

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

H04S 7/00
(continued)

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