International Conference on Electronics, Communications and Computing - 2019 IC ECCO-2019

23 – 26 October, 2019

PARTICULARITIES OF THE IMPLEMENTATION OF TERRESTRIAL DIGITAL TELEVISION IN THE REPUBLIC OF MOLDOVA

Mihail I. IACOB¹, Yurie I. DEMCIUC², Ion A. AVRAM³

¹State Enterprise «Radiocomunicatii», Drumul Viilor st., 28/2, Chisinau, 2029, The Rebublic of Moldova ²State Enterprise «Radiocomunicatii», Drumul Viilor st., 28/2, Chisinau, 2029, The Rebublic of Moldova ³Technical University of Moldova, Ștefan Cel Mare st., 168, Chisinau, 2004, The Rebublic of Moldova

Corresponding author: Mihail I. Iacob, mihail.iacob@radiocom.md
Corresponding author: Yurie I. Demciuc, iurie.demciuc@radiocom.md
Corresponding author: Ion A. Avram, ion.avram@rc.utm.md

In accordance with the provisions of the Regional Agreement on the Planning of Digital Broadcasting Services (ITU-R Conference, Geneva, 2006), starting from 17 June 2015, the Republic of Moldova assumed the obligation to introduce digital terrestrial broadcasting systems. This article provides a brief overview of the stages of the introduction of digital terrestrial broadcasting in the Republic of Moldova [2,3]. In 2003 S.E. "Radiocommunicatii" has put into operation the first H.262 type coding station, which together with the DVB-T system has provided digital terrestrial television services in Chisinau for 8 years. At the beginning of 2011, H.264 type encoders were put into operation, which are still in operation, providing with signal Chisinau municipality and at the same time the first national digital television multiplex. Therefore, starting with the year 2003 in Chisinau the works were started to implement the pilot project for digital terrestrial emission. Currently, in Chisinau, in test mode, 2 digital DVB-T and DVB-T2 [1] transmitters operate, which broadcast digital packages with TV and RD programs on channels 56 and 58 accordingly. In 2015 î.S. "Radiocommunications" built the first national multiplex MUX-A, which later in 2016 was put into operation, based on the H.264 AVC / MPEG-4 coding system. The mentioned multiplex provides with the DVB-T2 signal 6 national coverage areas located throughout the country. The transmitters in the component of each zone operate with a single frequency. Currently, television broadcasting is in Simulcast mode, when both analog and digital transmitters are working at the same time. As of September 1, 2019, 98% of the country's population has access to the DVB-T2 signal. By March 1, 2020, when it is planned to completely turn off analog television, the coverage of the population with a digital television signal by this time will be 99%. To do this, it is planned to install about 60 transmitters of low power in the shadow zones.

Keywords: Service zone; DVB-T2; SISO; SFN; MER; CBER, LBER, T2 Gateway, Guard Interval, T2-MI interface.

References

- 1. *ETSI TS 102 831*. Technical Specification Digital Video Broadcasting; Implementation guidelines for a second generation digital terrestrial television broadcasting sistem (DVB-T2).
- 2. 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).
- 3. To approve the Program on the transition from terrestrial to digital terrestrial television. Government Decision of the Republic of Moldova Nr. 240 of 08.05.2015. Published: 05.06.2015 in the Monitorul Oficial no. 139-143, art Nr: 352.