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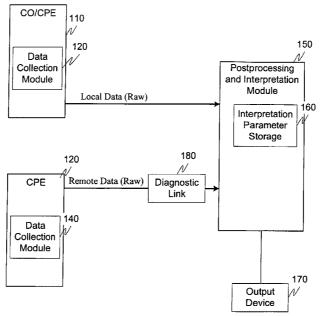
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(54) Title: SYSTEMS AND METHODS FOR CHARACTERIZING TRANSMISSION LINES IN A MULTI-CARRIER DSL EN-VIRONMENT



(57) Abstract: Using DSL modems as data collector, the modems processes the data to, for example, allow easier interpretation of the lien characteristics. In particular, the modems postprocess the data including calibration, filter compensation, determination of the SNR medley from the bits and gains tables and rate conversion. The interpretation process uses the postprocessed data and determines loop characterization, interferer detection, a data reduction estimation and a data rate estimation. The outputs of these determinations least allow for the characterization of the line conditions between the two modems.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H04B3/46 H04L27/26

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7 H04L H04B

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

Calegory °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	US 6 075 821 A (CHEN CHUNTA ET AL) 13 June 2000 (2000-06-13) abstract column 6, line 24 - line 29 column 11, line 4 - line 14 claim 1	1,2		
Α		3–57		
А	WO 99 63427 A (GTE LABORATORIES INC) 9 December 1999 (1999-12-09) the whole document	1–57		
А	EP 0 889 615 A (INTEGRATED TELECOM EXPRESS) 7 January 1999 (1999-01-07) abstract page 4, line 12 - line 13 page 4, line 53 -page 5, line 3 claims 40-53	1–57		

Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filing date but later than the priority date claimed	 "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 such documents, such combination being obvious to a person skilled in the art. "&" document member of the same patent family
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rljswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.	Authorized officer
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT							
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