

RESOLUTION 63 (REV.WRC-12)

Protection of radiocommunication services against interference caused by radiation from industrial, scientific and medical (ISM) equipment

The World Radiocommunication Conference (Geneva, 2012),

considering

- a) that ISM applications are defined under RR No. 1.15 as “operation of equipment or appliances designed to generate and use locally radio-frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of *telecommunications*”;
- b) that ISM equipment may be situated in locations where outward radiation cannot always be avoided;
- c) that there is an increasing amount of ISM equipment working on various frequencies throughout the spectrum;
- d) that in some cases a considerable part of the energy may be radiated by ISM equipment outside its working frequency;
- e) that Recommendation ITU-R SM.1056 recommends to administrations the use of International Special Committee on Radio Interference (CISPR) Publication 11 as a guide for ISM equipment to protect radiocommunication services, but that CISPR 11 does not yet fully specify radiation limits for all frequency bands;
- f) that Report ITU-R SM.2180 introduces the interference analysis method and the radiation limits of ISM equipment developed by CISPR, and that the emission limits, which have been developed to protect analogue radiocommunication systems, may not provide protection to digital radiocommunication systems;
- g) that certain digital radiocommunication systems use receivers that may be more sensitive to interference from ISM equipment;
- h) that some radio systems, especially those using low field strengths, may suffer interference caused by radiation from ISM equipment, a risk which is unacceptable particularly in the case of systems belonging to radionavigation or other safety services;
- i) that, in order to limit the risks of interference to specified parts of the spectrum:
 - the preceding Radio Conferences of Atlantic City, 1947, and Geneva, 1959, designated some frequency bands within which the radiocommunication services must accept harmful interference produced by ISM equipment;
 - WARC-79 accepted an increase in the number of bands to be designated for ISM equipment, but only on the condition that limits of radiation from such equipment be specified within the bands newly designated for worldwide use and outside all the bands designated for ISM equipment;
- j) that the variety and evolution of digital technologies used in digital radiocommunication systems suggest a need for continuous review of CISPR Publication 11,

RES63-2

resolves

that, to ensure that radiocommunication services are adequately protected, studies are required on the limits to be imposed on the radiation from ISM equipment, within and outside the frequency bands designated in the Radio Regulations for this use,

invites ITU-R

1 to provide the necessary characteristics and protection criteria for relevant digital radiocommunication systems in order to enable CISPR to review and update, as needed, the limits on radiation from ISM equipment;

2 to continue, in collaboration with CISPR, its studies relating to radiation from ISM equipment, within and outside the frequency bands designated in the Radio Regulations for this use, in order to ensure adequate protection of radiocommunication services, including digital radiocommunication systems, with priority being given to the completion of studies which would permit CISPR to define limits in Publication CISPR 11 on radiation from ISM equipment inside all the bands designated in the Radio Regulations for the use of such equipment,

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of CISPR.