

## 0.3M Global Shutter MIPI Camera Module SC035HGS

### KEY PROPERTIES

- SC035HGS Image Sensor
- Output Formats: 10-bit RAW MONO/RGB
- Frame Rate: 2-lane@MIPI
  - 180fps for 640(H)x480(V)
- S-mount M7 Lens Holder



### APPLICATION

- Portable Media / Robot Vision Camera/ Image Recognition
- Laser Sensing / DIY Camera Solutions / Action Photography

### FEATURE

- 0.3M (640x480) image sensor SC035HGS
  - Low illumination and high dynamic range sensor
- Megapixel M7 lenses optional
- 10-bit RAW MONO / RAW RGB
- MIPI CSI2 Interface

### INTRODUCTION

GMCM03M180M7 is a 0.3-megapixel global shutter CMOS image sensor developed by SmartSens. Featuring a 1/6" optical format and 3.744  $\mu\text{m}$  pixel pitch, it delivers high-speed imaging at up to 180 frames per second. With its backside-illuminated (BSI) pixel structure and high sensitivity (6500 mV/lux-sec), the GMCM03M180M7 excels in low-light and high-dynamic-range environments. It supports either monochrome or RGB output with 10-bit ADC options and is ideal for applications such as machine vision, barcode scanning, and industrial inspection.

GMCM03M180M7 uses 2-lanes MIPI CSI2 interface makes it easy to use. It has S-mount (M7) lens holder for enabling the users to choose the lens and any spectral filter as per their requirements.

**SPECIFICATIONS**

<b>Model</b>	GMCM03M180M7
<b>Sensor</b>	SC035HGS
<b>Image Size</b>	1/6 inch
<b>Pixel Size</b>	3.744 $\mu\text{m}$
<b>Image Area</b>	2396 $\mu\text{m}$ x 1797 $\mu\text{m}$
<b>Image Pixels &amp; Resolution</b>	640(H) x 480(V)
<b>Output Formats</b>	10-bit 2 lane MIPI RAW MONO / RGB
<b>Image Transfer Rate</b>	Full resolution (640x480): 180 fps 640x360: 180 fps 320x240: 180fps
<b>Max S/N Ratio</b>	40dB
<b>Dynamic Range</b>	HDR Mode 100dB / Linear Mode 60dB
<b>Sensitivity</b>	Mono 6500 mV/lux-sec
<b>Shutter Type</b>	Global shutter
<b>Lens Parameters</b>	Standard: FOV(D) 60°
<b>Lens Holder</b>	Standard M7 lens holder
<b>Power Supply</b>	External Input
<b>Operating Voltage</b>	DC 1.5V / 1.8V / 2.8V
<b>Operating Current</b>	85mA
<b>Operating Temperature</b>	-30 ~ 70°C
<b>Stable Image Temperature</b>	-20 ~ 60°C
<b>Total length</b>	50mm
<b>FFC Pin Numbers</b>	24
<b>FFC Pin Pitch</b>	0.5mm

Specifications are subject to change without notice.



**SENSOR BOARD DRAWINGS**

PIN	NAME
1	NC
2	NC
3	PWDN
4	NC
5	SDA
6	SCL
7	GND
8	GND
9	MIPI_RDN0
10	MIPI_RDP0
11	MIPI_RDN1
12	MIPI_RDP1
13	NC
14	NC
15	NC
16	NC
17	GND
18	MIPI_RCN
19	MIPI_RCP
20	GND
21	MCLK
22	DOVDD1.8V
24	DVDD 1.5V
24	AVDD 2.8V

