

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/CN2017/118959

## A. CLASSIFICATION OF SUBJECT MATTER

H04N 21/442 (2011.01) i; H04N 21/4425 (2011.01) i

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CNABS; CNTXT; CNKI; VEN; USTXT: 机顶盒, 调制, 调谐, 频点, 频道, 电压, 视频, 截取, 截图, 正常, 异常, 变化, 改变, 故障, 临界, 阈值, 范围, 黑屏, 蓝屏, 卡死, 噪声, 冻结, 马赛克, 二值化, 直方图, 相似度, STB, voltage, sensit+, frequency, channel, video, image, abnorm+, failure, change, threshold, range, similarity

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                | Relevant to claim No. |
|-----------|---|-----------------------|
| PX        | CN 107318048 A (SHENZHEN SKYWORTH SOFTWARE CO., LTD.) 03 November 2017 (03.11.2017), claims 1-10                  | 1-10                  |
| A         | CN 105657548 A (TCL TECHNOLOGY ELECTRONICS (HUIZHOU) CO., LTD.) 08 June 2016 (08.06.2016), entire document        | 1-10                  |
| A         | CN 103957405 A (SHENZHEN SKYWORTH DIGITAL TECHNOLOGY CO., LTD. et al.) 30 July 2014 (30.07.2014), entire document | 1-10                  |
| A         | CN 102944730 A (SHENZHEN SKYWORTH-RGB ELECTRONICS CO., LTD.) 27 February 2013 (27.02.2013), entire document       | 1-10                  |
| A         | US 2012144418 A1 (MORRIS NADIA et al.) 07 June 2012 (07.06.2012), entire document                                 | 1-10                  |

Further documents are listed in the continuation of Box C.       See patent family annex.

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|---|---|
| <p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“L” document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p> | <p>“T” later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>“&amp;” document member of the same patent family</p> |
|---|---|

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08 March 2018

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28 March 2018

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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/CN2017/118959

| Patent Documents referred in the Report | Publication Date | Patent Family  | Publication Date  |
|---|------------------|----------------|-------------------|
| CN 107318048 A                          | 03 November 2017 | None           |                   |
| CN 105657548 A                          | 08 June 2016     | None           |                   |
| CN 103957405 A                          | 30 July 2014     | CN 103957405 B | 27 April 2016     |
| CN 102944730 A                          | 27 February 2013 | CN 102944730 B | 10 June 2015      |
| US 2012144418 A1                        | 07 June 2012     | US 8839288 B2  | 16 September 2014 |