DATA SHEET

Part No.	MN34041ALJ
Package Code No.	LGA104-C-120145-IA

Contents

MN34041ALJ

MOS Image Sensor

■ Overview

This is a MOS-type sensor of 1/3 type offering 2.1 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 and functional circuits of various kinds. High definition 12-bit digital image signals offering 2.1 mega pixels are obtained with high speed of 60 fps and with low power consumption.

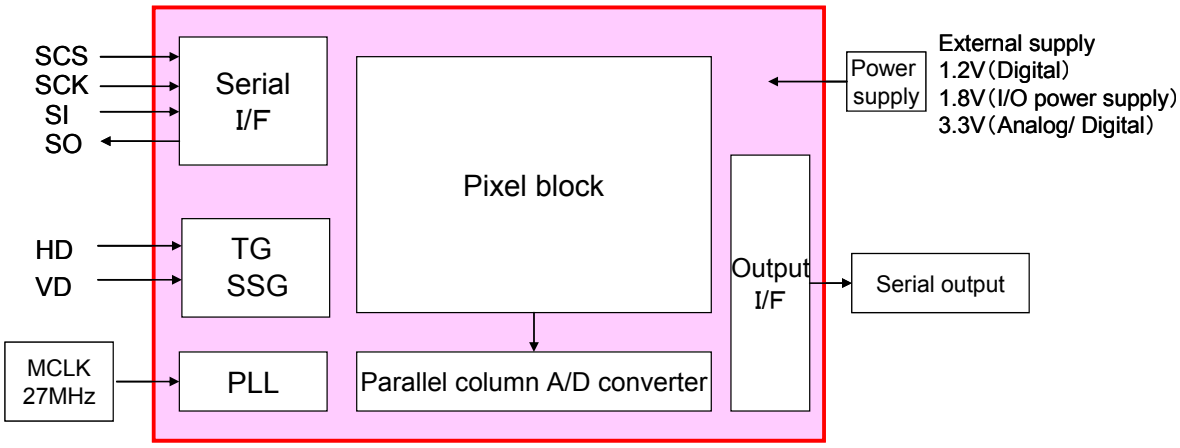
■ Features

- Scan mode : Progressive scan
- Optical size : 1/3 type (inch)
- Number of active pixels : 1944 (H) × 1092 (V) = 2,122,848 (pixel)
- Total number of pixels : 2010 (H) × 1108 (V) = 2,227,080 (pixel)
- Pixel size : 2.75 (H) µm × 2.75 (V) µm
- Number of pins : 104 pins (including pins of "N.C.")
- Actual imaging area dimensions (active pixel area) : 5.346 (H) mm × 3.003 (V) mm
- Filter arrangement : On-chip micro lens and black filter around pixel
- Power supply voltage : 3.3 V / 1.8 V / 1.2 V
- Master clock : 27 MHz
- Bit number of internal ADC : 12-bit / 10-bit
- Output signal type : subLVDS DDR method 486 Mbps
- Register I / F : 4-lines serial I/F
- Output frame rate per second (full scan) : 2ch 2port 12bit : 60 fps
2ch 3port 10bit : 120 fps
- Electronic shutter (full scan) : At 60 fps : 1/60 s to 1/67500 s (1/67500s step)
- Variable gain (Column amplifier) : 2ch 2port 12bit : Standard +0 / +6 / +12 dB
2ch 3port 10bit : Standard −6 / +0 / +6 / +12 dB
- Variable gain (Analog) : 2ch 2port 12bit : 0 dB / 6 dB
2ch 3port 10bit : −6 dB / 0 dB
- Variable gain (Digital) : 0 dB to 12 dB
- Functions : Full scan mode: 2.1Mpixel output
Vertical Flip
Variable frame rate, Long exposure mode

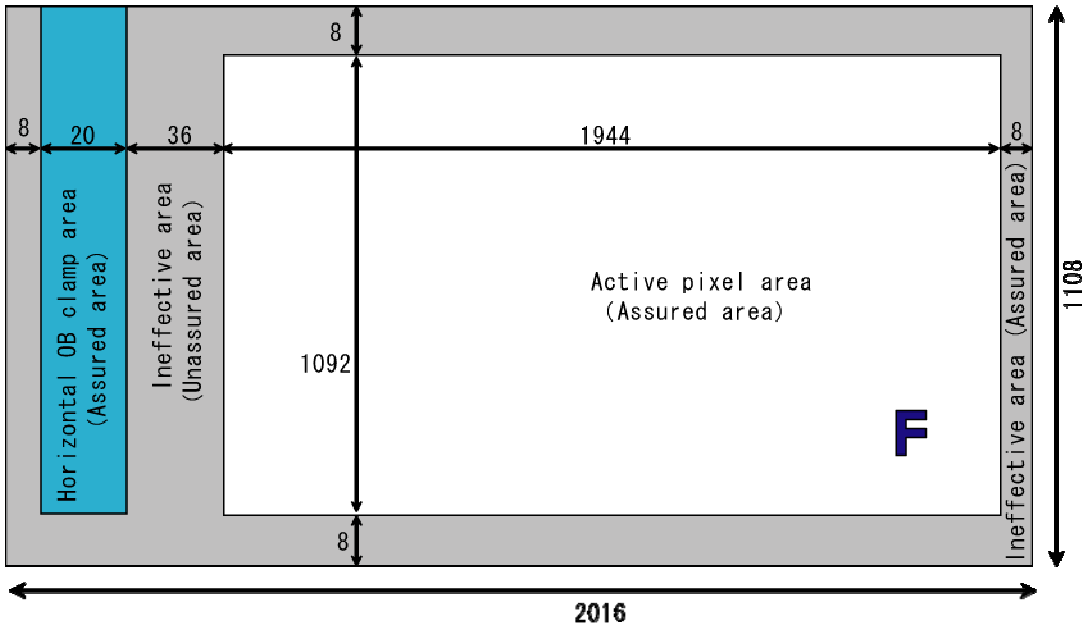
■ Applications

- IP camera (Network camera)
- Monitoring camera
- Business and industrial camera

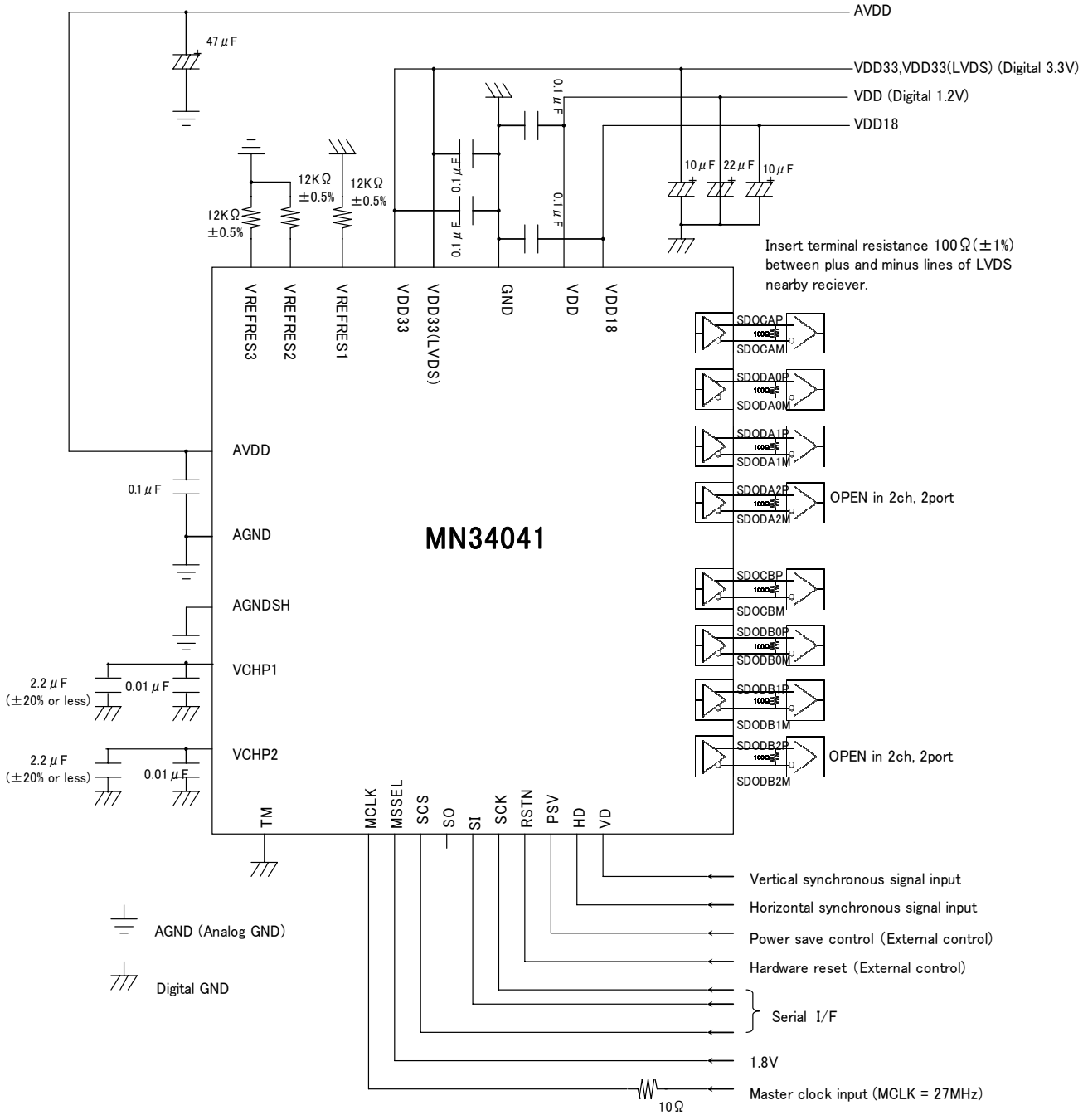
■ Block Diagram



■ Pixel Array Format



■ Circuit Example for Reference



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