

COMMON REGULATORY OBJECTIVES FOR GSM EQUIPMENT

PART 2

SPECIFIC ASPECTS OF GSM EQUIPMENT

1. SCOPE

This Common Regulatory Objective, CRO, is applicable to GSM™ equipment, as defined in Clause 2.

A CRO is structured in 2 parts:

- **Part 1:** Part 1 of all ICT equipment CROs specifies the common and general requirements needed to satisfy the regulatory objectives of the participating Countries.
- **Part 2:** The present document is Part 2 of the GSM equipment CRO and specifies, for GSM equipment, the specific requirements needed to satisfy the regulatory objectives of the participating Countries.

The validity of a CRO is only achieved with the full application of both Part 1 and Part 2.

This CRO specifies the requirements needed to satisfy the regulatory objectives of Countries. Thus, this agreement will allow GSM equipment which is in compliance with this CRO to be placed on the market and be put into service as equipment within Countries, that have implemented this CRO.

2. GSM EQUIPMENT

GSM™ (Global System for Mobile Communications) is a digital cellular system standardised by ETSI. GSM equipment covers base stations and mobile stations (such as handsets).

3. REFERENCES

In addition to the references in Part 1 of this CRO, relevant references are given in ETSI standards for GSM.

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4. DEFINITIONS

In addition to the references in Part 1 of this CRO, applicable definitions are found in ETSI standards for GSM.

5. PRODUCT REQUIREMENTS

This CRO covers the legitimate regulatory objectives for GSM equipment.

The objectives cover:

- Safety, including Electromagnetic Fields
- Electromagnetic Compatibility
- Effective use of the radio spectrum

6. REFERENCE TO STANDARDS

The recognized standards relevant for this CRO are listed in the Annex.

ANNEX

GSM equipment shall be held to be compliant if they comply with each of the standards listed. The version of the standard listed is valid at the time of publication of this CRO. Subsequent versions of the listed standards are accepted unless otherwise stated by Countries having agreed on this CRO.

Conformity requirements can be found in the standards where the technical requirements are defined, or in separate standards.

A. Safety, excluding Electromagnetic Fields

IEC 60950 (1999)	Safety of information technology equipment
CB Bulletin (parts covering the intended markets)	IECEE (The IEC System for Conformity Testing and Certification of Electrical Equipment).

B. Electromagnetic Fields

Exposure limits

ICNIRP (April 1998)	Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz) – International Commission on Non-Ionizing Radiation Protection, Health Physics, Vol. 74, No. 4, April 1998.
IEEE C95.1 (1999)	Standard for safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz.

Compliance Assessment (portable and mobile devices)

CENELEC EN 50360:2001	Product standard to demonstrate the compliance of mobile phones with the basic restrictions related to human exposure to electromagnetic fields (300 MHz – 3 GHz).
CENELEC EN 50361:2001	Basic standard for the measurement of Specific Absorption Rate related to human exposure to electromagnetic fields from mobile phones (300 MHz – 3 GHz).

CENELEC EN 50371:2002 Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz – 300 GHz) – General public.

FCC OET Bulletin 65 (2001) Supplement C: Evaluating compliance with FCC guidelines for human exposure to radiofrequency electromagnetic fields: Additional information for evaluating compliance for mobile and portable devices with FCC limits for human exposure to radiofrequency emissions.

Compliance Assessment (base stations and fixed terminal stations)

CENELEC EN 50385:2002 Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to general public exposure to radio frequency electromagnetic fields (110 MHz – 40 GHz).

CENELEC EN 50383:2002 Basic standard for the calculation and measurement of electromagnetic field strength and SAR related to human exposure from radio base stations and fixed terminal stations for wireless telecommunication systems (110 MHz – 40 GHz).

CENELEC EN 50371:2002 Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz – 300 GHz) – General public.

C. Electromagnetic Compatibility

ETSI EN 301 489–1 v1.3.1 Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

ETSI EN 301 489–7 v1.1.1 **For Mobile Equipment:** “ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 7: Specific conditions for mobile and portable radio and ancillary equipment of digital cellular radio telecommunications systems (GSM and DCS)”

ETSI EN 301 489-8 v1.1.1 **For Base Stations:** "ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 8: Specific conditions for GSM base stations"

FCC Part 15.207 (2001) Radio Frequency Devices; Intentional Radiators; Conducted limits

FCC Part 15.209 (2001) Radio Frequency Devices; Intentional Radiators; Radiated emission limits

D. Effective use of the radio spectrum

ETSI EN 301 419-1 v4.1.1 Digital cellular telecommunications system (phase 2); Attachment requirements for GSM; Part 1: Mobile Stations in the GSM 900 and DCS 1800 bands; Access (GSM 13.01 version 4.1.1) **applicable parts only**

ETSI EN 301 419-2 v5.1.1 Digital cellular telecommunications system (phase 2+); Attachment requirements for GSM; High Speed Circuit Switched Data (HSCSD) Multislot Mobile Stations; Access

ETSI EN 301 419-3 v5.0.2 Digital cellular telecommunications system (phase 2+); Attachment requirements for GSM; Advanced Speech Call Items (ASCI); Access (GSM 13.68 version 5.0.2 Release 1996) **applicable parts only**

ETSI EN 301 419-7 v5.0.2 Digital cellular telecommunications system (phase 2+); Attachment requirements for GSM; Railways Band (R-GSM); Mobile Stations Access (GSM 13.67 version 5.0.2) **applicable parts only**

ETSI EN 301 511 v7.0.1 Global System for Mobile communications (GSM); Harmonized standard for mobile stations in the GSM 900 and DCS 1800 bands (GSM 13.11 version 7.0.1 Release 1998)

ETSI EN 301 502 v8.1.2 Global System for Mobile communications (GSM); Harmonized standard for GSM; Base Station and Repeater equipment (GSM 13.21 version 8.1.2 Release 1999)

FCC Part 15:247 (2001) Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz.

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FCC Part 15:205 (2001) Restricted bands of operation.

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