

# CPC COOPERATIVE PATENT CLASSIFICATION

## H ELECTRICITY

(NOTE omitted)

## H04 ELECTRIC COMMUNICATION TECHNIQUE

(NOTE omitted)

## H04S STEREOPHONIC SYSTEMS

### NOTES

1. In this subclass, the following term is used with the meaning indicated:
  - "stereophonic systems" covers quadrasonic or similar systems
2. In this subclass, it is desirable to add the indexing codes of [H04S 2400/00](#) and [H04S 2420/00](#).

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

<b>1/00</b>	<b>Two-channel systems</b> ( <a href="#">H04S 5/00</a> , <a href="#">H04S 7/00</a> take precedence)	7/30	• {Control circuits for electronic adaptation of the sound field}
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> )}	7/301	• • {Automatic calibration of stereophonic sound system, e.g. with test microphone}
1/005	• • {For headphones}	7/302	• • {Electronic adaptation of stereophonic sound system to listener position or orientation ( <a href="#">H04S 7/301</a> takes precedence)}
1/007	• {in which the audio signals are in digital form (data reduction aspects thereof based on psychoacoustics <a href="#">G10L 19/02</a> )}	7/303	• • • {Tracking of listener position or orientation}
		7/304	• • • • {For headphones}
		7/305	• • {Electronic adaptation of stereophonic audio signals to reverberation of the listening space ( <a href="#">H04S 7/301</a> takes precedence)}
<b>3/00</b>	<b>Systems employing more than two channels, e.g. quadrasonic</b> ( <a href="#">H04S 5/00</a> , <a href="#">H04S 7/00</a> take precedence)	7/306	• • • {For headphones}
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> )}	7/307	• • {Frequency adjustment, e.g. tone control ( <a href="#">H04S 7/301</a> takes precedence)}
3/004	• • {For headphones}	7/308	• • {Electronic adaptation dependent on speaker or headphone connection}
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}	7/40	• {Visual indication of stereophonic sound image}
3/008	• {in which the audio signals are in digital form, i.e. employing more than two discrete digital channels (data reduction aspects thereof based on psychoacoustics <a href="#">G10L 19/02</a> )}	<b>2400/00</b>	<b>Details of stereophonic systems covered by <a href="#">H04S</a> but not provided for in its groups</b>
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	2400/01	• Multi-channel, i.e. more than two input channels, sound reproduction with two speakers wherein the multi-channel information is substantially preserved
		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>	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
		2400/11	• Positioning of individual sound objects, e.g. moving airplane, within a sound field ( <a href="#">H04S 2420/13</a> takes precedence)
<b>7/00</b>	<b>Indicating arrangements; Control arrangements, e.g. balance control</b>	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

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

- 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]
- 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