



Shenzhen Chengen Thermovision Technology Co., Ltd.

Product Catalog



AC Series Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

384x288 / 640x512

Lens

4 / 9mm

Analog Image Interface

CVBS(PAL Format)

Pixel Pitch

12μm

Frame Rate

50Hz

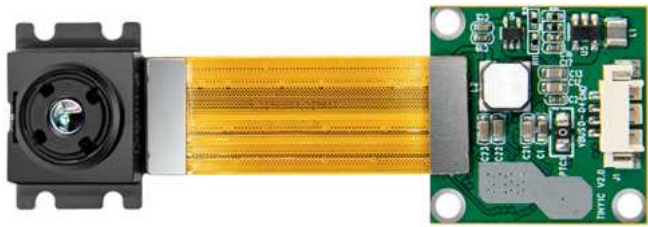
NETD

≤35mK

Pseudo-color Modes

White Hot, Black Hot, Red Hot, Iron Red, etc.

Model	AC384-4	AC384-9	AC640-4	AC640-9
Focal Length (mm)	4	9	4	9
FOV	59.9x46.7°	28.7x21.7°	87.7x75°	46.2x37.7°
Detection Distance	400m	900m	400m	900m
Recognition Distance	100m	225m	100m	225m
Identification Distance	50m	113m	50m	113m
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)			
Spectral Response	8-14μm			
Resolution	384x288, 12μm		640x512, 12μm	
NETD	≤ 35mK(f / 1.0 50Hz 300K)			
Frame Rate	50Hz			
Analog Video Interface	CVBS(PAL Format)			
Control Interface	UART			
Interface Specification	SMD,P=1.25mm-5P			
Pseudo-color Modes	White Hot , Black Hot, Red Hot, Iron Red, etc			
Image Enhancement Mode	Adjustable			
Brightness / Contrast	Adjustable			
Digital Zoom	1X to 8X zoom			
Shutter Mode	With Shutter, Auto Shutter mode			
Lid Calibration	Supports UART serial communication with user PC (host computer)			
Non-Uniformity Correction (NUC)	Supports UART serial communication with user PC (host computer)			
Power Supply Input	4.5v~27v			
Operating Temperature	-20℃ ~ +60℃			
Power Consumption	≤ 1w			
Shock	80g @ 4ms			
Weight	54g			
Dimension	28mmx28mmx38.7mm(subject to the actual product)			
Secondary Development	/			



Tiny1-C Thermal Imaging Core

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256x192

Focusing Method

Non-cooled Fixed Focus Lens

Image Data Interface

SPI / DVP

Pixel Pitch

12μm

Frame Rate

25Hz

NETD

≤50mK

Pseudo-color Modes

White Hot, Black Hot, etc.

Model	Tiny1C-USB			
Focal Length (mm)	2.0	3.2	4.3	7.0
FOV	90x65°	56x42°	40x30°	24.8x18.7°
Detection Distance	320m			
Recognition Distance	80m			
Identification Distance	40m			
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)			
Spectral Response	8~14μm			
Resolution	256x192, 12μm			
NETD	≤ 50mK(f / 1.0 25Hz @25C°)			
Frame Rate	25Hz			
Analog Video Interface	USB			
Control Interface	USB			
Interface Specification	Connector (Receptacle), P=1.25mm-4P			
Pseudo-color Modes	White Hot , Black Hot, etc.			
Image Enhancement Mode	Adjustable			
Brightness / Contrast	Adjustable			
Digital Zoom	1X to 8X zoom			
Shutter Mode	With Shutter, Auto Shutter mode			
Lid Calibration	Supports secondary development and shutter-based calibration			
Non-Uniformity Correction (NUC)	Auto Shutter Correction			
Power Supply Input	5v			
Operating Temperature	-40°C~+80°C			
Power Consumption	≤0.8w			
Shock	80g @ 4ms			
Weight	6g			
Dimension	19x17.6x8mm / 22x22mm			
Secondary Development	SDKs for Windows, Linux, Android, and RTOS platforms			



UV Series Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256 / 384 / 640

Lens

4 / 9mm

Analog Video Interface

USB,UVC

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 25mK

Pseudo-color Modes

White Hot, Black Hot, Red Hot, Iron Red, etc.

Model	UV256-4	UV256-9	UV384-4	UV384-9	UV640-4	UV640-9
Focal Length (mm)	4	9	4	9	4	9
FOV	42x32.1°	19.4x14.6°	59.9x46.7°	28.7x21.7°	87.7x75°	46.2x37.7°
Detection Distance	400m	900m	400m	900m	400m	900m
Recognition Distance	100m	225m	100m	225m	100m	225m
Identification Distance	50m	113m	50m	113m	50m	113m
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)					
Spectral Response	8~14μm					
Resolution	256x192, 12μm		384x288, 12μm		640x512, 12μm	
NETD	≤ 25mK(f / 1.0 50Hz 300K)					
Frame Rate	50Hz					
Analog Video Interface	USB, UVC					
Control Interface	USB					
Interface Specification	SMD, P=0.8mm-4P					
Pseudo-color Modes	White Hot , Black Hot, Red Hot, Iron Red, etc.					
Image Enhancement Mode	Adjustable					
Brightness / Contrast	Adjustable					
Digital Zoom	1X to 8X zoom					
Shutter Mode	With Shutter, Auto Shutter mode					
Lid Calibration	Supports USB serial communication with user PC (host computer)					
Non-Uniformity Correction (NUC)	Supports USB serial communication with user PC (host computer)					
Power Supply Input	USB(5V)					
Operating Temperature	-20℃ ~ +60℃					
Power Consumption	≤ 0.8w					
Shock	80g @ 4ms					
Weight	23g					
Dimension	21mmx21mmx29.8mm(subject to the actual product)					
Secondary Development	Supports Windows, Linux, and Android, with an SDK available for secondary development					



CV Series Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256/384/640

Lens

4 / 9mm

Analog Video Interface

CVBS(PAL Format)

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 25mK

Pseudo-color Modes

White Hot, Black Hot

Model	CV256-4	CV256-9	CV384-4	CV384-9	CV640-4	CV640-9
Focal Length (mm)	4	9	4	9	4	9
FOV	42x32.1°	19.4x14.6°	59.9x46.7°	28.7x21.7°	87.7x75°	46.2x37.7°
Detection Distance	400m	900m	400m	900m	400m	900m
Recognition Distance	100m	225m	100m	225m	100m	225m
Identification Distance	50m	113m	50m	113m	50m	113m
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)					
Spectral Response	8~14μm					
Resolution	256x192, 12μm		384x288, 12μm		640x512, 12μm	
NETD	≤ 25mK(f / 1.0 50Hz 300K)					
Frame Rate	50Hz					
Analog Video Interface	CVBS(PAL Format)					
Control Interface	UART					
Interface Specification	SMD,P=1.25mm-5P					
Pseudo-color Modes	White Hot, Black Hot					
Image Enhancement Mode	Adjustable					
Brightness / Contrast	Adjustable					
Digital Zoom	1X to 8X zoom					
Shutter Mode	With Shutter, Auto Shutter mode					
Lid Calibration	Supports UART serial protocol					
Non-Uniformity Correction (NUC)	Supports UART serial protocol					
Power Supply Input	4.5v~18v					
Operating Temperature	-20℃ ~ +60℃					
Power Consumption	≤ 0.8w					
Shock	80g @ 4ms					
Weight	23g					
Dimension	21mmx21mmx29.8mm(subject to the actual product)					
Secondary Development	/					



M3 Series Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

384x288

Lens

4 / 9.1mm

Analog Image Interface

CVBS(PAL Format)

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 35mK

Pseudo-color Modes

White Hot, Black Hot, Red Hot, Iron Red, etc.

Model	M3-C-4	M3-C-9.1
Focal Length (mm)	4	9.1
FOV	59.9x46.7°	28.4x21.5°
Detection Distance	400m	910m
Recognition Distance	100m	228m
Identification Distance	50m	114m
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)	
Spectral Response	8~14μm	
Resolution	384x288, 12μm	
NETD	≤35mK(f / 1.0 50Hz 300K)	
Frame Rate	50Hz	
Analog Video Interface	CVBS(PAL Format)	
Control Interface	UART	
Interface Specification	SMD,P=1.25mm-5P	
Pseudo-color Modes	White Hot , Black Hot, Red Hot, Iron Red, etc	
Image Enhancement Mode	Adjustable	
Brightness / Contrast	Adjustable	
Digital Zoom	1X to 8X zoom	
Shutter Mode	With Shutter, Auto Shutter mode	
Lid Calibration	Supports UART serial communication with user PC (host computer)	
Non-Uniformity Correction (NUC)	Supports UART serial communication with user PC (host computer)	
Power Supply Input	4.5v ~ 27v	
Operating Temperature	-20℃ ~ +60℃	
Power Consumption	≤ 0.6w	
Shock	80g @ 4ms	
Weight	16g	
Dimension	17.3x17.3x35.7mm(subject to the actual product)	
Secondary Development	/	



GL2-1280 Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

1280x1024

Lens

19mm

Analog Image Interface

DVP / BT1120 / MIPI / USB3.0

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 40mK

Pseudo-color Modes

White Hot , Black Hot, etc.

Model	GL2-1280
Focal Length (mm)	19
FOV	44x36°
Detection Distance	1900m
Recognition Distance	475m
Identification Distance	238m
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)
Spectral Response	8-14μm
Resolution	1280x1024, 12μm
NETD	≤ 40mK(f / 1.0 25Hz @25C°)
Frame Rate	50Hz
Analog Video Interface	DVP / BT1120 / MIPI / USB3.0
Control Interface	UART / I2C
Interface Specification	Hirose70
Pseudo-color Modes	White Hot , Black Hot, etc.
Image Enhancement Mode	Adjustable
Brightness / Contrast	Adjustable
Digital Zoom	1X to 8X zoom
Shutter Mode	Auto Shutter
Lid Calibration	Supports UART serial protocol
Non-Uniformity Correction (NUC)	Supports UART serial protocol
Power Supply Input	5v
Operating Temperature	-40℃ ~ +80℃
Power Consumption	<1.3w
Shock	80g @ 4ms
Weight	35g
Dimension	≤ 29mmx29mm
Secondary Development	AC020 win&linux SDK 2.4.5



M2V Series Dual-Channel Fusion Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256 / 384 / 640

Lens

4 / 9.1mm

Analog Image Interface

CVBS(PAL Format)

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 25mK

Pseudo-color Modes

White Hot, Black Hot, Red Hot, Ironbow, etc.

Model	M2V2		M2V3		M2V6	
Image	Thermal Imaging	Low-Light	Thermal Imaging	Low-Light	Thermal Imaging	Low-Light
Focal Length (mm)	4	6	9.1	6	9.1	6
FOV	42x32.1°	56.1x43.6°	28.4°x21.5°	56.1x43.6°	45.8°x37.3°	56.1x43.6°
Detection Distance	400m	1020m	910m	1020m	910m	1020m
Recognition Distance	100m	340m	228m	340m	228m	340m
Identification Distance	50m	170m	114m	170m	114m	170m
Resolution	256x192, 12μm	Megapixel HD	384x288, 12μm	Megapixel HD	640x512, 12μm	Megapixel HD
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)					
NETD	≤ 25mK(f/1.0 50Hz 300K)					
Spectral Response	8~14μm					
Frame Rate	50Hz					
Analog Video Interface	CVBS(PAL Format)					
Control Interface	UART					
Interface Specification	SMD,P=1.25mm-5P					
Pseudo-color Modes	White Hot, Black Hot, Red Hot, Iron Red, etc.					
Mode Selection	Fusion (default), Low-Light, Thermal, etc.					
Fusion Mode	Forest, Urban, etc.					
Edge Outline Selection	Supports Multiple Color Adjustments					
Infrared Fusion Ratio	Supports Multiple Level Adjustments					
Low-Light Detail Weight	Supports Multiple Level Adjustments					
Lid Calibration	Supports Serial Communication Protocol					
Non-Uniformity Correction (NUC)	Supports Serial Communication Protocol					
Power Supply Input	4.5v ~ 27v					
Operating Temperature	-20℃ ~ +60℃					
Power Consumption	≥ 1.5w					
Dimension	39x21x44.5 mm(including lens and connector)					
Weight	46.5g					



Tiny2-C Thermal Imaging Core

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256x192

Focusing Method

Non-cooled Fixed Focus Lens

Image Data Interface

SPI / DVP

Pixel Pitch

12μm

Frame Rate

25Hz

NETD

≤ 50mK

Pseudo-color Modes

White Hot, Black Hot, etc.

Model	Tiny2C			
Focal Length (mm)	2.0	3.2	4.3	7.0
FOV	90x65°	56x42°	40x30°	25x19°
Detection Distance	320m			
Recognition Distance	80m			
Identification Distance	40m			
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)			
Spectral Response	8~14μm			
Resolution	256x192, 12μm			
NETD	≤ 50mK(f / 1.0 25Hz @25C°)			
Frame Rate	25Hz			
Analog Video Interface	DVP / VOSPI / MIPI / USB			
Control Interface	IIC / USB / UART			
Interface Specification	OK-118-RF40 / 2-35			
Pseudo-color Modes	White Hot , Black Hot, etc.			
Image Enhancement Mode	Adjustable			
Brightness / Contrast	Adjustable			
Digital Zoom	1X to 8X zoom			
Shutter Mode	With Shutter, Auto Shutter mode			
Lid Calibration	Application-Level Secondary Development for Lid Calibration			
Non-Uniformity Correction (NUC)	Auto Shutter Correction			
Power Supply Input	5V (Analog), 3.3V, 1.8V.			
Operating Temperature	-40℃ ~ +80℃			
Temperature Measurement Range	-15℃~150℃(High Image Quality) 50℃~550℃(Wide Measurement Range)			
Temperature Measurement Accuracy	±2℃ or ±2% of reading (typical); supports biological temperature measurement			
Power Consumption	≤ 0.8w			
Dimension	13.2x13.2x8.75mm			
Secondary Development	SDKs for Windows, Linux, Android, and RTOS platforms			



Ethernet Interface Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

256x192

Lens

3.6 / 7.1 / 10mm

Communication Interface

RJ45

Pixel Pitch

12μm

Frame Rate

25Hz

NETD

≤ 50mK

Pseudo-color Modes

White Hot, Black Hot, Iron Red, Red Hot, Rainbow, etc.

Model	TM02P		
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)		
Spectral Range	8~14μm		
Pixel Pitch	12μm		
Resolution	256x192		
NETD	≤ 50mK		
Main Stream Image	H.264, 720x576 ,25Hz		
Pseudo-color Mode	White Hot, Black Hot, Iron Red, Red Hot, Rainbow, etc.		
Lens / FOV	3.6mm	7.1mm	10mm
	50.4°(H)x37.59°(V)	24°(H)x18°(V)	17.3°(H)x13.1°(V)
Package Type	Wafer Level		
Ethernet Type	100Mbps		
Network Protocol	IPV4, HTTP, FTP, RTSP, RTCP, RTP, TCP, UDP		
Access Standard	ONVIF,GB / T28181		
Image Mirroring	Left / Right, Up / Down, Center		
Temperature Abnormality Alarm	Support		
Temperature Measurement Function	Full-screen Maximum/Minimum Temperature Location		
	Supports point, line, and area temperature measurement.		
	Temperature Range: -20℃ to +150℃ (extendable to 550℃)		
	Temperature Accuracy: ±2 ℃ or ±2% (whichever is greater), without blackbody		
	Supports reflected temperature, atmospheric temperature settings, target distance correction, and emissivity correction.		
Alarm	IP conflict and linkage alarm function		
Communication Interface	RJ45, network transmission / one RS485		
PTZ Control	Pelco-D protocol, RS-485 interface		
Alarm Input / Output	1 in / 1 out		
Power Supply Range	DC / 12V		
Dimensions (Excluding Lens)	35mmx35mmx35.5mm		



Ethernet Interface Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

384x288

Lens

3.6 / 7.1 / 10mm

Communication Interface

RJ45

Pixel Pitch

12μm

Frame Rate

25Hz

NETD

≤ 40mK

Pseudo-color Modes

White Hot, Black Hot, Iron Red, Red Hot, Rainbow, etc.

Model	TM13P		
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)		
Spectral Range	8~14μm		
Pixel Pitch	17μm		
Resolution	384x288		
NETD	≤ 40mK		
Main Stream Image	H.264 , 720x576 , 25Hz		
Hotspot Detection	Support		
Pseudo-color Mode	White Hot, Black Hot, Iron Red, Rainbow, etc.		
Lens / FOV	4.6mm / 88°(H)×64°(V)	7mm / 50°(H)×38.6°(V)	10mm / 36.8°(H)×27.8°(V)
	15mm / 24.55°(H)×18.54°(V)	19mm / 19.6°(H)×14.7°(V)	25mm / 14.8°(H)×11.1°(V)
Package Type	Ceramic Package		
Ethernet Type	100Mbps		
Network Protocol	IPV4, HTTP, FTP, RTSP, RTCP, RTP, TCP, UDP		
Access Standard	ONVIF,GB / T28181		
Image Mirroring	Left / Right, Up / Down, Center		
Temperature Abnormality Alarm	Support		
Temperature Measurement Function	Full-screen Maximum / Minimum Temperature Location		
	Supports point, line, and area temperature measurement.		
	Temperature Range: -20℃ to +150℃ (extendable to 550℃)		
	Temperature Accuracy: ±2 ℃ or ±2% (whichever is greater), without blackbody		
Alarm	Supports reflected temperature, atmospheric temperature settings, target distance correction, and emissivity correction.		
	IP conflict and linkage alarm function		
	RJ45, network transmission / one RS485		
	Pelco-D protocol, RS-485 interface		
Alarm Input / Output	1 in / 1 out		
Power Supply Range	DC / 12V		
Dimensions (Excluding Lens)	38mmx38mmx39mm		



Ethernet Interface Module

Product Features

Detector Type

Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)

Resolution

640x512

Lens

8 / 13 / 19 / 25mm

Communication Interface

RJ45

Pixel Pitch

12μm

Frame Rate

25Hz

NETD

≤ 40mK

Pseudo-color Modes

White Hot, Black Hot, Iron Red, Red Hot, Rainbow, etc.

Model	TM16P			
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)			
Spectral Range	8-14μm			
Pixel Pitch	17μm			
Resolution	640x512			
NETD	≤ 40mK			
Main Stream Image	H.264, 1280x1024, 1280x720, 640x480, 25Hz			
Hotspot Detection	Support			
Pseudo-color Mode	White Hot, Black Hot, Iron Red, Rainbow, etc.			
Lens / FOV	8mm	13mm	19mm	25mm
	76°(H)x58.1°(V)	48.2°(H)x36°(V)	32.5°(H)x24.5°(V)	24.6°(H)x18.5°(V)
Package Type	Ceramic Package			
Ethernet Type	100Mbps			
Network Protocol	IPV4, HTTP, FTP, RTSP, RTCP, RTP, TCP, UDP			
Access Standard	ONVIF, GB/T28181			
Image Mirroring	Left / Right, Up / Down, Center			
Temperature Abnormality Alarm	Support			
Temperature Measurement Function	Full-screen Maximum / Minimum Temperature Location			
	Supports point, line, and area temperature measurement.			
	Temperature Range: -20 °C to +150 °C (extendable to 550 °C)			
	Temperature Accuracy: ±2 °C or ±2% (whichever is greater), without blackbody			
Alarm	Supports reflected temperature, atmospheric temperature settings, target distance correction, and emissivity correction.			
	IP conflict and linkage alarm function			
	RJ45, network transmission / one RS485			
	Pelco-D protocol, RS-485 interface			
Alarm Input / Output	1 in / 2 out			
Power Supply Range	DC / 12V			
Dimensions (Excluding Lens)	45x45x69.4mm			



General-purpose Short-wave Infrared Core Module

Product Features

Detector Type

InGaAs Focal Plane Array, FPA

Resolution

640x512

Output Data Depth

10bit / 12bit / 14bit

Digital Video Interface

USB3.0 or CameraLink,optional

Pixel Pitch

15μm

Frame Rate

150Hz / 300Hz

Weight

245±10g

Size

55x55x60mm

Model	Prober-GE
Detector Type	InGaAs Focal Plane Array, FPA
Spectral Range	0.93μm ~ 1.7μm
Quantum Efficiency(QE)	≥ 70%(1.0μm ~ 1.6μm)
Fill Factor(FF)	100%
Pixel Pitch	15μm
Resolution	640×512
Effective Pixels	≥ 99.8%
Integration Type	Snapshot Global Shutter
Maximum Full-Frame Output Frame Rate	150fps / 300fps,optional
Output Data Depth	10bit / 12bit / 14bit
Minimum Integration Time	10μs
Readout Noise (Typical Value)	30e@Gain0
Power Supply Voltage	50dB(GainO), 62dB(Gain1), 72dB(Gain2),
Dynamic Range	≤ 80ke /s @20℃
Average Pixel Dark Current	7~24V,Typical Value 12V
Typical Power Consumption	3.5W
Communication Interface	UART232
Analog Video Output	PAL
Digital Video Interface	USB3.0 or CameraLink,optional
Lens Interface	C-Mount
Module Weight	245±10g
Dimensions	55×55×60mm
Operating Temperature	-20℃ ~ +55℃
Storage Temperature	-40℃ ~ +70℃



M615 Mid-wave Cryogenic Core Module

Product Features

Detector Type

Format Cooled HgCdTe (MCT)
Infrared Focal Plane Array (FPA)

Resolution

640×512

Lens Type

Fixed Focus / Zoom

Digital Video Interface

CameraLink / SDI

Pixel Pitch

15μm

Frame Rate

30 / 50 / 100Hz

NETD

≤ 15mK

Pseudo-color Mode

White Hot, Black Hot

Model	Prober-GE	
Detector Type	Medium-Format Cooled HgCdTe (MCT) Infrared Focal Plane Array (FPA)	Small-Format Cooled HgCdTe (MCT) Infrared Focal Plane Array (FPA)
Resolution	640×512	
Pixel Pitch	15μm	
Frame rate	30Hz / 50Hz / 100Hz	
F-number	F2.0 / F4.0	F4.0 / F5.5
Spectral Response Range	3.7±0.2μm ~ 4.8±0.2μm	
NETD	≤ 15mK@25℃	
Detector Blind Pixel Rate	≤ 0.5%	
Cooling Time @ 25℃	≤ 7min	
Brightness/contrast	Manual / Auto	
Polarity	Black Hot / White Hot (Default)	
Crosshair	Display / Blanking / Move	
Digital Zoom	1.0–8.0× (Step: 0.1×)	
Image Processing	NUC	
	Digital Filtering Noise Reduction	
	Digital Detail Enhancement	
Image Flip	Horizontal / Vertical / Diagonal	
Analog Video	PAL	
Digital Video	CameraLink / SDI	
Serial Communication Interface	RS-422 (Default Baud Rate: 115200)	
External Synchronization	Internal Sync (Default) / External Sync Output / External Sync Input / Adaptive Sync	
Random Vibration	6.06g	4.2g
Shock	Post-Peak Sawtooth, 40g, 11ms (Three axes, Six directions, Three times)	
Operating Temperature	-40℃ ~ +60℃	
Weight	≤ 870(With Isolation Board)	≤ 480(Without Isolation Board)
Random Vibration	144×75×81mm(With Isolation Board)	120×88×57mm(Without Isolation Board)



CE Series Handheld Thermal Imager

Product Features

Detector Resolution
256x192 / 384x288

lens
10 / 15 / 19 / 25mm

Digital Zoom
1x~8x

Size
180x55mm

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
≤ 35mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	CE-210	CE-215	CE-315	CE-319	CE-325
Focal Length (mm)	10	15	15	15	25
FOV	17.5x13.2°	11.7x8.8°	17.5x13.2°	13.9x10.4°	10.6x7.9°
Detection Distance	1000m	1500m	1500m	1900m	2500m
Recognition Distance	250m	375m	375m	475m	625m
Identification Distance	125m	188m	188m	258m	313m
Detector Resolution	256x192, 12μm		384x288, 12μm		
Display Resolution	OLED 0.32 800x600		OLED 0.39 1024x768		
NETD	< 35mK(@25°C,F#=1.0)				
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)				
Spectral Response	8~14μm				
Frame Rate	50Hz				
Button Operation	5 Buttons				
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.				
Digital Zoom	1X~8X Zoom				
Shutter Mode	With Shutter, Auto Shutter mode				
Function Menu	NUC, Noise Reduction, CVBS, Crosshair, Wi-Fi Hotspot, Video Recording, Infrared Laser, Hotspot Tracking, Auto Power-Off, Restore Factory Defaults, Version Information, OSD, Blind Pixel Calibration, Probabilistic Ranging, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode.				
Battery Capacity	Single Cell 18650 / 3000mAh				
Storage Memory	32G				
Operating Time	5H(Individual Observation Time)				
IP Rating	IP66				
Power Consumption	≤ 1.5w				
Weight (Including Battery)	389g				
Size	180x55mm				
Housing Material	Plastic				
Operating Environment	-20C° + 60C°				



CE Series Handheld Thermal Imager

Product Features

Detector Resolution
640x512

lens
35 / 50mm

Digital Zoom
1x~8x

Size
215x55 / 235x55mm

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
≤ 35mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	CE-635	CE-650
Focal Length (mm)	35	50
FOV	7.5x5.7°	8.8x7°
Detection Distance	3500m	5000m
Recognition Distance	875m	1250m
Identification Distance	438m	625m
Detector Resolution	640x512, 12μm	
Display Resolution	OLED 0.39 1024x768	
NETD	< 35mK (@25°C,F#=1.0)	
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)	
Spectral Response	8~14μm	
Frame Rate	50Hz	
Button Operation	5 Buttons	
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.	
Digital Zoom	1X~8X Zoom	
Shutter Mode	With Shutter, Auto Shutter mode	
Function Menu	NUC, Noise Reduction, CVBS, Crosshair, Wi-Fi Hotspot, Video Recording, Infrared Laser, Hotspot Tracking, Auto Power-Off, Restore Factory Defaults, Version Information, OSD, Blind Pixel Calibration, Probabilistic Ranging, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode.	
Battery Capacity	Single Cell 18650 / 3000mAh	
Storage Memory	32G	
Operating Time	5H(Individual Observation Time)	
IP Rating	IP66	
Power Consumption	≤ 1.5w	
Weight (Including Battery)	535g	547g
Size	215x55mm	235x55mm
Housing Material	Plastic	
Operating Environment	-20C°+60C°	



Detector Resolution
384x288 / 640x512

lens
15 / 19 / 25 / 35mm

Digital Zoom
1x~8x

Size
82x59x56mm / 90x59x56mm

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
 $\leq 35\text{mK}$

Pseudo-color Modes

White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	JG2315	JG2319	JG2325	JG2625	JG2635
Focal Length (mm)	15	19	25	25	35
FOV	17.5x13.2°	13.9x10.1°	10.6x7.9°	17.5x14.1°	12.6x10.1°
Detection Distance	1500m	1900m	1500m	2500m	3500m
Recognition Distance	375m	475m	375m	625m	875m
Identification Distance	188m	237m	188m	313m	438m
Detector Resolution	384x288, 12μm			640x512, 12μm	
Display Resolution	5" LED, 1280×720				
NETD	< 35mK (@25°C,F#=1.0)				
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)				
Spectral Response	8~14μm				
Frame Rate	50Hz				
Button Operation	3 Buttons				
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.				
Scene Modes	User, Plain, Forest				
Digital Zoom	1X~8X Zoom				
Shutter Mode	With Shutter, Auto Shutter mode				
Function Menu	Crosshair, Infrared Laser, Brightness, Contrast, Digital Zoom				
Power Consumption	≤ 1w				
Weight	230g	230g	253g	253g	261g
Dimension	82x59x56mm	82x59x56mm	90x59x56mm	90x59x56mm	100x59x56mm
Housing Material	Plastic				
Operating Environment	-20C° ~ +60C°				



TB Series Thermal Imaging Surveillance and Targeting System

Product Features

Detector Resolution
384x288 / 640x512

lens
35 / 50mm

Digital Zoom
1x-8x

Size
134x80x62mm

Pixel Pitch
12µm

Frame Rate
50Hz

NETD
≤ 35mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	TB335	TB350	TB635	TB650
Focal Length (mm)	35	50	35	50
FOV	7.5x5.7°	5.3x4°	5.3x4°	8.8x7°
Detection Distance	3500m	5000m	3500m	5000m
Recognition Distance	875m	1250m	875m	1250m
Identification Distance	438m	625m	438m	625m
Detector Resolution	384x288, 12μm		640x512, 12μm	
Display Resolution	OLED 0.39 1024x768			
NETD	< 35mK (@25°C,F#=1.0)			
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)			
Spectral Response	8~14μm			
Frame Rate	50Hz			
Button Operation	2 Buttons + 1 Dial Switch			
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.			
Digital Zoom	1X~8X Zoom			
Shutter Mode	With Shutter, Auto Shutter mode			
Function Menu	NUC, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Removable Battery, Restore Default Settings,Version Information, DDE, Gyroscope, Blind Pixel Calibration, Ballistic Calculation, Accelerometer, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode, Clip-on Mode.			
Battery Capacity	Single Cell 18650 / 3000mAh			
Storage Memory	32G			
Operating Time	3H(Individual Observation Time)			
IP Rating	IP66			
Shock	1000g			
Weight (Including Battery)	550g	578g	550g	578g
IP Rating	134x80x62mm	136x80x62mm	134x80x62mm	136x80x62mm
Housing Material	Metal			
Operating Environment	-20C° ~ + 60C°			



TK-C Series

Thermal Imaging Sight Scope

Product Features

Detector Resolution
256 / 384 / 640

lens
25 / 35 / 50mm

Digital Zoom
1x-8x

Size
144x86x63mm / 155x86x63mm
170x86x63mm

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
≤ 35mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot,
Iron Red, etc.

Model	TK-C225	TK-C335	TK-C350	TK-C635	TK-C650
Focal Length (mm)	25	35	50	35	50
FOV	7x5.3°	7.5x5.7°	5.3x4°	5.3x4°	8.8x7°
Detection Distance	2500m	3500m	5000m	3500m	5000m
Recognition Distance	625m	875m	1250m	875m	1250m
Identification Distance	313m	438m	625m	438m	625m
Detector Resolution	256x192, 12μm	384x288, 12μm	384x288, 12μm	640x512, 12μm	640x512, 12μm
Display Resolution	OLED 0.32 800x600	OLED 0.39 1024x768	OLED 0.39 1024x768	OLED 0.39 1024x768	OLED 0.39 1024x768
NETD	<25mK	<35mK	<35mK	<35mK	<35mK
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)				
Spectral Response	8~14μm				
Frame Rate	50Hz				
Button Operation	2 Buttons + 1 Rotary Encoder				
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.				
Digital Zoom	1X~8X Zoom				
Shutter Mode	Manual, Auto Shutter				
Function Menu	NUC, Digital Filtering and Noise Reduction, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Auto Power-off, Restore Default Settings, DDE, Removable Battery, Version Information, Gyroscope, Blind Pixel Calibration, Ballistic Calculation, Accelerometer, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode, Image Super-Resolution (SR).				
Battery Capacity	Single Cell 18650 / 3400mAh				
Storage Memory	32G				
Operating Time	5H(Individual Observation Time)				
IP Rating	IP66				
Shock	1000g				
Weight (Including Battery)	551g	592g	669g	592g	669g
Size	144x86x63mm	155x86x63mm	170x86x63mm	155x86x63mm	170x86x63mm
Housing Material	Metal				
Operating Environment	-20C° ~ +60C°				



TK-T Series Thermal Imaging Sight Scope

Product Features

Detector Resolution 256x192	Pixel Pitch 12μm
lens 25mm	Frame Rate 50Hz
Digital Zoom 1x-8x	NETD ≤35mK
Size 141x83x57mm	Pseudo-color Modes White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	TK-T225
Focal Length (mm)	25
FOV	7x5.3°
Detection Distance	2500m
Recognition Distance	625m
Identification Distance	313m
Detector Resolution	256x192, 12μm
Display Resolution	OLED 0.32 800x600
NETD	< 25mK
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)
Spectral Response	8-14μm
Frame Rate	50Hz
Button Operation	2 Buttons + 1 Rotary Encoder
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.
Digital Zoom	1X ~ 8X Zoom
Shutter Mode	Manual, Auto Shutter
Function Menu	NUC, Digital Filtering and Noise Reduction, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Auto Power-off, Restore Default Settings, DDE, Removable Battery, Version Information, Gyroscope, Blind Pixel Calibration, Ballistic Calculation, Accelerometer, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode, Image Super-Resolution (SR).
Battery Capacity	Single Cell 18650 / 3400mAh
Storage Memory	32G
Operating Time	5H (Individual Observation Time)
IP Rating	IP66
Shock	1000g
Weight (Including Battery)	488g
Size	141x83x57mm
Housing Material	Metal
Operating Environment	-20C° ~ +60C°



ZS Series

Thermal Imaging Sight Scope

Product Features

Detector Resolution

384x288 / 640X512

lens

25/35/50mm

Digital Zoom

1x~8x

Size

137x91x65mm / 178x91x65mm
185x91x65mm

Pixel Pitch

12μm

Frame Rate

50Hz

NETD

≤ 35mK

Pseudo-color Modes

White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	ZS325	ZS335	ZS350	ZS635	ZS650
Focal Length (mm)	25	35	50	35	50
FOV	10.5x7.9°	7.5x5.7°	5.3x4°	5.3x4°	8.8x7°
Detection Distance	2500m	3500m	5000m	3500m	5000m
Recognition Distance	625m	875m	1250m	875m	1250m
Identification Distance	313m	438m	625m	438m	625m
Detector Resolution	384x288, 12μm			640x512, 12μm	
Display Resolution	OLED 0.39 1024x768				
NETD	< 35mK (@25°C,F#=1.0)				
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)				
Spectral Response	8~14μm				
Frame Rate	50Hz				
Button Operation	2 Buttons + 1 Encoder				
Pseudo-color Modes	White Hot , Black Hot, Red Hot, Iron Red, etc.				
Digital Zoom	1X~8X Zoom				
Shutter Mode	Manual, Auto Shutter				
Function Menu	NUC, Digital Filtering and Noise Reduction, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Restore Default Settings, Removable Battery, Version Information, DDE, Gyroscope, Blind Pixel Calibration, Ballistic Calculation, Accelerometer, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode, Clip-on Mode.				
Battery Capacity	Single Cell 18650 / 3400mAh				
Storage Memory	32G				
Operating Time	5H(Individual Observation Time)				
IP Rating	IP66				
Shock	1000g				
Weight (Including Battery)	597g	638g	708g	638g	708g
Size	137x91x65mm	178x91x65mm	185x91x65mm	178x91x65mm	185x91x65mm
Housing Material	Metal				
Operating Environment	-20C° ~ +60C°				



XQ Series Handheld Thermal Imager

Product Features

Detector Resolution
384x288/640x512

lens
25/35/50mm

Digital Zoom
1x-8x

Size
154x73x44mm / 165x73x44mm
180x73x44mm

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
< 35mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot,
Iron Red, etc.

Model	XQ325	XQ335	XQ650
Focal Length (mm)	25	35	50
FOV	10.6x7.9°	7.5x5.7°	8.8x7°
Detection Distance	2500m	3500m	5000m
Recognition Distance	625m	875m	1250m
Identification Distance	313m	438m	625m
Detector Resolution	384x288, 12μm		640x512, 12μm
Display Resolution	OLED 0.39 1024x768		
NETD	< 35mK (@25°C,F#=1.0)		
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)		
Spectral Response	8~14μm		
Frame Rate	50Hz		
Button Operation	5 Buttons		
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.		
Digital Zoom	1X~8X Zoom		
Shutter Mode	Manual, Auto Shutter		
Function Menu	NUC, Image Detail Enhancement, Digital Filtering and NoiseReduction, CVBS, Removable Battery, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Restore Default Settings, Version Information, Gyroscope, Blind Pixel Calibration,PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast,Digital Zoom, Shutter Mode.		
Battery Capacity	Single Cell 18650 / 3400mAh		
Storage Memory	32G		
Operating Time	5H (Individual Observation Time)		
IP Rating	IP66		
Power Consumption	≤ 1.8w		
Weight (Including Battery)	469g	510g	587g
IP Rating	154x73x44mm	165x73x44mm	180x73x44mm
Housing Material	Metal		
Operating Environment	-20C° ~ +60C°		



QM Series Thermal Imaging Sight Scope

Product Features

Detector Resolution
640x512 / 1280x1024

lens
35 / 50 / 60mm

Digital Zoom
1x~8x

Size
IP66

Pixel Pitch
12μm

Frame Rate
50Hz

NETD
< 25mK

Pseudo-color Modes
White Hot , Black Hot, Red Hot,
Iron Red, etc.

Model	QM635	QM650	QM650
Focal Length (mm)	35	50	60
FOV	12.5x10°	8.8x7°	14.6x11.7°
Detection Distance	3500m	5000m	6000m
Recognition Distance	875m	1250m	1500m
Identification Distance	438m	625m	750m
Detector Resolution	640x512, 12μm		1280x1024, 12μm
Display Resolution	OLED 0.6 1280x1024		
NETD	< 25mK (@25°C,F#=1.0)		
Detector Type	Uncooled Focal Plane Array Detector (VOx - Vanadium Oxide)		
Spectral Response	8~14μm		
Frame Rate	50Hz		
Button Operation	3 Buttons + 1 Rotary Encoder		
Pseudo-color Modes	White Hot (default), Black Hot, Red Hot, Iron Red, etc.		
Digital Zoom	1X~8X Zoom		
Shutter Mode	Manual, Auto Shutter		
Function Menu	NUC, Digital Filtering and Noise Reduction, Crosshair, WIFI Hotspot, Photo and Video Recording, Laser Rangefinder, Restore Default Settings, Removable Battery, Version Information, DDE, Gyroscope, Blind Pixel Calibration, Ballistic Calculation, Accelerometer, PIP, Mobile App, Bad Pixel Correction, Brightness, Contrast, Digital Zoom, Shutter Mode, Auto Power-off,Clp-on Mode.		
Battery Capacity	Single Cell 18650 / 3400mAh		
Storage Memory	32G		
Operating Time	5H(Individual Observation Time)		
IP Rating	IP66		
Shock	1000g		
Housing Material	Metal		
Operating Environment	-20C° ~ +60C°		



Resolution
256x192

Lens
3.2mm

Housing Material
Metal

Size
70x43x15mm

Pixel Pitch
12μm

Frame Rate
25Hz

NETD
< 45mK

Pseudo-color Modes

White Hot , Black Hot, Red Hot, Iron Red, etc.

[illegible]



L7 Vehicle-mounted Thermal Imaging

Product Features

Detector Resolution
256x192

lens
10mm

FOV
18x13°

Display Screen Size
7 Inches

Pixel Pitch
12μm

Frame Rate
25Hz

NETD
50mK

Alarm Method
Built-in Speaker Alarm

Model	L7 Vehicle-mounted Thermal Imaging
	Thermal Imaging Camera Parameters
Spectral Response Range	8-14μm
NETD	50mk
Resolution	256x192
Pixel Pitch	12μm
Lens	10mm
FOV	18x13°
Frame Rate	25Hz
	Display Unit Parameters
Dimension	7 Inches
Resolution	1024x600
System	LINUX
Recognition Type	People and Vehicles
Recognition Rate	≥ 95 %
GPS	Built-in
Alarm Mode	Built-in Speaker Alarm
	Other Parameters
Lens Protection	High-strength Protective Window
Window Defrosting	Aluminum Alloy Housing, IP67 Sealed
Size	40x30x26mm
Weight	About 100g
Operating Voltage	9-24V
Power	5W
Main Unit Dimensions	180x30x117mm
Weight	360g



HF609-PRO

Dual-spectral Drone

Product Features

Thermal Imaging Resolution
640x512

Gimbal
Three-axis

Positioning System
GNSS / Optical Flow / TOF

Size
520×440×96mm

Battery
4200mAh

Video Transmission
Relay Digital Video Transmission

Wind Resistance Level
Level 6

Pseudo-color Modes
White Hot , Black Hot, Red Hot, Iron Red, etc.

Model	HF609-PRO	
Size	Unfolded: 520×440×96mm	
Weight	Approximately 750g (including battery)	
Max Ascend Speed	2.5m/s	
Max Descend Speed	4m/s	
Max Horizontal Flight Speed	9m/s	
Control Range	4 km	
Endurance Time	Hovering Time: 34 min	
	Flight Time: 25 min	
Max Wind Resistance Level	Level 6	
Hovering Accuracy	Vertical: ±0.2m (Visual Mode), ±0.8m (GPS Mode)	
	Horizontal: ±0.3m (Visual Mode), ±1.5m (GPS Mode)	
Gimbal	Stabilization System: Three-axis Brushless Gimbal	
Visible Light Camera	Sensor: Sony IMX586, 48 Megapixels Focal Length: 8mm Resolution: 8000x6000 Image Format: JPG Video Format: MP4 Video Resolution: 4K / 30fps	
Thermal Imaging Camera	Uncooled VOx (Vanadium Oxide) Sensor: 640x512 FOV (Field of View): 46°x38° Aperture: f /1.0 Focal Length: 9mm Image Format: JPG Video Format: MP4	
Video Transmission	5G Relay Digital Video Transmission	
Positioning System	GNSS / Optical Flow / TOF	
Perception System	Front-view Precision Perception Range: 0.3 to 15 meters Effective Obstacle Avoidance Speed: ≤ 4m/s Field of View: 60°	Rear-view Precision Perception Range: 0.3 to 15 meters Effective Obstacle Avoidance Speed: ≤ 4m/s Field of View: 60°
Battery	4200mAh	



MF Series GPS Thermal Imaging Drone

Product Features

Thermal Imaging Resolution
640x512

Gimbal
Single-axis

Positioning System
GNSS / Optical Flow

Size
385x345x65mm

Battery
3200mAh

Video Transmission
Relay Digital Video Transmission

Wind Resistance Level
Level 4

Weight
Approximately 350g (including battery)

Model	MF609
Size	Unfolded: 385×345×65mm
Weight	Approximately 350g (including battery)
Max Ascend Speed	2.5m/s
Max Descend Speed	3m/s
Max Horizontal Flight Speed	8m/s
Maximum Flight Altitude	120m
Max Tilt Angle	35°
Max Rotation Angular Speed	60°/s
Operating Temperature	0℃ ~ 40℃
Positioning System	GNSS / Optical Flow
Hovering Accuracy	Indoor: Vertical ±0.3m, Horizontal ±0.3m
	Outdoor: Vertical ±0.5m, Horizontal ±1.5m
EIRP	22dB-26dB
Pitch Angle	0° ~ -90°
Thermal Imaging Camera Resolution	640x512
Thermal Imaging Camera	Sensor: 640x512 FOV (Field of View): 49°x39° Aperture: f /1.0 Focal Length: 9mm
ISO range	Photo :50-1600(automatic)
	Video :50-1600(automatic)
Electronic Shutter Speed	1 / 25s - 1 / 8000s
SD Storage	Photo Resolution: 5700x3200 Video Resolutions: 4K: 3840x2160 @ 25FPS 2.7K: 2688x1512 @ 25FPS 2K: 2048x1080 @ 50FPS
App Storage	Photo Resolution: 5700x3200
	Video Resolution: 1280x720



承恩热视

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