

Preliminary

New Product Release

TAMRON

30x Zoom Camera Module with Global Shutter Sensor

■ MP2030M-GS



Key Features

- **Industrial Grade 1/1.8" Global Shutter Image Sensor**
 - Global shutter CMOS image sensor prevents motion blur on the image while capturing fast moving objects
 - The latest CMOS image sensor guarantees high picture quality with low noise
 - 1/1.8" sensor size for higher light sensitivity (Approx. 3.19 Mega-Pixel)
 - Picture output : 1920x1080px or 1280x720px at 60fps
- **Built-in High Power Zoom Lens (30x)**
 - Cutting-edge 30x zoom lens expands the potential for various applications
 - Long range of focal length: 6.3mm (wide) to 190mm (tele-end)
 - Horizontal field of view : 60° (wide) to 2.5° (tele-end)
- **Advanced Features for Various Applications**
 - Random trigger mode: Synchronization with external trigger perfect for e.g. traffic monitoring
 - WDR (Wide-Dynamic-Range) enhances picture quality even in difficult scenes on both bright and dark images
 - Electronic image stabilization and defog features are suited for various outdoor applications such as aerial imaging with UAVs, ITS, drones, inspection and rescue robots etc.
 - Selectable video output : Digital output (LVDS), composite output (CVBS)

*Specifications and design are subject to change without notice

SPECIFICATIONS

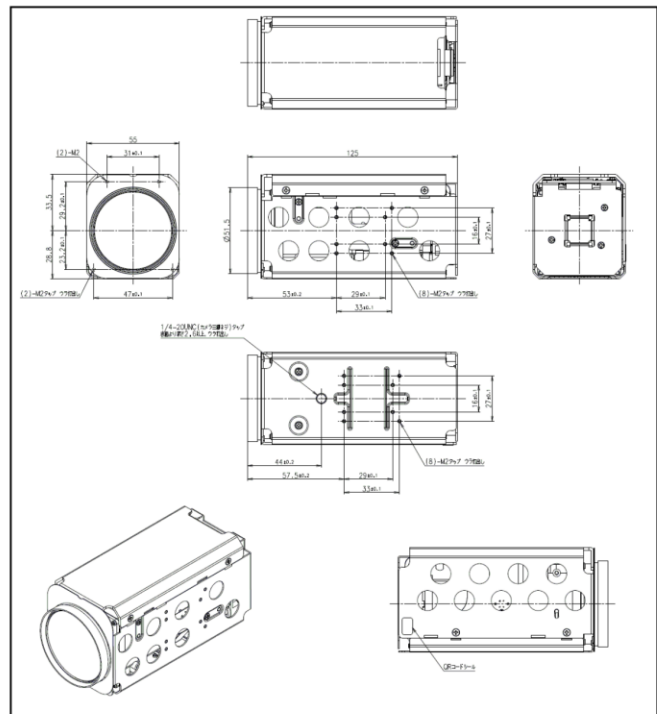
CAMERA		
Imaging sensor	1/1.8" type Global shutter CMOS	SONY IMX265LQR-C
Effective pixels	2064(H) x 1544(V) about 3.19 Mega-Pixels	
Lens	30x motorized optical zoom lens	
	F/1.6(W) - F/5.3(T)	
	Focal length 6.5 -195mm	
Scanning mode	progressive scan	
Synchronization scheme	internal synchronization	
Video output	Digital (LVDS) or Analog VBS (PAL/NTSC)	
Maximum resolution	1920(H)x1080(V)	
Minimum Illumination	below 0.2 Lux (F/1.6, 30fps, 50% capacity)	
Digital output image size and frame rate	1920x1080p/60, 1920x1080p/50, 1920x1080p/30,	
	1920x1080p/25, 1920x1080i /60, 1920x1080i /50,	
	1920x1080p/59.94, 1280x720p/60, 1280x720p/50	
	NTSC / PAL	
Camera angle	Wide about 54° Tele about 2.0°	
Recommended Illumination	100Lux~10000Lux	
Zooming time	w/o zoom tracking about 4.0 seconds	
	w/ zoom tracking about 6.0 seconds at highest speed)	
Digital zoom	16 times (up to 480x in combination with opt. zoom)	
M.O.D.	0.1m (default setting 0.3m at wide-end)	
White balance	Auto / Manual / One Push/ Indoor / Outdoor	
AE	Auto / Manual / Shutter Priority / Iris Priority	
Shutter speed setting	1/1 sec - 1/10000 sec with 22Step	
Aperture setting	F/1.6 - Close with 11Steps	
Gain setting	0dB - 48dB with 24Step	
Camera control	VISCA Protocol	

CAMERA FUNCTIONS	
Carry still image trigger mode (read image through trigger signal)	
Electronic Image Stabilizer (w/ gyroscope sensor)	
Back Light Compensation (BLC)	
Exposure correction with 13step ±12dB	
Auto Slow Shutter (Max 1sec)	
Auto ICR	
WDR	
DNR (Combination of 2D+3D)	
Defog	
Privacy zone masking	
Read temperature function (only output data of thermistor)	
Title display (20 characters per line, max. 12 lines)	
Image effect (B&W, Freeze, Flip from top to bottom, Mirror)	
Dynamic defect correction	
Image quality adjustment	
Gamma settings (4 types)	
Aperture control (intensity setting 16 step)	
Saturation Hue (color, concentration, and phase)	
GENERAL	
Input voltage	9V - 12V
Power consumption	about 4.5W when streaming about 5W when zooming
Recommend operating temperature	0°C ~ 40°C
Performance temperature	-5°C ~ 60°C
Operating temperature	-10°C ~ 65°C
Dimensions (W x H x D)	56 x 62.5 x 125 mm
Weight	about 380 g

PIN ASSIGNMENT

Pin NO.	Pin Name	I/O	Description / Remarks
1	LVDS_RX IN3 +	0	Camera Signal OUT (LVDS 4CH + Clock)
2	LVDS_RX IN3 -	0	
3	LVDS_CLK IN +	0	
4	LVDS_CLK IN -	0	
5	LVDS_RX IN2 +	0	
6	LVDS_RX IN2 -	0	
7	LVDS_RX IN1 +	0	
8	LVDS_RX IN1 -	0	
9	LVDS_RX IN0 +	0	
10	LVDS_RX IN0 -	0	
11	GND		VISCA Communication
12	VISCA_TXD		
13	VISCA_RXD		
14	DC_IN	I	
15	DC_IN	I	
16	DC_IN	I	
17	DC_IN	I	
18	DC_IN	I	
19	GND		
20	GND		
21	GND		MIN: 8V MAX: 13.2V
22	GND		
23	GND		
24	GND		
25	VBS_OUT	0	
26	Reset	I	
27	TRIG_IN	I	
28	TRIG_OUT	0	
29	NC	-	
30	NC	-	

DIMENSIONS



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