



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 83 11 12

Classification of the application (IPC):
H04R 3/04, H04R 5/033, H04S 1/00

Technical fields searched (IPC):
H04R, H04S

| DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|-------------------------------------|---|-------------------|
| Category | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim |
| X Y | US 2012033829 A1 (LEWIS IVAN LAWAYNE [US]) 09 February 2012 (2012-02-09) * abstract * * paragraph [0015] * * paragraph [0030] - paragraph [0031] * * paragraph [0035] * * figures 1,7 * | 1, 2, 7 3-5 |
| Y A | JP 2014168116 A (JVC KENWOOD CORP) 11 September 2014 (2014-09-11) * abstract * * paragraph [0002] * | 3, 4 2, 5 |
| Y | WO 2011000409 A1 (NOKIA CORP [FI]; OJALA PASI [FI]; VIROLAINEN JUSSI [FI]) 06 January 2011 (2011-01-06) * page 11, line 4 - line 6 * | 5 |

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

| | | |
|------------------------------|--|--------------------------------|
| Place of search The Hague | Date of completion of the search 12 July 2021 | Examiner Streckfuss, Martin |
|------------------------------|--|--------------------------------|

CATEGORY OF CITED DOCUMENTS

| | |
|---|--|
| X: particularly relevant if taken alone | P: intermediate document |
| Y: particularly relevant if combined with another document of the same category | T: theory or principle underlying the invention |
| A: technological background | E: earlier patent document, but published on, or after the filing date |
| O: non-written disclosure | D: document cited in the application |
| & : member of the same patent family, corresponding document | L: document cited for other reasons |

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 83 11 12

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-5, 7

The single general technical concept of the subject-matter of claims 1 - 5 and 7 relates to phase compensation of loudspeaker arrangements.

2. claims: 6, 8-15

The single general technical concept of the subject-matter of claims 6 and 8 - 15 relates to a generation of impulse responses having a flat amplitude spectrum and a predetermined phase spectrum.

None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims: 1-5, 7

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

| | | |
|------------------------------|--|--------------------------------|
| Place of search The Hague | Date of completion of the search 12 July 2021 | Examiner Streckfuss, Martin |
|------------------------------|--|--------------------------------|

CATEGORY OF CITED DOCUMENTS

| | |
|---|--|
| X: particularly relevant if taken alone | P: intermediate document |
| Y: particularly relevant if combined with another document of the same category | T: theory or principle underlying the invention |
| A: technological background | E: earlier patent document, but published on, or after the filing date |
| O: non-written disclosure | D: document cited in the application |
| & : member of the same patent family, corresponding document | L: document cited for other reasons |

Disclaimer: this document has been automatically generated using data structured in accordance with WIPO standard ST.36 from the database of search reports of the European Patent Office. For technical reasons, its content and layout may differ from that of the original publication. Only the original published information is legally binding.



ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 19 83 11 12

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 12-07-2021
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|--|------------------|--|--|
| US 2012033829 A1 | 09-02-2012 | NONE | |
| JP 2014168116 A | 11-09-2014 | JP 6155698 B2 JP 2014168116 A | 05-07-2017 11-09-2014 |
| WO2011000409 A1 | 06-01-2011 | CN 102804808 A EP 2449795 A1 RU 2012102700 A US 2012101610 A1 WO 2011000409 A1 | 28-11-2012 09-05-2012 10-08-2013 26-04-2012 06-01-2011 |