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INTERNATIONAL STANDARD

Multimedia systems – Guide to the recommended characteristics of analogue interfaces to achieve interoperability

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

MULTIMEDIA SYSTEMS – GUIDE TO THE RECOMMENDED CHARACTERISTICS OF ANALOGUE INTERFACES TO ACHIEVE INTEROPERABILITY

FOREWORD

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International Standard IEC 61938 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This third edition cancels and replaces the second edition published in 2013. This edition constitutes a technical revision.

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

a) electric tolerance is standardized;
b) recommended value of output source impedance is adjusted;
c) value of 6 Ω is additionally recommended to impedance-defined loudspeaker systems;
d) values in each table are chosen with respect to the state of the art and representative of best practice in industry.

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

CDV	Report on voting
100/2879/CDV	100/2996/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- withdrawn,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.

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

INTRODUCTION

The first edition of IEC 61938 was derived from IEC 60268-15, IEC 60574-4 and IEC 60933-1 and also from related proposals which had been submitted up until the date of this revision. IEC 60268-15 was the first standard to address 'interoperability' – the ability of equipment from different manufacturers to be assembled into a system with full compatibility at every 'interface'. The aim of the previous revision was to make the intention of this document easily comprehensible by using widely used terminology in the title and text of the document. The purpose of this revision is to expand the measurement frequency range in step with the progress of recent equipment.

The features of the revision are the following:

a) unification and arrangement of existing related standards, including effective proposals which have been submitted;

b) extension of the measurement frequency range.

NOTE The standard numbers mentioned above correspond to the revised numbers, if applicable.

MULTIMEDIA SYSTEMS – GUIDE TO THE RECOMMENDED CHARACTERISTICS OF ANALOGUE INTERFACES TO ACHIEVE INTEROPERABILITY

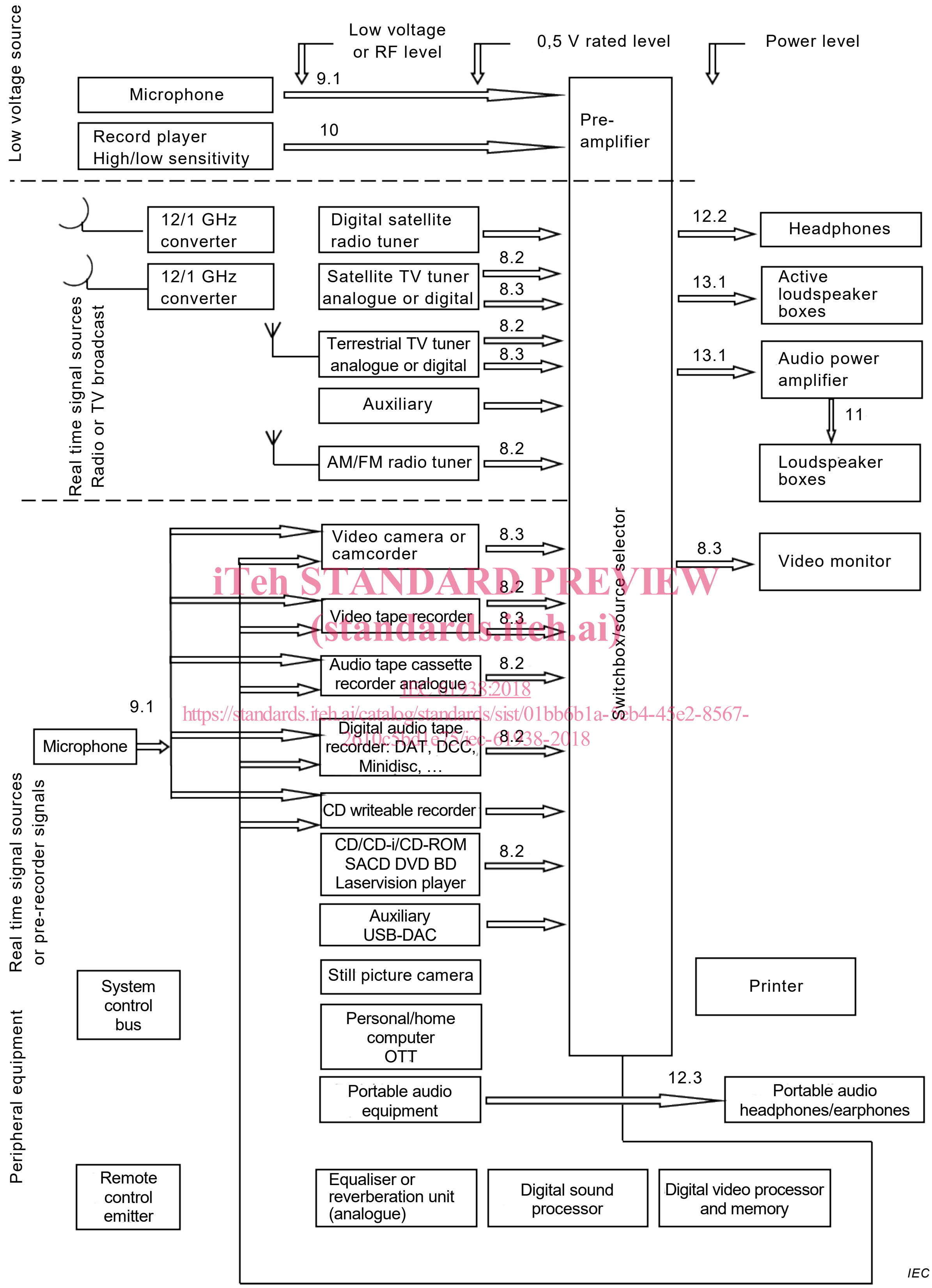
1 Scope

This document gives guidance on current practice for the characteristics of multimedia analogue interfaces to achieve interoperability between equipment from different manufacturers. It is not a performance standard.

Recommendations for interfaces for equipment used in vehicles, and for analogue video interfaces for broadcast and similar equipment, are not given.

Refer to IEC 60958 for the interconnection of digital signals.

Figure 1 shows in a diagram the possible interfaces of the audio and video sources and destinations.



NOTE The numbers indicated above the arrows refer to the appropriate clause or subclauses of this document.

Figure 1 – Audio and video sources and destinations

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60038, *IEC standard voltages*

IEC 60094-2, *Magnetic tape recording and reproducing systems – Part 2: Calibration tapes*

IEC 60268-1, *Sound system equipment – Part 1: General*

IEC 60268-3, *Sound system equipment – Part 3: Amplifiers*

IEC 60268-5, *Sound system equipment – Part 5: Loudspeakers*

IEC 60268-7:2010, *Sound system equipment – Part 7: Headphones and earphones*

IEC 60268-11:1987, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*

IEC 60268-11:1987/AMD1:1989, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*

IEC 60268-11:1987/AMD2:1991, *Sound system equipment – Part 11: Application of connectors for the interconnection of sound system components*

IEC 60268-12, *Sound system equipment – Part 12: Application of connectors for broadcast and similar use*

IEC 60603-11:1992, *Connectors for frequencies below 3 MHz for use with printed boards – Part 11: Detail specification for concentric connectors (dimensions for free connectors and fixed connectors)*

IEC 60958:2016, *Digital audio interface – ALL PARTS*

ITU-R BT.1700:2005, *Characteristics of composite video signals for conventional analogue television systems*

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
luminance signal
electrical signal representing the luminance of the television picture elements

[SOURCE: IEC 60050-723:1997, 723-05-56, modified – Note has been deleted.]