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Electromagnetic compatibility (EMC)
requirements for mobile terminals and ancillary equipment
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Contents

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

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Version x.y.z

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1 Scope

The present document establishes the essential EMC requirements for "3rd generation" digital cellular mobile terminal equipment and ancillary accessories in combination with a 3GPP E-UTRA user equipment (UE).

The equipment conforming to the requirements laid out in the present document and used in its intended electromagnetic environment in accordance with the manufacturers instructions

- shall not generate electromagnetic disturbances at a level which may interfere with the intended operation of other equipment;
- has an adequate level of intrinsic immunity to electromagnetic disturbances to operate as intended;

The present document specifies the applicable EMC tests, the methods of measurement, the frequency range, the limits and the minimum performance criteria for all types of E-UTRA UE´s and their accessories. E-UTRA base station equipment operating within network infrastructure is outside the scope of the present document. However, the present document does cover mobile and portable equipment that is intended to be operated in a fixed location while connected to the AC mains. E-UTRA base stations in the radio access network are covered by the technical specification TS36.113 [2].

Requirements for the radiated emission from the enclosure port of integral antenna equipment and ancillaries have been included. Technical specifications for conducted emissions from the antenna connector are found in the 3GPP specifications for the radio interface, e.g. TS36.521 [3], for the effective use of the radio spectrum.

The immunity requirements have been selected to ensure an adequate level of compatibility for apparatus in residential, commercial, light industrial and vehicular environments. The levels however, do not cover extreme cases, which may occur in any location but with low probability of occurrence.

The environment classification used in the present document refers to the environment classification used in the Generic Standards IEC 61000-6-1 [4], IEC 61000-6-3 [5], except the vehicular environment class which refers to ISO 7637 Part 1 [6] and Part 2 [7].

Compliance of radio equipment to the requirements of the present document does not signify compliance to any requirement related to the use of the equipment (i.e. licensing requirements).

Compliance to the requirements of the present document does not signify compliance to any safety requirement. However, any temporary or permanent unsafe condition caused by EMC is considered as non-compliance.

2 References

The following documents contain provisions, which, through reference in this text, constitute provisions of the present document.

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[1] 3GPP TR 25.990: "Vocabulary for UTRAN".
3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 36.113: "Evolved Universal Terrestrial Radio Access (E-UTRA); Base station and repeater electromagnetic compatibility (EMC)".

[3] 3GPP TS 36.521: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access Network (E-UTRAN); User Equipment (UE) conformance specification Radio transmission and reception".