

**KLT-Q2MPF-HM2143 V1.0**

**Himax HM2143 MIPI e Parallela DVP Interfaccia Messa a fuoco fissa 2MP  
M12 Modulo telecamera**



<b>Modulo telecamera n.</b>	<b>KLT-Q2MPF-HM2143 V1.0</b>
<b>Sensore d'immagine</b>	HM2143
<b>EFL</b>	2.5 mm
<b>F.NO</b>	2.1
<b>Pixel</b>	1920 X 1080
<b>Vista ad angolo</b>	120°
<b>Tipo di lente</b>	1/4 pollice
<b>Dimensioni dell'obiettivo</b>	13.70 x 13.70 x 18.53 mm
<b>Dimensione del modulo</b>	40.00 x 22.00 mm
<b>Tipo di modulo</b>	Messa a fuoco fissa
<b>Interfaccia</b>	MIPI e Parallela DVP

**Connettore di accoppiamento Codice. DF30FC-30DS-0.4V**



Connettore di accoppiamento sulla scheda principale. Venduto separatamente.

# HM2143 Ultra Low Power UltraSense NIR™ RGBIR FHD CIS

89.5mW @30FPS(MIPI) ■ 1/4" 1920 x 1080 (FHD) ■ RGBIR ■ Color and NIR enhanced CIS ■ MIPI CSI-2/Parallel

HM2143 is a 1/4" 1080p UltraSense NIR™ CMOS Image Sensor which is utilized high NIR performance pixel technology and the RGBIR technology of Himax Imaging. Both sensitivity enhancement in 850nm and 940nm infrared light and lowest power consumption are essential. The 4×4 pixel array patterns are supported for the application of home surveillance, IOT, face recognition product that can process the image in day and night time without mechanical IR-cut filter. The HM2143 can shrink the product ID size and reduce the RMA issue to save the cost of product maintenance.

## Image Sensor Features

Back Side Illuminated (BSI) pixel delivers outstanding sensitivity, response uniformity and noise performance.

Designed for low power consumption at 30 frames per second (FPS)

Operates up to 30FPS at full resolution over MIPI interface and Parallel interface.

Global analog gain up to 15.5x

Supports RAW10 format

Precision black level calibration independent of operation temperature, gain and voltage

On-chip temperature sensor

Support SSCG on MIPI DPHY

Available in CSP package

Support 3D SYNC for image synchronization

Integrated LDO, POR and PLL

High sensitivity at 825nm and 940nm wavelength

## Image Sensor Specifications

<b>Part Number</b>	HM2143-AWA
<b>Color Filter Array</b>	RGB-IR 4×4
<b>Array Diagonal</b>	4.42mm

<b>Resolution</b>	FHD (1920 x 1080)
<b>Output Format</b>	RAW10
<b>Optical Format</b>	1/4"
<b>Pixel Size</b>	2 $\mu$ m x 2 $\mu$ m (UltraSense™ Back Side Illuminated)
<b>Frame Rate<sub>max</sub></b>	30FPS
<b>Sensitivity (FD @ 530nm)</b>	TBD mV / Lux – sec
<b>Video Data Interface</b>	1-lane MIPI CSI-2 10-bit Parallel
<b>SNR<sub>max</sub></b>	TBD dB
<b>CRA<sub>max</sub></b>	18°
<b>AVDD / DVDD / IOVDD</b>	3.3V / 1.2V (1.8V LDO enabled) / 1.8V
<b>Power Consumption</b>	Active: TBD mW (MIPI, 30fps) XSHUTDOWN: TBD $\mu$ W
<b>Temperature</b>	Operating: -30° to 85°C, Storage: -40° to 125°C
<b>Package</b>	CSP