

# MM-S407

2MP High Resolution 40x Zoom Module

**LVDS CVBS**

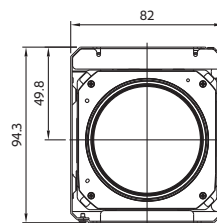


## Features

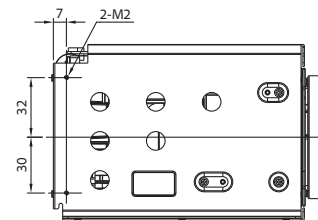
- 1/1.8" 4MP Sony CMOS Sensor
- 1080p 60fps/30fps, 720p 60fps/30fps
- 40x Optical Zoom(6.5mm ~ 260mm) & 32x Digital Zoom
- F1.5 (wide) ~ F5.3 (tele)
- Day & Night(ICR)
- Wide Dynamic Range
- Digital Noise Reduction(2D+3D)
- Privacy Mask Function
- High Light Compensation
- Intelligent Motion Detection
- Support Defog Function and Optional Defog
- Supports VISCA, Pelco-D/P Protocol
- Video Out : LVDS, CVBS

## Dimensions

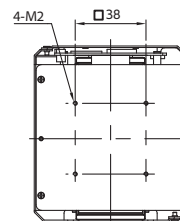
Unit : mm



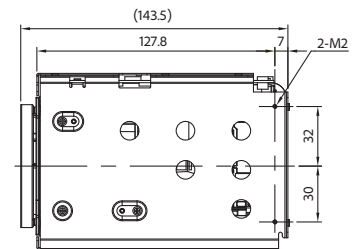
FRONT



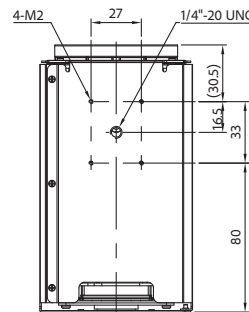
LEFT SIDE



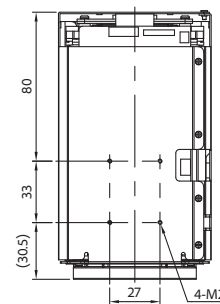
BACK



RIGHT SIDE

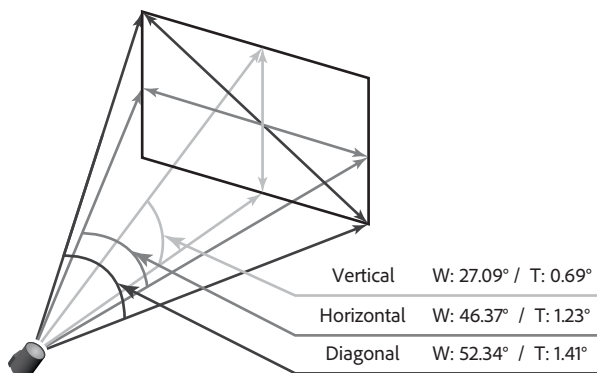


BOTTOM



TOP

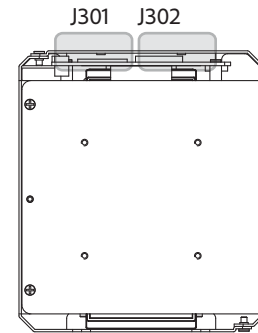
## Field of View



# Specifications

MM-S407				
Image Sensor	1/1.8" Sony CMOS Image Sensor			
Total Pixels	2,781(H) x 1,632(V) = 4.53M Pixels			
Active Pixels	1,920(H) x 1,080(V) = 2.07M Pixels			
Scanning System	Progressive Scan			
Sync. System	Internal			
Resolution	Digital : 1080p60(50)fps, 1080p30(25)fps, 720p30(25)fps			
	Analog : CVBS			
Min. Illumination	Color(1/30s, 70dB) : 0.01 lux, BW(1/30s, 70dB) : 0.001 lux			
	Color DSS(1/1s, 70dB) : 0.001 lux, BW DSS(1/1s, 70dB) : 0.0001 lux			
Video Output	Digital : LVDS			
	Analog : CVBS			
S/N Ratio	more than 50dB (AGC off)			
Lens Type	40x Day & Night Zoom Lens			
Zoom Ratio	Optical 40x, Digital 32x Zoom			
Focal Length	f = 6.5mm ~ 260mm			
Aperture Ratio	F1.5 (wide) ~ F5.3 (tele)			
Angle Of View(D, H, V)	Wide	52.34°	46.37°	27.09°
	Tele	1.41°	1.23°	0.69°
AF Mode	Auto / One Push / Manual / Auto-ext			
Min. Distance	0.1 / 1.0 / 3.0 / 5.0 / 10.0 m			
Lens Refresh	One Push / 1 ~ 10Day			
Digital Zoom	Off / MAX 2x ~ 32x			
Exposure	AUTO / IRIS.P / SHUT.P / MANUAL			
Gain Control(AGC)	0 ~ 10 steps			
Shutter Speed	1/1 ~ 1/40,000 sec			
Iris	F20 ~ F1.5			
Digital Slow Shutter(DSS)	Off / 2x / 4x / 8x / 16x / 32x (/x64 : 60 or 50 fps mode only)			
Brightness	0 ~ 14 steps			
Back light	Off / HLC / BLC / WDR			
Optical filter	D&N Day / D&N Night / D&N Auto / D&N Ext-in / Optical defog			
White Balance	Auto / One Push / Manual / Indoor / Outdoor / Auto-Ext			
DNR	2D/3D, 2D+3D			
Mirror	Off / H / V / H&V			
Sharpness	0 ~ 15 steps			
ACE	Off / Low / Middle / High			
Defog	Off / On(Auto / Manual)			
Privacy Mask	Off / On (24 points)			
Motion Detection	Off / On (4 points)			
System	NTSC / PAL			
Communication	Baud Rate : 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200			
	Protocol : Pelco-D / Pelco-P / VISCA			
Power Source	9V to 15V DC			
Power Consumption	Max 560mA (12V DC)			
Power Input	Connector			
Video Output	Connector			
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)			
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 90%RH)			
Dimensions	82(W) x 94.3(H) x 143.5(D)			
Weight	890g			

# Pin Assignment



J301	
1	TXOUT3+
2	TXOUT3-
3	TXCLKOUT+
4	TXCLKOUT-
5	TXOUT2+
6	TXOUT2-
7	TXOUT1+
8	TXOUT1-
9	TXOUT0+
10	TXOUT0-
11	GND
12	TxD
13	RxD
14	DC IN
15	DC IN
16	DC IN
17	DC IN
18	DC IN
19	GND
20	GND
21	TXOUT7+
22	TXOUT7-
23	TXOUT6+
24	TXOUT6-
25	NC
26	NC
27	TXOUT5+
28	TXOUT5-
29	TXOUT4+
30	TXOUT4-

J302	
1	GND
2	TxD
3	RxD
4	NC
5	GND
6	NC
7	GND
8	ADKEY
9	NC
10	D/N-IN
11	NC
12	MD-OUT
13	485-DIR
14	NC
15	GND
16	+5V
17	GND
18	VBS
19	GND
20	DC IN
21	DC IN
22	DC IN
23	DC IN
24	DC IN

Ref 05002HR-24J05(YEONHO)

Ref USL00-30L-C(KEL Cop.)

\* Design and specifications are subject to change without notice.

