

MT9H004 (Preliminary)



16-Megapixel
APS-C format (1.77-inch)
Digital Image Sensor
Full HD Support
116-Pin CLCC

High-Performance APS-C Sensor for DSLR and Mirrorless Cameras

1

4.78µm Aptina™ DR-Pix™ technology (Dynamic Response)

Delivers optimized sensitivity and low-noise performance across all ISO speeds

2

16 Mp continuous shooting at 10 fps

High-resolution, high-speed imaging to capture every moment

3

1080p30 HD Video

High-quality Full HD video with amazing low-light performance

4

Full FOV live view mode at 60 fps

Compose and see what you shoot with smooth and clear live preview video

5

HiSPi™ Serial (Sub-LVDS mode) x 8 lanes

High-speed serial data transfer for efficient system designs

Applications

- DSLR/Mirrorless



How to Buy

Production and sample quantities of Aptina products may be ordered through qualified distributors. See our Web site for details. You may also request access to NDA data sheets and other technical documentation by visiting our Web site.



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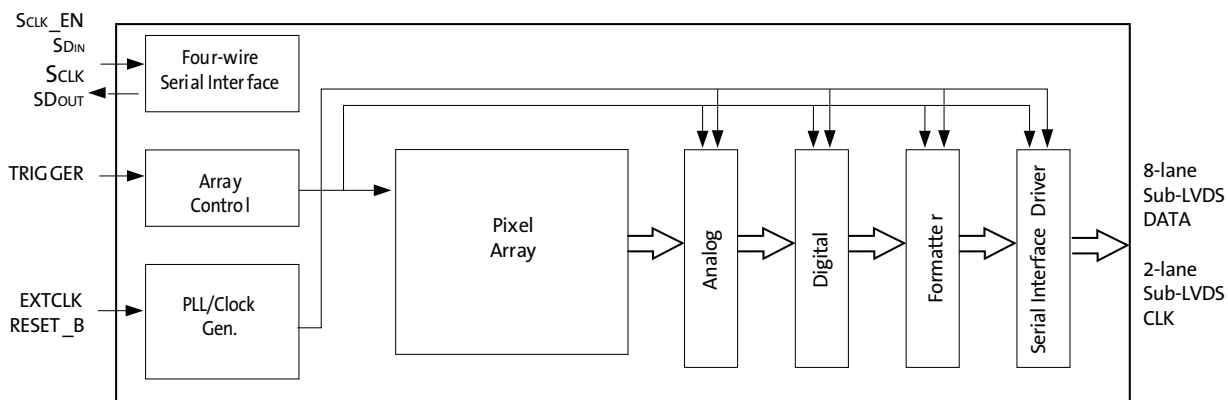
Features

- APS-C format (1.77-inch) 16MP image sensor
- 4.78 μ m pixel with Aptina™ DR-Pix™ technology (Dynamic Response)
- 10.48 fps frame rate
- Full FOV live view mode at 60 fps
- 1080p30 HD video mode
- Global Reset Release (GRR) for still imaging with a mechanical shutter
- 8-channel sub-LVDS high-speed differential serial interface

Specifications (Preliminary)

Optical format:	1.77 Inch (APS-C type)
Active pixels:	4,928 (H) x 3,280 (V)
Pixel size:	4.78 μ m x 4.78 μ m
Color filter array:	Bayer RGB
Shutter:	Electronic Rolling Shutter (ERS)
Reset:	Global Reset Release (GRR)
Output Interface:	Sub-LVDS x 8 data lanes 324 Mb/s + 2DDR clock lanes 162 MHz with embedded sync codes
Max data rate:	324 Mbps / lane
Master clock:	49.5 MHz
Frame rate:	10.48 fps (at Full Resolution)
Video mode:	1080p30 HD with 2x2 Binning
Live view mode:	60 fps with full FOV
ADC:	14-bit (Still and video modes)
Analog gain range:	1x, 2x, 4x, and 8x
Supply voltage:	
Digital (V _{DD})	1.7V min, 1.8V typ, 1.9V max
Analog (V _{AA})	3.0V min, 3.3V typ, 3.6V max
Pixel (V _{AA_PIX})	3.0V min, 3.3V typ, 3.6V max
Sub-LVDS (V _{DD_SubLVDS}):	2.7V min, 2.8V typ, 2.9V max
PLL (V _{DD_PLL}):	2.7V min, 2.8V typ, 2.9V max
Operating temp:	0°C to 70°C
Package:	116 pin CLCC 35mm x 29mm x 2.8mm

Block Diagram



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