

RoHS and WEEE Compliance

RoHS Commitment

MEN Mikro Elektronik is committed to develop and produce environmentally compatible products according to the Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU (formerly 2002/95/EC) and the Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/EU (formerly 2002/96/EC) from the European Union.

MEN Mikro Elektronik GmbH

Neuwieder Straße 3-7

90411 Nürnberg

Germany

Phone +49 911 / 99 33 5 - 0

Fax +49 911 / 99 33 5 - 901

E-Mail info@men.de

www.men.de

The RoHS directive was adopted in February 2003 by the European Union with the intention to restrict the use of six hazardous materials in the manufacture of various types of electronic and electrical equipment. The RoHS directive was recasted in 2011 (2011/65/EU) and has mainly repealed some exceptions for product groups with effect from May 2013.

The Waste Electrical and Electronic Equipment Directive (WEEE), which sets collection, recycling and recovery targets for electrical goods, is part of a legislative initiative to solve the problem of huge amounts of toxic e-waste. Since January 2014, the 2002/96/EC (WEEE) was revised to the 2012/19/EU, which regulates, for example, a new collection rate and additional collection points for electronic waste.

Each European Union member state is adopting its own enforcement and implementation policies using the directive as a guide. Therefore, there could be as many different versions of the law as there are states in the EU. And: non-EU countries like China, Japan, California in the US may have their own regulations for green products, which are similar to but not identical with RoHS.

RoHS is often referred to as the "lead-free" directive, but it restricts the use of the following six substances:

- Lead
- Mercury
- Cadmium
- Chromium VI
- PBB and PBDE

The maximum concentrations are 0.1% (except for Cadmium which is limited to 0.01%) by weight of homogeneous material. This means that the limits do not apply to the weight of the finished product, or even to a component, but to any single substance that could (theoretically) be separated mechanically.

RoHS directive 2011/65/EU faces a new revision with the delegated directive (EU) 2015/863. (EU) 2015/863 is changing the Annex II of the 2011/65/EU. This means further substances will be added to the list.

- DEHP
- BBP
- DBP
- DIBP
- Also for those substances a maximum concentration is defined as written above. This revision will come into force on July 22nd, 2019. MEN is already working on this item to implement the requirement of this directive duly.

MEN Mikro Elektronik GmbH

Neuwieder Straße 3-7

90411 Nürnberg

Germany

Phone +49 911 / 99 33 5 - 0

Fax +49 911 / 99 33 5 - 901

E-Mail info@men.de

www.men.de

RoHS Compatible Product Design

Since July 1, 2006 all MEN standard products comply with RoHS legislation.

All new products that have been designed as of 2005 have already been considered to be RoHS-compliant.

In some cases older boards have been discontinued and have been or are being replaced by function-compatible new designs as required.

In other cases components have been replaced on several boards with similar parts that meet the RoHS material restrictions. Although the function and specification of the replacement is the same as the original parts, the replacement may vary in size, shape, or color. This kind of visual difference does not impact the features and quality of the respective boards.

Finally there are some specific boards that sell into dedicated markets and thus have not been switched to RoHS compliance.

RoHS-Compliant Production Process

Since January 2005 the SMD and manual soldering processes at MEN are already completely lead-free. Between June 2004 and June 30, 2006 MEN's selected component suppliers have changed delivery to RoHS-compliant parts. During this period any change and status was traceable through the MEN ERP system and the boards gradually became RoHS-compliant.

After July 1, 2006 the remaining stock components will be used up. It would make no sense to end their life cycle prematurely, since they are resources, too.

Lead-containing soldering is still possible and can be performed as a service for dedicated applications on request.

Identification of RoHS-Compliant Products

Nearly all MEN products are RoHS-compliant. Exceptions are marked accordingly in the article short text.

MEN Mikro Elektronik GmbH

Neuwieder Straße 3-7
90411 Nürnberg
Germany

Phone +49 911 / 99 33 5 - 0

Fax +49 911 / 99 33 5 - 901

E-Mail info@men.de

www.men.de

WEEE Application

The WEEE directive is strongly related with the RoHS directive and applies to the following equipment as defined by a section of the WEEE directive:

- Large and small household appliances
- IT equipment
- Telecommunications equipment (although infrastructure equipment is exempt in some countries)
- Consumer equipment
- Lighting equipment — including light bulbs
- Electronic and electrical tools
- Toys, leisure and sports equipment
- Automatic dispensers



It does not apply to fixed industrial plants and tools. The compliance is the responsibility of the company which puts the product on the market, as defined in the directive; components and sub-assemblies are not subject to product compliance.

In other words: Since MEN does not deliver ready-made products to end users, the WEEE directive is not applicable for MEN. Users are nevertheless recommended to properly recycle all electronic boards which have passed their life cycle.

Nevertheless, MEN is registered as a manufacturer in Germany. The registration number can be provided on request.