

The Research of Characteristics Quasithree Entropy Manipulated Signals on the basilar levels of the spread computer systems

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The offered method of forming and working out of digital signals on basilar levels of the computer systems spread on the basis of quasithree entropy manipulated signals.

Key words – **The spread computer systems (SCS), quasithree entropy manipulated signals, basilar levels.**

I. INTRODUCTION

Nowadays actual problem lies in improvement methods of forming, manipulating and digital processing in sensory network lower SCS's levels. Herewith, important condition of supply high level defense from intensive industrial impediments and unauthorized division lies in application of modern wide-brand and over wide-brand manipulations of discrete signals [1, 2].

The task of improvement methods manipulation lower SCS's levels is actively investigated by foreign and native scientists [3, 4].

II. FORMING PRINCIPLES OF ENTROPY MANIPULATED QUASITHREE SIGNALS

One of the perspective going near realization of tools of forming of widespread signals on the basilar levels of SCS is the use of realization of casual process. A signal in such case is described only statistically. At entropy approach of forming signals of binary characteristics the initial report is presented in accordance to realization of casual process of the guided entropy.

The aim of forming and working method of *quasy three* signals with variable entropy (fig. 1) consists in binary characteristics of information message accordance with the entropy signal value distribution. Thus, in a communication channel there is a permanent constituent (fig. 1a), which is used for denotation of reiteration, beginning and end of report. To information characters of «0»(fig. 1b) and «1» (fig . 1c) correspond the value of entropy of noise signal with manipulated mathematical hope.

Example of quasithree signal with variable entropy for an information message in a 1 byte is represented in table 3, where: I – a structure of frame, II – realization of physical level of entropy manipulated signals, III – a quasithree code of manipulated signals, IV – characteristics of Gaus's signals distributing with variable entropy.

As it is evident from a table 3. by a quasithree signal it is possible to organize signal «start» and «stop» bats, without changing signal structure and also to eliminate the reiteration of information characters, which provides high-quality bit synchronization.

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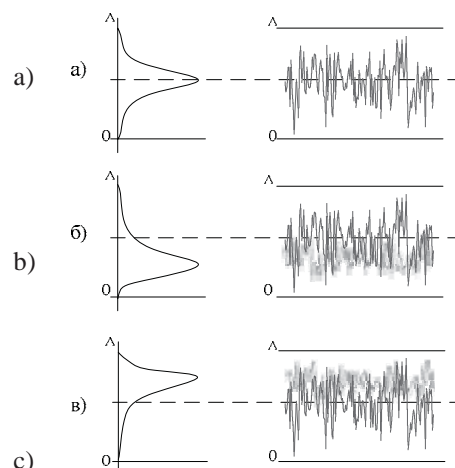


Fig.1 Presentation of information messages at manipulation of quasithree signals with variable entropy:

a) «synchro»; б) «1»; в) «0»

TABLE 3

I	START	0	1	1	0	0	1	0	1	STOP		
II	[Waveform showing signal realization]											
III	c	c	0	1	c	0	c	1	0	1	c	c
IV	[Gaussian signal characteristics]											

CONCLUSION

The offered method of forming of quasithree signals with entropy manipulation at physical level create the perspective of their wide application on the basilar levels of SCS, which are characterized by the small size of frames, and also protects from influence of intensive industrial obstacles. The research of such signals as well as the development of the special processors, their forming and digital working which needs deep theoretical and applied researches in the aspect of perfection of SCS is actual.

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