Title (en)

METHOD FOR REMOTE CONTROL OF ELECTRICAL EQUIPMENT AND CORRESPONDING RECEIVER

Publication

EP 0152341 B1 19880518 (FR)

Application

EP 85400180 A 19850204

Priority

FR 8401822 A 19840207

Abstract (en)

[origin: EP0152341A1] 1. Process for the remote control of electrical equipments, wherein : A) in a transmission centre : - there is formed a digital signal corresponding to a function to be remote controlled, this signal is encoded by at least one error detecting and correcting code, the analog signal is modulated by the encoded digital signal and the modulated signal is transmitted to equipments to be remote controlled ; B) in receiving means associated with each of the equipments : - the transmitted signal is received, it is demodulated, the demodulated signal is decoded in order to retrieve the digital signal corresponding to the function to be remote controlled and a command for the execution of this function is generated, this process being characterized in that : A) in the transmission centre : - the digital signal is formed by an address word (A) and a function word (F), - this signal is successively processed by two error detecting and correcting codes, a first BCH code and a second REED-MULLER code, - a synchronization word (MS) is made to precede the doubly encoded signal, the synchronization word - address word - function word together forming a digital frame, - this frame is repeated cyclically, - each digital frame modulates a subcarrier (SP) with a phase shift modulation, - this subcarrier (SP) thus modulated is used in order to modulate the frequency of a carrier which is then radio transmitted by a frequency modulation radio transmitter ; B) in each receiver, - the transmitted signal is picked up by a tuned filter (10) coupled to an electric current distribution system (16) supplying the equipment to be remote controlled (50), - a frequency demodulation is carried out in order to retrieve the modulated subcarrier, - the subcarrier is demodulated by a phase shift demodulation in order to retrieve the digital frame, - the digital frame is processed firstly by recognition of the synchronization word (MS), then by a first REED-MULLER typ decoding, which enables the possible errors to be detected and corrected, and then by a second BCH type decoding, which enables the residual errors to be detected, and the digital signal is thus retrieved with its address word (A) and its function word (F), - the address word (A) is decoded, - the received address is compared with the receiver's own address, - if the received address and the receiver's address are the same, the received function word (F) is processed by comparing it with a plurality of function words stored in the receiver, - the number of coincidences between the cyclically received function word and one of the stored function words is counted and, when this number reaches a predetermined value, a command for execution is initiated corresponding to this function in the associated equipment.

IPC 1-7

G08C 19/28; H04H 1/00

IPC 8 full level

G08C 19/28 (2006.01); **H04H 1/00** (2006.01); **H04H 20/00** (2009.01); **H04H 20/28** (2008.01)

CPC (source: EP)

G08C 19/28 (2013.01); **H04H 20/28** (2013.01)

Cited by

US6098106A; US6003073A; EP0318632A3; FR2695237A1; CN102402851A; EP0330560A1; FR2627650A1; US5022029A; CN115830834A; WO9727683A1; WO9113523A1; WO8905550A1

Designated contracting state (EPC)

AT BE CH DE GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0152341 A1 19850821; **EP 0152341 B1 19880518**; AT E34475 T1 19880615; DE 3562830 D1 19880623; FR 2559291 A1 19850809; FR 2559291 B1 19860502

DOCDB simple family (application)

EP 85400180 A 19850204; AT 85400180 T 19850204; DE 3562830 T 19850204; FR 8401822 A 19840207