Annex A. Test conditions

A.1 Normal test conditions

A.1.1 Normal temperature and humidity

The normal temperature and humidity conditions for tests shall be any convenient combination of temperature and humidity within the following ranges:

- temperature: + 15℃ to + 35℃
- relative humidity: 20 % to 75 %.

When it is impracticable to carry out the tests under these conditions, take a note for this effect, record the ambient temperature and relative humidity during tests, shall be added to the test report.

A.1.2 Normal test power source

A.1.2.1 Mains voltage

The normal test voltage for equipment to be connected to the mains shall be the nominal main voltage.

For the purpose of this standard, the nominal voltage shall be the declared voltage or any of the declared voltages for which the equipment was designed.

The frequency of the test power source corresponding to the AC mains shall be between 59 and 61 Hz.

A.1.2.2 Regulated lead-acid battery power sources used on vehicles

When the radio equipment is intended for operation from the usual types of regulated lead-acid battery power source used on vehicles, the normal test voltage shall be 1.1 times the nominal voltage of the battery (6 V, 12 V etc).

A.1.2.3 Other power sources

For operation from other power sources or types of battery (primary or secondary), the normal test voltage shall be that declared by the equipment manufacturer.

A.2 Extreme test conditions

A.2.1 Extreme temperature

For tests at extreme temperatures, measurements shall be made in accordance with the procedures specified at the upper and lower temperatures of one of the following ranges:

-25℃ to +55℃ -15℃ to +55℃

-10℃ to +55℃ 0℃ to +30℃

Test reports shall state which range is used.

A.2.2 Extreme test source voltages

A.2.2.1 Mains voltage

The extreme test voltage for equipment to be connected to an AC mains source shall be the nominal mains voltage ±10 %.

A.2.2.2 Regulated lead-acid battery power sources used on vehicles

When the equipment is intended for operation from the usual types of regulated lead-acid battery power sources used on vehicles the extreme test voltages shall be 1.3 and 0.9 times the nominal voltage of the battery (6 V, 12 V, etc).

A.2.2.3 Power sources using other types of batteries

The lower extreme test voltages for equipment with power sources using the following batteries shall be:

- for the Leclanché or the lithium type of battery: 0.85 times the nominal voltage of the battery,
- for the mercury or nickel-cadmium type of battery: 0.9 times the nominal voltage of the battery.

No upper extreme test voltages apply.

A.2.2.4 Other power sources

For equipment using other power sources, or capable of being operated from a variety of power sources, the extreme test voltages shall be those agreed between the equipment manufacturer and the testing authority and shall be recorded in the test report.