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SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 18 90 51 86

Classification of the application (IPC):
G06K 19/07*, *B42D 3/12*, *H01Q 1/22

Technical fields searched (IPC):
B42D, G06K

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	US 5776278 A (TUTTLE MARK E [US] ET AL) 07 July 1998 (1998-07-07) * column 6, line 6 - line 42; figures 1A, 2 * * column 7, line 38 - line 50 *	1
X	US 2006001525 A1 (NITZAN ZVI [IL] ET AL) 05 January 2006 (2006-01-05) * paragraphs [0217], [0218], [0224], [0228], [0241] - [0245]; figures 8-10 * * paragraph [0137] *	1-4, 15
X	US 2003165744 A1 (SCHUBERT MARK A [US] ET AL) 04 September 2003 (2003-09-04) * paragraphs [0008], [0011] *	1-4
X	GB 2548883 A (KONICA MINOLTA BUSINESS SOLUTIONS EUROPE GMBH [DE]) 04 October 2017 (2017-10-04) * page 1, line 5 - line 7 * * page 4, line 27 - page 5, line 6; figure 1 * * page 7, line 23 - page 11, line 3; figure 2 *	1, 5
X	US 2015002274 A1 (SENGSTAKEN JR ROBERT W [US]) 01 January 2015 (2015-01-01) * paragraphs [0019], [0024]; figure 1 * * paragraphs [0034], [0035]; figure 4 *	1, 6

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	Date of completion of the search	Examiner
Munich	24 February 2022	Achermann, Didier

CATEGORY OF CITED DOCUMENTS

X: particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A: technological background
O: non-written disclosure
P: intermediate document
T: theory or principle underlying the invention
E: earlier patent document, but published on, or after the filing date
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LACK OF UNITIY 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: 2-4, 15(completely); 1(partially)
The tracking device of claim 1, further comprising a printed battery. Technical problem: choice of the form of manufacturing of the battery.

2. claims: 5(completely); 1(partially)
The tracking device of claim 1, wherein the transmitter is configured to transmit the information through a low-power wide area network (LPWAN). Technical problem: choice of the network for transmitting the information.

3. claims: 1, 6(all partially)
The tracking device of claim 1, wherein the transmitter is configured to transmit the information in response to detection of the status by the sensor. Technical problem: how to trigger the transmitting of the information via the sensor.

4. claims: 1, 6(all partially)
The tracking device of claim 1, wherein the transmitter is configured to transmit the information in response to expiration of a timer. Technical problem: how to trigger the transmitting of information through time.

5. claims: 7(completely); 1(partially)
The tracking device of claim 1, wherein the tracking device is configured to determine its position and transmit its position. Technical problem: locating in space.

6. claims: 8(completely); 1(partially)
The tracking device of claim 1, wherein the tracking device is configured to perform authentication by reading biometric information. Technical problem: use of biometry for authentication.

7. claims: 9(completely); 1(partially)
The tracking device of claim 1, wherein power is disconnected to a portion of the tracking device until the sensor detects a change in the status, and the tracking device is configured to provide power to the portion of the tracking device based on the detected change in the status. Technical problem: power management in relationship with the sensor.

8. claims: 10(completely); 1(partially)
The tracking device of claim 1, further comprising a semiconductor die comprising at least a portion of the control circuitry, wherein the semiconductor die is a bare semiconductor die without its own package. Technical problem: choice of the substrate for the control circuitry.

9. claims: 11(completely); 1(partially)
The tracking device of claim 1, wherein the tracking device is programmable through a wired or wireless interface. Technical problem: how to programm the tracking device.

10. claims: 12(completely); 1(partially)
The tracking device of claim 1, wherein the sensor is configured to detect opening or closing of a conductive connection. Technical problem: detection of the status of a conductive connection.

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

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Munich	24 February 2022	Achermann, Didier

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LACK OF UNITIY OF INVENTION

11. claims: 1, 13(all partially)
The tracking device of claim 1, wherein the sensor is configured to detect opening of an item. Technical problem: detection of the opening of an item.

12. claims: 1, 13(all partially)
The tracking device of claim 1, wherein the sensor is configured to detect removal of contents from an item. Technical problem: detection of the removal of contents from an item.

13. claims: 14(completely); 1(partially)
The tracking device of claim 1, wherein the sensor is configured to detect an environmental condition. Technical problem: detection of the environment.

Only part 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 inventions in respect of which search fees have been paid, namely claims: 2-5, 15(completely); 1, 6(partially)

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	Date of completion of the search	Examiner
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