

# 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

<b>1/00</b>	<b>Two-channel systems</b> ( <a href="#">H04S 5/00</a> , <a href="#">H04S 7/00</a> take precedence)	7/303	. . . {Tracking of listener position or orientation}
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 <a href="#">H04S 7/30</a> )}	7/304	. . . . {For headphones}
1/005	. . {For headphones}	7/305	. . {Electronic adaptation of stereophonic audio signals to reverberation of the listening space ( <a href="#">H04S 7/301</a> takes precedence; arrangements for producing a reverberation or echo sound <a href="#">G10K 15/08</a> ; for public address systems <a href="#">H04R 27/00</a> , <a href="#">H04R 29/00</a> )}
1/007	. {in which the audio signals are in digital form (data reduction aspects thereof based on psychoacoustics <a href="#">G10L 19/02</a> )}	7/306	. . . {For headphones}
<b>3/00</b>	<b>Systems employing more than two channels, e.g. quadraphonic</b> ( <a href="#">H04S 5/00</a> , <a href="#">H04S 7/00</a> take precedence)	7/307	. . {Frequency adjustment, e.g. tone control ( <a href="#">H04S 7/301</a> takes precedence; circuits for correcting the frequency response of transducers <a href="#">H04R 3/04</a> ; tone control circuits in amplifiers <a href="#">see H03G 5/00</a> )}
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 <a href="#">H04S 7/30</a> )}	7/308	. . {Electronic adaptation dependent on speaker or headphone connection}
3/004	. . {For headphones}	7/40	. {Visual indication of stereophonic sound image (visual indication of individual signal levels <a href="#">H04R 29/008</a> )}
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 <a href="#">H04H 20/88</a> , <a href="#">H04B 1/1646</a> )}	<b>2400/00</b>	<b>Details of stereophonic systems covered by <a href="#">H04S</a> but not provided for in its groups (not used, see subgroups)</b>
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 <a href="#">G10L 19/02</a> )}	2400/01	. Multi-channel, i.e. more than two input channels, sound reproduction with two speakers wherein the multi-channel information is substantially preserved
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	2400/03	. Aspects of down-mixing multi-channel audio to configurations with lower numbers of playback channels, e.g. 7.1 -> 5.1 ( <a href="#">H04S 2400/01</a> takes precedence)
<b>5/00</b>	<b>Pseudo-stereo systems, e.g. in which additional channel signals are derived from monophonic signals by means of phase shifting, time delay or reverberation</b> (arrangements for producing a reverberation or echo sound <a href="#">G10K 15/08</a> )	2400/05	. Generation or adaptation of centre channel in multi-channel audio systems
5/005	. {of the pseudo five- or more-channel type, e.g. virtual surround}	2400/07	. Generation or adaptation of the Low Frequency Effect [LFE] channel, e.g. distribution or signal processing
5/02	. of the pseudo four-channel type, e.g. in which rear channel signals are derived from two-channel stereo signals	2400/09	. Electronic reduction of distortion of stereophonic sound systems
<b>7/00</b>	<b>Indicating arrangements; Control arrangements, e.g. balance control</b>	2400/11	. Positioning of individual sound objects, e.g. moving airplane, within a sound field ( <a href="#">H04S 2420/13</a> takes precedence)
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 <a href="#">H04S 1/002</a> , <a href="#">H04S 3/002</a> )}	2400/13	. Aspects of volume control, not necessarily automatic, in stereophonic sound systems
7/301	. . {Automatic calibration of stereophonic sound system, e.g. with test microphone}	2400/15	. Aspects of sound capture and related signal processing for recording or reproduction
7/302	. . {Electronic adaptation of stereophonic sound system to listener position or orientation ( <a href="#">H04S 7/301</a> takes precedence)}	<b>2420/00</b>	<b>Techniques used stereophonic systems covered by <a href="#">H04S</a> but not provided for in its groups (not used, see subgroups)</b>
		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
- 2420/05 . Application of the precedence or Haas effect, i.e. the effect of first wavefront, in order to improve sound-source localisation
- 2420/07 . Synergistic effects of band splitting and sub-band processing
- 2420/11 . Application of ambisonics in stereophonic audio systems
- 2420/13 . Application of wave-field synthesis in stereophonic audio systems