

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2020/076702

A. CLASSIFICATION OF SUBJECT MATTER		
H01Q 1/24(2006.01)i; H01Q 1/36(2006.01)i; H01Q 1/50(2006.01)i; H01Q 5/307(2015.01)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)		
H01Q		
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; CNKI; VEN; CNTXT; USTXT; WOTXT; EPTXT; IEEE: 天线, 枝节, 槽口, 金属边框, 开槽, 投影, 电磁, 耦合, Z型, 横轴, 纵轴, 距离, 频率, 谐振, 终端; antenna, aerial, branch, groove, notch, slot, metal, frame, zigzag, X-coordinate, Y-coordinate, distance, frequency, resonance, terminal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	CN 111262006 A (HUIZHOU TCL MOBILE COMMUNICATION CO., LTD.) 09 June 2020 (2020-06-09) entire document	1-18
A	CN 107425258 A (AAC TECHNOLOGIES (SINGAPORE) CO., LTD.) 01 December 2017 (2017-12-01) entire document	1-18
A	CN 102800931 A (GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.) 28 November 2012 (2012-11-28) description, paragraphs [0006]-[0016], and figures 1-3	1-18
A	US 2013189935 A1 (DU PONT et al.) 25 July 2013 (2013-07-25) entire document	1-18
A	US 2014323063 A1 (APPLE INC.) 30 October 2014 (2014-10-30) entire document	1-18
A	US 2014159989 A1 (APPLE INC.) 12 June 2014 (2014-06-12) entire document	1-18
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "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) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "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 "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 "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 "&" document member of the same patent family		
Date of the actual completion of the international search		Date of mailing of the international search report
07 September 2020		22 September 2020
Name and mailing address of the ISA/CN		Authorized officer
China National Intellectual Property Administration (ISA/ CN) No. 6, Xitucheng Road, Jimenqiao, Haidian District, Beijing 100088 China		
Facsimile No. (86-10)62019451		Telephone No.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 107887689 A (BEIJING XIAOMI MOBILE SOFTWARE CO., LTD.) 06 April 2018 (2018-04-06) entire document	1-18
A	CN 103346391 A (CHINA JILIANG UNIVERSITY) 09 October 2013 (2013-10-09) entire document	1-18

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

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Patent document cited in search report			Publication date (day/month/year)	Patent family member(s)			Publication date (day/month/year)
CN	111262006	A	09 June 2020	None			
CN	107425258	A	01 December 2017	US	10629983	B2	21 April 2020
				CN	107425258	B	18 February 2020
				JP	6446105	B1	26 December 2018
				US	2018375193	A1	27 December 2018
				JP	2019009758	A	17 January 2019
CN	102800931	A	28 November 2012	WO	2014029156	A1	27 February 2014
US	2013189935	A1	25 July 2013	US	9153863	B2	06 October 2015
US	2014323063	A1	30 October 2014	US	9379427	B2	28 June 2016
US	2014159989	A1	12 June 2014	US	9252481	B2	02 February 2016
CN	107887689	A	06 April 2018	None			
CN	103346391	A	09 October 2013	CN	103346391	B	10 August 2016