

SG-ZCM2020NMIL

- AI ISP Based 2Megapixel 20x Zoom Network and MIPI digital Dual Output Camera Module



1. Features

- > 1/2.8" Sony Starvis 2 CMOS Sensor.
- > Powerful 20x optical zoom (5.4~108mm).
- > Max. 2MP(1920×1080) Resolution.
- > Support various IVS functions.
- > Support Electronic Defog.
- > Support various OSD information overlay on network stream.
- > **Support MIPI digital video output synchronously.**
- > **Hisilicon new generation AI noise reduction ISP, restoring the true color world.**

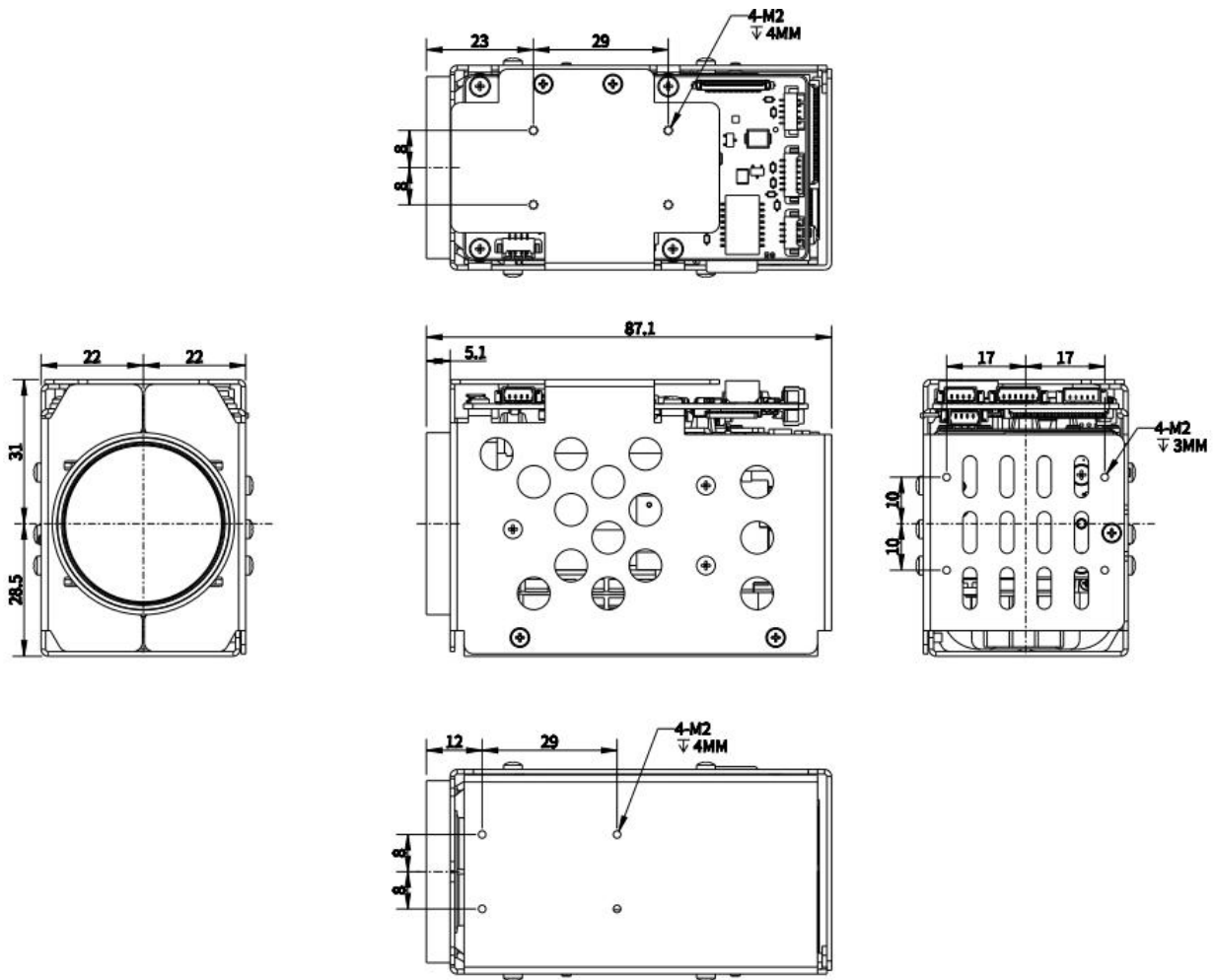
2. Specification

Model		SG-ZCM2020NMIL			
Sensor	Image Sensor	1/2.8" Sony Starvis 2 progressive scan CMOS			
	Effective Pixels	Approx. 2.18 Megapixel			
Lens	Focal Length	5.4mm~108mm, 20x Optical Zoom			
	Aperture	F1.78~F2.86			
	Field of View	H: 54.5°~2.95°, V: 32.3°~1.66°, D: 61.2°~3.39°			
	Close Focus Distance	0.1m~1.5m (Wide~Tele)			
	Zoom Speed	< 4s (Wide~Tele)			
	DORI Distance (Human)	Detect	Observe	Recognize	Identify
Network Video	Compression	H.265/H.264/H.264H/ H.264B/MJPEG			
	Streaming Capability	3 Streams			

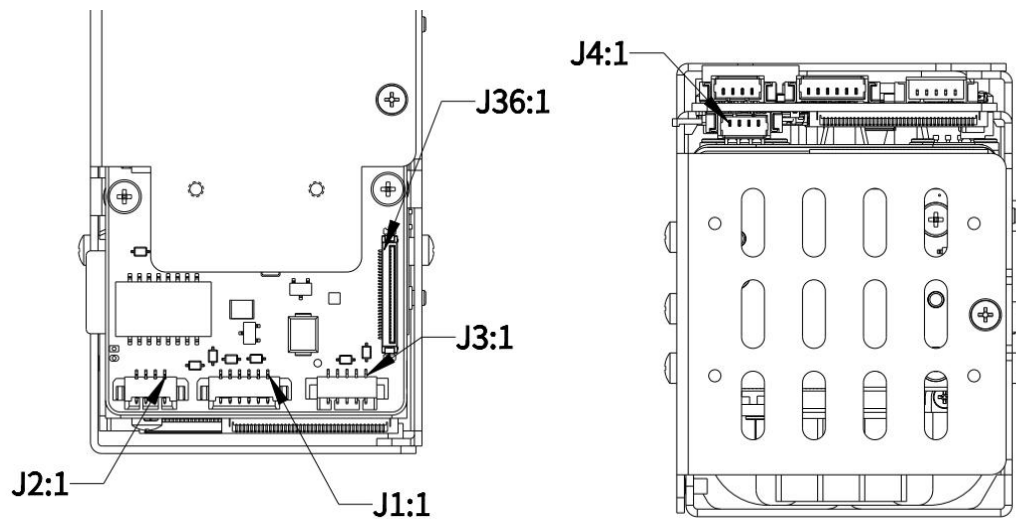
	Resolution	Main Stream: 50/60fps@1920×1080; 50/60fps@1280×720 Sub-Stream1: 60fps@704×480; 60fps@352×240; 50fps@704×576; 50fps@352×288 Sub-Stream1: 50/60fps@1280×720; 60fps@704×480; 50fps@704×576
	Video Bit Rate	32kbps~16Mbps
	Audio	AAC / MP2L2
	MIPI Video	50Hz: 50fps@2MP(1920×1080) 60Hz: 60fps@2MP(1920×1080)
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: 0.0005Lux/F1.78; B/W: 0.0001Lux/F1.78
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, Fast Auto, Fast Semi Auto, One Push AF
Electronic Defog		Support
Heat Haze Reduction		Support
Flip		Support
EIS		Support
Digital Zoom		16x
External Control		TTL

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: 2.5W, Sports power: 3.6W
Dimensions(L*W*H)	87.1mm*44mm*59.5mm
Weight	230g

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

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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*Design and specifications are subject to change without prior notification.

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