:2:2 format at the same time)
- Direct SDRAM interface
- Parallel host interface
- 208PQFP

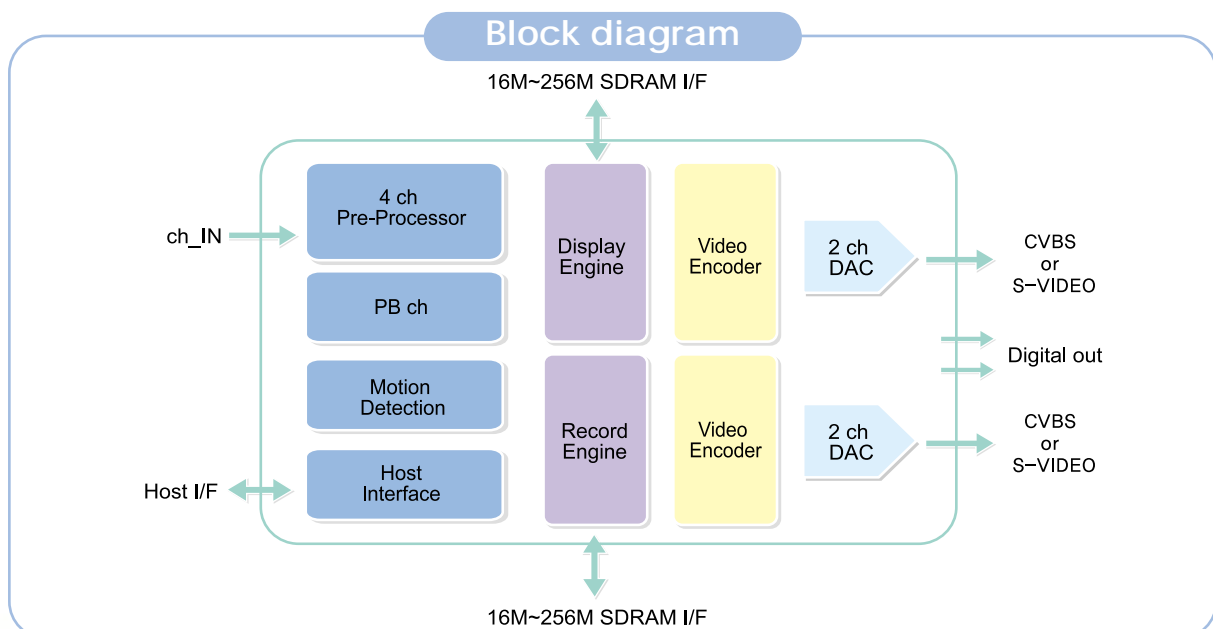
### Display path

- Multi-style real time display  
(Full, QUAD, 9DIV, PIP, POP)

- Programmable display size  
(1, 3/4, 2/3, 1/2, 1/3, 1/4) & position
- Built-in H/V scaler
- Anti-Rolling Sequence, Freeze, 2 × Zoom, Mirror function
- Graphic OSD
- Live & Play Back display (multi-style)
- 8 ch NRT (Non Real Time) display

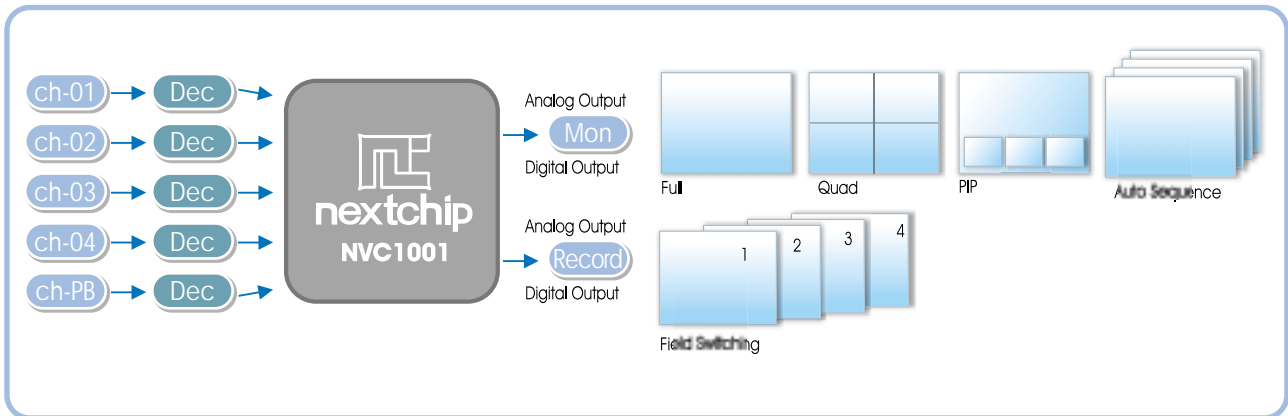
### Record path

- Programmable Field rate switching (max. 60 fields/sec)
- CIF image switching (120 CIFs/sec)
- Time scheduling record on each channel
- Motion Detection (16 × 12 windows)

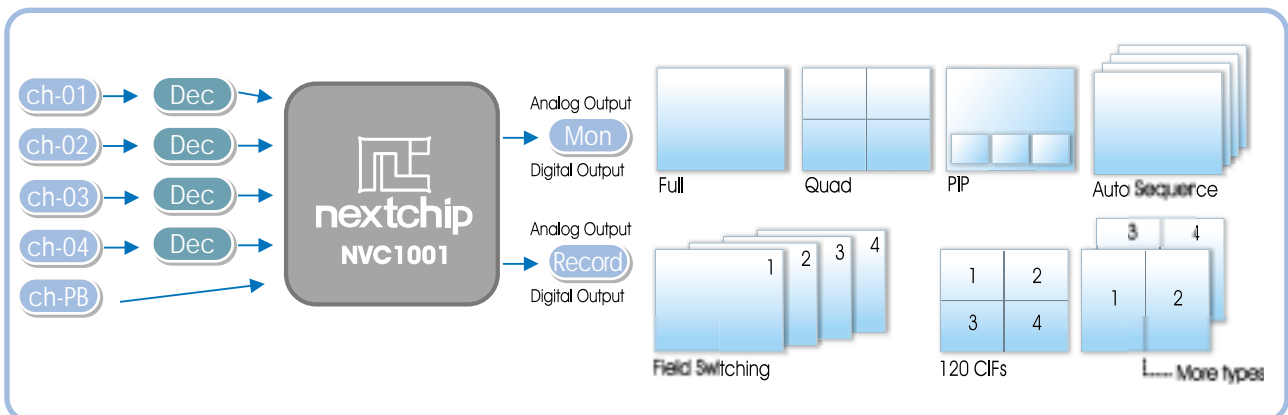


# Application Diagram

## Application type 1: Color 4 ch Multiplexer - real time display



## Application type 2: Color 4 ch DVR - real time display



## Application type 3: Color 8 ch Multiplexer - non real time display

