

DATA SHEET

Part No.	MN34031PLJ
Package Code No.	LGA104-C-120145-IA

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MN34031PLJ

MOS Image Sensor

■ Overview

This is a MOS-type sensor of 1/3 type offering 1.3 mega pixels. This product consists of embedded photodiode, pixel block by MOS transistor, column AD converter, built-in timing generator (TG), high speed serial output I/F, parallel output I/F, and functional circuits of various kinds. High definition 12-bit digital image signals offering 1.3 mega pixels are obtained with high speed of 60 fps (serial output I/F) and with low power consumption.

■ Features

- Scan mode : Progressive scan
- Optical size : 1/3 type (inch)
- Number of active pixels : 1280 (H) × 1024 (V) = 1,310,720 (pixel)
- Total number of pixels : 1376 (H) × 1070 (V) = 1,472,320 (pixel)
- Pixel size : 3.75 (H) μm × 3.75 (V) μm
- Chip size : 7.7 (H) mm × 6.1 (V) mm
- Number of pins : 104 pins (including pins of "N.C.")
- Actual imaging area dimensions (active pixel area) : 4.800 (H) mm × 3.840 (V) mm
- Color filter arrangement : Bayer arrangement of primary colors: R, G, B
- Power supply voltage : 3.3 V / 1.8 V / 1.2 V
- Master clock : 27 MHz
- Bit number of internal ADC : 12-bit
- Output signal type : Serial output : 432 Mbps fixed (subLVDS DDR method), 2-ch/2-port output, 16-bit format
Parallel output : 54 MHz, 12-bits
- Register I / F : 3-lines serial I/F (Clock frequency: Max. 30 MHz)
- Output frame rate per second (full scan) : 30 fps, 60 fps *1
- Electronic shutter (full scan) : At 60 fps: 1/60 s to 1/63981 s (1/63981s step)
- Variable gain (analog / digital) : 0 to 18 dB (full scan), -12 dB to 18 dB (4-mix)
- Functions *2 : Full scan mode: 1.3 mega pixel output
4-pixel mixture mode
Long exposure mode

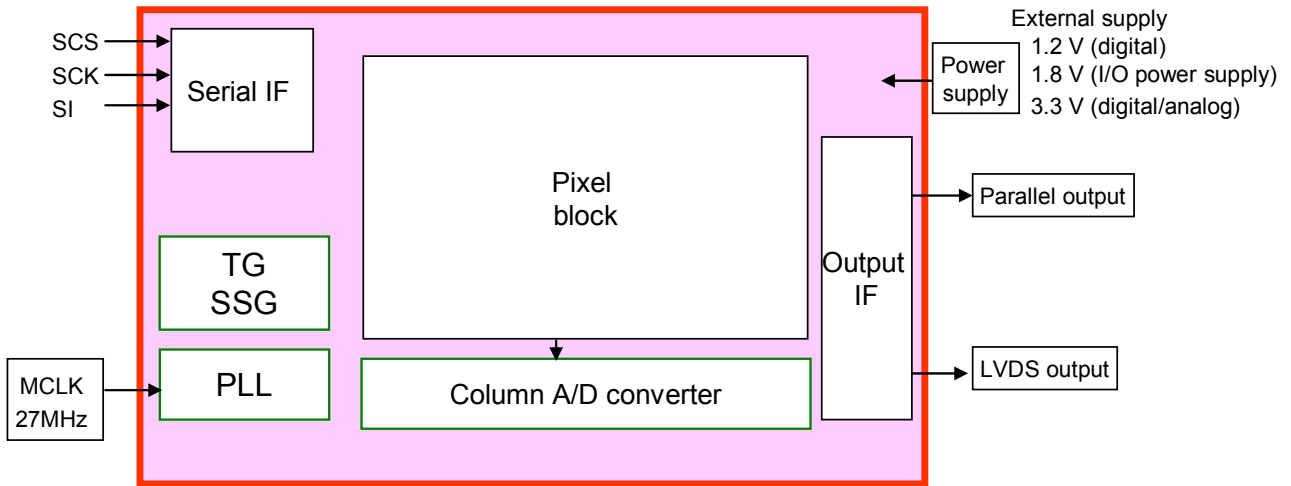
Note) *1: Only 30 fps is available for parallel output (Full scan mode).

*2: Apply mirror and flip function in DSP

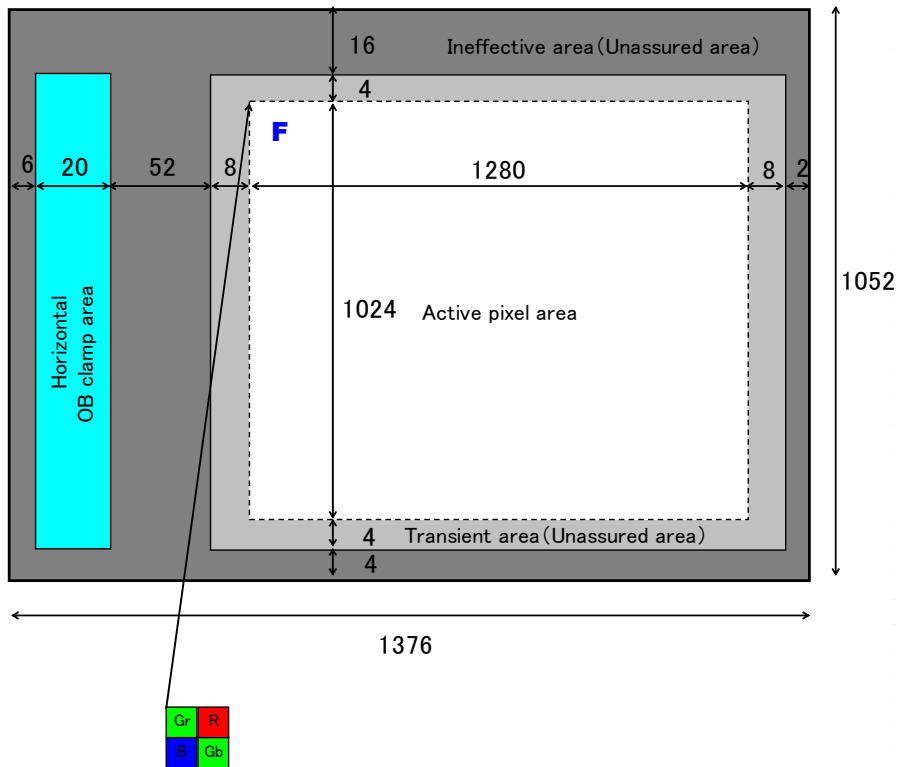
■ Applications

- IP camera (Network camera)
- Monitoring camera

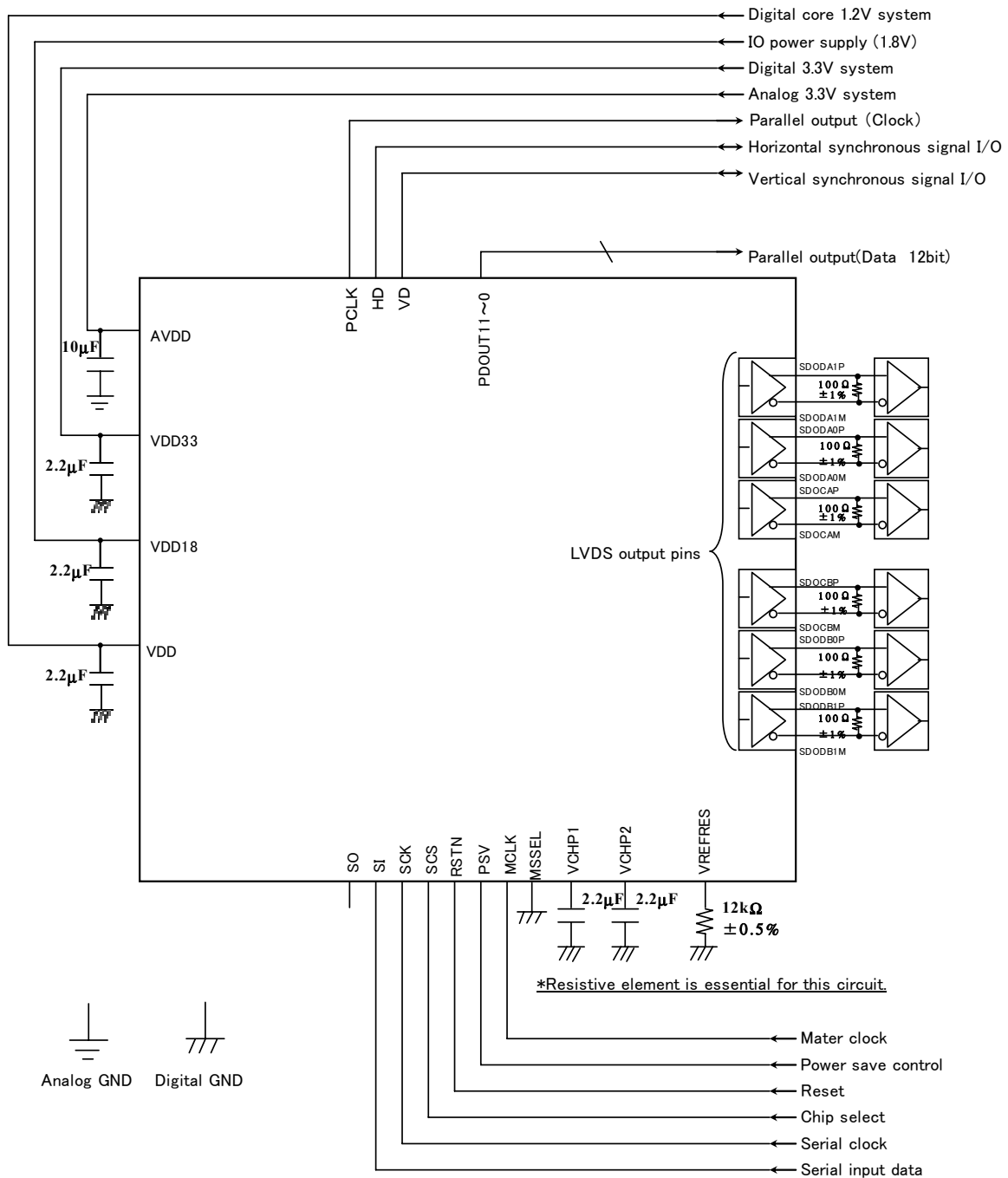
■ Block Diagram



■ Pixel Array Format



■ Circuit Example for Reference



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