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[Continued on next page]

(54) Title: ANALOG FOURIER TRANSFORM CHANNELIZER AND OFDM RECEIVER

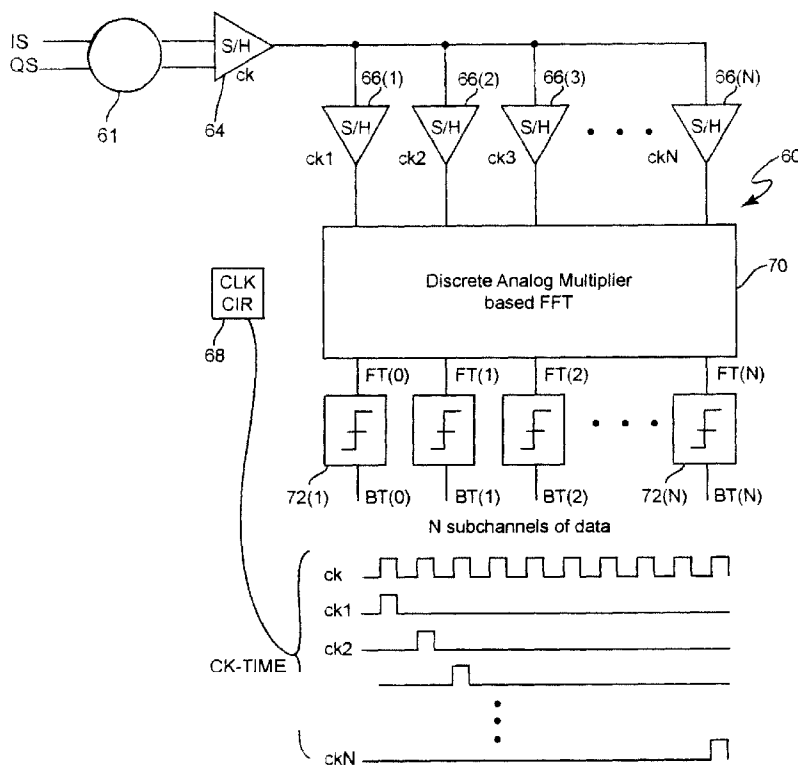


Figure 1

(57) Abstract: An OFDM receiver having an analog multiplier based I-Q channelizing filter, samples and holds consecutive analog I-Q samples of an I-Q baseband, the I-Q basebands having OFDM sub-channels. A lattice of analog I-Q multipliers and analog I-Q summers concurrently receives the held analog I-Q samples, performs analog I-Q multiplications and analog I-Q additions to concurrently generate a plurality of analog I-Q output signals, representing an N-point discrete Fourier transform of the held analog samples, the I-Q signals having relative phase and magnitude representing bits in the OFDM sub-channels. The phase and magnitude may represent QPSK. Optionally, a phase shift decoder receives the analog transform I-Q output signals and generates a corresponding binary bit data.



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

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U.S. : 708/821

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3,714,566 (Kang) 30 January 1973 (30.01.1973), whole document.	1-12
X	US 4,641,143 (Apostolos) 03 February 1987 (03.02.1987), whole document.	1-12

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☐ See patent family annex.

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"P" document published prior to the international filing date but later than the priority date claimed	

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