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Standards

Standard Recommendation
S.R. CLC/TR 50538:2010

Guide to EMC Directive conformity of equipment designed for military purposes

S.R. CLC/TR 50538:2010

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English version

Guide to EMC Directive conformity of equipment designed for military purposes

Guide de conformité à la Directive CEM
pour les équipements conçus à usages
militaires

Leitfaden zur Konformität von Geräten, die
für militärische Zwecke entwickelt wurden,
mit der EMV-Richtlinie

This Technical Report was approved by CENELEC on 2010-09-17.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

This Technical Report was prepared by WG 9, EMC of Military Equipment, of Technical Committee CENELEC TC 210, Electromagnetic Compatibility (EMC).

It was circulated for voting in accordance with the Internal Regulations, Part 2, Subclause 11.4.3.3 (simple majority) and was approved by CENELEC as CLC/TR 50538 on 2010-09-17.

This document supersedes R210-008:2002.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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Introduction

CENELEC R210-008:2002 has been updated and revised with regard to the EMC Directive 2004/108/EC to create this new Technical Report, CLC/TR 50538 “*Guide to EMC Directive conformity of equipment designed for military purposes*”.

The EMC Directive, 2004/108/EC [1], does not contain any reference to military equipment.

The manufacturer is fully responsible for complying with the EMC Directive, 2004/108/EC [1] and cannot devolve this responsibility to a third party. Comprehensive guidance is provided in the “*Guide for the EMC Directive 2004/108/EC*” [16].

There are a number of recent and emerging documents that have been considered including

- Defence Procurement Directive 2009/81/EC [2],
- Public Procurement Directive 2004/18/EC [15],
- the EU Interpretative Communication COM (2006) 779 final [4] on the application of Article 296 TEC to the procurement of military equipment. (Note that Article 296 of the Treaty of Amsterdam has now become Article 346 of the Treaty of Lisbon.)

This Technical Report has been prepared by reviewing all currently available relevant documentation as listed in the Bibliography.

The purpose of this Technical Report is to provide guidance to manufacturers, suppliers, importers, procurement authorities and those taking equipment into service within Member States on the application of the EMC Directive to military equipment.

Background

A Technical Report was produced by CLC/TC 210 (EMC) in 1998 in order to provide guidance to manufacturers of military equipment to comply with the EMC Directive 89/336/EEC [5]. Under this Directive 89/336/EEC there were interpretations at Member State level which resulted in a non-harmonised application of the directive by military equipment manufacturers across the EU.

An interpretative communication concerning the Public Procurement Directive was issued in late 2006. It states; “According to existing EU law, defence contracts fall under Internal Market rules”. This has been interpreted as meaning that all military equipment is subject to the rules of the EU regarding the procurement of equipment, However Member States can exempt defence contracts under Article 296(1)(b) that it considers to fulfil the concept of ‘essential security interests’.

The conclusion from the Commission lawyers (validated in a court case between the Commission and a Member State), in COM (2006) 799 is very specific and concludes that the exemptions are very few and will have to be assessed on a case-by-case basis by the contracting authority.

More recently the Defence Procurement Directive 2009/81/EC of 13 July 2009 [2] has been published. This concerns the gradual establishment of a European defence equipment market and as a prerequisite an appropriate legislative framework. This Directive has profound implications on Members States procurement of Defence equipment and services. A précis of the Directive is provided in Annex A.

CEN WS 10 EG7 E3 ¹⁾ has reviewed military Electromagnetic standards for inclusion in the “*European Handbook for Defence Procurement*” (CWA 15517 [10]). The information contained in their report has been used and incorporated where applicable.

¹⁾ CEN: European Committee for Standardisation, Workshop 10: Standardization for Defence Procurement, EG7: Expert Group 7: Electromagnetic Environment

1 Scope

This Technical Report is applicable to any non-exempt military equipment.

This Technical Report does not affect the requirements to meet military standards.

This Technical Report only covers aspects related to EMC as covered by the EMC Directive 2004/108/EC and other directives that address EMC. In this respect there is no distinction between civilian and defence equipment.

For the purpose of this Technical Report the term “military” is equivalent to the term “defence”.

Annex B describes Article 346 and Annex C provides the associated EC Council List of items under Article 346 [12].

The definitions in EMC Directive 2004/108/EC of “apparatus” and “fixed installations” as applied to military equipment are considered and guidance is given on applicability with the use of flow diagrams.

For apparatus, the use of military standards to demonstrate compliance with the EMC Directive by using various assessment methods that do not use harmonised standards and a “gap” analysis tool for comparison of military standard results with harmonised standards is presented.

This Technical Report also covers fixed installations using military equipment, and their impact on neighbouring environments.

The conformity assessment procedures of EMC Directive 2004/108/EC have been reviewed and guidance given on the applicability and contents of detailed technical EMC assessment.

Annex J includes some case studies to help clarify the extent and use of this Technical Report.

2 Directives for EMC conformity

2.1 EMC Directive

The EMC Directive (2004/108/EC) defines the following protection requirements as essential requirements:

- a) the electromagnetic disturbance generated does not exceed the level above which radio and telecommunications equipment or other equipment cannot operate as intended;
- b) it has a level of immunity to the electromagnetic disturbance to be expected in its intended use which allows it to operate without unacceptable degradation of its intended use.

The conformity procedures are detailed in 3.2.3 and 3.2.4.

The EMC Directive makes specific exemptions for radio equipment and telecommunications terminal equipment covered by Directive 1999/5/EC [3], civilian aircraft or equipment fitted to civilian aircraft referred to in Regulation (EC) No. 1592/2002 [14], radio amateur equipment and inherently benign equipment.

This section contains a summary of other pertinent EU Directives.

2.2 Radio & Telecommunication Terminal Equipment Directive

As noted above, all equipment in the scope of the R&TTE Directive 1999/5/EC [3] is excluded from the EMC Directive. The EMC aspects of equipment within the scope of the R&TTE Directive are covered by that Directive. It follows that equipment that falls outside the scope of the R&TTE Directive is therefore within the scope of the EMC Directive.

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