

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Audio, video and multimedia systems – General channel assignment
of multichannel audio**

**Systèmes audio, vidéo et multimédia – Affectation générale des voies
des systèmes audio à voies multiples**





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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUDIO, VIDEO AND MULTIMEDIA SYSTEMS – GENERAL CHANNEL ASSIGNMENT OF MULTICHANNEL AUDIO

FOREWORD

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International Standard IEC 62574 has been prepared by technical area 20 of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) model of channel assignment spaces is changed;
- b) definition of channel maps and labels is changed;
- c) metadata is newly specified;
- d) channel maps and labels from the first edition are included in Annex A.

The text of this International Standard is based on the following documents:

CDV	Report on voting
100/3198/CDV	100/3246/RVC

Full information on the voting for the approval of this International Standard 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.

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

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- withdrawn,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

INTRODUCTION

There are many multichannel audio formats and there will be new formats. These formats have a specific channel assignment, such as a channel mapping and channel labels, but the basic channel assignments are not so different from each other. These can be unified to one common channel assignment as the general channel assignment. This general channel assignment provides audio devices and digital audio interfaces with the usage of unified channel assignments for any multichannel audio formats. This second edition provides consistency with various standards. The channel names have changed in this second edition; the differences are shown in Annex B. Since there are standards that refer to the first edition of this document (see Clause A.1), IEC 62574:2011 (the first edition) is cited at length in Annex A. The first edition (IEC 62574:2011) and the second edition (this document) can be distinguished by the numbering of the channels.

AUDIO, VIDEO AND MULTIMEDIA SYSTEMS –

GENERAL CHANNEL ASSIGNMENT OF MULTICHANNEL AUDIO

1 Scope

This document specifies the general channel assignment and the metadata for multichannel audio format. This document, with its channel mapping and labelling content, provides the unified usage of channel assignments for source devices, digital audio interfaces and sink devices. The general channel assignment excludes the specification of the exact position of each loudspeaker. The metadata has the exact position of each loudspeaker; however, since the position of the loudspeaker is different in various surround sound formats, the position information of the metadata is not standardized. It is aimed at consumer applications; it is not targeted at theatrical environments. Up to 65 labels for loudspeaker positions and 15 labels for loudspeakers on the display are specified, which can be used for all current multichannel audio formats. The channel assignment concept is room centric and listener centric. This general channel assignment specifies the position of the loudspeaker as seen from the listener.

2 Normative reference

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

overhead layer

loudspeaker-layer located vertically above the high layer, nominally near or on the ceiling (overhead), labelled beginning with the letter designation "Oh"

3.2

high layer

loudspeaker-layer located vertically below the overhead layer and above the middle layer, nominally located above the screen, or near the ceiling, labelled beginning with the letter designation "H"

3.3

middle layer

loudspeaker-layer located nominally in the vertical plane at height of the listeners ears, or alternatively at the centre of the screen, whose labels do not carry a letter designation

3.4

bottom layer

loudspeaker-layer located nominally below the screen, or near the floor, labelled beginning with the letter designation "Bt"