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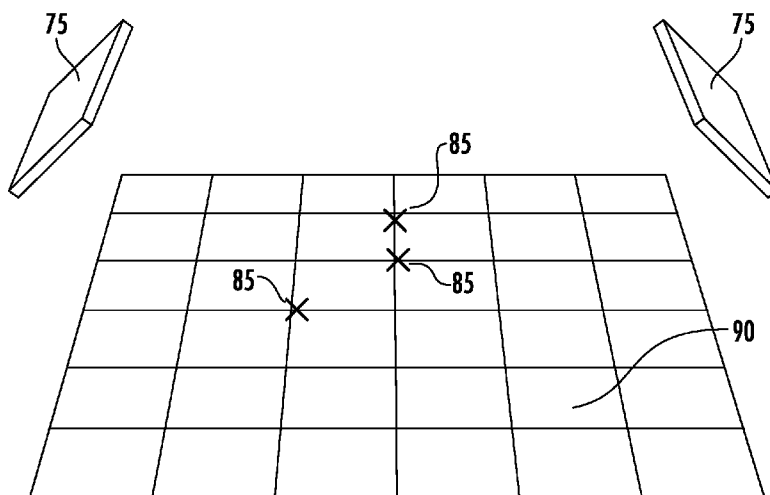
- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
- of inventorship (Rule 4.17(iv))

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[Continued on next page]

(54) Title: STEERABLE PHASE ARRAY ANTENNA RFID TAG LOCATER AND TRACKING SYSTEM AND METHODS



**FIG. 5**

(57) Abstract: A system for and method of tracking and locating RFID tags, including where at least one steerable phase array antenna may locate the tags associated with items in three dimensions in real time, through the use of a beam steering unit and controller therewith to control the direction of a beam launched by the at least one steerable phase array antenna.



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**INTERNATIONAL SEARCH REPORT**

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(8) - G08B 13/14 (2009.01)

USPC - 340/572.4

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)

USPC-340/572.4

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

USPC-340/500, 572.4

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

PUBWEST (USPT, PGPB, EPAB, JPAB), Google

Search Terms Used: RFID, tag locator, tracking, phase array, steerable antenna, beam steering, control, circularly polarized patch antenna, controllable channel, axis, calculate distance, direction, real-time location, RF waveform, attenuator, power amplifier,

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2006/0022800 A1 (Krishna, et al.) 02 February 2006 (02.02.2006), Fig. 2b, Fig. 10, para [0019], [0020], [0057], [0063]-[0066], [0068]-[0071], [0075]-[0078], [0082],	1, 4-9, 11-15, 18-23
Y	[0084], [0089], [0167], [0177], [0212], [0331], [0339]	2, 3, 10, 16, 17
Y	US 2007/0141997 A1 (Wulff et al.) 21 June 2007 (21.06.2007), para [0062]-[0064]	2, 3, 10
Y	US 2006/0019679 A1 (Rappaport, et al.) 26 January 2006 (26.01.2006), para [0059], [0067], [0138], [0145]	16
Y	US 2004/0233461 A1 (Armstrong, et al.) 25 November 2004 (25.11.2004), Abstract, para [0042], [0043]	17

Further documents are listed in the continuation of Box C.

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"&" document member of the same patent family

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