Live TV Broadcasting with 5G over the 700 MHz band

Objective: First 5G live TV broadcasting over the 700 MHz band of the commercial network, after the tender of this band to operators on 21 July 2021. The use of this band allows greater range and good coverage inside buildings.

Description:

Following the release of the 700 MHz frequency of DVB-T television channels for 5G communications, different tests were initiated to analyse the impact and interference of using 5G in this frequency band with SETID (State Secretariat for Telecommunications and Digital Infrastructure), in which other operators also participated. To this end, two Telefonica 5G nodes were switched on in Alcázar de San Juan on the 700 MHz frequency, making it the first Spanish town with a commercial 5G network in this band.

In addition to these coverage and interference tests, Telefonica was carrying out the first real application use case on a commercial network in 700 MHz once the auction of frequencies in this band had ended: live TV broadcasting over 5G. On 27 July 2021, a live connection was made from Alcázar de San Juan for the morning news programme of the regional television of Castilla La Mancha, where different representatives of Telefonica, SETID, the town council and the regional government of Castilla La Mancha were interviewed. And in which the television camera was connected through a backpack with video coding with 5G modems through this frequency, with the collaboration of Ges-It, distributor of this type of backpacks with Mobile Viewpoint technology. The 5G in this case of use, allows us on the one hand to have a greater throughput capacity, so we can reduce the number of channels through which the signal is sent to the production, from where it is unified again, and on the other hand to reduce the delay times in sending video to production.

















