Development of coding systems for optoelectronic atmospheric channels (OAC) and fiber-optic communication lines (FOCL)

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Abstract

The paper reviews OAC coding system on the basis of the analysis of the peculiarities of OAC subsystems operation. The peculiarities of the design of the OAC encoder and decoder by minimizing the functions of the encoder and decoder are shown.

<u>Keywords</u>: Optoelectronic Atmospheric Channel, Fiber-Optic Communication Line, coding system, encoder, decoder.

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References

- [1] Gorokhov VA, Nosov YuR, Rybakov VS. Classification and principles of construction of optoelectronic transmission lines of logical signals [In Russian]. Microelectronics 1974; 7: 210-221.
- [2] Balashov VP, Grokhov VA, Dmitriev VP, Rybakov VS. The use of optoelectronic devices in electronic equipment. In Book: Results of science and technology: Electronics series [In Russian]. Moscow: "VINITI" Publisher; 1989; 24: 60-122.
- [3] Jakubaitis EA. Information networks and systems: Reference book [In Russian]. Moscow: "Financy i Statistika" Publisher; 1996.
- [4] The development and use of open systems. Collection of theses of reports of the III International Conference. Moscow: "MGIEM" Publisher; 1996.
- [5] GOST R 50452-92. Information processing systems. Fibre Distributed Data Interface (FDDI). Moscow: "Gosstandart Rossii" Publisher, 1997.