

SMART THERMAL IMAGING

Product and Solution

2018 Ver.1

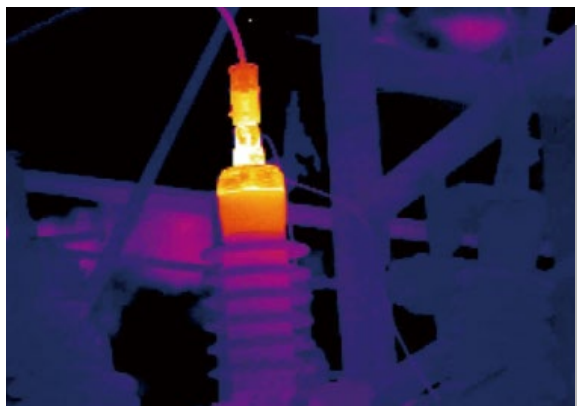
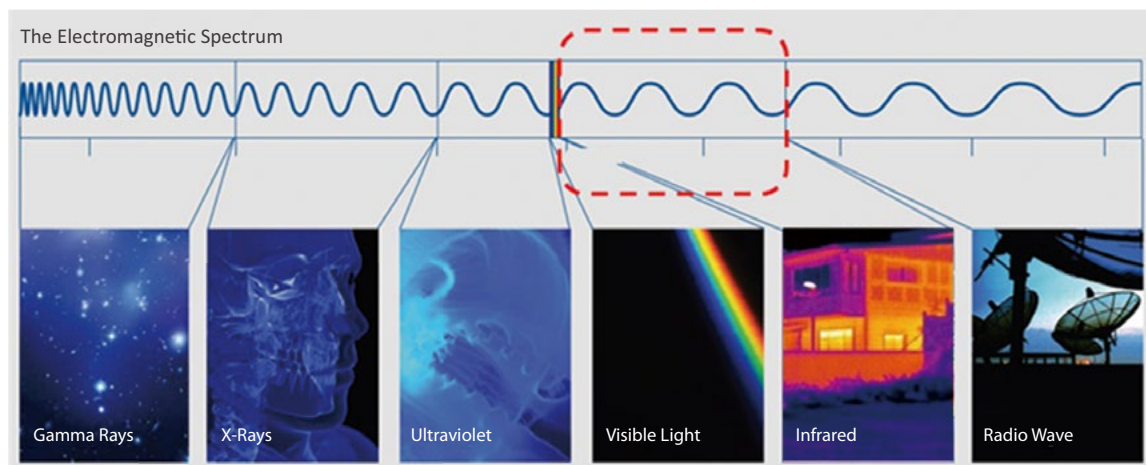
CONTENTS

• Thermal Camera	04 - 13
Ultra Series	
Pro Series	
Lite Series	
Anti-corrosion Series	
• NVR / Accessories	14 - 15
NVR	
Accessories	
• Video Software	16 - 16
Video Software	
• Thermal Solution	17 - 21
Perimeter Facility	
Border & Coast	
Industry	
More Applications	
• Effective Distance	22 - 22
Effective Distance	

What Is Thermal Imaging?

Any object with temperature above absolute zero ($-273.15\text{ }^{\circ}\text{C}$) emits infrared radiation. Infrared radiation sits between the visible spectrum ($0.4\sim 0.75\mu\text{m}$) and microwave spectrum ($>15\mu\text{m}$). Although we can't see it, we experience it every day. Sun and fire are also sources of infrared energy that we can feel through its heat. Usually a higher temperature object emits more infrared radiation. Image quality depends on the temperature difference, with higher differentials yielding better images. That is how we can distinguish the temperature difference in the thermal image.

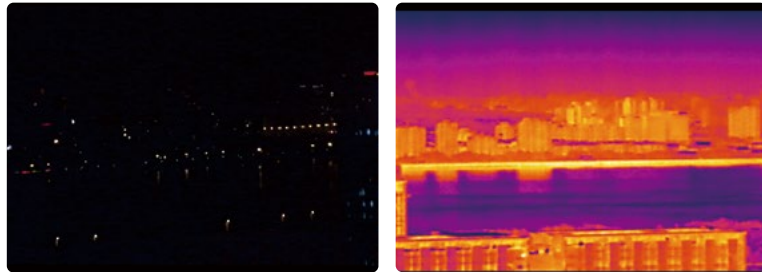
Different objects emit different infrared radiation, this data will be collected by optical lens and sent out to the infrared detector. The infrared detector converts an infrared signal to an electrical signal. The electrical signal is processed by the DSP into an image that can be viewed by humans. Thermal images include temperature information. Special algorithms allow us to extract accurate temperature information from an image.



Why Use Thermal Imaging?

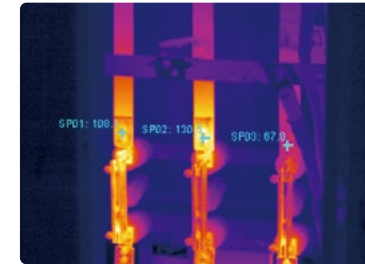
Video surveillance requires the effective detection and identification of objects. Although visible light cameras provide satisfactory coverage in most monitoring applications, in diverse environments, such as those with harsh conditions or extreme darkness, they are not very effective. Thermal cameras, which do not require a light source, are excellent for providing enhanced coverage in these conditions. In addition, thermal cameras have long range detection and temperature measurement capabilities, allowing them to be used in conjunction with visible light cameras to achieve all-weather, comprehensive surveillance.

Detection in Total Darkness



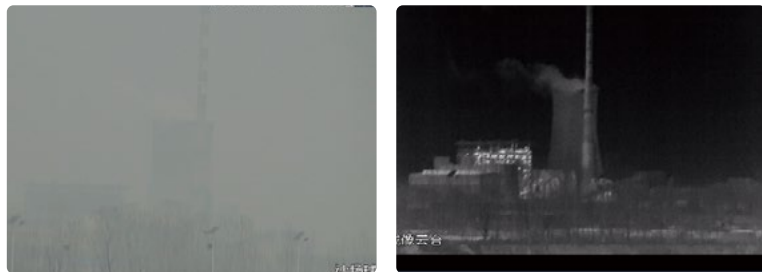
Thermal camera has no need for additional lighting.
Even in total darkness, it achieves perfect image quality just as in daytime.

Temperature Measurement and Alarm



Thermal cameras have temperature measurement capabilities which allow for the display of exact temperature information. Configurable temperature thresholds trigger an alarm and notify workers when objects reach temperatures above the limit.

Performance in Harsh Environments



Thermal cameras perform better under harsh conditions such as rain, fog, and haze.

Long Range Detection



Infrared radiation can be observable over long distances. Cameras with a 100mm lens have the ability to detect humans at distances of over 3km.


THERMAL CAMERA








Ultra Series

- High performance hardware:
Uncooled Vox Microbolometer
Sony 1/1.9" 2M CMOS
- Powerful optical zoom lens (thermal and visible)
- Long distance fire detection & alarm
- High accuracy IVS
- Wide temperature measurement range (T model)

Ultra Series		
Thermal Network Tribrid PTZ Camera		
Model	DH-TPC-PT8620C	
		
Thermal	Image Sensor	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)
	Sensitivity	<40mK@f/1.0
	Lens	100mm 20mm ~ 100mm (Optional) 30mm ~ 150mm (Optional) 25mm ~ 225mm (Optional)
	Angle of View	H: 6.2° H: 31.6°~6.2° (Optional) H: 21.0°~4.1° (Optional) H: 25.7°~2.8° (Optional)
Visible	Image Sensor	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm 7.9mm ~ 316mm (Optional) 21mm ~ 500mm (Optional) 12.5mm ~ 775mm (Optional)
	Angle of View	H: 59°~2.4° H: 40.3°~1.4° (Optional) H: 23.5°~1.0° (Optional) H: 28.8°~0.5° (Optional)
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)
Laser Rander Finder(Optional)	Wavelength	1.57μm (Eye safe)
	Effective Distance	50 ~ 5000m (164ft ~ 16404ft)
	Accuracy	±2m
Laser Illuminator (Optional)	Wavelength	808±5nm
	Effective Distance	1000m (3281ft)
	Angle of Laser Beam	1° ~ 30°
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless; Tilt: -60° ~ 45° ,Tilt: -60° ~ 60° (Optional)
	Intelligent Video	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66
	Working Environment	-35°C ~ +65°C
	Power	AC100V ~ 300V, <150W




※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection

Ultra Series

		Thermal Network Tribrid PTZ Camera	Thermal Network Hybrid PTZ Camera	
Model		DH-TPC-PT8420C	DH-TPC-PT8620B	DH-TPC-PT8420B
				
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	400(H) x 300(V)	640(H) x 512(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	100mm 20mm ~ 100mm (Optional) 30mm ~ 150mm (Optional) 25mm ~ 225mm (Optional)	100mm 20mm ~ 100mm (Optional) 30mm ~ 150mm (Optional)	100mm 20mm ~ 100mm (Optional) 30mm ~ 150mm (Optional)
	Angle of View	H: 3.9° H: 19.3°~3.9° (Optional) H: 12.9°~2.6° (Optional) H: 15.5°~1.7° (Optional)	H: 6.2° H: 31.6°~6.2° (Optional) H: 21.0°~4.1° (Optional)	H: 3.9° H: 19.3°~3.9° (Optional) H: 12.9°~2.6° (Optional)
Visible	Image Sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm 7.9mm ~ 316mm (Optional) 21mm ~ 500mm (Optional) 12.5mm ~ 775mm (Optional)	6mm ~ 180mm 7.9mm ~ 316mm (Optional) 21mm ~ 500mm (Optional) 12.5mm ~ 775mm (Optional)	6mm ~ 180mm 7.9mm ~ 316mm (Optional) 21mm ~ 500mm (Optional) 12.5mm ~ 775mm (Optional)
	Angle of View	H: 59°~2.4° H: 40.3°~1.4° (Optional) H: 23.5°~1.0° (Optional) H: 28.8°~0.5° (Optional)	H: 59°~2.4° H: 40.3°~1.4° (Optional) H: 23.5°~1.0° (Optional) H: 28.8°~0.5° (Optional)	H: 59°~2.4° H: 40.3°~1.4° (Optional) H: 23.5°~1.0° (Optional) H: 28.8°~0.5° (Optional)
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)
Laser Rander Finder(Optional)	Wavelength	1.57μm (Eye safe)	-	-
	Effective Distance	50 ~ 5000m (164ft ~ 16404ft)	-	-
	Accuracy	±2m	-	-
Laser Illuminator (Optional)	Wavelength	808±5nm	-	-
	Effective Distance	1000m (3281ft)	-	-
	Angle of Laser Beam	1° ~ 30°	-	-
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless; Tilt:-60° ~ 45°,Tilt:-60° ~ 60° (Optional)	300 presets Pan: 0° ~ 360°endless; Tilt:-60° ~ 45°,Tilt:-60° ~ 60° (Optional)	300 presets Pan: 0° ~ 360°endless; Tilt:-60° ~ 45°,Tilt:-60° ~ 60° (Optional)
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66	IP66	IP66
	Working Environment	-35°C ~ +65°C	-35°C ~ +65°C	-35°C ~ +65°C
	Power	AC100V ~ 300V, <150W	AC100V ~ 300V, <100W	AC100V ~ 300V, <100W

※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection





Ultra Series

		Thermal Network Hybrid Pan & Tilt Camera			
Model		DH-TPC-PT8620A-T	DH-TPC-PT8620A	DH-TPC-PT8420A-T	DH-TPC-PT8420A
		 		 	
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	640(H) x 512(V)	400(H) x 300(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	35mm/60mm/100mm	35mm/60mm/100mm	35mm/60mm/100mm	35mm/60mm/100mm
	Angle of View	H: 25°/10.3°/6.2°	H: 25°/10.3°/6.2°	H: 10.9°/6.5°/3.9°	H: 10.9°/6.5°/3.9°
	Temperature Range & Accuracy	Low Gain:-20°C ~+550°C High Gain:-20°C ~+160°C Max (±2°C, ±2%)	-	Low Gain:-20°C ~+550°C High Gain:-20°C ~+160°C Max (±2°C, ±2%)	-
	Measurement Rule	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-
	Temperature Alarm	Support	-	Support	-
Visible	Image Sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm
	Angle of View	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)
	IR Distance	150m (492ft)	150m (492ft)	150m (492ft)	150m (492ft)
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless Tilt:-90° ~ 40°	300 presets Pan: 0° ~ 360°endless Tilt:-90° ~ 40°	300 presets Pan: 0° ~ 360°endless Tilt:-90° ~ 40°	300 presets Pan: 0° ~ 360°endless Tilt:-90° ~ 40°
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP67	IP67	IP67	IP67
	Working Environment	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
	Power	AC24V, <70W	AC24V, <70W	AC24V, <70W	AC24V, <70W

※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection





THERMAL CAMERA

Ultra Series

		Thermal Network Mobile Hybrid Pan & Tilt Camera			
Model		DH-TPC-PT8620M-T	DH-TPC-PT8620M	DH-TPC-PT8420M-T	DH-TPC-PT8420M
					
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	640(H) x 512(V)	400(H) x 300(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	19mm/25mm	19mm/25mm	19mm/25mm	19mm/25mm
	Angle of View	H: 32°/25°	H: 32°/25°	H: 20.4°/15.5°	H: 20.4°/15.5°
	Temperature Range & Accuracy	Low Gain: -20°C ~ +550°C High Gain: -20°C ~ +160°C Max(±2°C, ±2%)	-	Low Gain: -20°C ~ +550°C High Gain: -20°C ~ +160°C Max(±2°C, ±2%)	-
	Measurement Rule	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-
	Temperature Alarm	Support	-	Support	-
Visible	Image sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm
	Angle of View	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)
	IR Distance	150m (492ft)	150m (492ft)	150m (492ft)	150m (492ft)
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 90°
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66	IP66	IP66	IP66
	Working Environment	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
	Power	DC9V ~ 36V, <48W	DC9V ~ 36V, <48W	DC9V ~ 36V, <48W	DC9V ~ 36V, <48W

※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection

Ultra Series

		Thermal Network Hybrid Speed Dome Camera			
Model		DH-TPC-SD8620-T	DH-TPC-SD8620	DH-TPC-SD8420-T	DH-TPC-SD8420
					
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	640(H) x 512(V)	400(H) x 300(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	25mm/35mm/50mm	25mm/35mm/50mm	25mm/35mm/50mm	25mm/35mm/50mm
	Angle of View	H: 24.6°/17.2°/12.3°	H: 24.6°/17.2°/12.3°	H: 15.5°/10.9°/7.7°	H: 15.5°/10.9°/7.7°
	Temperature Range & Accuracy	Low Gain: -20°C ~ +550°C High Gain: -20°C ~ +160°C Max(±2°C, ±2%)	-	Low Gain: -20°C ~ +550°C High Gain: -20°C ~ +160°C Max(±2°C, ±2%)	-
	Measurement Rule	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-
	Temperature Alarm	Support	-	Support	-
Visible	Image sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm
	Angle of View	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)
	IR Distance	150m (492ft)	150m (492ft)	150m (492ft)	150m (492ft)
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66	IP66	IP66	IP66
	Working Environment	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
	Power	AC24V, <38W	AC24V, <38W	AC24V, <38W	AC24V, <38W





※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection

THERMAL CAMERA

Pro Series


- Uncooled Vox Microbolometer
- Thermalized Lens (thermal), Focus-free
- Supports temperature measurement
- Supports fire detection & alarm
- Supports PoE+/PoE

Pro Series

		Thermal Network Bullet Camera			
		DH-TPC-BF5600-T	DH-TPC-BF5600	DH-TPC-BF5400-T	DH-TPC-BF5400
Model					
Thermal	Image sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	640(H) x 512(V)	400(H) x 300(V)	400(H) x 300(V)
	Thermal Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	7.5mm/13mm/19mm 25mm/35mm	7.5mm/13mm/19mm 25mm/35mm	7.5mm/13mm/19mm 25mm/35mm	7.5mm/13mm/19mm 25mm/35mm
	Angle of View	H: 92°/48.4°/31.6°/24.6°/17.2°	H: 92°/48.4°/31.6°/24.6°/17.2°	H: 52°/29.7°/20.4°/15.5°/11.1°	H: 52°/29.7°/20.4°/15.5°/11.1°
	Digital Zoom	24X	24X	19X	19X
	Temperature Range & Accuracy	Low Gain:-20°C ~+550°C High Gain:-20°C ~+160°C Max(±2°C, ±2%)	-	Low Gain:-20°C ~+550°C High Gain:-20°C ~+160°C Max(±2°C, ±2%)	-
	Temperature Measurement Rule	Spot: 12/Line: 12/Area: 12 Support 12 rules simultaneously	-	Spot: 12/Line: 12/Area: 12 Support 12 rules simultaneously	-
	Temperature Alarm	Support	-	Support	-
	Video Compression	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG	H.264/MJPEG
General	Frame Rate	1280*1024 (default) 720P@1~25/30fps	1280*1024 (default) 720P@1~25/30fps	1280*1024 (default) 720P@1~25/30fps	1280*1024 (default) 720P@1~25/30fps
	Tri-mode Video Output	IP/HDCVI/Analog	IP/HDCVI/Analog	IP/HDCVI/Analog	IP/HDCVI/Analog
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP67	IP67	IP67	IP67
	Working Environment	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C	-40°C ~ +60°C
	Power	AC24V/DC12V/PoE, <7W	AC24V/DC12V/PoE, <7W	AC24V/DC12V/PoE, <7W	AC24V/DC12V/PoE, <7W

※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection

Lite Series

		Thermal Network Mini Hybrid Bullet Camera	
Model		DH-TPC-BF2120-T	DH-TPC-BF2120
			
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	160(H) x 120(V)	160(H) x 120(V)
	Sensitivity	≤50mK@f/1.8	≤50mK@f/1.8
	Lens	1mm	1mm
	Angle of View	H: 56°	H: 56°
	Temperature Range & Accuracy	High Temperature Zone: 30°C ~+450°C Max(±8°C, ±8%) Low Temperature Zone:-20°C ~+150°C Max(±5°C, ±5%)	-
	Measurement Preset	Spot: 12/Line: 12/Area: 12 Support 12 rules per preset simultaneously	-
	Temperature Alarm	Support	-
Visible	Image Sensor	1/2.8" 2M CMOS	1/2.8" 2M CMOS
	Lens	4mm	4mm
	Angle of View	H: 74.8°	H: 74.8°
	Min. Illumination	0.005Lux@F1.8 (Color) 0.0005Lux@F1.8 (B/W) 0Lux@F1.8 (IR On)	0.005Lux@F1.8 (Color) 0.0005Lux@F1.8 (B/W) 0Lux@F1.8 (IR On)
	IR Distance	35m	35m
General	Frame Rate	Thermal: 1280*960 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*960 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Video Output	IP/HDCVI/Analog	IP/HDCVI/Analog
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP67	IP67
	Working Environment	-30°C~+55°C	-30°C ~ +55°C
	Power	DC12V/1.5A±15%, PoE, <12W	DC12V/1.5A ± 15%, PoE, <12W

※ IVS: Tripwire, Intrusion, Abandon detection, Missing detection





THERMAL CAMERA

Anti-corrosion Series




- High performance hardware:
Uncooled Vox Microbolometer
Sony 1/1.9" 2M CMOS
- Powerful optical zoom lens (thermal and visible)
- Anti-corrosion coating, NEMA 4X
- Infrared protection window



Anti-corrosion Series

		Thermal Network Anti-corrosion Tribrid PTZ Camera		Thermal Network Anti-corrosion Hybrid PTZ Camera	
		DH-TPC-ACPT8620C	DH-TPC-ACPT8420C	DH-TPC-ACPT8620B	DH-TPC-ACPT8420B
Model					
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	400(H) x 300(V)	640(H) x 512(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	20mm ~ 100mm 30mm ~ 150mm (Optional)	20mm ~ 100mm 30mm ~ 150mm (Optional)	20mm ~ 100mm 30mm ~ 150mm (Optional)	20mm ~ 100mm 30mm ~ 150mm (Optional)
	Angle of View	H: 31.6°~6.2° H: 21.0°~4.1° (Optional)	H: 19.3°~3.9° H: 12.9°~2.6° (Optional)	H: 31.6°~6.2° H: 21.0°~4.1° (Optional)	H: 19.3°~3.9° H: 12.9°~2.6° (Optional)
Visible	Image Sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	15.6mm ~ 500mm 12.5mm ~ 775mm (Optional)	15.6mm ~ 500mm 12.5mm ~ 775mm (Optional)	15.6mm ~ 500mm 12.5mm ~ 775mm (Optional)	15.6mm ~ 500mm 12.5mm ~ 775mm (Optional)
	Angle of View	H: 27.5°~0.9° H: 28.8°~0.5° (Optional)	H: 27.5°~0.9° H: 28.8°~0.5° (Optional)	H: 27.5°~0.9° H: 28.8°~0.5° (Optional)	H: 27.5°~0.9° H: 28.8°~0.5° (Optional)
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W)
Laser Rander Finder (Optional)	Wavelength	1.57um (Eye safe)	1.57um (Eye safe)	-	-
	Effective Distance	50 ~ 5000m (164ft ~ 16404ft)	50 ~ 5000m (164ft ~ 16404ft)	-	-
	Accuracy	±2m	±2m	-	-
Laser Illuminator (Optional)	Wavelength	808±5nm	808±5nm	-	-
	Effective Distance	1000m (3281ft)	1000m (3281ft)	-	-
	Angle of Laser Beam	1°~ 30°	1°~ 30°	-	-
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default) 720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default) 720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default) 720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default) 720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless; Tilt: -60° ~ 45° Tilt: -60° ~ 60° (Optional)	300 presets Pan: 0° ~ 360°endless; Tilt: -60° ~ 45° Tilt: -60° ~ 60° (Optional)	300 presets Pan: 0° ~ 360°endless; Tilt: -60° ~ 45° Tilt: -60° ~ 60° (Optional)	300 presets Pan: 0° ~ 360°endless; Tilt: -60° ~ 45° Tilt: -60° ~ 60° (Optional)
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66	IP66	IP66	IP66
	Corrosion Protection	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X
	RS485 Interface	1	1	1	1
	Working Environment	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C	-40°C ~ +70°C
	Power	AC100V~300V, <150W	AC100V~300V, <150W	AC100V~300V, <100W	AC100V~300V, <100W

Anti-corrosion Series


		Thermal Network Anti-corrosion Hybrid Pan & Tilt Camera		Thermal Network Anti-corrosion Hybrid Speed Dome Camera	
		DH-TPC-ACPT8620A	DH-TPC-ACPT8420A	DH-TPC-ACSD8620A	DH-TPC-ACSD8420A
Model					
Thermal	Image Sensor	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer	Uncooled Vox Microbolometer
	Effective Pixels	640(H) x 512(V)	400(H) x 300(V)	640(H) x 512(V)	400(H) x 300(V)
	Sensitivity	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0	<40mK@f/1.0
	Lens	35mm/60mm	35mm/60mm	25mm/35mm	25mm/35mm
	Angle of View	H: 17.2°/10.3°	H: 11.1°/6.5°	H: 24.6°/17.2°	H: 24.6°/11.1°
Visible	Image Sensor	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS	1/1.9" 2M CMOS
	Lens	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm	6mm ~ 180mm
	Angle of View	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°	H: 59° ~ 2.4°
	Min. Illumination	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)	0.001Lux@F1.5 (Color) 0.0001Lux@F1.5 (B/W) 0Lux@F1.5 (IR On)
	IR Distance	150m (492ft)	150m (492ft)	150m (492ft)	150m (492ft)
General	Frame Rate	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps	Thermal: 1280*1024 (default)/720P@1~25/30fps Visible: 1080P (default)/720P@1~25/30fps
	Pan/Tilt Range	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 40°	300 presets Pan: 0° ~ 360°endless Tilt: -90° ~ 40°	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°	300 presets Pan: 0° ~ 360°endless Tilt: -20° ~ 90°
	Intelligent Video	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm	IVS, Fire detection & alarm
	Compatibility	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI	ONVIF Profile S&G, PSIA, CGI
	Ingress Protection	IP66	IP66	IP66	IP66
	Corrosion Protection	NEMA 4X	NEMA 4X	NEMA 4X	NEMA 4X
	RS485 Interface	1	1	1	1
	Working Environment	-40°C~+70°C	-40°C~+70°C	-40°C~+70°C	-40°C~+70°C
	Power	AC24V, <70W	AC24V, <70W	AC24V, <70W	AC24V, <70W

NVR




NVR

- Powerful Intel Multi-core CPU features perfect processing capabilities
- High quality industrial design for top-of-the-line reliability
- Supports temperature measurement & alarm
- Supports fire detection & alarm
- Advanced intelligent functions: IVS/Face Detection







NVR

	NVR616DR-128-4KS2	NVR608R-64-4KS2	NVR608-32-4KS2
Model			
Processor	Intel Quad Core CPU	Intel Quad Core CPU	Intel Dual Core CPU
Video Compression	H.265/H.264/MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG
IP Video Inputs	128 channel	64 channel	32 channel
Max Input/Record	384Mbps/384Mbps	384Mbps/384Mbps	384Mbps/384Mbps
Max Decoding	4ch@4K/16ch@1080P	4ch@4K/16ch@1080P	4ch@4K/16ch@1080P
Display	2HDMI (Optional: 6HDMI), VGA, LCD	2HDMI, VGA	2HDMI, VGA
Max HDD	16x8TB	8x8TB	8x8TB
RAID	0/1/5/6/10	0/1/5/6/10	0/1/5/6/10
eSATA/Mini SAS	1/1	1/-	1/-
Audio In/Out	1/1, 2-way	1/1, 2-way	1/1, 2-way
Alarm In/Out	16/8	16/8	16/8
Ethernet	4 Gigabit Ports, 2 Gigabit Fiber Optical Interface	2 Gigabit Ports	2 Gigabit Ports
PoE	-	-	-
USB	2 USB3.0, 2 USB2.0	2 USB3.0, 2 USB2.0	2 USB3.0, 2 USB2.0
Power	AC100V ~ 240V, Redundant <60W (Without HDD)	AC100V ~ 240V, Redundant <20W (Without HDD)	AC100V ~ 240V <20W (Without HDD)
Intelligent Video	Tripwire, Intrusion, Abandoned/Missing, Scene Change, Face Detection, People Counting, Heat Map	Tripwire, Intrusion, Abandoned/Missing, Scene Change, Face Detection, People Counting, Heat Map	Tripwire, Intrusion, Abandoned/Missing, Scene Change, Face Detection, People Counting, Heat Map
Star Features	Support temperature measurement&alarm, Fire detection&alarm	Support temperature measurement&alarm, Fire detection&alarm	Support temperature measurement&alarm, Fire detection&alarm

TPC-BF5400/5600(-T)		
		
Model	PFA121	PFA121+PFA152-E
Mount	Junction box	Pole mount

TPC-BF2120(-T)		
		
Model	PFA122	PFA122+PFA152-E
Mount	Junction box	Pole mount

TPC-SD8420/8620(-T)							
							
Model	PFA111+PFB303W	PFA111+PFB303W+PFA120	PFA111+PFB300C	PFA150	PFA151	PFA140	PFA111+PFB303S
Mount	Wall mount	Junction box	Ceiling mount	Pole mount	Corner mount	Power box	Parapet mount

Power Supply						
Model	PFM321 Series	PFM320 Series	PFM320D-015	AC Power		
Appearance						
Description	DC12V, 1A 84×41×26mm (3.31×1.16×1.02")	DC12V, 2A 104×45×33mm (4.09×1.77×1.3")	DC12V, 1.5A 77×49×30mm (3.03×1.93×1.18")	AC24V, 1.5A 106×70×56.5mm (4.17×2.76×2.22")	AC24V, 3A 120×80×63.5mm (4.72×3.15×2.15")	AC24V, 5A 120×102×80mm (4.72×4.0×3.15")

Tools					
Model	PFM880	PFM881	PFM886-10/20	PFM900-E	PFM906
Appearance					
Description	1*1000Mbps ports 300Mbps@5GHz@ IEEE802.11a/n 0-3Km(0-9.8Kft) -30°C ~ + 70°C (-22°F ~ +158°F)	2*100Mbps ports 300Mbps@5GHz@ IEEE802.11a/n 0-3Km(0-9.8Kft) -30°C ~ + 70°C (-22°F ~ +158°F)	1*1000Mbps ports 867Mbps@5GHz@ IEEE802.11a/n/ac 0-10Km(0-32.8Kft)/ 0-20Km(0-65.6Kft) -30°C ~ + 70°C (-22°F ~ +158°F)	For IPC, HDCVI, TVI, AHD analog camera TDR, analog video generator Digital multimeter, data monitor PoE+, DC12V/2A output	For Wifi, IPC HDCVI, TVI, AHD, analog SDI camera Cable search, cable test, TDR,analog video generator, VFL Digital multimeter, OPM, data monitor PoE+, DC12V/2A, USB5V/2A output

VIDEO MANAGEMENT SOFTWARE

Smart PSS

Smart Professional Surveillance System

Dahua Security Management Platform



Fish-eye image Correction



People Counting



Video Intercom



Access Control System



Attendance

Supported OS	Windows/Mac OSX
Supported Devices	CCTV/VDP/ACS/TPC
Number of Devices	256
Number of Channels	2000
Number of Screens	4
Recording Channels	32
Languages	35
Supported VTO	100
Supported VTH	10000
Supported Access Controllers	100
Supported Doors	1000
Basic Functions	Preview, Record, Playback, Export, Snapshot, Instant playback
Smart Features	Fisheye correction, People counting, Smart search, E-Map, E-PTZ, Smart Track, IVS, Face Detection
Smart Building	Video Intercom, Access Control, Attendance

DMSS

Digital Mobile Surveillance System

Monitor Anything with Your Smartphone or Tablet Anytime, Anywhere



Devices	Supported Devices	DVR, NVR, IPC, VTO, TPC
	Add Device Method	IP/domain, SN, Import from cloud
	Features	Remote config, Alarm config, HDD info, Share device list
Video	Compression Format	H.265/H.264/MPEG-4/JPEG
	Display Resolution	Up to 1920 x 1080
Live Preview	Max. Channels Can Be Opened at The Same Time	256
	Features	Snapshot, Record, Instant playback, PTZ, Stream control, Talk, Audio, Alarm, Color, Favorites, Remember channels
Playback	Time Period of Video Playback	72 hours
	Features	Snapshot, Record, Faster/slower play, Play next frame, Cut
Alarm Push	Alarm Type	Motion detect, Camera masking, Local alarm, Disk alarm(no disk, Low space, disk Error), Face detection, Ivs alarm
	Push Type	Video, Preview, Image

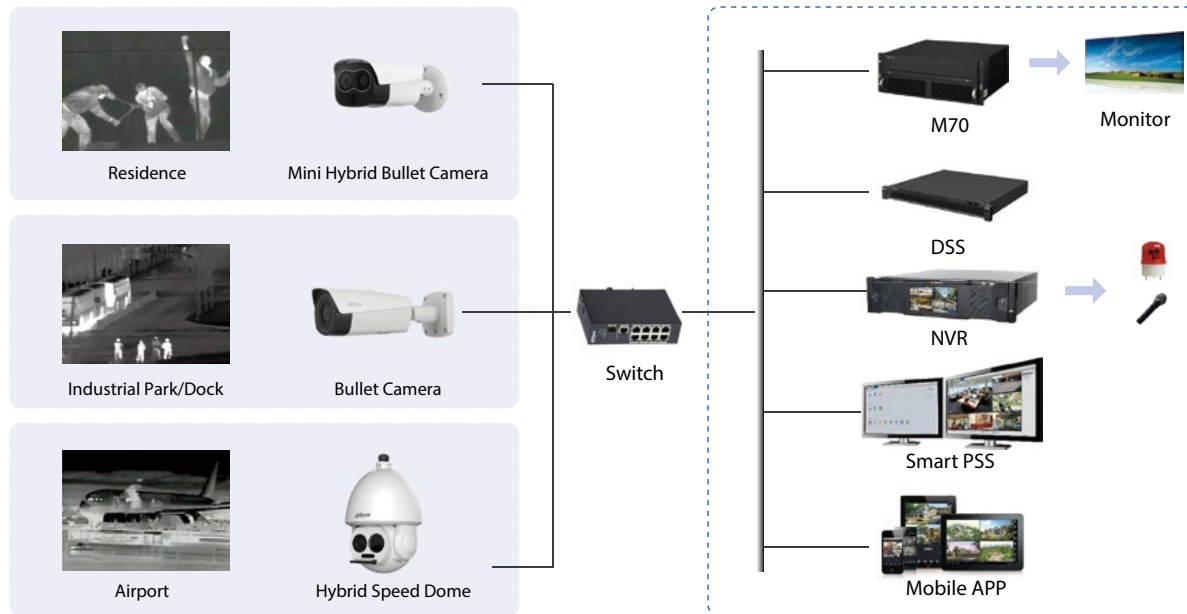
THERMAL SOLUTION



PERIMETER FACILITY

- 18 -

Residence / Industrial Park / Dock / Airport



Key Features

- Highly accurate intelligent analysis
- All-weather monitoring
- End-to-end solution
- Support alarm linkage

Recommend models

Residence



BF2120

Industry Park/Dock



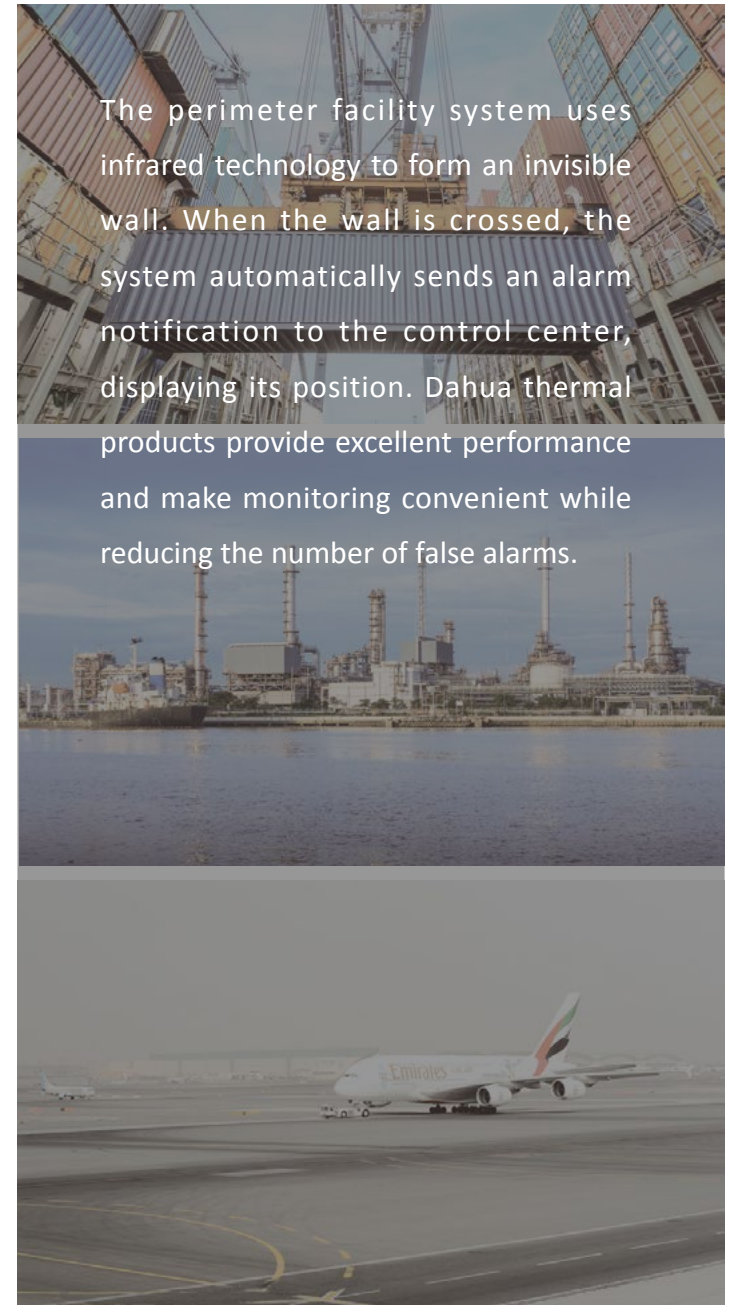
BF5600/BF5400

Airport



SD8620/SD8420

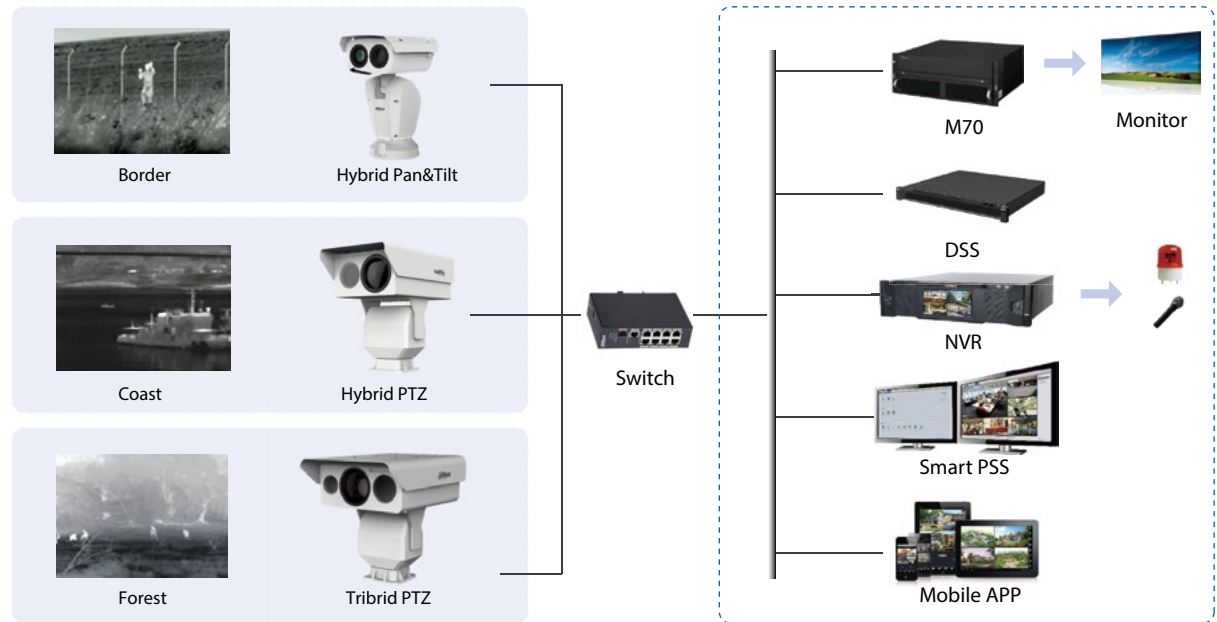
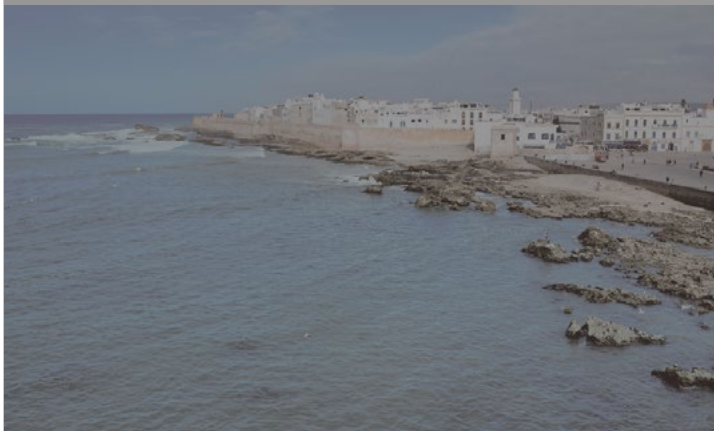
The perimeter facility system uses infrared technology to form an invisible wall. When the wall is crossed, the system automatically sends an alarm notification to the control center, displaying its position. Dahua thermal products provide excellent performance and make monitoring convenient while reducing the number of false alarms.



BORDER & COAST

Border/ Coast/ Forest

Border and Coastal monitoring is an important part of a country's national defense system. Dahua thermal products feature long range monitoring, eliminating blind spots and enabling wide coverage.



Key Features

- Long distance detection
- Fire detection
- End-to-end solution
- Reliability in harsh environments

Recommend models

Border



PT8620A/PT8420A

Coast



PT8620B/PT8420B

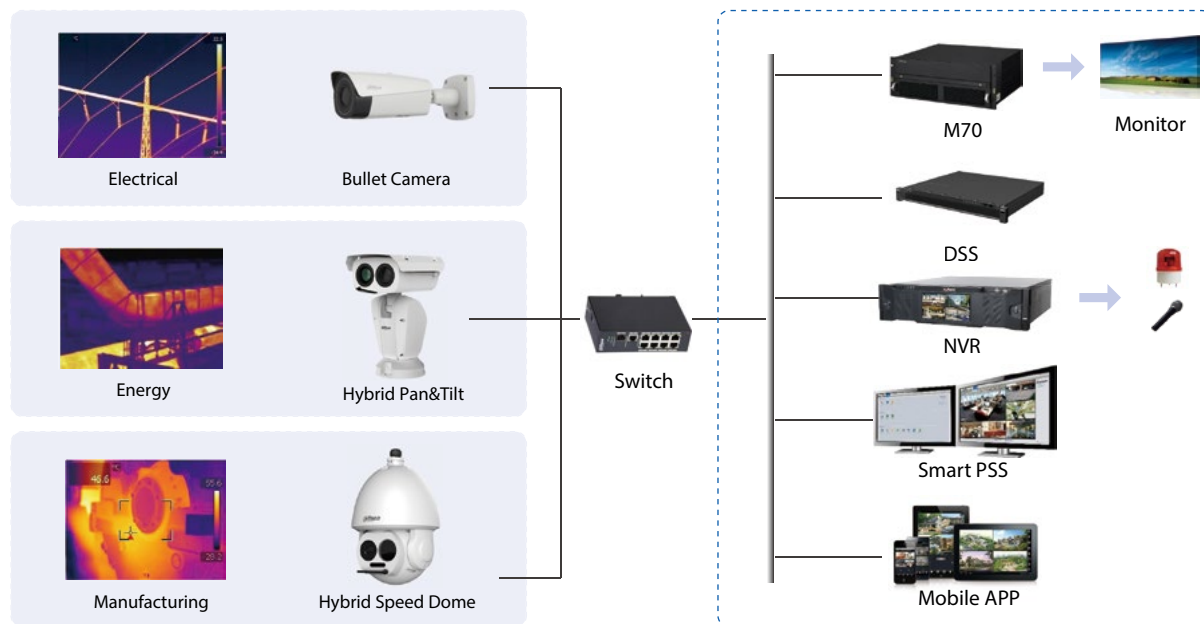
Forest



PT8620C/PT8420C

INDUSTRY

Electrical / Energy / Manufacturing



Key Features

- High accuracy temperature measurement
- Temperature threshold alarm linkage
- End-to-end solution
- Easy operation

Recommend models

Electrical



BF5600-T/BF5400-T

Energy



PT8620A-T/PT8420A-T

Manufacturing



SD8620-T/SD8420-T

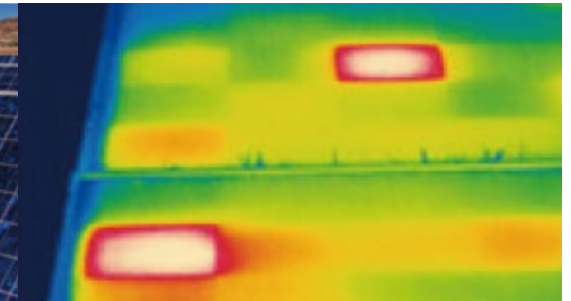
In industry, it is of vital significance to ensure the proper operation of equipment. Dahua thermal products, featuring temperature measurement functionality, can trigger an alarm when temperatures break a customizable threshold. In addition, temperature reports help workers analyze existing problems and provide guidance for future preventive maintenance.



MORE APPLICATIONS

Solar Power System

Solar panel temperature monitoring
Solar panel evaluation to prevent overheating

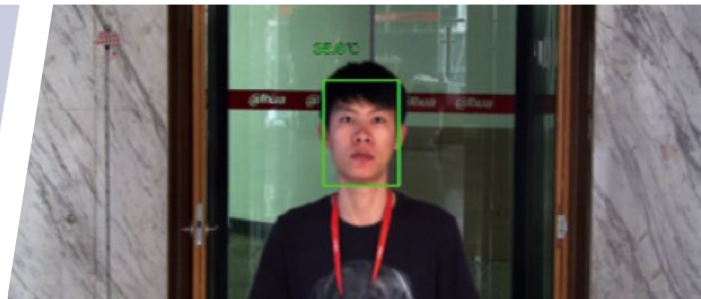


Transportation Industry

Flow detection
24 hour monitoring in all conditions

Inspection and Quarantine

Rapid body temperature screening
Efficient epidemic prevention and quarantine control



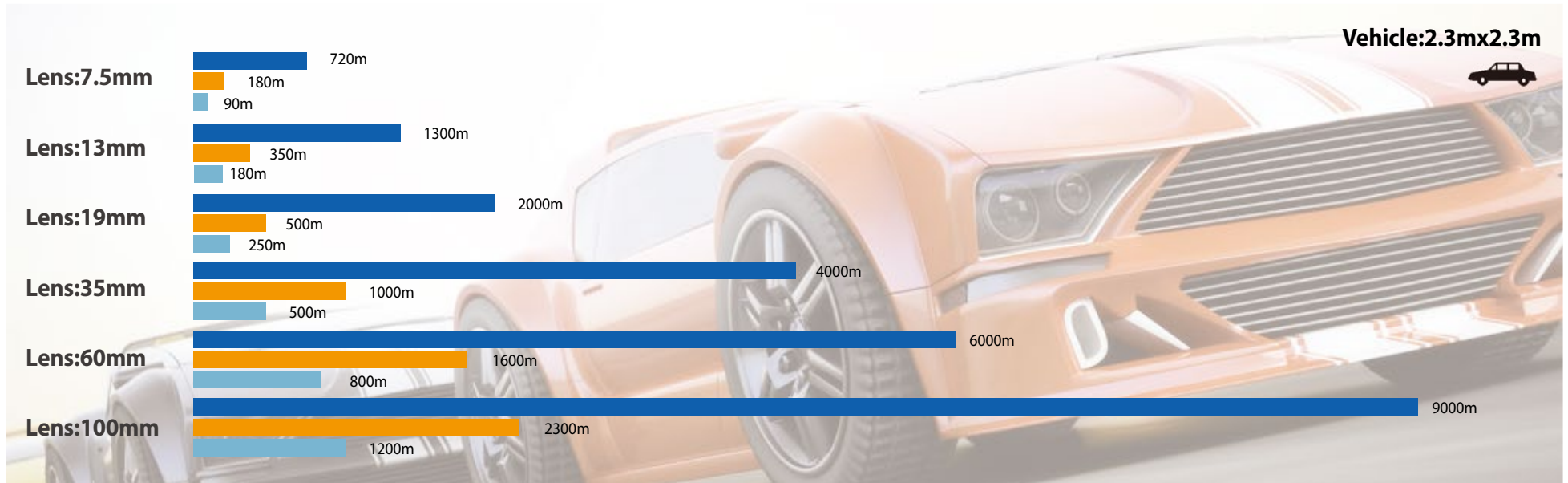
Fire Rescue

Assist firefighters in quickly finding injured people through heavy smoke and finding fire sources.

EFFECTIVE DISTANCE

- 22 -

■ Detection distance ■ Recognition distance ■ Identification distance



*Note: Effective distance values shown above are nominal values and should be used as estimates only. Exact value calculations depend on a wide variety of conditions.

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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* Design and specifications are subject to change without notice.

Smart Thermal Imaging-01, May 2018

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