

EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 874

DATE: MAY 1, 2020

PROJECT MP0342

The following classification changes will be effected by this Notice of Changes:

| <u>Action</u> | <u>Subclass</u> | <u>Group(s)</u> |
|-----------------------|-----------------|-----------------|
| SCHEME: | | |
| Titles Changed: | H04S | 3/006 |
| | H04S | 3/008 |
| | H04S | 7/30 |
| | H04S | 7/305 |
| | H04S | 7/307 |
| | H04S | 7/40 |
| | | |
| DEFINITIONS: | | |
| Definitions New: | H04S | 7/304 |
| | | |
| Definitions Modified: | H04S | subclass |
| | H04S | 1/00 |
| | H04S | 1/002 |
| | H04S | 3/00 |
| | H04S | 3/002 |
| | H04S | 3/008 |
| | H04S | 3/02 |
| | H04S | 5/00 |
| | H04S | 5/005 |
| | H04S | 7/00 |
| | H04S | 7/30 |
| | H04S | 7/301 |
| | H04S | 7/302 |
| | H04S | 7/303 |
| | H04S | 7/305 |
| | H04S | 7/307 |
| | H04S | 7/308 |
| | H04S | 7/40 |
| | H04S | 2400/01 |
| | H04S | 2400/03 |
| | H04S | 2400/05 |
| | H04S | 2400/07 |
| | H04S | 2400/09 |
| | H04S | 2400/11 |
| | H04S | 2400/13 |
| | H04S | 2400/15 |
| | H04S | 2420/01 |
| | H04S | 2420/03 |
| | H04S | 2420/05 |

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| <u>Action</u> | <u>Subclass</u> | <u>Group(s)</u> |
|---------------|-----------------|-----------------|
| | H04S | 2420/07 |
| | H04S | 2420/11 |
| | H04S | 2420/13 |

The following subclasses/groups are also impacted by this Notice of Changes (indicate subclasses/groups outside of the project scope, such as those listed in the CRL): *G10L19/008*

This Notice of Changes includes the following *[Check the ones included]:*

1. CLASSIFICATION SCHEME CHANGES

- A. New, Modified or Deleted Group(s)
- B. New, Modified or Deleted Warning(s)
- C. New, Modified or Deleted Note(s)
- D. New, Modified or Deleted Guidance Heading(s)

2. DEFINITIONS

- A. New or Modified Definitions (Full definition template)
- B. Modified or Deleted Definitions (Definitions Quick Fix)

3. REVISION CONCORDANCE LIST (RCL)

4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5. CHANGES TO THE CROSS-REFERENCE LIST (CRL)

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1. CLASSIFICATION SCHEME CHANGES

A. New, Modified or Deleted Group(s)**SUBCLASS H04S – STEREOPHONIC SYSTEMS**

| Type* | Symbol | Indent Level Number of dots (e.g. 0, 1, 2) | Title “CPC only” text should normally be enclosed in {curly brackets}** | Transferred to# |
|--------------|---------------|---|---|------------------------|
| U | H04S 3/00 | 0 | Systems employing more than two channels, e.g. quadraphonic (H04S 5/00, H04S 7/00 take precedence) | |
| M | H04S 3/006 | 1 | {in which a plurality of audio signals are transformed in a combination of audio signals and modulated signals, e.g. CD-4 systems } | |
| M | H04S 3/008 | 1 | {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 G10L 19/02)} | |
| U | H04S 7/00 | 0 | Indicating arrangements; Control arrangements, e.g. balance control | |
| M | H04S 7/30 | 1 | {Control circuits for electronic adaptation of the sound field } | |
| M | H04S 7/305 | 2 | {Electronic adaptation of stereophonic audio signals to reverberation of the listening space (H04S 7/301 takes precedence)} | |
| M | H04S 7/307 | 2 | {Frequency adjustment, e.g. tone control (H04S 7/301 takes precedence)} | |
| M | H04S 7/40 | 1 | {Visual indication of stereophonic sound image } | |

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries. Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; T = existing entries with enlarged file scope, which receive documents from C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:

- **No {curly brackets} are used for titles in CPC only subclasses, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} are used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- U groups: it is obligatory to display the required “anchor” symbol (U group), i.e. the entry immediately preceding a new group or an array of new groups to be created (in case new groups are not clearly subgroups of C-type groups). Always include the symbol, indent level and title of the U group in the table above.

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- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types.
- “Transferred to” column must be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the “Transferred to” column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: “<administrative transfer to XX>”, “<administrative transfer to XX and YY simultaneously>”, or “<administrative transfer to XX, YY, ...and ZZ simultaneously>” when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be the source allocation type, unless otherwise indicated.
- Administrative transfer to 2000/Y series groups is assumed to be “additional information”.
- If needed, instructions for allocation type should be indicated within the angle brackets using the abbreviations “ADD” or “INV”: <administrative transfer to XX ADD>, <administrative transfer to XX INV>, or <administrative transfer to XX ADD, YY INV, ... and ZZ ADD simultaneously>.
- In certain situations, the “D” entries of 2000-series or Y-series groups may not require a destination (“Transferred to”) symbol, however it is required to specify “<no transfer>” in the “Transferred to” column for such cases.
- For finalisation projects, the deleted “F” symbols should have <no transfer> in the “Transferred to” column.
- For more details about the types of scheme change, see CPC Guide.

2. A. DEFINITIONS (new)

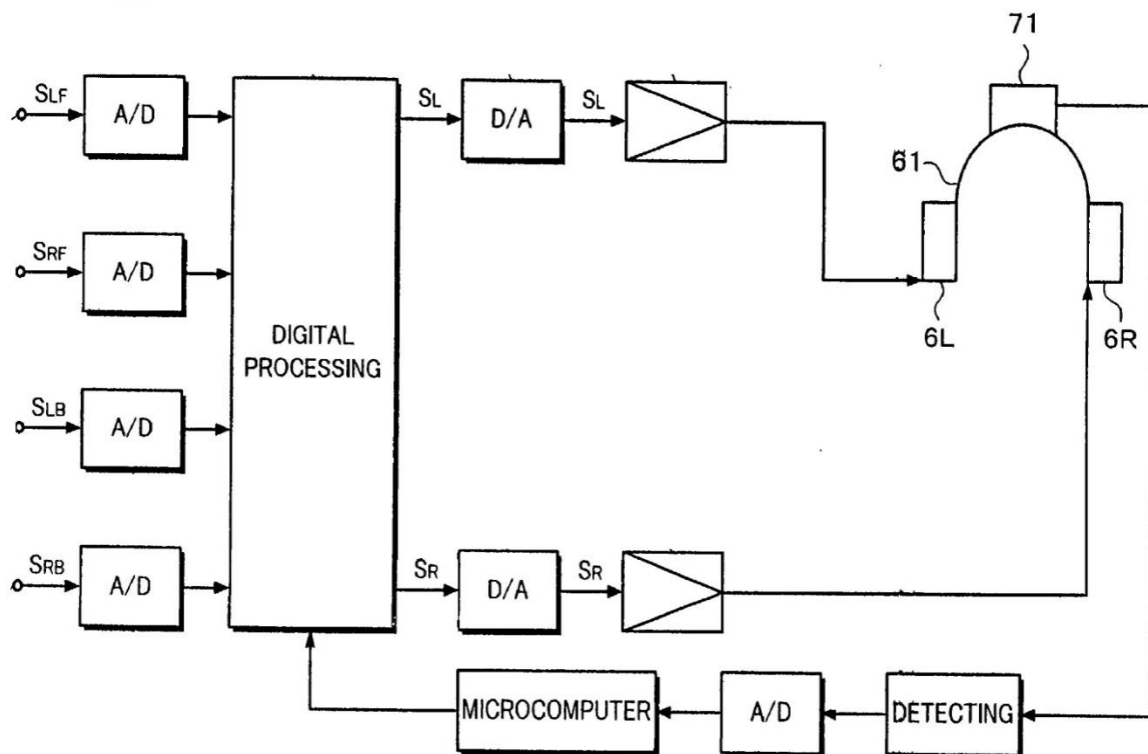
Insert the following new Definition.

H04S7/304

Definition statement

This place covers:

System adapted for headphones (61) in which the orientation of the listener head is tracked, e.g. with a rotation angle sensor (71) and the sound delivered to the headphone (6R, 6L) is adapted accordingly (see figure).



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

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| | |
|---|---------------------------|
| Head tracking input arrangements for transferring data to be processed into a form capable of being handled by the computer | G06F3/012 |
|---|---------------------------|

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2. A. DEFINITIONS (modified)

H04S

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

Signal processing or circuitry for two or more channel sound reproduction, using loudspeakers or headphones, or for two or more channel sound capture, using microphones.

Insert the following new Relationships with other classification places section.

Relationships with other classification places

Concerning G10L19/008, this group covers in principle coding, processing in the coded state, and decoding of stereophonic audio signals for redundancy reduction, whereas processing of stereophonic audio signals in the decoded state, i.e. before coding (e.g. sound capturing) or after decoding (e.g. sound rendering) is covered by H04S.

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Insert the following new reference in the Application-oriented references table.

| | |
|---|------------|
| Multi-channel audio coding and decoding using interchannel correlation to reduce redundancies | G10L19/008 |
|---|------------|

Informative references

Attention is drawn to the following places, which may be of interest for search:

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Delete the term “using” in the second reference of the Informative references table.

Delete the following two references from the Informative references table.

| | |
|---|------------------------------|
| Sound processing hardware for games using an electronically generated display having two or more dimensions | A63F2300/209 |
| Multichannel audio signal coding and decoding, i.e. using interchannel correlation to reduce redundancies, e.g. joint-stereo, intensity-coding, matrixing | G10L19/008 |

Special rules of classification

Replace the existing Special rules of classification text with the following.

- Classification of invention information and additional information is obligatory.
- The subgroups of Indexing Code groups [H04S2400/00](#) and [H04S2420/00](#) should be used to classify information relevant for the invention, although it need not be invention information. Indexing Code symbols [H04S2400/00](#) and [H04S2420/00](#) themselves should not be used for classification.
- Further detail not provided for in any of the main groups is provided for in Indexing Code groups [H04S2400/09](#), [H04S2400/15](#), [H04S2420/01](#), [H04S2420/03](#), [H04S2420/05](#), [H04S2420/07](#) and [H04R2499/13](#). Classification is obligatory.

Insert the following new Glossary of terms section.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

| | |
|----------------------|---|
| Stereophonic system | two or more channel system, e.g. quadraphonic, ambisonic or similar systems |
| Multi-channel system | three- or more channel system |

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H04S 1/00

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

Electronic sound processing in two-channel systems wherein the processing itself is independent on the input signal or its properties.

Special rules of classification

Delete the following line from the Special rules of classification section.

Further detail is covered by the subgroups of Indexing Code group [H04S2400/00](#) and [H04S2420/00](#).

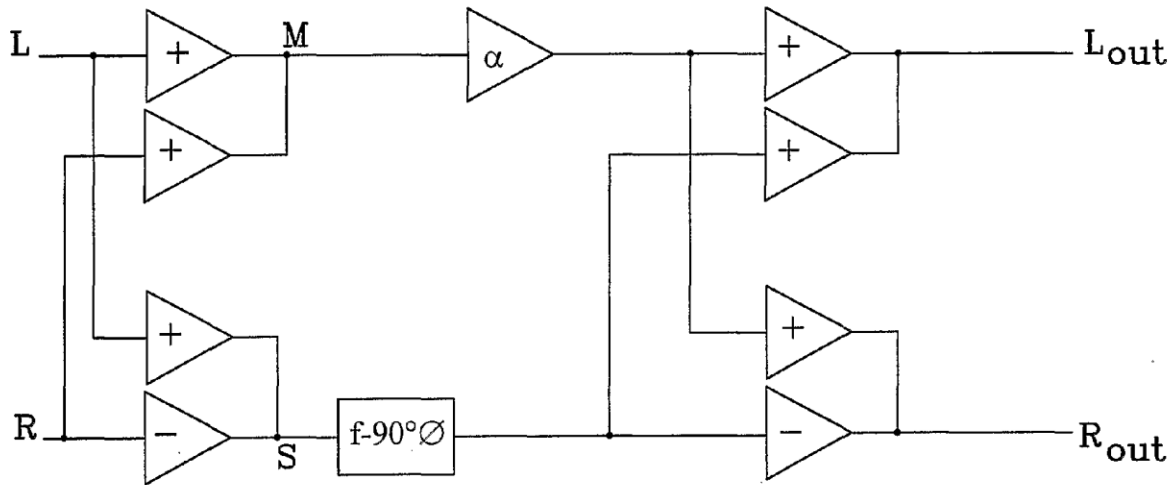
H04S 1/002

Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figure.

Electronic sound processing for enhancing the sound image or the spatial distribution, wherein the processing itself is static or manually adjustable (e.g. Figure below).



References

Limiting references

This place does not cover:

Replace the existing text in the Limiting references table with the following.

| | |
|---|---------------------------------|
| <p>Control circuits for electronic adaptation of the sound field, i.e. electronic sound processing adaptable in dependence of calibration signals, sensor signals or parameters for sound field or sound object description, e.g. by using an adaptive circuit, a look-up table or orientation sensors, for changing the sound field, e.g. the spatial distribution</p> | <p>H04S7/30</p> |
|---|---------------------------------|

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H04S 3/00

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

Electronic sound processing in systems employing more than two channels wherein the processing itself is independent on the input signal or its properties.

Special rules of classification

Replace the existing Special rules of classification text with the following.

Further detail is covered by Indexing Code groups [H04R2203/12](#), [H04S2400/01](#), [H04S2400/03](#), [H04S2400/05](#), [H04S2420/11](#) and [H04S2420/13](#). Classification is obligatory.

H04S 3/002

Definition statement

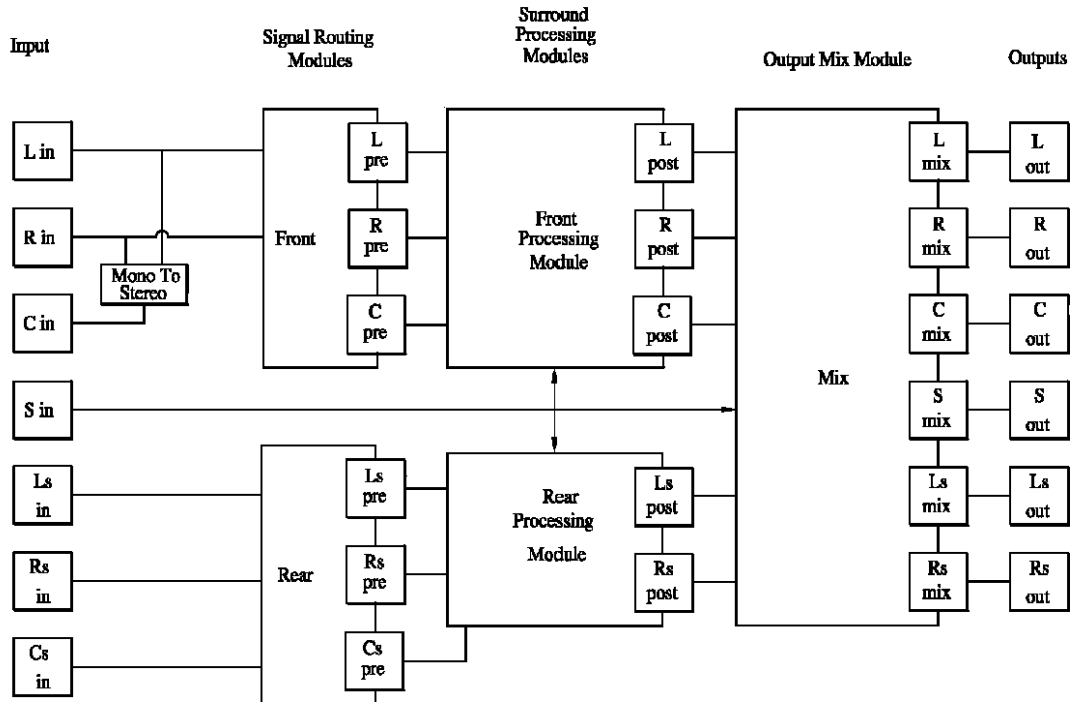
This place covers:

Replace the existing Definition statement text with the following text and figure.

Electronic sound processing for enhancing the sound image or the spatial distribution, wherein the processing itself is static or manually adjustable (e.g. Figure below).

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References

Limiting references

This place does not cover:

Replace the existing text in the Limiting references table with the following.

| | |
|---|---------------------------------|
| <p>Control circuits for electronic adaptation of the sound field, i.e. electronic sound processing adaptable in dependence of calibration signals, sensor signals or parameters for sound field or sound object description, e.g. by using an adaptive circuit, a look-up table or orientation sensors, for changing the sound field, e.g. the spatial distribution</p> | <p>H04S7/30</p> |
|---|---------------------------------|

H04S 3/008

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

Spatial sound processing employing more than two discrete digital channels.

Delete the entire Informative references section.

H04S 3/02

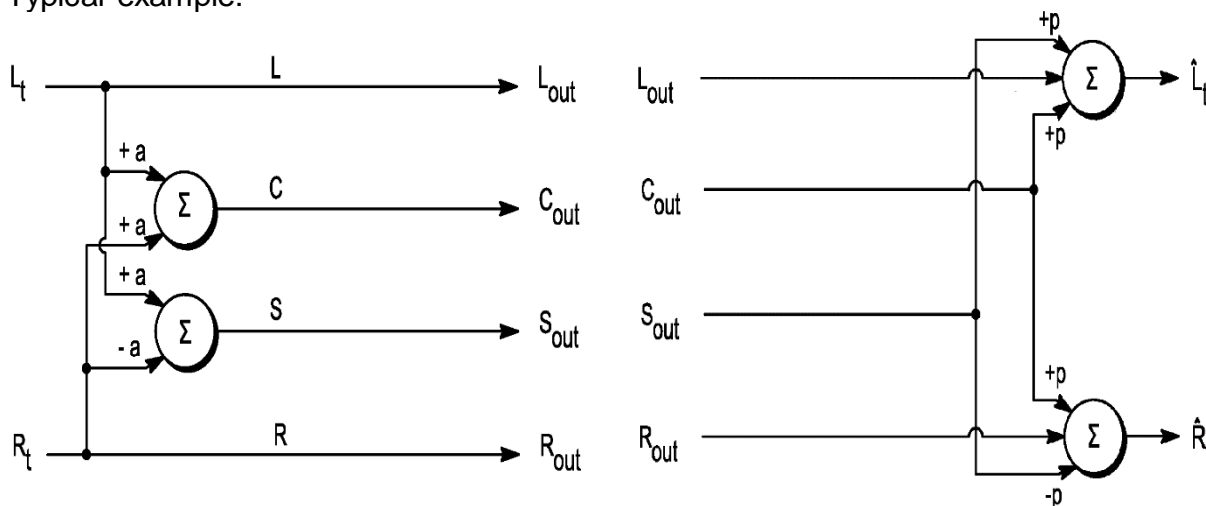
Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figure.

Using a matrix arrangement that routes multiple input audio signals to multiple outputs.

Typical example:



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H04S 5/00

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

Systems wherein one or more additional channels are generated from one or more of the existing channels to improve the spatial sound reproduction, e.g. wave field synthesis or virtual surround sound, or the spatial sound capture, e.g. 4-channel ambisonic capture to 7.1-channel.

Special rules of classification

Replace the existing Special rules of classification text with the following.

Further detail is covered by Indexing Code groups [H04R2203/12](#), [H04S2400/01](#), [H04S2400/03](#), [H04S2400/05](#), [H04S2420/11](#), and [H04S2420/13](#).

Classification is obligatory.

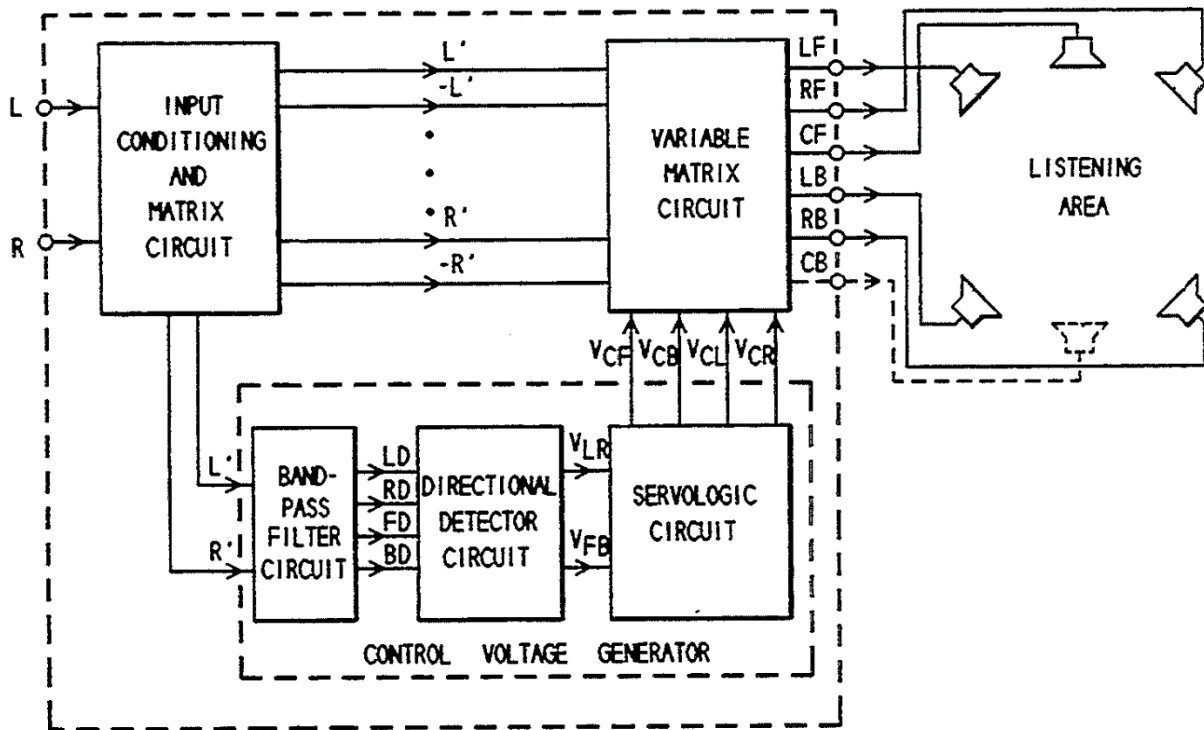
H04S 5/005

Definition statement

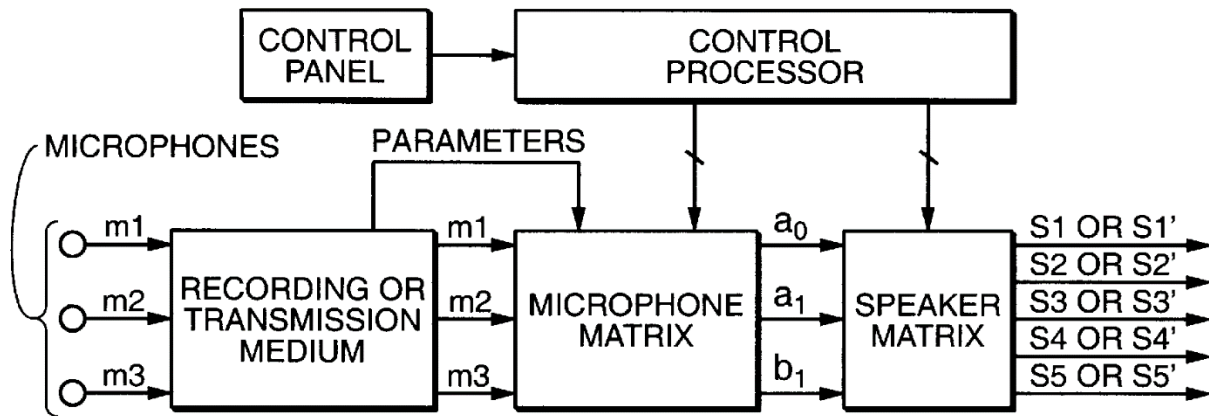
This place covers:

Replace the existing Definition statement text with the following text and figures.

Systems wherein more than four additional channels are generated from the existing channels. Example for sound reproduction with two channel stereophonic source signal reproduced over five loudspeaker channels.



Example for sound capture with input three microphone channels, output five loudspeaker channels, see figure below:



H04S 7/00

Definition statement

This place covers:

Replace the existing Definition statement text with the following.

- Sound field processing, i.e. electronic adaptation of the sound field, e.g. automatic set-up, adaptation with respect to listener position, frequency adjustment, reverberation adaptation, sound object positioning.
- Automatic audio format change, e.g. dependent on the input signal.
- Indicating the sound field.

Delete the entire Limiting references section.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Insert the following new reference in the Informative references table.

| | |
|---|--|
| Non-adaptive circuits, i.e. manually adjustable or static, for signal processing, e.g. enhancing the sound image or the | H04S1/00 , H04S3/00 |
|---|--|

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| | |
|--|--|
| spatial distribution, of for sound capture in stereophonic systems | |
|--|--|

Special rules of classification

Replace the existing Special rules of classification text with the following.

Further detail is covered by Indexing Code groups [H04R2203/12](#), [H04S2400/01](#), [H04S2400/03](#), [H04S2400/05](#), [H04S2400/07](#), [H04S2400/11](#), [H04S2400/13](#) and [H04S2420/13](#).

Classification is obligatory.

Insert the following new Glossary of terms section.

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

| | |
|-----------------|------------------------------|
| Control systems | encompasses adaptive systems |
|-----------------|------------------------------|

H04S 7/30

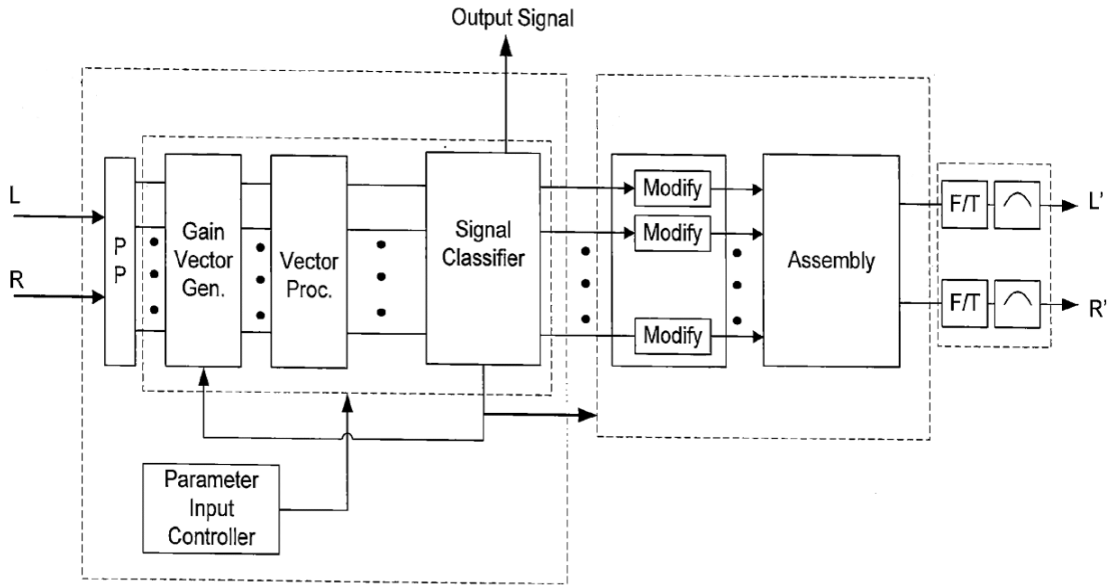
Definition statement

This place covers:

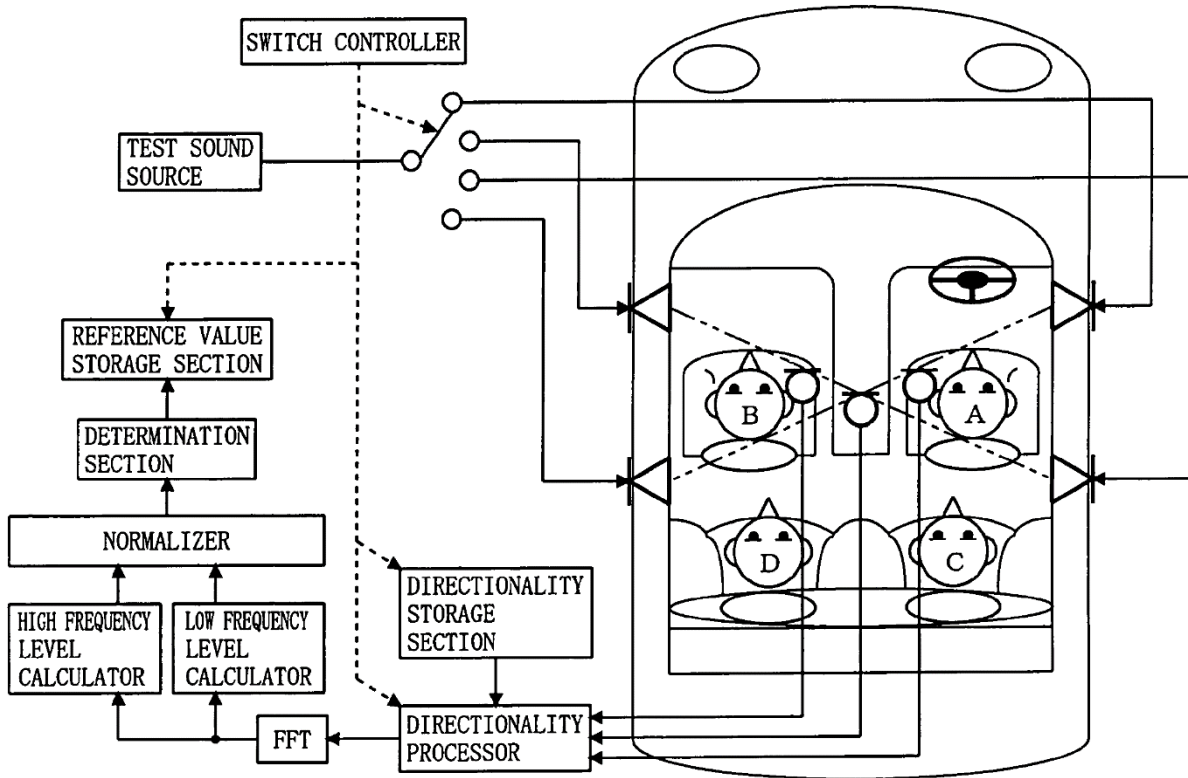
Replace the existing Definition statement text with the following text and figures.

Electronic sound processing adaptable in dependence of

- calibration signals
- sensor signals,
- parameters for sound field or sound object description, e.g. by using an adaptive circuit, a look-up table or orientation sensors, for changing the sound field, e.g. the spatial distribution (as show in the example), for automatic set-up, adaptation with respect to listener position, frequency adjustment, reverberation adaptation, sound object positioning



Example for adaptation of the sound field (e.g. shading effects) in dependence of the number and position of passengers in the vehicle. Directionally deviations due to shading is measured. Once measured the sound field is adapted accordingly (see figure).



References

Delete the entire Limiting references section.

Insert the following new Application-oriented references section.

Application-oriented references

Examples of places where the subject matter of this group is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

| | |
|------------------------------------|--------------------------|
| Telephonic conference arrangements | H04M3/56 |
| Video conference systems | H04N7/15 |

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Insert the following new Informative references section.

Informative references

Attention is drawn to the following places, which may be of interest for search:

| | |
|--|--|
| Non-adaptive circuits, i.e. manually adjustable or static, for enhancing the sound image or the spatial distribution | H04S1/002 , H04S3/002 |
|--|--|

H04S 7/301

Definition statement

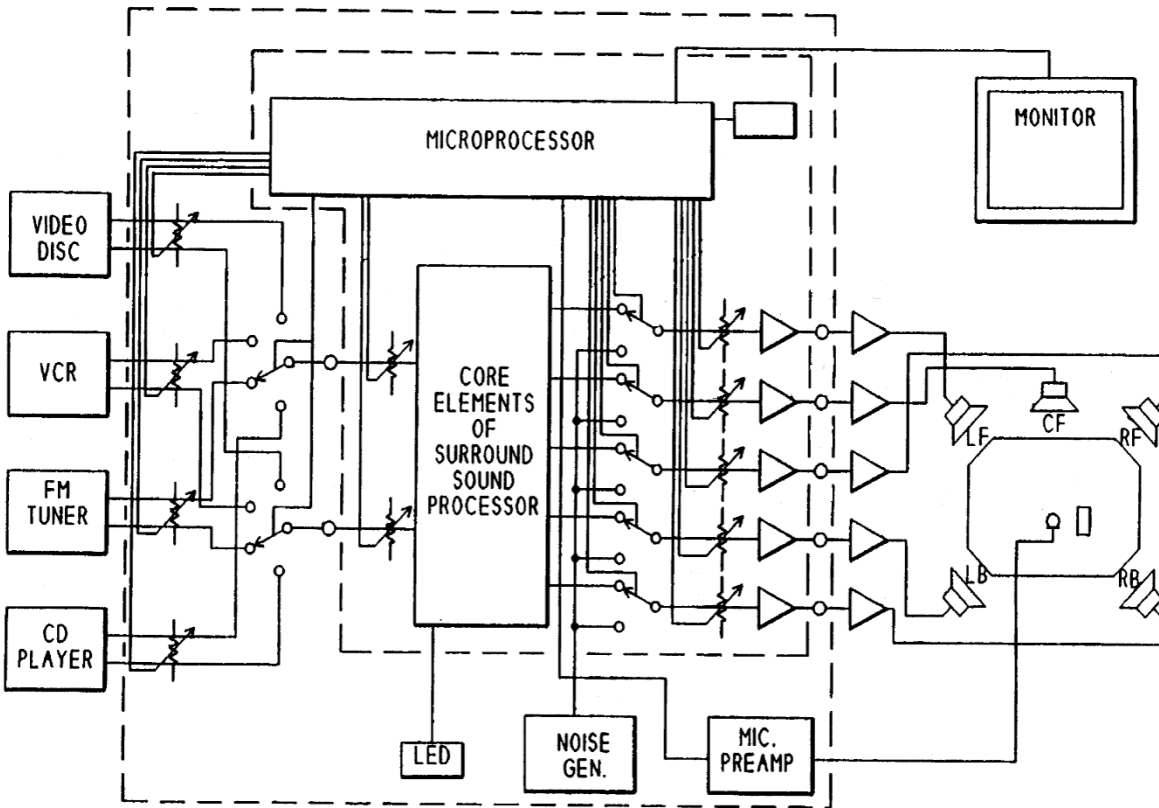
This place covers:

Replace the existing Definition statement text with the following text and figures.

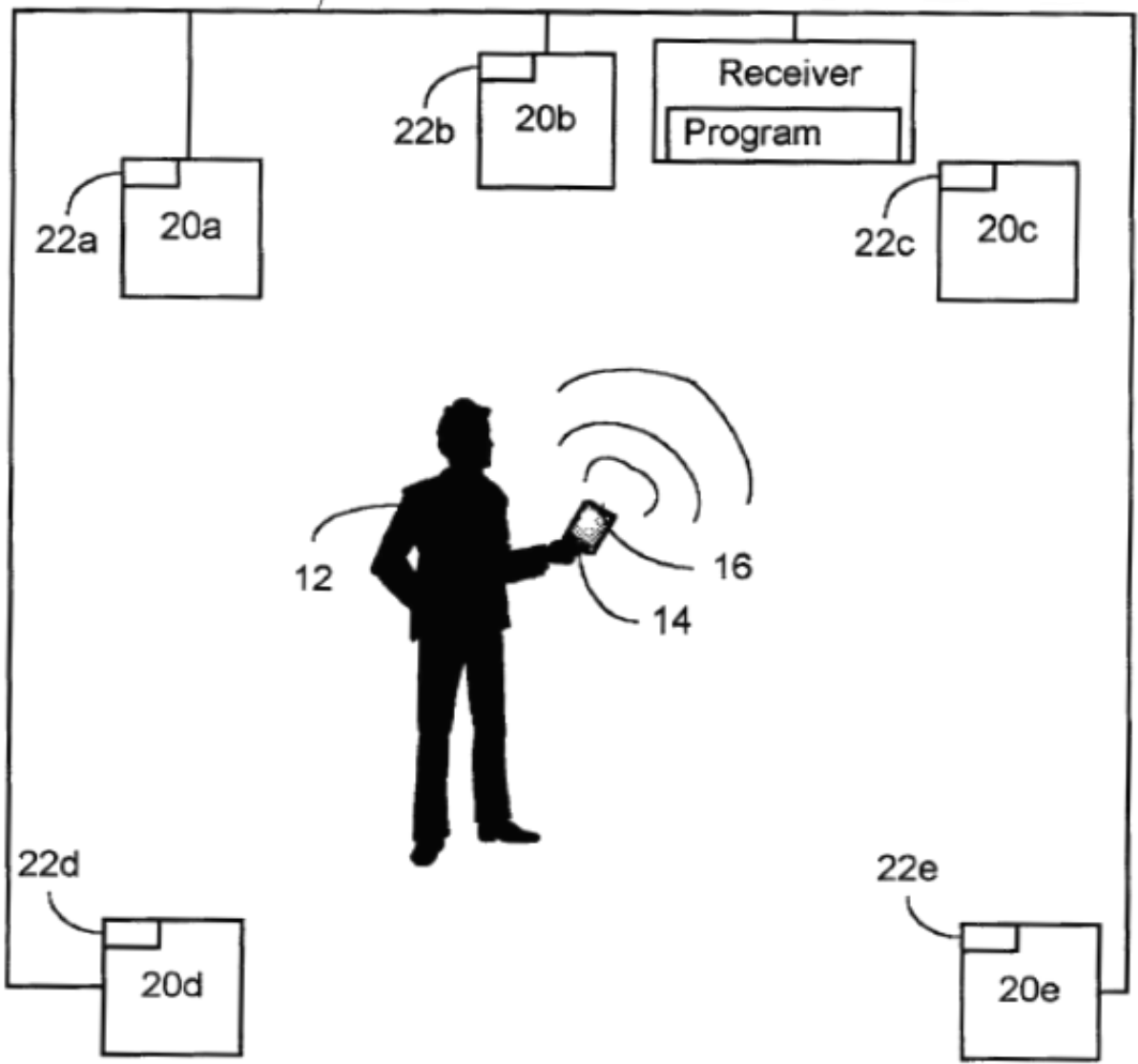
Automatic set-up. In the example below calibration is carried out with respect to the relative gains in the listener position by using a test microphone and a noise generator.

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In the example below calibration is carried out with respect to the signal delays in the listener position (12) by a determining the distance between the remote control (14,16) and each loudspeaker using low frequency pulses sent by the control and received by pulse counter (22a-22e) provided with each speaker (20a-20e).



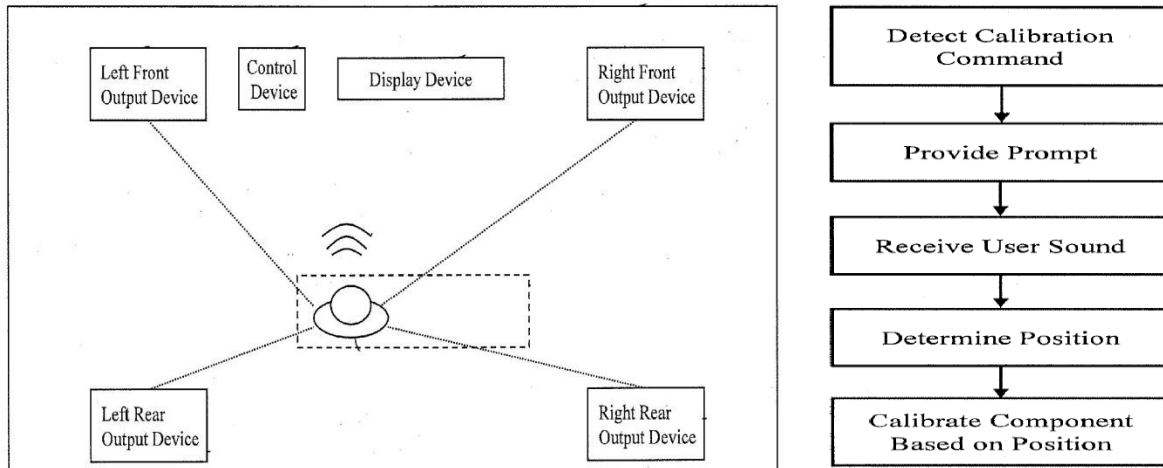
H04S 7/302

Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figure.

Aspects of adaptation of a sound system with respect to listener position (see figures) or orientation relative to the loudspeakers or virtual sound sources. The calibration can be automatic.



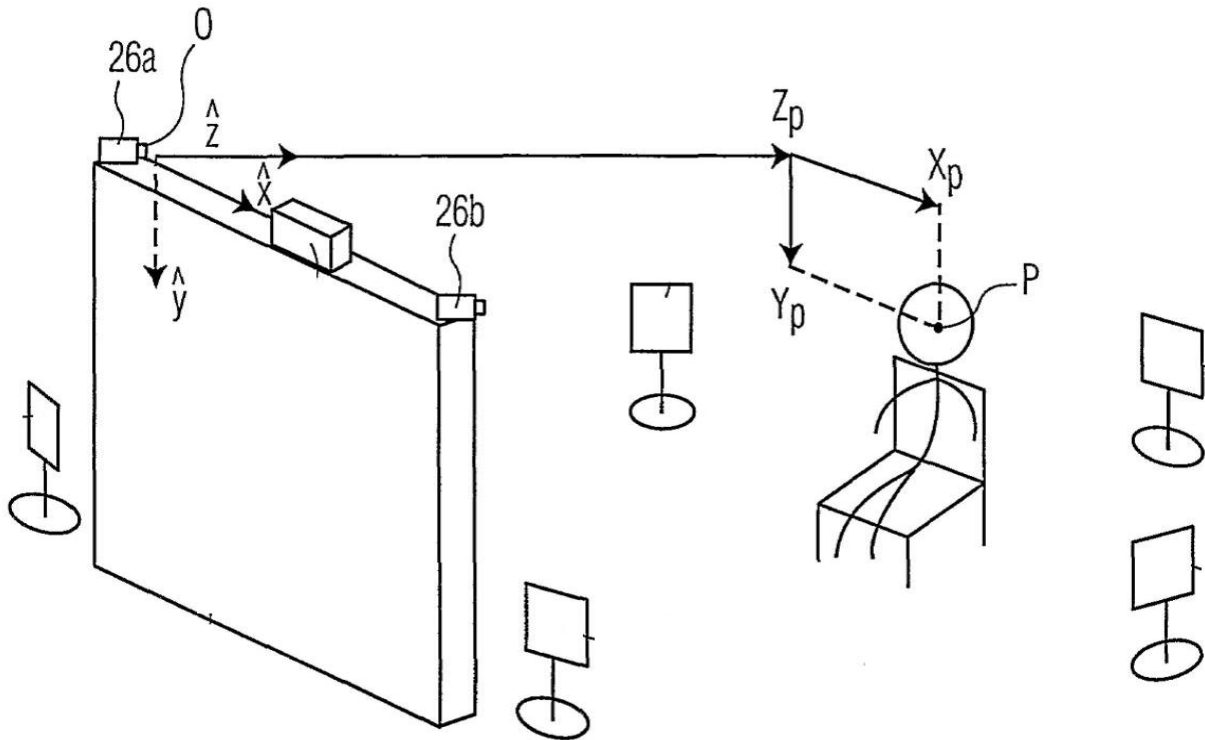
H04S 7/303

Insert the following new Definition statement text and figure.

Definition statement

This place covers:

System in which the listener position or orientation (P) is tracked, e.g. with a camera (26a, 26b) (see Figure) and the sound field is adapted accordingly.



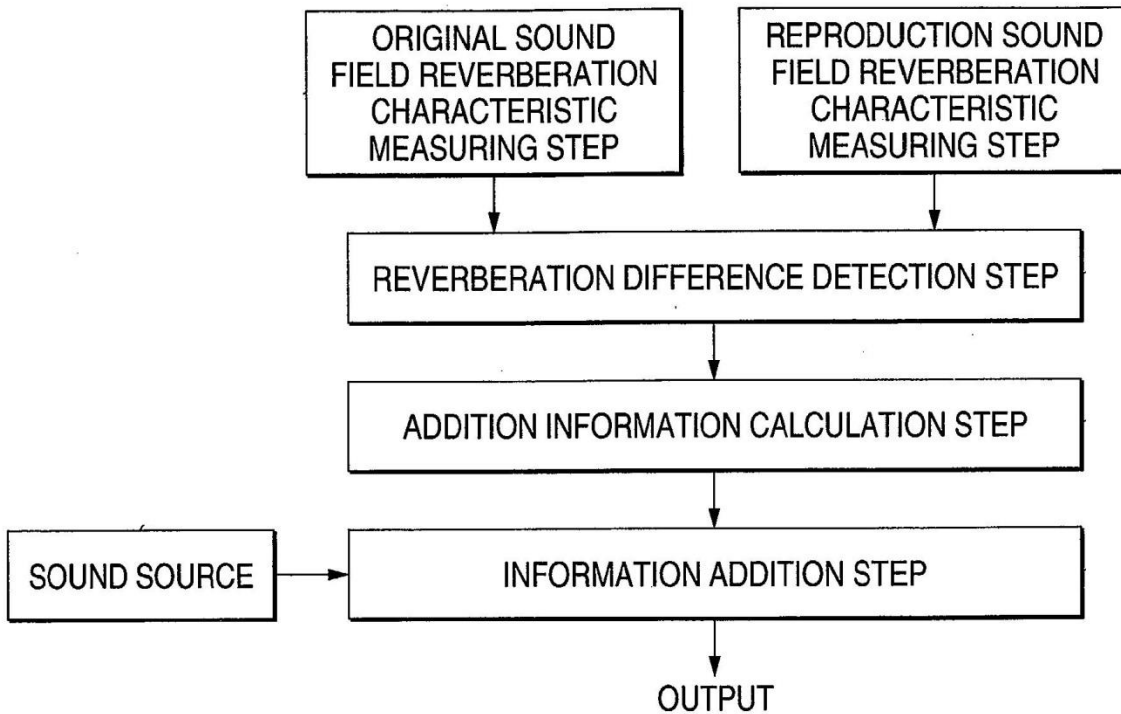
H04S 7/305

Definition statement

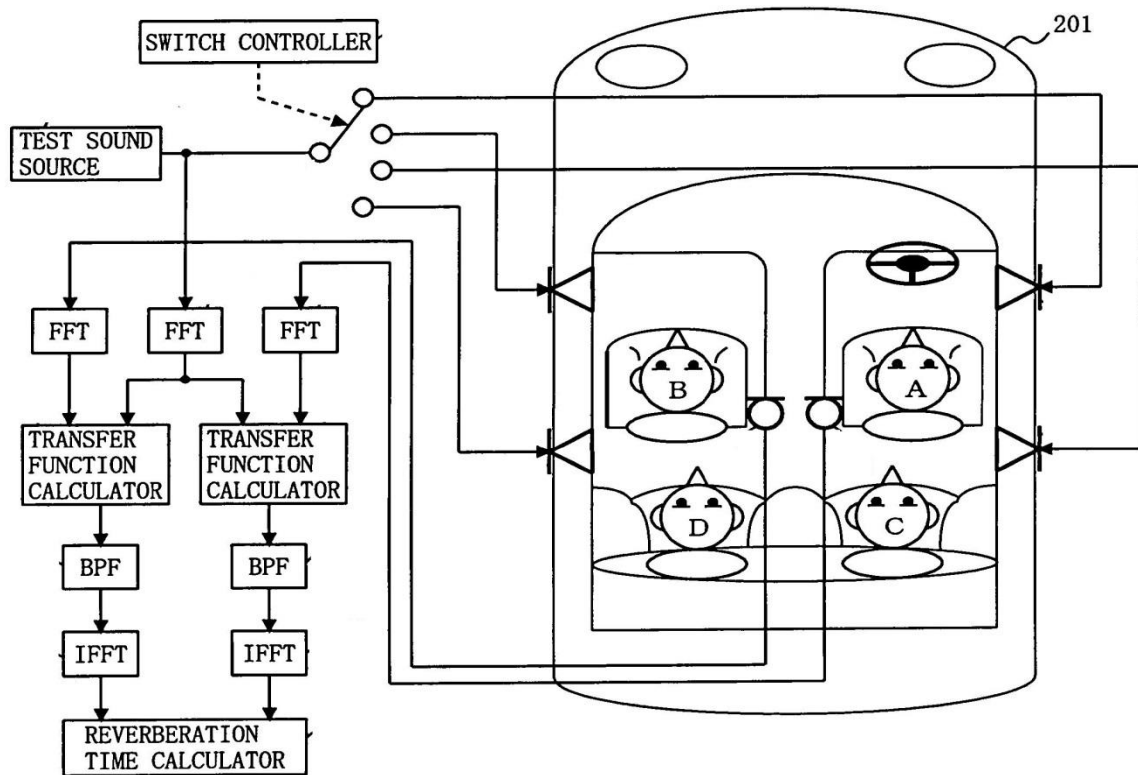
This place covers:

Replace the existing Definition statement text with the following text and figures.

Reverberation adaption to the sound field. Example for adaptation of reverberation in a room (see figure).



Example for adaptation of reverberation in dependence of the number and position of passengers (A,B,C,D) in the vehicle (201). Variations in reverberation due to the passengers are measured. Once measured, reverberation is adapted accordingly (see figure).



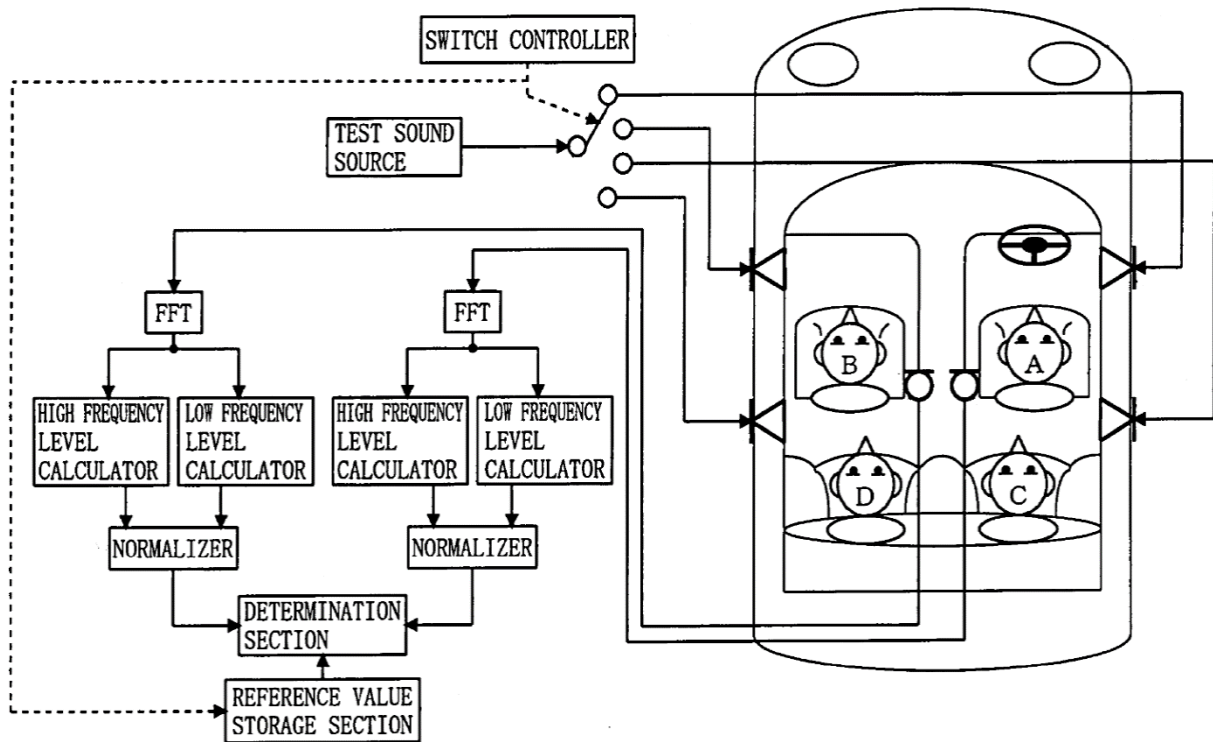
H04S 7/307

Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figure.

Frequency adaption to the sound field. Example for adaptation of frequency in dependence of the number and position of passengers in the vehicle. Variations in frequency due to the passengers are measured. Once measured, the frequency response is adapted accordingly (see figure).



H04S 7/308

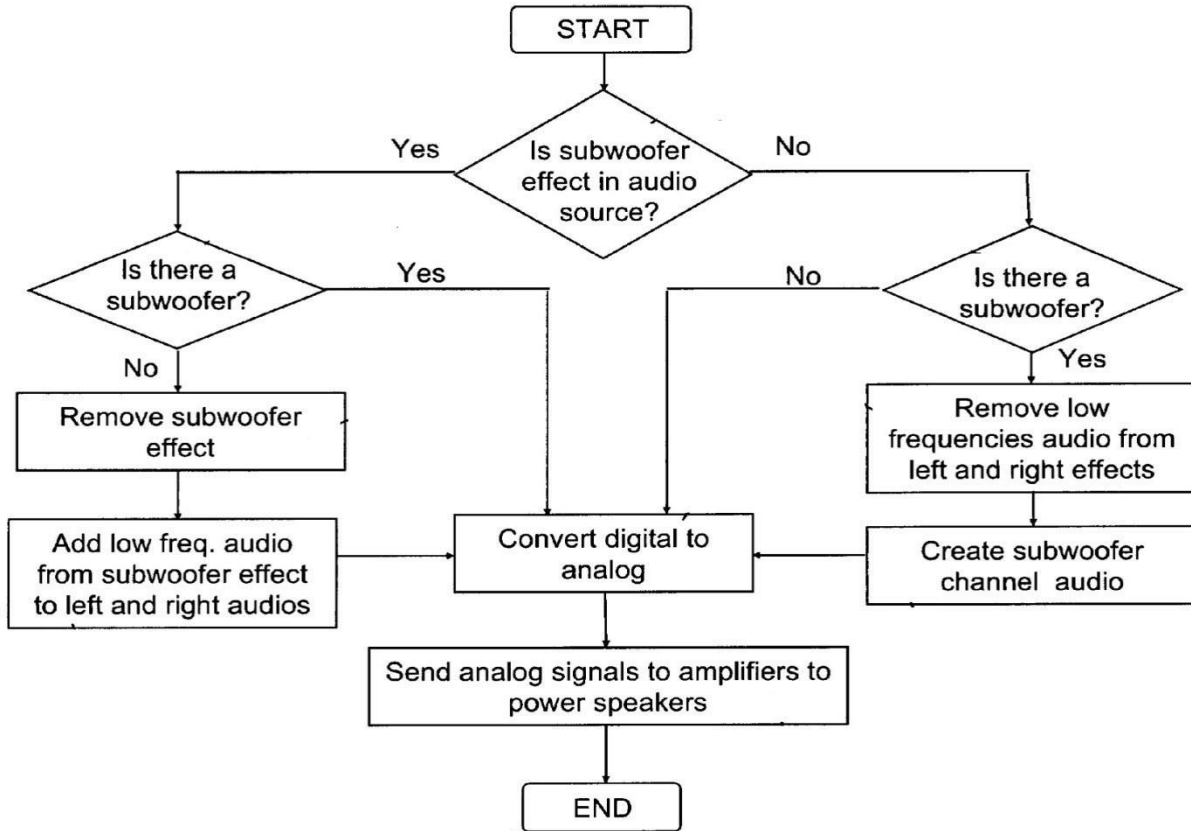
Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figures.

Adaptation of the stereophonic signal processing in dependence of the state of electrical connection of loudspeakers/headphones to respective output channels of stereophonic amplifiers.

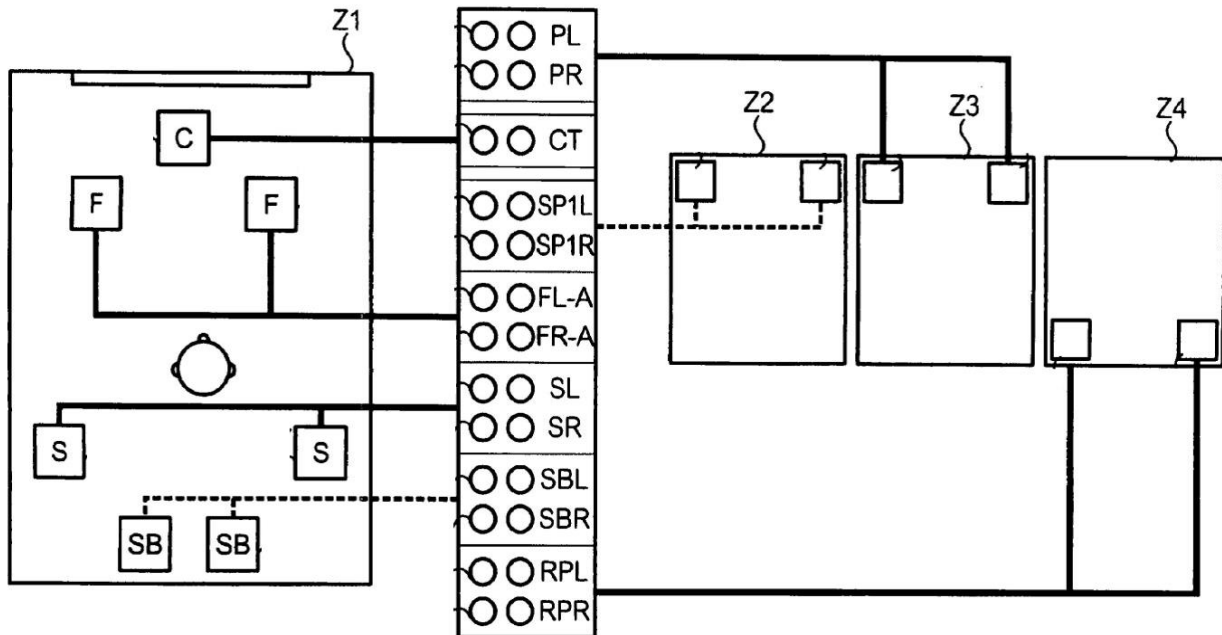
For example, a multichannel system wherein the low frequency signals are treated differently depending on the presence of a subwoofer (see figure).



For example, a multi-room system with different loudspeaker configuration in the respective sound zones (see figure (Z1-Z4)). Audio signal processing of the multichannel sound signal is depending on the zone (room) the sound signal is outputted to.

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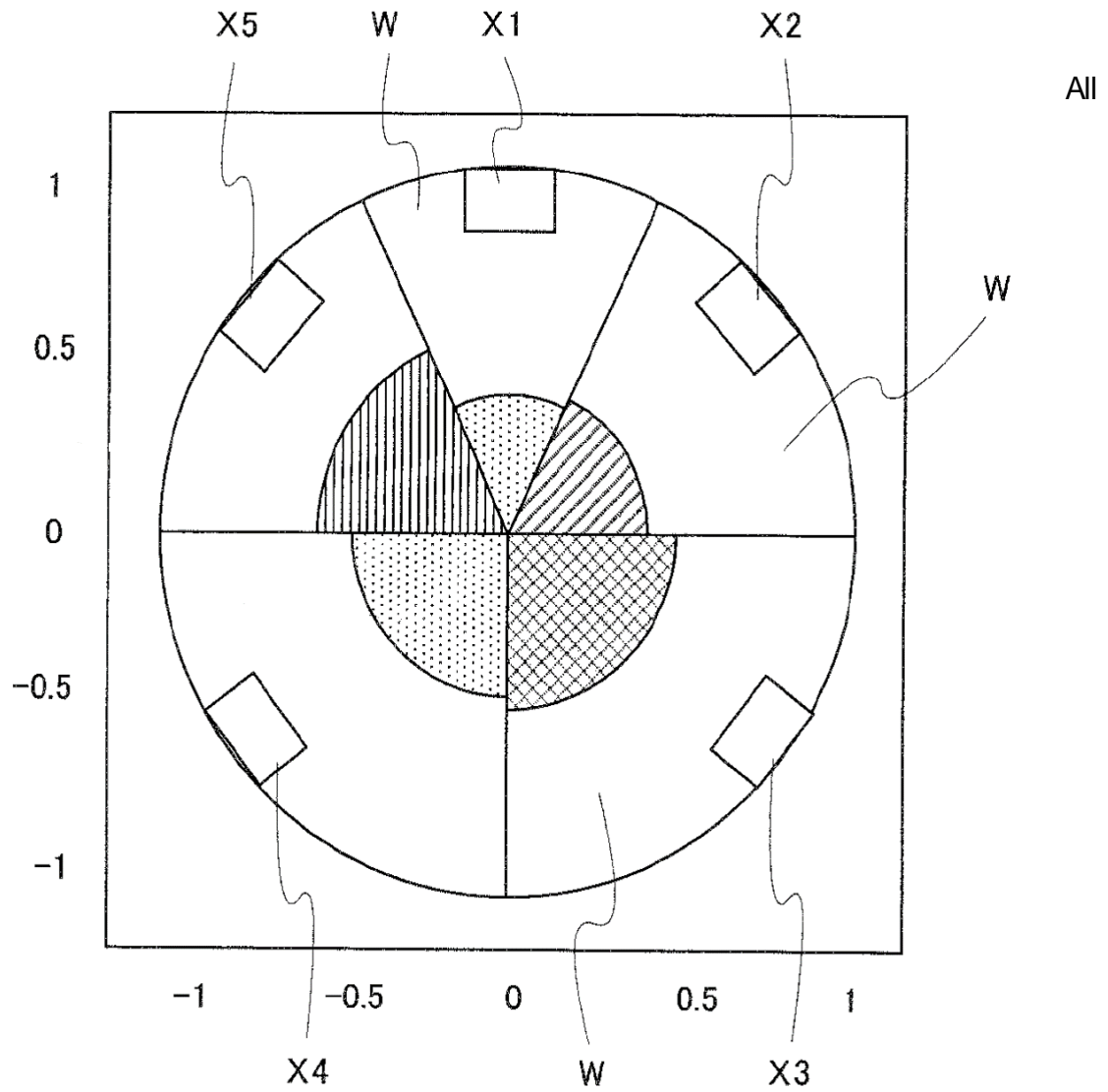
H04S 7/40

Definition statement

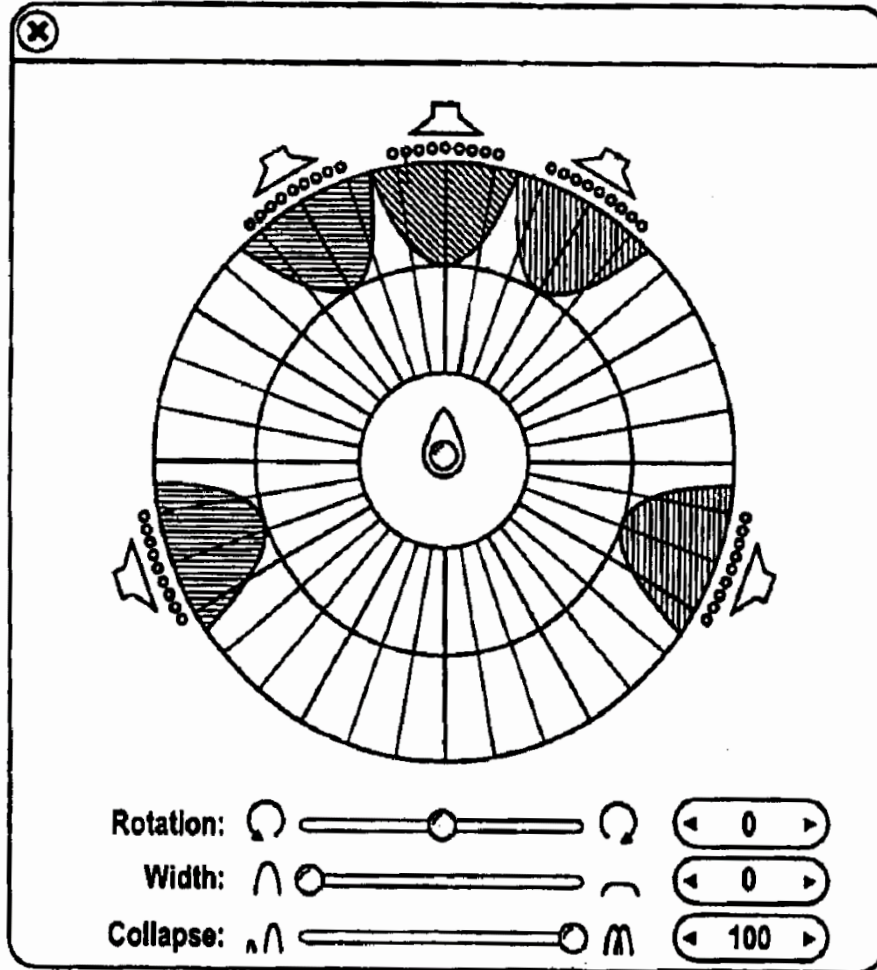
This place covers:

Replace the existing Definition statement text with the following text and figures.

Display showing stereophonic sound image. For example, indicating power and the frequency of the channels (X1-X5) as shown in the figure. The shading indicates the frequency characteristics and the radius of the shaded area the power of the signal for the channels.



Channels are displayed and by sliding one of the controls one can rotate, change the width and the amplitude of the source channels which is visualised in the display.



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace the text in the third row of the Informative references table with the following.

| | |
|---|----------------------------|
| Visual indication of individual audio signal levels | H04R29/008 |
|---|----------------------------|

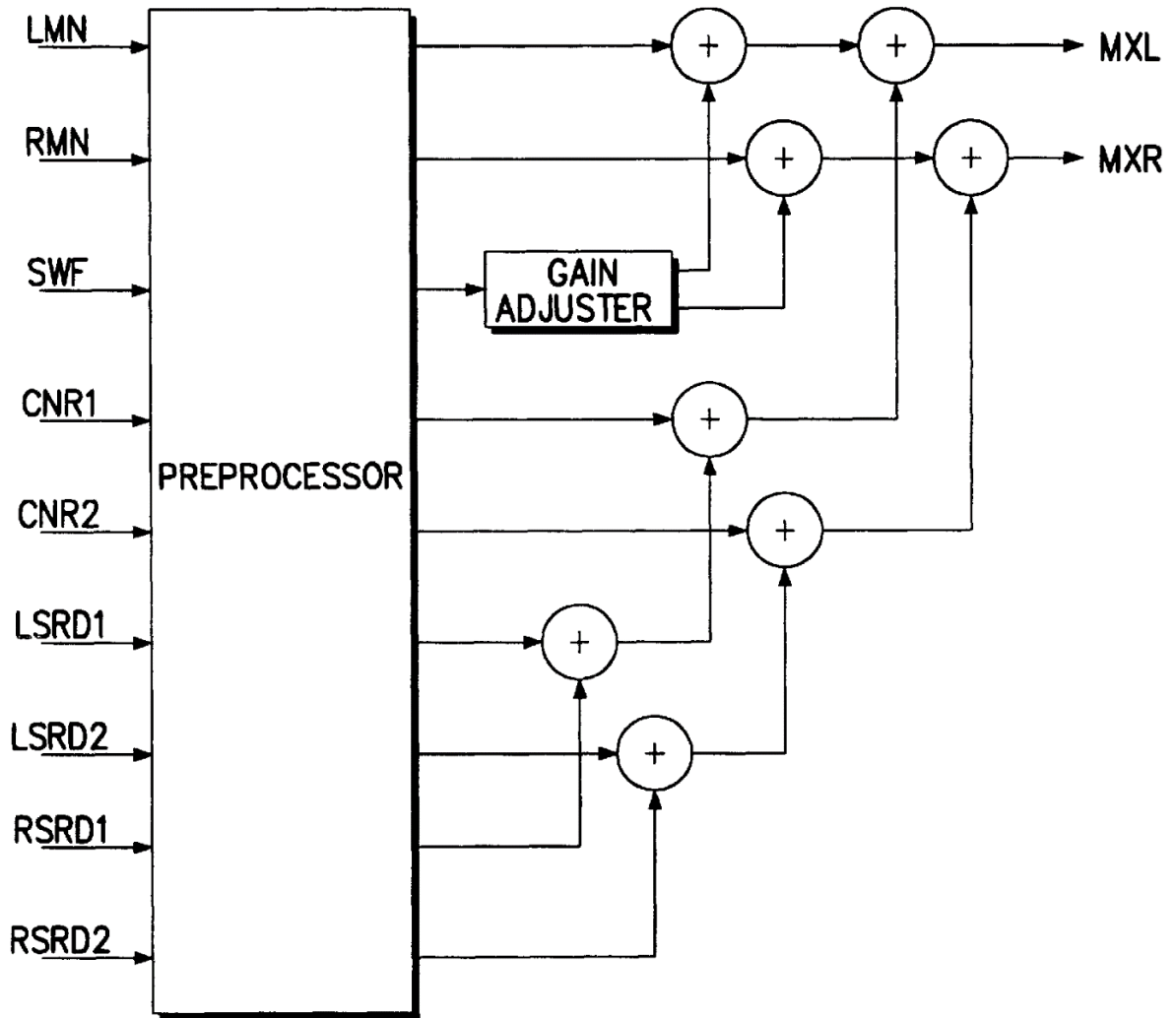
H04S 2400/01

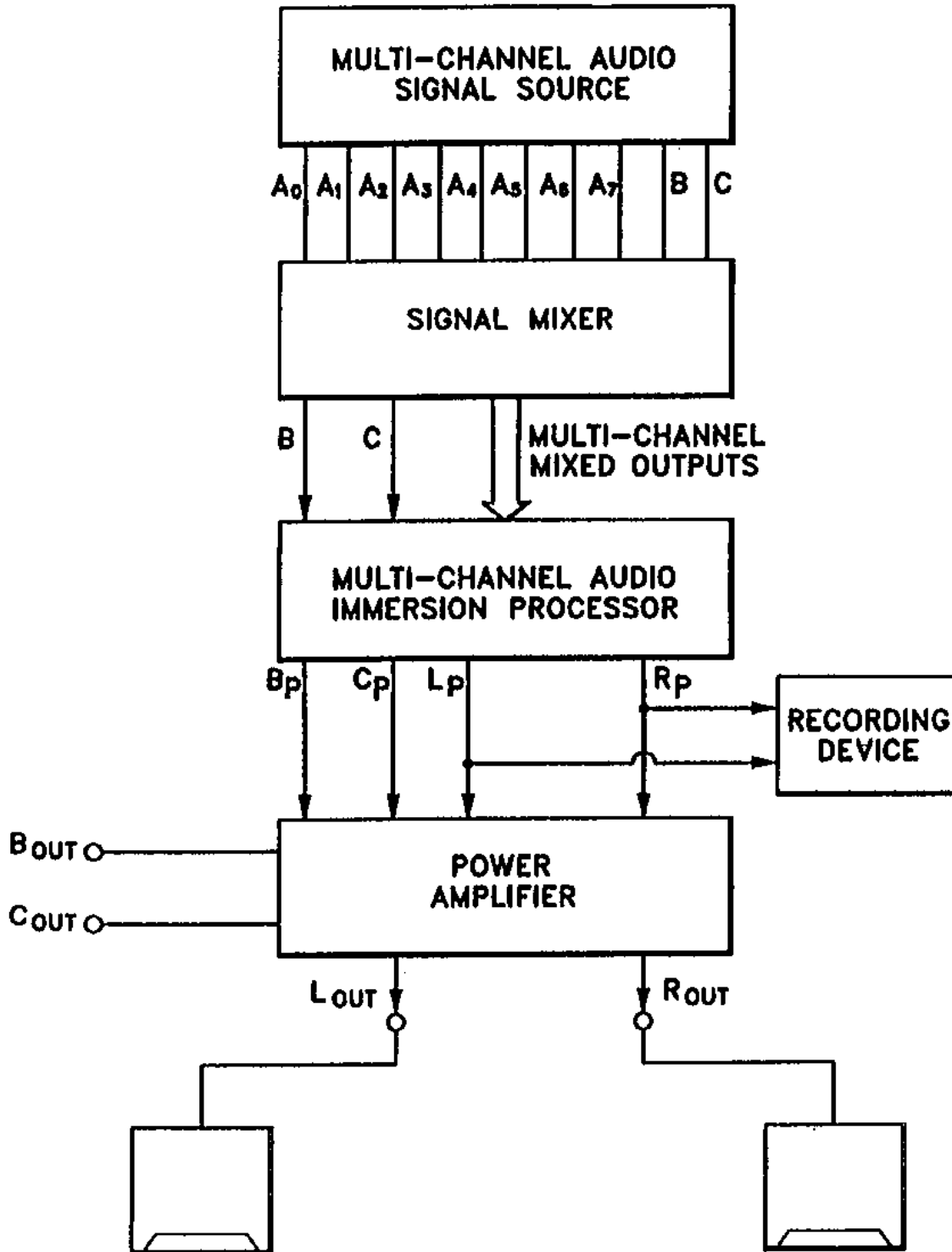
Insert the following new Definition statement.

Definition statement

This place covers:

Preservation of the multi-channel information is essential when reducing the number (more than two) of channels to two.
For example:





Special rules of classification

Delete the following text at the end of the paragraph.

See for example: US6470087, US5912976

H04S 2400/03

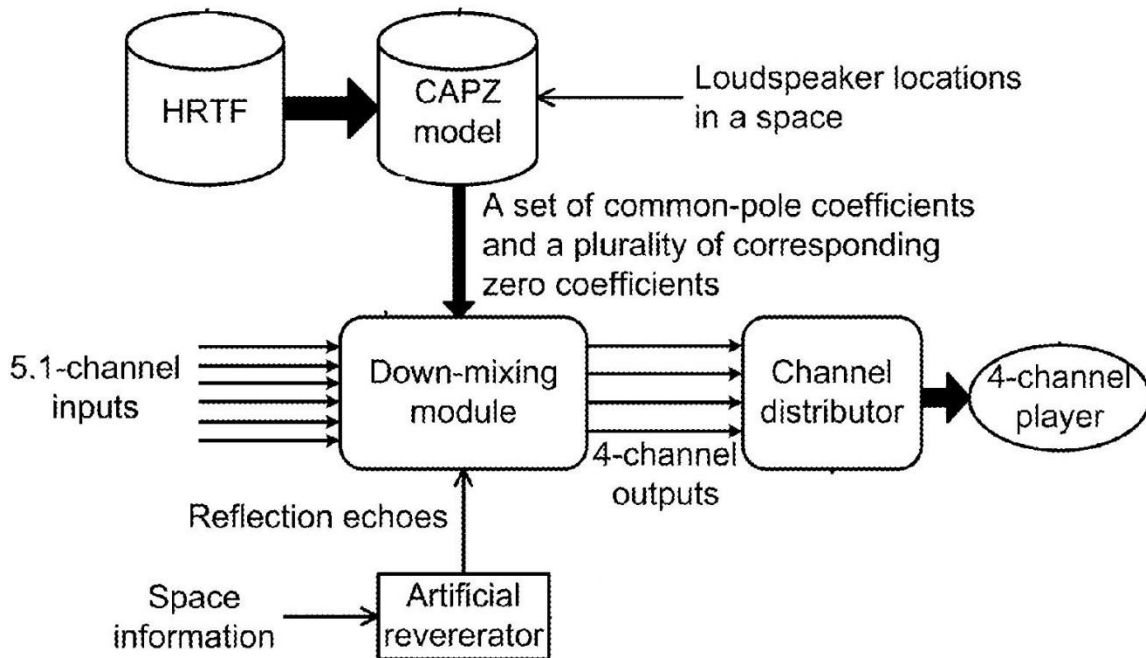
Insert the following new Definition statement.

Definition statement

This place covers:

The multi-channel information should be preserved as much as possible when reducing the number (more than two) of channels.

For example a reduction from five input channels to four.



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References

Limiting references

Delete the following text.

See for example: US2008049943 (e.g. paragraphs [0098] – [0099] and Figs.6A and 6B).

Insert the following new Special rules of classification section.

Special rules of classification regarding

The mere presence of downward compatibility is not to be classified.

H04S 2400/05

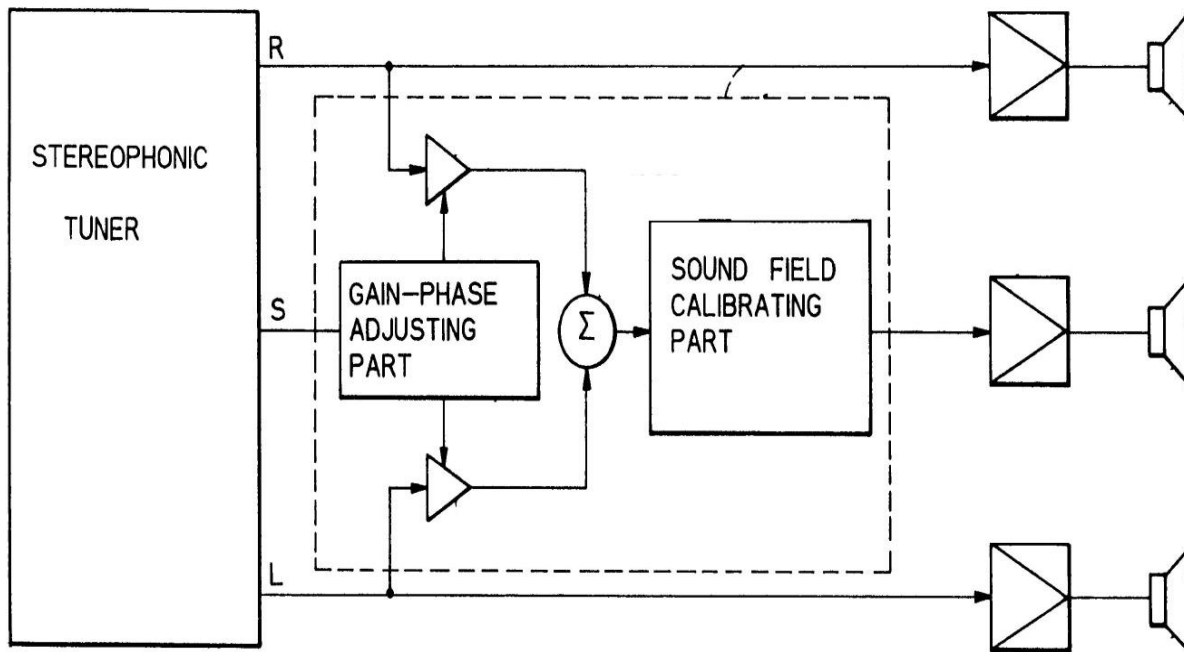
Insert the following new Definition statement.

Definition statement

This place covers:

Signal processing with respect to the centre channel, e.g. generation, redistribution or adaptation.

Example for adaptation of centre channel (S):



References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace the second row of text "Adaptation of sound field per se" with the following new text:

| | |
|---|--------------------------|
| Control circuits for electronic adaptation of the sound field | H04S7/30 |
|---|--------------------------|

Delete the following text:

See for example: EP0526136

H04S 2400/07

Definition statement

This place covers:

Replace the existing Definition statement text with the following text and figures.

Signal processing with respect to the LFE channel, e.g. generation, redistribution.
 Figure 1. Example for of LFE channel of a 5.1 system to the other five channel (5.0 system).

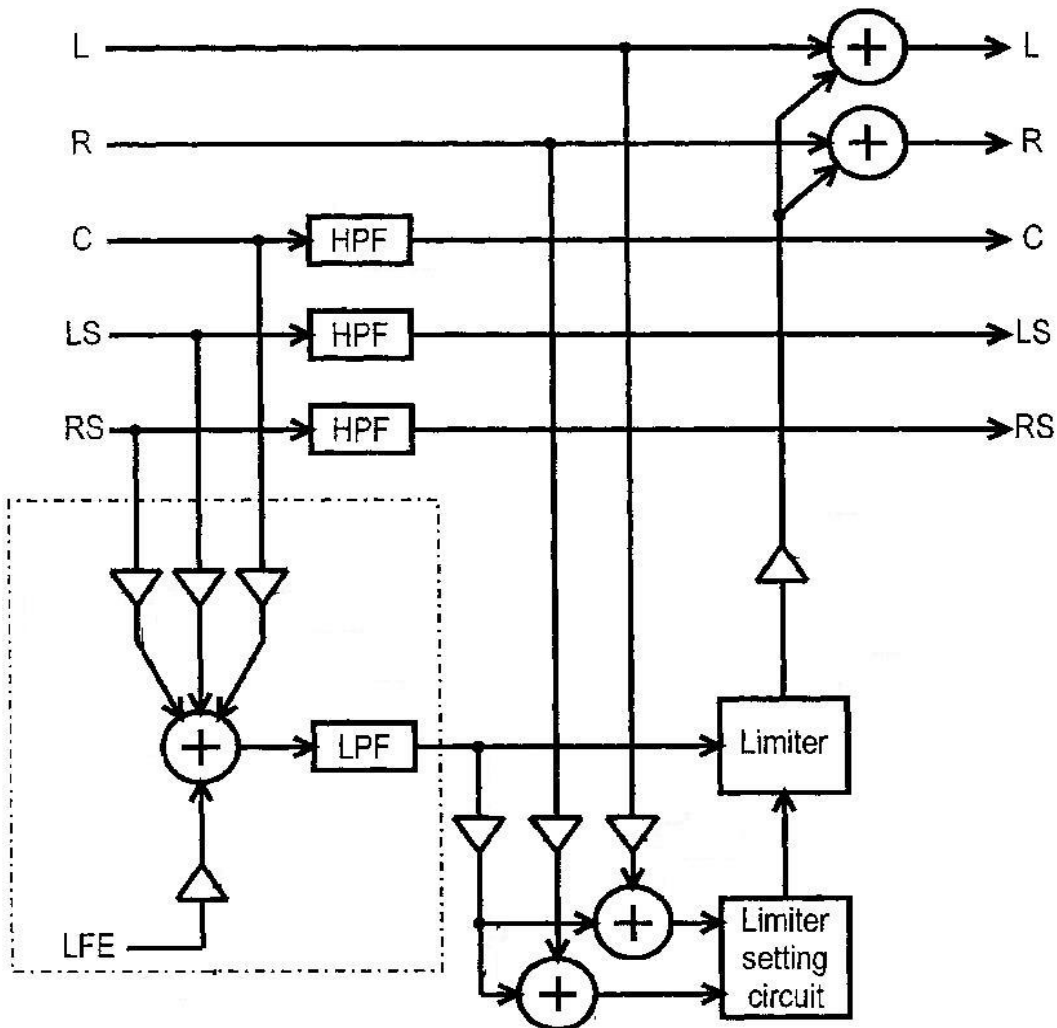
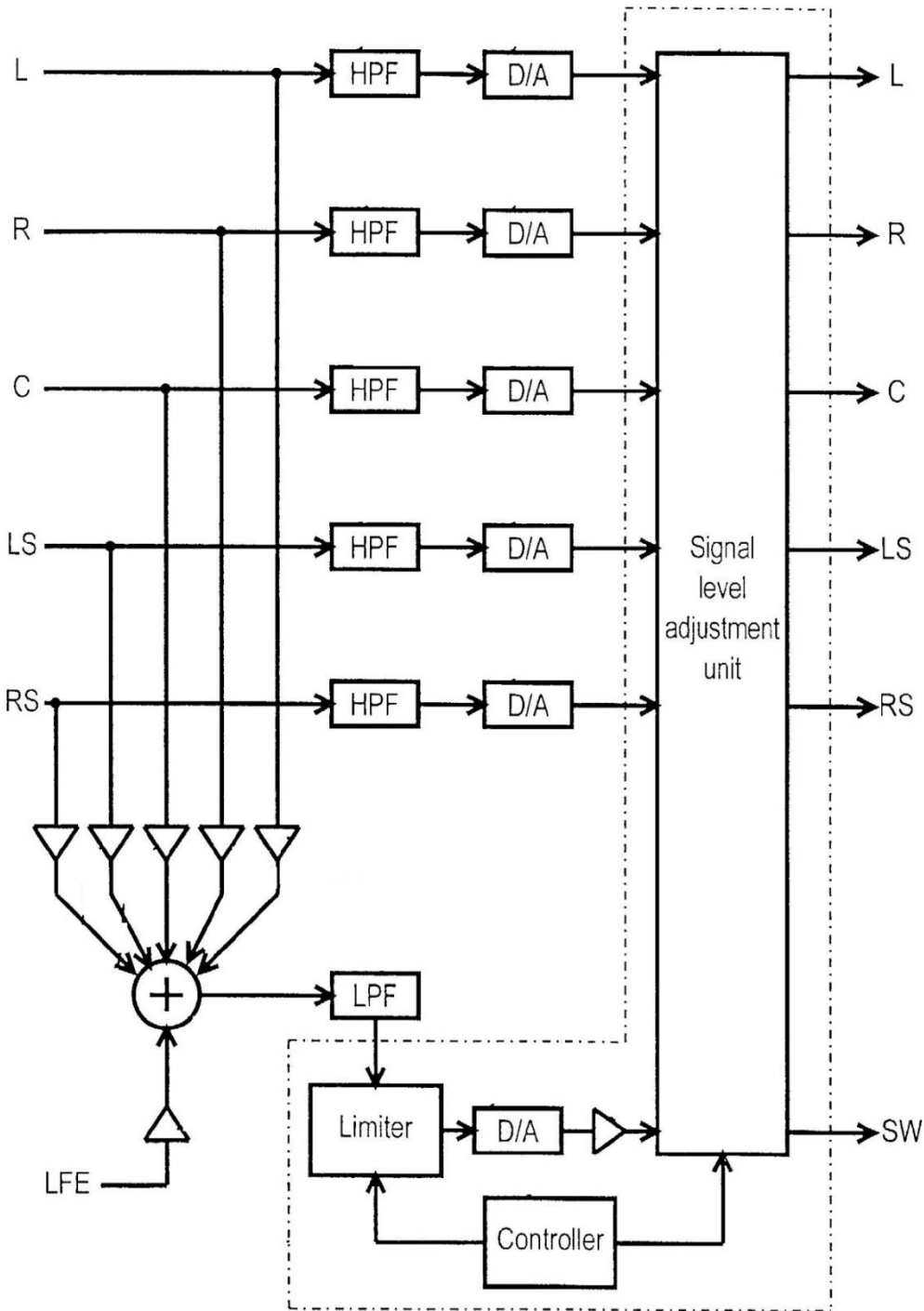


Figure 2. Example of redistribution of low frequency components of the 5 channels of a 5.1 system to the LFE channel.



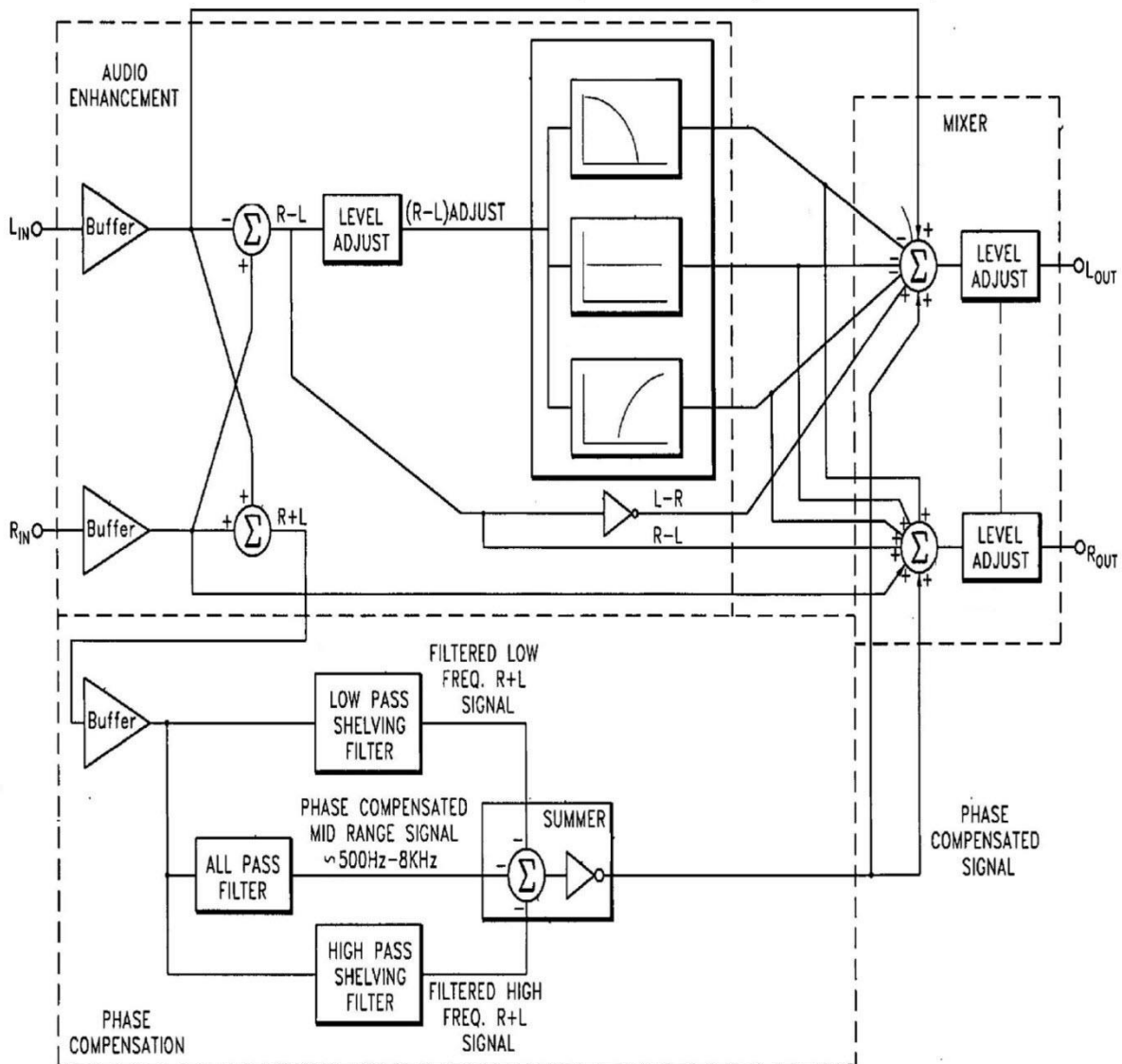
H04S 2400/09

Insert the following new Definition statement.

Definition statement

This place covers:

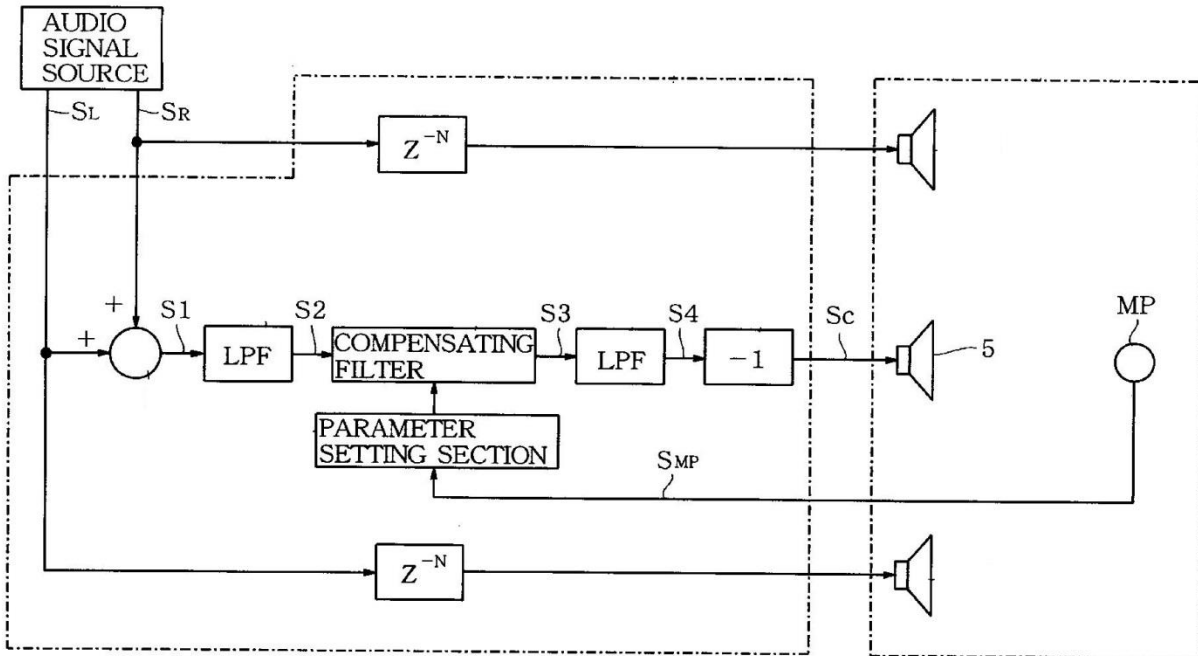
Distortion can be caused by the reproduction components (speakers, signal processing). In the example below the phase distortion is reduced.



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Distortion can be due to standing waves, which are in the example below suppressed by compensating loudspeaker 5.



References

Informative references

Delete the following text:

See for example: US6519344

H04S 2400/11

Insert the following new Definition statement.

Definition statement

This place covers:

Figure 1. Sound objects are first extracted during recording and combined reproduction.

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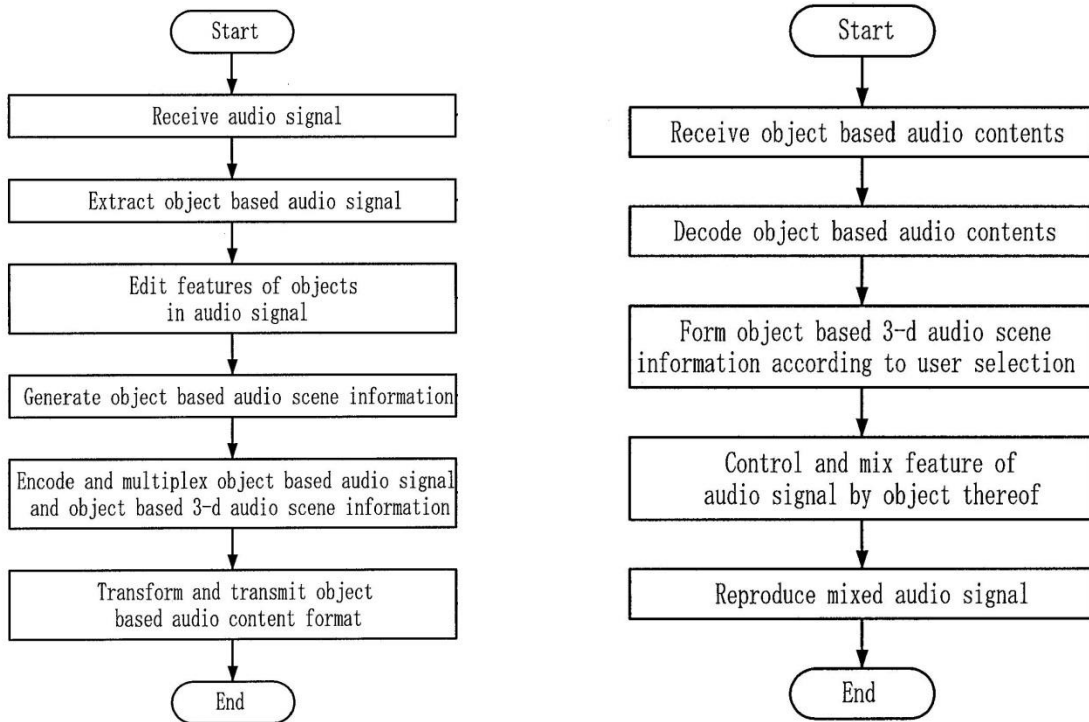
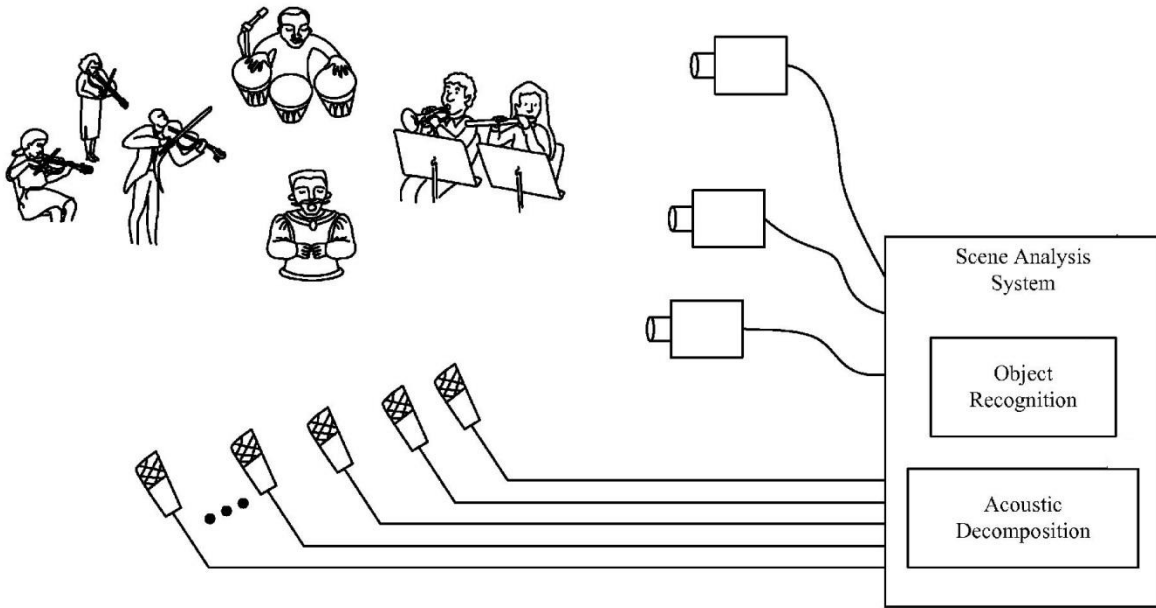


Figure 2. Extraction can be done with the help of a camera.



References

Insert the following new Limiting references section.

Limiting references

This place does not cover:

| | |
|---|-----------------------------|
| Application of wave-field synthesis in stereophonic audio systems | H04S2420/13 |
|---|-----------------------------|

Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace the existing Informative references text with with the following.

| | |
|--|-----------------------------|
| Positioning of sound field itself, e.g. balance and fading of the loudspeaker signals | H04S7/302 |
| Aspects of volume control, not necessarily automatic, in two and multi-channel sound systems | H04S2400/13 |

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Delete the following text:

See for example: US6519344

H04S 2400/13

Insert the following new Definition statement.

Definition statement

This place covers:

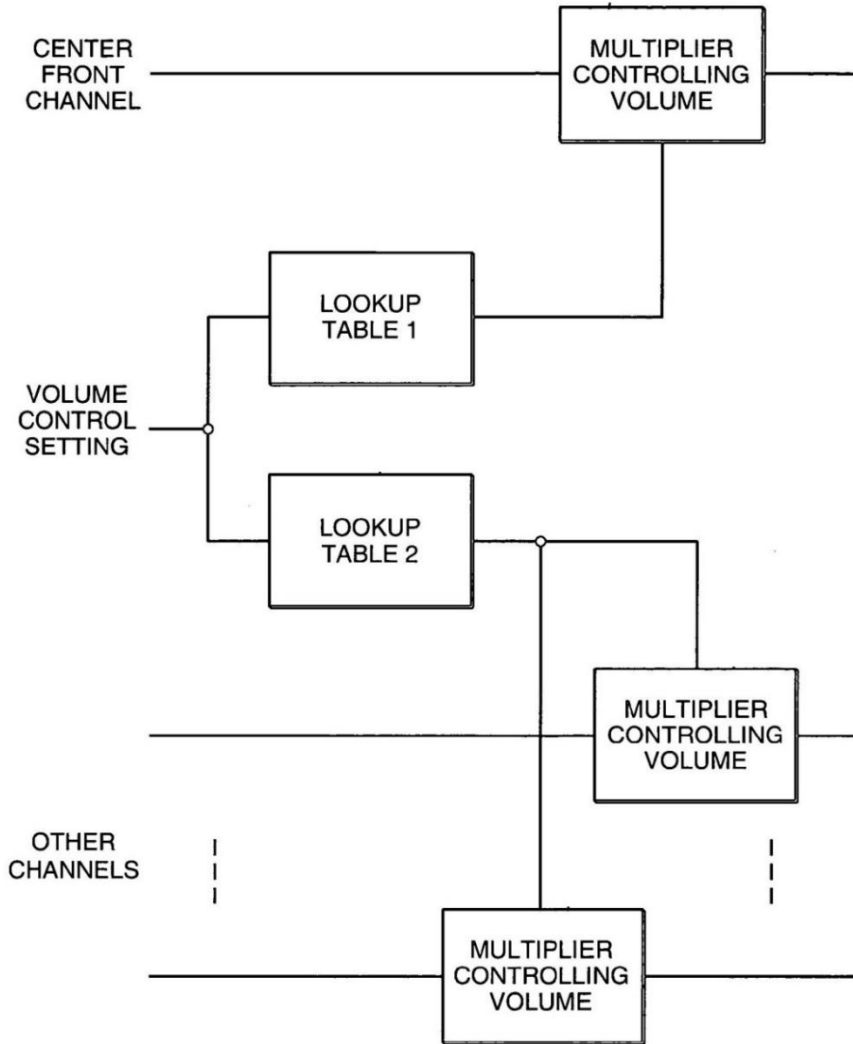
Control of volume.

Figure 1. Volume Control

For example, note the following figure showing aspects of volume control.

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References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Insert the following new reference in the Informative references table.

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| | |
|---|--|
| Automatic control of amplifiers dependent upon ambient noise level or sound level | H03G3/24 ; H03G3/32 |
|---|--|

Delete the following text:

See for example: US2004213421 and DE4202609

H04S 2400/15

Insert the following new Definition statement.

Definition statement

This place covers:

Figure 1. Capture and reproduction of sound objects.

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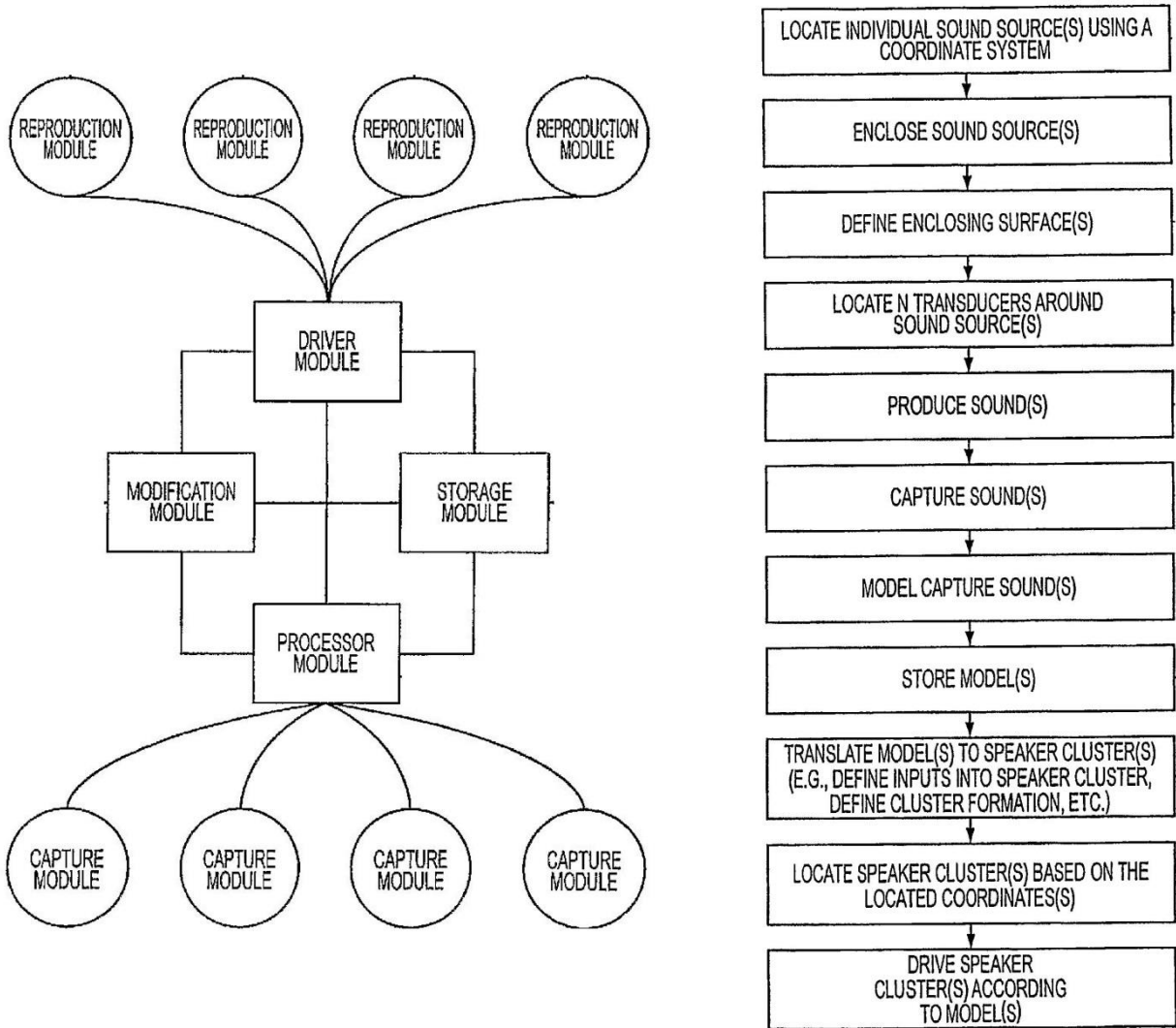
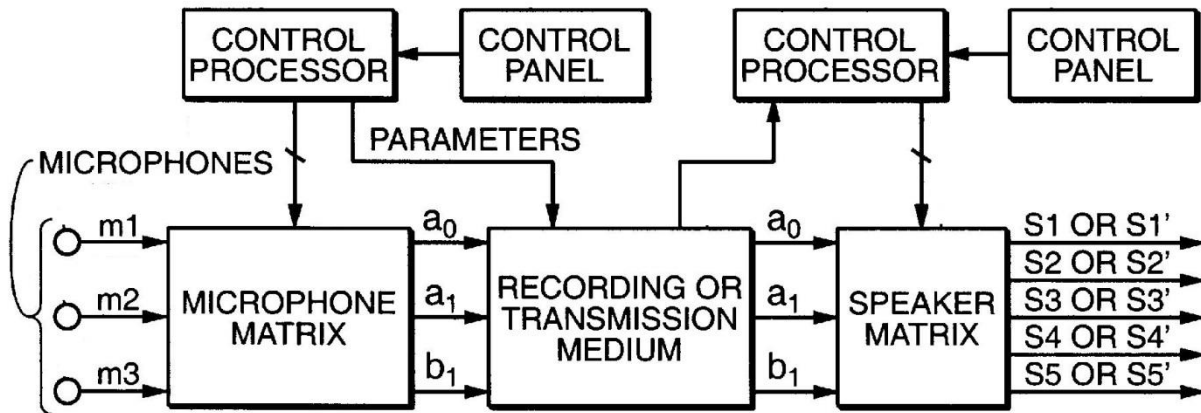


Figure 2. Capture and reproduction of sound field.

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References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Replace the term “construational” with “constructional” in the following reference.

| | |
|---|---------------------------|
| Spatial or constructional arrangements of microphones | H04R5/027 |
|---|---------------------------|

Delete the following statement:

See for example: US2005141728 (Figs. 3, 5 and 6) and US2006206221 (Figs.1 and 3)

Special rules of classification

Replace the term “construction” with “constructional” in the following sentence.

Insert a period at the end of the following sentence.

Documents only relating to spatial or constructional arrangements of microphones should not receive this Indexing Code group.

H04S 2420/01

Definition statement

This place covers:

Replace the existing Definition statement text with the following new text and figures.

Improvement of the sound field taking transfer functions between ears and sound sources into account.

Examples:

Figure 1. 2-channel stereophonic reproduction on binaural headphones.

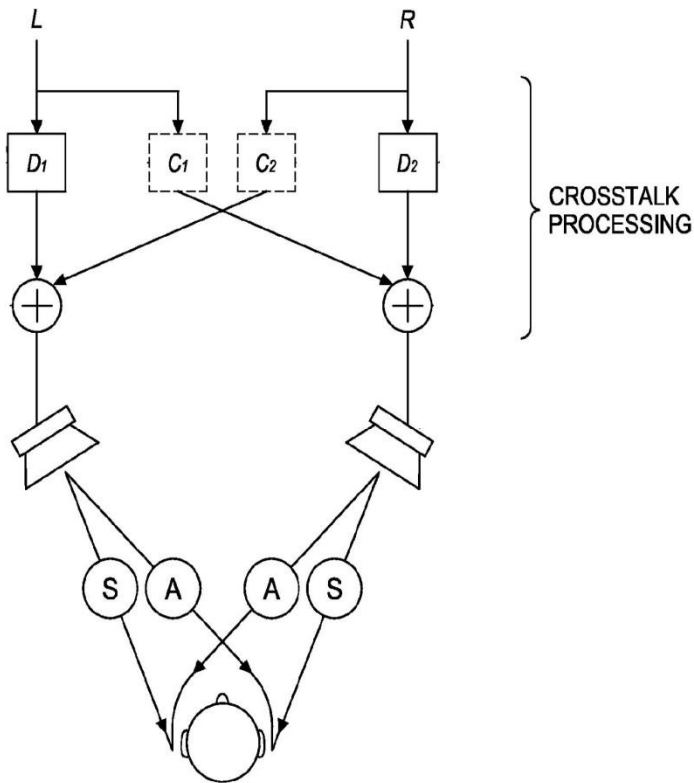


Figure 2. 5.1 reproduction on binaural headphones.

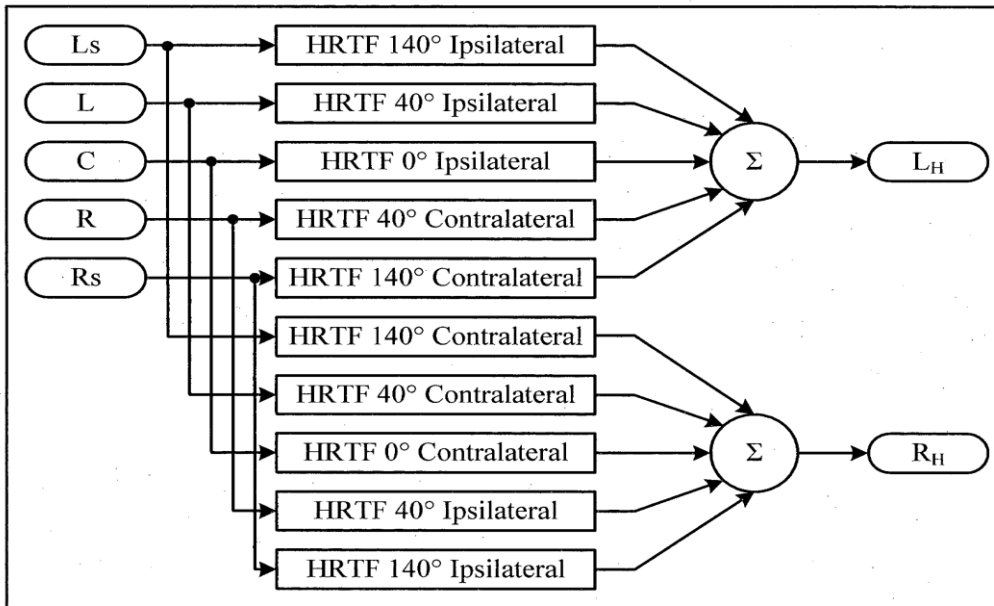
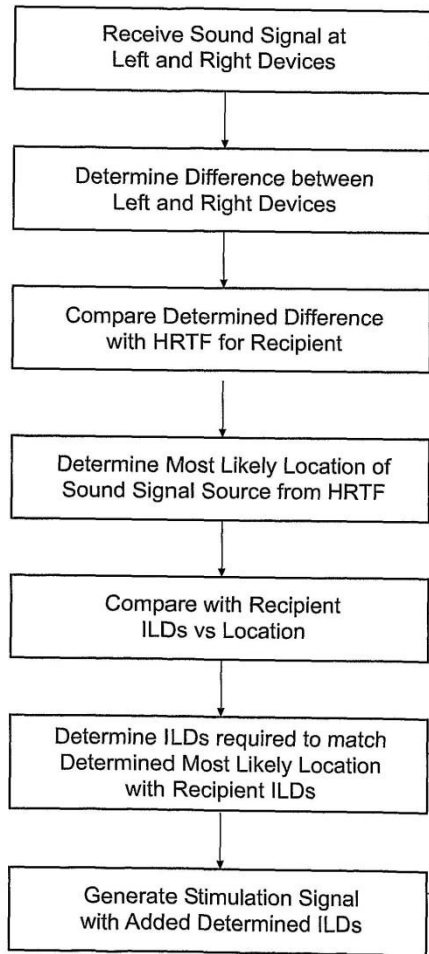


Figure 3. using HRTF to improve localisation for a binaural hearing aid system.

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Insert the following new Definition statement.

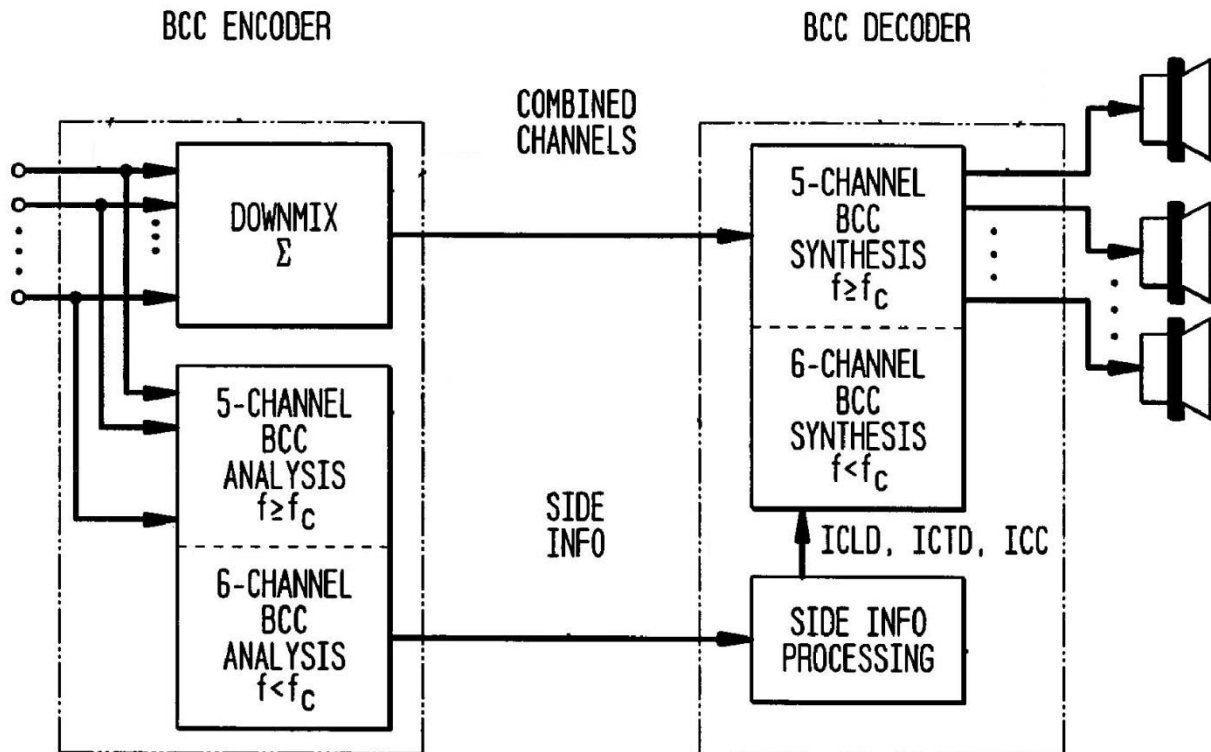
Definition statement

This place covers:

Aspects regarding parametric coding affecting the rendering in a stereophonic audio system.

For example:

Reduced computational load due to frequency dependent Binaural Cue Coding (BCC) analysis and synthesis.



References

Informative references

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Delete the following text:

See for example: WO2005094125

H04S 2420/05

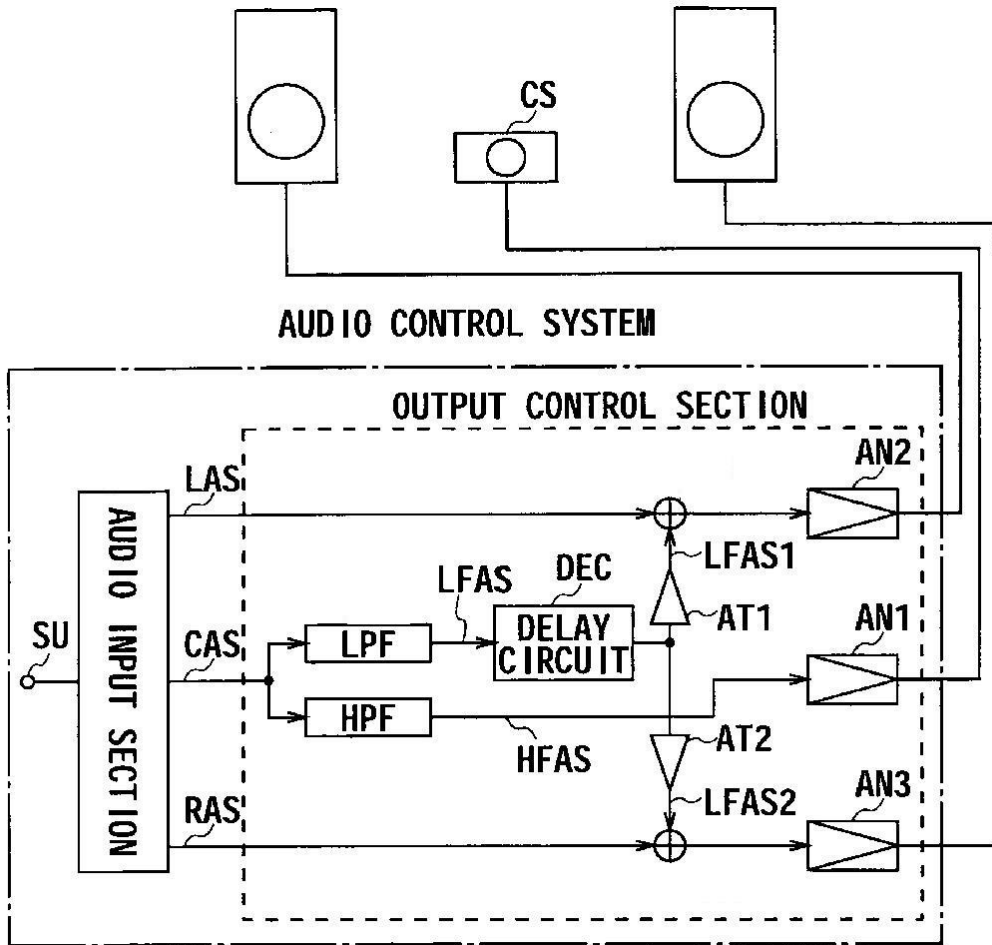
Definition statement

This place covers:

Replace the existing Definition statement text with the following new text and figure.

The use of the Haas effect to control the sound localisation from loudspeakers in a stereophonic sound system.

For example in the figure below: low frequency components of the centre output signal is routed to the main loudspeakers and is thus heard if coming from small centre channel loudspeaker.



H04S

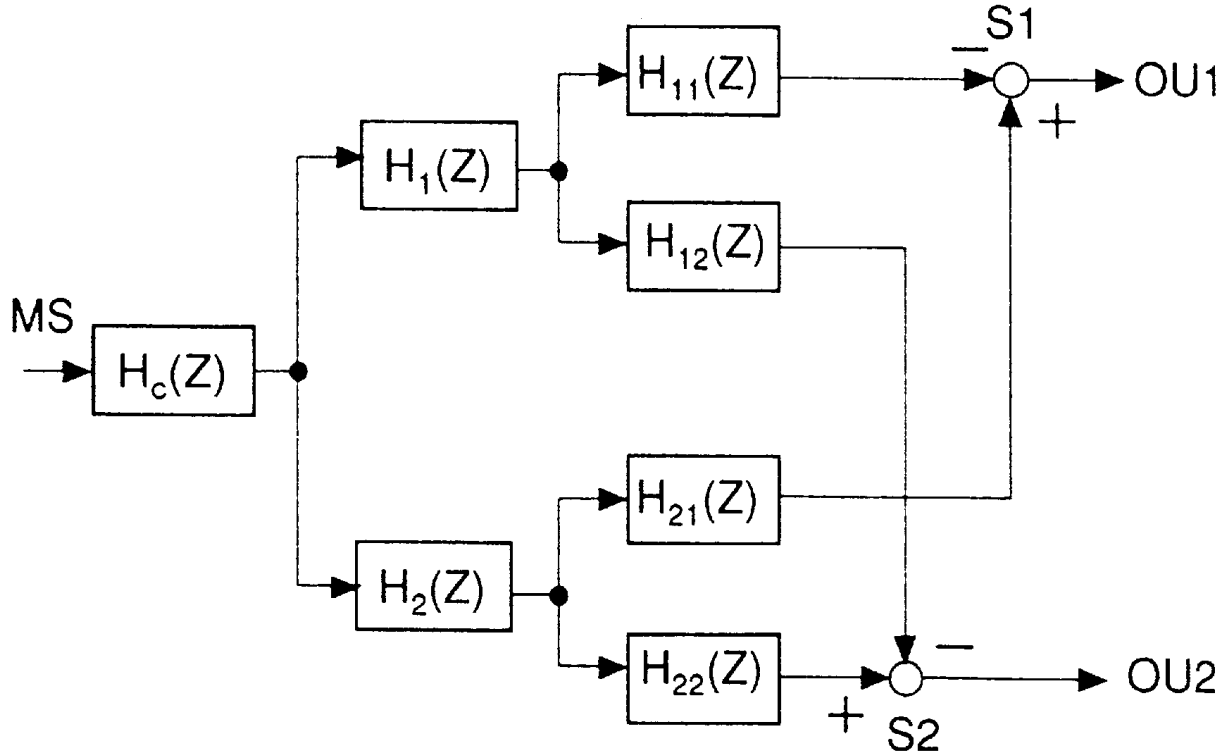
2420/07

Insert the following new Definition statement.

Definition statement

This place covers:

For example: Improved pseudo stereo generation by splitting the mono signal in different frequency bands ($H_1(z)$, $H_2(z)$) and applying for band a different type of pseudo-stereo splitting filter ($H_{11}(z)$, $H_{12}(z)$, $H_{21}(z)$, $H_{22}(z)$; e.g. according to H. Lauridsen). Thus, the high frequency contribution to the pseudo stereo can be improved.



References

Informative references

Delete the following text:

See for example: EP1471765, US4953216 and DE19632734

Special rules of classification

Replace the existing text with the following.

The mere indication of band splitting or presence of a filter bank (e.g. fast Fourier transform (FFT); or finite impulse response (FIR)) is not sufficient to mandate classification into this Indexing Code group.

H04S 2420/11

Definition statement

This place covers:

Replace the existing text with the following text and figures.

The ambisonic B-format system is a high quality sound positioning system which operates by breaking down the directionality of the sound into spherical harmonic components termed W, X, Y and Z

For example:

Figure 1.

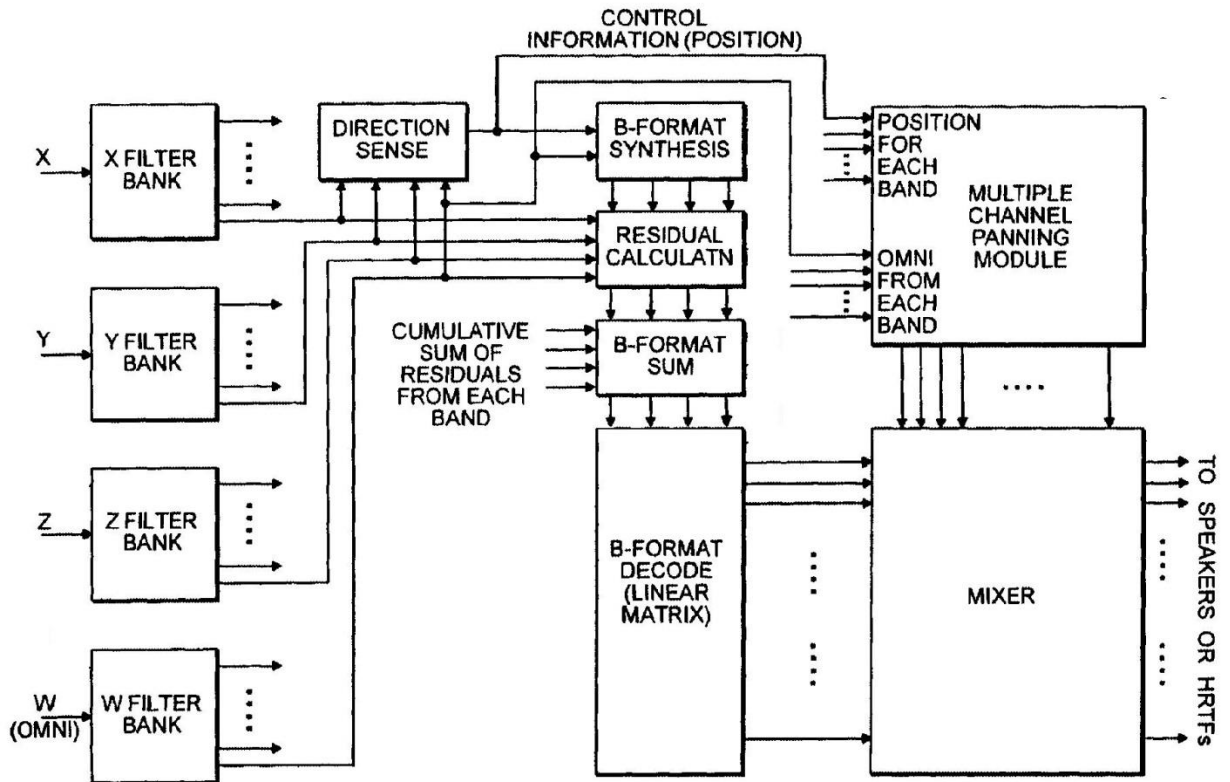
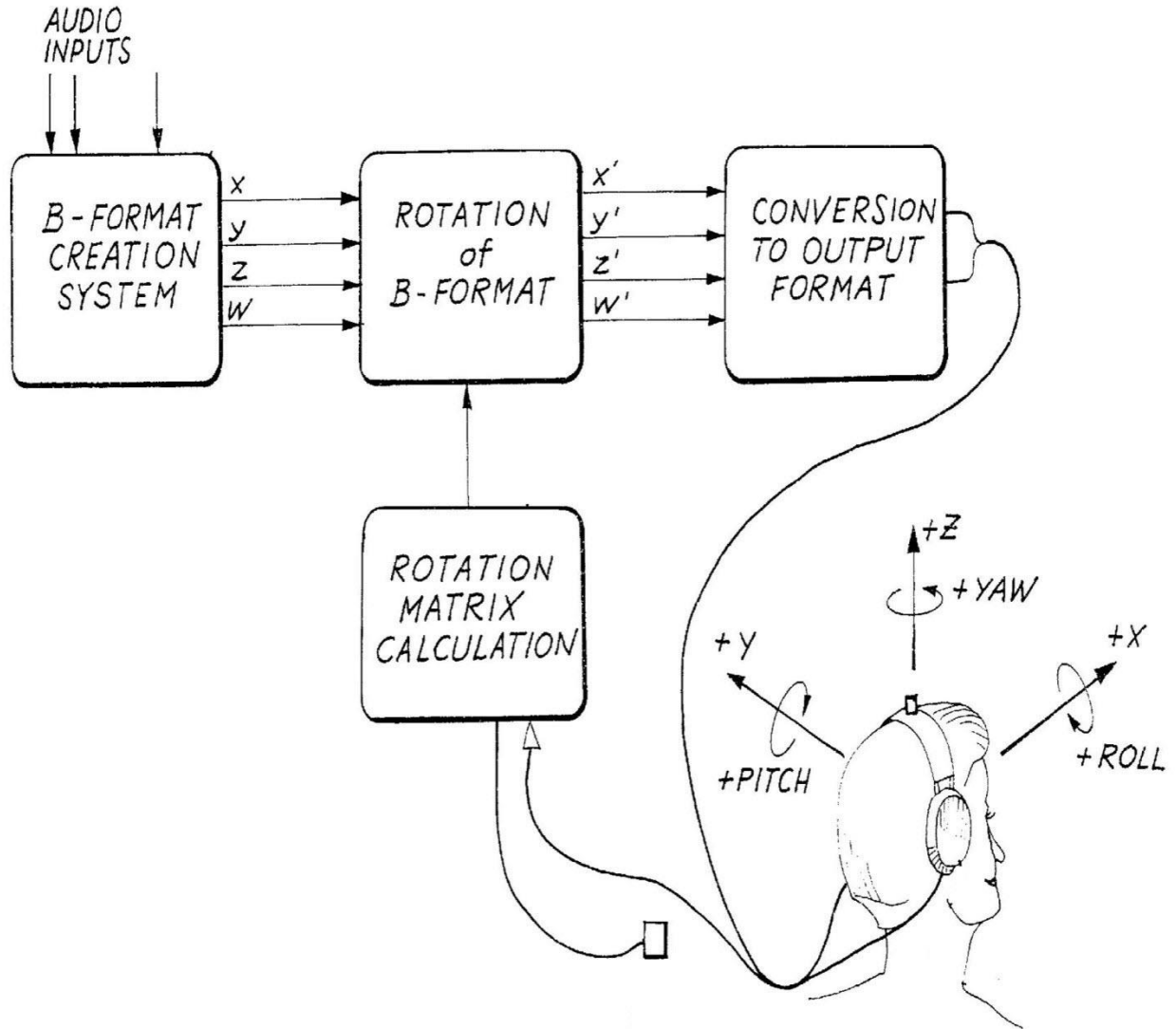


Figure 2.



H04S 2420/13

Definition statement

This place covers:

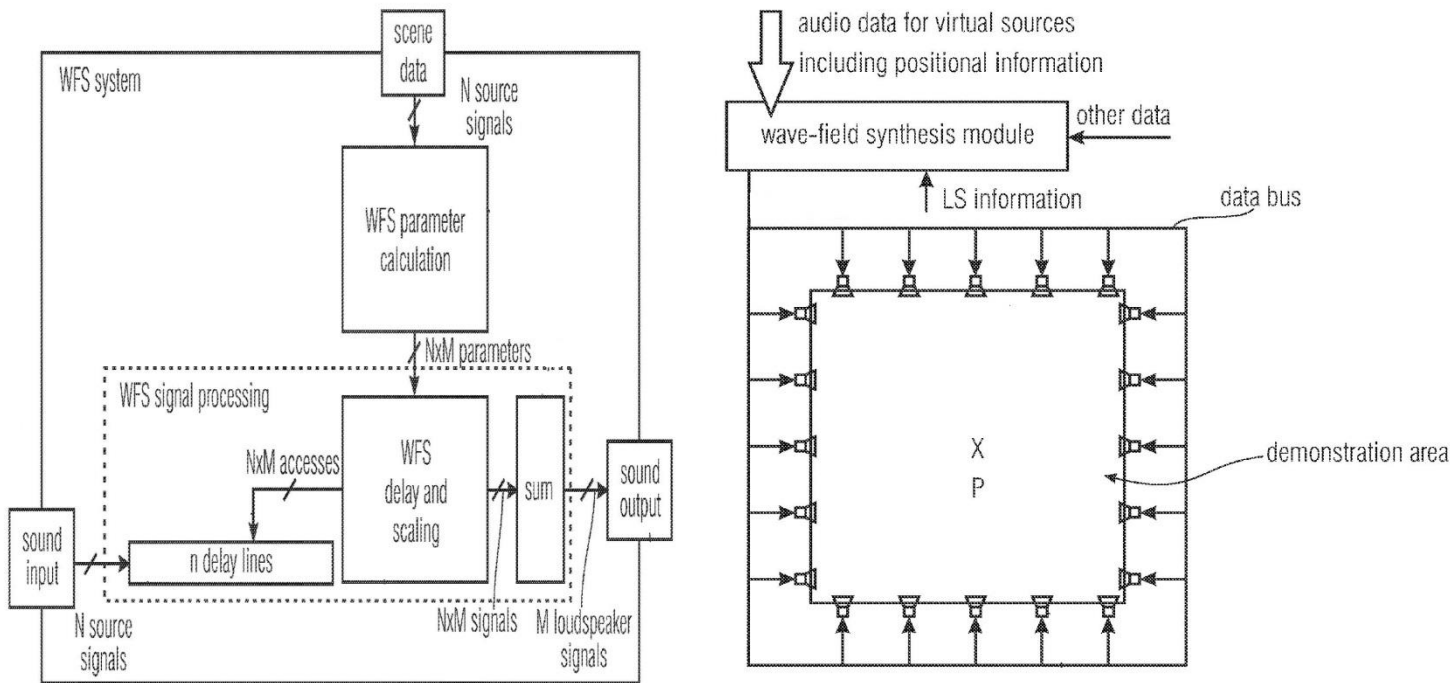
Replace the existing Definition statement text with the following text and figure.

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Wave-field synthesis is a spatial audio rendering technique based on the Huygens–Fresnel principle, which states that any wave front can be regarded as a superposition of elementary spherical waves.

For example:



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5. CROSS-REFERENCE LIST (CRL)

Scheme references impacted by this revision project

| <u>Location of reference to be changed</u> | <u>Referenced subclass or group to be changed</u> | <u>Action; New reference symbol; New text</u> |
|--|---|---|
| G10L 19/008 | H04R5/00 | Delete the symbol (reference) |
| G10L 19/008 | H04S | Delete the symbol (reference) |

NOTES:

- The CRL tables above are used for changes to locations **outside** of the project scope. Changes to references in scheme titles or definitions **inside** the project scope will be reflected in the “scheme change” template or one of the “definition” templates.
- In addition to other changes proposed in the tables above, in the column titled “Referenced subclass or group to be changed,” **referenced** D symbols should indicate an action of “delete” or should indicate a replacement symbol and **referenced** F symbols should indicate a replacement symbol.
- When a reference is deleted, text related to that reference will also be deleted unless other references or a range of references associated with the same text remain.