

## RECOMMENDATION ITU-R SM.1752

**Limits for unwanted emissions under free-space condition**

(2006)

**Scope**

Taking into account that limits for unwanted emissions in the spurious domain have not yet been defined for the free-space condition, there is a need for a new Recommendation.

The ITU Radiocommunication Assembly,

*considering*

- a) that in order to protect all the radiocommunication services, the maximum level of unwanted emissions should be limited;
- b) that it is difficult to apply the methodology in Appendix 3 of the Radio Regulations (RR) to unwanted emissions measured in free space because unwanted emissions are defined at the output of the transmitters and not in free space;
- c) that every effort should be made to keep levels of unwanted emissions, both for existing and new systems, at the lowest possible values, taking account of the type and nature of the radio services involved, economic factors and technological limitations;
- d) that field-strength or pfd measurements of unwanted emissions, at locations distant from the transmitter, are recognized as the direct means of expressing the intensities of interfering signals due to such emissions;
- e) that the relation between the power of unwanted emissions supplied to a transmitting antenna and the field strength of the corresponding signals, at locations remote from the transmitter, may differ greatly due to such factors as: antenna characteristics at the frequencies of unwanted emissions; propagation anomalies over various paths, and radiation from parts of the transmitting apparatus other than the antenna,

*recognizing*

**1** that the maximum permissible levels of certain unwanted emissions are defined, at the same time in the RR (Appendix 3) and in Recommendation ITU-R SM.329, at the output of transmitters,

*recommends*

**1** that the maximum permissible levels of certain unwanted emissions defined at the output of transmitters may, under some circumstances, be applicable when the measurements are made in free space.

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