

ABSTRACT

SYSTEM AND METHOD FOR SENDING AND RECEIVING A DIGITAL
SIGNAL OVER A RADIO PATHWAY

A constant-amplitude and continuous-phase modulation method for modulating digital data and for demodulating said modulated signal, said data taking the form of symbols $a(n)$ that can take a number M of states at least equal to 2, characterized in that it comprises, in transmission, a voltage-controlled oscillator (VCO) for which the control is the sum of pulses $h_e(a(n), t - nT)$, the form and the amplitude of which depends on the value of $a(n)$ and that it comprises, in reception, a single impulse response filter $C_0(t)$ regardless of the value of M in transmission, said functions h_e and C_0 being characterized by a number of parameters that are optimized in the design of the system in order to obtain at the output of the filter C_0 a constellation that is as close as possible to the theoretical constellation.

Figure 5



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