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Elements of Synchronous DVB-T2 Network **M. I. Iacob; Yu. I. Demciuc**

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Abstract

This article discusses issues related to the synchronization of the information signal in single-frequency networks of digital television broadcasting DVB-T2. As an example, are presented the configuration parameters of a single-frequency cluster and the quality indicators of a received signal. The presented material can be useful for technical specialists working in the field of planning, deployment and operation of synchronous networks of terrestrial broadcasting.

Keywords: synchronization, logic gates, time-frequency analysis, frequency modulation, digital video broadcasting

References:

1. Handbook on Digital Terrestrial Television Broadcasting Networks and Systems Implementation, ITU-R, pp. 52, 2016. [Google Scholar](#)
2. ETSI TS 102 831. Technical Specification Digital Video Broadcasting; Implementation guidelines for a second generation digital terrestrial television broadcasting sistem (DVB-T2). [Google Scholar](#)
3. ETSI TS 102 773 V1.4.1 (2016-03) Digital Video Broadcasting (DVB); Modulator Interface (T2-MI) for a second generation digital terrestrial television broadcasting system (DVB-T2), pp. 12. [Google Scholar](#)
4. M. A. Bykhovskiy, V. G. Dotolev, A. V. Lashkevich, V. I. Nosov, S. G. Rikhter, G. I. Sorokin, et al., Osnovy chastotnogo planirovaniya setey televizionnogo veshchaniya [Basics of frequency planning television network], Moscow, Goryachaya liniya:Telekom Publ., pp. 129-138, 2015. [Google Scholar](#)
5. V. V. Bykhov and S. M. Al-Mershahi, "Improving the synchronization of OFDM signals in the DVB-T2 system", *T-Copp*, vol. 10, no. 6, pp. 21-26, 2016. [Google Scholar](#)
6. ETSI EN 302 755 V1.3.1 (2011-11) Digital Video Broadcasting; Frame structure channel coding and modulation for a second generation digital terrestrial television broadcasting sistem (DVB-T2), pp. 59-76. [Google Scholar](#)
7. V. L. Karyakin, "Phase synchronization of the information signal in the transmitters of digital television networks DVB-T2", *T-Comm*, no. 8, pp. 52, 2014. [Google Scholar](#)
8. ETSI TR 101 290 V1.2.1 (2001-05). Digital Video Broadcasting (DVB); Measurement guidelines for DVB systems. [Google Scholar](#)