

## Electromagnetic Compatibility (EMC) Directive (2014/30/EU)

### Full title

Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States on electromagnetic compatibility (recast)

### Pictures



### Previous edition

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 electromagnetics compatibility and repealing Directive 89/336/EEC.

### Scope

(Article 1 and Article 2(1))

This directive regulates the electromagnetic compatibility of equipment. It matters to ensure the proper functioning of the internal market by requiring equipment to comply with an appropriate level of electromagnetic compatibility.

This Directive applies to equipment defined as follows (Article 3):

- 'equipment': any device or fixed installation;
  - 'device': any finished device or an assembly thereof that is offered on the market as a separate functional unit for the benefit of the end user and that is capable cause electromagnetic disturbances, or the functioning of which is susceptible to be affected by such disruptions;
  - 'fixed installation': a specific combination of different types of equipment and possibly other devices, which are assembled together, installed and intended for permanent use use at a predetermined location;
  - 'electromagnetic compatibility': the ability of equipment to perform satisfactorily to function in its electromagnetic environment without being electromagnetic itself cause interference that is unacceptable to other equipment in that area;
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- 'electromagnetic disturbance': any electromagnetic phenomenon that causes a deterioration damage to equipment performance. An electromagnetic disturbance can be a electromagnetic noise, an unwanted signal or a change in the reproductive environment to be oneself;
- 'electromagnetic environment': the totality of observable electromagnetic phenomena at a particular location.

## Exceptions

(Article 2(2) and (3))

This directive does not apply to:

- (a) equipment covered by Directive 1999/5/EC\*;
- (b) aeronautical products, parts and appliances referred to in Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 establishing of common rules in the field of civil aviation and establishing an European Aviation Safety Agency, repealing Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC;
- (c) radio equipment used by radio amateurs, as defined in the radio regulations approved under the Statute of the International Telecommunications Union and the Treaty of the International Telecommunications Union, unless that equipment is offered on the market;
- (d) equipment which, by the inherent nature of its physical properties:
  - i. cannot produce or contribute to electromagnetic emissions production of electromagnetic emissions at a level higher than the level at which radio and telecommunications equipment and other equipment can function in accordance with their intended purpose, and
  - ii. functions without unacceptable deterioration in the presence of electromagnetic malfunctions that are normally the result of use in accordance with its destination;
- (e) tailor-made evaluation packages intended for professional practice and those be used exclusively in research and development facilities for such purposes.

For the purposes of point (c) of the first paragraph, kits containing parts intended to be assembled by radio amateurs, as well as offered on the market equipment that has been modified by and for use by radio amateurs is not considered equipment available on the market.

\* Since June 13, 2016, the new number is 2014/53/EU. N.B. Please note the extension of the scope compared to Directive 1999/5/EC.

Where the equipment defined in Article 3 already meets the essential requirements of Annex I in full or in part laid down in a more specific manner by other Union legislation this Directive, as regards those requirements, from the date of application of that legislation Union does not or no longer applies to that equipment.

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## Examples

Due to the broad definition, in principle all electrically powered products fall under the EMC directive (including industrial products). The list below contains examples of certain ones exceptions.

Product	Covered Scope	Comments
Loose cables	No	Passive component
Resistance heating elements without control, thermostat or fan	No	Passive component
Batteries, accumulators (without electronic circuits)	No	Passive component
Headphones, speakers without amplifiers	No	Passive component
Flashlights without electronic circuits	No	Passive component
Capacitors, resistors, filters	No	Passive component
Diodes, transistors, thyristors, triacs	No	Passive component
IC's	No	Passive component
Simple electromagnetic relay	No	Passive component
LEDS	No	Passive component
Simple thermostats	No	Passive component
Quartz watches (without additional features such as radio receivers)	No	Passive component
Light bulbs	No	Passive component
Lighting switch without active electronics components	No	Passive component
Plugs, sockets	No	Passive component
Plug-in cards for PC's	Yes	Component and/or composition
PLC's	Yes	Component and/or composition
Electric motors (induction motors excluded)	Yes	Component and/or composition
Hard drives	Yes	Component and/or composition