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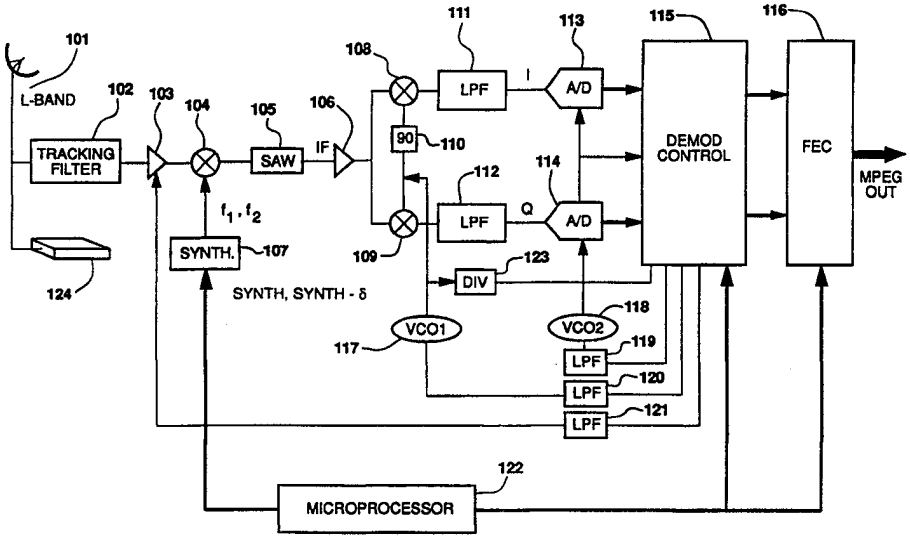

(57) Abstract

The present invention relates to an improved demodulator for locking onto and tracking a carrier. Harmonic frequencies are occasionally generated by demodulation circuitry. When this occurs, the harmonic frequencies can interfere with the demodulator's locking and tracking functions, especially if the harmonic frequencies are near a down converted carrier's frequency. A system and method are disclosed which provides an offset to a frequency synthesizer (107) whose output frequency (F1, F2) is used to down convert (104) the carrier. The offset alters the frequency of the down converted carrier so as to shift it away from the interfering harmonics. In this regard, the demodulator is enabled to lock onto and track a carrier when previously not possible.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US98/00826

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :H04B 1/26
US CL :455/208, 265, 307, 260, 340; 331/4, 17, 25

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. : 455/208, 265, 307, 260, 340; 331/4, 17, 25

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)

NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,979,230 A (MARZ) 18 December 1990, see column 2, line 13 through column 4, line 65.	1-3
A	US 4,354,277 A (CRACKEL ET AL.) 12 October 1982, see abstract.	1-3
A	US 4,314,206 A (ATTWOOD ET AL.) 02 February 1982, see column 1, line 5 through column 4, line 19.	1-3
A	US 4,513,448A (MAHER) 23 April 1985, see abstract.	1-3
A	US 5,222,106 A (SATOH ET AL.) 22 June 1993, see column 4, line 38 through column 14, line 2.	1-3

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