

Australian/New Zealand Standard™

**Video surveillance systems for use in
security applications**

**Part 1.2: System requirements
— Performance requirements for
video transmission (IEC 62676-
1-2:2013, MOD)**



AS/NZS 62676.1.2:2020

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The following are represented on Committee EL-031:

- Australian Digital & Telecommunications Industry Association
- Australian Federal Police
- Australian Industry Group
- Australian Security Industry Association
- Engineers Australia
- Fire Protection Association Australia
- Insurance Council of Australia
- New Zealand Security Association
- NSW Police Force
- Queensland Police Service
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2:2013, MOD)**

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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-031, Intruder Alarm Equipment and Installations.

The objective of this Standard is to introduce general requirements on video transmission. This Standard covers the general requirements for video transmissions on performance, security and conformance to basic IP connectivity, based on available, well-known, international standards.

This Standard is an adoption with national modifications, and has been reproduced from, IEC 62676-1-2:2013, *Video surveillance systems for use in security applications — Part 1-2: System requirements — Performance requirements for video transmission*. The modifications are additional requirements and are set out in [Appendix ZZ](#), which has been added at the end of the source text.

[Appendix ZZ](#) lists the variations to IEC 62676-1-2:2013 for the application of this Standard in Australia and New Zealand.

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NOTES

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

VIDEO SURVEILLANCE SYSTEMS FOR USE IN SECURITY APPLICATIONS –

Part 1-2: System requirements – Performance requirements for video transmission

FOREWORD

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International Standard IEC 62676-1-2 has been prepared by IEC technical committee 79: Alarm and electronic security systems.

The text of this standard is based on the following documents:

FDIS	Report on voting
79/433/FDIS	79/446/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62676, published under the general title *Video surveillance systems for use in security applications*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The IEC Technical Committee 79 in charge of alarm and electronic security systems together with many governmental organisations, test houses and equipment manufacturers have defined a common framework for video surveillance transmission in order to achieve interoperability between products.

The IEC 62676 series of standards on video surveillance system is divided into 4 independent parts:

- Part 1: System requirements
- Part 2: Video transmission protocols
- Part 3: Analog and digital video interfaces
- Part 4: Application guidelines (to be published)

Each part has its own clauses on scope, references, definitions and requirements.

This IEC 62676-1 series consists of 2 subparts, numbered parts 1-1 and 1-2 respectively:

IEC 62676-1-1, *System requirements – General*

IEC 62676-1-2, *System requirements – Performance requirements for video transmission*

The second subpart of this IEC 62676-1 series applies to video transmission. The purpose of the transmission system in a Video Surveillance System (VSS) installation is to provide reliable transmission of video signals between the different types of VSS equipment in security, safety and monitoring applications.

Today VSS reside in security networks using IT infrastructure, equipment and connections within the protected site itself.

VIDEO SURVEILLANCE SYSTEMS FOR USE IN SECURITY APPLICATIONS –

Part 1-2: System requirements – Performance requirements for video transmission

1 Scope

This part of IEC 62676 introduces general requirements on video transmission. This standard covers the general requirements for video transmissions on performance, security and conformance to basic IP connectivity, based on available, well-known, international standards.

Clauses 4 and 5 of this standard define the minimum performance requirements on video transmission for security applications in IP networks. In surveillance applications the requirements on timing, quality and availability are strict and defined in the last section of this standard. Guidelines for network architecture are given, how these requirements can be fulfilled.

Clause 6 and the next clauses of this standard define requirements on basic IP connectivity of video transmission devices to be used in security applications. If a video transmission device is used in security, certain basic requirements apply. First of all a basic understanding of IP connectivity needs to be introduced which requests the device to be compliant to fundamental network protocols. These could be requirements which may be applied to all IP security devices even beyond IP video. For this reason requirements are introduced in a second step for compliance to basic streaming protocols, used in this standard for video streaming and stream control. Since security applications need high availability and reliability, general means for the transmission of the video status and health check events have to be covered. These are defined in general requirements on eventing and network device management. In security proper maintenance and setup is essential for the functioning of the video transmission device. Locating streaming devices and their capabilities is a basic requirement and covered in 'device discovery and description'.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61709, *Electric components – Reliability – Reference conditions for failure rates and stress models for conversion*

IEC/TR 62380, *Reliability data handbook – Universal model for reliability prediction of electronics components, PCBs and equipment*

IEC 62676-1-1, *Video surveillance systems for use in security applications – Part 1-1: System requirements – General*

IEC 62676-2-1, *Video surveillance systems for use in security applications – Part 2-1: Video transmission protocols – General requirements*

ISO/IEC 10646, *Information technology – Universal multiple-octet coded character set (UCS)*