

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2020/081009

<b>A. CLASSIFICATION OF SUBJECT MATTER</b>		
G01F 15/06(2006.01)i		
According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b>		
Minimum documentation searched (classification system followed by classification symbols) G01M, G01F, G05B, H04L, G01D; G06F		
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, VEN, CNTXT, USTXT, WOTXT, EPTXT, CNKI: 固件, 软件, 系统, 燃气表, 水表, 电表, 升级, 闪存, 存储, firmware, update, storage, flash, cpld, mcu		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	CN 109002303 A (ZTE CORPORATION) 14 December 2018 (2018-12-14) description, paragraphs 0050-0060	1-7
Y	CN 108037942 A (CHENGDU RONGWEI ELECTRONIC TECHNOLOGY CO., LTD.) 15 May 2018 (2018-05-15) description, paragraphs 0030-0040	1-7
Y	CN 109189457 A (BEIJING ATOM ROBOTICS TECHNOLOGY CO., LTD.) 11 January 2019 (2019-01-11) description, paragraphs 0020-0030	1-7
PX	CN 110031054 A (SHANGHAI FIORENTINI GAS EQUIPMENT CO., LTD.) 19 July 2019 (2019-07-19) claims 1-7	1-7
A	US 2008288708 A1 (ATEN INT CO LTD) 20 November 2008 (2008-11-20) entire document	1-7
A	CN 104035794 A (RAISECOM TECHNOLOGY CO., LTD.) 10 September 2014 (2014-09-10) entire document	1-7
<input 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 <b>08 June 2020</b>		Date of mailing of the international search report <b>19 June 2020</b>
Name and mailing address of the ISA/CN <b>China National Intellectual Property Administration (ISA/CN) No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088 China</b> Facsimile No. (86-10)62019451		Authorized officer  Telephone No.

**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 109002303 A	14 December 2018		WO 2018214775 A1	29 November 2018
CN 108037942 A	15 May 2018		None	
CN 109189457 A	11 January 2019		None	
CN 110031054 A	19 July 2019		None	
US 2008288708 A1	20 November 2008		TW 200844759 A	16 November 2008
			TW I333618 B	21 November 2010
			US 7577776 B2	18 August 2009
CN 104035794 A	10 September 2014		CN 104035794 B	08 September 2017