

Directive 2004/108/EC

The New EMC Directive And The Impact Posed To EU Market Entry.

The new directive was published in the Official Journal of the European Union on the 31st of December, 2004. On July 20th, 2007, Directive 2004/108/EC will repeal the long standing EMC directive 89/336/EEC. What does this propose to manufacturers of product (read “Apparatus”), covered under directive 89/336/EEC?

Well, for the most part, not much. This is not to say that the new EMC directive is simply administrative in nature, far from it, but, the changes don’t significantly affect the technical requirements, as these are, by and large, covered by the harmonized standards. And most of the new directive is a simplified incarnation of the original EMC directive.

All this is not to say that you needn’t be concerned with the new directive, only that it will not have nearly as significant an impact on your regulatory compliance timeline as some other directives may.

The date by which manufacturers may claim compliance with the new directive is July 20th 2007; however, products claiming compliance with this new EMC directive can not be placed on the market prior to July 20th, 2007 (use 89/336/EEC).

Manufacturers of “Apparatus²” may continue to claim compliance with 89/336/EEC until July 20th 2009. At that time, EMC compliance shall be assessed with respect to 2004/108/EC. “Fixed installations³”, however, shall comply with 2004/108/EC from July 20th 2007, as these are now specifically within the scope of the new EMC directive, and are considered “excluded” from the transition provisions.

Following here, I will outline some of the major changes to the EMC directive, as well as provide some useful resources for further education on the topic.

Definitions (per 2004/108/EC Article 2)

(1) **‘equipment’** means any apparatus or fixed installation; (2) **‘apparatus’** means any finished appliance or combination thereof made commercially available as a single functional unit, intended for the end user and liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance; (3) **‘fixed installation’** means a particular combination of several types of apparatus and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location

Some of the major differences in Scope include the change in definition of “apparatus” from 89/336/EEC, to “equipment”. That is to say, the term “apparatus” is now specific to devices or product and excludes “fixed installations”. The term “equipment” now includes both “apparatus” and “fixed installations”.

Apparatus now specifically includes, and this is quoted from the directive; “**components**’ or **sub-assemblies**’ intended for incorporation into an apparatus by the end user, which are liable to generate electromagnetic disturbance, or the performance of which is liable to be affected by such disturbance; and **mobile installations**’ defined as a combination of apparatus and, where applicable, other devices, intended to be moved and operated in a range of locations.”

Chapter III covers the new “fixed Installation” class, and provisions for compliance with the essential requirements are laid out in Annex I. The preamble of the new directive indicates that fixed installations need not be “CE” marked, nor do fixed installations require a Declaration of Conformity (DoC).

The preamble of 2004/108/EC specifically excludes the safety of equipment from the scope of the EMC directive.

The radio transmitter type approval requirement, article 10(5), has been dropped, as the R&TTE directive has been in force since 2000 making those requirements obsolete.

The “essential requirements” for apparatus have been re-worded, mostly concerned with the coverage of immunity, as follows; “(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.”. This wording is quite different from the original directive and the term “unacceptable”, as used above, may pose difficult to quantify for some, but one should note that if harmonized standards are used for the purpose of assessing compliance with the essential requirements, that “unacceptable” will most often be defined, or implied, in that standard. The former directive used the following wording; “(b) the apparatus has an adequate level of intrinsic immunity of electromagnetic disturbance to enable it to operate as intended.”

The conformity assessment procedures for “apparatus” are defined in chapter II of 2004/108/EC.

The conformity assessment procedures have changed significantly. It is now required that an electromagnetic compatibility assessment be performed on the apparatus, to assess compliance with the essential requirements of annex I. The use of published harmonized standards will be equivalent to carrying out an electromagnetic compatibility assessment. The manufacturer shall perform the assessment, and document it; however, no 3rd party involvement is required. Alternatively, a notified body can be solicited to assess the technical documentation for compliance with any or all elements of the EMC directive. A statement would then be issued by the notified body indicating compliance with those aspects that have been assessed, and the statement shall be included in the required technical documentation. In both cases an EC declaration of conformity shall be included with the technical documentation and held at the disposal of the competent authorities within the EU.

Specific requirements are laid out for the technical documentation, as well as for the Declaration of Conformity. The retention period is still 10 years, but now from the date the product was last manufactured, rather than the date placed on the market.

I hope you've found this informative, and please feel free to contact [Compatible Electronics, Inc.](http://www.ceelectronics.com) for further information concerning EMC compliance. The references below have a couple of useful links for more information on this topic.

Jeff Klinger
Director of EMC Engineering
Compatible Electronics, Inc.

Reference:

- Council Directive 89/336/EEC of 3 May 1989 on the approximation of the laws of the Member States relating to electromagnetic compatibility
- Directive 2004/108/EC of the European parliament and of the council of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC.
- http://ec.europa.eu/enterprise/electr_equipment/emc/revision/workshop.htm
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- http://ec.europa.eu/enterprise/electr_equipment/emc/directiv/dir2004_108.htm
© European Communities, 1995-2007
- Guide for the EMC Directive 2004/108/EC