

SG-ZCM4060NMI-O(2)

- AI ISP Based 4Megapixel 60x Ultra Long Range Zoom Starlight Network and MIPI Dual Output (OIS) Camera Module



1. Features

- > 1/1.8" SONY Starvis progressive scan CMOS.
- > Powerful 60x optical zoom (20~1200mm).
- > Max. 4MP(2688×1520) Resolution.
- > Support various IVS functions.
- > Support EIS and Optical Defog.
- > Support various OSD information overlay.
- > **Support MIPI digital video output synchronously.**
- > **-O2 version support OIS function (Optical Image Stabilization).**
- > **Hisilicon new generation AI noise reduction ISP, restoring the true color world.**

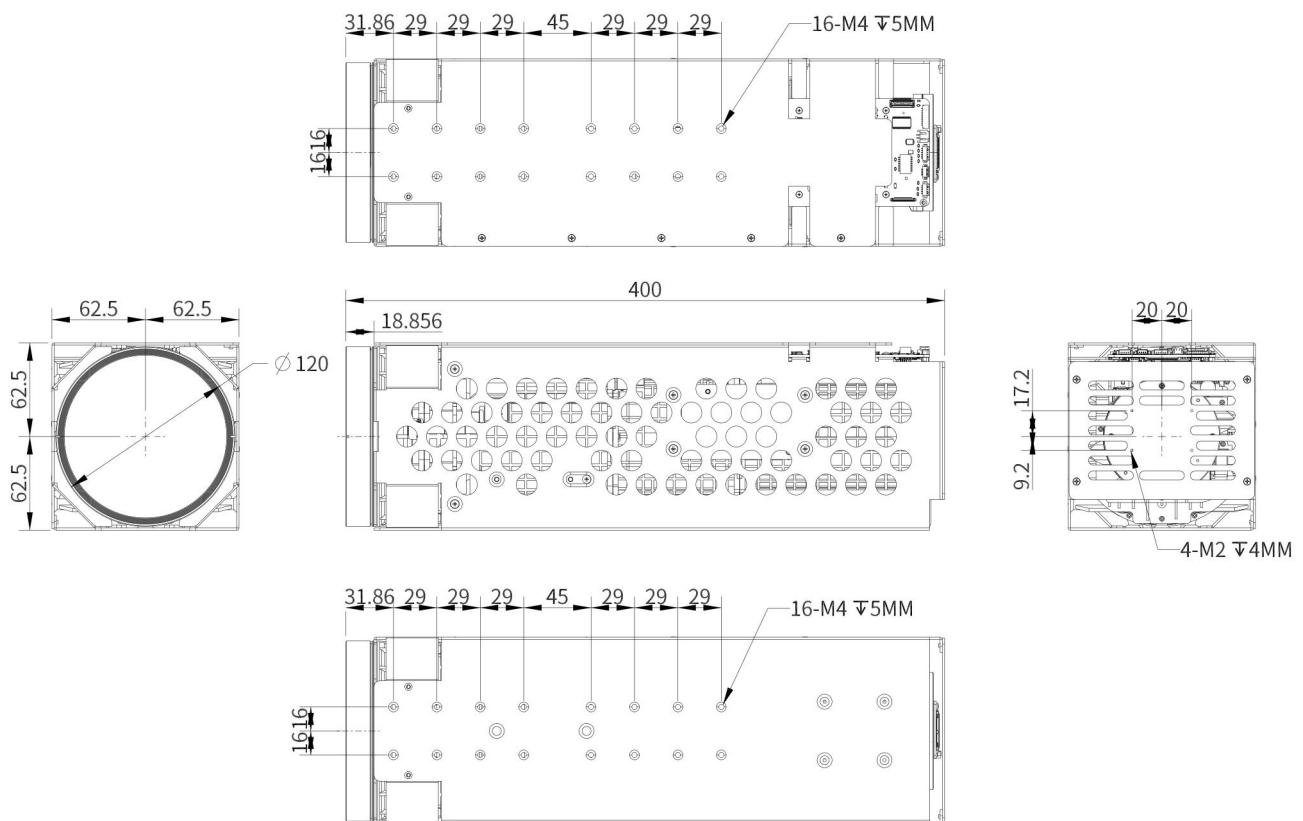
2. Specification

Model		SG-ZCM4060NMI-O		SG-ZCM4060NMI-O2	
Sensor	Image Sensor	1/1.8" SONY Starvis progressive scan CMOS			
	Effective Pixels	Approx. 4.17 Megapixel			
Lens	Focal Length	20mm~1200mm, 60x Optical Zoom			
	Aperture	F2.92~F11.37			
	Field of View	H: 22.06°~0.37°, V: 12.51°~0.21°, D: 25.21°~0.43°			
	Close Focus Distance	1m~50m (Wide~Tele)		2m~50m (Wide~Tele)	
	Zoom Speed	< 10s (Optical Wide~Tele)			
	DORI Distance (Human)	Detect	Observe	Recognize	Identify
		16,650m	6,607m	3,330m	1,665m
Video	Compression	H.265/H.264B/H.264M/H.264.H/MJPEG			
	Streaming Capability	3 Streams			

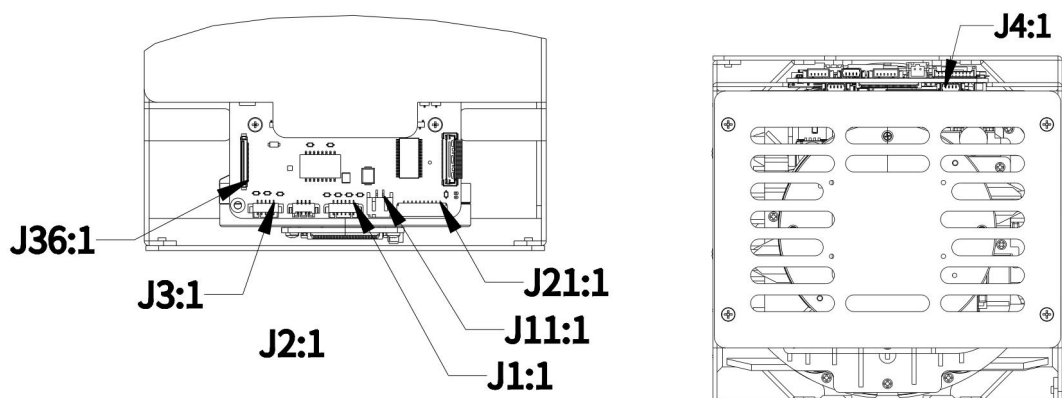
	Resolution	Main Stream: 50/60fps@2688×1520; 50/60fps@1920×1080; 50/60fps@1280×720 Sub Stream1: 50/60fps@704×576; 50/60fps@352×288; Sub Stream2: 50/60fps@1920×1280; 50/60fps@1280×720; 50/60fps@704×576	
	Audio	AAC(8/16kHz) / MP2L2(16kHz)	
	MIPI Video	50Hz: 50fps@4MP(2688×1520) 60Hz: 60fps@4MP(2688×1520)	
Network	Network Protocol	IPv4, IPv6, HTTP, HTTPS, TCP, UDP, RTSP, RTCP, RTP, ARP, NTP, FTP, DHCP, PPPoE, DNS, DDNS, UPnP, IGMP, ICMP, SNMP, SMTP, QoS, 802.1x, Bonjour	
	API	ONVIF, HTTP API, SDK, GB28181	
	Web Browser	IE, Edge, Firefox, Chrome	
	User	Up to 20 users, 2 level: Administrator, User	
	Storage	Micro SD/SDHC/SDXC card (Up to 1TB) edge storage, FTP, NAS	
	Multicast	Support	
Firmware Upgrade		Only can upgrade the firmware via Network port.	
General Events		Motion, Tamper, SD Card, Network	
IVS		Tripwire, Cross Fence Detection, Intrusion, Abandoned Object, Fast-Moving, Parking Detection, Crowd Gathering Estimation, Missing Object, Loitering Detection.	
Target Distinction		Human/Vehicle	
S/N Ratio		≥55dB	
Minimum Illumination		Color: 0.05Lux/F2.92; B/W: 0.005Lux/F2.92	
Noise Reduction		2D/3D/AI Noise Reduction	
Exposure Mode		Auto, Aperture Priority, Shutter Priority, Gain Priority, Manual	
Exposure Compensation		Support	
Shutter Speed		1/1~1/30000s	
BLC		Support	
HLC		Support	
WDR		Support	
White Balance		Auto, Manual, Indoor, Outdoor, ATW, Sodium lamp, Street lamp, Natural, One Push	
Day/Night		ICR(Auto/Manual)	
Focus Mode		Auto, Manual, Semi Auto, One Push AF	
Electronic Defog		Support	
Optical Defog		Support, 750nm~1100nm channel is Optical Defog	
Heat Haze Reduction		Support	
Flip		Support	
EIS		Support	
OIS (Optical Image Stabilization)		N/A	Support (ON/OFF)
Digital Zoom		16x	

External Control	2x TTL; Compatible with SONY VISCA and Pelco Protocol
Interface	4pin Ethernet port, 6pin Power & UART port, 5pin Audio port, 30pin MIPI
Communication Protocol	SONY VISCA, Pelco D/P
Operating Conditions	-30°C~+60°C/20% to 80%RH
Storage Conditions	-40°C~+70°C/20% to 95%RH
Power Supply	DC 12V
Power Consumption	Static power: 5W, Sports power: 10W
Dimensions(L*W*H)	400mm*125mm*125mm
Weight	Approx. 5kg

3. Dimension



4. Interface Definition



Type	Number	PIN Name	Description
J1_6pin Power & UART (A1251-06A 1.25MM)	1	DC_IN	DC12V
	2	GND	GND
	3	RXD1	TTL Level 3.3V, Pelco Protocol
	4	TXD1	TTL Level 3.3V, Pelco Protocol
	5	RXD0	TTL Level 3.3V, Visca Protocol
	6	TXD0	TTL Level 3.3V, Visca Protocol
J2_4pin Ethernet (A1251-04A 1.25MM)	1	ETHRX-	Adaptive Ethernet port, Internet RX-
	2	ETHRX+	Adaptive Ethernet port, Internet RX+
	3	ETHTX-	Adaptive Ethernet port, Internet TX-
	4	ETHTX+	Adaptive Ethernet port, Internet TX+
J3_5pin Audio (A1251-05A 1.25MM)	1	AUDIO_OUT	Audio Out (Line Out)
	2	GND	GND
	3	AUDIO_IN	Audio In (Line In)
	4	GND	GND
	5	NC	NC
J11_2pinPower (A2001AWR-02 2.0MM)	1	GND	GND
	2	DC_IN	DC12V

MIPI Interface

Port	Number	PIN Name	Description
J36_30pin MIPI (HK-IP30-001 0.4MM)	1	GND	
	2	NC	
	3	NC	
	4	GND	
	5	NC	
	6	NC	
	7	GND	
	8	NC	
	9	NC	
	10	GND	
	11	NC	
	12	NC	
	13	GND	
	14	CSI_D3N	Differential data pair 3-
	15	CSI_D3P	Differential data pair 3+
	16	CSI_D2N	Differential data pair 2-
	17	CSI_D2P	Differential data pair 2+
	18	CSI_DKN	Differential data pair clock signal-
	19	CSI_DKP	Differential data pair clock signal+
	20	CSI_D1N	Differential data pair 1-
	21	CSI_D1P	Differential data pair 1+

	22	CSI_D0N	Differential data pair 0-
	23	CSI_D0P	Differential data pair 0+
	24	UART1_RX	TTL level 3.3V, VISCA protocol
	25	UART1_TX	TTL level 3.3V, VISCA protocol
	26	NC	
	27	+12V	DC_IN
	28	+12V	DC_IN
	29	+12V	DC_IN
	30	+12V	DC_IN

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