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(54) Title: HANDHELD SUBSCRIBER LINE TEST EQUIPMENT

(57) Abstract: A handheld test device includes a keypad having keys associated with tests that can be performed on a subscriber line. The keys are arranged in rows to correspond intuitively with networking layers of the subscriber line and with an order in which to test those layers. Keys of a first row are associated with testing at a physical layer, of a second row with testing at a DSL layer, and of a third row with testing at a service layer. The test device is connected to the subscriber line at a location between CO and CPE, and powered on. In response to being powered on, without technician involvement, the test device automatically detects at least one of CO equipment and CPE on the subscriber line, and trains the test device with the detected equipment.



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**A. CLASSIFICATION OF SUBJECT MATTER****H04L 12/26(2006.01)i, H04M 1/24(2006.01)i, H04B 3/46(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)

H04L 12/26; H04M 1/24; H04B 3/46; H04J 1/16; G10L 19/00; H04J 3/16; H04L 12/66

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: handheld device , test subscriber line , key , DSL layer

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2003-0204393 A1 (RICHARD, M. CZERWIEC et al.) 30 October 2003 See abstract; figures 3-5; paragraphs [0032]-[0034], [0050]-[0053].	1-27
A	US 2006-0209698 A1 (Defoort, Frank Cyriel Michel) 21 September 2006 See abstract; paragraph [0034]; claims 1-14.	1-27
A	EP 1619830 A1 (HUAWEI TECHNOLOGIES CO., LTD.) 25 January 2006 See abstract; figures 1, 2, 4, 6; paragraphs [0003], [0040], [0049], [0053]-[0054].	1-27
A	US 2008-0101401 A1 (STORRY CHARLES MICHAEL et al.) 01 May 2008 See abstract; figure 2; paragraphs [0020]-[0023].	1-27

 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

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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