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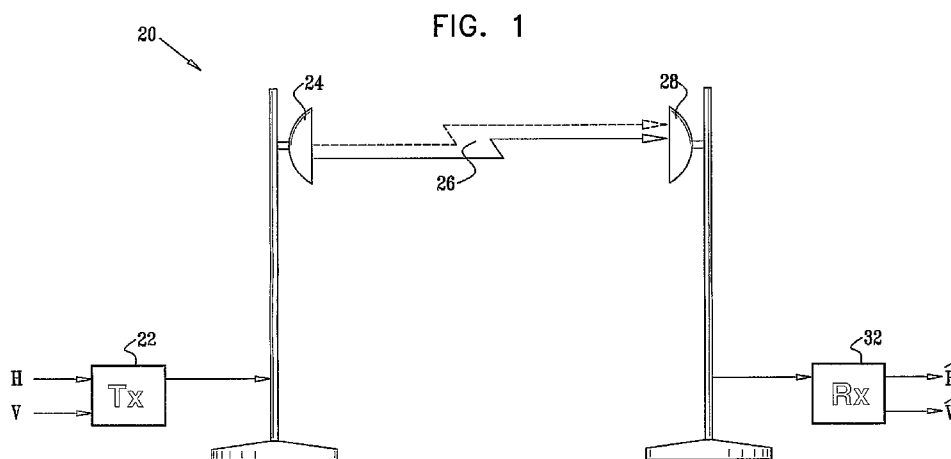
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(54) Title: MODEM CONTROL USING CROSS-POLARIZATION INTERFERENCE ESTIMATION



(57) Abstract: A receiver (32) includes an input circuit, which is coupled to at least one antenna (28) so as to receive, process and digitize first and second signals, thus generating first and second streams of input samples. An interference cancellation circuit (46) in the receiver includes first and second adaptive filters (64, 66), which are respectively coupled to filter the first and second streams of input samples using respective first and second coefficients to generate respective first and second filter outputs. A phase rotator (68, 71) is adapted to apply a variable phase shift compensating for a phase deviation between the first and second signals, the phase rotator having at least one configuration parameter. A control module (67) is operative to estimate signal characteristics of the interference cancellation circuit and to set the at least one configuration parameter of the phase rotator responsively to the estimated signal characteristics.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: H04B 7/185(2006.01)

USPC: 455/3.02

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. : 455/3.02; 375/349, 324, 329, 327

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
x	US 2003/0066082 A1 (Kliger et al) 3 April 2003, see figs.4-5 and pages 8-9	1-49
x	US 2005/0239398 A1 (Lai) 27 October 2005, figs.1-6 and page 2-3	1-49



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