

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2019/006569

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl. H01L39/22(2006.01) i, G06F7/38(2006.01) i, G06N10/00(2019.01) i, H01L27/18(2006.01) 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)

Int.Cl. H01L39/22, G06F7/38, G06N10/00, H01L27/18

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

Published examined utility model applications of Japan	1922-1996
Published unexamined utility model applications of Japan	1971-2019
Registered utility model specifications of Japan	1996-2019
Published registered utility model applications of Japan	1994-2019

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2011-524026 A (D-WAVE SYSTEMS INC.) 25 August 2011, paragraphs [0056], [0069]-[0079], fig. 2B, 5 & US 2011/0022820 A1, paragraphs [0070], [0083]-[0093], fig. 2B, 5 & US 2013/0005580 A1 & US 2014/0329687 A1 & US 2016/0019468 A1 & US 2016/0314407 A1 & WO 2009/120638 A2 & CA 2719343 A1 & CN 101978368 A	1-9
Y	US 2016/0071021 A1 (D-WAVE SYSTEMS INC.) 10 March 2016, paragraphs [0181]-[0213], fig. 4, 5 & US 2018/0300286 A1	1-9



Further documents are listed in the continuation of Box C.



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

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"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
27.06.2019Date of mailing of the international search report
09.07.2019Name and mailing address of the ISA/
Japan Patent Office
3-4-3, Kasumigaseki, Chiyoda-ku,
Tokyo 100-8915, JapanAuthorized officer

Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	WO 2017/179011 A1 (IQB INFORMATION TECHNOLOGIES INC.) 19 October 2017, page 1, line 9 to page 3, line 6, page 6, line 16 to page 14, line 6, page 18, line 10 to page 20, line 30, page 23, lines 5-7, page 30, line 22 to page 31, line 27, fig. 3 & GB 2564596 A & CN 109074520 A & CA 2927171 A1	5-9 1-4