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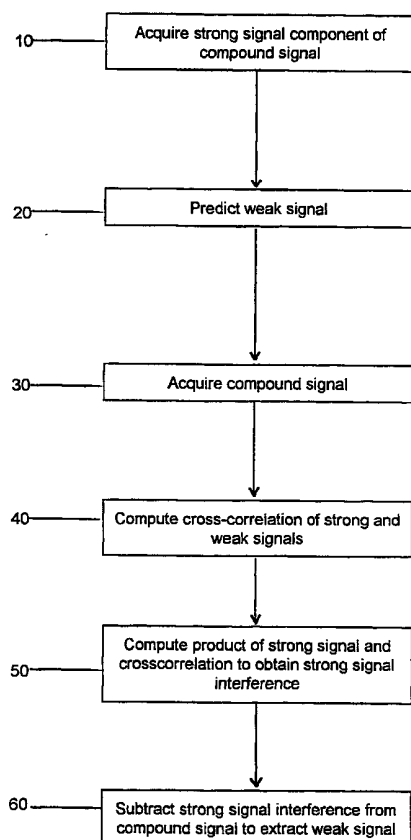
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[Continued on next page]

(54) Title: STRONG SIGNAL CANCELLATION TO ENHANCE PROCESSING OF WEAK SPREAD SPECTRUM SIGNAL



(57) Abstract: A CDMA coded, spread spectrum radio signal containing a strong signal and a weak signal is received, and the interference of the strong signal with the weak signal is computed to enhance the ability to track the weak signal. The codes modulating both signals are known, and the weak signal can be predicted. The interference of the strong signal is calculated (50) as the product of the amplitude of the strong signal and the predicted crosscorrelation of the strong signal with the weak signal (40). The strong signal may be measured, predicted, or acquired through a combination of both methods (10). The crosscorrelation may be predicted for a range of weak signal values, and the weak signal selected as the prediction producing the greatest received power (60).



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/42171

A. CLASSIFICATION OF SUBJECT MATTER		
IPC(7) : H04J 13/04; G01S 3/16, 13/00		
US CL : 375/144, 148, 285, 349; 370/342, 479; 342/378, 159, 194		
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. : 375/144, 148, 285, 349; 370/342, 479; 342/378, 159, 194		
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 practicable, search terms used)		
EAST search terms: CDMA, interference, weak, strong, direct, target, crosscorrelation, amplitude		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,604,503 A (FOWLER et al) 18 February 1997 (18.02.1997), see its entirety.	1-10
A	US 5,493,588 A (LENNEN) 20 February 1996 (20.02.1996), see its entirety.	1-10
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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"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)	"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
"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	"&" document member of the same patent family
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703)305-3230		Authorized officer Stephen Chin <i>Rugenia Zogian</i> Telephone No. (703)306-5631