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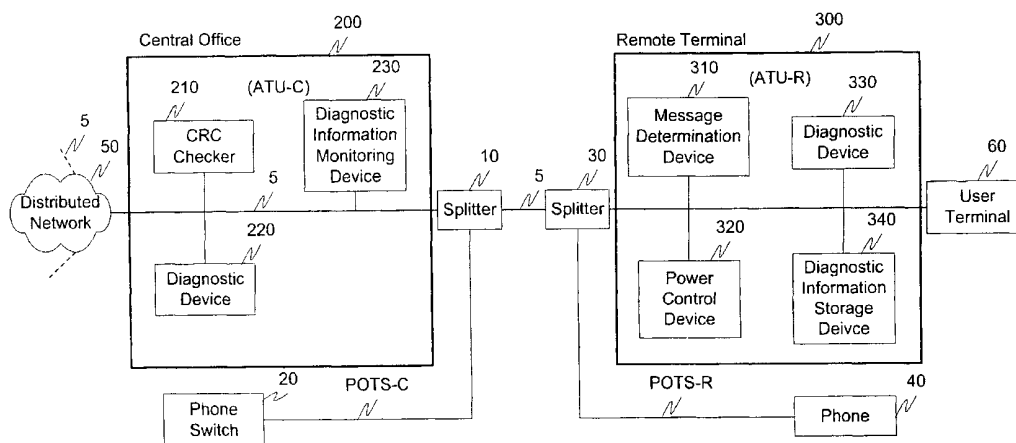
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(54) Title: DIAGNOSTIC METHODS AND SYSTEMS FOR MULTICARRIER MODEMS



(57) Abstract: Upon detection of a trigger, such as the exceeding of an error threshold or the direction of a user, a diagnostic link system enters a diagnostic information transmission mode. This diagnostic information transmission mode allows for two modems to exchange diagnostic and/or test information that may not otherwise be exchangeable during normal communication. The diagnostic information transmission mode is initiated by transmitting an initiate diagnostic link mode message to a receiving modem accompanied by a cyclic redundancy check (CRC). The receiving modem determines, based on the CRC, if a robust communications channel is present. If a robust communications channel is present, the two modems can initiate exchange of the diagnostic and/or test information. Otherwise, the transmission power of the transmitting modem is increased and the initiate diagnostic link mode message re-transmitted to the receiving modem until the CRC is determined to be correct.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L1/24

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

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

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

EPO-Internal, WPI Data, PAJ, INSPEC, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 26375 A (TEKTRONIX INC ;HAKANSON ERIC W (US)) 27 May 1999 (1999-05-27)	1,3-5, 7-11, 13-15, 17-20, 35,38, 39,41,42
Y	abstract page 4, line 19 - line 27 page 6, line 25 - line 26 page 9, line 37 -page 10, line 7 page 11, line 4 - line 15 page 13, line 24 - line 30 --- -/--	2,6,12, 16, 21-23, 25-31, 33,34, 36,37, 40,43

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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Information on patent family members

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