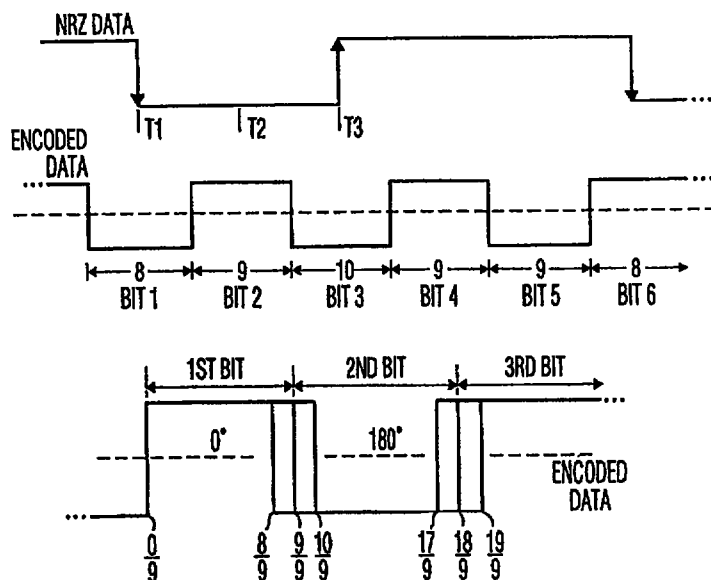




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(54) Title: DIGITAL SIGNAL MODULATION SYSTEM



(57) Abstract

A variable aperture coding/decoding system suitable for use in a spread spectrum system provides multiple phase coding of an input NRZ bitstream. Each bit of a coded output signal is coded to encompass a predetermined number of clock periods depending on the logic level of the input signal. A coded bit exhibits a predetermined reference number of clock periods, eg., 9, when the input signal does not exhibit a logic level transition. When the input signal exhibits a phase change from a 0 to a 1 logic level, the bit width of an associated coded bit is increased by 1 clock period, to 10 clock periods. When the input signal exhibits a phase change from a 1 to a 0 logic level, the bit width of an associated coded bit is decreased by 1 clock period, to 8 clock periods. Thus the coded output signal may contain three types of information represented by a bit width change proportional to predetermined factor N.