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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 30147-2013

Technical requirements for real time intelligent video analysis devices in surveillance system

安防监控视频实时智能分析设备技术要求

Issued on: December 17, 2013 **Implemented on: August 1, 2014**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine;
Standardization Administration of the PRC

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1 Scope

China's national standard for real-time intelligent video analysis devices used in security surveillance. It specifies the functions, the performance, the physical and software interfaces, the electromagnetic compatibility, the environmental adaptability, the test methods and the inspection rules for such devices, and it applies to real-time intelligent

video analysis equipment used in security monitoring and to cameras that carry the analysis function on board; devices used in other fields may refer to it. The device the standard describes is one that watches a video stream and produces, in real time, a structured description of what is happening in it: a moving target detected, an object left behind, an object removed, a line crossed, an area entered, movement against the permitted direction, loitering, a count of people or vehicles passing, a crowd density estimate, and a classification of the detected target. Each of those is defined as a function with a measurable detection rate and false alarm rate under specified conditions, which is the part of the document that matters commercially, because before it was written every supplier quoted accuracy on its own terms and no two figures could be compared. The second half is equally important and less obvious: the standard defines the video description data the device outputs, in XML, together with the data types, the coordinate system, and the rule and rule capability set structures by which a device declares what it can be asked to do and is configured to do it. That is what allows an analysis device from one supplier to be driven by, and to report into, a platform from another. Issued on 17 December 2013 and in force since 1 August 2014.

This standard specifies the functions, performance, interfaces, electromagnetic compatibility, environmental adaptability, and testing of real-time intelligent analysis equipment for security surveillance video Methods, inspection rules, etc. This standard applies to video real-time intelligent analysis equipment used in security monitoring, cameras and cameras with real-time intelligent video analysis functions Real-time intelligent video analysis devices used in other fields 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 191-2008 Graphical signs for packaging, storage and transportation

GB/T 2421.1-2008 Overview and Guidelines for Environmental Testing of Electrical and Electronic Products

GB/T 2423.1-2008 Environmental testing of electric and electronic products Part

3.1 Terms and definitions The terms and definitions defined in

GB/T 25724-2010 and the following terms and definitions apply to this document.

4.3.2 Digital video input interface The equipment should have a digital video input interface, and the connection interface should adopt BNC (corresponding to SDI signal transmission) interface mode.

4.3.3 Analog video output interface The equipment should have an analog composite video output interface, and the connection port should adopt BNC (corresponding to analog composite signal transmission) interface mode.

4.3.4 Digital video output interface The equipment should have a digital video output interface, and the connection interface should adopt BNC (corresponding to SDI signal transmission) interface mode.

4.3.5 Alarm interface The equipment should have alarm input and alarm output interfaces.

4.3.6 Control interface The equipment should have RS-232 or RS-485 serial control interface.

4.3.7 Network interface The equipment should have at least one 10/100/1000BASE-T Ethernet port, and the connection port should adopt RJ45 interface mode.

4.3.8 Storage medium interface The device should have a storage medium interface, and the connection interface should be a USB interface or SD memory card interface.

4.4 Software interface The equipment should provide an open application development interface to support user-specific application development or customized functions.

5.1 Appearance and mechanical structure

5.1.1 Appearance The surface of the equipment should be consistent in color, without obvious deformation, scratches, permanent stains, blistering, corrosion, burr cracking, falling off, etc. There should be no rust on the surface. The description text should be clear. The equipment should be treated with surface damage prevention. Right and acute angles should be avoided or surface treatment should be used. The area where the working temperature exceeds 50°C should be clearly stated. Display warning signs.

5.1.2 Structure The equipment should have a power indicator to indicate whether the equipment is normally powered. The equipment should have an indicator light to indicate that the equipment is setting parameters. Assume The equipment should have other indicators to indicate other states of the equipment, at least it should be able to indicate the normal working status and fault status of the equipment. For equipment used indoors, its protection level A should meet the requirements of IP20 in GB 4208-2008, and level B should meet The provisions of IP32 in GB 4208-2008.Equipment used for outdoor exposure or equipment used with protective cover, its protective ability Class A should meet the requirements of IP65 in GB 4208-2008, Class B should meet the requirements of IP66 in GB 4208-2008, and Class C should meet The requirements of IP67 in GB 4208-2008.

5.2 Electromagnetic compatibility

5.2.1 Electrostatic discharge immunity The limit of electrostatic discharge immunity shall comply with the requirements of test level 3 in GB/T 17626.2-2006. During the test, the