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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GA/T 1399.2-2017

**Video and image analysis system for public security-Part 2:
Technical specifications for analysis and description of video
and image content**

公安视频图像分析系统 第2部分：视频图像内容分析及描述技术要求
(English Translation)

Issued on: May 31, 2017

Implemented on: May 31, 2017

Issued by: Ministry of Public Security

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Foreword

GA/T 1399 "Public Security Video Image Analysis System" is divided into the following 5 parts.

---Part 1: General technical requirements;

---Part 2: Video image content analysis and description technical requirements;

---Part 3: Technical requirements for video image enhancement and restoration;

---Part 4: Video image retrieval technical requirements;

---Part 5: Inspection specifications.

This part is part 2 of GA/T 1399.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This part is proposed by the Science and Technology Information Bureau of the Ministry of Public Security.

This part is under the jurisdiction of the National Standardization Technical Committee for Security and Alarm System (SAC/TC100).

Drafting organizations of this section. The First Research Institute of the Ministry of Public Security, Beijing Zhongdun Security Technology Development Company, National Security Alarm System Product Quality Quality Supervision and Inspection Center (Beijing), Dongfang Netpower Technology Co., Ltd., Zhejiang Yushi Technology Co., Ltd., Zhejiang Dahua Technology Co., Ltd.

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1 Scope

This part specifies the application process and functional composition, function, and performance of the video image content analysis and description in the public security video image analysis system.

Technical requirements such as data description for analysis and data of video image content.

This part is applicable to the planning and design, software development, testing and acceptance of public security video image analysis system, and video image analysis in

other fields.

The analysis system can be used for reference.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 28181-2016 Technical requirements for information transmission, exchange and control of public security video surveillance networked systems GB/T 30147-2013 Technical requirements for real-time intelligent analysis equipment for security surveillance video GB 50198-2011 Civil closed circuit surveillance television system engineering technical specifications GA 802-2014 Motor Vehicle Type Terms and Definitions GA/T 833-2016 Technical Specification for Automatic Recognition of Motor Vehicle Number Plate Image GA/T 1154.2-2014 Video Image Analyzer Part 2: Video Image Abstract Technical Requirements GA/T 1399.1-2017 Public Security Video Image Analysis System Part 1: General Technical Requirements GA/T 1400.1-2017 Public Security Video Image Information Application System Part 1: General Technical Requirements GA/T 1400.3-2017 Public Security Video Image Information Application System Part 3: Database Technical Requirements

3.1 Terms and definitions

GA/T 1399.1-2017, GA/T 1400.1-2017 and GB/T 30147-2013 and the following terms and definitions Applies to this document.

3.1.1

True positive

The target or event that should be detected appears in the video image, and the video image analysis system outputs the correct detection result.

3.1.2

Falsenegative

The target or event that should be detected appears in the video image, but the video image analysis system does not output the correct detection result.

3.1.3

False positive

The target or event that should be detected does not appear in the video image, but the video image analysis system outputs the detection result.

5.6 Video summary

5.6.1

It should be supported to remove the redundant part of the video that is not of interest, keep the concerned part, and generate a new video file.

5.6.2

Should support the reconstruction of the target video images at different time points in the same video screen to generate new video files.

5.6.3

The format of the newly generated video file should conform to the format specified in GB/T 28181-2016.

6.1 Video quality

The quality of the input video image should reach level 4 or above described in 5.4.3 of GB 50198-2011.

6.2.1 Moving target detection

For the detection of moving objects in the video that are larger than (16x16) pixels and speed greater than 1 pixel/frame, the following requirements should be met.

- a) The detection rate should not be less than 95%;
- b) The false detection rate should not be higher than 15%.

6.2.2 Target color detection

For the detection color of the target area larger than (32x32) pixels in the video image collected under good lighting conditions, it should meet the following Claim.

- a) The recognition accuracy of pink, red, orange, yellow, green, blue, and purple colors should not be less than 80%;
- b) The recognition accuracy of black, white, gray and brown colors should not be less than 70%.

6.2.3 Pedestrian detection

For pedestrian detection larger than (32x64) pixels in the video image, the following requirements should be met.

- a) The detection rate should not be less than 90%;
- b) The false detection rate should not be higher than 10%.