Title: WIRELESS SIGNAL CODING AND AUTHENTICATION

Abstract: A system for authenticating a client wireless transceiver (105) in communication with a wireless access point (111), in a wireless data communications network, the system including: a wireless tagging device (103) modulating a security code onto a communications signal transmitted from an antenna (113) operatively connected to the client wireless transceiver (105) thereby transmitting a tagged communications signal; and a tag receiver (101), operatively connected to the wireless access point (111), the tag receiver (101) including a demodulator which demodulates the tagged communications signal and outputs a security signal including the security code. Preferably, the wireless tagging device includes a terminating load operatively connected to a tagging radiative element and the modulating is performed by changing matching impedance between the terminating load and the tagging radiative element.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
   IPC(7) : H04Q 7/20; G08B 13/14
   US CL. : 455/410, 411, 515, 426.2, 554.1, 554.2, 41.1; 370/243, 246, 452; 340/5.2, 5.21, 5.8, 5.86, 7.22, 505
   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)
   U.S. : 455/410, 411, 515, 426.2, 554.1, 554.2, 41.1; 370/243, 246, 452; 340/5.2, 5.21, 5.8, 5.86, 7.22, 505

   Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
   NONE

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>US 6,084,512 A (ELBERTY ET AL.) 04 JULY 2000 (04.07.2000), COLS. 4-15.</td>
<td>1-17</td>
</tr>
<tr>
<td>A</td>
<td>US 6,101,428 A (SNYDER) 08 AUGUST 2000 (08.08.2000), COLS. 4-7.</td>
<td>1-17</td>
</tr>
<tr>
<td>A</td>
<td>US 5,311,186 A (UTSU ET AL.) 10 MAY 1994 (10.05.1994), COLS. 2-5.</td>
<td>1-17</td>
</tr>
</tbody>
</table>

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

*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 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
05 March 2005 (05.03.2005)

Date of mailing of the international search report
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