

# GSM20273AF

## 1/2.9" Global Shutter CMOS x20 Zoom/AF Camera Module



### ■ Specifications

Sensor	Image Sensor	1/2.9" Global Shutter CMOS Image Sensor (IMX273 LQR-C)
	Number of pixels	1456(H) x 1098(V)
	Pixel Size	3.45 $\mu$ m(H) x 3.45 $\mu$ m(V)
	Scan Format	1440x1080@30fps, 1440x1080@25fps, 1440x1080@60fps, 1440x1080@50fps (Option 1440x1080@29.97fps, 1440x180@59.94fps)
Lens	F No.	Wide: F1.6, Tele: F3.5
	Focal Length	Wide (x1) :4.7mm, Tele (x20) : 94mm
	Zoom	Optical Zoom 1~20 times : Stepping Moter Digital Zoom 1~32 times : (Optical + Digital Zoom Max : 640 times)
	Focus	Stepping motor system auto focus Focus range : Wide 1.0m~ $\infty$ , Tele 1.0m~ $\infty$
	Optical Arange of view	Wide (x1) : D/72.8 $^{\circ}$ , H/58.1 $^{\circ}$ , V/50.5 $^{\circ}$ Tele (x20) : D/4.0 $^{\circ}$ , H/3.1 $^{\circ}$ , V/2.7 $^{\circ}$
	Optical Filter	1: IR Cut Filter (for Day Color) 2: Through Glass
Video	Video Format	HD-SDI : 1080p30, 1080p25, 1080i60, 1080i50, 720p60, 720p50, 720p30, 720p25 (Option 1080p29.97, 1080i59.94, 720p59.94, 720p29.97) LVDS : 1080p30, 1080p25, 1080i60, 1080i50, 720p60, 720p50, 720p30, 720p25 (Option 1080p29.97, 1080i59.94, 720p59.94, 720p29.97) VBS : NTSC, PAL
	Minimum Illumination	Color 0.02 lx B/W 0.01 lx, F1.5, 25 IRE, AGC 42dB
	Signal to Noise Ratio	STD 52dB (Minimum 48dB)
	Setting	OSD, UART(2ch)
Function	Auto Iris	Yes
	Auto Exposure	Yes
	Auto Focus	Yes
	White Balance	AUTO / ATW / AWB (One Push)
	Manual Shutter	1/30(25), 1/50, 1/60, 1/100, 1/120, 1/150, 1/180, 1/250, 1/350, 1/500, 1/750, 1/1000, 1/2000, 1/4000, 1/10000, 1/34000, 1/78000 sec.
	Sense Up	AGC Max 60dB & Slow Shutter Max 8 sec.
	Day & Night Mode	Color / B&W / Auto / External
	Digital Noise Reduction	2D + 3D (Coupled Motion ON/OFF)
	Backlight Control	Yes
	Peak / Average Control	Yes
	Gamma Control	0.45 ~ 1.00 (Auto Setup ON/OFF)
	Wide Dynamic Range	XDR, D-WDR, V-WDR
	Eclipse (High Light Clip)	Yes
	Fog Reduction	Yes
	Heat Haze Correction	Yes
	Motion Detection	Yes
	H/V Mirror, Flip	Yes
	OSD Language	English, Japanese (Customizable)
	Title Display	Yes
	Communication Protocol	Original / Pelco-D / Pelco-P / VISCA
Privacy Mask	Yes (16 Masks)	
Preset Position	Yes (64 Area)	
Synchronous Mode	Internal	
General	Power Source	DC+12V
	Consumption Current	390mA
	Operation Temperature	-10 $^{\circ}$ C ~ +50 $^{\circ}$ C
	Storage Temperature	-30 $^{\circ}$ C ~ +70 $^{\circ}$ C
	Humidity	80% Max
	Dimensions	W50.1mm x H59.7mm x D92.2mm
Net Weight	270g	

## Pin Assignment

JP1 (USL00-30L-A/KEL)		
1	TXout3+	LVDS TXD3+
2	TXout3-	LVDS TXD3-
3	TXCLKout+	LVDS TXCLK+
4	TXCLKout-	LVDS TXCLK-
5	TXout2+	LVDS TXD2+
6	TXout2-	LVDS TXD2-
7	TXout1+	LVDS TXD1+
8	TXout1-	LVDS TXD1-
9	TXout0+	LVDS TXD0+
10	TXout0-	LVDS TXD0-
11	GND	Ground
12	TXD1	UART TX (5V)
13	RXD1	UART RX (5V)
14	DC12in	12V DC
15	DC12in	12V DC
16	DC12in	12V DC
17	DC12in	12V DC
18	DC12in	12V DC
19	GND	Ground
20	GND	Ground
21	GND	Ground
22	GND	Ground
23	GND	Ground
24	GND	Ground
25	-	Reserved
26	-	Reserved
27	VBS	Analog Video
28	-	Reserved
29	-	Reserved
30	RS485EN1	RS485 Enable (5V)

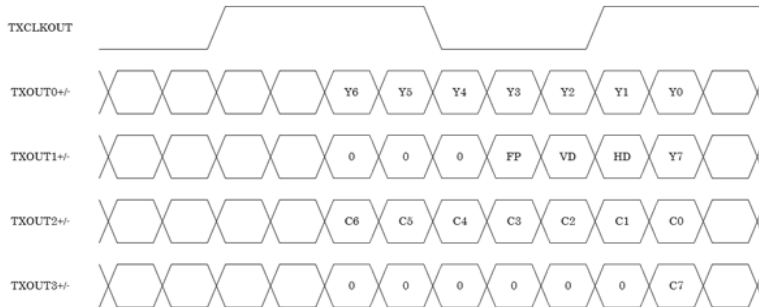
JP2 (53398-0671/MOLEX)		
1	DC12in	12V DC
2	GND	Power Ground
3	VBS	Analog Video
4	GND	Video Ground
5	IRext	ICR Control
6	VDO	Sensor VD Pulse

JP3 (SM06B-SRSS-TB/JST)		
1	ENTER	OSD Enter
2	RIGHT	OSD Right
3	LEFT	OSD Left
4	UP	OSD Up
5	DOWN	OSD Down
6	GND	Ground

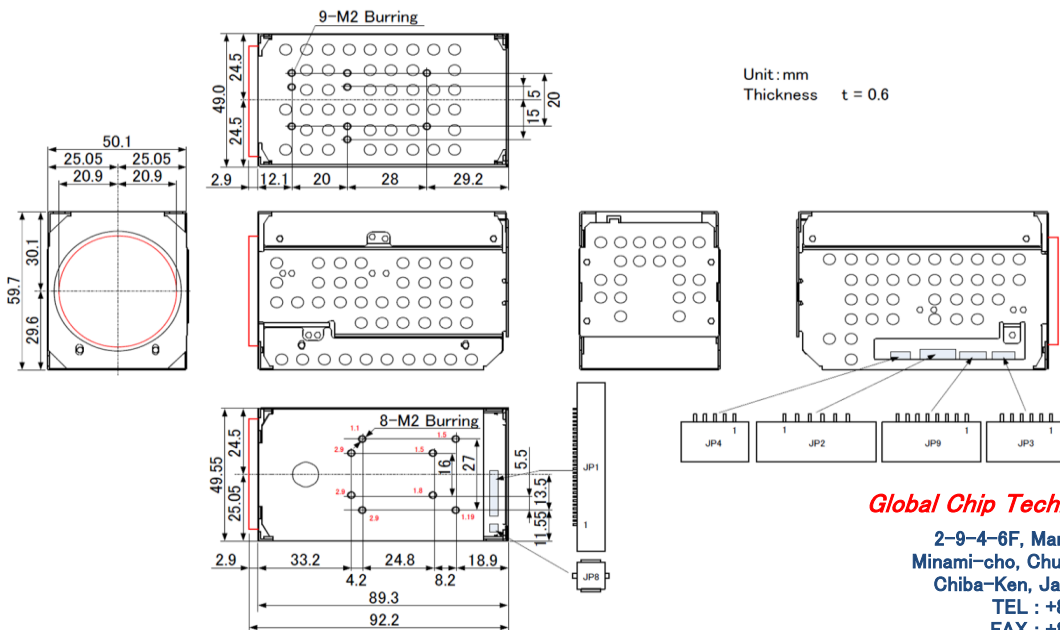
JP4 (SM05B-SRSS-TB/JST)		
1	GND	Ground
2	TXD2	UART TX (3.3V)
3	RXD2	UART RX (3.3V)
4	DC33out	3.3V DC
5	RS485EN2	RS485 Enable (3.3V)

JP8 (AYU1-1P-02676-120/JST)		
1	TX-SDI	SDI TX
2	GND	Video Ground

## LVDS Format



## Dimensions



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