Question ITU-R 129/6

Impact of audio signal processing and compression techniques  
on terrestrial FM sound broadcasting emissions at VHF

(2009)

The ITU Radiocommunication Assembly,

considering

*a)* that Recommendation ITU‑R BS.412 specifies planning standards for terrestrial FM sound broadcasting at VHF, including the conditions for average multiplex signal levels and peak deviation;

*b)* that audio signal processing techniques have rapidly developed in the last few years, based on advances of digital signal compression techniques, and are widely used in sound broadcasting to increase the subjective sound level/programme loudness;

*c)* that listeners desire audio programmes to be uniform in subjective sound level/programme loudness;

*d)* that careful guidance on system alignment is required, as the average power of the complete multiplex signal of FM sound broadcasting stations may exceed the limit specified in Recommendation ITU‑R BS.412;

*e)* that the application of such audio signal processing and compression techniques which result in an increase of the average power of the complete multiplex signal may lead to an increase in interference to sound broadcasting stations which do not use such techniques,

decides that the following Questions should be studied

1 What is the impact of audio signal processing and compression techniques on the average power of the complete multiplex signal and the maximum deviation of the emission?

2 What techniques are available to ensure that the emission complies with the planning parameters given in Recommendation ITU‑R BS.412 when audio signal processing and compression techniques are used?

further decides

1 that the results of the above studies should be included in either a new Report(s) and/or Recommendation(s) or incorporated in Recommendation ITU‑R BS.412;

2 that the above studies should be completed by 2027.

Category: S2