

Thermal Network Bullet/Turret Camera

Version:V5.5.16 build190307

Release Note

(2019-4-8 External)

1. General Information

Firmware Version	V5.5.16 build 190307
SDK Version	V6.0.0.20 build 20181207
Play Lib	V7.3.6.70 build 20181115
iVMS-4200	V2.6.13.5 build 20181210
Web Component/ Plugin Version	V3.0.7.8 build 190107
VCA Algorithm Version	V3.3.1 build 20181126
Fire Detection Algorithm Version	V2.7.1 build 20180911
MCU Version	AF_MCU_VERSION:20190108
B6 Module Version for 2166V1, 2866	FPGA_VERSION:V4.03.10,FPGA_BUILD:BUILD20190105 APP_VERSION:V4.03.11,APP_BUILD:BUILD20190108
B3 Module Version for 2136V1, 2836, 2636	FPGA_VERSION:V4.02.10,FPGA_BUILD:BUILD20190105 APP_VERSION:V4.02.10,APP_BUILD:BUILD20190108
F3 Module Version for 2137V1	FPGA_VERSION:V3.00.05,FPGA_BUILD:BUILD20180912 APP_VERSION:V3.00.05,APP_BUILD:BUILD20180912

F1 Module Version for 1217V1, 2117V1, 2617V1	FPGA Version = 0x10402,FPGA build time = 0x20190102
D1 Module Version (AGC4.0) for 2615	FPGA_VERSION:V4.00.20,FPGA_BUILD:BUILD20181116 APP_VERSION:V4.00.2f,APP_BUILD:BUILD20181116

2. Supported Model

160Dual Lens Turret	DS-2TD1217-2/V1	DS-2TD1217-6/V1
	DS-2TD1217-3/V1	
160 Single Lens Bullet	DS-2TD2117-3/V1	DS-2TD2117-6/V1
160 Dual Lens Bullet	DS-2TD2617-3/V1	DS-2TD2617-6/V1
V1 Single Lens Bullet	DS-2TD2136-4/V1	DS-2TD2166-25/V1
	DS-2TD2136-7/V1	DS-2TD2166-35/V1
	DS-2TD2136-10/V1	DS-2TD2137-7/V1
	DS-2TD2136-15/V1	DS-2TD2137-10/V1
	DS-2TD2136-25/V1	DS-2TD2137-15/V1
	DS-2TD2136-35/V1	DS-2TD2137-25/V1
	DS-2TD2166-7/V1	DS-2TD2137-35/V1
	DS-2TD2166-15/V1	
Dual Lens Bullet	DS-2TD2836-25	DS-2TD2866-25
	DS-2TD2836-50	DS-2TD2866-50
V1 Dual Lens Bullet	DS-2TD2836-25/V1	DS-2TD2866-25/V1
	DS-2TD2836-50/V1	DS-2TD2866-50/V1
Dual Lens Bullet	DS-2TD2615-7	DS-2TD2636-15
	DS-2TD2615-10	DS-2TD2636-10
VP Bullet	DS-2TD2137-7/VP	DS-2TD2137-25/VP
	DS-2TD2137-10/VP	DS-2TD2137-35/VP
	DS-2TD2137-15/VP	

3. V5.5.16 Key Updates

3.1 Added Function

1. Add NC and NO mode for Alarm Output:

When the camera is in NO mode, the relay is default to be disconnected, if there is an alarm signal, the relay get connected.

When the camera is in NC mode, the relay is default to be connected, if there is an alarm signal, the relay will be disconnected.

HIKVISION Live View Playback Picture **Configuration**

Motion Detection Video Tampering Alarm Input **Alarm Output** Exception

Alarm Output No. A->1 IP Address Local

Delay 5s Alarm Name

Alarm Status OFF (cannot copy)

Alarm Type **NO** NC

Arming Schedule

Delete Delete All

Mon 0 2 4 6 8 10 12 14 16 18 20 22 24

Tue 0 2 4 6 8 10 12 14 16 18 20 22 24

Wed 0 2 4 6 8 10 12 14 16 18 20 22 24

Thu 0 2 4 6 8 10 12 14 16 18 20 22 24

Fri 0 2 4 6 8 10 12 14 16 18 20 22 24

Sat 0 2 4 6 8 10 12 14 16 18 20 22 24

Sun 0 2 4 6 8 10 12 14 16 18 20 22 24

2. Add Background Interference Suppression option for each rule in VCA function:
After enabling the option, it will reduce the false alarms caused by the waving grass effectively when the wind is strong.

HIKVISION Live View Playback Picture **Configuration**

Rule Arming Schedule Alarm Linkage

Rule List

Enable	No.	Rule Name	Rule Type
☒	1		Line Crossing
☐	2		

Filter by Pixel

Max. Size 0 * 0 (W*H)

Min. Size 0 * 0 (W*H)

Sensitivity 50

Line Crossing Bidirectional

Detection Target Human & Vehicle

Background Interference **ON** OFF Self-Adaptive

09-24-2018 Mon 06:56:18

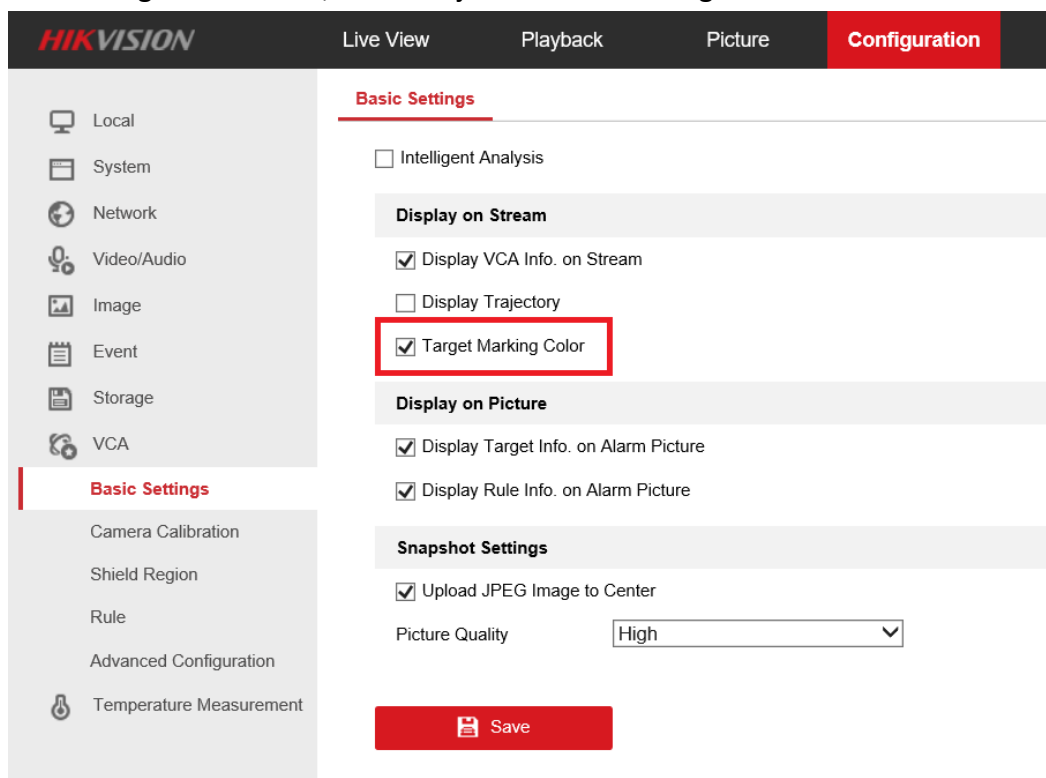
3. Add two parameter relevant to Fusion:
Image Fusion Ratio: Adjust the lightness ratio of the optical image and thermal image.
1 represents pure optical image, and 100 means pure thermal image.
While the color partition is always pure thermal.
Border Fusion Ratio: Adjust the edge information ratio of optical image and thermal image.



4. Add Target Marking Color:

After ticking it, the object frame will display in orange color which is sorted as a Human, and objects sorted as Vehicle will display in purple. Other objects neither Human nor Vehicle will be in green.

If disabling this function, all the object frames will be green.



5. Add Smoking Detection:

Support models include DS-2TD1217-2/3/6V1, DS-2TD2117-2/3/6V1, DS-2TD2617-3/6V1

5.1 Explanation of Parameters:

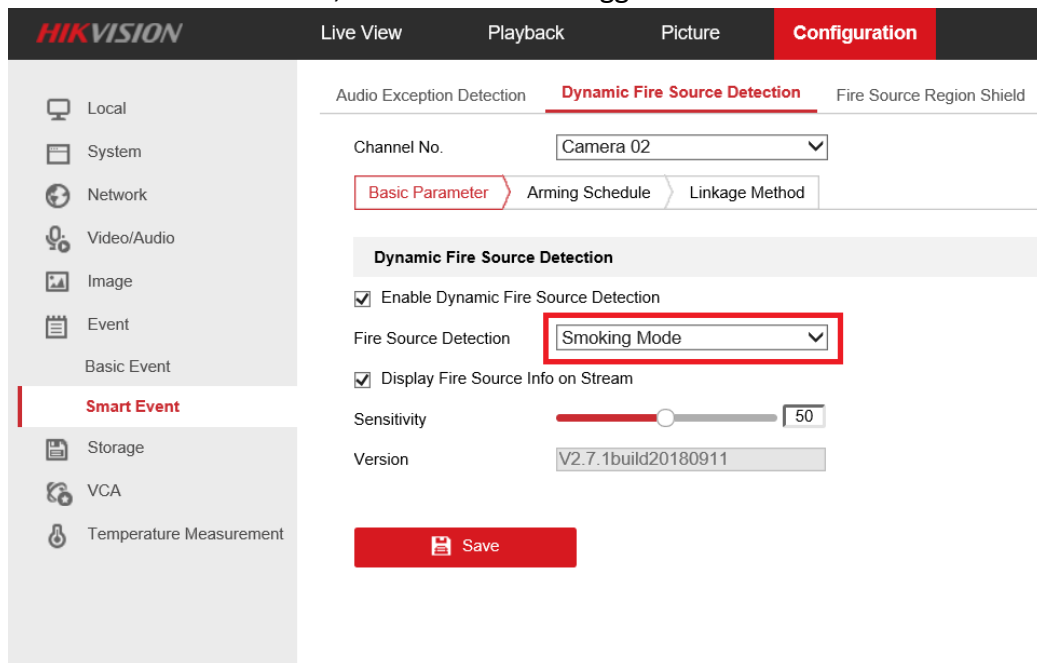
Sensitivity:

The range is 1~100, and the corresponding temperature range is 180~80 °C.
Sensitivity is 50 by default, the temperature threshold is 100°C

5.2 Principle Knowledge:

Each sensitivity corresponds to a temperature threshold, and each temperature threshold corresponds to a gray scale.

The algorithm will traverse the gray scale of each pixel, if more than 10 pixels exceed the threshold, the alarm will be triggered.



6. Support HEOP2.0:

The open platform is upgraded to the 2.0 version to improve the product security, such as limiting the max RAM and max CPU offered to the third party, not access to do frequent flash reading and writing, the third party program can't attack the network via the device.

7. Upgrading Optimization: From V5.5.16, H3 platform product will distinguish the upgradation package.

IPTCS: DS-2TD1217-2/V1, DS-2TD1217-3/V1, DS-2TD1217-6/V1, DS-2TD2617-3/V1, DS-2TD2617-6/V1, DS-2TD2836-25/V1, DS-2TD2836-50/V1, DS-2TD2866-25/V1, DS-2TD2866-25/V1

IPHC: Others

3.2 Optimized Function

1. Behavior Analysis Algorithm Optimization:

- (1)The frame of detected object is shrunk and get closer to the actual size of objects
- (2)The algorithm model in near is optimized, and it will reduce more false alarms caused by animals/leaves.
- (3)Leaves false alarms optimization

2. Intelligent Configuration Optimization:

The switches of Temperature Measurement, Fire Detection, and Behavior Analysis are both disabled by default.

The screenshot shows the Hikvision Configuration interface. The top navigation bar includes 'Live View', 'Playback', 'Picture', and 'Configuration'. The left sidebar lists various settings categories: Local, System, Network, Video/Audio, Image, Event, Storage, and VCA. The 'Temperature Measurement' option is selected and highlighted in red. The main content area is titled 'Basic Settings' and includes the following fields:

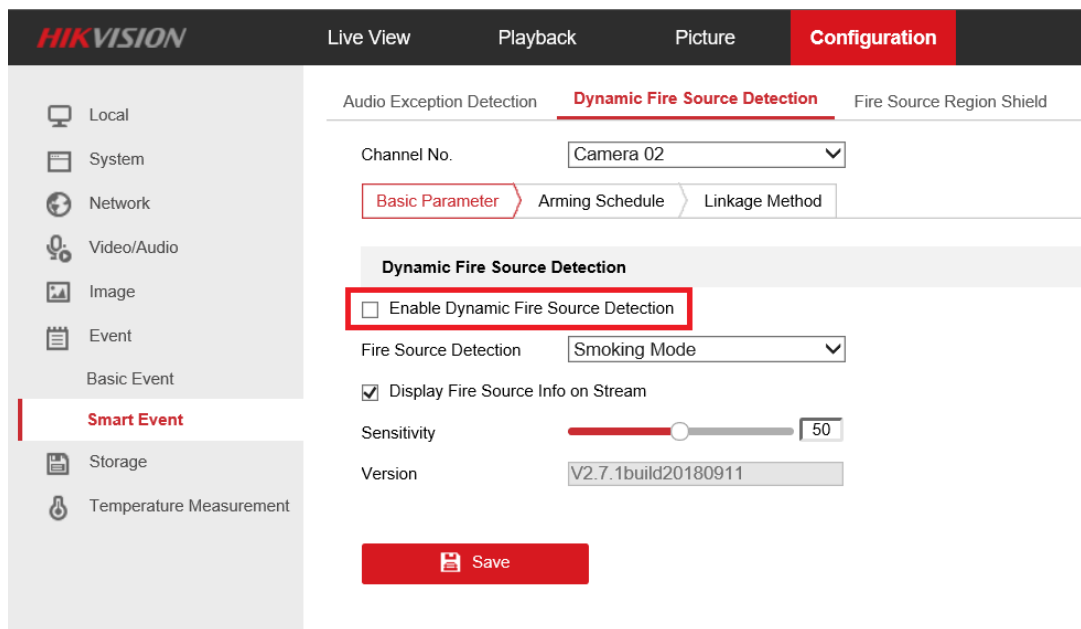
- Channel No.: Camera 02
- ☐ Enable Temperature Measurement (highlighted with a red box)
- ☐ Enable Color-Temperature
- ☒ Display Temperature Info. on Stream
- ☐ Add Original Data on Capture
- ☐ Add Original Data on Stream
- Data Refresh Interval: 3 s
- Unit: Degree Celsius(°C)
- Temperature Range: -20.0~150.0
- Version: V2.0.2build20180912

A red 'Save' button is located at the bottom of the configuration area.

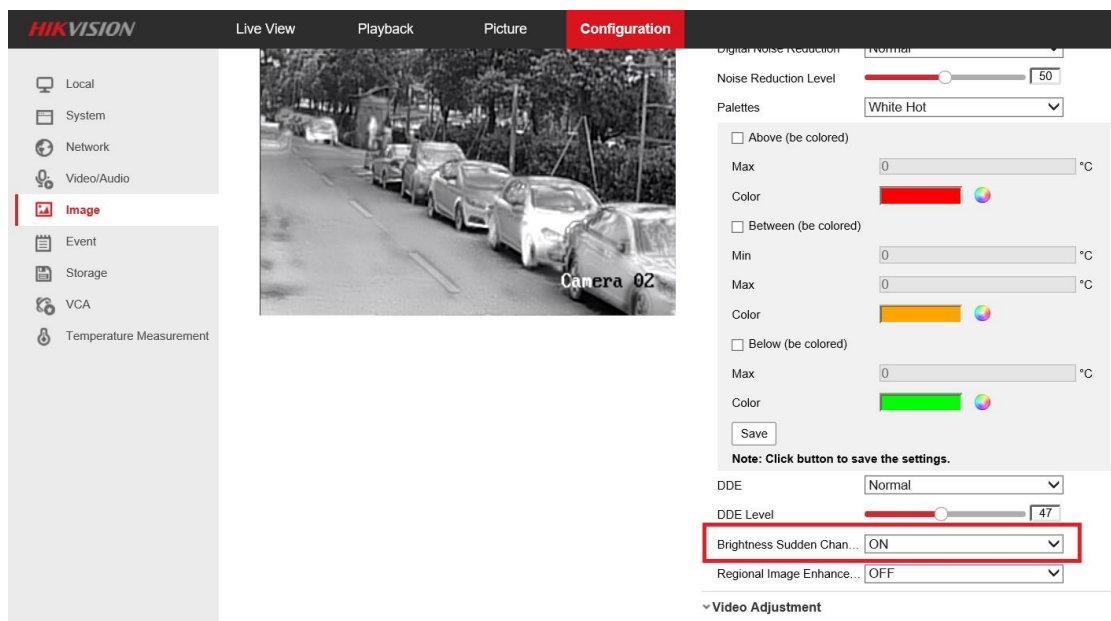
The screenshot shows the Hikvision Configuration interface with the 'Intelligent Analysis' option selected and highlighted in red in the left sidebar. The main content area is titled 'Basic Settings' and includes the following sections:

- ☐ Intelligent Analysis (highlighted with a red box)
- Display on Stream**
 - ☒ Display VCA Info. on Stream
 - ☐ Display Trajectory
 - ☐ Target Marking Color
- Display on Picture**
 - ☒ Display Target Info. on Alarm Picture
 - ☒ Display Rule Info. on Alarm Picture
- Snapshot Settings**
 - ☒ Upload JPEG Image to Center
 - Picture Quality: High

A red 'Save' button is located at the bottom of the configuration area.



3. The max resolution of optical channel for DS-2TD1217-2/V1 is changed to 1600*1200 from 1920*1080.
4. The Lightness Sudden Change Suppression function is available for both Temperature Measurement+Behavior Analysis mode and Temperature Measurement+Fire Detection mode.



5. The devices with D1 module(DS-2TD2615-7/10)support AGC4.0 algorithm.
6. For 160 Bi-Spectrum Turret(DS-2TD1217-2/3/6V1), Details Overlay function is enabled by default.

4. Compatibility List

Thermal cameral Version	V5.5.16 build 190307				
Test equipment	Milestone	Mirasys	Seetec	ONSSI	Axxonsoft
Version	Milestone XProtect series with Corporate 2017 R2	VMS Enterprise, VMS Pro	Cayuga R10	Ocularis 5.4(5.4.0.128)	Intellect 4.10.1
Live view(display VCA info)	√	×	×	×	√
Live view(display Fire point info)	×	×	×	×	×
Live view(display Temperature info)	×	√	×	×	×
Receive VCA Alarm info	√	√	√	√	√
Receive Dynamic Fire Detection info	√	√	×	×	×
Receive Temperature info	√	√	×	×	×
Tips	1. The integration with milestone of fire detection and temperature measurment will be finsih in Q3. 2. All thermal cameras support Onvif. 3. We have integrated with Mirasys to provide professional solution such as temperature analysis and historical analysis. 4. We integrated with milestone to show the VCA info by metedata, and the integration of different version of Milestone is as belwo.				

Thermal cameral Version	V5.5.16 build 190307					
Test equipment	IVMS-5200E	iVMS-4200	I series NVR	I series NVR	IE explorer	HIK central
Version	V3.3	V2.6.13.5 build 20181210	DS-96XX-I16 NVR V4.1.50 180227	DS-96XX-I16 V3.4.95 customized	IE7+	V1.1.1
Live view(display VCA info)	√	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Live view(display Fire point info)	×	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Live view(display Temperature info)	×	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Remote setup VCA rules (Line Crossing,Intrusion,Region Entrance,Region Exiting)	×	√	√(Web)	√(4200, Web)	√	√ (Software associated with the browser to configure)
Setup Dynamic Fire Detection	×	√	√(4200, only support linkage)	√(4200)	√	√ (Software associated with the browser to configure)
Setup Temperature Measurement	×	√	√(4200, only support linkage)	√(4200)	√	√ (Software associated with the browser to configure)
Receive VCA Alarm info	√	√	√(4200)	√(Web,4200,Local GUI)	×	√
Receive Dynamic Fire Detection info	×	√	√(4200)	√(Web,4200,Local GUI)	×	√
Receive Temperature info	×	√	√(4200)	√(Web,4200,Local GUI)	×	√
Playback(display VCA info)	√	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Playback(display Fire point info)	×	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Playback(display Temperature info)	×	√	√(Web,4200)	√(Web,4200,Local GUI)	√	√
Tips	1. NVR local interface does not support info display. 2. Download address for IVMS 4200:ftp://hikftp.hikvision.com:400/Product File(Overseas)/03 Softwares & Tools/1 IVMS-4200/15) IVMS-4200 V2.6.0.3(English)/					