2019 Wave Electronics and its Application in Information and Telecommunication Systems (WECONF) 03-07 June 2019, St. Petersburg, Russia

Practical Assessment of the Total Field Strength at the Receiving Point of the Synchronous DVB-T2 Network

M. I. Iacob; Yu. I. Demciuc

https://doi.org/10.1109/WECONF.2019.8840656

Abstract

In this paper, a study was conducted of practical methods for estimating the total field strength in the service area of a single-frequency DVB-T2 network. To accomplish the task, measurements were made of the field strength and other quality indicators of the received signal in the field and in the laboratory.

Keywords: field strength, service area, minimum median field strength, DVB-T2, SISO, SFN, MER, BER

References:

- **1.** Technical Specification Digital Video Broadcasting; Implementation guidelines for a second generation digital terrestrial television broadcasting sistem (DVB-T2). Google Scholar
- **2.** "Handbook on Digital Terrestrial Television Broadcasting Networks and Systems Implementation", *Edition of 2016 ITU-R c. 52*. <u>Google Scholar</u>
- **3.** 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
- **4.** G. V. Mamchev, "Features of fuctioning of synchronous regional network of terrestrial digital broadcasting", *Siberian State University of Telecommunications and Informatics*, pp. 64, 2012. Google Scholar
- **5.** Final acts of the regional radiocomunication conference for planning of the digital terrestrial broadcasting service in parts of regions 1 and 3 in the frequency bands 174-230 and 470-862 MHz (RRC-06).
- **6.** M. I. Iacob, Yu. I. Demciuc and I. A. Avram, "Comparativ evaluation of received signal parametrs in SFN DVB-T2 service area", *IEEE Catalog Number CFP18P67-ART ISBN 978-1-5386-6474-2 IEEE Xplore Digital Library 2018 Systems of Signal Synchronization Generating and Processing in Telecommunicating (SYNCHROINFO), pp. 131-142. Google Scholar*
- **7.** F. V. Kushnir, V. G. Savenko and S. M. Vernik, Izmereniya v tekhnike svyazi [Measurement in communication technology], Moscow:Svyazi Publ, pp. 297, 1976. <u>Google Scholar</u>
- **8.** "Electronic Warfare and Radar Systems Engineering Handbook", *NAWCWPNS TP 8347*, April 1999. Google Scholar
- **9.** Digital Video Broadcasting; Measurement quidelines for DVB sistems. Google Scholar