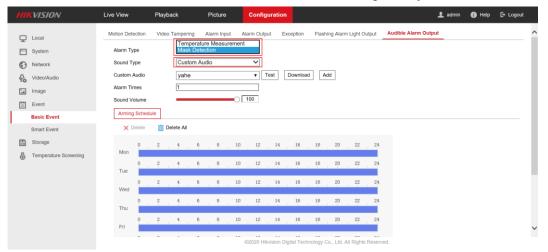
Hello everyone. We have upgraded our Thermal Camera firmware to V5.5.26 build200624 which is the latest one so far. The followings are some highlighted upgrade points since V5.5.26 build200608:

1. Fixed following issue:

It appears device error message when setting any parameters on Temperature Screening pages with low probability.

The upgraded contents in the last version V5.5.26_200507 are as follows.

1. Add **custom alarm audio output** function for devices with /PA, temperature abnormal alarm and mask detection alarm can be set separately.



Please note: The uploaded audio file shall meet the following requirements:

General format	.wav
Size	Less than 512 KB
Encoding format	РСМ
Sampling rate	8 KHz
Bit Depth	16 bits
Channel	Mono (1 channel)
Bit rate	No specific requirement



Upload Custom Audio	
* Custom Audio	Browse
Upload a .wav mono s sampling rate as 8 KH	ound audio file with the size smaller than 512 KB and z.
* Audio Name	
	OK Cancel

2. Add options to the **Temperature Screening Configuration** page to set whether to display the face frame, face temperature and temperature measurement position respectively.

HI	VISION	Live View	Playback	Picture	Configuration			👤 admin	🕧 Help	E+ Logout	
Q	Local	Basic Settings	Temperature Scree	ening Configuration	Linkage Method						^
	System	Channel No.	Camer	a 01	\sim						
Ð	Network	Enable Face	e Detection								
<u>Q.</u>	Video/Audio	Upload Cap	tured Face Image								
1	Image	Overlay Info	ormation								
圁	Event	Display Ten	nperature								
5	Storage	Face Frame	Face Tempera		ce Temperature Position						
۵	Temperature Screening			L	Operation Guide	Configuration	Targeting	\sim			
· · · ·	Basic Settings	0 Min 66-09-2020 Tue	21:36:54	1		Face Detection Parameter	ers				
	Face Capture	IPD Mex				Min. Pupil Distance	110	 Image: A start of the start of			
		IT LY PHON				Max. Pupil Distance	707	Ø			
				1		Generation Speed		5			
						Sensitivity		5			
					10	Alarm When Temperatur Pre-Alarm Temperature	36.2	0°			
		5	-		No.	Pre-Alarm Temperature	30.2	°C			~
					©2020 Hikvision Digital 1	echnology Co., Ltd. All Right	s Reserved.				

The same configuration can also be applied to the thermography channel and can be set independently.

HII	VISION	Live View	Playback	Picture	Configuration			👤 admin	🕧 Help	E+ Logout	
Ţ	Local	Basic Settings	Temperature Scre	ening Configuration	Linkage Method						^
	System	Channel No.	Came	ra 02	\checkmark						
Ð	Network	Overlay In	formation								
<u>Q</u> .	Video/Audio	Display Te	emperature								
1	Image	Face France	ne 🗹 Face Temper	ature 🗹 Display Fa	ce Temperature Position						
Ē	Event					Black Body Parameters					
	Storage	06-11-20	020 Thu 21:35:5	<i>,</i>		Enable Black Body Co	prrection				
\$	Temperature Screening					Distance	2	m			
	Basic Settings					Temperature	40	°C			
	Face Capture	1.00				Emissivity	0.97				
				•		Body Temperature Com	pensation				
						Enable					
			10			Compensation Type	Auto	\sim			
			11			Compensation Value	2.5	°C			
					02	Manual Calibration	0	°C			~
					©2020 Hikvision Digital T	Environmental Temperat echnology Co., Ltd. All Right	S Reserved.	\checkmark			

The above configuration is effective for **LiveView** and **face capture**. For example, if the customer does not need to display any information in the visible light channel, but only needs to display the face detection frame and the actual temperature measurement position in the thermography channel, the following configuration can be set:

HI	VISION	Live View	Playback	Picture	Configuration			👤 admin	🚺 Help	E+ Logout	
	Local	Basic Settings	Temperature Scree	ening Configuration	Linkage Method						^
	System	Channel No.	Camer	a 01	~						
Ø	Network	Enable Fac	e Detection								
Q.	Video/Audio	Upload Cap	otured Face Image								
-0	Image	Overlay Infe	ormation								
	Event	Display Ter	nperature								
8	Storage	Face Frame	e 🗌 Face Tempera	ature 🔲 Display F	ace Temperature Position						
8	Temperature Screening			[Operation Guide	Configuration	Targeting	~			
	Basic Settings	196- <u>112</u> -2020 Fri	n han		/	Face Detection Paramet	ers				
	Face Capture	00-12-2020 Pr)		. /		Min. Pupil Distance	30	0			
				/		Max. Pupil Distance	401	0			
						Generation Speed		5			
						Sensitivity		5			
		1				Alarm When Temperatur.		°C			
				-//		Pre-Alarm Temperature	32	°C			~
Н	VISION	Live View	Playback	Picture	Configuration	schnology Co., Ltd. All Rights		👤 admin	👔 Help	🗗 Logout	
HI	VISION			Picture	Configuration	ormology Go., Liu. Air regna		👤 admin	Help	E+ Logout	^
	Local	Basic Settings	Temperature Scree	Picture ening Configuration	Configuration Linkage Method	uniongy du, cai za ragna		1 admin	🚯 Help	E+ Logout	^
	Local System	Basic Settings	Temperature Scree	Picture ening Configuration	Configuration	onrody do, cai an rugha		👤 admin	🗿 Help	E+ Logout	^
□ ©	Local System Network	Basic Settings Channel No. Overlay Infe	Temperature Scree	Picture ening Configuration	Configuration Linkage Method	onnongy oo, cur Air regina		👤 admin	Help	[→ Logout	^
□ ₽	Local System Network Video/Audio	Basic Settings Channel No. Overlay Info Display Ter	Temperature Scree Camer	Picture ening Configuration a 02	Configuration Linkage Method	undagy oo, cur Ar regins		1 admin	🕜 Help	E* Logout	^
© •	Local System Network Video/Audio Image	Basic Settings Channel No. Overlay Info Display Ter	Temperature Scree Camer	Picture ening Configuration a 02	Configuration Linkage Method	undogy oo, cur Ar regins		2 admin	Help	[⇒ Logout	^
□ ₽	Local System Network Video/Audio Image Event	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Temperature Scree Camer	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters		1 admin	Help	E• Logout	~
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters	orrection		() Нер	E+ Logout	^
© •	Local System Network Video/Audio Image Event Storage Temperature Screening	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters Distance	2	m	Help	E• Logout	
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters Distance Temperature	2 40		Heip	E• Logout	~
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage Temperature Screening Basic Settings	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters Black Body Parameters Enable Black Body Ca Distance Temperature Emissivity	2 40 0.97	m	Heip	E• Logout	^
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage Temperature Screening Basic Settings	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters Distance Temperature Emissivity Body Temperature Com	2 40 0.97	m	Help	E+ Logout	
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage Temperature Screening Basic Settings	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters ☐ Enable Black Body Co Distance Temperature Emissivity Body Temperature Com ☑ Enable	2 2 40 0.97 pensation	mm	Help	E• Logout	
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage Temperature Screening Basic Settings	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters ☐ Enable Black Body Co Distance Temperature Emissivity Body Temperature Com ☑ Enable Compensation Type	2 40 0.97 pensation Auto	m rc	Help	E Logout	
□ \$ 11 11 11 11 11 11 11 11 11 11 11 11 1	Local System Network Video/Audio Image Event Storage Temperature Screening Basic Settings	Basic Settings Channel No. Overlay Info Display Ter Face Fram	Camer Camer ormation mperature e _ Face Tempera	Picture ening Configuration a 02 ature I Display F.	Configuration Linkage Method	Black Body Parameters ☐ Enable Black Body Co Distance Temperature Emissivity Body Temperature Com ☑ Enable	2 2 40 0.97 pensation	mm	Help	E+ Logout	

The actual effect after configuration is as follows:

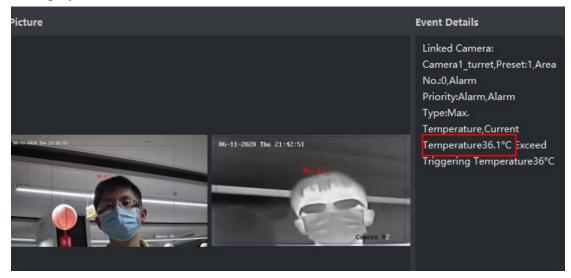


3. Add an option of whether to display the temperature value in the event details:



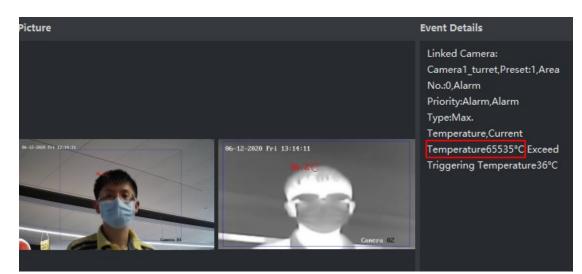
HI	KVISION	Live View	Playback	Picture	Configuration				👤 admin	👔 Help	E+ Logout	
Ţ	Local	Basic Settings	Temperature Scree	ening Configuration	Linkage Method							^
	System	Enable Tem	nperature Measureme	nt								
Ð	Network	Display Ten	nperature Info. on Stre	eam								
Q.	Video/Audio	Add Origina	al Data on Capture									
i.a	Image	Add Origina	al Data on Stream									
Ē	Event	Display Ten	nperature in Alarm Infe	0								
	Storage	Data Refresh Ir			✓ s							
<u>ل</u>	Temperature Screening	Unit		e Celsius(°C)	~							
	Basic Settings	Temperature R			~							
· · ·	Face Capture	Version	V2.0.8t	build20200429								
		Target Ther	rmographic Paramet	ers								
		Emissivity	0.98									
		Distance Mode	Self-Ad	daption	\checkmark							
		Distance	2		m 🥑							
		Ē	Save									~
					©2020 Hikvision Digi	ital Technology Co., L	td. All Rights Reserve	ed.				

If **Display Temperature in Alarm Info** is checked, the temperature information will be displayed in the event details, as shown below:



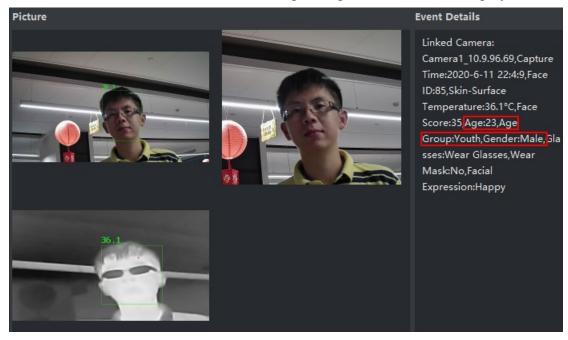
Otherwise, the temperature information will not be displayed in the event details, as shown below:

Please note: The temperature shown below is 65535 °C, which is the 4200 bug of current version. A new version (expected June 20) will be issued later to fix this problem. After that, the temperature value will not be displayed.



4. Optimization of face capture information display:

In addition to mask detection information, age and gender will also be displayed.



If the customer does not need to display the above feature information, do not check **Upload Feature**:

Please note: Mask detection information also belongs to facial features. If **Upload Feature** is not checked, mask detection information will not be uploaded.



HIKVISION	Live View Playbac	k Picture	Configuration			👤 admin	👔 Help	E+ Logout	
🖵 Local	Overlay & Capture Shield	Region Advanced Config	guration						^
System	Face Capture Version	V1.1.0build20200214							
Network	Capture Parameters								
Video/Audio	Upload Feature								
🔝 Image	Best Shot								
Event	Capture Times	0	= 1						
Storage	Capture Threshold		20						
Temperature Screening	V Quick Shot								
Basic Settings	Quick Shot Threshold	0	= 70						
Face Capture	Max. Capture Interval	0	5 s						
	Capture Times	○ Unlimited ● L	imited 1						
	Facial Posture Filter								
	Rotational Angle-Left		70						
	Rotational Angle-Right		70						
	Deflection Angle-Upper		50						
	Deflection Angle-Lower		50						~
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- 5. Solve the problem of missing detection when a large number of faces (more than 20 faces) appear at the same time in the previous version.
- 6. Solve the problem of ghosting in face capture when WDR is turned on in previous version as shown below:



7. Solve the problem of ineffectiveness of **Facial Posture Filter** in the previous version of Quick Shot mode (Even in Quick Shot mode, if the face does not meet the threshold value set by **Facial Posture Filter** at any time, the capture will not be performed; In previous versions, only Best Shot mode does this).



HIKVISION	Live View Playbac	k Picture	Configuration			👤 admin	🚯 Help	E+ Logout
🖵 Local	Overlay & Capture Shield	Region Advanced Confi	guration					^
System	Face Capture Version	V1.1.0build20200214						
Network	Capture Parameters							
Uideo/Audio	Upload Feature							
🔝 Image	Best Shot							
Event	Capture Times	0	1					
Storage	Capture Threshold		20					
Temperature Screening	V Quick Shot							
Basic Settings	Quick Shot Threshold	0	70					
Face Capture	Max. Capture Interval	0	5 s					
	Capture Times	○ Unlimited ● I	imited 1					
	Facial Posture Filter							
	Rotational Angle-Left		70					
	Rotational Angle-Right		70					
	Deflection Angle-Upper		50					
	Deflection Angle-Lower		50					~
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The upgraded contents in the last version V5.5.26_200507 are as follows.

- 1. We updated **English** audio files of **Temperature Measurement** and **No Wearing Mask** alarm for devices with /PA. The pronunciation is more standard and accurate.
- 2. We now offer an option of **Italian** for **Temperature Measurement** alarm sound.

HIKVISION	Live View	Playback	Picture	Configuration
Local	Motion Detection	Video Tampering	Alarm Input	Alarm Output Excep
System	Alarm Type	Temper	ature Measuremer	nt 🗸
Network	Alarm Sound Ty	pe Italian: /	Attenzione! Anoma	lia 1 🗸
Video/Audio	Alarm Times	1		
🔝 Image	Sound Volume		0	100
Event	Arming Sched	ule		
Basic Event	🗙 Delete	iii Delete All		
Smart Event	0	2 4	6 8 10	12 14

Note:

You can choose different alarm sound other than English for **Temperature Measurement**. But English is the only choice for **No Wearing Mask** alarm sound.

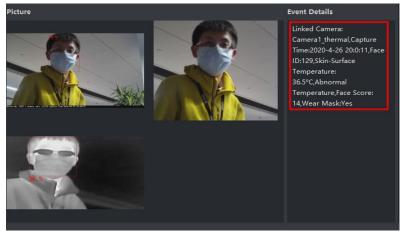
The upgraded contents in the last version V5.5.26_200427 are as follows.

1. We updated some descriptive words of the Web interface. For example, we will use *Temperature Screening* instead of *Body Thermography*.

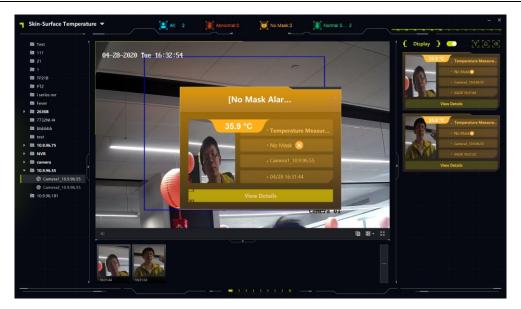


HIKVIS	SION	Live View	Playback	Picture	Configuration	
🖵 Local	I	Upgrade & Main	tenance Log	System Service	VCA Resource Type	Security Audit Log
🗂 Syste	əm	VCA Reso	urce Configuratio	'n		
Syste	m Settings	○ Temperatu	re Measurement			
Maint	tenance	 Temperatu 	re Screening			
Secu	rity					
User	Management	B	Save			
🚱 Netw	vork					
₽ . Video	o/Audio					
🔝 Imag	е					
Even	t					
💾 Stora	age					
🕹 Temp	perature Screening					

- 2. Optimization of temperature measurement algorithm, specifically reflected in:
 - ① Sharp temperature variations caused by side faces or low temperature is fixed
 - ② The issues that measured temperature is lower than expected, caused by background compensation algorithm embedded in the last version, is now fixed
- 3. Support Mask detection, Pay attention that as for device with "/PA" module, audio warning is supported; for device with "/P" module, alarm out linkage is supported. In addition, all the alarm linkages are disabled by default.







HI	KVISION	Live View	Playback	Picture	Configuration	
Ç G	Local System Network	Overlay & Capture	Version V1.1.0b	Advanced Config	juration	
\$. 21 22 23 24 24 24 24 24 24 24 24 24 24 24 24 24	Video/Audio Image Event Storage Temperature Screening Basic Settings Face Capture	Upload F Upload	eature t t ess od t hreshold ess Un threshold ess Un ngle-Left ngle-Left ngle-Lever		 1 20 5 s 70 70 70 50 50 	ige.
		No Wearing	l Linkage	evice Mod	el with "/P	۹."
\$	Temperature Screen Basic Settings	ing		ng Mask Linka	_]
	Face Capture		☐ A->1 ☑ A->2	ger Alarm Out		

4. The Logic of face capture is optimized, and add **Best Shot** Mode additionally. The Program logic are set as following:

Quick Shot:



When one of the following conditions is met, face picture will be captured and uploaded immediately:

(1) when people enter into the detection area, meanwhile, the captured image quality meets the threshold, and the snapshot which meets the conditions will be uploaded immediately;

(2) when people enter into the detection area, if the duration exceeds the maximum capture time, during which the face image does not reach the capture threshold, the image with the highest quality will be uploaded;

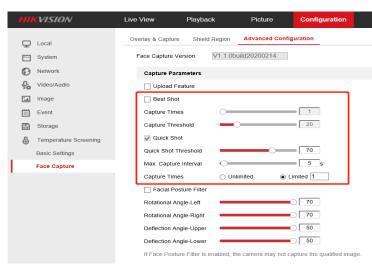
③ The time from entering to leaving the detection frame is shorter than the maximum capture time. If the face image does not reach the capture threshold during this period, the image with the highest quality will be uploaded;

④ When the temperature trigger the alarm, face picture will be captured and uploaded immediately.

Best Shot:

When one of the following conditions is met, face picture will be captured and uploaded immediately:

- If the image quality reaches the Capture Threshold, when the object leaves the detection region, face picture with highest face quality score (it should reach the Capture Threshold, otherwise no picture would be uploaded) will be uploaded immediately;
- 2 When the temperature trigger the alarm, face picture will be captured and uploaded immediately.



Notes:

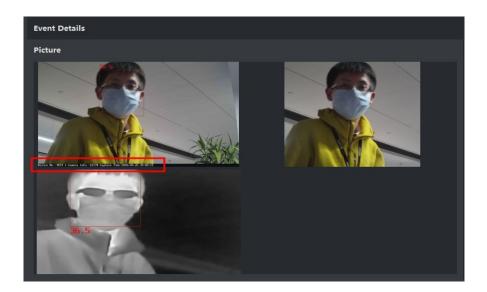
① As for some situations like someone comes into the detection area with normal temp. for some reasons, while, as long as his temp. is abnormal before he leaves the detection area. Alarm will also be triggered. Hence, in this situation two pictures



will be uploaded, one for normal, another for abnormal, to reduce the missing alarms.

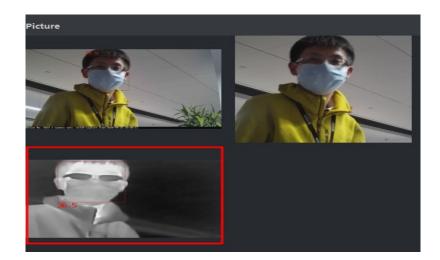
- ② Best Shot and Quick Shot can be enabled at the same time, they will work independently. While as recommended capture times is 1 for 1 person, it will lead to a problem that two pictures will be uploaded to the back-end. Hence, we highly recommend to use one mode at one time.
- ③ As the default parameters of this part have been changed, do remember to restore the device after upgrading to this version.
- 5. In order to increase the success rate of comparison in the back-end devices, the quality of the snapshot picture is increased.
- 6. **Device No. Capture Time** and **Camera Info.** could be overlaid on the picture according to customer's needs.

	KVISION	Live View Playback Picture Configuration	
		Display on Picture	
Ţ	Local	Display Target Info. on Alarm Picture	
	System	Snapshot Settings	
Ð	Network	Target Picture Settings	
₽.	Video/Audio	Custom	Width
14	Image	Target Picture Size	
	Event	Width: Facial Width × 3	
	Storage	Head Height: Facial Height × 2	
\$	Temperature Screening	Body Height: Facial Height × 1	
	Basic Settings	Fixed Value Picture Height 100 pixel	
	Face Capture	Background Picture Set	
		Picture Quality Low	Diagram
		Picture Resolution 1080P(1920*1080)	
		Background Upload	
		Camera	
		Device No. TEST 1	
		Camera Info. 1217B	
		Text Overlay	
		Device No. Capture Time Camera Info.	
		Туре	Sorting
		Device No.	÷ +
		Camera Info.	+ +
		Camera mio.	





7. Thermal alarm images are added in the uploading pictures.





The upgraded contents in the last version V5.5.26_200415 are as follows.

Note:

There are no differences on the UI of 200415 compared with the former version 200330.

- 1. The forehead-first rule of temperature measurement algorithm is improved to increase the accuracy and stability of the measurement. The temperature jump phenomenon are reduced thanks to these improvements.
- 2. Improved the temperature measurement accuracy when the device is used in environment background with high temperature (like 30°C in a tent) by embedding background temperature compensation algorithm.
- 3. Some UI display problems of minority languages and linguistic bugs are fixed.

The upgraded contents in the last version V5.5.26_200330 are as follows.

- 1. Change to forehead thermometer to show the highest temperature on the forehead area acquiescently. Reduce false alarms caused by corners of the eyes, corners of the mouth and hot objects in the background.
- 2. PA device alarm voice supports the selection of other languages (Japanese, Korean, Arabic, Turkish, Russian, French, Spanish, Italian)

Contractor of the local division of the loca	Live View	_	Play	back		Picture		Config	uration						+
Local	Motion De	Hection	Vide	eo Tampe	êring	Alarm In	put /	Alarm Out	put E	xcepton	Flas	hing Alar	m Light C	Audible Alarm Output	-
System	Alarm T	уре		Ter	mperatur	e Measu	rement	•							
Network	Alarm Sound Type Alarm Times			Japanese: Body temperature a * Temperature is abnormal, please check Cantonese: Body temperature exceeds, please wat											
Video/Audio															
Image	Sound Volume			Russian: Pay attention, high temperature French: Abnormal temperature, please check											
1 Event	Arming Schedule			Jap	Japanese: Body temperature abnormal Korean: Body temperature abnormal										
Basic Event				Tur											
Smart Event		1111	111		anish: Te	mperatu	re alarm	please	check						
Storage	Mon	0	2	4	6	8	10	12	14	16	16	20	22	24	
Body Thermography	Tue	0	2	4	6	θ	10	12	14	16	18	20	22	24	
	Wed	0	2	4	6	8	10	12	14	16	16	20	22	24	
		0	2	4	8	8	10	12	14	18	18	20	22	24	
	Thu	-	1233	11111	1114	11115	177774				Reterre		14505245		
	Fri	0	2	4	B	8	10	12	14	16	18	20	22	24	
		0	2	1	6	8	10	12	14	16	18	20	22	24	
	Sat	-	THE		131373	11111	-	11111			antesta	-		23	
	Sun	0	2	4	6	8	10	12	14	15	18	20			

3. Add distance measurement mode: Self-adaption and Fixed Distance. The Self-adaption mode would calculate the temperature compensation according to the pupil distance when a face is detected, and calculate the temperature compensation value according to the fixed distance when the side face exceeds 1 second. Caution: At present, Self-Adaption mode could cause abnormal temperature measurement when a side face appears. Please ensure that the measured people is always faced to the camera, Otherwise, please use Fixed Distance mode



	Distance Mode	Self-Adaption 8	m							
	Emissivity	0.98								
	Target Thermograph	by Daramotore								
Face Capture	Version	Version V2.0.8build20200327								
Body Thermography Basic Settings	Temperature Range	30.0~45.0	\sim							
	Unit	Degree Celsius(°C)	~							
	Data Refresh Interval	3	✓ s							
Storage	Add Original Data on	Add Original Data on Stream								
Event	Add Original Data on	Add Original Data on Capture								
Image	Display Temperature	Display Temperature Info. on Stream								
Video/Audio	Enable Color-Temper	 Enable Temperature Measurement Enable Color-Temperature 								
D Network										
System	Channel No.	Camera 01	\sim							

4. Face capture function (Upload Captured Face Image) in overseas devices is not enabled as default.