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(54) **Title:** SYSTEM AND METHOD FOR SENSING DISTANCE AND/OR MOVEMENT

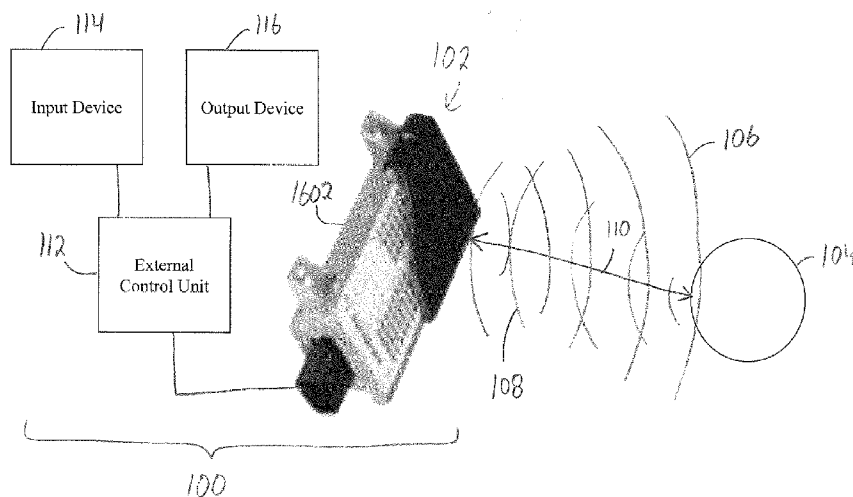
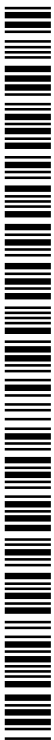


FIG. 1

(57) **Abstract:** A method (e.g., a method for measuring a separation distance to a target object) includes transmitting an electromagnetic first transmitted signal from a transmitting antenna toward a target object that is separated from the transmitting antenna by a separation distance. The first transmitted signal includes a first transmit pattern representative of a first sequence of digital bits. The method also includes receiving a first echo of the first transmitted signal that is reflected off the target object, converting the first echo into a first digitized echo signal, and comparing a first receive pattern representative of a second sequence of digital bits to the first digitized echo signal to determine a time of flight of the first transmitted signal and the echo.



**A. CLASSIFICATION OF SUBJECT MATTER****G01S 13/06(2006.01)i, G01S 17/06(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)

G01S 13/06; G01S 13/26; G01S 15/08; G01S 13/36; G01S 13/04; G01S 7/497

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: sensing, distance, movement, transmitter, receiver, correlator device, digitized echo signal, time of flight, waveforms representative

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2010-0007548 A1 (K&uuml;NZLER FRANK et al.) 14 January 2010 See abstract; claims 19, 30 and figure 1	1-32
A	US 7463181 B2 (WINTERMANTEL MARKUS) 09 December 2008 See abstract and claims 1 and 18	1-32
A	US 6218982 B1 (SHIRAI; NORIAKI et al.) 17 April 2001 See abstract and claim 1	1-32
A	US 2004-0102919 A1 (MATTHIAS ECKEL et al.) 27 May 2004 See abstract; claims 1, 4, 6 and figure 1	1-32

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

\* Special categories of cited documents:

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"&amp;" document member of the same patent family

Date of the actual completion of the international search

11 DECEMBER 2012 (11.12.2012)

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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