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Australian Standard®

Sound system equipment

Part 2: Explanation of general terms

(IEC Title: Sound system equipment, Part 2: Explanation of general terms and calculation methods)

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PREFACE

This Standard was prepared by Standards Australia's Committee TE/8 on Audio and Video Engineering and Recording to supersede part of AS 1127.1—1973, *Sound system equipment, Part 1: General*. It is technically identical with, and has been reproduced from, IEC 268-2: *Sound system equipment, Part 2: Explanation of general terms and calculation methods.*

The purpose of this particular part is to assist in the determination of the performance of sound system equipment, the comparison of these types of equipment and the determination of their application, by listing the characteristics which are useful for their specification and to explain the setting out of uniform methods for measurement of the characteristics in further parts of the series being developed on sound system equipment.

This Standard provides definitions of characteristics defining a sound system, fundamental aspects of power and voltage, balance, noise, non-linearity, multichannel equipment, acoustic characteristics and polarity relationships.

In certain cases further information such as spectrum diagrams are given for amplitude non-linearity together with an explanation of terms, a simple method of assessment and correlation of the results. Fundamental explanations are given for crosstalk and acoustic characteristics and polarity relationships between signals at the input and signals at the output terminals, together with a method of measurement where inversion of polarity is suspected.

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1. General terms

1.1 *Sound system*

An assembly of equipment which in combination enables sound signals or audio-frequency signals to be processed or transmitted.

Such equipment may be, for example, transducers, amplifiers, recorders, etc.

1.2 *Compatibility*

A component of a system is said to be compatible with another component if, when they are connected together, satisfactory operation is obtained.

1.3 *Variable consumption apparatus*

An apparatus in which the power drawn from the supply system may vary significantly during operation, as a function of the signal or the load impedance or of the control settings (excluding power supply switches).

Note. — For some purposes, changes of less than 15% may be insignificant.

1.4 *Noise signal*

A stationary random signal having a normal probability distribution of instantaneous values. Unless otherwise stated, the mean value is zero.

Note. — This explanation applies to noise signals used for testing. Noise as an unwanted signal is considered in Clause 6.

1.4.1 *White noise signal*

A noise signal whose energy per unit bandwidth $\left(\frac{\Delta W}{\Delta f}\right)$ is independent of frequency.

1.4.2 *Pink noise signal*

A noise signal whose energy per unit bandwidth $\left(\frac{\Delta W}{\Delta f}\right)$ is inversely proportional to frequency.

1.4.3 *Broadband noise signal*

A noise signal, band-limited by means of a filter with defined amplitude/frequency response whose bandwidth is greater than that of the equipment under test.

Note. — A broadband noise signal may be a band-limited white or pink noise signal, or have some other defined power spectrum.

