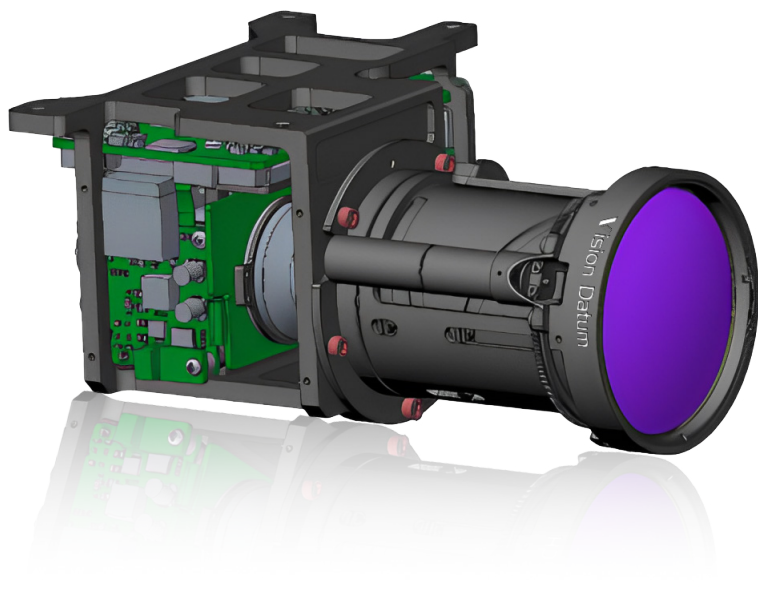


iVASTER

Cooled MWIR Camera

Mid-Wave Infrared Camera



- Built-in high-performance cooled infrared FPA
- NETD: $\leq 15\text{mK}$
- Uses SWaP design
- Supports multiple digital video interfaces, as well as Ethernet
- Compatible with fixed-focus and zoom lenses
- Provides easy-to-use SDK to reduce secondary development costs.

Mid-Wave Infrared Camera

► Main Features

- 3.7 to 4.8 μm spectrum
- High strength industrial structure design
- Compatible with fixed-focus and zoom lenses
- Can be used for gas detection applications
- Superior Sensitivity with NETD $\leq 15\text{mK}$ @ 25°C

► Applications



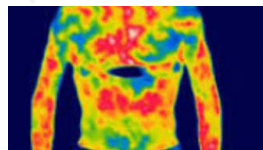
Aerospace



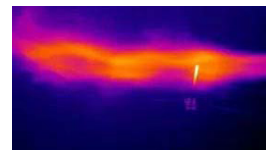
Gas Leak Detection



Automobile engineering



Medical science



Gas flame imaging



► Specifications

Model	Sensor type	Spectral Range(μm)	Pixel Size (μm)	Resolution	Frame rate	Interface	MTTF
iVa50CMW30M	T2SL Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	50Hz (Optional 30Hz)	Cameralink	$\geq 20000\text{h}$
iVa50SMW30M	T2SL Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	720P@50Hz (Optional 1080P@30Hz)	SDI	$\geq 20000\text{h}$
iVa100CMW30M-LM	Medium-sized MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	100/50Hz (Optional)	Cameralink	$\geq 6000\text{h}$
iVa50SMW30M-LM	Medium-sized MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	720P@50Hz/1080P@30Hz (Optional)	SDI	$\geq 6000\text{h}$
iVa100CMW30M-LS	Small-sized MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	100/50Hz (Optional)	Cameralink	$\geq 6000\text{h}$
iVa50SMW30M-LS	Small-sized MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	720P@50Hz/1080P@30Hz (Optional)	SDI	$\geq 6000\text{h}$
iVa25GMW30M	MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	25Hz	Ethernet	$\geq 6000\text{h}$
iVa50GMW30M	MCT Cooled Infrared FPA	3.7 ~ 4.8	15	640×512	50Hz	Ethernet	$\geq 6000\text{h}$
iVa25CP3308M	MCT	3.2 ~ 3.4	30	320×256	25fps	CameraLink	/
iVa25G3308M	MCT	3.2 ~ 3.4	30	320×256	25fps	Ethernet	/
iVa25CP4408M	InSb	4.4-4.8	30	320×256	25fps	CameraLink	/
iVa25G4408M	InSb	4.4-4.8	30	320×256	25fps	Ethernet	/



Cooled MWIR Camera

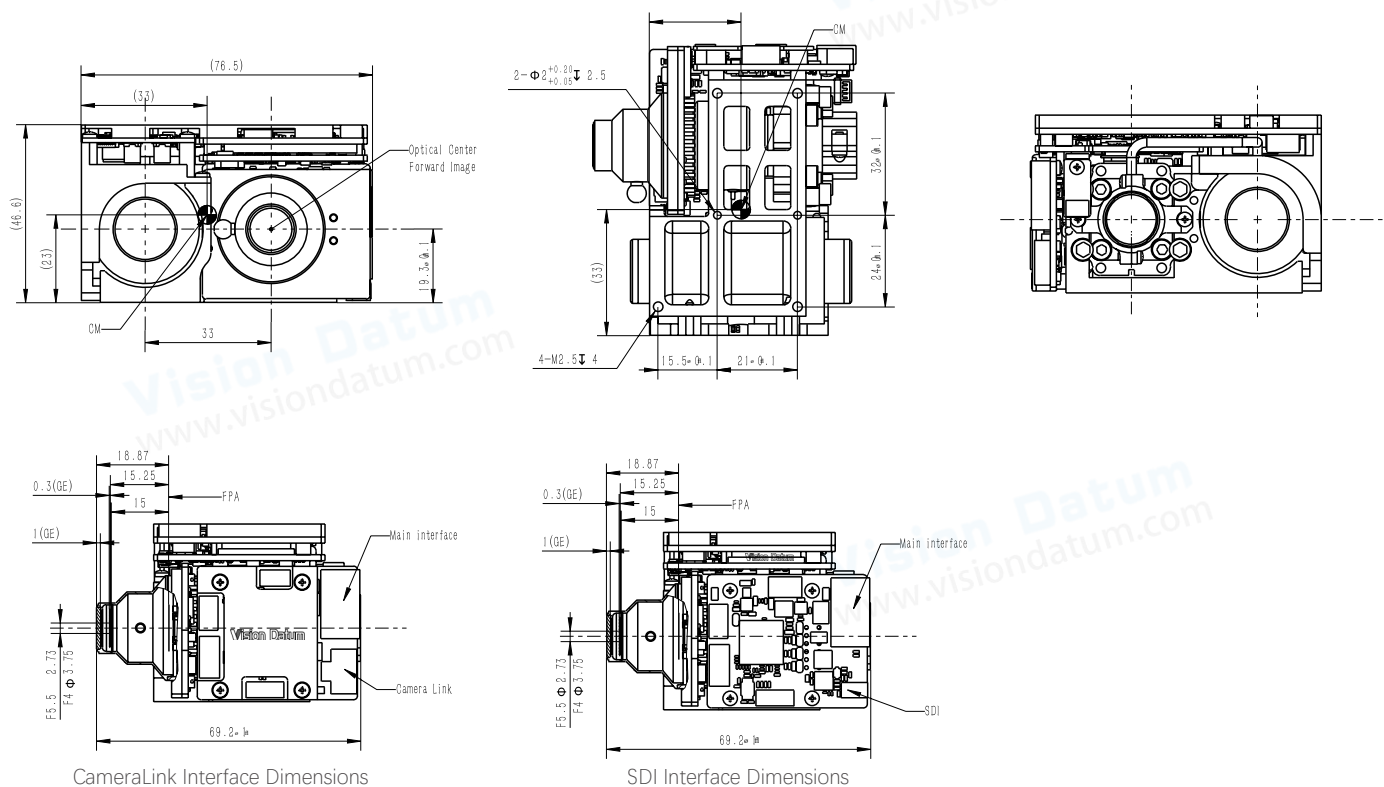
Model	iVa50CMW30M	iVa50SMW30M
Detector Type	T2SL Cooled Infrared FPA	
Resolution [H*V]	640×512	
Pixel Size [μm]	15μm	
Spectral Band	3.7 ~ 4.8μm	
NETD	≤ 20mK@F4.0, 25°C / ≤ 25mK@F5.5, 25°C	
F/#	F4.0/F5.5	
Analog Video	PAL	
Digital Video	CameraLink	SDI
Frame Rate	50Hz (Optional 30Hz)	720P@50Hz (Optional 1080P@30Hz)
Detector Defective Pixel Rate	≤ 0.5%	
Cooling Time@25°C	≤ 2.5min	
Brightness/Contrast Adjustment	Auto/Manual	
Polarity	Black Hot/White Hot (default)	
Cross Reticle	Display/Blank/Move	
Digital Zoom	1.0-8.0x continuous zoom(step size: 0.1)	
Image Processing	Non-Uniformity Correction/Digital Noise Reduction/Digital Detail Enhancement	
Image Flip	Horizontal/Vertical/Diagonal mirror image	
Power Input	12±0.5V DC	
Power Consumption @25° C	Stable Power Consumption ≤ 6W, Peak Power Consumption ≤ 12W @ CameraLink Stable Power Consumption ≤ 7W, Peak Power Consumption ≤ 13W @ SDI	
Serial Communication Interface	RS422 (Default Baud Rate 115200)	
External Sync	Internal Sync (Default) / External Sync Output / External Sync Input / Adaptive Sync	
Housing Size (Lens Not Included)	76.5×69.2×46.6mm±2mm/364g±5% (SDI Weight:359g±5%)	
Operating Temperature	-40°C ~ +70°C (Working) & -45°C ~ +75°C (Storage)	
Temperature Shock	-45°C ~ +65°C (≤ 5°C /min)	
Vibration	4.16g ¹	
Impact	Final peak sawtooth wave,30g,11ms (3 times in3 axes and 6 directions)	
Mean Time To Failure (MTTF)	≥ 20000h	
Storage Life	≥ 10 years	

Note¹: Random vibration: 10Hz~80Hz, 0.02~0.04g2/Hz; 80Hz~350Hz, 0.04g2/Hz; 350Hz~500Hz,0.04~0.02g2/Hz; 3 axial directions x,y,z, 5min per axis.

► Optional Lens

Array Size	Focal Length/F#	Lens Type	FOV H×V	IFOV
640×512	50mm/F4.0, compatible with F5.5	Straight fixed focus	10.97° ×8.78°	0.300mrad
640×512	18-275mm/F5.5	Straight continuous zoom	2.0° ×1.6° ~ 29.86° ×24.08°	0.055mrad
640×512	15-300mm/F4.0	Straight continuous zoom	1.83° ×1.46° ~ 35.49° ×28.72°	0.050mrad
640×512	33-660mm/F4.0	Straight continuous zoom	0.83° ×0.66° ~ 16.55° ×13.27°	0.023mrad
640×512	40-800mm/F4.0	Straight continuous zoom	0.68° ×0.55° ~ 13.68° ×10.97°	0.019mrad
640×512	88-1100mm/F5.5	Straight continuous zoom	0.5° ×0.4° ~ 6.24° ×5.0°	0.014mrad

► Dimensions



Note: No lens included.



Cooled MWIR Camera

Model	iVa100CMW30M -LM	iVa50SMW30M -LM	iVa100CMW30M -LS	iVa50SMW30M -LS	iVa25GMW30M	iVa50GMW30M
Detector Type	Medium-sized MCT Cooled Infrared FPA		Small-sized MCT Cooled Infrared FPA		MCT Cooled Infrared FPA	
Dimensions	A				B	
Resolution [H*V]	640×512					
Pixel Size [μm]	15μm					
Spectral Band	3.7±0.2μm ~ 4.8±0.2μm					
NETD	≤ 15mK@25° C					
F/#	F2.0/F4.0		F4.0/F5.5		F4.0	
Analog Video	PAL					
Network Protocols	-				TCP/IP, UDP, RTSP (Supports various encoding and compression formats including H.265, H.264, etc.)	
Digital Video	Cameralink	SDI	Cameralink	SDI	-	
Frame Rate (Optional)	100/50Hz	720P@50Hz 1080P@30Hz	100/50Hz	720P@50Hz 1080P@30Hz	25Hz	50Hz
Detector Defective Pixel Rate	≤ 0.5%					
Cooling Time@25°C	≤ 7min					
Brightness/Contrast Adjustment	Auto/Manual					
Polarity	Black Hot/White Hot (default)					
Cross Reticle	Display/Blank/Move					
Digital Zoom	1.0-8.0x continuous zoom(step size: 0.1)					
Image Processing	Non-Uniformity Correction/Digital Noise Reduction/Digital Detail Enhancement					
Image Flip	Horizontal/Vertical/Diagonal mirror image					
Power Input	24~36V DC (withisolation board), typical voltage of 28V DC		11~13V DC(without isolation board), typical voltage of 12V DC		12V DC (Single Module)	
Power Consumption @25° C	Steady status ≤ 16W, peak ≤ 35W		Steady status ≤ 10W, peak ≤ 25W		Steady status ≤ 14W, peak ≤ 25W	
Serial Communication Interface	RS422 (Default Baud Rate 115200)				/	
External Sync	Internal Sync (Default) / External Sync Output / External Sync Input / Adaptive Sync				/	
Housing Size (Lens Not Included)	144×75×81mm ≤ 870g (With isolation board)		120×88×57mm ≤ 480g (without isolation board)		120×92×78.5mm/530g	
Operating Temperature	-40°C ~ +60°C (Working) & -45°C ~ +65°C (Storage)					
Temperature Shock	-45°C ~ +65°C (≤ 5°C /min)					
Vibration	6.06g ¹		4.2g ¹			
Impact	Final peak sawtooth wave, 40g, 11ms (3 times in 3 axes and 6 directions)					
Mean Time To Failure (MTTF)	≥ 6000h					
Storage Life	≥ 10 years					

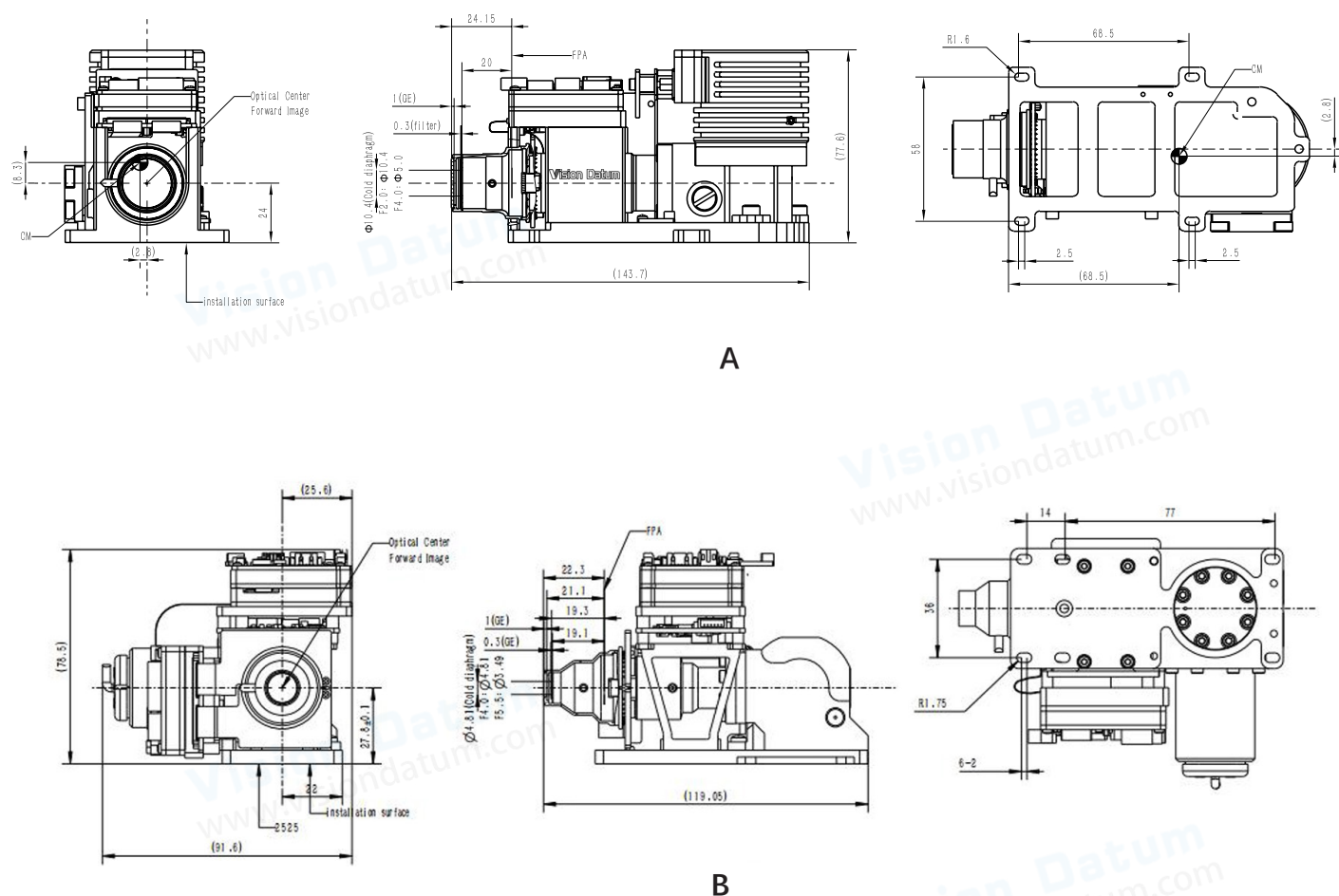
Note¹: Medium random vibration: 20Hz~80Hz, +3dB/ OCT ; 80Hz~350Hz, 0.04g2/Hz ; 350Hz~2,000Hz, 3dB/OCT ; 3 axial directions x,y,z, 5 min per axis ;
Small random vibration: 10Hz~80Hz, 0.02~0.04g2/Hz ; 80Hz~350Hz, 0.04g2/Hz ; 350Hz~500Hz, 0.04~0.02g2/Hz ; 3 axial directions x,y,z, 5 min per axis

► Optional Lens

Array Size	Focal Length/F#	Lens Type	FOV H×V	IFOV
640×512	50mm/F2.0	Straight fixed focus	10.97° × 8.78°	0.300 mrad
640×512	100mm/F2.0	Straight fixed focus	5.19° × 4.4°	0.150 mrad
640×512	18-275mm/F5.5	Straight continuous zoom	2.0° × 1.6° ~ 29.86° × 24.08°	0.055 mrad
640×512	15-300mm/F4.0	Straight continuous zoom	1.83° × 1.46° ~ 35.49° × 28.72°	0.050 mrad
640×512	25-460mm/F4.0	Straight continuous zoom	1.22° × 0.98° ~ 21.74° × 17.46°	0.033 mrad
640×512	33-660mm/F4.0	Straight continuous zoom	0.83° × 0.66° ~ 16.55° × 13.27°	0.023 mrad
640×512	88-1100mm/F5.5	Straight continuous zoom	0.5° × 0.4° ~ 6.24° × 5.0°	0.014 mrad
640×512	88-1100mm/F5.5	Reflex continuous zoom	0.5° × 0.4° ~ 6.24° × 5.0°	0.014 mrad

► Dimensions

Note: No lens included.





Gas Detection MWIR Camera

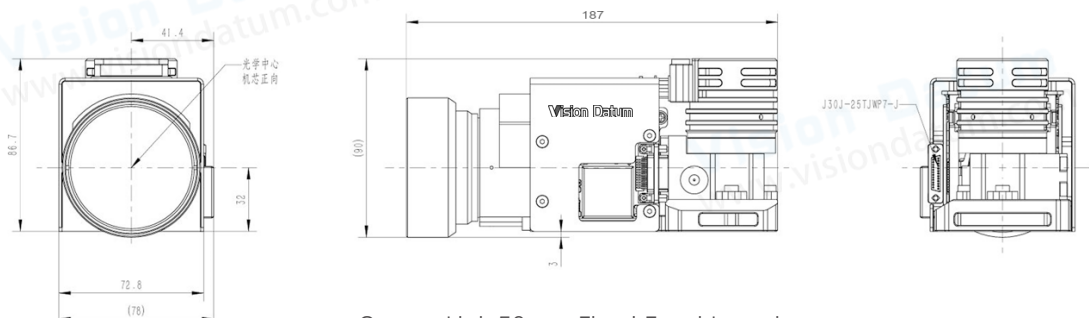
Model	iVa25CP3308M	iVa25G3308M	iVa25CP4408M	iVa25G4408M
Detector Type	MCT		InSb	
Resolution [H*V]	320×256			
Pixel Size [μm]	30μm			
Spectral Band	3.2 ~ 3.4μm		4.4 ~ 4.8μm	
Detectable Gases	CH ₄ , C ₂ H ₆ , C ₃ H ₈ , C ₄ H ₁₀ , C ₅ H ₁₂ , C ₆ H ₁₄ , C ₇ H ₁₆ , C ₈ H ₁₈ , C ₂ H ₄ , C ₃ H ₆ , CH ₃ OH, C ₂ H ₅ OH, C ₆ H ₆ , C ₆ H ₅ CH ₃ , C ₆ H ₅ C ₂ H ₅ , etc.		CO	
Analog Video	PAL	/	PAL	/
Video Interface	CameraLink	Ethernet	CameraLink	Ethernet
Communication Interface	1 RJ45 10/100M auto-negotiating Ethernet port, 1 RS422 interface			
Network Protocol	IPv4,HTTP,HTTPS,QoS,FTP,SMTP,UPnP,SNMP,DNS,DDNS,NTP,RTSP,RTCP,RTP,TCP,UDP,IGMP,ICMP,DHCP			
Platform Integration	ONVIF、GB28181、SDK			
Pseudocolor options	Multiple pseudocolor options including Black Hot, White Hot, Rainbow, etc. (18 modes in total)			
Simultaneous Video Previews	Supports up to 20 video streams			
User Management	Supports up to 20 users with 2 levels: Administrator and Regular User			
Browser Compatibility	Compatible with IE and Chrome browsers; supports both Chinese and English			
Intelligent Detection	Supports intelligent video analysis features such as Tripwire, Intrusion, and Area Entry Detection			
Alarm Linkage	Recording/Snapshot/Email/Alarm Output			
Video Compression Standard	H.264/H.265			
Main Stream	25fps(1280×1024,1024×768)			
Sub Stream	25fps(640×512)			
Power Input	DC24V	POEIEEE802.3AT	DC24V	POEIEEE802.3AT
Power Consumption @25° C	Max ≤ 18W	Max ≤ 22W	Max ≤ 18W	Max ≤ 22W
Operating Temperature	-20℃ ~ +50℃ (Working)			

► Optional Lens

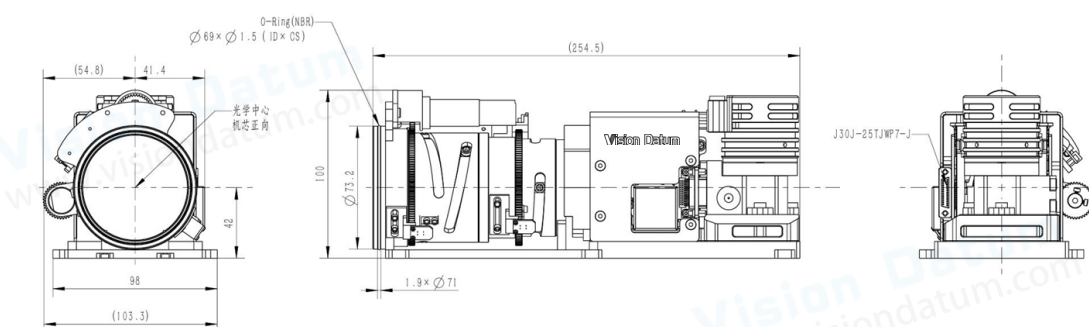
Focal Length	23mm	50mm	25~75mm
Focusing Method	Manual/Auto		
Field of View	23.5° ×19°	10.97° ×8.78°	22.2° ×17.7° ~7.3° ×5.9°

► Dimensions

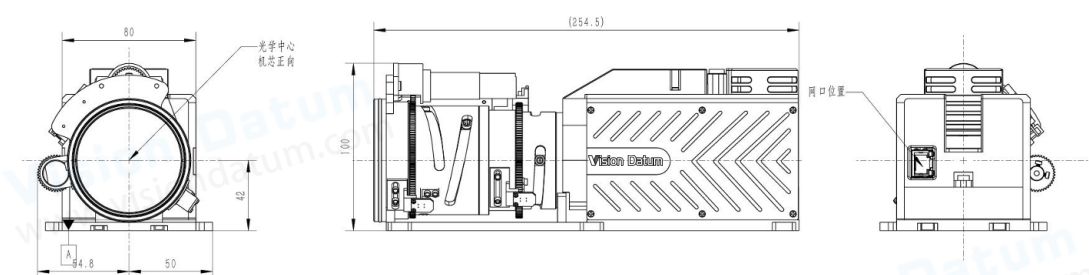
Interface	Cameralink			Ethernet with housing		
Lens	No lens included	50mm fixed focal length lens	25–75mm continuous zoom lens	23mm fixed focal length lens	50mm fixed focal length lens	25–75mm continuous zoom lens
Housing Size	135*76*87	187*78*90	254.5*103*100	173*78*90	187*80*90.2	254.5*105*100
Weight	850g	1.22Kg	1.98Kg	-	1.55Kg	2.04Kg



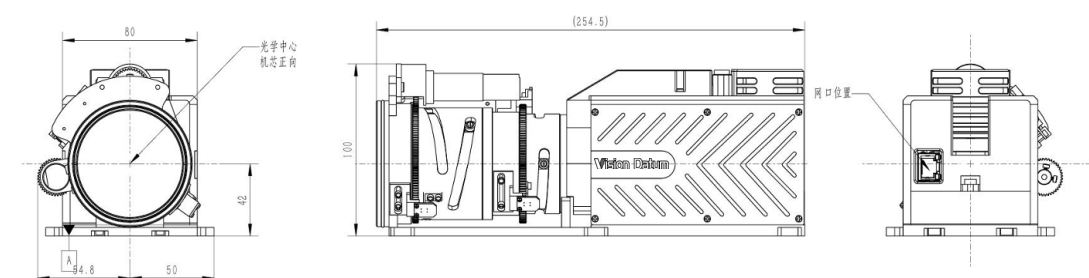
CameraLink 50mm Fixed Focal Length



CameraLink 25~75mm Continuous Zoom Lens



Ethernet 50mm Fixed Focal Length



Ethernet 25~75mm Continuous Zoom Lens

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