See Far, Go Further

DS-K1T671TM-3XF Thermal Face Terminal Operation





- Introduction
- Preparation
- Installation
- Configuration
- Operation
- Q&A





Introduction

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Introduction -> System Structure

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Access control and temperature event can be managed by monitoring tablet, iVMS-4200 or HikCentral Professional.



Introduction -> System Structure



- 1. If the temperature is found to exceed the normal range, medical temperature measurement equipment should be used to conduct secondary screening and confirmation of suspicious personnel.
- 2. Temperature information is not supported to transfer by Ehome (ISUP) protocol. Suggest to use device and software in LAN or VPN network.

Introduction -> Device Parameters

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DS-K1T671TM-3XF

	Sensor	Vanadium Oxide uncooled sensor
	Resolution	120 × 160
Temperature	Frame rate	25 fps
measurement	Temperature range	30 °C to 45 °C
	Temperature accuracy	±0.5 °C, without black body calibration
	Measuring distance	0.5 to 1.5 m
	Working voltage	12 VDC/2 A
	Working temperature	0 °C to 50 °C
	Working temperature	For temperature measurement: 10 °C to 35 °C
Other	Working humidity	10 to 90% (No condensing)
	Application	Indoor
	Application environment	Indoor and windless environment use only



50,000 face capacity 50,000 card capacity 100,000 event capacity

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DS-KAB671-B (Optional)

Material	SPCC
Weight	6.7 kg (14.8 lb.)
Dimension (W x H x D)	98.5 mm × 1342 mm × 225 mm (3.9" × 52.8" × 8.9")





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Preparation -> Site Selection

- Indoor and windless environment use only. Indoor environment temperature must be 10 ~ 35°C. If beyond this range, the temperature measurement accuracy of the device cannot be guaranteed.
- 2. The device should be at least 2 meters away from the light, and at least 3 meters away from the window.
- 3. Make sure the environment illumination is more than 100 Lux.
- 4. LAN cable available. Terminal doesn't support WiFi.
- 5. Power source available.









Indirect Sunlight through Window Direct Sunlight through Window



Close to Light

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Preparation -> Unbox Terminal

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Quick Start Guide

- 0 -

Quick User Manual

Quick User Guide

Preparation -> Unbox Floor Stand Pole

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Package



Pole and accessories

Preparation -> Accessories and Tools



Accessories for each terminal

- 1. Qualified power adapter. Power consumption of terminal itself is 12V DC, 2A.
- 2. LAN Cable.
- 3. Gang box (optional).

Tools

Screwdriver set, wire stripper, impact drill, etc.



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Installation -> Terminal Wire Connection

- GND is the common interface for RS-485, exit button, and door contact sensor.
- 2. If exit reader, touchless exit button, security unit, or lock is used, need to arrange a power adapter which can give enough power output for all of the devices.
- Please ensure that the equipment is powered off during the installation and wiring.



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Installation -> Wall Mounting

Suggest installation height is 1.4 m.

- 1. Drill holes on the wall and install gang box.
- 2. Secure the mounting plate on the gang box and wall.
- 3. Route the cables through the cable hole of the mounting plate, and connect to the corresponding external devices.
- 4. Align the device with the mounting plate and hang the terminal on the mounting plate.
- 5. Use screwdriver to secure terminal on mounting plate.



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Installation -> Pole Mounting

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Install floor stand pole

- 1. Unscrew the two screws on the side of the bottom cover and remove bottom cover.
- 2. Install the expansion screws in the package into the holes at bottom. Make sure the expansion screw is slightly above the ground and secure it with nut.
- 3. Connect cables inside pole.
- 4. Move back the bottom cover and screw back the two screws on the side.

Install terminal on the pole

- 1. Connect wires of terminal.
- 2. Fix terminal on the pole.





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Configuration -> Basic Settings



- 1. Active device.
- 2. Press screen for 3 seconds to input password and enter local menu.
- 3. Set IP address.
- 4. Check device firmware version and upgrade to latest.



Configuration -> Temperature Settings

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← Temperature Settings
Enable Temperature Detection
Over-Temperature Alarm Threshold (Max.) 37.
Over-Temperature Alarm Threshold (Min.) 33.
Door Not Open When Temperature is Abnormal
Temperature Measurement Only
Measurement Area Calibration
Measurement Area Settings
Black Body Settings

If disable, terminal won't detect temperature, it will work as a traditional access control terminal.

When measured temperature is larger than Max. value or smaller than Min. value, device will give alarm.

To control if the temperature abnormal person can open the door or not.

If enable, anyone with normal temperature can open the door. No access control permission checking.

- Not required.
- Not required.
- Not required.

Note:

Temperature Measurement Only mode is suitable for supermarket, hospital, museum, etc. For office building, suggest to disable it.

Configuration -> Mask Settings

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\leftarrow	System	Settings		\checkmark
Basic	Face Pic.	Maint.		
1:N Security Le	vel			87 >
1:1 Security Le	vel			60 >
Recognition Inte	erval			3 >
Liveness Secur	ity Level	Normal	⊖ High) Higher
WDR Level				0 >
Pupillary Distan	ice			70 >
Face with Mask	C Detection			
Face with Ma	isk & Face with	Mask 1:N		45 >
Must Wear F	ace Mask			
Reminder of	Wearing Face I	Mask		
ECO Mode				

- If disable, terminal won't detect face mask.
- 1:N security level when terminal recognizes masked face.
- If enable, terminal won't open the door for the person who doesn't wear face mask.
- If enable, terminal will give remind on local screen for the person who doesn't wear face mask.

Configuration -> Review



Use software to upgrade device.

Use device local screen to configure temperature and face mask.

Configurations	Terminal Local Screen	iVMS-4200	HCP Pro
Active device	v	v	v
IP Configuration	v	v	v
Temperature setting	v	-	-
Face mask setting	v	-	-
Upgrading thermal camera or MCU	-	٧	V



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Operation -> Daily Use

Recommend to reserve 3 minutes indoor walking space before the temperature terminal to get most accurate result.

When people come in building, suggest to take off their hat to make forehead temperature become normal.

Suggest people walk from left to right to stand in front of terminal. So that the persons waiting in queue won't show up in terminal live view screen.

When measuring forehead temperature, suggest to lift bang to make forehead show up. Device will get accurate forehead temperature within 1 s.



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Pure temperature checking mode.

1.

Enable temperature measurement only.

Below table shows door access and attendance result when enable door not open when temperature is abnormal.

	Temperature Checking	
Authentication Result	Normal Temperature	Abnormal Temperature
Local Screen	35.9 °C Authentic success.	37.8 °C Abnormal temperature Contact security guard
Door Access	√	×
Mark Attendance	×	×

In pure temperature checking mode, attendance function doesn't work.

Temperature + mask checking mode.

2.

Enable temperature measurement only. Enable must wear face mask.

	Temperature + Mask Checking				
Authentication Result	Mask OK Temperature OK	Mask OK Temperature NO	Mask NO Temperature OK	Mask NO Temperature NO	
Local Screen	36.5 °C	37.4 °C Abnormal temperature Contact security guard	36.6 °C Please wear a face mask. Contact security guard	37.5 °C Please wear a face mask. Contact security guard	
Door Access	\checkmark	×	×	×	
Mark Attendance	×	×	×	×	

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In temperature + mask checking mode, attendance function doesn't work.

The priority of mask alert is higher than temperature abnormal. If one high temperature person doesn't wear mask, device will show alert of wear mask on screen. From red color we can know his temperature is abnormal.

Pure face authentication mode. Disable temperature measurement and mask detection. Device works as a traditional access control terminal.

Face + Temperature Authentication				
Authentication Result	Face authenticated	Face authentication failed		
Local Screen	Authentic success. Laxor Y	Stranger Contact security guard		
Door Access	\checkmark	×		
Mark Attendance	\checkmark	×		

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3.

Face + temperature authentication mode.

4.

If disable door not open when temperature is abnormal, door access and attendance will be same with pure face authentication. Below table shows the result when enable door not open when temperature is abnormal.

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Face + Temperature Authentication				
Authentication Result	Face OK Temperature OK	Face OK Temperature NO	Face NO Temperature OK	Face NO Temperature NO
Local Screen	36.5 °C	38.2 °C Abnormal temperature Laxor Y	36.6 °C Stranger Contact security guard	38.7 °C Stranger Contact security guard
Door Access	\checkmark	×	×	×
Mark Attendance	\checkmark	\checkmark	×	×

The priority of stranger alert is higher than abnormal temperature. If one stranger has high temperature, device will only give stranger alert on local screen.



5. Face + temperature + mask authentication mode.

If only give remind of wear mask, the door access and attendance will be same with Face + temperature authentication. Below table shows the results of must wear face mask and door not open when temperature is abnormal.

	Face + Temperature Authentication				
Authentication Result	Face OK Mask OK Temperature OK	Face OK Mask OK Temperature NO	Face OK Mask NO Temperature OK	Face OK Mask NO Temperature Failed	
Local Screen	36.5 °C	38.0 °C Abnormal temperature Laxor Y	36.3 °C Please wear a face mask Laxor Y	37.5 °C Please wear a face mask Laxor Y	
Door Access	\checkmark	×	×	×	
Mark Attendance	\checkmark	\checkmark	\checkmark	\checkmark	

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5. Face + temperature + mask authentication mode.

If only give remind of wear mask, the door access and attendance will be same with Face + temperature authentication. Below table shows the results of must wear face mask and door not open when temperature is abnormal.

Face + Temperature Authentication				
Authentication Result	Face NO Mask OK Temperature OK	Face NO Mask OK Temperature NO	Face NO Mask NO Temperature OK	Face NO Mask NO Temperature NO
Local Screen	36.4 °C Stranger Contact security guard	38.8 °C Stranger Contact security guard	36.4 °C Please wear a face mask. Stranger	37.9 °C Please wear a face mask. _{Stranger}
Door Access	×	×	×	×
Mark Attendance	×	×	×	×

The priority of alert on local screen is No Mask > Stranger > Temperature Abnormal.

Red color means temperature is abnormal. When temperature is abnormal, the color maybe not red, it can be yellow too. If face authentication is success, the attendance can be marked.

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6.

Log query.

Abnormal temperature will be marked as red.

Note :

Only registered persons' authenticated record can be searched.

Strangers and temperature measurement only record can't be searched from local screen.



\leftarrow	Log Query		
D	Name	Time	No.
3	Laxor Yue	2020-04-23 14:17:40	36.8
			37.4
3	Laxor Yue	2020-04-23 14:18:58	36.6
3	Laxor Yue	2020-04-23 14:19:07	36.9
3	Laxor Yue	2020-04-23 14:19:10	36.6
3	Laxor Yue	2020-04-23 14:31:31	36.9
3	Laxor Yue	2020-04-23 14:41:57	36.4

7. Transfer authentication record to USB pen drive.

Allevent.csv

Transfer captured image to USB pen drive. (encryption) 8.

> DS-K1T671TM-3XF Local Export File > acsLinkCap > 202004_00										
Name	Date modified	Туре	Size							
23_141626_30192_0_hot_tem.data	4/23/2020 3:31 PM	DATA File	75 KB							
23_141653_30192_0_hot_tem.data	4/23/2020 3:31 PM	DATA File	75 KB							
🖻 23_141740_30075_0.jpeg	4/23/2020 3:31 PM	JPEG File	82 KB							
23_141740_30075_0_hot_tem.data	4/23/2020 3:31 PM	DATA File	75 KB							
🖻 23_141748_30076_0.jpeg	4/23/2020 3:31 PM	JPEG File	67 KB							
23_141748_30076_0_hot_tem.data	4/23/2020 3:31 PM	DATA File	75 KB							
🖬 23_141751_30076_0.jpeg	4/23/2020 3:31 PM	JPEG File	63 KB							
23_141751_30076_0_hot_tem.data	4/23/2020 3:31 PM	DATA File	75 KB							



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Employee ID	Card No.	QR code URL	Name	Time	Card Reader No.	Event Type	checkinOrout	temperatureInfo	Overtemperature W	Vith Mask	health code
•	1			2020/4/23 14:16:26	1	MINOR_TEMPERATURE_CHEAK	no checkinOrout data	37	0 w	ithout mask	
•	1			2020/4/23 14:16:53	1	MINOR_TEMPERATURE_CHEAK	no checkinOrout data	36.5	0 w	/ith mask	
'3	1.00		Laxor Yue	2020/4/23 14:17:40	1	MINOR_FACE_VERIFY_PASS	no checkinOrout data	36.8	0 w	ithout mask	
•	1			2020/4/23 14:17:48	1	MINOR_FACE_VERIFY_FAIL	no checkinOrout data	36.5	0 w	/ith mask	
•	1			2020/4/23 14:17:51	1	MINOR_FACE_VERIFY_FAIL	no checkinOrout data	36.4	0 w	/ith mask	
'3	1		Laxor Yue	2020/4/23 14:18:12	1	MINOR_FACE_VERIFY_PASS	no checkinOrout data	37.4	1 w	ithout mask	
•	1			2020/4/23 14:18:16	1	MINOR_FACE_VERIFY_FAIL	no checkinOrout data	36.5	0 w	/ith mask	
•	1			2020/4/23 14:18:20	1	MINOR_FACE_VERIFY_FAIL	no checkinOrout data	36.5	0 w	/ith mask	







- 1. Add device.
- 2. Register person.
- 3. Apply person.
- 4. Check real-time event (Face + Temperature)

Note:

When temperature is abnormal, device will trigger alarm output automatically, no need configuration.

Device will upload normal image and thermal image both to iVMS-4200 after face is authenticated.

No need storage server to save the captured images.

🌔 iV	MS-4200											🛆 Not Log	j 🗄 🖾	admin 🛨	8 – 0	\times
88	📺 Ev	ent Cente	er 🛞													
=	Device 1	Туре 🔽	Encoding Device	Security Co	ontrol Panel 🧧	Video Intercon	n 🔽 Access	Control Devi	ce 🔽 Storage	e Device 🧹	Cloud P2P D	evice 🔽 S	Security Radar			
	Priority	🗹 Hig	h 🔽 Medium	🗹 Normal	Uncategori	zed										
®́ ≂⊓			tch 💼 Clear	🖾 Disable /	Alarm Trigger	ed Pop-out Ima	age ⊂l》Mu	ite			🗌 Auto-Se	ect Latest Ev	ent Filter			Q
-0		Index	Event Source		Event Type		Event Tin	he	Employee No.	Card No.	Card Ho	older Name	Tempera	Abnormal T	ſemperature	
			Access Control Dev	ice:DS-K1T671	Alarm Output (Off	2020-04-2	7 10:12:30								
			Access Control Dev	ice:DS-K1T671	Alarm Output (Dn	2020-04-2	7 10:12:28						-		
			Access Control Dev	ice:DS-K1T671	Face Authentic	ation Passed	2020-04-2	7 10:12:28		1719221373	Laxor Y	ue	37.9°C	Yes		
			Access Control Dev	ice:DS-K1T671	Door Locked		2020-04-2	7 10:12:12						-		
			Access Control Dev	ice:DS-K1T671	Door Unlocked		2020-04-2	7 10:12:07								
			Access Control Dev	ice:DS-K1T671	Face Authentic	ation Passed	2020-04-2	7 10:12:07	3	1719221373	Laxor Y	ue	36.5°C	No		
	Event D	etails										Se	nd Email	Handle	Hide ∖	
	Video			🗸 Auto-	Play Video Pict	ure				Event Details		Handling	records			
										Entrance Care	Ы					
										Reader1						
			Linked Came	ra				-0	Υ.							
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													Ac	tivate Wir	ndows	
														to Settings to	o activate V	/ind



4. Check real-time event (Temperature only)

Note:

In temperature measurement only mode, only thermal image is there in iVMS-4200.

🔱 iV	'MS-4200					🙆 Not Log	::= 12 admin ▼ A	– 🗆 ×			
88	📺 Event Center 📀										
=	Device Type 🛛 Encodin	ing Device 🧧 Security Cont	trol Panel 🗹 Video Intercom 🗹	Access Control Device	🗹 Storage Device 🗹	Cloud P2P Device 🗹 Secur	rity Radar				
	Priority 🗹 High 🗹	Medium 🗹 Normal 🧧	Uncategorized								
	🗟 Handle in Batch 🧃	n Clear 🖂 Disable Al	arm Triggered Pop-out Image	치》Mute		Auto-Select Latest Event		Q			
	🗌 Index Event S	Source	Event Type	Event Time	Employee No. Card No	o. Card Holder Name	Tempera Abnormal T	emperature			
	6 Access	s Control Device:DS-K1T671	Alarm Output Off	2020-04-27 11:17:05							
	5 Access	s Control Device:DS-K1T671	Alarm Output On	2020-04-27 11:17:02							
	4 Access	s Control Device:DS-K1T671	Skin-Surface Temperature Measured	2020-04-27 11:17:05			38.6°C Yes				
	3 Access	s Control Device:DS-K1T671	Door Locked	2020-04-27 11:17:02				_			
	2 Access	s Control Device:DS-K1T671	Door Unlocked	2020-04-27 11:16:57				_			
	1 Access	s Control Device:DS-K1T671	Skin-Surface Temperature Measured	2020-04-27 11:17:00			36.4°C No				
								-			
	Event Details					Send E	mail Handle H	lide 🗸			
	Video	💆 Auto-Pl	ay Video Picture		Event Details	s Handling reco	Handling records				
					10.7.84.13						
	Lin	inked Camera									
	No configured cameras. P m	Please configure the camera nanagement.	in event								
				VIII P			Activate Windows	te Windows			
				1 E			do to settings to activa				



5. Search history event

Note:

Select device type as Access Control to get temperature information.

Click Show More, to search event by person name, card No. etc.



🚺 iV	MS-4200								4	Not Log	🗄 🕢 admin 🖣	· A			
	🖄 Event Center 💿														
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	2020.04.27 11:00:00-2020.04.27 23:59:59														
Ď	Search by			Index	Event Type	Card Hol	Card No.	Temperature	Abnormal Temp	erature	Event Time	Device Na	Ev		
5	● Device ○ Group				Skin-Surface Temperature Measured			36.4°C	No		2020-04-27 11:33:16	DS-K1T671			
	Device Type				Skin-Surface Temperature Measured			36.4°C	No		2020-04-27 11:33:11	DS-K1T671			
	Access Control	·		10	Alarm Output Off						2020-04-27 11:21:06	DS-K1T671	DS		
	Device			11	Alarm Output On						2020-04-27 11:21:04	DS-K1T671	DS		
		Q		12	Face Authentication Passed	Laxor Yue	1719221373	40.7°C	Yes		2020-04-27 11:21:04	DS-K1T671	En		
	Include Sub-Node			13	Face Authentication Passed	Laxor Yue	1719221373	36.5°C	No		2020-04-27 11:20:39	DS-K1T671	En		
				14	Face Authentication Passed	Laxor Yue	1719221373	36.4°C	No		2020-04-27 11:20:34	DS-K1T671	En		
	▼ 🗖 📼 DS-K1T671_Temp		Total 42	Record(s) 50 🗸							/ 1 Pag	ge(s)		
	🔻 🧧 🔳 Door1	4													
	🗹 🔯 Entrance Read	der1	Event De	etails						Send E	imail Handle	Hide	~		
	🗌 🔛 Exit Card Reade	er2								Handling	records				
	🗌 🎯 Camera1	-11		-		ID 3									
	🗌 🧔 Event Alarm Input1		-To-				Person Nam	e Laxor Yue							
	Priority			3	1 BOARS		Gende	er Male							
	🗹 High 🔽 Medium 🗹 N	Norma	Pe	rson Pictu	re Captured Picture		Organizatio	n HIK							
	🗹 Uncategorized						ID Тур	e -							
	Status			-			ID No				No handling re				
	All	-					Phone No								
	Show More					Address -					Activate Wi	ndows			
	Search									Go to Settings to activate Windows.					

iVMS-4200



6. Export event

	🗄 🖄 Event Center 📀										
Note:						Exp	oort				×
Both images and temperature	Search by			Event Type Alarm Output Off	Card Hol G	rd No.	E	xport Type 🧕	All O On	ly Log 🔿 Only Pi	ture
details can be exported.	Device Type							aving Path C	:/iVMS-4200 Exp	orted Events ••••	
						192213					
	Device					192213			Export	Cancel	
IVINIS-4200 IVINIS-4200 xported Events cs xported Events zi						192213					
	M Include Sub-Node			Face Authentication Passed	Laxor Yue 17	192213					
Captured Picture Path	Thermal Graphic Savir	ng Path			Picture Saving Path	Card Holder	Card No.	Temperature	Abnormal Temperature	Event Time	Device Name
	C:/iVMS-4200 Exporte C:/iVMS-4200 Exporte	ed Events/9CA95 ed Events/14529	58A14B2E4D22834 7CEC08D45C2B47	463A17D51BDED_HeatImag 8F3B883B5F542_HeatImage.	e.png png			36.4°C 36.4°C	No No	2020/4/27 11:33 2020/4/27 11:33	DS-K1T671_Temp DS-K1T672_Temp
C:/iVMS-4200 Exported Events/F1A5297A5F354F8DA1D194F7BD7BD6 C:/iVMS-4200 Exported Events/C26267E67CD44971ADF0939C31624E	6FB_1.png C:/iVMS-4200 Exporte B08_1.png C:/iVMS-4200 Exporte	ed Events/F1A52 ed Events/C2626	97A5F354F8DA1E 7E67CD44971AD	194F7BD7BD6FB_HeatImage 0939C31624B08_HeatImage	e.png e.png	Laxor Yue Laxor Yue	'1719221373 '1719221373	36.5°C 36.4°C	No No	2020/4/27 11:20 2020/4/27 11:20	DS-K1T673_Temp DS-K1T674_Temp
	🗌 🔝 Exit C	ard Reader2									
> This PC > Local Disk (C:) > iVMS-4200 Exported Events		~	6								
	-		E								
	Trum Lake I		Person Pictu			Orga					
9CA958A14B2E4 145297CEC08D45 C26267E67CD449 C26267 D22834463A17D5 C2B478F3B883B5 71ADF0939C3162 71ADF0 1BDED_HeatImag F542_HeatImage. 4B08_1.png 4B08_H e.png png	7E67CD449 F1A5297A5F354F 0939C3162 8DA1D194F7BD7 HeatImage. BD6FB_1.png png	F1A5297A5F354 8DA1D194F7BD BD6FB_HeatIma e.png	F 77 ag			P					
		COLORS								Activate Windo Go to Settings to ac	WS tivate Windows.
See Far, 60 Further											



Note:

- 1. No temperature overlay on captured image.
- 2. Normal camera capture image resolution is 768x432.
- 3. Thermal camera capture image resolution is 120x160.
- 4. Thermal camera doesn't support live view.
- 5. 4200 can't configure temperature and mask settings.
- 6. Face mask event doesn't support by 4200.
- 7. Abnormal temperature can't trigger email alarm in 4200.
- Abnormal temperature pop up notification only support by 4200AC version.

The version of iVMS-4200 used in this PPT is V3.2.50.2_20200420







Thanks

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