

Abstract

The present invention claims method and device for parallel scrambling. The method includes the following steps: dividing the input signal for grouped storage with the exponent number n of scrambler change relationship matrix as the division length; determining scrambler state change relationship matrix T according to the pseudo-random sequence length needed for scrambling to multiple the corresponding equal elements of the row and column values of sparse storage matrix T ; setting the initial state of the scrambler according to the formula: $Q^n = [Q_0^n Q_1^n Q_2^n Q_3^n Q_4^n Q_5^n Q_6^n]$, $Q^{n+k} = T^k \otimes Q^n$ so as to get the logic relationship among the parallel output data of the scrambler, parallel input data of the scrambler and the initial state of the scrambler, wherein different groups of input signal is subject to parallel scrambling process; and after scrambling, different groups of input signal is recovered to serial data stream based on the time of the input signal. The present invention can reduce the amount of scrambling calculation and occupancy of storage space.