

INFRARED CAMERAS COLLECTION

- ▶ Covering-Long-wave/Mid-wave/Short-wave spectrum
- ▶ Record invisible spectrum
- ▶ Applicable to industrial, safety, scientific research fields



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0.3 μ m

NIR

1.1 μ m

SWIR

3 μ m

MWIR

8 μ m

LWIR

14 μ m

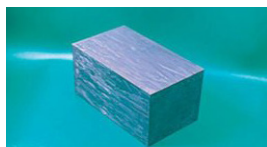
Near-Infrared (NIR) Industrial Cameras

► Main Features

- 300 to 1100 nm spectrum
- High sensitivity and signal to noise ratio
- High contrast imaging in complex lighting environments
- Easy access to feature images with filters



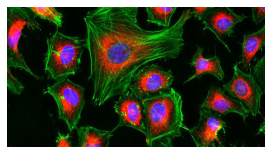
► Applications



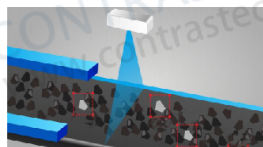
Silica Ingot Impurity Detection



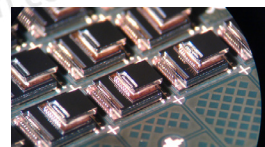
Photovoltaic Chip Crack Detection



Biology Fluorescence Imaging



Foreign Body Recognition



Semiconductor Detection

► Specifications

Model	Sensor	Sensor Size	Pixel Size (μm)	Resolution (H*V)	Frame Rate	Interface	Mount
Mars1300-75gm-NIR	PYTHON 1300	1/2"	4.8	1280 x 1024	75fps	GigE, PoE	C
Mars2000-50gm-NIR	PYTHON 2000	2/3"	4.8	1920 x 1200	50fps	GigE, PoE	C
Mars5000-20gm-NIR	PYTHON 5000	1"	4.8	2592 x 2048	20fps	GigE, PoE	C
LEO 25MG-5gm-NIR	GMAX0505	1.1"	2.5	5120 x 5120	4.5fps	GigE, PoE	C
iBX-NU210C	IMX462LQR [RGB+NIR]	1/2.8"	2.9	1920 x 1080	120.3fps	USB 3.0	C
iBX-NU420M	GSENSE2020e	1.2"	6.5	2048 x 2048	45fps	USB 3.0	C
iBX-NU410C	IMX464LQR [RGB+NIR]	1/1.8"	2.9	2688 x 1520	90fps	USB 3.0	C
iCap-NG23	/	1"	4.88	2736 x 1824	7fps	GigE	C
iCap-NG51	/	1"	4.88	2640 x 1978	7fps	GigE	C
GAL 5000-105xcNIR	RGB+NIR	2/3"	3.4	2592 x 2056	105Hz	CoaXPress	C
GAL-5000-60ucNIR	RGB+NIR	2/3"	3.4	2592 x 2056	60fps	USB3.0	C
GAL 4K-40CCNIR	RGB+NIR	28.6mm	7	4096 x 4	40 KHz	CameraLink	M42
iCap-NG4K4T4	Support 1/2/4 TDI	28.6mm	7	4096 x 4	120 KHz	GigE	M42
iCap-NG4K4T4S	Support 1/2/4 TDI	28.6mm	7	4096 x 4	120 KHz	GigE, PoE	M42

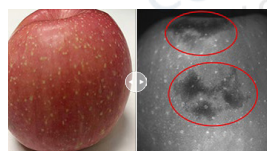
Short-Wave (SWIR) Industrial Cameras

► Main Features

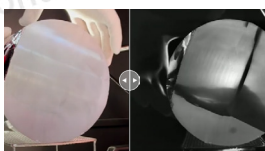
- 400 to 1800 nm spectrum
- Low noise and high frame rate data output
- Excellent fog penetration performance
- From line scan to IMX99X sensors, offering diverse interfaces and protocol support



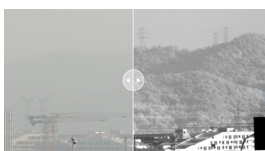
► Applications



Fruit Spoilage Detection



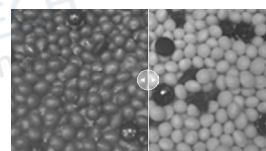
Inspection of Silicon Wafer



Fog Penetration



Inspection of Contents
In Packaging



Sorting Materials

► Specifications

Line Scan Model	Sensor	Resolution (H*V)	Frame Rate	Pixel Size (μm)	Spectral Range (nm)	Interface	Lens
iBoost30GSW05KM	InGaAs	512 x 2	29.4kHz	25	950-1700	GigE	M42
iBoost30CSW05KM	InGaAs	512 x 2	29.4kHz	25	950-1700	CameraLink	M42
iBoost15GSW1KM	InGaAs	1024 x 1	29.4kHz	12.5	900-1700	GigE	M42
iBoost30CSW1KM	InGaAs	1024 x 1	29.4kHz	12.5	950-1700	CameraLink	M42
iBoost40CSW1KM	InGaAs	1024 x 1	40kHz	12.5	950-1700	CameraLink	M42
iBoost40GSW2KM	InGaAs	2048 x 1	40kHz	12.5	950-1700	GigE	M42

- Resolution: 640 x 512

Area Scan Model	Sensor	Resolution (H*V)	Frame Rate	Sensor Size	Pixel Size (μm)	Spectral Range (nm)	Interface	Lens
iVX-50SSWC30-Z432	InGaAs	640 x 512	25/50Hz	3/4"	15	900-1700	HD-SDI	40-320 mm
iBoostX-400USW32M-SA/J ¹	IMX991	640 x 512	400fps	1/4"	5	400-1800	USB3.0	C
iBoostX-428USW32M-SJ-Lite	IMX991	640 x 512	428.1fps	1/4"	5	400-1700	USB3.0	C
iBoostX-724USW33M-HP	InGaAs	640 x 512	724fps	3/4"	15	900-1700	USB3.0	C
iBoostX-125GSW33M-HP	InGaAs	640 x 512	125fps	3/4"	15	900-1700	GigE	C
iBoostX-257GSW32M-SA/J ¹	IMX991	640 x 512	257.8fps	1/4"	5	400-1800	GigE	C
iBoost260GSW30M	InGaAs	640 x 512	258.8fps	1/4"	5	400-1700	GigE	C
iBoostX-360GSW33M-HP	InGaAs	640 x 512	360fps	3/4"	15	900-1700	GigE	C
iBoostX-367GSW33M-HP	InGaAs	640 x 512	360fps	3/4"	15	900-1700	GigE	C
iBoostX-724TGSW33M-HP	InGaAs	640 x 512	724fps	3/4"	15	900-1700	10GigE	C
iBoostX-400CSW32M-SA	IMX991	640 x 512	400fps	1/4"	5	400-1700	CameraLink	C
iBoostX-533CSW33M-CM/HP ¹	InGaAs	640 x 512	533fps	3/4"	15	900-1700	CameraLink	C
iBoostX-726CSW33M-CM/HP ¹	InGaAs	640 x 512	726fps	3/4"	15	900-1700	CameraLink	C
iBoostX-1000CSW33M-CM/HP ¹	InGaAs	640 x 512	1000fps	3/4"	15	900-1700	CameraLink	C

Short-Wave (SWIR) Industrial Cameras

● Resolution: 1280 x 1024

Area Scan Model	Sensor	Resolution (H*V)	Frame Rate	Sensor Size	Pixel Size (µm)	Spectral Range (nm)	Interface	Lens
iBoostX-200USW130M-SA/J ¹	IMX990	1280 x 1024	200fps	1/2"	5	400-1800	USB3.0	C
iBoostX-200USW130M-HP-M42	InGaAs	1280 x 1024	200fps	1.5"	15	900-1700	USB3.0	M42
iBoostX-223USW130M-SJ-Lite	IMX990	1280 x 1024	223fps	1/2"	5	400-1700	USB3.0	C
iBoost89GSW130M	InGaAs	1280 x 1024	89fps	1/2"	5	400-1700	GigE	C
iBoostX-90GSW130M-SA/J ¹	IMX990	1280 x 1024	90fps	1/2"	5	400-1800	GigE	C
iDatum90GSWC130M	IMX990	1280 x 1024	91fps	1/2"	5	400-1700	GigE	C
iBoostX-200TGSW130M-HP-M42	InGaAs	1280 x 1024	200fps	1.5"	15	900-1700	10GigE	M42
iBoostX-200CSW130M-SA	IMX990	1280 x 1024	200fps	1/2"	5	400-1700	CameraLink	C
iBoostX-200CSW130M-CM/HP-M42 ¹	InGaAs	1280 x 1024	200fps	1.5"	15	900-1700	CameraLink	M42

● Resolution: 2048 x 1536

Area Scan Model	Sensor	Resolution (H*V)	Frame Rate	Sensor Size	Pixel Size (µm)	Spectral Range (nm)	Interface	Lens
iBoostX-93USW300M-SA/J ¹	IMX993	2048 x 1536	93fps	1/1.8"	3.45	400-1700	USB3.0	C
iBoostX-93USW300M-SJ-Lite	IMX993	2048 x 1536	93fps	1/1.8"	3.45	400-1700	USB3.0	C
iBoostX-150CSW300M-SA	IMX993	2048 x 1536	150fps	1/1.8"	3.45	400-1700	CameraLink	C
iBoostX-220TGSW300M-SA	IMX993	2048 x 1536	220fps	1/1.8"	3.45	400-1700	10GigE	C

● Resolution: 2560 x 2048

Area Scan Model	Sensor	Resolution (H*V)	Frame Rate	Sensor Size	Pixel Size (µm)	Spectral Range (nm)	Interface	Lens
iBoostX-71USW500M-SJ-Lite	IMX992	2560 x 2048	61.9fps	1/1.4"	3.45	400-1700	USB3.0	C
iBoostX-71USW500M-SA/J ¹	IMX992	2560 x 2048	61.9fps	1/1.4"	3.45	400-1700	USB3.0	C
iBoostX-22GSW500M-SA/J ¹	IMX992	2560 x 2048	22fps	1/1.4"	3.45	400-1700	GigE	C
iBoostX-165TGSW500M-SA	IMX992	2560 x 2048	165fps	1/1.4"	3.45	400-1700	10GigE	C
iBoostX-100CSW500M-SA	IMX992	2560 x 2048	100fps	1/1.4"	3.45	400-1700	CameraLink	C

Note 1: Different sensor level options.

Cooled Mid-Wave Infrared (MWIR) Cameras

► Main Features

- 1.5 to 5.2 μm spectrum, $\text{NETD} \leq 15\text{mK}@25^\circ\text{C}$
- High strength industrial structure design
- Embedded on-board image preprocessing
- Minimum $\text{NETD} \leq 15\text{mK} @ 25^\circ\text{C}$
- GigE and Camera Link data interface



► Applications



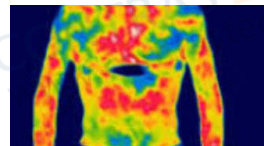
Aerospace



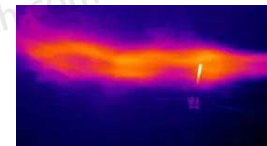
Glass Plastics



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	$\geq 6000\text{h}$
Venus-MW640-3748GS	Cooled MCT	3.7-4.8	15	640 x 512	1-117Hz	CameraLink GigE	/
Venus-MW640-1552GS	Cooled MCT	1.5-5.2	15	640 x 512	1-117Hz	CameraLink GigE	/

iVaster Gas Detection Cameras

► Main Features

- 3.2 to 14 μm spectrum, pixel size 30 μm
- Supports ONVIF, GB28181 and CameraLink protocols.
- Cooled thermal imaging gas detection technology for long-lasting real-time monitoring
- Supports a 9-75mm continuous zoom infrared lens, enabling gas detection at various distances



► Applications



Oil and Gas Inspection



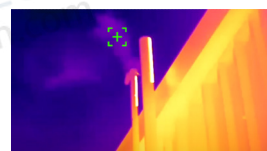
Rescue Operations



Gas Leak Detection



Pipeline Inspection



Environmental Emissions Monitoring

► Specifications

Model	Sensor type	Resolution	Frame rate (Hz)	Spectrum (μm)	Lenses (mm)	Weight	Interface
iVa25CP3308M	MCT	320×256	25	3.2-3.4 ¹	23/50(fixed focal) 25-75(zoom)	850g	CameraLink
iVa25G3308M	MCT	320×256	25	3.2-3.4 ¹			Ethernet
iVa25GLW30M-G1	Uncooled VOx Detector	640×512	25	8-14 ¹	9-35	621g $\pm$ 5%	RJ45
iVa25GLW30M-G2	Uncooled VOx Detector	640×512	25	9.5-12 ²	9-35		
iVa25G4408M	InSb	320×256	25	4.4-4.8 ³	50	850g	Ethernet
iVa25CP4408M	InSb	320×256	25	4.4-4.8 ³	50	850g	CameraLink

Note ¹: CH_4 , C_2H_6 , C_3H_8 , C_4H_{10} , C_5H_{12} , C_6H_{14} , C_7H_{16} , C_8H_{18} , C_2H_4 , C_3H_6 , CH_3OH , $\text{C}_2\text{H}_5\text{OH}$, C_6H_6 , $\text{C}_6\text{H}_5\text{CH}_3$, $\text{C}_6\text{H}_5\text{C}_2\text{H}_5$, etc.

Note ²: SF_6 , NH_3 , C_2H_4 , $\text{C}_2\text{H}_3\text{OR}$, $\text{C}_2\text{H}_3\text{Cl}$, C_2HCl_3 , $\text{C}_4\text{H}_6\text{O}$, C_3H_6 , $\text{C}_3\text{H}_4\text{O}$, $\text{C}_3\text{H}_3\text{N}$, $\text{C}_6\text{H}_7\text{NO}_2$, $\text{C}_3\text{H}_5\text{F}$, $\text{C}_3\text{H}_5\text{Cl}$, $\text{C}_3\text{H}_5\text{Br}$, $\text{C}_4\text{H}_4\text{O}$, etc.

Note ³: CO

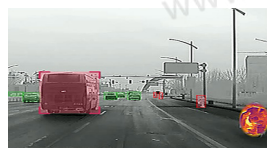
iVaster Micro Long-Wave Infrared (LWIR) Cameras

► Main Features

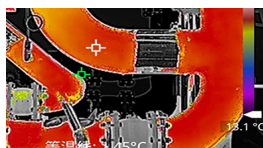
- 8 to 14 μm spectrum, pixel size 12 μm
- Ultra-light module weight < 5g, lightweight design
- Efficient and accurate temperature measurement ability
- It is easier into a wide range of embedded processors from NVIDIA®, Qualcomm®, MediaTek®, HiSilicon®, Rockchip™, Allwinner™ and more



► Applications



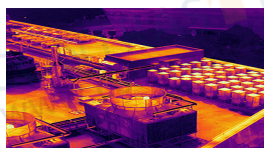
Assisted Driving



Industrial Temperature Measurement



Security Monitoring



Night Vision Image



Drone

► Specifications

Model	Temp	Resolution	Frame Rate (Hz)	Digital Zoom	Shutterless	Dimension (mm/g)	Lenses (mm)	Interface
iVa-BPLWT04A	●	256×192	25	/	/	21×14.6 3.5g	3.2/7	CDS2/CDS3/LVCMOS
iVaster25BPLWT05M	●	256×192	25	/	/	18×18 8.7g	3.2/7	USB2.0
iVaster50BPLW05M	-	256×192	50	/	/			
iVaster25BPLWT11M	●	384×288	25	/	/	18×18 4.8g	2.88/5.3/9/19	USB2.0/Analog
iVaster50BPLW11M	-	384×288	50	/	/			
iVaster25BPLWT30M	●	640 × 512	25	/	/	21×21 8g	4.1/6.9/9.1/ 13/25/45	USB2.0 Type-C/USB2.0 4Pin/PAL-D
iVaster50BPLW30M	-	640 × 512	50	/	/			
iVaster30BPLWT120M	●	1280 × 1024	30	/	/	29×29 24.5g	10/35/50/75 ¹	USB3.0 Type-C
iVaster30BPLW120M	-	1280 × 1024	30	/	/			
iVaster25BPLWT30M-Pro	●	640×512	25	1.0-4.0x	/	26×26 20±3g	4.1/6.9/9.1/13/ 19/25/35/55/75/ 100 ¹	USB2.0 Type-C/ USB2.0 4Pin/ BT656.+Analog/ LVDS+Analog CameraLink+Analog/ MIPI+Analog
iVaster50BPLW30M-Pro	-	640×512	50	1.0-4.0x	✓			
⊙ Ruggedized Series								
iVaster50BPLW30M-HPro	-	640×512	50/60	1.0-8.0x	✓	26×26/21g		MIPI/USB/Analog/ BT.656/DVP
iVaster30BPLW120M-HPro	-	1280 × 1024	30	1.0-8.0x	✓	32×32 43g±5g	19/25/35/50/ /55/75	CameraLink/BT.1120/ HDMI/USB
⊙ Automotive Series (Defog & Defrost Function)								
iVa50(UFH)LW30M-D ²	-	640×512	50	/	✓	35×35 100g±5g	4.1/6.9/13	USB/ FAKRA/ 4-Pin Connector

Note ¹:Temp. Measurement version not support 55/75/100mm.

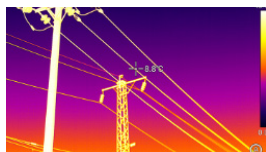
Note ²:Support Defrost & Defog: ensure clear imaging in cold or humid environments.

iVaster High-Performance Long-Wave Infrared (LWIR) Cameras

► Main Features

- 8 to 14 μm spectrum
- Support **high temperature warning** and **fire point alarm functions**
- Support a variety of digital video and network video output
- Support wide temperature measurement range of $-20^{\circ}\text{C}\sim+650^{\circ}\text{C}$, basic accuracy of $\pm 2^{\circ}\text{C}$
- Rich image output interfaces can be connected to most security monitoring hardware platforms, easy to use for customers

► Applications



Industrial Temperature Measurement



Security Monitoring



Fire Prevention



Patrol Check



Drone



► Specifications

Model	Temp	Pixel Size (μm)	Resolution	Frame Rate (Hz)	Digital Zoom	NETD (@25°C)	Interface ¹
iVa-BPLW1A	-	12	384 x 288	50	1.0-8.0x	$\leq 40\text{mK}$ F#1.0	USB/CameraLink & Ethernet
iVa-BPLWT1A	●	12	384 x 288	25	1.0-8.0x		USB & Ethernet
iVa-BPLW3A	-	12	640 x 512	50	1.0-8.0x		SDI/USB/CameraLink & Ethernet
iVa-BPLWT3A	●	12	640 x 512	25	1.0-8.0x		USB & Ethernet
iVa-BPLW13A	-	12	1280 x 1024	30/50	1.0-8.0x		SDI/USB/CameraLink/HDMI & Ethernet
iVa-BPLWT13A	●	12	1280 x 1024	30	1.0-8.0x		USB & Ethernet
iVa-BPLW20A	-	8	1920 x 1080	30	1.0-8.0x	$\leq 35\text{mK}$ F#1.0	SDI/USB/CameraLink/HDMI & Ethernet

Note¹: Functions vary as model, please consult sales for details !

► Optional Lenses

Model	Athermal Lens	Motorized Focus Lens	Continuous Zoom Lens
iVa-BPLW(T)1A/ iVa-BPLW(T)3A	4.1/9.1/13/19/25/35/55/75/ 100mm	50/75/100/150mm	25-75mm/20-100mm/26-105mm/30-150mm/ 25-225mm
iVa-BPLW13A	8.7/10/19/25/35/55/75/100mm	75/100/150mm	25-75mm/30-150mm/25-225mm/ 30-300mm/35-350mm
iVa-BPLWT13A	10/19/25/35mm		
iVa-BPLW20A	55/75/100mm ²	75/100/150mm	25-75mm/30-150mm/25-225mm/ 30-300mm/35-350mm

Note: Temp. Measurement version is not compatible with lenses $\geq 55\text{mm}$ or with continuous zoom lenses.

Note²: iVa-BPLW20A Ethernet port version does not support Athermal Lens.

iVaster-SL Shutterless Long-Wave Infrared (LWIR) Cameras

► Main Features

- 8 to 14 μm spectrum, pixel size options: 10 μm and 12 μm
- High frame rate, low power, lightweight for easy integration
- Supports high-quality imaging and optional temperature measurement
- Full-range 3.9–55mm lenses, detects pedestrians up to 6.1km
- 80g@4ms shock & 6.06g vibration resistance, <0.1% failure in harsh missions



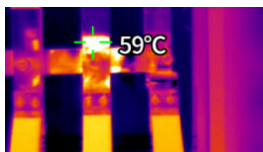
► Applications



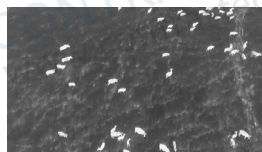
Security Monitoring



Enforcement & Rescue



Industrial Temperature
Measurement



Animal Observation



Drone

► Specifications

Model	Temp	Pixel Size (μm)	Resolution	Frame Rate (Hz)	Digital Zoom	Shutterless	Lenses
iVaSL-50BPLW05	-	12	256×192	50	1.0-8.0x	Support	3.9/9.1/13/25mm
iVaSL-60BPLW11	-	12	384×288	60	1.0-8.0x		9.1/15/25/35mm
iVaSL-60BPLW30	-	12	640× 512	60	1.0-8.0x		9.1/13.5/18/25/35/55mm
iVaSLL-30BPLWT30	●	10	640× 512	30/60	1.0-8.0x		11mm
iVaSL-50BPLW120	-	12	1280×1024	50	1.0-8.0x		19/35/55mm

Model	Digital Video Interface	Analog Video	Communication Interface
iVaSL-50BPLW05/iVaSL-60BPLW11(30)	DVP/BT656/USB2.0/MIPI	PAL/NTSC	UART/I2C/USB2.0
iVaSLL-30BPLWT30			
iVaSL-30BPLW120	DVP/BT1120/MIPI/USB3.0	/	UART/I2C

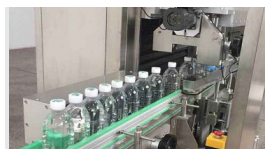
Long-Wave Infrared (LWIR) Industrial Cameras

► Main Features

- 8 to 14 μm spectrum
- High precision temperature measurement
- Rich color display mode
- Low cost high sensitivity uncooled sensor
- GigE Vision protocol support



► Applications



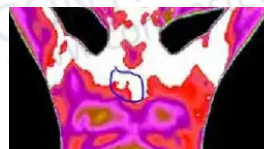
Food and Beverage
Packaging Sealing Inspection



Pipeline Inspection



Production Temperature
Detection



Medical Drug Testing



Building Inspection

► Specifications

GigE[®]
VISION

Model	Sensor Technology	Temp	Pixel Size (μm)	Resolution (H*V)	Frame Rate (fps)	Interface	EFL(mm)
LEO 64006LW-50gm	Uncooled VOx Detector	-	17	640 x 512	50	GigE	6.3
LEO 64006LWT-50gm	Uncooled VOx Detector	●	17	640 x 512	50	GigE	6.3
LEO 64015LW-50gm	Uncooled VOx Detector	-	17	640 x 512	50	GigE	15
LEO 64025LW-50gm	Uncooled VOx Detector	-	17	640 x 512	50	GigE	25
LEO 64035LW-50gm	Uncooled VOx Detector	-	17	640 x 512	50	GigE	35

- With accurate temperature measuring function, temperature measuring range -20°C ~150°C or 0°C ~550°C (accuracy $\pm 2\%$)

Online High-Temperature Long-Wave Infrared (LWIR) Cameras

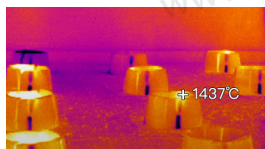
► Main Features

- 8 to 14 μm spectrum, pixel size 12 μm
- Supports ONVIF and GB28181 protocols.
- Support wide temperature measurement range of 0° C~+1500° C, basic accuracy of $\pm 2^\circ\text{C}$
- Various temperature measurement tools are available, such as Anyfixedpoint, Fullscreen max./min. temperature capture, and Centerpoint.



Temperature measuring
0–1500°C

► Applications



Boiler Flame Monitoring



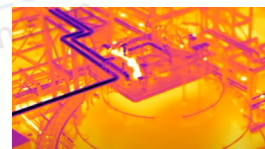
Surface Temperature Monitoring



Safety Monitoring



Metal Smelting



Oil Refining

► Specifications

Model	Temp	Resolution	Frame rate (Hz)	Spectrum (μm)	Optional Lenses (mm)	Dimension (mm/g)	Interface
iVa25GLW30M-L1	 (0–1500°C)	640×512	25	8–14	6	46.5×48×146 337±5g	RJ45
iVa25GLW30M-L2	 (0–1500°C)	640×512	25	8–14	3.9		

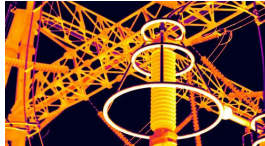
iRaPix Drone Long-Wave Infrared (LWIR) Cameras

► Main Features

- 8 to 14 μm spectrum
- High thermal sensitivity, typical NETD $\leq 40\text{mK}$
- Windows/Android/Linux SDK can be provided to achieve full screen temperature measurement
- Regional analysis, high temperature alarm, hot spot tracking, isothermal mode
- Temperature measurement range: $-20\sim+150^{\circ}\text{C}$, $0\sim+550^{\circ}\text{C}$,Temperature measurement accuracy: $\pm 3^{\circ}\text{C}$ or $\pm 3\%$



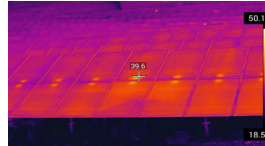
► Applications



Equipment Inspection



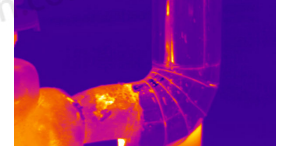
Animal Observation



Industrial Temperature Measurement



Enforcement & Rescue



Security Monitoring

► Specifications

Model	Temp	Digital zoom	Pixel spacing (μm)	Resolution	Frame rate (Hz)	Dimension/Weight (mm/g)
iRP01BPLWA	-	/	17	384×288	25/30/50	25.4×25.4×16.3/12.8g ²
iRP01BPLWTA	●	/	17	384×288	25/30/50	25.4×25.4×16/12.8g ²
iRP03BPLWA	-	1.0-8.0x ¹	12	640×512	25/30	25.4×25.4×15.6/11.5g ²
iRP03BPLWTA	●	1.0-8.0x ¹	12	640×512	25/30	25.4×25.4×14.1/11.5g ²
iRP03BPLWA-Pro	-	1.0-8.0x	12	640×512	25/30	17.3×17.3×22.2/13.5g ³
iRP03BPLWTA-Pro	●	1.0-8.0x	12	640×512	25/30	17.3×17.3×22.2/13.5g ³
iRP13BPLWA	-	/	12	1280×1024	25/30/50	38×39×20.9/49±3g ²
iRP13BPLWTA	●	/	12	1280×1024	25/30	38×39×20.9/49±3g ²

Model	Digital Video Interface	Communication Interface	Analog Video	Via Extend Board
iRP03BPLW(T)A-Pro	USB2.0/DVP/BT656/MIPI	RS232-TTL/USB2.0	/	Type-C/MIPI
iRP13BPLW(T)A	DVP8/DVP16/BT.1120	RS232-TTL/USB2.0	/	CameraLink/HDMI/USB3.0/GigE/MIPI/SDI
Other	USB2.0/DVP/BT.656/LVDS	/	PAL/NTSC	VPC/USB2.0/USB3.0

► Optional Lenses

Model	Athermal Lens	Motorized Focus Lens	Continuous Zoom Lens
iRP01BPLWA/iRP03BPLWA	4.9/7/9.1/13/19/25/35/50/70mm	/	/
iRP01BPLWTA/iRP03BPLWTA	4.9/7/9.1/13/19/25mm [iRP03BPLWTA not support 25mm lens]	/	/
iRP03BPLW(T)A-Pro	9.1/13/25/44.5mm	/	/
iRP13BPLWA	14/25/35/50/100mm	75/100/150mm	28~90mm/30~180mm
iRP13BPLWTA	14/25mm	/	/

Note ¹: Model iRP03BPLW(T)A supports digital zoom 1.0-8.0x only with analog interface.

Note ²: Bare Module Dimensions and Weight.

Note ³: 17.3×17.3×22.2mm/13.5g (With 9.1mm Lens)
 17.3×17.3×30mm/19.2g (With 13mm Lens)
 17.3×17.3×38mm/26.4g (With 25mm Lens)
 17.3×17.3×54mm/45g (With 44.5mm Lens)

High Speed Hyperspectral Sorting Cameras

► Main Features

- Wide Range of Spectral Options: 400-700nm, 400-1000nm, 900-1700nm and 400-2500nm
- Exceptional stability and sensitivity
- 2.5nm Spectrum FWHM, High Spectral Resolution for Detailed Material Characterization and Analysis
- Ultra-low power consumption with temperature-stable optics
- Supports ROI functionality, enabling the definition of multiple ROI areas



► Applications



Food and Agriculture



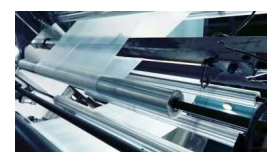
Pharmaceuticals



Resource Recycling



Moisture Distribution



Chemical and Material Sorting

► Specifications

Model	Sensor	Spectral Range(nm)	Spectral Band	Spatial Pixel	Slit Width (um)	Spectral FWHM	Imaging Speed	Interface	Mount
iRb7UVL36KM	CMOS	400-700	600	1920	25	2.5nm	41Hz	USB3.0	C
iRb7UVL36M	CMOS	400-700	600	1920 x 1920	25	2.5nm	≤ 15s	USB3.0	C
iRb10UVN36KM-1	CMOS	400-1000	1200	1920	25	2.5nm	41Hz	USB3.0	C
iRb10UVN36KM-2	CMOS	400-1000	1200	1920	25	2.5nm	128Hz	USB3.0	C
iRb10UVN36M-1	CMOS	400-1000	300	1920 x 1920	25	5nm	≤ 15s	USB3.0	C
iRb10UVN36M-2	CMOS	400-1000	1200	1920 x 1920	25	2.5nm	≤ 5s	USB3.0	C
iRb17UVN16KM	InGaAs	400-1700	680	1280	25	13nm	579fps	USB3.0	C
iRb17USW16KM	InGaAs	900-1700	1024	1280	25	6nm	1800fps	USB3.0	C
iRb17CSW04KM-1	InGaAs	900-1700	512	640	25	< 6nm	740fps	Cameralink	C
iRb17CSW04KM-2	InGaAs	900-1700	150	640	25	< 9nm	2400fps	Cameralink	C
iRb17CSW04KM-3	InGaAs	900-1700	100	640	25	< 13nm	3500fps	Cameralink	C
iRb17USW16M	InGaAs	900-1700	1024	1280 x 1280	25	6nm	≤ 5s	USB3.0	C
iRb25USW36KM	InGaAs	400-2500	1200	1920	25	2.5nm	100Hz	USB3.1	C
iRb25USW01KM	InGaAs	1400-2500	210	320	25	12nm	509fps	USB3.1	C

Multi-spectral PTZ Camera

► Main Features

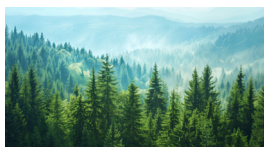
- 3.7 to 14 μm spectrum, MWIR (15 μm) and LWIR (12 μm) versions
- Integrated dual-spectrum imaging with laser illumination/ranging
- Support ONVIF protocols, SDK, and NVR/software compatibility
- Paired with 88 to 1100 mm 12x continuous zoom infrared lens
- IP66-rated, with alarm interface and fire detection, supports up to 256 GB Micro SD



► Applications



Border Surveillance



Forest Fire Prevention



Security Monitoring



Wildlife Monitoring



Search and Rescue

► Specifications

Model	Resolution		Focal Length (mm)		Spectrum (μm)	Interface	NETD
	Visible	Thermal	Visible	Thermal			
iVa30L4MPH-L3	2688×1520	640×512	6-300	30~150/25~225	8-14	RJ45	$\leq 40\text{mK}$
iVa130L4MPH-L3	2688×1520	1280×1024	15-775	25~225	8-14	RJ45	$\leq 40\text{mK}$
iVa30L4MPH2	2688×1520	640×512	15-775	30~150/25~225	8-14	RJ45	$\leq 40\text{mK}$
iVa130L4MPH2	2688×1520	1280×1024	15-775	25-225	8-14	RJ45	$\leq 40\text{mK}$
iVa30L4MPM	2688×1520	640×512	6-336	75/100/150/30-150	8-14	RJ45	$\leq 40\text{mK}$
iVa130L4MPM	2688×1520	1280×1024	6-336	75/100/150/30-150	8-14	RJ45	$\leq 40\text{mK}$
iVa30L4DPM	2688×1520	640×512	6-336	75/25-75/100	8-14	RJ45	$\leq 40\text{mK}$
iVa130L4DPM	2688×1520	1280×1024	6-240	75/25-75	8-14	RJ45	$\leq 40\text{mK}$
iVa30L4DPL-T	2688×1520	640×512	6.5-130	13/25	8-14	RJ45	$\leq 40\text{mK}$
iVa30M4MPH-L3	2688×1520	640×512	20-1200	88-1100	3.7~4.8	RJ45	$\leq 20\text{mK}$

Laser Rangefinder Module

► Main Features

- Ultra-light module weight < 5g, lightweight design
- Delivers up to 1 kHz measurement frequency, ideal for dynamic target applications
- Supports a maximum measurement range of 90 km with a minimum error of only 3 m
- Excellent environmental adaptability, operating temperature range: -40° C to +70° C, MTBF ≥ 1500 hours, shock resistance: 1200 g, 1 ms.



► Applications



Mining Engineering



Navigation Assistance



Golf



Target Positioning



Construction and Surveying

► Specifications

Model	Distance (Building)	Accuracy	Laser Wavelength	Frequency	Divergence Angle(mrad)	Power	Dimension (mm)
HLR001	3cm-10m	1%	/	100Hz	/	3.3V	12x9x8.5/1g
HLR002	3cm-22m	±3cm(0.2~6m), 1%(≥ 6m)	/	500Hz	/	3.3V	21x15x7.5/2g
HLR005	3cm-50m	±3cm(0.2~6m), 1%(≥ 6m)	/	500Hz	/	3.3-5V	19x12x13.3/2g
HFLR005	5cm-50m	±10cm	/	20-1kHz	/	9-36V	27x30x20/15g
HFLR01	5cm-100m	±10cm	/	20-1kHz	/	9-36V	33x34x18/20g
HFLR02	5cm-200m	±10cm	/	20-1kHz	/	9-36V	33x34x18/20g
HFLR03	5cm-300m	±10cm	/	50/100Hz	/	9-36V	33x34x18/20g
HFLR06	5cm-600m	±10cm	/	50/100Hz	/	9-36V	33x34x18/20g
HFLR15	5cm-1500m	±10cm	/	50Hz	/	9-36V	33x34x18/20g
ILR15	5-1500m	±1m	905nm	1-5Hz	6	3-5V	30x20x15/10g
ILR15S	5-1500m	±1m	905nm	1-3Hz	6	3.3V	26x25x14/12g
ILR20S	5-2000m	±1m	905nm	1-3Hz	12	3-5V	26x25x13/10g
ILR12	5-1200m	±1m	905nm	1-5Hz	5	3-5V	23x47&22x43/14g
ILR20	5-2000m	±1m	905nm	1-5Hz	5	3-5V	23x47&22x43/14g
ILR25	5-2500m	±1m	905nm	1-5Hz	5	3-5V	23x47&22x43/14g
ILR35	5-3500m	±1m	905nm	1-5Hz	5	3-5V	32x37x47/38g
ILR45	5-4500m	±1m	905nm	1-5Hz	5	3-5V	32x37x47/38g
ILR55	5-5500m	±1m	905nm	1-5Hz	5	3-5V	32x37x47/38g
MLR50	15-5000m	±1m	1535nm	1-10Hz	≤ 0.6	5-24V	48x21x31/33g
MLR70	30-7000m	±1m	1535nm	1-10Hz	≤ 0.5	5V	48.5x36x26/57g
MLR80	30-8000m	±1m	1535nm	1-10Hz	≤ 0.5	9-15V	54x34x44/75g
MLR10T	50-10000m	±1m	1535nm	1-10Hz	≤ 0.3	9-15V	73x45x59/120g
MLR15T	50-15000m	±1m	1535nm	1-10Hz	≤ 0.3	9-36V	80x67x47/120g
MLR18T	50-18000m	±1m	1535nm	1-10Hz	≤ 0.3	12V	100x61x71/220g

Laser Rangefinder Module

Model	Distance (Building)	Accuracy	Laser Wavelength	Frequency	Divergence Angle(mrad)	Power	Dimension (mm)
MLR20T	50-20000m	±1m(RMS)	1535nm	1-10Hz	≤ 0.3	9-15V	90x63x82/300g
MLR26T	100-26000m	±1m(RMS)	1535nm	0.5-10Hz	≤ 0.3	12V	125x100x70/380g
MLR30T	100-30000m	±1m(RMS)	1535nm	0.5-10Hz	≤ 0.3	12V	125x100x70/380g
MLR2PT	150-20000m	±3m(RMS)	1535nm	1-5Hz	≤ 0.3	18-32V	130x114x81/1.2kg
MLR23T	100-23000m	±3m(RMS)	1535nm	1Hz	≤ 0.3	22-34V	132x103x75/ ≤ 870g
MLR3PT	100-30000m	±3m(RMS)	1535nm	1Hz	≤ 0.3	22-34V	132x103x75/ ≤ 870g
OLR20T	100-20000m	±5m(RMS)	1570nm	1-10Hz	≤ 0.3	18-30V	182x116x68/ ≤ 1kg
OLR30T	500-30000m	±5m(RMS)	1570nm	1-10Hz	≤ 0.7	18-30V	220x140x72/ ≤ 2kg
OLR40T	500-40000m	±5m(RMS)	1570nm	1-10Hz	≤ 0.7	18-30V	220x140x72/ ≤ 2kg
OLR90T	200-90000m	≤ ±3m	1570nm	≥ 20Hz	0.6±0.1	22-30V	405x230x160/ ≤ 12kg
ULR14	≥ 1000m	≤ ±2m(RMS)	/	≥ 20Hz	9±1	9--36V	90x63x82/ ≤ 300g
ULR10	≥ 800m	≤ ±2m(RMS)	/	≥ 100Hz	9±1	9--36V	90x63x82/ ≤ 300g

IR Corrected Lenses

► Main Features

- Up to 12 million pixels
- C-Mount design with strong compatibility
- Wide field of view covering various focal lengths
- High strength fixed structure



► Specifications

Part name	Focal Length (mm)	Aperture	Sensor Size	Mega Pixels	Field of View (D*H*V)	M.O.D. (m)	Filter Size	Mount	Wavelength (nm)
VT-VIRLEN0815MP3	8	F1.5	1/1.2"	3 MP	90.2°x71°x54.6°	0.5	M37.5X0.5	C	400-1000
VT-VIRLEN3520MP5-H1	35	F2.0	1"	5 MP	26.03°x20.7°x15.45°	1.5	M30.5X0.5	C	400-1000
VT-VIRLEN5028MP5-H1	50	F2.8	1"	5 MP	18.4°x14.62°x11°	1	M30.5X0.5	C	400-1000
VT-VIRLEN1616MP10-H1	16	F1.6	1"	10 MP	52.38°x42.49°x32.21°	0.35	M40.5X0.5	C	400-950
VT-VIRLEN2012MP10-H1	20	F1.2	1"	10 MP	45.4°x33.18°x26.2°	1	M43X0.75	C	400-1000
VT-VIRLEN2512MP10-H1	25	F1.2	1"	10 MP	36.4°x27.68°x18.36°	1.5	M43X0.75	C	400-1000
VT-VIRLEN2518MP10-H1	25	F1.8	1"	10 MP	34.8°x28°x21.2°	0.8	M30.5X0.5	C	400-1000
VT-VIRLEN3512MP10-H1	35	F1.2	1"	10 MP	26°x20.96°x15.72°	2	M43X0.75	C	400-1000
VT-VIRLEN1616MP10-H2	16	F1.6	4/3"	10 MP	66.26°x56.04°x43.7°	0.35	M49X0.75	C	400-950
VT-VIRLEN2514MP8-H2	25	F1.4-32	4/3"	8 MP	48.15°x39.74°x30.02°	0.5	M58X0.75	C	400-950
VT-VIRLEN2516MP10-H2	25	F1.6	4/3"	10 MP	48.15°x38.91°x29.39°	0.3	M43X0.75	C	400-900
VT-VIRLEN5028MP18-H3	50	F2.8	30mm	18 MP	31.74°x26.60°x17.86°	0.3	M40.5X0.5	M42	400-900

Short-Wave Infrared (SWIR) Lenses

► Main Features

- Specifically designed for short wave spectrum
- High strength fixed structure
- High penetration anti-stripping coating
- Excellent consistency



► Specifications

Model	Focal Length (mm)	Aperture	Sensor Size	Wavelength (nm)	Field of View (D*H*V)	M.O.D. (m)	Mount
VLEN2-0618SW-H1	6	F1.8	1"	900-1700	105° /93.6° /77°	0.1	C
VLEN2-0814SW-H1	8	F1.4	1"	900-1700	90.7° /78.4° /62.6°	0.1	C
VLEN2-1216SW-H1	12	F1.6	1"	900-1700	70° /57° /44°	0.5	C
VLEN2-1614SW-H1	16	F1.4	1"	900-1700	53.6°	0.3	C
VLEN2-2514SW-H1	25	F1.4	1"	900-1700	30°	0.3	C
VLEN2-3514SW-H1	35	F1.4	1"	900-1700	26.2°	0.3	C
VLEN2-5014SW-H1	50	F1.4	1"	900-1700	18.4°	0.5	C
VLEN2-3520SW-H1.1	35	F2	1.1"	400-1200	28°	0.15	C
VLEN2-5020SW-H1.1	50	F2	1.1"	400-1200	20.4°	0.25	C
VLEN3-3514SW-H2	35	F1.4	4/3"	800-1700	31.2°/25.4°/18.7°	0.3	T
VLEN3-2520SW-H3	25	F2	28 mm	800-1700	56.2°/48.2°/32.4°	0.25	C
VLEN2-2519SW-H3	25	F1.9	28 mm	900-1700	58°	0.2	M42
VLEN2-4016SW-H3	40	F1.6	28 mm	900-1700	37°	0.25	M42
VLEN2-5014SW-H3	50	F1.4	28 mm	900-1700	30° /24° /18°	0.43	M42
VLEN3-5014SW-H3	50	F1.4	28.6 mm	800-1700	27.26° /22.02° /16.62°	0.3	M42
VT-LEM2518SWIR-H1	25	F1.8	1"	900-1700	35.49° /28.5° /21.74°	0.3	C
VT-LEM7525SWIR-H1	75	F2.5	1"	900-1700	9.08° /7.26° /5.45°	0.265-0.48	C
VT-LEM20040SWIR-H1	200	F4-22	1"	900-1700	4.57°x3.66°x2.75°	10	C
VT-LEM30040SWIR-H1	300	F4-22	1"	400-1700	3.06°x2.44°x1.83°	10	C
VT-LEM40056SWIR-H1	400	F5.6	1"	900-1700	2.29°X1.83°X1.37°	20	C
VT-LEM3514SWIR-H2	35	F1.4	4/3"	900-1700	31.2°/25.4°/18.7°	0.3	M42
VT-LEM10021SWIR-H2	100	F2.1	25.6 mm	800-1700	14.33°/11.52°/8.72°	0.4	M42/C/F
VT-LEM1616022SWIR-H1	16 - 160	F2.2-Close	1"	900-1700	4.6 X 3.4°. at 160mm	1.1	C
VT-LEM2036060SWIR	20 - 360	F6-10	1/1.8"	400-1700	1.1X 0.84°. at 360mm	15	C
VT-LEM2050036SWIR	20- 500	F3.6-Close	1/1.8"	900-1700	0.84 X 0.63°. at 500mm	4	C
VT-LEM2075036SWIR	20- 750	F3.6-Close	1/1.8"	900-1700	0.6 X 0.4°. at 750mm	4	C
VT-LEM25120048SWIR	25 - 1200	F4.8 - 10	1/1.8"	400-1700	0.34 X 0.2°. at 1200mm	15	C
VT-LEN2509SWIR-S12	25	F0.9-16	12.6 mm	900-1700	/	0.2	C
VT-LEN3514SWIR-S23	35	F1.4-16	2/3"	900-1700	17.3°x13.9°x10.4°	0.15	C
VT-LEN5014SWIR-S23	50	F1.4-Close	2/3"	900-1700	13.04°x10.46°x7.86°	0.3	C
VT-LEN1214SWIR-H1.1	12.3	F1.4-16	1.1"	900-1700	71.2°x59.7°x46.6°	0.4	C
VT-LEN2528SWIR-H1.1	25	F2.8-22	1.1"	900-1700	37.6°x30.4°x23°	0.1	C
VT-LEN1218VSW-S12	12	F1.8-16	1/2"	400-1700	36.44°x29.02°x23.32°	0.1	C
VT-LEN1618VSW-S12	16	F1.8-16	1/2"	400-1700	28.14°x22.44°x17.98°	0.1	C
VT-LEN2518VSW-S12	25	F1.8-16	1/2"	400-1700	16.84°x13.44°x10.77°	0.1	C
VT-LEN3518VSW-S12	35	F1.8-16	1/2"	400-1700	9.71°x7.51°x5.94°	0.1	C

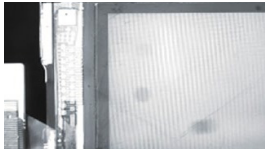
Infrared Illumination

► Main Features

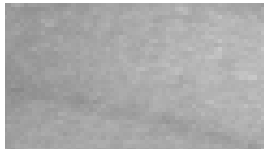
- The wavelength and size can be customized flexibly
- High-power red external lamp beads, forming high output, high stability infrared lighting



► Applications



Screen Detection



Vascular Detection



Dark Liquid Detection



Filter Complex Ink Information



Cap Scratch Detection

► Products

Coaxial Illumination

- High-density led provide high levels of light.
- High precision optical glass is used for lens Windows and spectroscopes.



Bar Illumination

- Standard die and seam installation ensures structural stability.
- Equipped with special optical lenses to focus light



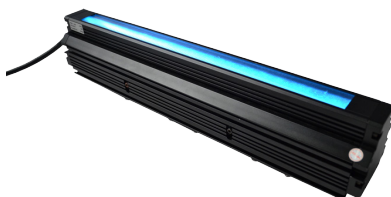
Bottom Flat Backlight Illumination

- Flat lights provide domain lighting through LED beads distributed on the bottom.



Line Illumination

- Use optical cylindrical lenses to focus light to reduce diffusion.
- The width of the luminous surface is variable because the distance between the LED plate and the lens is adjustable.



Ring Illumination

- Multiple angles provide the right lighting for realistic images.
- High-density LED arrays for intense lighting.
- Diffuser plates can be used to increase lighting uniformity.



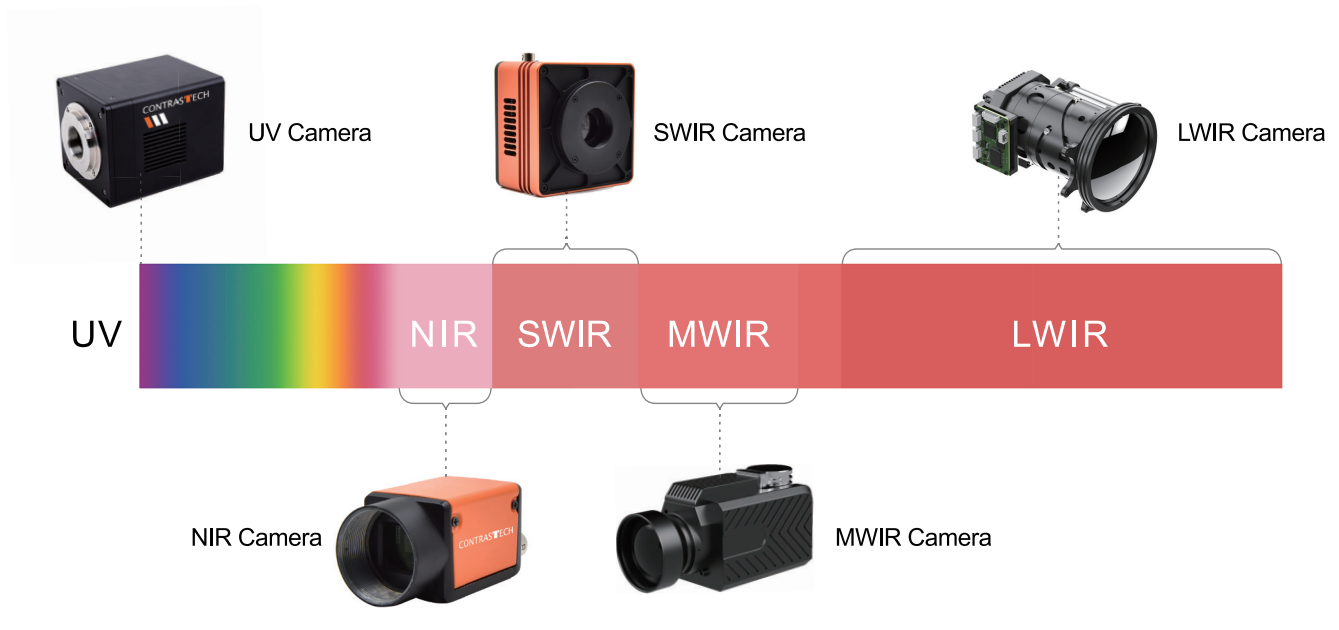
Dome Shape Illumination

- High-density SMD LED beads provide high-intensity light that is homogenized through dome-shaped reflective panels.
- Large irradiation area, high uniformity, suitable for bending objects and mirror imaging.



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