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# TECHNICAL SPECIFICATION


## Car multimedia systems and equipment – Drive monitoring system
## Part 1: General

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# CAR MULTIMEDIA SYSTEMS AND EQUIPMENT – DRIVE MONITORING SYSTEM

## Part 1: General

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 63033-1, which is a technical specification, has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this technical specification is based on the following documents:

| Enquiry draft | Report on voting |
|---|---|
| 100/2819/DTS | 100/2877/RVDTS |

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

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

A list of all parts in the IEC 63033 series, published under the general title *Car multimedia systems and equipment*, 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 website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

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# INTRODUCTION

The drive monitoring system is a camera-based visual system enabling the car user to record and view in real time the surrounding visual image of their vehicle from anywhere within a 360° surround view perspective. The purpose of this document is to specify the model for generating the desired surrounding visual image of the drive monitoring system. Typically, the drive monitoring system is defined by the audio-visual monitoring system requirements of the car multimedia system and equipment.

To ensure the correct positioning of the car in relation to its surroundings, the rear-view monitor for parking assistance, the blind spot monitor for displaying views of the blind spots, and the bird’s-eye view monitor are used. Each drive monitoring system provides a different viewpoint to the car's driver. It’s a heavy burden for a car driver to switch between these systems and quickly recognize the multiple fields of view. In addition, the fields of view are limited to these camera systems which cannot freely change the eye point depending on the driving situation. As a result, the usage cases for these types of systems are limited to singular functions such as parking assistance. Furthermore, on commercial vehicles such as trucks, buses and other special vehicles, ranging from construction to agricultural machinery, the usage cases for these systems is even more limited. In these vehicle types, there might exist situations in which no one is available to assist the driver in properly ensuring the car's correct and safe position.

To resolve these problems, the drive monitoring system provides the driver with the optimal surround view image as constructed by the model explained in this document. It provides the optimal viewpoint of the vehicle and its surroundings to the driver for ensuring the car’s good positioning in various driving situations (parking, turning, high traffic situations, etc.). This is not only true for passenger cars, but good positioning can also be quickly ensured for commercial vehicles and other special vehicles as well.

Part 1 specifies the model for generating the surrounding visual image of the drive monitoring system. Part 2 specifies the information sets that are provided by the drive monitoring system, which include recording methods for that information and the actual visual images. Part 3 specifies the measurement methods of surrounding visual images for the drive monitoring system.

# CAR MULTIMEDIA SYSTEMS AND EQUIPMENT – DRIVE MONITORING SYSTEM

## Part 1: General

## 1 Scope

This document specifies the model for generating the surrounding visual image of the drive monitoring system.

## 2 Normative references

There are no normative references in this document.