

Electrical and Electronic Products

1. Introduction

This section covers relevant products listed in the EC's Common Customs Tariff (CCT) Code, Chapters 84-85. It includes machinery, mechanical appliances, electrical and electronic products, including household appliances and electronic components.

Customs duties of between 3-6% are imposed on household appliances and most office machinery. Electronic products (e.g. televisions, radios, calculators) attract a higher tariff band of 7-14%. Tariff rates of 4-14% apply to electronic components.

EC legislation in these product groups has been in the area of harmonising standards of quality and safety.

The EC has set a common standard for electromagnetic compatibility. From 1 January 1996 almost all electrical or electronic products sold in the EC, including imports must:

- ◆ not cause excessive electromagnetic interference
- ◆ not be unduly affected by electromagnetic interference
- ◆ qualify and carry the CE mark

For most products a "technical construction file" will be drawn up. Information in this file include:

- ◆ description of the product
- ◆ procedures used to ensure that the product conforms with specified standards
- ◆ certificate from an EC approved inspection/certification body.

The file is held by the authorised representative of the overseas manufacturer within the EC, or the person who imports the product into the EC.

The European electrotechnical standardisation body CENELEC has been given the task of drawing up specific standards to be used to comply with this directive. Details relating to this regulation are given in the EC Official Journal L139 of 23 May 1989 ref: 89/336/EEC.

Commonwealth manufacturers or their EC representative can apply to any member of CENELEC within the EC for product testing and certification. Details of CENELEC members can be found in Part III of this guide.

For further information contact CENELEC as detailed in Part III.

2. Consumer Electrical and Household Appliances

Electrical Products

Most electrical products will have to comply with the Low Voltage Directive of the EC. This directive sets electrical equipment safety standards for all products designed for use within the voltage levels 75 to 1500 volts (in the case of direct current) and 50 to 1000 volts (in the case of alternating current).

Electrical products sold in the EC will have to satisfy the following general conditions:

- ◆ that persons and domestic animal are adequately protected against danger of physical injury or other harm either by electrical contact direct or indirect, temperatures or radiation caused by equipment, external influences on the electrical equipment (overload, non-mechanical influences in the environment)
- ◆ the manufacturer's or brand name or trade mark should be clearly printed on the electrical equipment or, where that is not possible, on the packaging
- ◆ the electrical equipment and its component parts should be made in such a way as to ensure that it can be safely and properly assembled and connected
- ◆ as proof of compliance to EC standards either of the following is required:
 - i. equipment to bear a mark of the a Community certification body or is accompanied by a certificate issued by such a body
 - ii. a manufacturer's declaration of conformity
 - iii. report drawn up by a notified body which may be relied upon to show that the product satisfies the EC standard.

Details of this directive can be found in the EC Official Journal L077 of 26 March 1973 ref 73/23/EEC.

For further information contact the European Commission (DG III) as detailed in Part III.

Gas appliances

In June 1990, the EC adopted the Gas Appliance Directive. This directive applies to appliances burning gaseous fuels and sets out the minimum safety requirements for these products. The following requirements must be fulfilled:

- ◆ meet specifications to ensure safety in operation in terms of proper ignition and combustion of gas, avoidance of unburned gas release, appropriate degree of ventilation
- ◆ obtain type-approval for appliance from EC notified bodies
- ◆ qualify and carry the CE mark.

Details of this directive are given in the EC Official Journal L189 of 20 July 1990 ref: 90/396/EEC.

For further information contact the European Commission (DG III) as detailed in Part III.

Labelling and product information

As from 1 January 1994, all household appliances must comply with labelling requirements and provide information on energy consumption to allow consumers to chose more energy-efficient appliances. The following appliances will be affected by this legislation:

- ◆ refrigerators, freezers and their combination
- ◆ water heaters and hot water storage appliances
- ◆ washing machines and driers
- ◆ lighting sources
- ◆ dishwashers
- ◆ air conditioning appliances
- ◆ ovens,

Details relating to the label and information in energy consumption for the above products are under discussion and are expected to be issued before 1 January 1994.

Product liability

In order to protect consumers or end users of the products, the EC has directives on common levels of protection throughout the Community. The Product Liability Directive renders manufacturers and importers strictly liable for injuries caused by defective products. Although manufacturers from countries outside EC will not be held directly liable, importers will need to be more careful when selecting imported products which may cause injury (exporters must be aware of and comply with EC accepted safety standards if their products are to be marketable in the EC).

For further information contact the European Commission (DG III) as detailed in Part III.

3. Industrial Machinery

From 1 January 1996 most machinery manufactured or sold in the EC, including imports, will have to comply with the EC directive on machinery. This directive applies to "functioning machines" and covers essential health and safety requirements.

The European Standardisation Committee (CEN) has proposed a work plan to produce a set of European standards in line with this directive.

Details of the relevant directives are found in EC Official Journal L139 of 23 May 1989 ref: 89/392/EEC and Official Journal L138 of 22 July 1991 ref: 91/368/EEC.

For further information contact the CEN as detailed in Part III.

Electrical products within voltage levels of 75 to 1500 volts (in the case of direct current) and 50 to 1000 volts (in the case of alternating current) used within industrial premises must also comply with the Low Voltage Directive described in Section 2 of this chapter.

4. Electronic Components

The EC has harmonised legislation covering the protection of the design (topography) of the internal layout of semiconductor integrated circuits. Member States are required to provide legal protection against unauthorised copying of original topographies. This is to protect EC semi conductor manufacturers from low cost counterfeits.

Full details of legislation can be found in EC Official Journal L024 of 27 January 1987, ref. 87/54/EEC.

5. Further Information and Contact Points

TRADE ASSOCIATIONS	TRADE FAIRS AND EXHIBITIONS
1. European Association of Consumer Electronics Manufacturers Rue d'arlon 69-71, Bte 8 B-1040 Brussels, Belgium Tel: +32 2 230 5010 Fax: +32 2 230 9608 2. European Committee of Manufacturers of Electrical Domestic Equipment 8 Leicester Street London WC2H 7BN United Kingdom Tel: +44 71 4370678 Fax: +44 71 4941094 3. European Committee of Manufacturers of Electrical Machines and Power Electronics Stressmannallee 19 D-W-6000 Frankfurt am Main Germany Tel: +49 696 302232 Fax: +49 696 302279 4. European Electronic Components Manufacturers Association Rue d'arlon 69-71 Bte 8, B-1040 Brussels, Belgium Tel: + 32 2 230 9630 Fax: + 32 2 230 9605	1. Productronica/Electronica International Trade Fair for Electronics Production Location: Munich, Germany Contact: Munchener Messe-und Ausstellungsgesellschaft mbH Postfach 121009 D-8000 Munich 12, Germany Tel: +49 89 51070 Fax: +49 89 5107506 Frequency: Alternate years in November 2. Domotechnica International Domestic Electrical Products Fair Location: Cologne, Germany Contact: Messe-und Ausstellungsges mbH Postfach 210760 Messeplatz 1 D-5000 Koln 21, Germany Tel: +49 221 8210 Fax: +39 221 8212574 Frequency: Every year in February 3. CEBIT (Computer and Office Information) Location: Hanover, Germany Contact: Deutsche Messe AG Messegelände D-3000 Hanover 82, Germany Tel: +49 511 890 Fax: +49 511 8932626 Frequency: Every year in March

- 1. European Commission**
200 Rue de la Loi
1049 Brussels, Belgium
Tel: +32 2 299 1111
- 2. European Standardisation Committee (CEN)**
Rue de Stassart 36
B-1050 Brussels, Belgium
Tel: +32 2 519 6811
Fax: +32 2 519 6819
- 3. European Committee for Electrotechnical Standardisation (CENELEC)**
Rue de Stassart 35
1050 Brussels, Belgium
Tel: +32 2 519 6871
Fax: +32 2 519 6919

Printed Circuit Boards

Product Coverage

CCT NUMBER	PRODUCT DESCRIPTION
85340011	PCB with multiple circuits
85340019	Other printed circuits
85340090	Printed circuits with other passive elements

Customs Duties

CCT NUMBER	Full	ACP	GSP	LDDC
85340011	6.2%	0%	0%	0%
85340019	6.2%	0%	0%	0%
85340090	6.2%	0%	0%	0%

Product standards

Different industries will establish different requirements for PCBs. There is a major trend towards reduced size and thickness. This can be achieved by using surface mounted components. Boards using surface mounting can be less expensive than conventional boards because the amount of drilling is reduced. This has also led to an overall decline in the number of PCBs used in any one piece of equipment.

Flexible PCBs are playing an increasingly important role in the integration of electronics into consumer devices. Rigid-flex boards are becoming popular for cameras, printers, CD players and computer equipment.

Traditionally standards have followed two separate thrusts within the EC electronics industry. These are, firstly, the national specifications for telecoms and other professional applications. Secondly, in the case of military/aerospace applications, the U.S. Defense Department has played a major role in drawing up specifications. Both are being replaced more and more by standards drawn up by the Electronics Components Committee (CECC) of CENELEC in all sections of electronic usage. PCBs produced and certified under this committee's specification are accepted throughout the EC.

Marketing and distribution

Marketing and distribution of printed circuit boards depend largely on the degree to which they are manufactured to order. Unlike other electronic components, the specific requirements of customers mean that they are not generally marketed through the conventional distribution networks. "High technology", usually multi-layer, boards come from in-house sources. In the cases where security and technology are not a priority, buyers are tending to turn to lower priced merchant suppliers. This is the case for double-sided and 4-6 layer boards.

Demand for PCBs in the EC is forecast to grow in the automotive and telecommunications sectors. Opportunities for developing country exporters are in sectors where price is a major factor in the buying decision. Telecommunications and consumer white goods are two sectors mainly driven by cost.

Documentation

Aside from normal shipping and import documents, certificate of origin - Form A for GSP and LDDC countries, EUR 1 for ACP countries - must accompany consignments to benefit from reduced tariff or tariff free entry into the EC.

Other Information

Trade Fair: Electronica/Productronica
International Trade Fair for Components and Assemblies in Electronics
Location: Munich, Germany
Contact: Munchener Messe-und
Ausstellungsgesellschaft mbH
Postfach 121009
D-8000, Munich 12
Germany
Tel: +49 895 1070
Fax: +49 895 107506
Frequency: Alternate years in November

Trade Association: European Electronic Components
Manufacturers Association
Rue d'arlon 69-71
Bte 8, B-1040 Brussels
Belgium
Tel: + 32 2 230 9630
Fax: + 32 2 230 9605

ACP Commonwealth Countries

ACP Commonwealth Countries

Entry Conditions:

Tariff free and quota free entry into the EC.

Rules of Origin:

General rules of origin apply. However, special rules of origin apply to a majority of machines and electrical and electronic products. These rules can be obtained from national Customs and Excise offices.

In general, in order to qualify for tariff free entry:

- ◆ the value of all materials (components, etc.) not originating from an ACP or EC country must not exceed 40% of the price paid to the manufacturer of the end product.

Further restrictions are indicated for specific product categories.

Documentation:

Form EUR 1 must accompany products sent from ACP countries to benefit from reduced or tariff free entry into the EC. These forms can be obtained from the exporter's national Customs and Excise office or Ministry of Trade.

GSP Commonwealth Countries

GSP Commonwealth Countries

Entry Conditions:

Entry to the EC is generally tariff and quota free. However, for certain products tariff free entry is limited by a ceiling set by the EC. Imports in excess of this ceiling may carry the full amount of customs duty.

A number of products are subject to tariff ceilings including:

- ◆ sewing machines
- ◆ automatic data-processing machines (computer hardware)
- ◆ microwave ovens
- ◆ turntables, record players, cassette players, sound recording devices
- ◆ video recording and reproducing machines
- ◆ television receivers
- ◆ radios
- ◆ electric filament lamps
- ◆ cathode ray television picture tubes
- ◆ diodes, transistors, semi-conductor devices
- ◆ electronic integrated circuits and micro assemblies.

Rules of Origin:

General rules of origin apply. However, special rules of origin apply to a majority of machines and electrical and electronic products. These rules can be obtained from your national Customs and Excise office or Ministry of Trade.

In general, in order to qualify for tariff free entry:

- ◆ the value of all materials (components, etc.) not originating from a GSP country must not exceed 40% of the price paid to the manufacturer of the end product.

Further restrictions are indicated for specific product categories.

Documentation:

Certificate of Origin (Form A) must accompany products sent from GSP countries to benefit from reduced tariff duties. These forms are available from the exporter's national Customs and Excise office.

LDDC Commonwealth Countries

LDDC Commonwealth Countries

Entry Conditions:

Tariff free and quota free entry into the EC.

Rules of Origins:

General rules of origin apply. However, special rules of origin apply to a majority of machines and electrical and electronic products. These rules can be obtained from national Customs and Excise offices.

In general, in order to qualify for tariff free entry:

- ◆ the value of all materials (components, etc.) not originating from an LDDC country must not exceed 40% of the price paid to the manufacturer of the end product.

Further restrictions are indicated for specific product categories.

Documentation:

Certificate of Origin (Form A) must accompany products sent from LDDC countries if the exporter is to benefit from reduced tariff duties. These forms are available from the exporter's national Customs and Excise office.