

CPC**COOPERATIVE PATENT CLASSIFICATION****H04S**

STEREOPHONIC SYSTEMS (information storage on discs or tapes [G11B](#); broadcast systems for the distribution of stereophonic information [H04H 20/88](#); multiplex systems in general [H04J](#))

NOTE

In this subclass, the following term is used with the meaning indicated:
- "stereophonic systems" covers quadraphonic or similar systems

H04S 1/00

Two-channel systems ([H04S 5/00](#), [H04S 7/00](#) take precedence)

H04S 1/002

- . { Non-adaptive circuits, e.g. manually adjustable or static, for enhancing the sound image or the spatial distribution (control circuits for electronic adaptation of the sound field [H04S 7/30](#)) }

H04S 1/005

- .. { For headphones }

H04S 1/007

- . { in which the audio signals are in digital form (data reduction aspects thereof based on psychoacoustics [G10L 19/02](#)) }

H04S 3/00

Systems employing more than two channels, e.g. quadraphonic ([H04S 5/00](#), [H04S 7/00](#) take precedence)

H04S 3/002

- . { Non-adaptive circuits, e.g. manually adjustable or static, for enhancing the sound image or the spatial distribution (control circuits for electronic adaptation of the sound field [H04S 7/30](#)) }

H04S 3/004

- .. { For headphones }

H04S 3/006

- . { in which a plurality of audio signals are transformed in a combination of audio signals and modulated signals, e.g. CD-4 systems (for broadcasting [H04H 20/88](#), [H04B 1/1646](#)) }

H04S 3/008

- . { in which the audio signals are in digital form, i.e. employing more than two discrete digital channels, e.g. Dolby Digital, Digital Theatre Systems (DTS) (data reduction aspects thereof based on psychoacoustics [G10L 19/02](#)) }

H04S 3/02

- . of the matrix type, i.e. in which input signals are combined algebraically, e.g. after having been phase shifted with respect to each other

H04S 5/00

Pseudo-stereo systems, e.g. in which additional channel signals are derived from monophonic signals by means of phase shifting, time delay or reverberation (arrangements for producing a reverberation or echo sound [G10K 15/08](#))

H04S 5/005

- . { of the pseudo five- or more-channel type, e.g. virtual surround }

H04S 5/02

- . of the pseudo four-channel type, e.g. in which rear channel signals are derived from two-channel stereo signals

H04S 7/00

Indicating arrangements; Control arrangements, e.g. balance control

WARNING

Groups [H04S 7/30](#) to [H04S 7/40](#) do not correspond to former or current IPC groups.

- H04S 7/30 . { Control circuits for electronic adaptation of the sound field (non-adaptive circuits, i.e. manually adjustable or static, for enhancing the sound image or the spatial distribution [H04S 1/002](#), [H04S 3/002](#)) }
- H04S 7/301 . . { Automatic calibration of stereophonic sound system, e.g. with test microphone }
- H04S 7/302 . . { Electronic adaptation of stereophonic sound system to listener position or orientation ([H04S 7/301](#) takes precedence) }
- H04S 7/303 . . . { Tracking of listener position or orientation }
- H04S 7/304 { For headphones }
- H04S 7/305 . . { Electronic adaptation of stereophonic audio signals to reverberation of the listening space ([H04S 7/301](#) takes precedence; arrangements for producing a reverberation or echo sound [G10K 15/08](#); for public address systems [H04R 27/00](#), [H04R 29/00](#)) }
- H04S 7/306 . . . { For headphones }
- H04S 7/307 . . { Frequency adjustment, e.g. tone control ([H04S 7/301](#) takes precedence; circuits for correcting the frequency response of transducers [H04R 3/04](#); tone control circuits in amplifiers per se [H03G 5/00](#)) }
- H04S 7/308 . . { Electronic adaptation dependent on speaker or headphone connection }
- H04S 7/40 . { Visual indication of stereophonic sound image (visual indication of individual signal levels [H04R 29/008](#)) }

- H04S 2400/00** **Details of stereophonic systems covered by [H04S](#) but not provided for in its groups (not used, see subgroups)**

- H04S 2400/01 . Multi-channel, i.e. more than two input channels, sound reproduction with two speakers wherein the multi-channel information is substantially preserved
- H04S 2400/03 . Aspects of down-mixing multi-channel audio to configurations with lower numbers of playback channels, e.g. 7.1 -> 5.1 ([H04S 2400/01](#) takes precedence)
- H04S 2400/05 . Generation or adaptation of centre channel in multi-channel audio systems
- H04S 2400/07 . Generation or adaptation of the Low Frequency Effect [LFE] channel, e.g. distribution or signal processing
- H04S 2400/09 . Electronic reduction of distortion of stereophonic sound systems
- H04S 2400/11 . Positioning of individual sound objects, e.g. moving airplane, within a sound field ([H04S 2420/13](#) takes precedence)
- H04S 2400/13 . Aspects of volume control, not necessarily automatic, in stereophonic sound systems
- H04S 2400/15 . Aspects of sound capture and related signal processing for recording or reproduction

- H04S 2420/00** **Techniques used stereophonic systems covered by [H04S](#) but not provided for in**

its groups (not used, see subgroups)

- H04S 2420/01
 - . Enhancing the perception of the sound image or of the spatial distribution using head related transfer functions [HRTF's] or equivalents thereof, e.g. interaural time difference [ITD] or interaural level difference [ILD]
- H04S 2420/03
 - . Application of parametric coding in stereophonic audio systems
- H04S 2420/05
 - . Application of the precedence or Haas effect, i.e. the effect of first wavefront, in order to improve sound-source localisation
- H04S 2420/07
 - . Synergistic effects of band splitting and sub-band processing
- H04S 2420/11
 - . Application of ambisonics in stereophonic audio systems
- H04S 2420/13
 - . Application of wave-field synthesis in stereophonic audio systems