



23rd International Trade Show, New Munich Trade Fair Centre, 11–14 November 2008, Phone (+49 89) 949 - 2 03 31/2 03 13, info@electronica.de, www.electronica.de, **Please complete in full and send to:** Messe München GmbH, Messengelände, 81823 München or **fax to: (+49 89) 9 49-2 03 39**

Your company address

(if address has changed, pls complete field on the right)

Company address

Company

Street/

P.O.Box

Country/

Postal Code

City

E-Mail comp./

Homepage

www.

- Manufacturer Service company
 Distributor with exclusive selling rights for Germany

Contact

Title

First Name

Last Name

Ms

Mr

Sales/Marketing manager

Press contact

Phone with area code and extension, fax

Official company representative (President / CEO)

E-Mail contact person

Member of the following trade associations

Function/Position/Department

Number and place of company registration / VAT-ID No.

Address for correspondence (only if differing from above)

Company

Street/

P.O.Box

Postal code

City

Contact person

Ms

Mr

Phone, Fax

(Country + area code + number)

E-Mail

Du to value-added tax legislation, invoices cannot be issued to an addressee other than the exhibitor.

Headquarters of the parent company with full address and country: _____

Under which country would you like to be included in the statistics: Headquarters Branch Country _____

Co-exhibitors: For registration of co-exhibitors please fill in "Application Co-exhibitors"

No. of co-exhibitors:

No. of additionally represented companies:

Please indicate on Product Index/Exhibition Sector in which product group your exhibits belong

Stand space only – minimum 20 sqm

front x depth = sqm

Row stand
1 side open – EUR 199/sqm

Corner stand
2 sides open – EUR 223/sqm

End stand
3 sides open – EUR 231/sqm

Island stand
4 sides open – EUR 237/sqm

Two-storey stand planned yes no

Combination packages (stand space incl. stand construction)

front x depth = sqm²

Row Standard
from 20 – 36 sqm only
1 side open – EUR 315/sqm

Corner Standard
from 20 – 36 sqm only
2 sides open – EUR 339/sqm

Row All inclusive
only 20 sqm
1 side open – EUR 8.140

5 x 4

20

Focus areas – combi packages

micronano-systems
9 sqm EUR 5,750

wireless
9 sqm EUR 5,100

automotive
9 sqm EUR 5,000

automotive
12 sqm EUR 5,900

If possible, which companies would you prefer to have as neighbors? _____

If possible, which companies would you NOT prefer to have as neighbors? _____

Same stand as in 2006? yes no (There is no legal claim to stand space.)

Please take note of the Participation Terms A and B and the Technical Guidelines. The Participation Terms A and B as well as the Technical Guidelines are recognized as legally binding in all parts. Each applicant acting on behalf of a third party shall be directly liable for meeting the demands of MMG in respect of the above fair.

The objects registered for and brought to the fair are our property: yes no

Place and date / Company stamp and legally binding signature
Please repeat name in print

Property of the firm/s (with full address):

Title of trade fair:
electronica 2008
components | systems | applications
23rd International Trade Show

Venue: New Munich Trade Fair Centre

Duration: Tuesday 11 to Friday 14 November 2008

Opening hours: Tuesday to Wednesday 9.00 – 18.00 hrs,
Thursday 9.00 – 19.00 hrs, Friday 9.00 – 17.00 hrs

Organizer and financing body:
Messe München GmbH (MMG), Messgelände, 81823 München,
Germany, phone (+49 89) 9 49-01, fax (+49 89) 9 49-09
info@electronica.de, www.electronica.de

Special Terms of Participation (B)

All prices indicated below are net and are subject to value-added tax.

B 1 Application (see A 1)

The deadline for applications is 30 November 2007.

B 2 Permitted exhibits and exhibitors (see A2)

The following are permitted:

- a) companies whose exhibits correspond with the **Product Index** of electronica 2008 (see enclosure). Please tick only one of the main product groups in the product index. The location of your company's stand in a specific trade fair hall depends on the main product group you tick. Articles other than those permitted and registered may not be exhibited.

We cannot process your application without a duly completed Product Index.

- b) exhibitors with the following qualifications: German and foreign manufacturers and service companies, as well as trading companies that can prove they have been authorized by the manufacturer to exhibit its products.

MMG has the final decision. Organizers of joint stands are not exhibitors as defined by the Special Terms of Participation. There is no right to admission.

B 3 Co-exhibitors and additionally represented companies (see A 1, A 2, A 4)

There is a fee of EUR 200 for each co-exhibitor or additionally represented company. Co-exhibitors and additionally represented companies must be registered on a separate form by the main exhibitor.

B4 Participation fees, advance payment for services (see A7)

The minimum stand size is 20 sqm.

Participation fees are as follows:

a) Stand space only in halls

Row stand (one side open)	EUR 199/sqm
Corner stand (two sides open)	EUR 223/sqm
End stand (three sides open)	EUR 231/sqm
Island stand (four sides open)	EUR 237/sqm

For two-storey stands, upper-storey stand space costs 80% of the respective ground floor space.

Prices include the following:

- Free use of all Munich City Transport (MUV – underground, buses, trams and urban railway) from one day before until one day after the fair against presentation of your exhibitor's pass
- Messe München's marketing services
- Technical and organisational services

b) On the outdoor exhibition area

Container site EUR 1,035

c) Combination packages

Row Standard

EUR 315/sqm

(row stand only from 20 – 36 sqm)

The combination stand comprises: stand assembly and dismantling, stand space (from 20 – 36 sqm as ordered), stand design as pictured in sales brochure, 1 table with 4 chairs (upholstered), 1 info counter, storage cabin with coat rack, 1 brochure rack, 1 display case (50 x 50 x 250 cm, partially glazed), company lettering up to 15 letters (Helvetica), Logo and graphic surface against surcharge, carpeting, lighting (1 spot per 3 sqm surface area), electricity connection incl. 2 power outlets and electricity consumption

Corner Standard

EUR 339/sqm

(corner stand only from 20 – 36 sqm)

The combination stand comprises: stand assembly and dismantling, stand space (from 20 – 36 sqm as ordered), stand design as pictured in sales brochure, 1 table with 4 chairs (upholstered), 1 info counter, storage cabin with coat rack, 1 brochure rack, 1 display case (50 x 50 x 250 cm, partially glazed), company lettering up to 15 letters (Helvetica), Logo and graphic surface against surcharge, carpeting, lighting (1 spot per 3 sqm surface area), electricity connection incl. 2 power outlets and electricity consumption

All Inclusive

EUR 8,140

(row stand only – 20 sqm)

The all inclusive stand comprises: stand assembly and dismantling, stand space (20 sqm row), stand design as pictured in sales brochure, 1 table with 4 chairs (upholstered), 1 info counter, storage cabin with coat rack, 1 brochure rack, 1 display case (50 x 50 x 250 cm, partially glazed), company lettering up to 15 letters (Helvetica)*, carpeting, lighting (1 spot per 3 sqm surface area), electricity connection incl. 2 power outlets and electricity consumption, stand cleaning, company listing in catalogue plus 100 guest tickets.

Combination packages in the Focus areas

micronano-systems

EUR 5,750

9 sqm

This turnkey stand offer comprises: Stand space, stand assembly and dismantling, carpeting, lighting stand cleaning, 3 kW electricity connection incl. electricity consumption, 1 workstation (lockable, may be used as PC workstation, 1 high table with beech top (diam. 60 cm, frame: matt-finished chrome), 3 bar stools (black, Z-shaped), 1 glass display case (2.5 m high), fully glazed with 3 glass shelves and lighting, **half-hour time-slot for lectures in the focus area**, company entry (database online at electronica.de and global-electronics.net, trade fair catalog, Visitor Information Systems, online organizer) 2 press compartments, posting of 2 press releases and 2 images on the Internet, inclusion in Messe München's advertising campaigns and press work, company lettering up to 15 letters (Helvetica, black), use of facilities (cloakroom, storage room, catering)

wireless

EUR 5,100

9 sqm

This turnkey stand offer comprises: Stand space, stand assembly and dismantling, carpeting, lighting, stand cleaning, 3 kW electricity connection incl. electricity consumption, 1 workstation (lockable, may be used as PC workstation, 1 high table with beech top, diam. 60 cm, frame: matt-finished chrome), 3 bar stools (black, Z-shaped), 1 glass display case (2.5 m high), fully glazed with 3 glass shelves and lighting, company entry (database online at electronica.de and global-electronics.net, trade fair catalog, visitor information systems, online organizer) 2 press compartments, posting of 2 press releases and 2 images on the Internet, inclusion in Messe München's advertising campaigns and press work, company lettering up to 15 letters (Helvetica, black), use of facilities (cloakroom, storage room, catering)

automotive

EUR 5,000

9 m²

This turnkey stand offer comprises: Stand space, stand assembly and dismantling, carpeting, lighting, stand cleaning, 3 kW electricity connection incl. electricity consumption, 1 workstation (lockable, may be used as PC workstation, 1 info counter with bar stool,

1 table with 4 chairs, 1 high display case, 50x50x 200cm, Lockable), 1 glass shelf, walls light grey, may be used as space for artwork, 1 tower element with space for artwork and logo, company entry (database online at electronica.de and global-electronics.net, trade fair catalog, visitor information systems, online organizer) 2 press compartments, posting of 2 press releases and 2 images on the Internet, inclusion in Messe München's advertising campaigns and press work, company lettering up to 15 letters (Helvetica, black), use of facilities (cloakroom, storage room, catering and meeting room).

automotive

EUR 5,900

12 m²

This turnkey stand offer comprises: Stand space, stand assembly and dismantling, carpeting, lighting, stand cleaning, 3 kW electricity connection incl. electricity consumption, 1 workstation (lockable, may be used as PC workstation, 1 info counter with bar stool, 1 table with 4 chairs, 1 high display case, 50 x 50 x 200 cm, lockable), 1 glass shelf, walls light grey, may be used as space for artwork, 1 tower element with space for artwork and logo, company entry (database online at electronica.de and global-electronics.net, trade fair catalog, visitor information systems, online organizer) 2 press compartments, posting of 2 press releases and 2 images on the Internet, inclusion in Messe München's advertising campaigns and press work, company lettering up to 15 letters (Helvetica, black), use of facilities (cloakroom, storage room, catering and meeting room).

The advance payment for services to be ordered (see A7) is EUR 20 net per sqm of rented space.

The German Council of Trade Fairs and Exhibitions (AUMA) levies all exhibitors (German and foreign) a charge of EUR 0.60 net per sqm of rented exhibition space. This amount is charged by MMG and transferred directly to AUMA.

B 5 Terms of payment (see A 7)

The deadlines for payment given in the notice of admission or the invoice must be observed. Prior payment in full of the amount invoiced is a condition for access to the exhibition area, an entry in the catalogue, and the provision of exhibitors' passes. All invoiced amounts in all MMG invoices, which are connected with the event, must be transferred in euro, without deductions and free of all charges, to one of the accounts specified in the respective invoice, indicating the reference number.

B 6 Dates of setting up and dismantling (see A 14)

Stands may be set up starting on 5 November 2008 at 8.00 hrs.

All delivery and stand-construction vehicles must be removed from the halls and from the outdoor area by 16.00 hrs on the last day of set-up, 10 November 2008. Vehicles which are still in the halls or the outdoor area after these times will be removed by MMG at the risk and expense of the exhibitor concerned.

Setting-up must be finished by 18.00 hrs. An extension is possible only in exceptional cases with the written permission of MMG's Technical Exhibition Services Division.

Dismantling must be completed by 18 November at 18.00 hrs.

B 7 Stand design

One-storey stands:

The maximum construction height and advertising height (upper edge) must not exceed 6 m.

Two-storey stands:

Exhibitors must obtain MMG's explicit written permission before planning a two-storey stand.

The maximum construction height and advertising height must not exceed 7.50 m. The second storey of the stand must not take up more than 50% of the floor space.

Partition walls between the stands will be erected only on demand and the exhibitor will be charged (Meplan forms 2.21 resp. 2.24 of the Exhibitor Service CD-ROM).

Plans of the stand with ground-plan and sketches must be submitted to MMG's Technical Exhibition Services Division for permission by the given date, at the latest 6 weeks before assembly begins.

B 8 Technical installations

Applications for electric installation, water, drainage, and telephone connections can be considered only if submitted in due time on the order forms available from MMG (Exhibitors' Service CD-ROM).

The precise terms and connection fees are stated on these forms.

B 9 Use of equipment

Only cranes, fork-lift trucks and working platforms may be used that have been provided by the MMG under contract. Special equipment requirements must be coordinated with the MMG's Technical Exhibition Services Division.

B 10 Sales regulations

Direct sales and other services or deliveries made from the stand are not permitted. Exhibits may not be delivered to purchasers until after the trade fair closes.

In accordance with section 64 of the trade regulations (GewO), sales are permitted only to wholesalers, retail traders or trade customers.

B 11 Catalog – CD-ROM – Internet – Visitor Information System

Each exhibitor (including co-exhibitors and additionally represented companies) must make a package booking (catalog, CD-ROM, Internet, visitor information system). The entries are obligatory and subject to a fee.

The prices may be seen on the catalog order forms which will be sent to the exhibitor by MMG's official publisher in due time. MMG undertakes no guarantee of the accuracy or completeness of the catalog. Exhibitors will be invoiced by MMG's publisher.

The exhibitor is solely responsible for the permissibility under law – and particularly the law on competition – of any advertisement placed in the trade fair catalogue, the Internet database or the visitor information system of Messe München GmbH at the instigation of the advertiser. Should third parties assert claims against Messe München GmbH on account of the impermissibility of the advertisement under law in general or the law on competition, the advertiser shall hold Messe München GmbH fully safeguarded against all claims asserted including all costs of any necessary defence in court on the part of Messe München GmbH. The same applies to exhibitor entries actuated by exhibitors in the trade fair catalogue, the Internet database or in the visitor information system of Messe München GmbH.

B 12 Exhibitors' passes (see A 13)

For the duration of the trade fair, each exhibitor receives 3 exhibitor passes free of charge for a stand of up to 20 sqm in size. For every additional 20 sqm or part thereof, one additional exhibitors' pass is put at the exhibitor's disposal.

Exhibitors in the focus areas obtain 2 exhibitor passes free of charge.

The number of exhibitors' passes is not increased for co-exhibitors or additionally represented companies. Additional exhibitors' passes are obtainable from the trade fair management at EUR 30.00 each. Exhibitors' passes are intended solely for stand personnel, and must not be passed on to third parties.

The exhibitors' pass entitles you to free use of all Munich City Transport means (MUV) from one day before until one day after the fair throughout the MUV-region.

B 13 Noise, background noise

MMG's special written permission is required for musical performances on the trade fair grounds. Presentations of equipment, videos, music, and show must not interfere with or disturb visitors or other exhibitors. The maximum permitted noise level for demonstrations of equipment and video performances is 75 dB(A). Electronically amplified systems are not allowed at the stand.

B 14 Alterations

MMG reserves the right to make alterations and additions in matters affecting technical arrangements and safety.



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Your company address

(if address has changed, pls complete field on the right)

Company address (please underline keyword for alphabetical entry)

Company

Street/
P.O.Box

Country City

Postal Code

E-mail comp./
Homepage www.

Important for the location of your stand

If your exhibits include products/services from more than one major product category, please indicate the exhibition sector (only one) in which your stand should be located (no multiple entries possible!):

- | | | | | |
|---|---|---|--|--|
| <input type="radio"/> 1 Semiconductors | <input type="radio"/> 5 Sensor technology | <input type="radio"/> 8 Passive components | <input type="radio"/> 11 PCBs, other circuit carriers and EMS | <input type="radio"/> 13 automotive |
| <input type="radio"/> 2 Embedded Systems | <input type="radio"/> 6 Test and measurement | <input type="radio"/> 9 Electromechanics/ System peripherals | <input type="radio"/> 12 Assemblies and subsystems | <input type="radio"/> 14 wireless |
| <input type="radio"/> 3 Displays | <input type="radio"/> 7 Electronic Design (ED/EDA) | <input type="radio"/> 10 Power supplies | | <input type="radio"/> 15 Information gathering and services |

- | | | |
|--|---|--|
| <p>1 Semiconductors</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1.1 Diodes (including diode networks) <input type="checkbox"/> 1.2 Transistors <input type="checkbox"/> 1.3 Power semiconductor components <input type="checkbox"/> 1.4 Opto-semiconductor components <input type="checkbox"/> 1.5 Accessories for discrete semiconductors <input type="checkbox"/> 1.6 Logic circuits <input type="checkbox"/> 1.7 Microprocessors (see Embedded Systems) <input type="checkbox"/> 1.8 Memory (see Embedded Systems) <input type="checkbox"/> 1.9 Application-specific ICs (ASSP) <input type="checkbox"/> 1.10 Data/signal transformer ICs <input type="checkbox"/> 1.11 ICs, special designs (including ASICs/CSICs) <p>2 Embedded Systems</p> <ul style="list-style-type: none"> <input type="checkbox"/> 2.1 Development tools, software <input type="checkbox"/> 2.2 Development tools, hardware <input type="checkbox"/> 2.3 Hardware <input type="checkbox"/> 2.4 Peripheral systems <input type="checkbox"/> 2.5 DDI and other network-technology components <input type="checkbox"/> 2.6 Memories and memory peripherals <input type="checkbox"/> 2.7 System solutions <p>3 Displays</p> <ul style="list-style-type: none"> <input type="checkbox"/> 3.1 Liquid Crystal Display (LCD) <input type="checkbox"/> 3.2 Plasma Display Panel (PDP) <input type="checkbox"/> 3.3 Cathode Ray Tube (CRT) <input type="checkbox"/> 3.4 Vacuum Fluorescent Display (VFD) <input type="checkbox"/> 3.5 Organic Light-Emitting Diode (OLED) <input type="checkbox"/> 3.6 EL-Display <input type="checkbox"/> 3.7 Field Emission Display (FED) <input type="checkbox"/> 3.8 Light Emitting Diode (LED) <input type="checkbox"/> 3.9 Surface Conduction Emitter Display (SED) <input type="checkbox"/> 3.10 Projection display <input type="checkbox"/> 3.11 E-Paper <input type="checkbox"/> 3.12 Peripheral equipment for displays <p>4 micronano-systems</p> <ul style="list-style-type: none"> <input type="checkbox"/> 4.1 Microsystems <input type="checkbox"/> 4.2 MEMS <input type="checkbox"/> 4.3 Nanotechnologie <p>5 Sensor technology</p> <ul style="list-style-type: none"> <input type="checkbox"/> 5.1 Sensors for geometrical parameters <input type="checkbox"/> 5.2 Sensors for mechanical parameters <input type="checkbox"/> 5.3 Sensors for time and time-based parameters <input type="checkbox"/> 5.4 Sensors for temperature and caloric parameters <input type="checkbox"/> 5.5 Sensors for climatic parameters <input type="checkbox"/> 5.6 Sensors for optical and acoustic parameters <input type="checkbox"/> 5.7 Sensors for electrical and magnetical parameters <input type="checkbox"/> 5.8 Sensors for chemical parameters <input type="checkbox"/> 5.9 Sensors for biological parameters <input type="checkbox"/> 5.10 Sensor elements by technology <p>6 Test and measurement</p> <ul style="list-style-type: none"> <input type="checkbox"/> 6.1 Measuring/testing of geometric parameters <input type="checkbox"/> 6.2 Mechanical parameters <input type="checkbox"/> 6.3 Time and time-based parameters | <ul style="list-style-type: none"> <input type="checkbox"/> 6.4 Thermal units <input type="checkbox"/> 6.5 Environmental parameters <input type="checkbox"/> 6.6 Chemical and biological parameters <input type="checkbox"/> 6.7 Optical and acoustical parameters <input type="checkbox"/> 6.8 Image/pattern recognition and processing <input type="checkbox"/> 6.9 Electrical parameters <input type="checkbox"/> 6.10 Specialized laboratory/test equipment <p>7 Electronic Design (ED/EDA)</p> <ul style="list-style-type: none"> <input type="checkbox"/> 7.1 CAD/CAE tools <input type="checkbox"/> 7.2 Generation software <input type="checkbox"/> 7.3 Test software <input type="checkbox"/> 7.4 Software for special applications <input type="checkbox"/> 7.5 Peripheral equipment for ED/EDA environments <input type="checkbox"/> 7.6 ED/EDA services <input type="checkbox"/> 7.7 Design and development systems <p>8 Passive components</p> <ul style="list-style-type: none"> <input type="checkbox"/> 8.1 Inductors and accessories <input type="checkbox"/> 8.2 Capacitors <input type="checkbox"/> 8.3 Resistors (including R networks) <input type="checkbox"/> 8.4 Radiofrequency and Microwave components <input type="checkbox"/> 8.5 Polymer components <input type="checkbox"/> 8.6 Non Linear high voltage components <input type="checkbox"/> 8.7 Passive components, miscellaneous <input type="checkbox"/> 8.8 Piezoelectric components <input type="checkbox"/> 8.9 Magnetic and electronic ceramic products <p>9 Electromechanics/System peripherals</p> <p>9.1 Switches and keyboards</p> <ul style="list-style-type: none"> <input type="checkbox"/> 9.1.1 Switches for continuous connection <input type="checkbox"/> 9.1.2 Switches with additional functions <input type="checkbox"/> 9.1.3 Electrical keys <input type="checkbox"/> 9.1.4 Detector components <input type="checkbox"/> 9.1.5 Detector and signaling devices <input type="checkbox"/> 9.1.6 Keyboards <input type="checkbox"/> 9.1.7 Components and accessories for keyboards <input type="checkbox"/> 9.1.8 Initiation devices, manually activated <input type="checkbox"/> 9.1.9 Relays <p>9.2 Interconnection components/systems</p> <ul style="list-style-type: none"> <input type="checkbox"/> 9.2.1 Standardized connectors <input type="checkbox"/> 9.2.2 Connectors for specific handling <input type="checkbox"/> 9.2.3 Connectors, PCB-mountable <input type="checkbox"/> 9.2.4 Sockets <input type="checkbox"/> 9.2.5 Connectors, application-oriented <input type="checkbox"/> 9.2.6 Connectors for telecommunications <input type="checkbox"/> 9.2.7 Cables with connectors <input type="checkbox"/> 9.2.8 Connectors with additional functions <input type="checkbox"/> 9.2.9 Connectors, specific forms <input type="checkbox"/> 9.2.10 Miscellaneous connectors <input type="checkbox"/> 9.2.11 Accessories for connectors <input type="checkbox"/> 9.2.12 Specialized connection/connecting components <input type="checkbox"/> 9.2.13 Cables <p>9.3 Casing technology</p> <ul style="list-style-type: none"> <input type="checkbox"/> 9.3.1 System racks <input type="checkbox"/> 9.3.2 Build-in and desktop housings | <ul style="list-style-type: none"> <input type="checkbox"/> 9.3.3 Small-scale housings <input type="checkbox"/> 9.3.4 Special housings <input type="checkbox"/> 9.3.5 Accessories for housings <input type="checkbox"/> 9.3.6 Thermal management <input type="checkbox"/> 9.3.7 Electronics protection devices (EMI/ESD) <p>10 Power supplies</p> <ul style="list-style-type: none"> <input type="checkbox"/> 10.1 Transformers <input type="checkbox"/> 10.2 Coilware for specific applications <input type="checkbox"/> 10.3 Accessories for coilware <input type="checkbox"/> 10.4 Power supplies, DC-output <input type="checkbox"/> 10.5 Power supplies, AC-output <input type="checkbox"/> 10.6 Frequency converters <input type="checkbox"/> 10.7 UPS systems <input type="checkbox"/> 10.8 Special power supplies <input type="checkbox"/> 10.9 Batteries <input type="checkbox"/> 10.10 Static current supplies, miscellaneous <input type="checkbox"/> 10.11 Power management systems <input type="checkbox"/> 10.12 Accessories <p>11 PCBs, other circuit carriers and EMS</p> <ul style="list-style-type: none"> <input type="checkbox"/> 11.1 Non-PTH single and double sided PCBs <input type="checkbox"/> 11.2 Double-sided PCBs, PTH <input type="checkbox"/> 11.3 Multilayer PCBs (ML) <input type="checkbox"/> 11.4 Special PCBs <input type="checkbox"/> 11.5 Ceramic PCBs <input type="checkbox"/> 11.6 PCBs for backplanes/bus systems <input type="checkbox"/> 11.7 EMS Electronic manufacturing services <input type="checkbox"/> 11.8 Prototyping <input type="checkbox"/> 11.9 Accessories for PCBs <p>12 Assemblies and subsystems</p> <ul style="list-style-type: none"> <input type="checkbox"/> 12.1 Assemblies for control applications <input type="checkbox"/> 12.2 Printer assemblies <input type="checkbox"/> 12.3 Assemblies, miscellaneous <input type="checkbox"/> 12.4 Hybrid modules (including multi-chip modules) <input type="checkbox"/> 12.5 Servo-technology/drive elements <p>13 automotive</p> <ul style="list-style-type: none"> <input type="checkbox"/> 13.1 Information and communication <input type="checkbox"/> 13.2 Bus systems / Information transport <input type="checkbox"/> 13.3 x by wire <input type="checkbox"/> 13.4 Safety systems <input type="checkbox"/> 13.5 Comfort <input type="checkbox"/> 13.6 Voltage and electrical energy systems <input type="checkbox"/> 13.7 Services <p>14 wireless</p> <ul style="list-style-type: none"> <input type="checkbox"/> 14.1 Cellular systems <input type="checkbox"/> 14.2 Non-cellular systems <input type="checkbox"/> 14.3 Wireless applications <input type="checkbox"/> 14.4 Business partners <p>15 Information gathering and services</p> <ul style="list-style-type: none"> <input type="checkbox"/> 15.1 Information <input type="checkbox"/> 15.2 Approval testing and other services <input type="checkbox"/> 15.3 Start-up Forum |
|--|---|--|

Which industries do you supply to?

- | | | | | |
|---|--|--|--|--|
| <input type="radio"/> Industrial electronics | <input type="radio"/> Telecommunications, wired | <input type="radio"/> Consumer electronics, entertainment electronics | <input type="radio"/> Electronics for office and dataprocessing | <input type="radio"/> Electronics for aviation, aerospace and defense |
| <input type="radio"/> Automotive | <input type="radio"/> Wireless | <input type="radio"/> Electronics for other consumer goods | <input type="radio"/> Medical electronics | |
| <input type="radio"/> Electronics for railway technology | | | | |

1. Semiconductors

1.1	Diodes (including diode networks)
1.2	Transistors
1.3	Power semiconductor components
1.4	Opto-semiconductor components
1.5	Accessories for discrete semiconductors
1.6	Logic circuits
1.7	Microprocessors (see Embedded Systems)
1.8	Memory (see Embedded Systems)
1.9	Application-specific ICs (ASSP)
1.10	Data/signal transformer ICs
1.11	ICs, special designs (including ASICs/CSICs)

2. Embedded Systems

2.1	Development tools, software
2.2	Development tools, hardware
2.3	Hardware
2.4	Peripheral systems
2.5	DDI and other network-technology components
2.6	Memories and memory peripherals
2.7	System solutions

3. Displays

3.1	Liquid crystal display (LCD)
3.2	Plasma display panel (PDP)
3.3	Cathode ray tube (CRT)
3.4	Vacuum fluorescent display (VFD)
3.5	Organic light-emitting diode (OLED)
3.6	EL-display
3.7	Field emission display (FED)
3.8	Light-emitting diode (LED)
3.9	Surface conduction emitter display (SED)
3.10	Projection display
3.11	E-paper
3.12	Peripheral equipment for displays

4. micronano-systems

4.1	Microsystems
4.2	MEMS
4.3	Nanotechnologie

5. Sensor technology

5.1	Sensors for geometrical parameters
5.2	Sensors for mechanical parameters
5.3	Sensors for time and time-based parameters
5.4	Sensors for temperature and caloric parameters
5.5	Sensors for climatic parameters
5.6	Sensors for optical and acoustic parameters
5.7	Sensors for electrical and magnetical parameters
5.8	Sensors for chemical parameters
5.9	Sensors for biological parameters
5.10	Sensor elements by technology

6. Test and measurement

6.1	Measuring/testing of geometric parameters
6.2	Mechanical parameters
6.3	Time and time-based parameters
6.4	Thermal units
6.5	Environmental parameters
6.6	Chemical and biological parameters
6.7	Optical and acoustical parameters
6.8	Image/pattern recognition and processing
6.9	Electrical parameters
6.10	Specialized laboratory/test equipment

7. Electronic Design (ED/EDA)

7.1	CAD/CAE tools
7.2	Generation software
7.3	Test software
7.4	Software for special applications
7.5	Peripheral equipment for ED/EDA environments
7.6	ED/EDA services
7.7	Design and development systems

8. Passive components

8.1	Inductors and accessories
8.2	Capacitors
8.3	Resistors (including R networks)
8.4	Radiofrequency and Microwave components
8.5	Polymer components
8.6	Nonlinear high-voltage components
8.7	Passive components, miscellaneous
8.8	Piezoelectric components
8.9	Magnetic and electronic ceramic products

9. Electromechanics/System peripherals	9.1 9.2 9.3	Switches and keyboards Interconnection components/systems Casing technology
10. Power supplies	10.1 10.2 10.3 10.4 10.5 10.6 10.7 10.8 10.9 10.10 10.11 10.12	Transformers Coilware for specific applications Accessories for coilware Power supplies, DC-output Stromversorgungen mit AC-Ausgang Frequency converters UPS systems Special power supplies Batteries Static current supplies, miscellaneous Power management systems Accessories
11. PCBs, other circuit carriers and EMS	11.1 11.2 11.3 11.4 11.5 11.6 11.7 11.8 11.9	Non-PTH single and double sided PCBs Double-sided PCBs, PTH Multilayer PCBs (ML) Special PCBs Ceramic PCBs PCBs for backplanes/bus systems EMS Electronic manufacturing services Prototyping Accessories for PCBs
12. Assemblies and subsystems	12.1 12.2 12.3 12.4 12.5	Assemblies for control applications Printer assemblies Assemblies, miscellaneous Hybrid modules (including multi-chip modules) Servo-technology/drive elements
13. automotive	13.1 13.2 13.3 13.4 13.5 13.6 13.7	Information and communication Bus systems / Information transport x by wire Safety systems Comfort Voltage and electrical energy systems Services
14. wireless	14.1 14.2 14.3 14.4	Cellular systems Non-cellular systems Wireless applications Business partners
15. Information gathering and services	15.1 15.2 15.3	Information Approval testing and other services Start-up Forum

1. Semiconductors

- 1.1 Diodes (including diode networks)**
 - 1.1.1 Tuner diodes
 - 1.1.2 Avalanche diodes
 - 1.1.3 Diode networks
 - 1.1.4 Rectifier diodes, RF
 - 1.1.5 Gunn diodes
 - 1.1.6 Capacitance diodes
 - 1.1.7 Low signal diodes
 - 1.1.8 Microwave diodes
 - 1.1.9 Mixer diodes
 - 1.1.10 Mains diodes
 - 1.1.11 PIN diodes
 - 1.1.12 Reference diodes
 - 1.1.13 Current-regulated diodes (CRD)
 - 1.1.14 Switching diodes
 - 1.1.15 Schottky diodes
 - 1.1.16 Signal diodes
 - 1.1.17 Stabilizer diodes
 - 1.1.18 Step-recovery diodes
 - 1.1.19 Universal diodes
 - 1.1.20 Varactor diodes
 - 1.1.21 Four-layer diodes
 - 1.1.22 Z diodes
 - 1.1.23 Rectifier bridges
 - 1.1.24 Infrared diodes (IRED)
 - 1.1.25 Light-emitting diodes (LED)
 - 1.1.26 Photodiodes
 - 1.1.27 Diodes, miscellaneous
- 1.2 Transistors**
 - 1.2.1 Field effect transistors (FET/MOSFET)
 - 1.2.2 GaAs transistors
 - 1.2.3 Low-frequency transistors
 - 1.2.4 High-frequency transistors
 - 1.2.5 Microwave transistors
 - 1.2.6 High-voltage transistors
 - 1.2.7 Low-signal transistors
 - 1.2.8 Circuit transistors
 - 1.2.9 SM-capable transistors
 - 1.2.10 Transistors, miscellaneous
- 1.3 Power semiconductor components**
 - 1.3.1 Power transistors**
 - 1.3.1.1 Bipolar transistors
 - 1.3.1.2 Darlington transistors
 - 1.3.1.3 IGBTs
 - 1.3.1.4 IEGTs
 - 1.3.1.5 FETs
 - 1.3.1.6 MOSFETs
 - 1.3.1.7 Power MOSFETs
 - 1.3.1.8 Switching transistors
 - 1.3.1.9 GaAs transistors
 - 1.3.1.10 RF power transistors
 - 1.3.1.11 μ W power transistors
 - 1.3.1.12 High-voltage transistors
 - 1.3.1.13 Transistors, miscellaneous
 - 1.3.2 Thyristors**
 - 1.3.2.1 TRIAC sets
 - 1.3.2.2 DIACs
 - 1.3.2.3 SCRs
 - 1.3.2.4 ASCRs
 - 1.3.2.5 GTOs
 - 1.3.2.6 MCTs
 - 1.3.2.7 Thyristors, miscellaneous
 - 1.3.3 Power semiconductor modules**
 - 1.3.3.1 Darlington transistor modules
 - 1.3.3.2 IGBT modules
 - 1.3.3.3 MOSFET modules
 - 1.3.3.4 Power hybrid modules
 - 1.3.3.5 RF power modules
 - 1.3.3.6 Diode/thyristor modules
 - 1.3.3.7 MCT modules
 - 1.3.3.8 IPMs
 - 1.3.3.9 Power semiconductor modules, miscellaneous
 - 1.3.4 Power semiconductor components, miscellaneous**
 - 1.3.4.1 Charge controller ICs
 - 1.3.4.2 SmartPower components
 - 1.3.4.3 Power diodes
 - 1.3.4.4 Power factor correction ICs
 - 1.3.4.5 Selenium rectifiers
 - 1.3.4.6 Motor drivers
 - 1.3.4.7 Relay drivers
 - 1.3.4.8 Semiconductor relays
- 1.4 Opto-semiconductor components**
 - 1.4.1 LEDs
 - 1.4.2 Laser diodes
 - 1.4.3 Photo ASICs
 - 1.4.4 Photodetectors
 - 1.4.5 Photodiodes
 - 1.4.6 Photo logic
 - 1.4.7 Photosensor fields
 - 1.4.8 Phototransistors
 - 1.4.9 Photo reproduction equipment
 - 1.4.10 Photovoltaic elements
 - 1.4.11 Photoresistors
 - 1.4.12 Infrared products
 - 1.4.13 Integrated optical products, miscellaneous
 - 1.4.14 Laser components
 - 1.4.15 Luminescent foils
 - 1.4.16 Optocouplers
 - 1.4.17 Photonics components, miscellaneous
 - 1.4.18 Transceivers, electro-optical
 - 1.4.19 CCD components
 - 1.4.20 Optomos switches
 - 1.4.21 Opto semiconductor components, miscellaneous
- 1.5 Accessories for discrete semiconductors**
 - 1.5.1 Transistor clips
 - 1.5.2 Accessories, other
- 1.6 Logic circuits**
 - 1.6.1 ECL circuits**
 - 1.6.1.1 Gate arrays
 - 1.6.1.2 Erasable, programmable logic circuits (EPLD)
 - 1.6.1.3 Programmable logic circuits (PLD/PAL)
 - 1.6.1.4 Standard ECL circuits, miscellaneous
 - 1.6.1.5 Driver ICs
 - 1.6.2 TTL circuits**
 - 1.6.2.1 Gate arrays
 - 1.6.2.2 Erasable, programmable logic circuits (EPLD)
 - 1.6.2.3 Standard TTL circuits, miscellaneous
 - 1.6.2.4 Driver ICs
 - 1.6.3 MOS and CMOS circuits**
 - 1.6.3.1 Gate arrays
 - 1.6.3.2 Erasable, programmable logic circuits (EPLD)
 - 1.6.3.3 Programmable logic circuits (PLD/PAL)
 - 1.6.3.4 Standard ECL circuits, miscellaneous
 - 1.6.3.5 Driver ICs
 - 1.6.4 Logic circuits, miscellaneous**
 - 1.6.4.1 FPGA ASICs
 - 1.6.4.2 Freely programmable logic (FPLA)
 - 1.6.4.3 Link ICs
- 1.7 Microprocessors (see Embedded Systems)**
- 1.8 Memory (see Embedded Systems)**
- 1.9 Application-specific ICs (ASSP)**
 - 1.9.1 Multiplexer ICs**
 - 1.9.1.1 Multiplexer ICs for digital signals
 - 1.9.1.2 Multiplexer ICs for analog signals
 - 1.9.2 Radio link ICs**
 - 1.9.2.1 Transceiver ICs
 - 1.9.2.2 Transponder ICs
 - 1.9.2.3 Receiver circuits
 - 1.9.3 Telecom ICs**
 - 1.9.3.1 Mixed-signal ICs
 - 1.9.3.2 Data switching ICs
 - 1.9.3.3 ISDN-ICs
 - 1.9.3.4 Filter ICs
 - 1.9.3.5 PLL Clock synthesizers for SONET
 - 1.9.3.6 Signal conditioning ICs, miscellaneous
 - 1.9.3.7 CDMA chip sets
 - 1.9.3.8 DBV chip sets
 - 1.9.3.9 Modem ICs
 - 1.9.3.10 Telecom ICs, miscellaneous
 - 1.9.4 ICs for audio/video applications**
 - 1.9.4.1 Video decoder ICs
 - 1.9.4.2 Video ICs, analog
 - 1.9.4.3 Video ICs, mixed signal
 - 1.9.4.4 Multimedia chip sets
 - 1.9.4.5 Speech processing ICs
 - 1.9.4.6 Microphone amplifiers
 - 1.9.4.7 Audio frequency amplifier ICs
 - 1.9.5 ICs with switch/control function**
 - 1.9.5.1 Switching regulator ICs
 - 1.9.5.2 Battery backup switch ICs
 - 1.9.5.3 ICs with switch/control function
 - 1.9.6 Application-specific ICs, miscellaneous**
 - 1.9.6.1 Low-power ICs
 - 1.9.6.2 Low-voltage ICs
 - 1.9.6.3 High-voltage circuits (HVICs)
 - 1.9.6.4 ICs for electric clocks
 - 1.9.6.5 Chip sets, miscellaneous
- 1.10 Data/signal transformer ICs**
 - 1.10.1 Signal converter ICs**
 - 1.10.1.1 Analog/digital converter ICs
 - 1.10.1.2 Digital/analog converter ICs
 - 1.10.1.3 Frequency converter ICs with analog output
 - 1.10.1.4 Voltage/frequency converter ICs
 - 1.10.2 Power ICs**
 - 1.10.2.1 DC/DC converter ICs
 - 1.10.2.2 Converter ICs, miscellaneous
 - 1.10.3 Amplifier ICs**
 - 1.10.3.1 Measurement amplifier ICs
 - 1.10.3.2 Log amplifier ICs
 - 1.10.3.3 Sample and hold amplifier ICs
 - 1.10.3.4 Line driver ICs
 - 1.10.3.5 Repeater ICs
 - 1.10.3.6 Power amplifier ICs
 - 1.10.3.7 Amplifier ICs, miscellaneous
- 1.11 ICs, special designs (including ASICs/CSICs)**
 - 1.11.1 Passive ICs**
 - 1.11.1.1 Digital potentiometer ICs
 - 1.11.1.2 Standard cell ICs
 - 1.11.1.3 Mixed-mode ASICs
 - 1.11.2 Active ICs**
 - 1.11.2.1 Embedded control ICs
 - 1.11.2.2 SmartCard products
 - 1.11.2.3 Controller ICs, analog
 - 1.11.3 RF and microwave ICs**
 - 1.11.3.1 GaAs ASICs
 - 1.11.3.2 Mixer ICs
 - 1.11.3.3 Delay lines, active
 - 1.11.3.4 Filter ICs
 - 1.11.3.5 RF amplifier ICs
 - 1.11.3.6 Coupler ICs
 - 1.11.3.7 RF and microwave ICs, miscellaneous
 - 1.11.4 Customized ICs**
 - 1.11.4.1 Customized analog ICs
 - 1.11.4.2 Customized digital ICs

1.11.4.3	Application-specific ICs (ASICs)	1.11.5	Linear special circuits	1.11.5.4	Regulator ICs (static signal)
1.11.4.4	Building block ICs	1.11.5.1	Comparator ICs	1.11.5.5	Voltage divider ICs
1.11.4.5	Control circuits, application-specific	1.11.5.2	ICs for analog/linear tasks, miscellaneous	1.11.5.6	Voltage regulator ICs
1.11.4.6	Flip chip ICs	1.11.5.3	Inverter ICs		

2. Embedded Systems

2.1	Development tools, software	2.3.2.8	Controllers, miscellaneous	2.5.1.9	Fiber-optic terminal devices
2.1.1	BIOS	2.3.3	Microcomputers	2.5.1.10	Fiber-optic cables/leads
2.1.2	Real-time operating systems	2.3.3.1	Embedded PCs	2.5.1.11	Fiber-optic multi-fiber connectors
2.1.3	Compilers	2.3.3.2	PC 104 boards	2.5.1.12	Fiber-optic rotary couplers
2.1.4	Cross software	2.3.3.3	DSP boards	2.5.1.13	Fiber-optic interfaces
2.1.5	Debuggers	2.3.3.4	Single-board computers	2.5.1.14	Fiber-optic splice connectors
2.1.6	Simulators	2.3.4	Digital signal processors	2.5.1.15	Fiber-optic connection systems, miscellaneous
2.1.7	Fuzzy tools	2.3.4.1	Computer ICs, miscellaneous	2.5.1.16	Wireless LAN configurations
2.1.8	Neuronal networks	2.3.4.2	Digital signal processors (DSP)	2.5.1.17	Profibus assemblies
2.1.9	Network access/embedded networking	2.3.4.3	FPGA-based DSPs	2.5.1.18	Subsystems, miscellaneous
2.1.10	DSP libraries	2.3.4.4	Real-time clock ICs	2.5.2	Interfaces
2.1.11	Software documentation and quality assurance	2.3.4.5	Supervisory ICs	2.5.2.1	LON assemblies
2.1.12	Real-time high-level language debuggers	2.3.4.6	Digital filter ICs	8.5.2.2	SCSI interfaces
2.1.13	IEC 1131-3 development systems	2.3.4.7	Interpolation circuits	8.5.2.3	WAN assemblies
2.1.14	CASE tools	2.3.4.8	DSPs (Digital Signal Processors)	8.5.2.4	PCMCIA components
2.1.15	Real-time software tools	2.4	Peripheral systems	8.5.2.5	Interfaces, miscellaneous
2.1.16	HLL debuggers for emulators	2.4.1	CPU peripheral assemblies	2.6	Memories and memory peripherals
2.1.17	Embedded TCP/IP stacks	2.4.1.1	Magnetic card readers	2.6.1	Memories for workstations and PCs
2.1.18	Development tools for Internet applications for windowing systems	2.4.1.2	Scanners	2.6.1.1	Dynamic RAMs (DRAM)
2.1.19	In-system programming (FLASH/OTP)	2.4.1.3	Chip card interfaces	2.6.1.2	Static RAMs (SRAM)
2.1.20	Microprocessor development systems	2.4.1.4	Chip card readers	2.6.1.3	Cache RAMs
2.1.21	Development systems, software, miscellaneous	2.4.1.5	CD-ROM drives	2.6.1.4	RAMs (read/write memories)
2.2	Development tools, hardware	2.4.1.6	Disk drives	2.6.1.5	Rambus dynamic RAMs
2.2.1	Starter kits	2.4.1.7	Hard disks	2.6.1.6	Multiport RAMs
2.2.2	Development assemblies	2.4.1.8	Optical memory drive assemblies	2.6.1.7	Video memories
2.2.3	Development systems	2.4.1.9	CPU peripheral assemblies, miscellaneous	2.6.1.8	Cache memories
2.2.4	Programming equipment	2.4.1.10	Computer main boards	2.6.1.9	Combo memory modules
2.2.5	In-circuit simulators	2.4.1.11	Interface converters for serial interfaces	2.6.1.10	Memories, miscellaneous
2.2.6	ROM emulators	2.4.1.12	Graphics subsystems	2.6.2	Memories for other uses
2.2.7	Background debug mode tools	2.4.1.13	Memory boards	2.6.2.1	Memory cards
2.2.8	Microprocessor tracers	2.4.1.14	VME bus assemblies/modules	2.6.2.2	FIFO memories
2.2.9	Pentium processor debug tools	2.4.1.15	CAN bus modules	2.6.2.3	Nonvolatile memories
2.2.10	VXI, PMC, compact PCI analyzers	2.4.1.16	LIN bus modules	2.6.2.4	Programmable read-only memories (PROM/EPROM)
2.2.11	Development tools, hardware, miscellaneous	2.4.1.17	Input/output modules	2.6.2.5	Erasable read-only memories (EROM/EEPROM/E2ROM)
2.3	Hardware	2.4.1.18	PC-card modules	2.6.2.6	Output latches
2.3.1	Microprocessors	2.4.1.19	Assemblies/modules, miscellaneous	2.6.2.7	Registers and other memory products
2.3.1.1	8 bit processors	2.4.2	Modulators	2.6.2.8	ROMs (read-only memories), miscellaneous
2.3.1.2	16 bit processors	2.4.2.1	Modems, single-chip	2.7	System solutions
2.3.1.3	32 bit processors	2.4.2.2	QPSK modulators	2.7.1	Fully equipped industrial PCs
2.3.1.4	64 bit processors	2.4.2.3	Pulse code modulator ICs	2.7.2	PC assemblies
2.3.1.5	RISC processors	2.4.2.4	Pulse width modulator ICs	2.7.3	VME bus PCs
2.3.1.6	Multimedia/video processors	2.4.3	Coders/decoders	2.7.4	Multibus PCs
2.3.1.7	Crypto-controllers	2.4.3.1	MPEG coder/decoder ICs	2.7.5	Compact PCI Systems
2.3.1.8	Microprocessor ICs	2.4.3.2	Voice coder/decoder ICs	2.7.6	Real-time platforms
2.3.1.9	Microprocessor cores	2.4.3.3	CCODEC ICs, miscellaneous	2.7.7	Industrial PCs, miscellaneous
2.3.1.10	x86 processors	2.4.4	ICs for bus systems	2.7.8	Memory modules
2.3.1.11	Processors with Multi Media Extension, MMX	2.4.4.1	Token-ring chip sets	2.7.9	Modems
2.3.1.12	Graphics processors	2.4.4.2	Ethernet chip sets	2.7.10	Carriers
2.3.1.13	Coprocessors	2.4.4.3	LAN controllers	2.7.11	Software
2.3.1.14	Microprocessors, miscellaneous	2.4.4.4	Bus controller ICs	2.7.12	I/O modules
2.3.2	Microcontrollers	2.4.4.5	Transmission systems chip sets	2.7.13	CAN bus modules
2.3.2.1	8 bit microcontrollers	2.4.4.6	ATM chip sets	2.7.14	Ethernet modules
2.3.2.2	16 bit microcontrollers	2.4.4.7	PCI interface ICs	2.7.15	PC cards, miscellaneous
2.3.2.3	32 bit microcontrollers	2.4.4.8	PCI bridge chips		
2.3.2.4	64 bit microcontrollers	2.4.4.9	USB ICs		
2.3.2.5	Application-specific controllers	2.4.4.10	Bus-oriented ICs, miscellaneous		
2.3.2.6	CAN controllers	2.5	DDI and other network-technology components		
2.3.2.7	ARINC controllers	2.5.1	Network subsystems		
		2.5.1.1	LAN assemblies		
		2.5.1.2	Wireless LAN configurations		
		2.5.1.3	FDDI components, miscellaneous		
		2.5.1.4	Field-bus assemblies		
		2.5.1.5	Profibus assemblies		
		2.5.1.6	CAN interfaces		
		2.5.1.7	Fiberglass/plastic components		
		2.5.1.8	ATM network components		

3. Displays

- 3.1 Liquid crystal display (LCD)**
 - 3.1.1 LCD monitors
 - 3.1.2 LCD displays, passive (STN, DSTN)
 - 3.1.3 LCD displays, active (TFT)
 - 3.1.4 Liquid crystal display elements
- 3.2 Plasma display panel (PDP)**
 - 3.2.1 Plasma monitors
 - 3.2.2 Plasma display elements
- 3.3 Cathode ray tube (CRT)**
 - 3.3.1 CRT monitors
 - 3.3.2 Cathode ray tube
- 3.4 Vacuum fluorescent display (VFD)**
 - 3.4.1 VFD monitors
 - 3.4.2 Vacuum fluorescent display Elements
- 3.5 Organic light-emitting diode (OLED)**
 - 3.5.1 OLED monitors
 - 3.5.2 OLED displays
 - 3.5.3 LEP displays
- 3.5.4 Polymer light-emitting diodes (PLED)
- 3.5.5 Small-molecule OLEDs (SMOLED)
- 3.6 EL-display**
 - 3.6.1 ELD monitors
 - 3.6.2 EL display elements
- 3.7 Field emission display (FED)**
 - 3.7.1 FED monitors
 - 3.7.2 Field emission display elements
- 3.8 Light-emitting diode (LED)**
 - 3.8.1 LED monitors
 - 3.8.2 LED display elements
- 3.9 Surface conduction emitter display (SED)**
 - 3.9.1 SED monitors
 - 3.9.2 SE display elements
- 3.10 Projection displays**
 - 3.10.1 Projection display monitors
 - 3.10.2 Projection display elements
- 3.11 E-paper**
 - 3.11.1 EP monitors
 - 3.11.2 EP display elements
- 3.12 Peripheral equipment for displays**
 - 3.12.1 Signaling and illuminating elements
 - 3.12.1.1 Light-emitting diodes (LED)
 - 3.12.1.2 Bicolor display elements
 - 3.12.1.3 Cold cathode fluorescent lamp (CCFL)
 - 3.12.1.4 EL lamps
 - 3.12.2 Display mountings
 - 3.12.3 AD signal processor
 - 3.12.4 Touch panel
 - 3.12.5 Inverter LCD
 - 3.12.6 Inverter TFT
 - 3.12.7 Display interconnection systems/components
 - 03.12.8 Power supplies
 - 03.12.9 Display filters

4. micronano-systems

- 4.1 Microsystems**
 - 4.1.1 Microswitches
 - 4.1.2 Micro-optics**
 - 4.1.2.1 Glasses
 - 4.1.2.2 Polymers
 - 4.1.2.3 Silicon
 - 4.1.2.4 Fiber optics
 - 4.1.2.5 Planar fibers
 - 4.1.2.6 Mirror systems
 - 4.1.2.7 Micro-optics, miscellaneous
 - 4.1.3 Mounting, housing and bonding technology
 - 4.1.4 Microsensor systems**
 - 4.1.4.1 GMR magnetic bridge sensors
 - 4.1.4.2 Optical sensors
 - 4.1.4.3 Chemical FET
 - 4.1.4.4 Metal-oxide film gas sensors
 - 4.1.4.5 Capillary electrophoresis
 - 4.1.4.6 Chromatography techniques
 - 4.1.4.7 Microflow injection analysis
 - 4.1.4.8 Microsensor systems, miscellaneous
 - 4.1.5 Microactuators**
 - 4.1.5.1 Electrostatic MAs
 - 4.1.5.2 Electromagnetic MAs
 - 4.1.5.3 Piezoelectric MAs
 - 4.1.5.4 Thermomechanical MAs
 - 4.1.5.5 Thermopneumatic MAs
 - 4.1.5.6 Shape memory alloy MAs
 - 4.1.5.7 Magnetostrictive MAs
 - 4.1.6 Microactuators, miscellaneous
 - 4.1.7 Microsubsystems**
 - 4.1.7.1 Microvalves
 - 4.1.7.2 Micropumps
 - 4.1.7.3 Micromixers
 - 4.1.7.4 Micro thermo exchangers
 - 4.1.7.5 Microspectrometers
 - 4.1.7.6 Planar motors
 - 4.1.7.7 Microgears
 - 4.1.7.8 Microsubsystems, miscellaneous
 - 4.1.8 Development and simulation tools for microsystems**
 - 4.1.8.1 Layout systems, 3D
 - 4.1.8.2 Hardware description languages
 - 4.1.8.3 Simulation of production processes
 - 4.1.8.4 Component simulation and analysis
 - 4.1.8.5 Functional simulation
 - 4.1.8.6 System simulation
 - 4.1.8.7 EMI simulation
 - 4.1.8.8 Development and simulation tools for microsystems, miscellaneous
 - 4.1.9 Test and measurement equipment for microsystems
 - 4.1.10 Components for sensors and microsystems
 - 4.2 MEMS**
 - 4.2.1 RF MEMS**
 - 4.2.1.1 Switches
 - 4.2.1.2 Capacitors
 - 4.2.1.3 Tunable capacitors
 - 4.2.1.4 Microinductors
 - 4.2.1.5 Tunable inductors
 - 4.2.1.6 Micromechanical resonators
 - 4.2.1.7 Cavity resonators
 - 4.2.1.8 FBAR resonators
 - 4.2.1.9 Tunable filters
 - 4.2.1.10 Micromachined antennas
 - 4.2.1.11 Micromachined transmission lines
 - 4.2.1.12 Phase shifters
 - 4.2.1.13 RF MEMS, miscellaneous
 - 4.2.2 Optical MEMS**
 - 4.2.2.1 2D optical switches
 - 4.2.2.2 3D optical switches
 - 4.2.2.3 OXC Optical Cross Connects
 - 4.2.2.4 Tunable filters
 - 4.2.2.5 VOA (Variable Optical Attenuators)
 - 4.2.2.6 Mux/Demux modules
 - 4.2.2.7 Add/Drop modules
 - 4.2.2.8 AWG (Arrayed Waveguides)
 - 4.2.2.9 V grooves
 - 4.2.2.10 Fibre-alignment parts
 - 4.2.2.11 Microoptical lenses
 - 4.2.2.12 Optical bench
 - 4.2.2.13 Micromirrors
 - 4.2.2.14 Microspectrometer
 - 4.2.2.15 Image sensors
 - 4.2.2.16 Optical MEMS, miscellaneous
 - 4.2.3 MEMS sensors**
 - 4.2.3.1 Single-axis accelerometers
 - 4.2.3.2 Dual-axis accelerometers
 - 4.2.3.3 Angular accelerometers
 - 4.2.3.4 Gyroscopes (rotation)
 - 4.2.3.5 Piezoresistive pressure
 - 4.2.3.6 Capacitive pressure
 - 4.2.3.7 Mass flow (gas)
 - 4.2.3.8 Mass flow (liquid)
 - 4.2.3.9 Fingerprint sensors
 - 4.2.3.10 Micromachined microphones
 - 4.2.3.11 MEMS sensors, miscellaneous
 - 4.2.4 MEMS actuators**
 - 4.2.4.1 Micronozzles
 - 4.2.4.2 Microvalves
 - 4.2.4.3 Rotational microactuators
 - 4.2.4.4 Linear microactuators
 - 4.2.4.5 MEMS actuators, miscellaneous
 - 4.2.5 Bio MEMS**
 - 4.2.5.1 Microfluidic
 - 4.2.5.2 Microtiterplate
 - 4.2.5.3 Microelectrode for organic materials
 - 4.2.5.4 Bio sensors
 - 4.2.5.5 Electrochemical sensors
 - 4.2.5.6 Bio MEMS, miscellaneous
 - 4.2.6 MEMS packaging technology and services**
 - 4.2.6.1 Single-Chip Packaging (SCP)
 - 4.2.6.2 Wafer-based SCP
 - 4.2.6.3 Wafer Level Packaging
 - 4.2.6.4 MEMS packaging technology and services, miscellaneous
- 4.3 Nanotechnology**

5. Sensor technology

5.1	Sensors for geometrical parameters	5.3.9	Other parameters	5.6.7	Sound, solid-borne sound, volume
5.1.1	Angle, location	5.4	Sensors for temperature and caloric parameters	5.6.8	Other parameters
5.1.2	Rotary encoders	5.4.1	Temperature, temperature distribution	5.7	Sensors for electrical and magnetic parameters
5.1.3	Inclination, tilt	5.4.2	Heat, heat distribution, thermal conductivity	5.7.1	Voltage, current
5.1.4	Distance, length, elevation	5.4.3	Other parameters	5.7.2	Charge, capacitance
5.1.5	Level, depth	5.5	Sensors for climatic parameters	5.7.3	Field strength
5.1.6	Volume, diameter, particle size	5.5.1	Humidity (gas), evaporation, precipitation, dew point, condensation	5.7.4	Resistance, conductivity
5.1.7	Coat thickness, roughness	5.5.2	Humidity (solid matter)	5.7.5	Inductivity
5.1.8	Position, contour (2D/3D)	5.5.3	Particle density	5.7.6	Power, energy
5.1.9	Other parameters	5.5.4	Wind direction, wind force, wind velocity	5.7.7	Other parameters
5.2	Sensors for mechanical parameters	5.5.5	Barometric pressure	5.8	Sensors for chemical parameters
5.2.1	Force, torque, torsion, stress	5.5.6	Room climate	5.9	Sensors for biological parameters
5.2.2	Pressure (gauge, absolute, differential)	5.5.7	Immission	5.10	Sensor elements by technology
5.2.3	Mass, density, volume	5.5.8	Other parameters	5.10.1	Potentiometer and resistive sensor elements
5.2.4	Extension, tension	5.6	Sensors for optical and acoustic parameters	5.10.2	Inductive
5.2.5	Friction, damping	5.6.1	Light intensity	5.10.3	Capacitive
5.2.6	Hardness, elasticity, viscosity	5.6.2	Radiation	5.10.4	Optoelectronic
5.2.7	Other parameters	5.6.3	Opacity, absorption, transmission	5.10.5	Magnetic
5.3	Sensors for time and time-based parameters	5.6.4	Refraction, reflexion, remission, brilliancy	5.10.6	Piezo electrical
5.3.1	Time, duration, time constants	5.6.5	Chromaticity	5.10.7	Ultrasonic
5.3.2	Wavelength, frequency, oscillation, rpm	5.6.6	Image detection, image evaluation	5.10.8	UV and IR
5.3.3	Speed	6.1	Measuring/testing of geometric parameters	5.10.9	Laser
5.3.4	Acceleration, vibration, shock	6.1.1	Linear measurement devices	5.10.10	Radar
5.3.5	Event counting, occurrence	6.1.2	GPS positioning systems	5.10.11	X-rays
5.3.6	Radioactivity	6.2	Mechanical parameters	5.10.12	Biometric
5.3.7	Flow, volume, current (gases)	6.2.1	Torque measurement equipment	5.10.13	Other technologies
5.3.8	Flow, volume, current (liquids)	6.2.2	Force meters		

6. Test and measurement

6.1	Measuring/testing of geometric parameters	6.7.7	Optical signal generators	6.9.1.3.5	Probes
6.1.1	Linear measurement devices	6.7.8	Optical amplifiers	6.9.1.3.6	Antennas
6.1.2	GPS positioning systems	6.7.9	Optical multimeters	6.9.1.3.7	ESD testers
6.2	Mechanical parameters	6.7.10	Fiber optic measurement equipment, miscellaneous	6.9.1.3.8	Magnetic-field measurement equipment
6.2.1	Torque measurement equipment	6.7.11	Sound level meters	6.9.1.3.9	Standards for electrical/magnetic parameters
6.2.2	Force meters	6.8	Image/pattern recognition and processing	6.9.1.3.10	LISNs
6.2.3	Pressure meters	6.8.1	Image-processing software	6.9.1.3.11	Power amplifiers
6.2.4	Scale equipment	6.8.2	Identification systems	6.9.1.3.12	Surge and burst test equipment
6.2.5	Mechanical parameters, miscellaneous	6.8.3	Lighting systems for image/pattern recognition	6.9.1.3.13	Testing electrical/magnetic properties, other devices for
6.3	Time and time-based parameters	6.8.4	Optical inspection systems	6.9.1.4	Accessories for RF and μW measurement equipment
6.3.1	Acceleration meters	6.8.5	Technical endoscopes	6.9.1.4.1	Measurement bridges
6.3.2	RPM measurement	6.8.6	Equipment for image/pattern recognition and processing, miscellaneous	6.9.1.4.2	Reflection bridges
6.3.3	Speed measurement	6.9	Electrical parameters	6.9.1.4.3	Calibration kits
6.3.4	Time/frequency distribution equipment (networks)	6.9.1	Analog measurement techniques	6.9.1.4.4	Power sensors
6.3.5	Zeitmessgeräte	6.9.1.1	RF measurement equipment	6.9.1.4.5	High-frequency test tips
6.3.6	Frequency and time standards	6.9.1.1.1	Frequency counters	6.9.1.4.6	Attenuators
6.4	Thermal units	6.9.1.1.2	Power meters	6.9.1.4.7	Detectors
6.4.1	Temperature meters	6.9.1.1.3	Spectrum analyzers	6.9.1.4.8	Power splitters
6.4.2	Micro-thermographs without contact	6.9.1.1.4	Reflectometers	6.9.1.4.9	Couplers
6.5	Environmental parameters	6.9.1.1.5	Measurement receivers	6.9.1.4.10	Mixers
6.5.1	Humidity meters, relative air	6.9.1.1.6	Network analyzers, scalar	6.9.1.4.11	Test sets
6.5.2	Shock, vibration meters	6.9.1.1.7	Network analyzers, vector	6.9.1.4.12	Noise generators
6.6	Chemical and biological parameters	6.9.1.1.8	Signal generators	6.9.1.4.13	RF measurement cables
6.7	Optical and acoustical parameters	6.9.1.1.9	Sweep generators	6.9.1.5	Audio measurement equipment
6.7.1	Optical spectrum analyzers	6.9.1.1.10	Noise-figure meters	6.9.1.5.1	Level meters
6.7.2	Optical time domain reflectometers	6.9.1.1.11	Measurement equipment for electrical/magnetic parameters, miscellaneous	6.9.1.5.2	Distortion factor measurement devices
6.7.3	Optical power meters	6.9.1.2	Microwave measurement equipment	6.9.1.5.3	Signal analyzers, also FFT
6.7.4	Optical network analyzers	6.9.1.3	EMI measurement techniques	6.9.1.5.4	Signal generators
6.7.5	Optical attenuators	6.9.1.3.1	EMI measurement receivers	6.9.1.6	General-purpose measurement equipment
6.7.6	Optical polarization analyzers	6.9.1.3.2	EMI test systems	6.9.1.6.1	Voltmeters
		6.9.1.3.3	EMC test-site equipment	6.9.1.6.2	Current meters
		6.9.1.3.4	Field-strength measurement devices	6.9.1.6.3	Power meters
				6.9.1.6.4	Multimeters, voltmeters
				6.9.1.6.5	Signal generators
				6.9.1.6.6	Function generators
				6.9.1.6.7	Pulse generators
				6.9.1.6.8	Arbitrary waveform generators
				6.9.1.6.9	Oscilloscopes

6.9.1.6.10	Resistance meters	6.9.4.2	Test systems for digital mobile radios	6.9.8.4	Laboratory instrumentation accessories
6.9.1.6.11	Impedance meters	6.9.4.3	Signal generators for digital mobile radio transmission	6.9.8.5	Laboratory mains equipment
6.9.1.6.12	Capacitance meters	6.9.4.4	Analyzers for digital mobile radio transmission	6.9.8.6	Standards for measurement/testing
6.9.1.6.13	Inductivity meters	6.9.4.5	Geographical radio-coverage analysis systems	6.9.8.7	Calibration equipment, passive
6.9.1.6.14	Pulse counters	6.9.4.6	Type-approval test systems	6.9.8.8	Measurement/analysis devices for laboratory examinations, miscellaneous
6.9.1.6.15	Transient-value recorders	6.9.5	Protective-measure test devices	6.9.8.9	Measured-value amplifiers
6.9.1.6.16	Transmission-time measurement devices	6.9.5.1	Ground test equipment	6.9.8.10	Probes
6.9.1.6.17	Energy-consumption measurement	6.9.5.2	Insulation testers	6.9.8.11	Differential probes
6.9.1.6.18	Powerline measurement equipment IEC 1000-3-3	6.9.5.3	High-voltage testers	6.9.8.12	Testing aids, miscellaneous
6.9.1.6.19	Power analyzers/disturbance analyzers	6.9.5.4	Short-circuit localization devices	6.9.8.13	Adapters for component testing
6.9.1.6.20	Measurement equipment, miscellaneous	6.9.5.5	Safety testers, multitesters	6.9.8.14	Probe cards
6.9.1.7	Current sinks	6.9.6	Test systems	6.9.8.15	Bed-of-nails adapters
6.9.1.7.1	Resistive loads	6.9.6.1	Semiconductor test system	6.9.8.16	Test fixtures, miscellaneous
6.9.1.7.2	Inductive loads	6.9.6.2	IC testers	6.9.8.17	Test pins
6.9.1.7.3	Capacitive loads	6.9.6.3	Mixed-signal test systems	6.9.8.18	Test pin arrays
6.9.1.7.4	Variable loads	6.9.6.4	Board testers	6.9.8.19	Connection testers
6.9.1.7.5	Programmable loads	6.9.6.5	Boundary scan board test systems	6.9.8.20	Measurement cables/leads
6.9.1.8	Hand-held measurement equipment	6.9.6.6	In-circuit testers	6.9.8.21	Measurement data-transmission equipment
6.9.1.8.1	Multimeters	6.9.6.7	Functional testers	6.9.8.22	PC instrumentation
6.9.1.8.2	Oscilloscopes	6.9.6.8	Combination testers (in-circuit & function)	6.9.8.23	Analog registration devices
6.9.1.8.3	LWL multimeters	6.9.6.9	VXI bus test systems	6.9.8.24	Peripheral equipment, miscellaneous
6.9.2	Digital measurement equipment	6.9.6.10	VME bus test systems	6.10	Specialized laboratory/test equipment
6.9.2.1	Logic analyzers	6.9.6.11	Benchtop ATEs, miscellaneous	6.10.1	Aging test equipment
6.9.2.2	Logic generators, word generators	6.9.6.12	Real-time measured-value acquisition systems	6.10.2	Burn-in equipment
6.9.2.3	Embedded software and verification tools	6.9.6.13	Adapters for assembly testing	6.10.3	Identification tools
6.9.2.4	Digital measurement equipment, miscellaneous	6.9.6.14	Test systems without adapters	6.10.4	Component assortment
6.9.3	Communication test equipment	6.9.6.15	Measurement-data acquisition systems with distributed sensors	6.10.5	Shielded rooms
6.9.3.1	PCM/PDH test equipment	6.9.6.16	Multiple-channel measurement systems (loggers)	6.10.6	Erasers for EPROMs
6.9.3.2	Sonet/SDH test equipment	6.9.6.17	Computer-aided measurement/analysis systems (CAMA)	6.10.7	Measurement cabinets and chambers
6.9.3.3	ATM analyzers	6.9.6.18	Component testers for electronics (hardware-specific)	6.10.8	Mains filters for laboratory purposes
6.9.3.4	Protocol analyzers	6.9.6.19	Power supply test equipment	6.10.9	Programming equipment
6.9.3.5	LAN analyzers	6.9.6.20	Cable test systems	6.10.10	Visual inspection (with image processing)
6.9.3.6	WAN analyzers	6.9.6.21	Test systems, miscellaneous	6.10.11	Environmental simulation/test equipment
6.9.3.7	VXI, PMC, compact PCI analyzers	6.9.7	Software tools for test systems	6.10.12	Radiation sources for measurement purposes
6.9.3.8	PCI bus analyzers and measurement adapters	6.9.7.1	Data evaluation tools for measurement purposes	6.10.13	Databases, measurement technologies
6.9.3.9	USB analyzers	6.9.7.2	Databases, measurement technologies	6.10.14	Simulators
6.9.3.10	Data analyzers	6.9.7.3	Simulators	6.10.15	Simulation software
6.9.3.11	Bus testers	6.9.7.4	Simulation software	6.10.16	ATE software
6.9.3.12	Fiber-optic measurement equipment	6.9.7.5	ATE software	6.9.8	Peripheral equipment
6.9.3.13	Precision frequency sources	6.9.8.1	DSP cards	6.9.8.1	DSP cards
6.9.3.14	CATV measurement equipment	6.9.8.2	A/D converter cards	6.9.8.2	A/D converter cards
6.9.3.15	TV and radio measurement equipment	6.9.8.3	D/A converter cards	6.9.8.3	D/A converter cards
6.9.4	Mobile radio measurement equipment				
6.9.4.1	Test systems for analog mobile radios				

7. CAD/CAE tools

7.1	Development software	7.3.4	EMI/EMC test software	7.6	ED/EDA services
7.1.1	CAD/CAM interface software	7.3.5	Application software, miscellaneous	7.6.1	Development services
7.1.1.1	Chip design programs	7.4	Software for special applications	7.6.1.1	Software development
7.1.1.2	Design programs, miscellaneous/specialized	7.4.1	Software design programs, CASE tools	7.6.1.2	PCB design technology consulting
7.1.1.3	Design-to-test software	7.4.2	Software for electronic labs	7.6.1.3	Circuit optimization services
7.1.1.4	Design-to-Test-Software	7.4.3	System integration programs	7.6.1.4	Fault analysis
7.1.1.5	RF design programs	7.4.4	Thermoanalysis software	7.6.1.5	Release testing
7.1.1.6	VHDL development systems	7.4.5	Software packages/tools, miscellaneous	7.6.1.6	Gate-array design for ASICs
7.2	Generation software	7.4.6	Compilers	7.6.1.7	Standard-cell design for ASICs
7.2.1	Circuit optimization routines	7.4.7	Libraries/databases	7.6.1.8	ASIC design services for other architectures
7.2.2	Layout editors	7.4.8	Real-time operating systems	7.6.1.9	Miniaturization development
7.2.3	Routers for EDA	7.4.9	Emulators	7.6.1.10	Customized circuit development, digital, analog, mixed-signal design
7.2.4	Modeling programs	7.4.10	Customized software	7.6.1.11	Customized circuit development, RF and μ W design
7.2.5	Board design programs	7.5	Peripheral equipment for ED/EDA environments	7.6.1.12	PGA design for ASICs
7.2.6	Synthesis tools	7.5.1	Data terminals	7.6.1.13	Characterization and optimization of magnetic components
7.2.7	Debuggers	7.5.2	Card readers	7.6.1.14	Development of synthesis-capable functional models
7.2.8	Line optimizers for place machines			7.6.1.15	Development services, miscellaneous
7.3	Test software				
7.3.1	Simulation programs				
7.3.2	Diagnostic programs				
7.3.3	Verification programs				

7.6.2	Manufacturing services	7.7	Design and development systems	7.7.3	PCB design tools
7.6.2.1	Prototype construction, housings			7.7.4	Design and development systems, miscellaneous
7.6.2.2	Burn-in services	7.7.1	Analog design tools, miscellaneous		
7.6.2.3	Operating life testing	7.7.2	ASIC design tools		

8. Passive components

8.1	Inductors and accessories	8.3.2.13	Variable resistors, miscellaneous	8.4.9.1.5	Crystal filters
8.1.1	DC Inductors, Filter reactors			8.4.9.1.6	Ceramic filters
8.1.2	Laminated core inductors	8.4	Radiofrequency and Microwave components	8.4.9.1.7	Coupling filters
8.1.3	Coils with powder cores/ferrite cores	8.4.1	Antennas and antenna accessories	8.4.9.1.8	Customized filters
		8.4.1.1	Antennas	8.4.9.1.9	Filters, miscellaneous
8.1.4	Aircore coils	8.4.1.2	Antenna components	8.4.9.2 Resonators	
8.1.5	Planar transformers	8.4.1.3	Absorbers	8.4.9.2.1	Microwave ceramics
8.1.6	SMD inductors	8.4.1.4	Tuner units	8.4.9.2.2	Surface acoustic wave resonators (SAW resonators)
8.1.7	Foil coils component sets	8.4.1.5	Antenna accessories, miscellaneous	8.4.9.2.3	Cavity resonators
8.1.8	Magnetic tape heads	8.4.2	Signal transmission, RF	8.4.9.2.4	Resonators, miscellaneous
8.1.9	Inrush current limiters	8.4.2.1	Waveguides	8.4.9.3 Oscillators	
8.1.10	Deflection coils	8.4.2.2	Waveguide components	8.4.9.3.1	Crystal oscillators
8.1.11	Scanning line transformers	8.4.2.3	Waveguide systems, miscellaneous	8.4.9.3.2	VCXO modules
8.1.12	Ignition spark transformers			8.4.9.3.3	TCXO modules
8.1.13	Low frequency transformers	8.4.2.4	Directional couplers, coaxial	8.4.9.3.4	OCXO modules
8.1.14	Isolation transformers	8.4.2.5	Directional couplers, waveguide	8.4.9.3.5	Programmable oscillators
8.1.15	Power transformers	8.4.2.6	Circulators	8.4.9.3.6	Crystal oscillators, miscellaneous
8.1.16	L/C networks (PFC)	8.4.2.7	Isolators	8.4.9.3.7	Oscillators for SMT
8.1.17	Pressed cores	8.4.2.8	Signal transmission, RF, miscellaneous	8.4.9.3.8	Tuning-fork oscillators
8.1.18	Inductor cores	8.4.2.9	RF transformers	8.4.9.3.9	Synthesizer modules
8.1.19	Metal powder inductor cores	8.4.3	RF switches	8.4.9.3.10	Oscillator modules, miscellaneous
8.1.20	Inductors, miscellaneous	8.4.3.1	Waveguide switches	8.4.10 Tubes	
8.1.21	Accessories, miscellaneous	8.4.3.2	Waveguide switching systems	8.4.10.1	X-ray tubes
		8.4.3.3	Matrix switches	8.4.10.2	Transmitter tubes
8.2	Capacitors	8.4.3.4	Coaxial relays	8.4.10.3	Generator tubes
8.2.1	Capacitors, fixed	8.4.3.5	Coaxial switches	8.4.10.4	Microwave tubes
8.2.1.1	Aluminum electrolytic capacitors	8.4.3.6	PIN diode switches	8.4.10.5	Specialized tubes
8.2.1.2	Capacitor networks	8.4.3.7	Multiplexers	8.4.10.6	Vacuum switching elements
8.2.1.3	Film capacitors	8.4.3.8	RF switches, miscellaneous	8.4.10.7	Traveling wave tubes
8.2.1.4	High-voltage capacitors	8.4.4	Signal influencing	8.4.10.8	Tubes, miscellaneous
8.2.1.5	Ceramic capacitors	8.4.4.1	Power splitters		
8.2.1.6	Capacitors with non-standard dielectrics	8.4.4.2	Combiners	8.5	Polymer components
8.2.1.7	Capacitors, special design	8.4.4.3	Step attenuators	8.6	Nonlinear high-voltage components
8.2.1.8	Plastic capacitors	8.4.4.4	Attenuators	8.6.1	2-electrode arresters
8.2.1.9	Power capacitors	8.4.4.5	Phase shifters	8.6.2	3-electrode arresters
8.2.1.10	SMD capacitors	8.4.4.6	Delay lines	8.6.3	Switching spark gaps
8.2.1.11	Tantalum electrolytic capacitors	8.4.4.7	Mixers	8.6.4	Starters for gas discharge tubes
8.2.1.12	Ultra capacitors	8.4.4.8	Limiters		
8.2.1.13	Capacitors, miscellaneous	8.4.4.9	Components for signal modification, miscellaneous	8.7	Passive components, miscellaneous
8.2.2	Capacitors, variable	8.4.5	LTCC (Low Temperature Co-fired Ceramics)	8.8	Piezoelectric components
8.2.2.1	Rotary capacitors	8.4.6	Accessories	8.8.1	Piezoelectric signal generators
8.2.2.2	Trimmer capacitors with solid dielectrics	8.4.6.1	Loads, chip	8.8.2	Piezoceramic wares
8.2.2.3	Air dielectric variable capacitors	8.4.6.2	Loads, coax	8.8.3	Piezo foils
		8.4.6.3	Loads, waveguide	8.8.4	Piezo actuators
8.3	Resistors (including R networks)	8.4.6.4	Rotary couplings		
8.3.1	Fixed resistors	8.4.6.5	Seals	8.9	Magnetic and electronic ceramic products
8.3.1.1	Individual fixed resistors, standard	8.4.6.6	Bias tees	8.9.1	Alnico magnets
8.3.1.2	SMD resistors	8.4.6.7	DC blocks	8.9.2	Hard-ferrite magnets
8.3.1.3	SMD resistor networks	8.4.6.8	Adapters, coax-waveguide	8.9.3	Plastic-bonded hard-ferrite magnets
8.3.1.4	High-voltage resistors	8.4.6.9	Adapters, coax-coax		
8.3.1.5	Power resistors, air-cooled	8.4.6.10	Circulators, coax	8.9.4	Plastic-bonded neodymium iron boron magnets
8.3.1.6	Power resistors, water-cooled	8.4.6.11	Circulators, waveguide		
8.3.1.7	Measurement resistors	8.4.6.12	Accessories, miscellaneous	8.9.5	Magnetic systems
8.3.1.8	Calibration resistors	8.4.7	Passive microwave components, miscellaneous	8.9.6	Soft-ferrite products
8.3.1.9	Resistor combinations/networks	8.4.8	Microwave components, active	8.9.7	Neodymium iron boron magnets
8.3.1.10	Varistors	8.4.8.1	Mixers	8.9.8	Samarium cobalt magnets
8.3.1.11	NTC thermistors	8.4.8.2	Amplifiers	8.9.9	Ferroelectric ceramic tubes
8.3.1.12	PTC thermistors	8.4.8.3	YIG components	8.9.10	Ferroelectric ceramic perls
8.3.1.13	Fixed resistors, miscellaneous	8.4.8.4	YIG-Komponenten	8.9.11	Ceramic molded parts
8.3.2	Variable resistors	8.4.8.5	Microwave components, active, miscellaneous	8.9.12	Ceramic insulation inserts
8.3.2.1	Wire-wound potentiometers	8.4.9	Filters, resonators and oscillators		
8.3.2.2	Conductive plastic potentiometers	8.4.9.1	Filters		
8.3.2.3	Layered potentiometers	8.4.9.1.1	L/C filter arrays		
8.3.2.4	Precision potentiometers	8.4.9.1.2	R/C filter arrays		
8.3.2.5	Rotary potentiometers	8.4.9.1.3	YIG filters		
8.3.2.6	Linear potentiometers	8.4.9.1.4	Surface acoustic wave filters (SAW filters)		
8.3.2.7	Sliding resistors				
8.3.2.8	Trimmer resistors				
8.3.2.9	Adjustable resistors, miscellaneous				
8.3.2.10	Nonlinear resistors				
8.3.2.11	Controllable resistors				
8.3.2.12	Motor potentiometers				

9. Electromechanics/System peripherals

9.1	Switches and keyboards	9.1.7.1	Panel membranes for keyboards	9.2.2.7	Plug-in connectors with solder tags
9.1.1	Switches for continuous connection	9.1.7.2	Separation membranes for keyboards	9.2.2.8	Plug-in connectors with crimp connectors
9.1.1.1	Encoder switches	9.1.7.3	Silicone keypads for keyboards	9.2.2.9	Plug-in connectors for wire-wrap connectors
9.1.1.2	DIL switches	9.1.7.4	Silicone rubber key pads	9.2.2.10	Plug-in connectors for insulation displacement assembly
9.1.1.3	Dial/rotary switches	9.1.7.5	Piezo keys	9.2.3	Connectors, PCB-mountable
9.1.1.4	Push-button switches	9.1.7.6	LCD single keys	9.2.3.1	Fine-pitch connectors
9.1.1.5	Remote-control switches, miscellaneous	9.1.7.7	Key modules	9.2.3.2	Card plug-in connectors
9.1.1.6	Manually activated switches, miscellaneous	9.1.8	Initiation devices, manually activated	9.2.3.3	PCB connection systems
9.1.1.7	Toggle switches	9.1.8.1	Console components	9.2.3.4	PCB connectors
9.1.1.8	Multiplexers	9.1.8.2	User consoles for night usage	9.2.3.5	DIP plug-in connectors
9.1.1.9	Matrix switches	9.1.8.3	Input systems	9.2.3.6	SM-capable connectors
9.1.1.10	PCB switches	9.1.8.4	Remot controls	9.2.3.7	Ball-grid array adapters
9.1.1.11	Illuminated key switches/keypads	9.1.8.5	Initiation devices, miscellaneous	9.2.3.8	SM test points
9.1.1.12	Miniature switches	9.1.8.6	Trackball input devices	9.2.4	Sockets
9.1.1.13	Subminiature switches	9.1.8.7	Manual computer input devices, miscellaneous	9.2.4.1	Plug bodies, modular
9.1.1.14	Reed switches	9.1.8.8	Mouse	9.2.4.2	IC sockets
9.1.1.15	Opto switches	9.1.8.9	Pad input devices	9.2.4.3	IC footprint converters
9.1.1.16	Piezo switches	9.1.8.10	Joysticks	9.2.4.4	IC test clips
9.1.1.17	Sliding switches	9.1.8.11	Miniature joysticks	9.2.4.5	PGA sockets
9.1.1.18	Safety switches	9.1.9	Relays	9.2.4.6	Ball-grid array sockets
9.1.1.19	SM-capable switches	9.1.9.1	DIL relays	9.2.4.7	Lead frames
9.1.1.20	Incremental switch/resistor combinations	9.1.9.2	Poled relays	9.2.4.8	Sockets, miscellaneous
9.1.1.21	Switches, miscellaneous	9.1.9.3	Telecommunications relays	9.2.5	Connectors, application-oriented
9.1.2	Switches with additional functions	9.1.9.4	Card relays	9.2.5.1	Railway plug-in connectors
9.1.2.1	Selection switches	9.1.9.5	Hermetically sealed relays	9.2.5.2	Mining plug-in connectors
9.1.2.2	Circuit breaker	9.1.9.6	Automotive relays	9.2.5.3	Audio, video plug-in connectors
9.1.2.3	Time switches	9.1.9.7	Miniature relays	9.2.5.4	Automotive plug-in connectors
9.1.2.4	Tilt switches	9.1.9.8	Microrelays	9.2.5.5	Battery plug-in connectors
9.1.2.5	Thermo switches	9.1.9.9	Mains power-isolating relays	9.2.5.6	High current plug-in connectors
9.1.2.6	Sensor switches	9.1.9.10	Phase monitor relays	9.2.5.7	Medical plug-in connectors
9.1.2.7	ASI switches	9.1.9.11	Reed relays	9.2.5.8	Equipment plug-in connectors
9.1.3	Electrical keys	9.1.9.12	Relays with forcibly guided (linked) contacts	9.2.5.9	MIL connectors
9.1.3.1	Limit keys	9.1.9.13	Incremental switch relays	9.2.5.10	audio connectors
9.1.3.2	Input keys	9.1.9.14	Fuses/relays, miscellaneous	9.2.6	Connectors for telecommunications
9.1.3.3	Miniature keys	9.1.9.15	Sensor relays	9.2.6.1	Coaxial plug-in connectors
9.1.3.4	Sensor switches	9.1.9.16	Relays as SMDs	9.2.6.1.1	BNC 50 W/ 75 W connectors
9.1.3.5	ASi keys	9.1.9.17	Current relays	9.2.6.1.2	C/UHF connectors
9.1.3.6	Electrical keys, miscellaneous	9.1.9.18	Thermorelays	9.2.6.1.3	MCX/MMCX connectors
9.1.4	Detector components	9.1.9.19	Overload-monitor relays	9.2.6.1.4	F connectors
9.1.4.1	Event detectors/counters	9.1.9.20	Secured relays	9.2.6.1.5	N connectors
9.1.4.2	Light barriers	9.1.9.21	Vacuum relays	9.2.6.1.6	SMA connectors
9.1.4.3	Reflectors for light barriers	9.1.9.22	Time relays	9.2.6.1.7	SMB/SMC/SMS connectors
9.1.4.4	Signal generators, acoustic	9.1.9.23	Measurement relays	9.2.6.1.8	PC 7 mm connectors
9.1.4.5	Proximity switches	9.1.9.24	High-frequency relays	9.2.6.1.9	PC 3.5 mm connectors
9.1.4.6	Limit switches	9.1.9.25	Magnets, electric	9.2.6.1.10	PC 2.4 mm connectors
9.1.4.7	Ring generators for telephones	9.1.9.26	Timers, electromechanical	9.2.6.1.11	PC 2.0 mm connectors and smaller
9.1.4.8	Detector components, miscellaneous	9.1.9.27	Counter mechanisms, electro-mechanical	9.2.6.1.12	Adapters
9.1.5	Detector and signaling devices	9.1.9.28	Relays, miscellaneous	9.2.6.1.13	Twinaxial components
9.1.5.1	Optical signaling devices	9.2	Interconnection components/systems	9.2.6.1.14	Coaxial connectors, miscellaneous
9.1.5.2	Optical/acoustical signaling devices	9.2.1	Standardized connectors	9.2.6.2	Fiber-optic plug-in connectors
9.1.5.3	Acoustical signaling devices	9.2.1.1	DIN 41 612 plug-in connectors	9.2.6.3	Data connectors (e.g. RJ 45)
9.1.5.4	Ex-signaling devices	9.2.1.2	Metric connectors	9.2.7	Cables with connectors
9.1.5.5	Signal towers	9.2.1.3	D subminiature connectors	9.2.7.1	Configured cable/connector combinations for data technology
9.1.5.6	Loudspeakers	9.2.1.4	D subminiature connectors with filters	9.2.7.2	Configured cable/connector combinations for household equipment
9.1.5.7	Tone generators, electronic	9.2.1.5	D plug-in connectors	9.2.7.3	Configured cable/connector combinations for industrial electronics
9.1.5.8	Microphones	9.2.1.6	Extended standards plug-in connectors	9.2.7.4	Configured cable/connector combinations for consumer electronics
9.1.5.9	Sound generators, electro-mechanical	9.2.1.7	Subminiature plug-in connectors	9.2.7.5	Configured cable/connector combinations for automotive applications
9.1.6	Keyboards	9.2.1.8	SMD print connectors 0.635 mm pitch	9.2.7.6	Configured cable/connector combinations for laboratory/testing technology
9.1.6.1	Keyboards	9.2.1.9	Standardized connectors, miscellaneous	9.2.7.7	Configured cable/connector combinations for the aerospace industry
9.1.6.2	PC keyboards	9.2.1.10	RCA plugs/ jacks	9.2.7.8	Configured cable/connector combinations for miscellaneous applications
9.1.6.3	Flat keyboards	9.2.1.11	Mains power appliance inlets	9.2.7.9	Configured cable/connector combinations for telecommunications
9.1.6.4	Membrane keyboards	9.2.1.12	Mains power appliance outlets	9.2.7.10	Ribbon cable connection systems
9.1.6.5	Short-stroke keyboards	9.2.2	Connectors for specific handling		
9.1.6.6	MF keyboards (multifunctional)	9.2.2.1	Crimp connectors, open frame		
9.1.6.7	Miniature keyboards	9.2.2.2	Crimp connectors, rectangular		
9.1.6.8	Piezo keypads	9.2.2.3	Crimp connectors, round		
9.1.6.9	Sensor keys/keyboards	9.2.2.4	Crimp connectors, miscellaneous		
9.1.6.10	Silicone keyboards	9.2.2.5	Plug-in connectors for press-fit applications		
9.1.6.11	Specialized keyboards	9.2.2.6	Plug-in connectors for soldered connections		
9.1.6.12	Keyboard systems				
9.1.6.13	Touch-glass keyboards				
9.1.6.14	LCD single-key keyboards				
9.1.6.15	Touch panels				
9.1.7	Components and accessories for keyboards				

9.2.7.11	Powercords	9.2.13.5	Coaxial conductor components and systems	9.3.6.1.7	Passive components, miscellaneous
9.2.8	Connectors with additional functions	9.2.13.6	Twinaxial components	9.3.6.2	Active components
9.2.8.1	Inverted plug-in connectors	9.2.13.7	Wire harnesses	9.3.6.2.1	Fans
9.2.8.2	Encoder plug-in connectors	9.2.13.8	Spiral cords	9.3.6.2.2	Fan inserts
9.2.9	Connectors, specific forms	9.2.13.9	Customized cables	9.3.6.2.3	Heat exchangers with built-in radiators
9.2.9.1	Miniature plug-in connectors	9.2.13.10	Light-conducting cables	9.3.6.2.4	Heat pumps, thermoelectric
9.2.9.2	Right-angle plug-in connectors	9.2.13.11	Instrument cables	9.3.6.2.5	Peltier elements
9.2.9.3	Round plug-in connectors	9.2.13.12	Safety cables/leads	9.3.6.2.6	Heat exchanger systems
9.2.9.4	Zero-force plug-in connectors (ZIF)	9.2.13.13	Data transmission cables	9.3.6.2.7	Heat pipes
9.2.9.5	Cut/crimp connectors (IP)	9.2.13.14	Computer cables, configured	9.3.6.2.8	Air-conditioning units
9.2.9.6	Flat plug-in connectors	9.2.13.15	Round-conductor ribbon cables for IDC	9.3.6.2.9	Radiators and coolants
9.2.9.7	SMD connectors, 0.635 mm pitch	9.2.13.16	Flexible ribbon cables	9.3.6.2.10	Cooling equipment
9.2.9.8	Foil-type plug-in connectors	9.2.13.17	Shielded cables	9.3.6.2.11	CPU cooling equipment
9.2.9.9	Ribbon cable connectors	9.2.13.18	Halogen-free cables	9.3.6.2.12	Filter fans
9.2.10	Miscellaneous connectors	9.2.13.19	Enamelled wire	9.3.6.2.13	Thermostats
9.2.10.1	Transfer plug-in connectors (I/O)	9.2.13.20	Wire/cables/leads, miscellaneous	9.3.6.2.14	Thermal management aids, miscellaneous
9.2.10.2	Coupling plug-in connectors	9.2.13.21	Cables, miscellaneous	9.3.6.2.15	Thermofoil heaters
9.2.10.3	Customized plug-in connectors	9.3	Casing technology	9.3.6.2.16	Heating elements with/without regulators
9.2.10.4	Specialized plug-in connectors	9.3.1	System racks	9.3.6.2.17	Active components, miscellaneous
9.2.10.5	Multiple connection systems	9.3.1.1	19" racks and cabinets	9.3.7	Electronics protection devices (EMI/ESD)
9.2.10.6	Plug sockets, miscellaneous	9.3.1.2	RF-shielded housings	9.3.7.1	EMC-conducted
9.2.10.7	Chip card connectors	9.3.1.3	Circuit boxes	9.3.7.1.1	EMC-type plug-in connectors
9.2.10.8	Hermetically sealed connectors	9.3.1.4	Modular systems, metric	9.3.7.1.2	EMC leads
9.2.10.9	Waterproof connectors	9.3.1.5	Sheet-metal structures	9.3.7.1.3	EMC filters
9.2.10.10	Shielded connectors	9.3.1.6	System racks for telecommunications	9.3.7.1.4	SM EMI suppression filters
9.2.10.11	Jumpers	9.3.2	Build-in and desktop housings	9.3.7.1.5	Chip bead EMI suppressors
9.2.10.12	MID connectors	9.3.2.1	19" inserts and housings	9.3.7.1.6	Filter-equipped power-connection leads
9.2.10.13	Connectors, miscellaneous	9.3.2.2	19" frames	9.3.7.1.7	Mains filter modules
9.2.11	Accessories for connectors	9.3.2.3	19" accessories	9.3.7.1.8	RF chokes
9.2.11.1	Plastic housings for connectors	9.3.2.4	Console housings	9.3.7.1.9	Mains power-surge protectors
9.2.11.2	Metal housings for connectors	9.3.2.5	Consoles	9.3.7.1.10	Filter-equipped plug-in connectors
9.2.11.3	EMI/RFI shielding metal hoods	9.3.2.6	Computer housings	9.3.7.1.11	Threaded EMC cable glands
9.2.11.4	Rubber and plastic parts for connectors	9.3.2.7	Stand-alone housings	9.3.7.1.12	EMC feedthrough components
9.2.11.5	Tapper sleeves	9.3.2.8	Table-top housings	9.3.7.1.13	X/Y capacitors
9.2.11.6	Special tools for connectors	9.3.2.9	Wall-mountable housings	9.3.7.1.14	Electronics protection devices, miscellaneous
9.2.11.7	Press-fit tools for connectors	9.3.2.10	Specialized housings for assemblies/devices	9.3.7.2	EMC-radiated
9.2.12	Specialized connection/connecting components	9.3.2.11	Housings, RF-resistant	9.3.7.2.1	Shieldings (EMC)
9.2.12.1	Terminals	9.3.2.12	Wall-mountable and desktop housings, miscellaneous	9.3.7.2.2	Housings with EMC protection
9.2.12.1.1	Terminals/terminal strips	9.3.3	Small-scale housings	9.3.7.2.3	RF seals
9.2.12.1.2	Connectors (silicon rubber)	9.3.3.1	Sheet-metal housings	9.3.7.2.4	Metal sealings for housings
9.2.12.1.3	Connection strips	9.3.3.2	Plastic housings, application-specific	9.3.7.2.5	Polymere seals for housings
9.2.12.1.4	Test terminals	9.3.3.3	Hand-held housings	9.3.7.2.6	Conductive tapes/cloth
9.2.12.1.5	Terminal strips	9.3.3.4	Milling housings	9.3.7.2.7	Window glass, RF-sealed
9.2.12.1.6	Terminals with diodes	9.3.3.5	Mini housings, miscellaneous	9.3.7.3	EMP protection
9.2.12.1.7	PCB terminals	9.3.4	Special housings	9.3.7.3.1	EMP protection elements/modules
9.2.12.1.8	Feed-through terminals	9.3.4.1	Specialized component enclosures	9.3.7.3.2	NEMP protective equipment
9.2.12.1.9	Measurement terminals	9.3.4.2	Components out of shape memory materials	9.3.7.4	ESD protection
9.2.12.1.10	Disconnect terminals	9.3.4.3	Portable cases	9.3.7.4.1	ESD protection
9.2.12.1.11	Terminals, miscellaneous	9.3.4.4	Individual housings	9.3.7.4.2	Voltage suppressors
9.2.12.2	Connection elements, miscellaneous	9.3.5	Accessories for housings	9.3.7.4.3	Limiter diodes
9.2.12.2.1	Contact elements/modules	9.3.5.1	Card slots	9.3.7.4.4	Lightning protection equipment
9.2.12.2.2	Screen-connection elements	9.3.5.2	Covers	9.3.7.4.5	Surge protection equipment
9.2.12.2.3	Slip-ring transformers	9.3.5.3	Front panels for assemblies/devices	9.3.7.5	Packaging materials
9.2.12.2.4	Contactless electrical rotary joints	9.3.5.4	Front panels, customized	9.3.7.5.1	Packaging materials
9.2.12.2.5	Contactless optical rotary joints	9.3.5.5	Front handles	9.3.7.5.2	Blister belting strips
9.2.12.2.6	Soldered connection elements	9.3.5.6	Housing seals	9.3.7.5.3	Blister belt cover strips
9.2.12.2.7	Wire-wrap elements	9.3.5.7	Knobs	9.3.7.5.4	Belt spools for component belting
9.2.12.2.8	Removable connection elements, miscellaneous	9.3.5.8	Rubber and plastic parts for housings	9.3.7.6	Protection components, miscellaneous
9.2.12.2.9	Power distribution components (power strips)	9.3.5.9	Distance assembly fittings	9.3.7.6.1	Suppressor chokes
9.2.12.2.10	Microconnectors	9.3.5.10	Housing cover accessories	9.3.7.6.2	Suppressor capacitors
9.2.12.2.11	Press-fit connectors	9.3.5.11	Conduits	9.3.7.6.3	Shielded chokes/converters
9.2.12.2.12	Individual contacts	9.3.5.12	Filters, air	9.3.7.6.4	Power semiconductor protection
9.2.12.2.13	Chip-card connection frames	9.3.5.13	Housing design programs	9.3.7.6.5	Low-voltage protection equipment
9.2.12.2.14	Permanent contacting elements, miscellaneous	9.3.5.14	Bearings	9.3.7.6.6	EMC ferrite cores
9.2.12.2.15	Connection elements, miscellaneous	9.3.5.15	Power distribution components	9.3.7.6.7	Circuit breaker for equipment protection
9.2.12.3	Accessories	9.3.5.16	Accessories for housings, miscellaneous	9.3.7.6.8	Equipment-protection fuses
9.2.12.3.1	Continuity accessories	9.3.6	Thermal management	9.3.7.6.9	Fuse holders/sockets
9.2.12.3.2	Elastomers, electrical/thermal conducting	9.3.6.1	Passive components	9.3.7.6.10	Protection components accessories
9.2.12.3.3	Shrink-wrap hoses	9.3.6.1.1	Shieldings, thermal		
9.2.12.3.4	Strain-relief elements	9.3.6.1.2	Insulating elements, special		
9.2.12.3.5	Threaded cable glands	9.3.6.1.3	Heat sinks		
9.2.12.3.6	Accessories, miscellaneous	9.3.6.1.4	Specialized heat sinks		
9.2.13	Cables	9.3.6.1.5	Heat-conducting plates/washers		
9.2.13.1	Coaxial high-frequency cables	9.3.6.1.6	Circuit carriers, thermally conductive		
9.2.13.2	RF cords				
9.2.13.3	Semi-rigid cables				
9.2.13.4	Ready-made coaxial cables				

10. Power supplies

10.1	Transformers	10.3.6	Accessories, miscellaneous	10.8	Special power supplies
10.1.1	Power-supply transformers			10.8.1	Programmable power supplies
10.1.2	PCB transformers	10.4	Power supplies, DC-output	10.8.2	System power supplies
10.1.3	Planar transformers	10.4.1	AC/DC power supplies, single/multiple phase	10.8.3	Lab power supplies
10.1.4	Miniature transformers			10.8.4	Intelligent power modules, customized
10.1.5	Toroidal core transformers	10.4.2	AC/DC eurocard power supplies	10.8.5	Power supplies, high-voltage
10.1.6	Security transformers	10.4.3	AC/DC power supplies, DIN rail	10.8.6	Mains power devices, application-specific
10.1.7	Isolating transformers (including shielded)	10.4.4	AC/DC power supplies, open frame		
10.1.8	Regulating transformers	10.4.5	VME bus power supplies	10.9	Batteries
10.1.9	High-voltage transformers	10.4.6	DC/DC converter modules	10.9.1	Accumulators, up to 50 Ah
10.1.10	Pulse transformers	10.4.7	DC converters with 42-V input for automotive applications	10.9.2	Primary elements and batteries
10.1.11	Stray-field transformers			10.9.3	Smart batteries
10.1.12	Diode splitter transformers	10.4.8	Protected power supplies	10.9.4	Chargers, battery
10.1.13	Autotransformers	10.4.9	Plug-in mains power devices (AC/DC)	10.10	Static current supplies, miscellaneous
10.1.14	Transformers, miscellaneous				
10.2	Coilware for specific applications	10.5	Power supplies, AC-output	10.11	Power management systems
10.2.1	Filter coils	10.5.1	Mains power devices, insert housing	10.12	Accessories
10.2.2	Commutation chokes	10.5.2	Mains power devices, portable	10.12.1	Power factor compensation equipment
10.2.3	Chokes, miscellaneous	10.5.3	Plug-in mains power devices (AC/AC)	10.12.2	Voltage stabilizers
10.2.4	Coilware, application-specific	10.5.4	Inverters (DC/AC)	10.12.3	Charge rectifiers
10.2.5	Coilware, shielded	10.6	Frequency converters	10.12.4	Charge indicators
10.2.6	Coilware, miscellaneous	10.7	UPS systems	10.12.5	Surge suppression documenters
10.3	Accessories for coilware	10.7.1	Uninterruptable power supplies (UPS)	10.12.6	SMPS capacitors for high-frequency suppression
10.3.1	Core-molded parts	10.7.2	Backup power supplies	10.12.7	Battery testers
10.3.2	Cores	10.7.3	Mains power stabilizers	10.12.8	Accessories, miscellaneous
10.3.3	Coil former				
10.3.4	Metal powder coil cores				
10.3.5	Transformer sheets				

11. PCBs, other circuit carriers and EMS

11.1	Non-PTH single and double sided PCBs	11.5.3	AIN	11.7.2	EMS for component construction and equipment manufacturing
		11.5.4	Ceramic PCBs, miscellaneous	11.7.2.1	Solder mask services
11.2	Double-sided PCBs, PTH	11.6	PCBs for backplanes/bus systems	11.7.2.2	Hybrid solutions
11.2.1	Copper through-hole PCBs	11.6.1	PCI bus	11.7.2.3	Component insertion
11.2.2	Silver through-hole PCBs	11.6.2	Compact PCI bus	11.7.2.4	Bonding of dies on PCBs
11.3	Multilayer PCBs (ML)	11.6.3	VME 64	11.7.2.5	Flip chip insertion
11.3.1	Ultrathin ML (100µm/layer)	11.6.4	Profi bus	11.7.2.6	Component insertion under clean-room conditions
11.3.2	Blind and buried vias PCBs	11.6.5	Multi bus	11.7.2.7	Metal machining
11.3.3	PCBs with blind vias	11.6.6	Field bus	11.7.2.8	Manufacturing precision drilling and milling parts
11.3.4	HDI PCBs	11.6.7	Backplane PCBs, unconfigured	11.7.2.9	Housings, customer-specific
11.3.5	Multilayer PCBs, miscellaneous	11.6.8	Backplanes/bus systems, miscellaneous	11.7.2.10	Assembly production
11.4	Special PCBs	11.7	EMS Electronic manufacturing services	11.7.2.11	EMD shielding
11.4.1	PCBs with thick copper	11.7.1	EMS for component/chip carrier manufacturing	11.7.2.12	Cabling
11.4.2	Bondable PCBs	11.7.1.1	Layout services	11.7.2.13	Labeling
11.4.3	Metal core PCBs	11.7.1.2	Artwork production services	11.7.2.14	Production services for component construction and equipment manufacturing, miscellaneous
11.4.4	PCBs with embedded resistors	11.7.1.3	Screen production services	11.8	Prototyping
11.4.5	Flexible circuits	11.7.1.4	ML lamination/drilling services	11.8.1	PCBs
11.4.6	Flex-rigid circuits	11.7.1.5	Contacting services	11.8.2	Housings, prototypes
11.4.7	Micro via PCBs	11.7.1.6	Coating services	11.8.3	Equipment
11.4.8	PCBs on aluminum substrates	11.7.1.7	Laser engraving	11.8.4	Prototyping, miscellaneous
11.4.9	PTFE PCBs	11.7.1.8	Wire erosion		
11.4.10	Impedance-controlled PCBs	11.7.1.9	Electrolyte reprocessing	11.9	Accessories for PCBs
11.4.11	Press-fit component PCBs	11.7.1.10	Laser welding/cutting	11.9.1	Multilayer bus bars for PCBs
11.4.12	Large-format PCBs (more than 600 mm)	11.7.1.11	Plating services	11.9.2	Conductor strips
11.4.13	Ultrafine-line circuitry (< 50µm)	11.7.1.12	Reflow services	11.9.3	Silver vias
11.4.14	PCBs, other	11.7.1.13	Surface treatment	11.9.4	Accessories for PCBs, miscellaneous
11.4.15	3D-PCBs (MID)	11.7.1.14	Production services for component/chip carrier manufacturing, miscellaneous		
11.5	Ceramic PCBs				
11.5.1	LTCC				
11.5.2	Al2O5				

12. Assemblies and subsystems

12.1	Assemblies for control applications	12.1.4	MPC assemblies	12.1.9	LON bus modules
12.1.1	Regulator assemblies	12.1.5	Compact PCI bus modules	12.1.10	Mezzanine modules
12.1.2	Motor protection modules	12.1.6	VME 64 modules	12.1.11	Modules for other bus systems
12.1.3	Switching-device assemblies	12.1.7	Profi bus modules	12.1.12	Controllers, programmable
		12.1.8	Field bus modules	12.1.13	Electromotor controllers/regulators

12.2	Printer assemblies				
12.2.1	Thermal printers	12.4.7	signal, miscellaneous	12.5.1.5	Miniature motors, universal current
12.2.2	Thermal transfer printers		Hybrid modules, static-signal, miscellaneous	12.5.1.6	Stepper motors
12.2.3	Printer assemblies, mechanical	12.4.8	Hybrid circuits on glass substrates	12.5.1.7	Micromotors
12.2.4	Laser printer assemblies	12.4.9	Hybrid modules on ceramic substrates	12.5.2	Gears
12.2.5	Ink jet printer assemblies		LSI hybrids (MCM)	12.5.2.1	Gearred motors
12.2.6	Printer assemblies, miscellaneous	12.4.10	Multi-chip module hybrids, miscellaneous	12.5.2.2	Linear drives
		12.4.11	Application-specific hybrid circuits	12.5.2.3	Micropositioning
12.3	Assemblies, miscellaneous	12.4.12	Networks, miscellaneous	12.5.2.4	Actuators, miscellaneous
12.3.1	Converter assemblies	12.4.13	Opto hybrids	12.5.2.5	Micro gears
12.3.2	Backplane PCBs, configured	12.4.14	Miscellaneous hybrid circuits/modules	12.5.3	Magnetic actuators
12.3.3	IR transmitters/receivers	12.4.15	Strip-conductor components for microwave technology	12.5.3.1	Magnetic motors (translational direct drives)
12.3.4	Matrix cameras, CCD		Clock modules	12.5.3.2	Electromagnets for moving processes
12.3.5	Bar-code reader assemblies	12.4.16	Hybrid modules, miscellaneous	12.5.4	Actuators, miscellaneous
12.3.6	Image-conversion assemblies, miscellaneous	12.4.17	Servo-technology/drive elements	12.5.4.1	Piezo actuator motors
		12.4.18	Motors	12.5.4.2	Translational direct drives
12.4	Hybrid modules (including multi-chip modules)	12.5	AC motors (standard, up to 300 W)	12.5.4.3	Positioning drives, miscellaneous
12.4.1	Thick-film hybrids	12.5.1	Brushless motors	12.5.4.4	Resolvers
12.4.2	Thin-film hybrids	12.5.1.1	DC motors (standard, up to 300 W)	12.5.5	Accessories for actuators
12.4.3	RF hybrids	12.5.1.2	Torque motors	12.5.5.1	Electromotor device parts, miscellaneous
12.4.4	Hybrid filters	12.5.1.3		12.5.5.2	Slide bearings, ceramic
12.4.5	Hybrid modules, mixed-signal	12.5.1.4		12.5.5.3	Electronic motor protection relays
12.4.6	Hybrid modules, alternating-			12.5.5.4	Soft starters for electric motors

13. automotive

13.1	Information and communication				
13.1.1	Driver communication				
13.1.1.1	Feedback	13.3.2.5	Engine control	13.5.2.1	Noise
13.1.1.2	Infotainment	13.3.2.6	Gearbox controllers	13.5.2.2	Multimedia
13.1.1.3	Communication	13.3.2.7	Camshaft controllers	13.5.2.3	Integrated driver-information systems
13.1.1.4	Mobile telephony	13.3.2.8	Valve controllers		Function controls, other
13.1.1.5	Radio controlled	13.3.2.9	Ignition control	13.5.3	Anti-theft protection
13.1.1.6	Optical	13.3.2.10	Fuel management	13.5.3.1	Disabling devices
13.1.1.7	Navigation	13.3.2.11	Fuel pumps	13.5.3.2	Contact-based
13.1.1.8	Telematics	13.3.2.12	Common rail	13.5.3.3	Radio-based
13.1.1.9	Floating vehicle data	13.3.2.13	Injection pumps	13.5.3.4	Interior surveillance
13.1.1.10	Mobile radio controlled	13.3.2.14	Emission-control systems	13.5.3.5	Ultrasonic-based
13.1.1.11	Information and communication, other	13.3.2.15	On-board diagnostics (OBD)	13.5.3.6	Infrared-based
		13.3.2.16	Exhaust sensors	13.5.3.7	Contact-based
		13.3.2.17	Engine management, other		
13.1.2	Human interface	13.4	Safety systems	13.6	Voltage and electrical energy systems
13.1.2.1	Remote control	13.4.1	Active safety	13.6.1	42V technology
13.1.2.2	Voice control	13.4.1.1	Distance detect radar	13.6.1.1	Car assemblies, 42-V compatible
13.1.2.3	Touch	13.4.1.2	Intelligent Speed Adaption	13.6.1.2	Miniature motors 42V
13.1.2.4	Visual	13.4.1.3	Cruise controls/limiters	13.6.2	Electrical subsystems
13.1.2.5	Human interface, other	13.4.1.4	Pre crash	13.6.2.1	On-board systems
13.1.2.6	Keyless entry systems	13.4.1.5	Electronic brake assistants	13.6.2.2	Generators
		13.4.1.6	Drive-control systems	13.6.2.3	Energy recovery systems
13.2	Bus systems/Information transport	13.4.1.7	Anti-slip	13.6.2.4	Energy storage systems
13.2.1	Bus systems	13.4.1.8	Stability	13.6.2.5	DC/DC converters
13.2.1.1	CAN	13.4.2	Passive safety	13.6.2.6	Customer-specific central electrics
13.2.1.2	UIC	13.4.2.1	Airbag controllers	13.6.2.7	Customer-specific electrical subsystems, miscellaneous
13.2.1.3	MVB	13.4.2.2	Passenger detection	13.6.2.8	Electrical subsystems, miscellaneous
13.2.1.4	MOST	13.4.2.3	Tire pressure	13.6.3	Electromechanics
13.2.2	Optical carriers	13.4.2.4	Assisted steering	13.6.3.1	Electric drives
13.2.3	Electrical carriers	13.4.2.5	Parking aids	13.6.3.2	Relays
13.2.4	Wireless carriers	13.4.2.6	Interior surveillance	13.6.3.3	Switches
		13.4.2.7	Safety systems, other	13.6.3.4	Position indicators
13.3	x by wire	13.4.3	Lighting	13.6.3.5	Fuses
13.3.1	Mechatronics	13.4.3.1	Adaptive front-lighting systems (AFS)	13.6.3.6	SmartPower
13.3.1.1	Drive by wire	13.4.3.2	Fixed systems	13.6.3.7	Connectors
13.3.1.2	Brake by wire	13.4.3.3	Safety lights	13.6.3.8	Wire harnesses
13.3.1.3	Steer by wire	13.4.3.4	Light controllers		
13.3.2	Engine/drive system management	13.5	Comfort	13.7	Services
13.3.2.1	Analysis	13.5.1	Environment	13.7.1	DIN norming
13.3.2.2	Wear measurement	13.5.1.1	Temperature	13.7.2	ISO norming
13.3.2.3	Diagnostics	13.5.1.2	Weather	13.7.3	Norming, other
13.3.2.4	Reliability	13.5.1.3	Climate control		
		13.5.2	Entertainment		

14. wireless

14.1	Cellular systems				
14.1.1	UMTS	14.1.5	EDGE	14.1.10	Other standards
14.1.2	GSM	14.1.6	HSCSD	14.2	Non-cellular systems
14.1.3	GSM-R	14.1.7	LMDS	14.2.1	WLAN
14.1.4	GPRS	14.1.8	Tetra	14.2.2	DECT
		14.1.9	Tetrapol		

14.2.3	Bluetooth	14.2.13	Low-noise converters, LNC, LNB	14.3.7	TV tuners
14.2.4	Home RF	14.2.14	IRD	14.3.8	SAT tuners
14.2.5	Infrarot	14.2.15	batteryless radio technology	14.3.9	GPS chip sets
14.2.6	Spread-spectrum transmitters/receivers	14.3	Wireless applications	14.3.10	GPS receivers
14.2.7	Other standards	14.3.1	Virtual Business	14.3.11	Other applications
14.2.8	Modems	14.3.2	eCommerce	14.3.12	RFID
14.2.9	RF assemblies, miscellaneous	14.3.3	Music	14.4	Business partners
14.2.10	Filter assemblies	14.3.4	Video	14.4.1	Content providers
14.2.11	Up converters	14.3.5	Games	14.4.2	Service providers
14.2.12	Down converters	14.3.6	TV receiver subsystems		

15. Information gathering and services

15.1	Information	15.2.3	Software design	15.2.20	Distribution
15.1.1	Parts databases, also with online access	15.2.4	Test software design	15.2.21	Second-hand equipment
15.1.2	Product information systems	15.2.5	System design	15.2.22	Equipment rental, leasing
15.1.3	Technical books	15.2.6	Project assistance	15.2.23	Calibration/test equipment services
15.1.4	Technical publications	15.2.7	Consulting/training	15.2.24	Consulting services for measurement applications
15.1.5	Publications, miscellaneous	15.2.8	Consulting services for measurement applications	15.2.25	Other services
15.1.6	Associations	15.2.9	Systems integration	15.2.26	Programming services
15.1.7	Documentation services	15.2.10	Firmware and drivers	15.2.27	Test-program creation
15.1.8	Standards, national/European	15.2.11	User groups	15.2.28	Production services
15.1.9	Literature databases	15.2.12	Providing embedded system services	15.3	Start-up Forum
15.1.10	Generation of documentation, technical	15.2.13	EMC testing/characterization	15.3.1	Technology transfer
15.1.11	Economic development agencies	15.2.14	ESD testing/characterization	15.3.2	Consulting
15.1.12	Kitting	15.2.15	Certification, product	15.3.3	Financial services/risk capital
15.1.13	Training	15.2.16	Quality management services	15.3.4	Joint ventures
15.2	Approval testing and other services	15.2.17	Quality/repair data, system generation		
15.2.1	ASIC development services	15.2.18	Environmental simulation testing		
15.2.2	Hardware design	15.2.19	Testing services, electronic components		