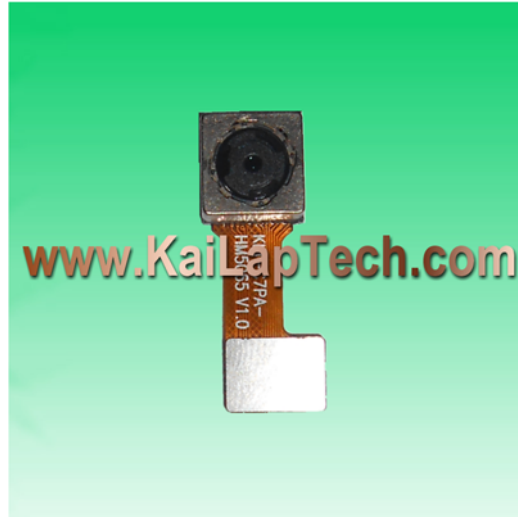
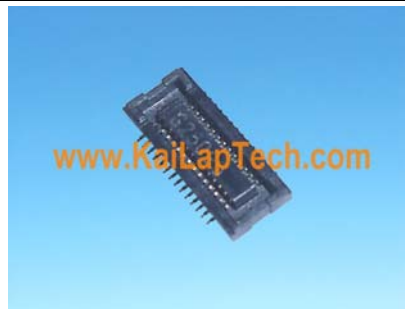


**KLT-C7PA-HM5065 V3.0****Himax HM5065 DVP Parallel Interface Auto Focus 5 MP Camera Module**

<b>Camera Module No.</b>	<b>KLT-C7PA-HM5065 V3.0</b>
<b>Image Sensor</b>	HM5065
<b>EFL</b>	3.2 mm
<b>F.NO</b>	2.8
<b>Pixel</b>	2592 x 1944
<b>View Angle</b>	70°
<b>Lens Type</b>	1/4 inch
<b>Lens Dimensions</b>	8.50 x 8.50 x5.02 mm
<b>Module Size</b>	24.02 x 8.50 mm
<b>Module Type</b>	Auto Focus
<b>Interface</b>	DVP Parallel

**Mating Connector Part No. GB042-28S-H10**

Mating Connector On Main Board. Sold Separately.



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## HM5065 5 Megapixel SOC

15fps ■ 1/4" 5MP ■ Color CIS SOC ■ Auto Focus VCM, JPEG Encoder, MIPI-CSI2

The HM5065 is a high performance 5.0MP System-On-Chip camera solution that delivers brilliant image quality and advanced camera features in a compact 1/4" format for next-generation mobile imaging applications. The HM5065 operates up to 15FPS in full resolution, and supports 720p HD and VGA using pixel data binning to increase frame rate and sensitivity. The sensor offers context switching and an embedded JPEG encoder to effortlessly transition between video and still image snapshot.

The fast acquisition Auto Focus feature can be quickly implemented using the integrated VCM Driver while minimizing camera module cost, space, and design complexity – compared to the use of a discrete driver. The HM5065 high level of integration enables an Auto Focus camera module to be designed in a compact 8.5mm<sup>2</sup> module size. All sensor parameters are controlled through a 2-wire serial interface.

### Image Sensor SOC Features

- High performance 1/4" 5.0MP sensor SOC operating up to 15 frames per second
- 2 lane MIPI CSI2 and 8-bit parallel interface with embedded JPEG encoder
- 720p HD video readout up to 30FPS using 2x2 analog binning; VGA video up to 60 FPS using 4x4 binning
- Advanced Image Processing Pipeline for color processing, correction, and enhancements, which dynamically adjusts to changing light levels and color temperatures

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- Embedded controller for automatic exposure, white balance control, 50/60Hz flicker cancellation, dynamic adjustment of noise reduction, and contrast stretching
- On-chip Auto Focus engine with integrated Voice Coil Motor actuator driver and 3.6V charge pump
- Context switching to simplify transition between preview and still capture mode
- Fully programmable independent H and V scaling with derating down to UXGA (1600 x 1200)
- Low voltage 1.2V digital core reduces power consumption with support for 1.8V internal regulation

## Image Sensor SOC Specifications

Part Number	HM5065-AGA (RW), HM5065-APA / APC (PLCC, MIPI), HM5065-APB / APD (PLCC, Parallel)
Color Filter	RGGB
Array Diagonal	4567 $\mu$ m
Resolution	5MP (2592 x 1944)
Output Format	RAW, YUV, JPEG422, RGB565, RGB555, RGB444
Optical Format	1/4"
Pixel Size	1.4 $\mu$ m
Frame Rate	15FPS 5MP, 30FPS Bin2/Sub2, 60FPS Bin4/Sub4
Sensitivity (FD @ 530nm)	520 mV / Lux-sec
SNRmax	35.6dB
CRMax	25.8° non-linear
AVDD / DVDD / IOVDD (typ.)	2.8V / 1.8V / 1.8, 2.6V
Power Consumption	Active: 255 mW, Powerdown: <10 $\mu$ W
Temperature	Operating: -20° to 70°C, Storage: -40° to 85°C
Package	PLCC, Bare Die

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