# MT9H004 (Preliminary)



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



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



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

1080p30 HD Video

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

Full FOV live view mode at 60 fps

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

HiSPi<sup>™</sup> 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

Digital Image Sensor Full HD Support

116-Pin CLCC

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
- 4.78µm 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 um x 4.78 um

Color filter array: Bayer RGB

Shutter: Electronic Rolling Shutter (ERS) Global Reset Release (GRR) Reset: Sub-LVDS x 8 data lanes **Output Interface:** 

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 (VDD) 1.7V min, 1.8V typ, 1.9V max Analog (VAA) 3.0V min, 3.3V typ, 3.6V max Pixel (VAA\_PIX) 3.0V min, 3.3V typ, 3.6V max

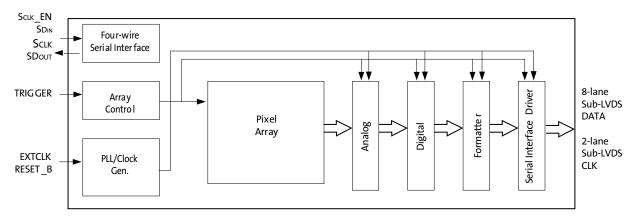
Sub-LVDS

(VDD SubLVDS): 2.7V min, 2.8V typ, 2.9V max PLL (VDD\_PLL): 2.7V min, 2.8V typ, 2.9V max

0°C to 70°C Operating temp: Package: 116 pin CLCC

35mm x 29mm x 2.8mm

### **Block Diagram**



## aptina.com

