Question iTU-R 32-1/6[[1]](#footnote-1)\*

Protection requirements of broadcasting systems against interference
from radiation caused by wired telecommunication systems, from
emissions of industrial, scientific and medical equipment, and
from emissions of short-range devices

(2002-2011)

The ITU Radiocommunication Assembly,

considering

*a)* that telecommunication systems are being developed which utilize electricity power supply or telephone line distribution wiring;

*b)* that such new telecommunication systems are now being developed to operate with data rates exceeding 1 Mbit/s up to 1 Gbit/s, with carrier frequencies in the HF, VHF and UHF bands and possibly beyond;

*c)* that electricity power supply and telephone line distribution wiring are generally not designed or installed in such a way that RF radiation will be minimised and radiation from the wires will inevitably occur;

*d)* that any radiation from such systems may affect the use of radiocommunication systems, particularly at LF, MF, HF, VHF and UHF and possibly beyond;

*e)* that industrial, scientific and medical (ISM) equipment and short-range devices are being developed with increasing demand;

*f)* that any unwanted radiation and emission from such systems may cause interference to the reception of broadcasting services;

*g)* that broadcasting systems are designed taking into account intrinsic receiver noise and external radio noise including atmospheric, man-made and galactic noise;

*h)* that radiation from the wired telecommunication systems and emission from ISM equipment and short-range devices increase the level of man-made radio noise, causing increase of the external radio noise;

*i)* that increase of external radio noise results in increase of the minimum usable field strength and degradation of the reception quality of the broadcasting services;

*j)* that Recommendation ITU-R P.372 describes levels of some types of radio noise;

*k)* that reception environment of broadcasting services should be protected from the interference,

decides that the following Questions should be studied

1 What are the interference protection requirements of the various broadcasting systems in terms of the maximum acceptable level of field strength incident from wired telecommunication systems, from ISM equipment, and from short-range devices, taking into account the following items:

1.1 planning parameters of broadcasting systems;

1.2 distance from the wiring, ISM equipment and short-range devices to broadcasting receiving antenna;

1.3 potential increase of man-made noise in the next decades;

1.4 cumulative effect of unwanted radiation from a number of sources at the input of the receiver?

further decides

1 that the results of the above studies should be included in (a) Recommendation(s) and or (a) Report(s);

2 that the studies should be completed by 2027.

NOTE 1 – See also Questions ITU-R 218/1 and ITU-R 221-1/1.

Category: S2

1. \* This Question should be brought to the attention of Telecommunication Standardization Study Group 5, Radiocommunication Study Groups 1, 5 and the International Special Committee on Radio Interference (CISPR). [↑](#footnote-ref-1)