

ML87V2104

PRODUCT INTRODUCTION SHEET (January 28, 2003)

OKI

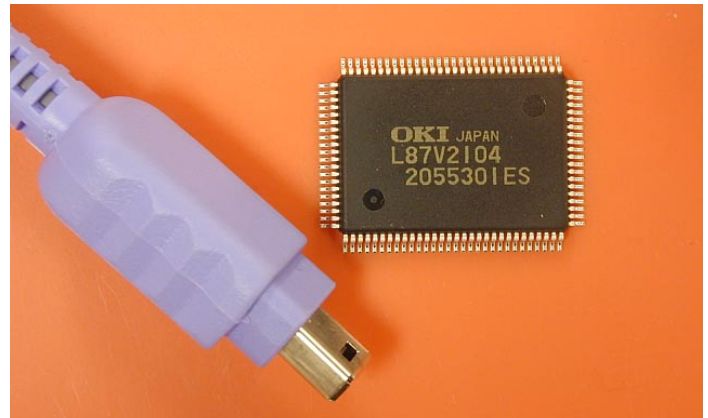
OkI, Network Solutions
for a Global Society

VIDEO NOISE REDUCTION & FIELD RATE CONVERSION LSI

Description

The ML87V2104 contains a 3-port type (1 input port and 2 output ports) 4.4 Mbit (960 × 288 × 16bits) field memory and logic circuits for signal processing and memory control. The device is designed to reduce field-recursive noise.

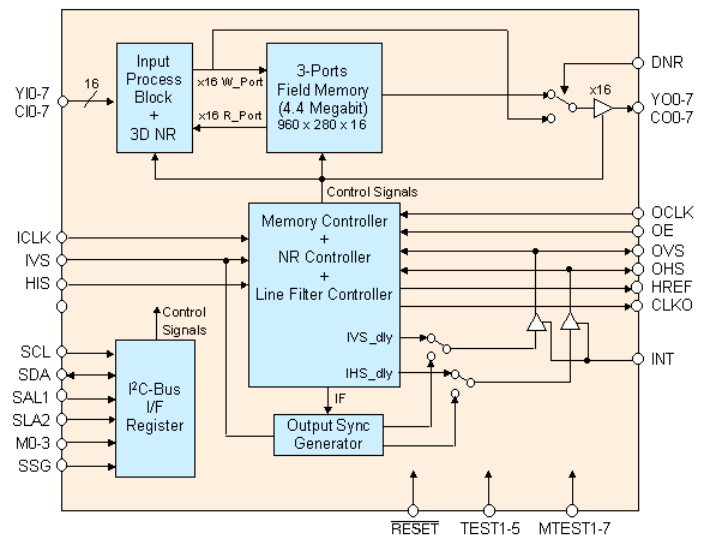
A noise reduction auto mode can be set upon detection of noise in the vertical blanking period while the noise reduction level can be adjusted in accordance with the state of detected noise. Furthermore, an internal memory controller controls flicker-free conversion that doubles vertical and horizontal direction frequencies.



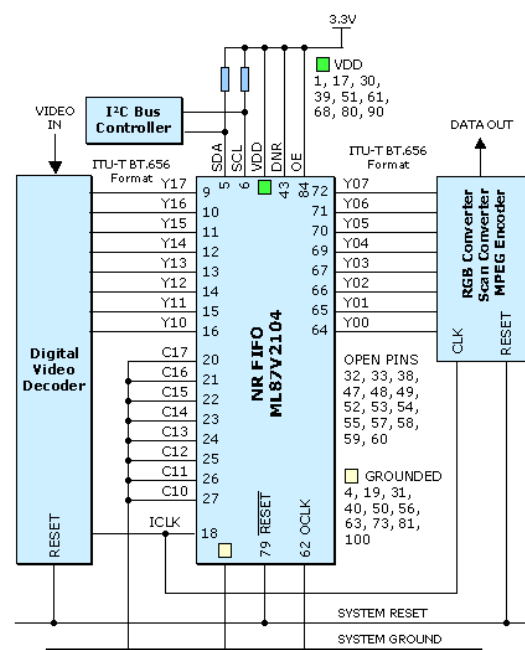
Essential Features

- 4.4 Mbit (960 × 288 × 16 bits) Field Memory
- Maximum input operating frequencies (16 bits/8 bits, ITU-R BT.656):
 - 18/36MHz (at 960 eff horizontal pixels)
- Maximum output operating frequencies (normal/flicker-free):
 - 18/36MHz (at 960 eff horizontal pixels)
- Input pin: TTL-5V tolerant
- Input/output pins:
 - Input TTL- output LVCMOS-5V tolerant
- Output pin: LVCMOS (3.3V)
- Input data format:
 - YCbCr (8 bits (Y) + 8 bits (CbCr)) (4:2:2):
 - Input 16-bit mode
 - YCbCr (8 bits (YCbCr)) (4:2:2):
 - Input 8-bit mode
 - ITU-R656 (8 bits (YCbCr)):
 - Input ITU-R BT.656 mode
- Output data format:
 - YCbCr (8 bits (Y) + 8 bits (CbCr)) (4:2:2)
- I2C-bus interface: (400kHz/100kHz)
- Memory controller functions:
 - Input:
 - Compliant to 525/60Hz 2:1,
625/50Hz 2:1
 - Output:
 - 625/50Hz 2:1, 525/60Hz 2:1,
625/100Hz 2:1, 525/120Hz 2:1
- Sync generator functions:
 - Sync signals of 625/50Hz 2:1,
525/60Hz 2:1, 625/100Hz 2:1,
525/120Hz 2:1.
- Field-recursive type noise reduction function:
 - Noise detection and noise subtraction type (with horizontal motion compensation)
 - Auto mode noise reduction (detection during vertical blanking period)
- Power supply voltage: 3.3V ±0.3V
- Active supply current: 100mA max.
- Standby current: 10mA max.
- Operating temperature: 0 ~ +70°C
- Package: 100-pin QFP (QFP100-P-1420-0.65-BK4)

Block Schematic Diagram



Typical Application (simplified)



This is a product introduction, not the products' data sheet. Specification are subject to change without notice.