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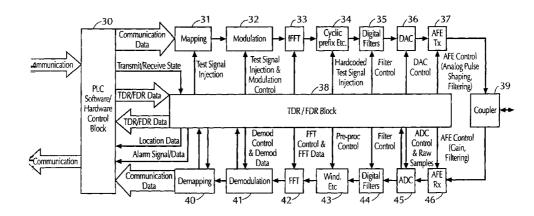
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(54) Title: POWER THEFT PREVENTION BASED ON SIGNATURE MONITORING ON POWER LINES



(57) Abstract: Detecting an unauthorized tap on an electrical power line by supplying electrical reflectometry signals to a portion of the power line, receiving reflectometry signals from the power line wich have been reflected by taps on the power line, and comparing the received reflected signals with reflected signals reflected by authorised taps on the power line to determine whether or not unauthorized taps are present on the power line.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/14337

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : G01R 31/00		
US CL : 702/58; 324/527		
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.: 702/57-59, 81-84, 108, 122, 158-19, 183, 185, 188-189; 324/520-521, 527-528, 532-534; 439/912		
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: reflectometry, time, frequency, tap, unauthoriz\$3		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category * Citation of document, with indication, where	appropriate, of the relevant passages	Relevant to claim No.
Y US 6,124,717 A (GUENTHER, JR. et al.) 26 Sept		1-9
	US 5,650,728 A (RHEIN et al) 22 July 1997 (22.07.1997), column 3 line 32 - column 26	
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Further documents are listed in the continuation of Box C. See patent family annex.		
Special categories of cited documents:	"T" later document published after the inte	rnational filing date or priority
"A" document defining the general state of the art which is not considered to be of particular relevance	date and not in conflict with the applic principle or theory underlying the inve	ation but cited to understand the
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be conside when the document is taken alone	
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"O" document referring to an oral disclosure, use, exhibition or other means	combined with one or more other such being obvious to a person skilled in the	
"P" document published prior to the international filing date but later than the priority date claimed	"&" document member of the same patent family	
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