

RECOMMENDATION ITU-R BS.450-2

TRANSMISSION STANDARDS FOR FM SOUND BROADCASTING AT VHF*

(Question ITU-R 46/10)

(1982-1995)

The ITU Radiocommunication Assembly,

recommends

that for FM sound broadcasting in band 8 (VHF) the following transmission standards should be used:

1 Monophonic transmissions

1.1 RF signal

The radio-frequency signal consists of a carrier frequency-modulated by the sound signal to be transmitted, after pre-emphasis, with a maximum frequency deviation equal to:

± 75 kHz or ± 50 kHz.

NOTE 1 – In the West European countries and the United States of America, the maximum deviation is ± 75 kHz. In the ex-USSR and in some other European countries, it is ± 50 kHz.

1.2 Pre-emphasis of the sound signal

The pre-emphasis characteristic of the sound signal is identical to the admittance-frequency curve of a parallel resistance-capacitance circuit having a time constant of:

50 μ s or 75 μ s.

NOTE 2 – In Europe, the pre-emphasis is 50 μ s. In the United States of America, it is 75 μ s.

2 Stereophonic transmissions

2.1 Polar-modulation system

2.1.1 RF signal

The radio-frequency signal consists of a carrier frequency-modulated by a baseband signal, known in this case as the "stereophonic multiplex signal", with a maximum frequency deviation equal to:

± 75 kHz or ± 50 kHz (see Note 1, § 1).

2.1.2 Stereophonic multiplex signal

This signal is produced as follows:

2.1.2.1 A signal M is formed equal to one half of the sum of the left-hand signal, A , and the right-hand signal, B , corresponding to the two stereophonic channels. This signal, M , is pre-emphasized in the same way as monophonic signals (see § 1).

NOTE 1 – M is a "compatible" signal in the sense that the stereophonic transmission may be received by a monophonic receiver equipped for the same maximum frequency deviation and the same pre-emphasis.

* Administrations are invited to supply further information on the system parameters, particularly concerning new tables on frequency tolerances.