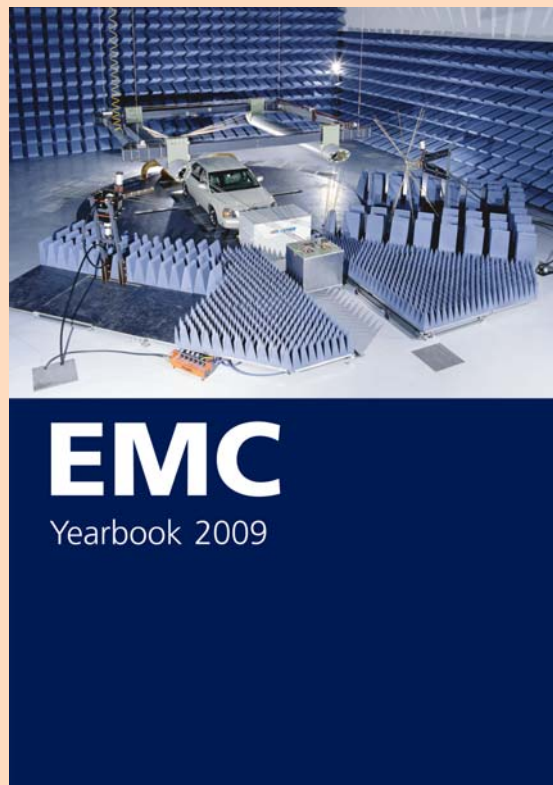
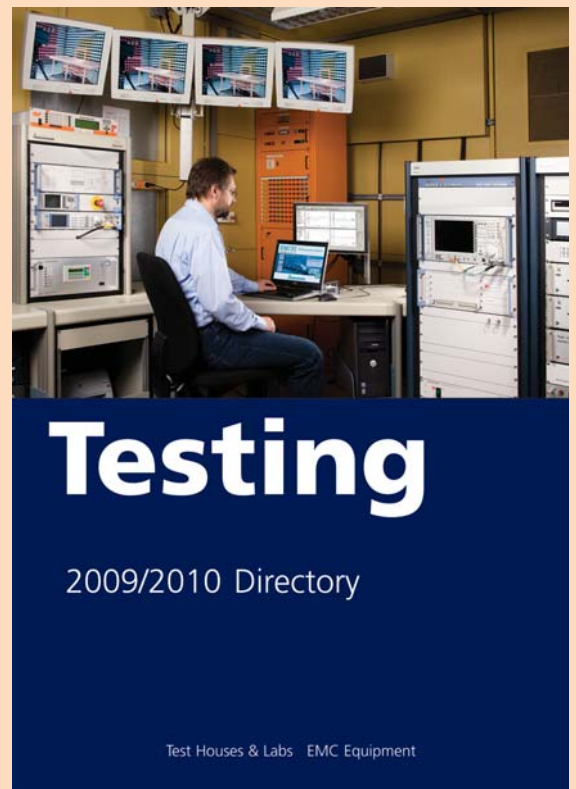
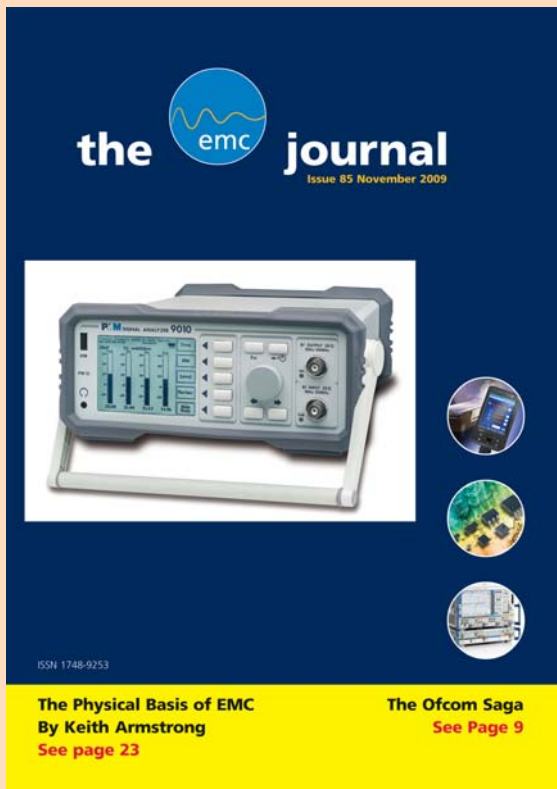


Filters

2010 Directory

EMC Filters

Also Free from Nutwood



If you would like to receive any of the above, just email your request to:

pam@nutwooduk.co.uk

Or register on the website: www.theemcjournal.com

EMC Filters Directory 2010

Sponsored by



This document contains comprehensive information on most of the major Manufacturers and Suppliers of EMC Filters in the UK. All the information was supplied by the companies listed in response to a questionnaire. We have then packaged it into, what we hope, is a useful source of information. It should prove particularly useful when seeking a particular type of filter, or maybe you are looking for an expert filter company to give you advice.

Simply use the Quick Contact and Product Finders on pages 3 to 6.

If you are a Filter Manufacturer in the UK, USA or elsewhere in the world and would like to be included in the next Edition, please email: lynne@theemcjournal.co.uk and we will send you information. Or Fax +44 (0)1208 851630.

More information on EMC Filters and masses of other EMC compliance matters, including the EMC Information Centre, can be found on our web site www.theemcjournal.com.

You may wish to check out the EMC Industry's web site where more filter information can be found under Free Information - www.emcia.org. Also see their ad on page 2.

Front Cover Deutsch UK, see page 12

Every effort has been made to ensure that the information given in this publication is accurate, but no legal responsibility is accepted for any errors, omissions or misleading statements in that information caused by negligence or otherwise, and no responsibility is accepted in regard to the standing of any firms, companies or individuals mentioned or for any advice or information given by them.

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Nutwood UK Ltd

Eddystone Court, De Lank Lane, St Breward, Bodmin, Cornwall, PL30 4NQ, U.K.

Tel: +44 (0)1208 851530 Fax: +44 (0)1208 851630 Email: pam@nutwooduk.co.uk Web: www.theemcjournal.com

Secretariat:



Email: emcia@emcia.org www.emcia.org

The EMCIA was formed on 20th March 2002 for the benefit of companies involved in Supplying, Designing, Testing and Manufacturing EMC products. Networking lunches are held 3 times a year. The current President is Keith Armstrong, Cherry Clough Consultants.

The EMCIA is led by an Executive team appointed from its members. Decisions that do not affect the constitution are made at this level, thereby ensuring actions can be introduced in an efficient manner. For a list of Executive Committee Members go to the website www.emcia.org.

If you are interested in joining and you would like to attend a meeting as a guest, just contact the Secretariat on emcia@emcia.org. The meetings are held three times a year in April, September & December.

The EMCIA Secretariat is Nutwood UK Ltd, publishers of The EMC Journal, www.theemcjournal.com.

Members

AEF Solutions www.aefolutions.com; AR (UK) Ltd www.uk-ar.co.uk; Astrium Ltd www.astrium.eads.net; Blackwood Compliance Laboratories www.blackwood-labs.co.uk; Cherry Clough Consultants www.cherryclough.com; Chomerics www.chomerics.com; CST - Computer Simulation Technology www.cst.com; DEM Manufacturing www.dem-uk.com; dB Technology www.dbtechnology.co.uk; Electromagnetic Testing Services Ltd www.etsemc.co.uk; Elmac Services www.elmac.co.uk; EMC Centre (Paisley) Ltd emc-centre@btconnect.com; EMC Partner (UK) Ltd www.emcpartner.co.uk; ETS Lindgren www.ets-lindgren.com; Ferroxcube UK Ltd www.ferroxcube.com; GPTE International Ltd www.gpteinternational.com; Hitek Electronic Materials Ltd www.hitek-ltd.co.uk; HTT (UK) Ltd www.httuk.co.uk; Kemtron Ltd www.kemtron.co.uk; Knitmesh Technologies Ltd www.knitmeshtechologies.com; METECC www.metecc.co.uk; Milmega Ltd www.milmega.co.uk; MPE Ltd www.mpe.co.uk; Nutwood UK Ltd www.theemcjournal.com; PPM Ltd www.ppm.co.uk; Samsung Euro QA Lab www.seqal-emc.com; Schaffner Ltd www.schaffner-uk.com; Schlegel EMI www.schlegelemi.com; Würth Electronics UK Ltd www.we-online.com; York EMC Services Ltd www.yorkemc.co.uk

To find out more visit the website

www.emcia.org



**Nutwood UK Limited, Eddystone Court, De Lank Lane, St Breward, Bodmin, Cornwall, PL30 4NQ.
Telephone: +44 (0)1208 851530, Fax: +44 (0)1208 851630, Email: emcia@emcia.org Web: www.emcia.org**

Quick EMC Filter Finder

To find the type of filter you require, select from the headings listed in red. Under these headings are the companies providing those filters. You can then simply turn to page 6 for relevant company page numbers and contact details. All these companies will be only too pleased to offer advice. Also check out the Filter Portfolio of articles on our website - www.theemcjournal.com

Absorptive

BSC Filters
Würth Electronics UK

Antenna

Amphenol
Globec (UK)
Murata Electronics (UK)
Sabritec Europe
Spectrum Control
Würth Electronics UK

Arrays

Amphenol
Deutsch UK
Globec (UK)
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Spectrum Control
Syfer Technology
Würth Electronics UK

Automotive

AEF Solutions
DEM Manufacturing
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Würth Electronics UK

Bulkhead

Amphenol
Deutsch UK
Globec (UK)
Spectrum Control
Tyco Electronics

Cavity

BSC Filters

Capacitors

A.C. Technology Systems
ETS-Lindgren
Globec (UK)
Murata Electronics (UK)
Sabritec Europe

Chokes

DEM Manufacturing
EPCOS UK
Murata Electronics (UK)
Schaffner
Würth Electronics UK

Coils

DEM Manufacturing
Murata Electronics (UK)
Würth Electronics UK

Connector

AEF Solutions
Amphenol
Deutsch UK
Globec (UK)
ITT Electronic Components
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Spectrum Control
Würth Electronics UK

Control Line

AEF Solutions
ETS-Lindgren
Globec (UK)
MPE
Oxley Developments Company
Sabritec Europe
Spectrum Control
Syfer Technology
Tyco Electronics

Custom Design

A.C. Technology Systems
AEF Solutions
Amphenol
BSC Filters
DEM Manufacturing
Deutsch UK
EPCOS UK
ETS-Lindgren
Globec (UK)
MPE
Oxley Developments Company
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Würth Electronics UK

Data Line

AEF Solutions
Amphenol
ETS-Lindgren
Globec (UK)
MPE
Oxley Developments Company
Sabritec Europe

Spectrum Control
Syfer Technology
Tyco Electronics
Würth Electronics UK

Discrete

A.C. Technology Systems
AEF Solutions
Amphenol
BSC Filters
DEM Manufacturing
ETS-Lindgren
Globec (UK)
Oxley Developments Company
Sabritec Europe
Spectrum Control
Syfer Technology
Würth Electronics UK

Drives (Specific)

DEM Manufacturing
EPCOS UK
Schaffner

Duplexer

BSC Filters
Murata Electronics (UK)

EE Seal

Würth Electronics UK

EMI Filter Windows

Oxley Developments Company

Facility

Tyco Electronics

Feedthrough

A.C. Technology Systems
AEF Solutions
Amphenol
Deutsch UK
EPCOS UK
ETS-Lindgren
Globec (UK)
MPE
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology

Helical

BSC Filters

IEC Inlet

Tyco Electronics

Inlet

DEM Manufacturing
EPCOS UK
MPE
Schaffner
Spectrum Control

Mains

A.C. Technology Systems
AEF Solutions
Amphenol
DEM Manufacturing
EPCOS UK
ETS-Lindgren
Globec (UK)

MPE
Schaffner
Spectrum Control
Syfer Technology
Tyco Electronics
Würth Electronics UK

Medical
Amphenol
DEM Manufacturing
EPCOS UK
ETS-Lindgren
Murata Electronics (UK)
Sabritec Europe
Schaffner
Tyco Electronics
Würth Electronics UK

Microwave
BSC Filters
Globec (UK)
Murata Electronics (UK)
Sabritec Europe
Spectrum Control
Syfer Technology
Würth Electronics UK

Military
Amphenol
BSC Filters
DEM Manufacturing
Deutsch UK
Globec (UK)
ITT Electronic Components
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Tyco Electronics
Würth Electronics UK

Miniature Ceramic
AEF Solutions
Amphenol
BSC Filters
Globec (UK)
MPE
Murata Electronics (UK)
Oxley Developments Company
Spectrum Control
Syfer Technology
Würth Electronics UK

Multi-Phase
DEM Manufacturing
MPE
Spectrum Control
Tyco Electronics

Nato Codified
A.C. Technology Systems
Amphenol
BSC Filters
ETS-Lindgren

Obsolete
A.C. Technology Systems
BSC Filters

PCB
A.C. Technology Systems
AEF Solutions
Amphenol
DEM Manufacturing
Deutsch UK
EPCOS UK
Globec (UK)
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Tyco Electronics
Würth Electronics UK

PI
Amphenol
Deutsch UK
Globec (UK)
Sabritec Europe
Spectrum Control
Syfer Technology

Pin
AEF Solutions
Amphenol
Deutsch UK
Globec (UK)
Oxley Developments Company
Sabritec Europe
Spectrum Control

Power Entry Modules
Tyco Electronics

Power Line
AEF Solutions
Amphenol
DEM Manufacturing
Deutsch UK
EPCOS UK
ETS-Lindgren
Globec (UK)
MPE
Oxley Developments Company
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Würth Electronics UK

R.F. Lowpass
Amphenol
BSC Filters
Deutsch UK
ETS-Lindgren
Globec (UK)
Murata Electronics (UK)
Sabritec Europe
Spectrum Control
Syfer Technology
Würth Electronics UK

R.F. Bandpass
BSC Filters
Murata Electronics (UK)

Spectrum Control
Würth Electronics UK

R.F. Tunable Bandpass
Würth Electronics UK

Resonator
BSC Filters
Globec (UK)
Murata Electronics (UK)
Spectrum Control

Semi-Custom Design
Amphenol
DEM Manufacturing
Deutsch UK
Sabritec Europe
Schaffner
Würth Electronics UK

Shielded Room
A.C. Technology Systems
DEM Manufacturing
ETS-Lindgren
MPE
Würth Electronics UK

Signal Line
AEF Solutions
Amphenol
DEM Manufacturing
Deutsch UK
ETS-Lindgren
Globec (UK)
MPE
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe
Spectrum Control
Syfer Technology
Tyco Electronics
Würth Electronics UK

Single Phase
DEM Manufacturing
EPCOS UK
ETS-Lindgren
Schaffner
Tyco Electronics

SMPS
A.C. Technology Systems
EPCOS UK
MPE
Murata Electronics (UK)
Sabritec Europe
Schaffner
Spectrum Control
Syfer Technology
Würth Electronics UK

Surface Mount
AEF Solutions
Amphenol
BSC Filters
Deutsch UK
Globec (UK)
Murata Electronics (UK)
Oxley Developments Company
Sabritec Europe

Spectrum Control
Syfer Technology
Würth Electronics UK

Switched

BSC Filters
DEM Manufacturing
EPCOS UK
Schaffner
Spectrum Control
Würth Electronics UK

Tempest

Amphenol
ETS-Lindgren
Globec (UK)
MPE
Sabritec Europe
Spectrum Control

Three Phase

DEM Manufacturing
EPCOS UK
ETS-Lindgren
Schaffner
Tyco Electronics

Transformers

Würth Electronics UK

Varistor

AEF Solutions
Amphenol
DEM Manufacturing
Deutsch UK
Murata Electronics (UK)
Sabritec Europe
Spectrum Control
Syfer Technology
Würth Electronics UK

Quick Contact Finder

If you require more information, leaflets, brochures or catalogues, simply send an email or phone the company of your choice.

Company	Email	Telephone Number	Page No.
A.C. Technology Systems Ltd	filipps@msn.com	+44 (0)1285 657756	7
AEF Solutions	paull@aefolutions.com	+44 (0)23 8045 5411	8
Amphenol	perryvandepeer@amphenol.co.uk	+44 (0)1227 773200	9
BSC Filters Ltd	sales@bscfilters.com	+44 (0)1904 438438	10
DEM Manufacturing Ltd	marketing@dem-uk.com	+44 (0)1724 273200	11
Deutsch UK	filters@deutsch.net	+44 (0)1424 852721	12
EPCOS UK LTD	sales.uk@epcos.com	+44 (0)1344 381537	13
ETS-Lindgren	mary.watson@ets-lindgren.com	+44 (0)1438 730700	14
Globec (UK) Ltd	ianh@globec.co.uk	+44 (0)1793 780790	15
ITT Electronic Components	david.impett@uk.itt.com	+44 (0)1256 311200	16
MPE Ltd	sales@mpe.co.uk	+44 (0)151 632 9100	17
Murata Electronics (UK) Ltd	enquiry@murata.co.uk	+44 (0)1252 811666	18
Oxley Developments Company Ltd	sales@oxley.co.uk	+44 (0)1229 483226	19
Sabritec Europe	bhenderson@sabritec.com	+44 (0)20 8450 8033	20
Schaffner Ltd	uksales@schaffner.com	+44 (0)118 977 0070	21
Spectrum Control GmbH	sales@midascomponents.co.uk	+44 (0)1493 602602	22
Spectrum Control GmbH (Germany)	baeumler@spectrumcontrol.com	+49 9122 7950	22
Syfer Technology	sales@syfer.co.uk	+44 (0)1603 723300	23
Tyco Electronics UK Ltd	picuk@tycoelectronics.com	+44 (0)800 267 666	24
Würth Electronics UK Ltd	sales-uk@we-online.com	+44 (0)161 872 0431	IBC+OBC

A. C. Technology Systems Ltd

Looe
Cornwall

Tel: +44 (0)1285 657756
Fax: +44 (0)1285 652362
Email (main): filipps@msn.com

Company Profile

Specialist supplier of hard to find and obsolete filter products.

Founded in 1998 to assist companies in securing effective solutions to their EMC filtering issues, A C Technology Systems Ltd has now developed a reputation for fast track problem solving in this sector.

The company has a global range of resources enabling comprehensive supply of a broad array of filters and systems. Working closely with key specifiers, A C Technology Systems Ltd has developed a proven competence to meet the demanding standards required to achieve performance and quality objectives in signal, power and control environments. NATO codified devices are offered as are ruggedised units for use in hostile environments.

The core strength of the business is sourcing replacement filter technology against historic part numbers which may have become obsolete. Such devices include high performance ceramic and plastic film capacitor element constructions in a selection of filter configurations, the development criteria being set by the parameters of the original device or that of the design authority. Recognising the need to secure rapid solutions the company has created a fast track channel for processing urgent requirements.

In addition to these services the company has an extensive data library with archive information, from which data sheets or technical schematics may be supplied to confirm performance characteristics and operational parameters.



Overview of our Capabilities

Catalogues or Brochures

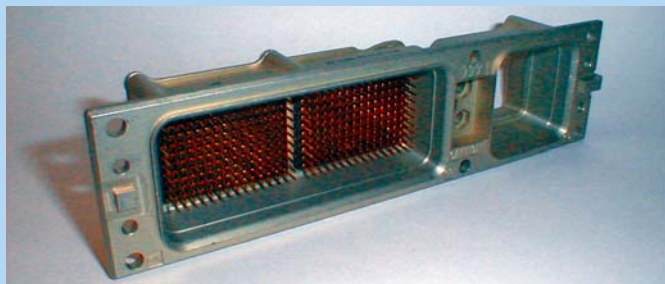
Archive Data Sheets

Filters Supplied:

Capacitors
Custom Design
Feedthrough

Discrete
Mains
Nato Codified
Obsolete
PCB
Shielded Room
SMPS

A C Technology Systems Ltd
Popes Building, 1 Fore Street
East Looe
Cornwall
PL13 1HH



ARINC Rack and Panel Connectors

All Variants available, 400, 404, 600 etc. All contacts can be filtered to with "C", "L", "T", Pi, or any combinations, together with Transient Voltage and Lightning Suppression to DO 160 section 22 levels 1,2,3,4



All series of Mil-C-38999, 26482, 26500, , 83723, 5015

All Variants available,. All contacts can be filtered to with "C", "L", "T", Pi, or any combinations, together with Transient Voltage and Lightning Suppression to DO 160 section 22 levels 1,2,3,4

D-Sub, Combo-D-Sub , Power D-Sub and D-sub adapters

See our full and comprehensive range of filter D-sub Connectors, ALL filtered within the standard shell, Including Pi Filters. Mixed filtering any filter combination on any contact. For our power and combo D-subs, Our unique technology allows us to filter these ranges up to very High Capacitance Values and still keep within the standard shell, Almost all layouts can be supplied, 3W3, 9W4, 13W3, 13W6,25W3, Etc up to full size #8 (40 amp) contacts.

Member: **emcia**

Application Notes:

Fighter Aircraft
 Military Man Pack Radio
 ARINC for Commerical Avionics
 LAN
 Pi Filter D-Sub Telecom Base Station

Catalogues or Brochures:

D-Sub Filter
 Filter Data

Filters Manufactured or Supplied:

Automotive
 Connector
 Control Line
 Custom Design
 Data Line
 Discrete
 Feedthrough
 Mains
 Miniature Ceramic
 PCB
 Pin
 Power Line
 Signal Line
 Surface Mount
 Varistor

AEF Solutions

Unit 34, Mitchell Point
 Ensign Way
 Hamble
 Southampton
 Hants
 SO31 4RF

Other Location:

Unit 46 Lakesview Inter-
 national Business Park
 Hersden,
 Nr Canterbury
 Kent

AEF Solutions

Southampton

Hants

Tel: +44 (0)23 8045 5411
Fax: +44 (0)23 8045 5022
Email (main): paul@aefsolutions.com
URL: www.aefsolutions.com

Company Profile

Advanced Electronic Filters

The company is structured to maximise the impact of its core strengths in Technology, Applications, Marketing and Sales. Together with our in-house SMD manufacturing facilities we are able to give our customers unparalleled technology solutions and service.

AEF Solutions provide **Filters** for Electro Magnetic Interference (EMC, EMI, RFI,) and Transient Voltage Absorbers, for Transient Voltage Suppression (TVS) including lightning protection. These products can be provided within standard connector shells or in the form of discreet modules. We supply product to the Military, Military Aerospace, Commercial Avionics, Telecomm, Datacom and Industrial markets throughout North America, Europe, Middle East & Asia.

AEF Solutions have a unique patented technology offering the finest protection against ESD, EMP, voltage transients and lightning strike. AEF's Manufacturing techniques offer unrivalled competitive products in a fraction of the standard industry lead times.

Until now, the most common approach to EMC filtration has been through costly standard filter connectors. The connector industry is typically based on mechanical engineering practices, At AEF, however, the approach is different and begins with electronic considerations. Employing the world's leading EMC specialists allows our patented filter solutions to be formed from sound and cost-effective electronic design principles rather than products founded on outdated components.

Amphenol Ltd

Whitstable

Kent

Tel: +44 (0)1227 773200
Fax: +44 (0)1227 276571
Email (main): perryvandeppeer@amphenol.co.uk
URL: www.amphenol.co.uk

Company Profile

Amphenol is one of the largest manufacturers of interconnect products in the world. The Company designs, manufactures and markets electrical and fibre optic connectors, interconnect systems and coaxial and flat ribbon cable. The primary end markets for our products are aerospace, military, industrial, automotive, mass transportation, telecom, datacom and computer applications.

Amphenol® EMI/EMP Protection Connectors offer the versatility of standard connectors with EMI/EMP protection for sensitive circuits. The internal housing of the EMI/EMP devices eliminates costly and bulky exterior discrete protection devices.

The connectors can be supplied with the following filter technologies:

- Discrete chip
- Tubular
- Discoidal
- Planar solutions

We can also provide a variety of filter circuits including C, L, T or Pi.

Virtually all major cylindrical connectors can be incorporated with filter devices, including:

- MIL-DTL-38999
- MIL-DTL-5015
- MIL-C-26482
- MIL-C-27599
- MIL-DTL-83723
- MIL-C-26500
- JN, CECC, EN, PANAVIA

We also supply filtered versions of application specific products as well as custom and integrated system solutions.

Amphenol offers filter connectors that include:

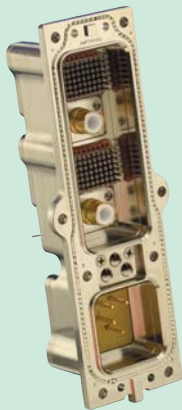
- EMP protection using diodes
- EMP protection utilizing metal oxide varistors (MOV's)
- Filtered plug connectors
- Filtered hermetic connectors
- Programmable filtered connectors with rear insertion/removal crimp contacts
- Filter connectors with ESD protection
- Combinations of filtering devices within one connector package.

There are also many rectangular filter connectors that are offered by Amphenol which include:

- MIL-DTL-24308 D-Sub
- MIL-DTL-83513 Micro D
- ARINC 404/600
- DOD-83527 Rack and Panel
- MIL-DTL-83733 Rack and Panel



Circular Filter Connectors



ARINC 600 Connector

Member of:
SBAC, SC21

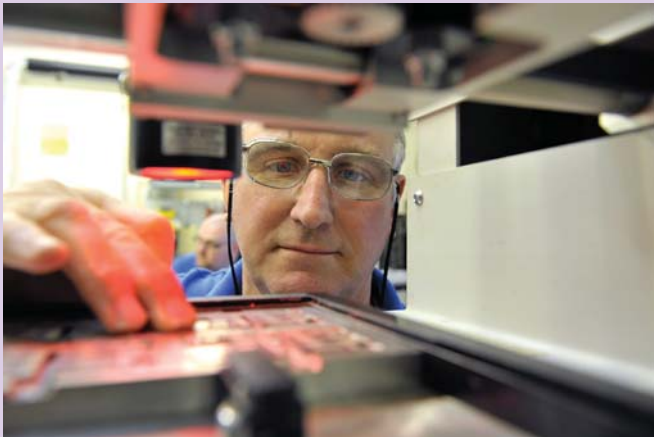
Application Notes:
General Design Guideline for EMI
Filters and/or TVS (Transient
Voltage Suppression) Connectors
L-1146.

Catalogues or Brochures:
Full range of catalogues is available
on the website or by request.

**Filters Manufactured or
Supplied:**
Antenna
Arrays
Bulkhead
Connector

Custom Design
Dataline
Discrete
Feedthrough
Mains
Medical
Military
Miniature Ceramic
NATO Codified
PCB
PI
Pin
Power Line
R.F. Lowpass
Semi-Custom Design
Signal Line
Surface Mount
Tempest
Varistor

Amphenol Ltd
Thanet Way
Whitstable
Kent
CT5 3JF



BSC Filters Ltd

York

Tel: +44 (0)1904 438438
Fax: +44 (0)1904 438123
Email (Main): sales@bscfilters.com
URL: www.bscfilters.com

Company Profile

BSC Filters is a world leader in microwave and RF filter technology having established a reputation for delivering high quality products through innovative design and excellent engineering. The company has been successfully operating for more than 20 years, servicing the international defence, commercial and aerospace industries from its headquarters in York, UK.

BSC Filters is now one of Europe's leading providers of microwave components and has a global blue chip customer base that is managed through a direct sales force and an extensive network of technically competent specialist agents.

The company currently supplies the core microwave and RF markets, partnering in military surveillance, space and astronomy, radar and electronic warfare, electronic countermeasures (ECM) and satellite communications. In the Commercial & Industrial markets, it provides solutions for radar, radio cameras, millimetre wave radio, broadcast and satellite communications.

Whether looking for one off prototypes for research or high volume supplies, BSC Filters works up to 94GHz and specialises in diplexers, waveguide and coaxial passive components as well as interdigital, combline, cavity, lumped element and microstrip devices.

Today, the company maintains its strong engineering heritage with all work designed, managed and manufactured at its York headquarters. The company aims to further develop its brand and grow its market leading position by continuing to deliver high quality components and service through innovative design and excellent engineering.

Catalogues or Brochures:

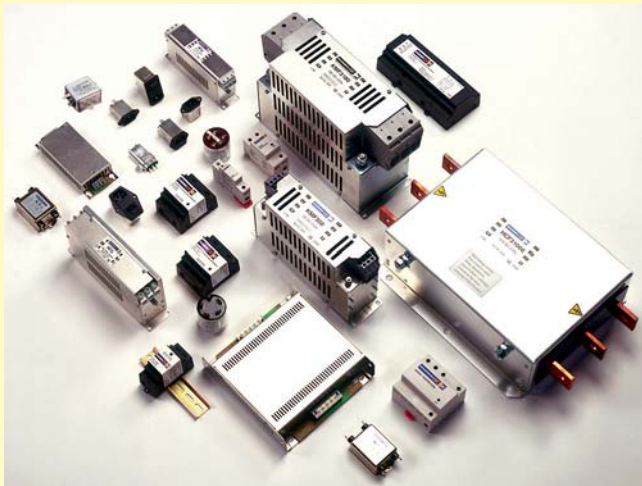
Sales Brochure

Filters Manufactured or Supplied:

Absorptive
 Cavity
 Custom Design
 Discrete
 Duplexer
 Helical

Microwave
 Military
 Miniature Ceramic
 NATO Codified
 Obsolete
 R.F. Lowpass
 R.F. Bandpass
 Resonator
 Surface Mount
 Switched

BSC Filters Ltd
Jorvik House
Outgang Lane
Osbaldwick
York
YO19 5UP



A selection of Filters and Surge Protection Devices from the Roxburgh EMC Range



Series D Harmonic Filters

Member: **emcia**

Application Notes:

EMC
Harmonics

Catalogues or Brochures:

EMC Filters and Components
KMF Three Phase Industrial Filters
Harmonic Filters and Line/Load Reactors
MTE Power Quality Products
High Current Filters

Filters Manufactured or Supplied:

Automotive

Chokes
Coils
Custom Design
Discrete
Drives (Specific)
Inlet
Mains
Medical
Military
Multi-Phase
PCB
Power Line
Semi-Custom Design
Shielded Room
Signal Line
Single Phase
Switched
Three Phase
Varistor

DEM Manufacturing Ltd
Deltron Emcon House
Hargreaves Way
Sawcliffe Industrial Park
Scunthorpe
North Lincolnshire

DN15 8RF

Other Locations:
CCS Electronics
Runcorn, Cheshire

DEM Manufacturing Ltd



Scunthorpe

North Lincolnshire

Tel: +44 (0)1724 273200
Fax: +44 (0)1724 280353
Email (Main): marketing@dem-uk.com
URL: www.dem-uk.com

Company Profile

DEM Manufacturing is the U.K.'s leading manufacturer of EMI/RFI filters (branded **Roxburgh EMC**). Standard industrial style filters include **single and three-phase** from 1 Amp to 1600 Amp. The Roxburgh EMC range also includes equipment style filters i.e. **chassis, IEC inlet and PCB mounted**, and, a wide range of EMC components and chokes for use within electronic equipment. All filters are designed and tested to meet Directive 2006/95/EC and UL1283 product safety standards. Approvals held: UL, CSA, VDE etc.

Custom Design - For over 40 years, DEM Manufacturing has been designing and manufacturing **cost-effective custom solutions** for some of the world's leading OEM's. Typical industries include automation, machine tools, HVAC and gensets. DEM also offer a range of RFI screened **aluminium enclosures**, machined and finished to customer specifications

Roxburgh Military EMC Filters – designed to meet both Military and Defence standards MIL461E and DEF59-41 respectively.

Power Quality Products - DEM Manufacturing is the exclusive European distributor for the MTE product portfolio, whose products include Harmonic filters, Sine wave filters, line/load reactors, dv/dt filters and DC link chokes.

The MTE **Harmonic Filters** outperform both 12 and 18 pulse drives, reduce total harmonic distortion at all loads, and require less investigation and virtually no commissioning. Their performance is guaranteed. Available from 200-600Vac both 50 and 60Hz.

Sine Wave Filters – Provide sine wave output voltage from PWM inverters for switching speeds of 2-8Khz and enable the use of very long cable runs up to 5000m prolonging a motors life and eliminate motor insulation failures.

EMC, Climatic and Harmonic Testing

As a necessary part of the DEM compliance service, our laboratories and test sites are fitted out comprehensively. Conducted and radiated emissions testing is carried out in order to validate the actual performance of systems under strict Test House conditions for TCF construction and EMC type approval. In addition, we also offer on-site evaluation for customers who are unable to bring their equipment to our facilities.

CSA22.2 No.8 climatic testing is performed within our onsite test and conditioning facility.

DEM Manufacturing offers **harmonics distortion testing** for manufacturers and processors required to meet G5/4 Recommendations for power quality. The on-site test provides a measurement of the harmonic distortion level on systems d•2000A.

DEM Manufacturing (formerly Deltron Emcon) manufacture under four brands: bes, Deltron Components, Media and Roxburgh EMC. DEM are part of Alpha 3 Manufacturing Limited, which also incorporates electro-mechanical sub-contract manufacturers CCS Electronics and CTL Manufacturing.



DEUTSCH

St Leonards on Sea

East Sussex

Tel: +44 (0)1424 852721
Fax: +44 (0)1424 851726
Email (Main): filters@deutsch.net
URL: www.deutsch.net

Company Profile

Deutsch is an industry leader in the design and manufacture of filter connectors for harsh environment applications. We specialise in EMI and Transient Protection in a wide range of circular (e.g. 38999, 26482, 83723 etc) and rectangular (e.g. Arinc 600) connectors, recognising industry standards such as RTCA/DO160.

Deutsch employs many technologies in our products.

- **EMI filtering.** Deutsch typically utilise Planar Capacitor Arrays housed within the connector. These provide superior capability, performance and reliability, and are often the most economical way to filter. Occasionally, Deutsch uses SMT chip's mounted on PCB or Flex technology within the connector.
- **Transient protection.** Here, we typically utilise TVS diodes, which are well suited for high Energy pulses. Multi-Layer Varistors are also increasingly being used, particularly for signal lines.

Innovation is important to Deutsch, and we have many exciting new products planned for 2010. Some of our most successful flagship products are;

EvoMax™

Deutsch EvoMax™ utilise the latest Lean techniques from specification through to delivery of MIL-DTL-38999 Series III filter connectors. They offer reduced lead-times, NRE and cost, whilst still allowing customers to specify a custom product, in terms of both electrical and mechanical characteristics.

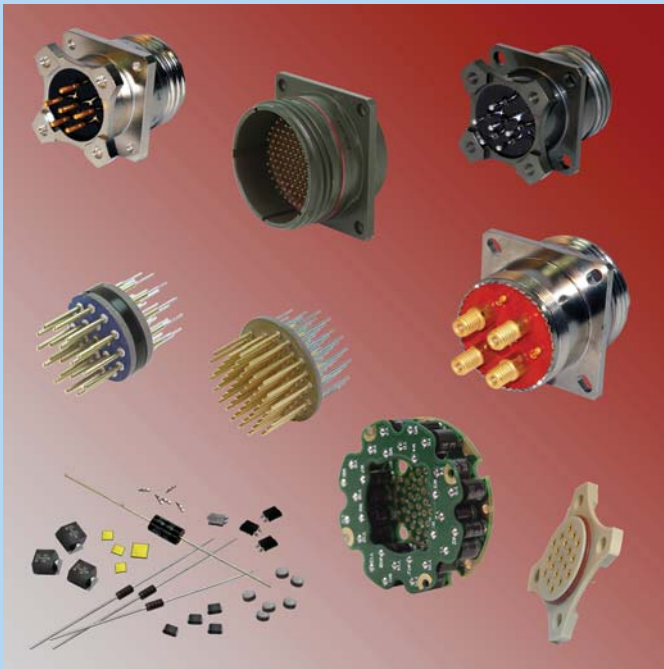
EvoPort™

A recent Deutsch innovation to overcome the difficulties in mounting filter connectors on mixed technology (SMT and PTH) PCB's.

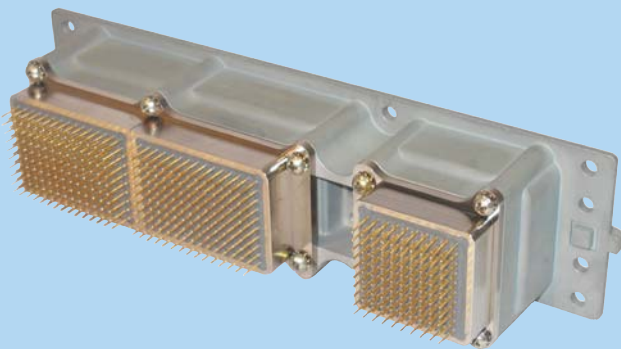
Composite shell filters

By utilising advanced design techniques, Deutsch Composite products have a filter performance comparable to their metal shell equivalents.

Many other technology innovations are available and we are constantly developing more. To learn more, please contact us.



A selection of our filter products including Composite, High Power, EvoMax™ EvoPort™ EMI, Transient Protection



Filtered Arinc 600 connector

Application Notes:

Filter connector design guide
Transient protection rating charts

Catalogues :

Filter Brochure
EvoMax™ Brochure
EvoPort™ Brochure

Filters Manufactured or Supplied:

Arrays
Bulkhead

Connector
Custom design
Feedthrough
Military
PCB
PI
Pin
Power Line
R.F. Lowpass
Semi-Custom design
Signal Line
Surface Mount
Varistor

Deutsch UK
Stanier Road
St Leonards on Sea
East Sussex
TN38 9RF



EPCOS Sine Wave Filter R227



EPCOS
EPCOS UK LTD

Bracknell
Berkshire

Tel: +44 (0)1344 381537
Fax: +44 (0)1344 381511
Email (Main): sales.uk@epcos.com
URL: www.epcos.com
www.sineformer.com

Company Profile

EPCOS is well known as a manufacturer of standard EMC Filters for all kinds of SMPS and Frequency Converter applications.

EPCOS extended its product range for frequency converters with its new sine wave filters of the B84143V*R227 series. This means that in addition to the familiar EMC input filters, sine wave filters are also available for the output or motor side of the frequency converter.

Sine wave filters can attenuate the high-frequency pulses of the frequency converter to allow interference-free operation even in the case of longer motor cables.

The most important features:

- Motor cables possible with lengths of more than 100 m
- Reduction of motor noise and eddy current losses
- Possible reduction of the rating of the EMC input filter
- Up to 40 percent narrower than previous sine wave filter solutions
- Currents range from 4 to 320 A
- Voltages 520 V or 690 V
- Permissible switching frequencies from 1.8 to 16 kHz

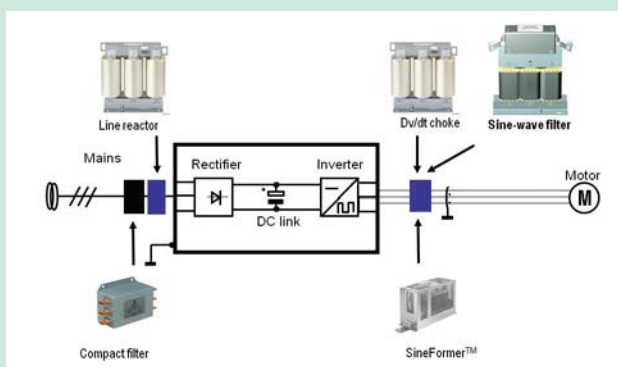
These filters are typically needed by industrial customers who use frequency converters with long motor cables. Their typical applications include pumps, drilling applications and cranes, as well as general manufacturing and conveyor installations.

These sine wave filters are available from the Szombathely works in Hungary. A safety stock for all types is being built up.

Further products that complement the range of filters on the output side of the frequency converter will be introduced in 2010. They include:

- dv/dt filters
- dv/dt chokes

Where it is also desirable to dispense with shielded motor cables, it is recommended to use the B84143V*R127 filter series with SineFormer® technology.



Filtering Concepts for Frequency Converters

Application Notes:

For more information please refer to:
www.sineformer.com
www.epcos.com

Catalogues or Brochures:

EMC Filters (Main Catalogue)
EMC Filters (Product Profiles)
Product Specific Data Sheets
Filters for Shielded Rooms
Electronic Parts & Components

Filters Manufactured or Supplied:

Chokes
Custom Design
Drives (Specific)
Feedthrough
Inlet
Mains
Medical
PCB
Power Line
Single Phase
SMPS
Switched
Three Phase

EPCOS UK Ltd
Summit House
London Road
Bracknell
Berkshire
RG12 2XH



ETS-Lindgren European Filter Range



ETS-Lindgren Modular Telephone Systems in Production

Member: **emcia**

Application Notes:

Filter Replacement
RFI Interference Filters

Catalogues or Brochures:

Filters & EMPP Systems
Product Guide
Individual Data Sheets
CD Data Sheets

Filters Manufactured or Supplied:

Capacitors

Control Line
Custom Design
Data Line
Discrete
Feedthrough
Mains
Medical
NATO Codified
Power Line
R.F. Lowpass
Shielded Room
Signal Line
Single Phase
Tempest
Three Phase

ETS-Lindgren Ltd
Unit 4, Eastman Way
Pin Green Industrial Area
Stevenage
Herts
SG14UH

ETS-Lindgren

Stevenage

Herts

Tel: +44 (0)1438 730700
Fax: +44 (0)1438 730750
Email (Main): mary.watson@ets-lindgren.com
URL: www.ets-lindgren.com

Other Emails: malcolm.charsley@ets-lindgren.com

Company Profile

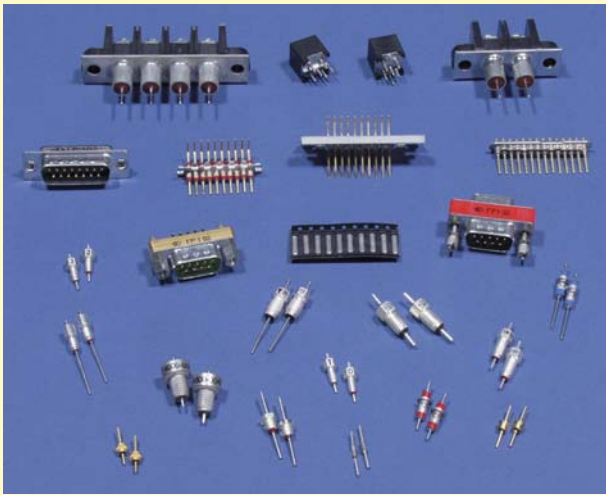
ETS-Lindgren today is established as the worlds leading supplier of EMI/RFI/EMC Test & Measurement facilities and equipment. ETS-Lindgren, Stevenage is the UK manufacturing facility for RF Shielded Enclosures, Anechoic Chambers and RF Filters.

The Company's RF Filters and EMPP systems are the latest developments of the original Belling Lee Intec range and are manufactured to the highest quality standards in our modern purpose built ISO9000 accredited facility using the latest CAD/CAM techniques.

Power, Control, Telephone, Data and MRI Medical Filters as well as Feedthrough Capacitors are all manufactured and designed at Stevenage. In addition we can supply complimentary ranges of filters, which are UL Approved, from our sister company in the USA.

Discrete, Bucking Coil and Low Leakage circuit technologies are employed to give an extensive range of Standard Products for most applications and are measured in accordance with MIL-STD220A. Requirements outside of this can be satisfied by custom designs utilizing our extensive experience in high voltage and current circuitry, high volume signal, data and control applications and situations where there are special environmental or exacting size restrictions. We are also able to make reference to a large archive of past special projects and the vast majority of our filters are NATO codified.

Our customers include Government, Defence, Medical, Telecommunications and Industrial organisations both at home and overseas with whom we have worked continuously over the last 40 years to give a high level of service and satisfaction.



EMI/RFI Filtering Products & Solutions



Coaxial Lightning/Surge Protector Modules

Application Notes:

Estimating the Effect of Lightning on Antennas
GDT Technology Maintenance

Catalogues or Brochures:

4000 – EMI/RFI Filters
4700 – Surface Mount Filters
7000 – Quick Connect Filter Assemblies
7600 – Filtered Terminal Blocks
SurgeGuard – Coaxial Lightning Protectors
High Current DC Feed-through Filters
NT005 Series – PCB Mount Line Filters
Filter Connectors

Filters Manufactured or Supplied:

Antenna

Arrays
Bulkhead
Capacitors
Connector
Control Line
Custom Design
Data Line
Discrete
Feed-through
Mains
Microwave
Military
Miniature Ceramic
PCB
PI
Pin
Power Line
Resonator
RF Low-pass
Signal Line
Surface Mount
Tempest

Globec (UK) Limited
Unit 15 Shrivenham Hundred Business Park
Watchfield
Oxon
SN6 8TZ

Globec (UK) Limited

Watchfield Oxon

Tel: +44 (0)1793 780790
Fax: +44 (0)1793 780776
Email (Main): ianh@globec.co.uk
URL: www.globec.co.uk

Other Emails: sales@globec.co.uk

Company Profile

Since 1992, **Globec (UK)** has been a specialist supplier of EMC Filtering and Lightning Suppression Components to major OEM's and their subcontractors in the UK and Ireland.

As the sole UK agent and stocking distributor for leading manufacturers, Globec offers a unique technical support capability to RF/EMC designer engineers. Our **ISO9001:2000** Approved Quality System delivers first-class service and supplies to customers in telecoms, RF & microwave, industrial process control, instrumentation, medical, defence and avionics industrial sectors. Globec proudly represent;

Tusonix Inc – one of the world's largest and most established manufacturers of ceramic-based filters since 1969. Tusonix provide an extensive range of filtering products – www.tusonix.com

- EMI/RFI Filters – bushing, solder, PCB or SMD mounting styles – 5pF to 1.4uF – upto 1000Vdc and 25A – Pi, C and L section
- Filter Assemblies – Standard, Quick-Connect or Custom formats
- Filtered Terminal Blocks – Industry standard terminals with incorporated filtering

Nextek Inc – a leading designer and manufacturer of coaxial type protectors with one of the widest technology and product offerings in the industry – www.nexteklightning.com

- High Current DC Feed-through Filters – 50Adc to 250Adc – 50V to 500V – upto 22uF capacitance
- PCB Line Filters upto 15Adc
- Coaxial Lightning Protectors incorporating Gas Discharge Tube (GDT) or Quarter Wave Stub (QWS) technology – available in all common RF connector styles

Deltron AG – a leading manufacturer of filtered D-Sub Connectors using both planar array and tubular technology – www.deltron.ch

- EMI/RFI Filtered D-Subminiature Connectors – Planar and Tubular technology – 100pF to 6800pF – 9 to 50-way plug and socket types – Pi and C section

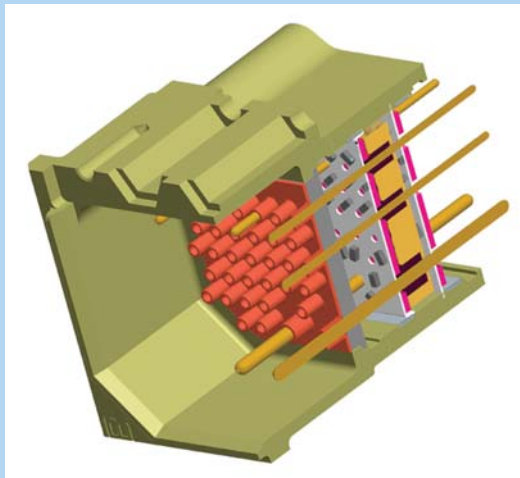
ITT Electronic Components

Basingstoke Hants

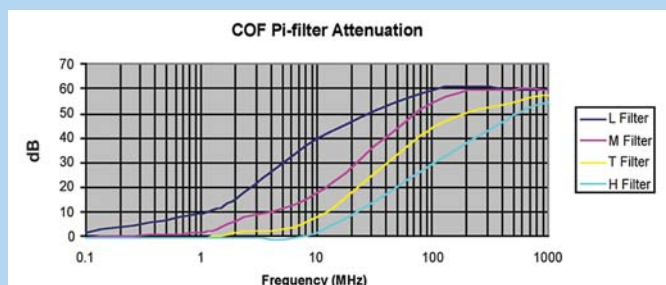
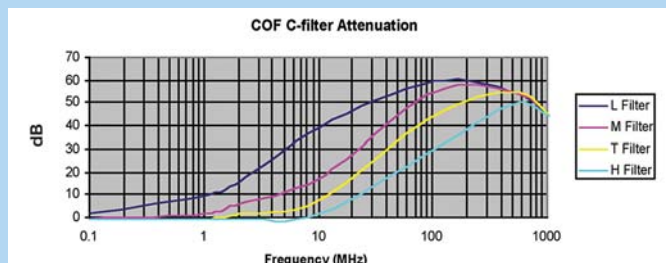
Tel: +44 (0)1256 311200
Fax: +44 (0)1256 332214
Email (Main): david.impett@uk.itt.com
URL: www.ittcannon.com



Chip on Flex (CoF) filter connector technology



ITT's Chip-on-Flex Technology construction



Filters Manufactured or Supplied:
Connector
Military

ITT Electronic Components
Jays Close
Viabes Industrial Estate
Basingstoke
Hants
RG22 4BA

Company Profile

ITT's new Cannon Chip on Flex (CoF) filter technology virtually eliminates all stress from thermal shock and vibration while providing superior protection to sensitive electronics in a new lighter weight package. In MIL-DTL-38999 configurations, the CoF connectors have passed MIL-DTL-38999 Series III testing for thermal shock, random vibration, humidity and high altitude. The filter connectors are ideal for high reliability military, aerospace and industrial applications including integrated avionics, radio and navigation systems, fire control devices, electronic counter measures, satellite communications and data transmitters.

Chip on Flex filter connectors are just a small part of ITT's Cannon range of military connectors. Also included in the company's military product portfolio are: Micro D connectors; PT Pattern 105 circulars; POGO and Breakaway sprung pin contacts in small round and rectangular formats; composite and standard 38999 devices; Quadrax contacts for Ethernet applications in MIL-DTL-38999 and ARINC configurations; N2 gas line connectors; RF 50Ω connectors and cables; nano miniature connectors; ARINC connectors; and STANAG equivalent devices.

Cannon's CoF design replaces the internal and traditional ceramic planar array block capacitors with a state-of-the-art flexible circuit where individual chip capacitors are surface mounted on a pad adjacent to the feed thru contact. Since the feed through contacts are not soldered directly to the capacitor, thermal stress points that impact performance in thermal shock and vibration have been virtually eliminated.

The result is a very robust filter connector with superior mechanical performance and improved reliability. In addition, because the flex is significantly lighter in weight, a connector weight reduction of up to 15% is achieved for the MIL-DTL-38999 configurations.



Examples of the new range of compact, high-performance, multi-line, feedthrough capacitor units which enable quick, simple mounting to equipment systems or installation within military vehicles to provide an effective EMI solution.



Cutaway example of the pioneering range of HEMP filters, specifically designed to meet Mil Std 188-125.

MPE have a wide range of Filter solutions for the protection against the effects of EMP, NEMP, LEMP & TEMPEST

MPE

Liverpool Merseyside

Tel: +44 (0)151 632 9100
Fax: +44 (0)151 632 9112
Email (Main): sales@mpe.co.uk
URL: www.mpe.co.uk

Company Profile

MPE have a proven heritage of design, development and manufacture of high performance EMC / RFI Filters & Capacitors, and are the first choice for companies who require the most cost effective emc solution, quality products and technical support.

MPE's unrivalled capability and experience of many defence, telecoms, industrial and commercial applications worldwide, enables MPE to supply filter & capacitor solutions to satisfy the most exacting customer requirements from Military Vehicle & Equipment applications, IT Servers and Telecoms Base Stations to EMP, NEMP, LEMP, HEMP, & TEMPEST commercial & military installations.

MPE'S comprehensive standard product range includes high performance feedthrough capacitors to high current power, telephone, data & control line filters with wide frequency spectrum characteristics in a choice of enclosure styles.

In addition, MPE'S Engineering department can offer a rapid prototyping service by utilising in-house specialist test equipment, the dual chamber screened room, proprietary capacitor and filter software, & draw from an accumulated portfolio of over 20,000 custom product designs in an effort to provide the optimum solution.

Member: **emcia**

Application Notes:

Suppression Components & the EMC Directive
 Suppression Components & the Low Voltage Directive
 The Selection of Filters for use on Signal/Data Lines

Catalogues or Brochures:

Power Line, Telephone & Data Line Filters
 Control Line Filters
 High Performance Equipment Filters
 Feedthrough Suppression Capacitors
 Short Form Catalogue

Filters Manufactured or Supplied:

Capacitors
 Chokes
 Control Line
 Custom Design
 Data Line
 Feedthrough
 Inlet
 Mains
 Military
 Miniature Ceramic
 Multi-Phase
 Power Line
 Shielded Room
 Signal Line
 SMPS
 Tempest

MPE Limited
Hammond Road
Knowsley Industrial Park
Liverpool
Merseyside
L33 7UL



Murata Electronics (UK) Ltd

Fleet Hants

Tel: +44 (0)1252 811666
Fax: +44 (0)1252 811777
Email (Main): enquiry@murata.co.uk
URL: www.murata.eu

Company Profile

Murata Europe is one of 54 wholly owned subsidiaries of the worldwide organisation Murata Manufacturing Co., Ltd of Japan.

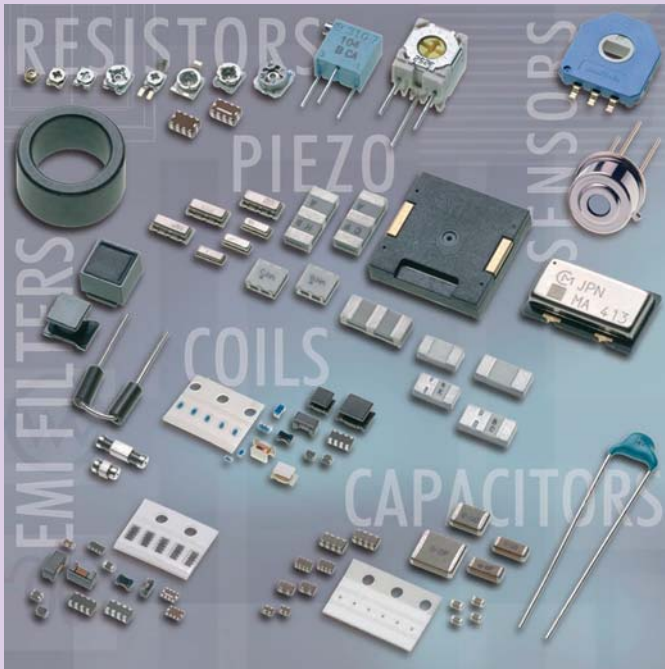
Murata committed itself early to the development of the European market and formally established its European headquarters back in 1981 which is now located in Amsterdam. Murata's office in Fleet, UK supports customers in the UK and Ireland.

From the start, Murata has been committed to providing solutions-oriented, market specific technology that will ensure the success of our customers, our employees and the global community we serve.

Murata now provides a broad spectrum of diverse components that utilise the unique electrical properties of ceramic materials in three major product categories. Murata Manufacturing Group annually invests 7-8% of sales to R&D, in order to maintain our consistently high commitment to quality and innovation. We will continue to evolve strategies for future development to meet the requirements of our target markets that include telecommunications, Data Processing and automotive.

Our state-of-the-art material processes and advanced automated manufacturing systems enable us to manufacture large volumes of technologically advanced products while meeting high quality standards. Our major affiliates work to ISO9002-approved quality management standards and the company strives to provide passive components of the continuously improving quality.

Additionally, we will aggressively explore new frontiers in the development of advanced electronic materials. Murata Manufacturing Group is an **Innovator in Electronics** today, and in the future.



Application Notes:

For more information please go to: www.murata.eu

Catalogues or Brochures:

- SMD/BLOCK Type EMI Suppression Filters EMIFIL®
- EMI Suppression Filters for DC for Automotive
- EMI Suppression Filters (Lead Type EMIFIL®)
- EMI Suppression Filters for AC
- EMI Suppression Filters for Digital Equipment
- EMI Suppression Filters Application Guide
- Ferrite Cores for Noise Suppression

Filters Manufactured or Supplied:

- Antenna
- Arrays
- Automotive
- Capacitors
- Chokes
- Coils
- Connector
- Duplexer
- Feedthrough
- Medical
- Microwave
- Miniature Ceramic
- PCB
- R.F. Lowpass
- R.F. Bandpass
- Resonator
- Signal Line
- SMPS
- Surface Mount
- Varistor

Murata Electronics (UK) Ltd
Oak House, Ancells Road
Ancells Business Park
Fleet
Hants
GU51 2QW



Discrete Filters



Oxley Developments Company Ltd

Ulverston

Cumbria

Tel: +44 (0)1229 483226
Fax: +44 (0)1229 581851
Email (Main): sales@oxley.co.uk
URL: www.oxleygroup.com



Company Profile

Oxley is a leading specialist in the effective suppression of electromagnetic interference and offers a wide range of EMI/RFI filtering solutions. We can advise on the most suitable filter solution for your specific application from our standard product range or alternatively develop a custom filter solution if required.

We have a wide range of chassis mounting filters available. Our extensive range includes solder mounting and threaded (hermetic and non-hermetic) filters – all designed and manufactured to the highest quality.

Our range of RFI filters offers C, LC, Pi, T, 2Pi and 2T section filtering. In addition our surface mounting devices can be supplied taped and reeled where required.

Utilising our design, engineering and manufacturing experience we can offer filter solutions for circular, D-type (including D-sub and micro-D) and Arinc configurations. Providing a unique service with regard to the design and integration of filter connectors we also specialise in specific customer applications.

Our planar capacitor arrays are at the forefront of technology. Extensive in-house ceramic production facilities enable us to supply high quality planar capacitor arrays for most connector plan forms and configurations plus tubular and discoidal capacitors for a total filtering solution.

Our EMI filter range now includes shielded optical windows for screening of internal and external electromagnetic emissions in electronic displays.

Member of:
 NDI, ADS and Electronics
 Yorkshire

Application Notes:
 Engineered Protection
 ODCSM 40617

Catalogues or Brochures:
 Total EMI Filters
 ODCSM 40489

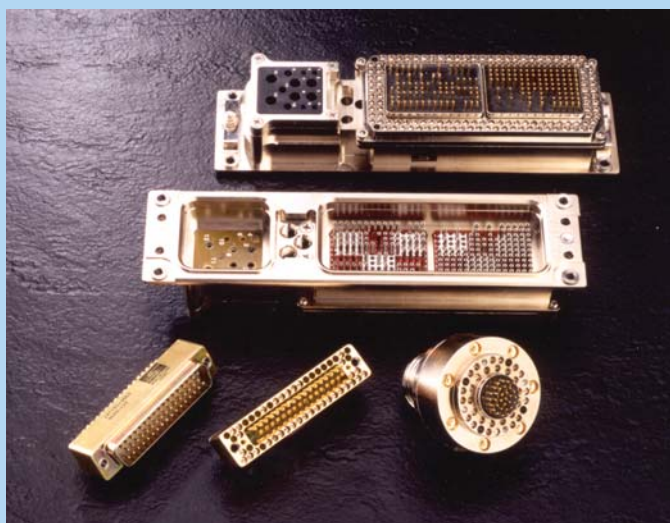
Filters Manufactured or Supplied:
 Arrays

Automotive
 Connector
 Control Line
 Custom Design
 Data Line
 Discrete
 EMI Filter Windows
 Feedthrough
 Miniature Ceramic
 PCB
 Pin
 Power Line
 Signal Line
 Surface Mount

Oxley Developments Company Ltd
Priory Park
Ulverston
Cumbria
LA12 9QG



Military Circular Filtered Connectors and Connector Adaptor



Transient Protected Circular and Rectangular Connectors



London

Tel: +44 (0)20 8450 8033
Fax: +44 (0)20 8452 5142
Email (Main): bhenderson@sabritec.com
URL: www.sabritec.com

Company Profile

Sabritec is a highly vertically integrated engineering and manufacturing company providing special interconnect solutions for military, aerospace, telecom, space, medical and commercial applications. We specialize in filtered and transient protected connector design and manufacture using monolithic multilayer ceramic planar array technology. Our in house ceramic planar array manufacturing capabilities allow us to optimise our designs and performances for the most demanding of requirements and applications, including compliance with the recent RoHS directive. Insertion loss performances in excess of 80dB up to frequencies in excess of 5GHz are available together with transient protection (e.g lightning, EMP, ESD or switching transients) to the various requirements of the popular RTCA DO-160/- and MIL STD 461 specifications amongst others.

Filter styles including "C", "LC", "Pi", "T", "2Pi" and "2T" are available for all applications and mixtures of source and load impedances. Mixed filtering styles and capacitance values, unfiltered contacts and grounded contacts are available within the same connector.

Connector styles that can be filtered include, but are not limited to, Military Circular (e.g. 38999, 26482), Rectangular Rack and Panel (e.g. Arinc 600, 404), D-Sub and Micro D etc. A full range of filtered connector adaptors is also available. Our filtered connectors are intermateable and interchangeable with standard non filtered QPL connectors.

Filtered connectors may also include unfiltered high speed contacts e.g. coax, triax, twinax and quadax..

We provide a complete service from requirement definition and specification generation to qualification, performance verification and test reporting.

Sabritec is a Smith Business.

Application Notes:

Filter Connector Capacitor Comparison.

Catalogues or Brochures:

Shortform
Full Catalogue
CD Rom

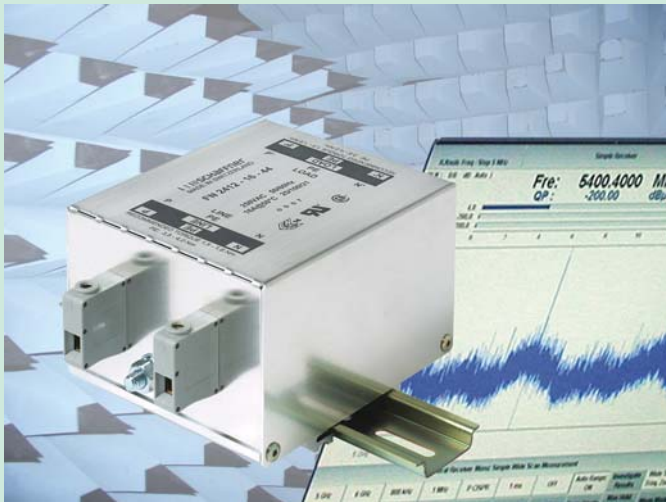
Filters Manufactured or Supplied:

Antenna
Arrays
Automotive
Capacitors
Connector
Control Line

Custom Design

Dataline
Discrete
Feedthrough
Medical
Microwave
Military
PCB
PI
Pin
Power Line
R.F. Lowpass
Semi-Custom Design
Signal Line
SMPS
Surface Mount
Tempest
Varistor

Hypertac/Sabritec Europe
36/38 Waterloo Road
London
NW2 7UH



Industrial 2 phase filters with DIN rail option



Customer Service Centre & UKAS Laboratories

Member: **emcia**

Member of:
EMCTLA

Application Notes Available:

- Line Reactors in Power Electronics
- Motor Drives in Industrial Applications
- Filter Solutions for the Regeneration of Electrical Power
- New Output Filter Concept for Power Drive Systems
- For more see our website

Catalogues or Brochures Available:

- Filters, Chokes & Feedthrough Components (Main Catalogue)
- Components Shortform Catalogue
- Power Quality Brochure
- Product Specific Datasheets

Filters Manufactured or Supplied:

- Automotive
- Chokes
- Custom Design
- Drives (Specific)
- Feedthrough
- Inlet
- Mains
- Medical
- Military
- PCB
- Power Line
- Semi-Custom Design
- Single Phase
- SMPS
- Switched
- Three Phase

Schaffner Ltd
Ashville Way
Molly Millars Lane
Wokingham
Berks
RG41 2PL



Schaffner Ltd

Wokingham
Berks

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Fax: +44 (0)118 979 2969
Email (Main): uksales@schaffner.com
URL: www.schaffner.uk.com

Company Profile

Our business is the development and delivery of highly effective EMC and Power Quality solutions to electrical and electronic equipment manufacturers world-wide. This is our sole focus – and it makes us unique. No other company has the breadth of skills, products and resources or the depth of expertise that we can offer.

Our solutions serve the world-wide electronics community, from the smallest manufacturer seeking type approval for the first time to the multinational requiring technical and logistics support in different continents.

Our products include:

- EMC filters (1 – 4000A, up to 690V)
- Line reactors
- Output filters
- dv/dt filters
- Heatsinks
- Harmonic filters
- Transformers
- Load reactors
- Format: PCB, IEC, chassis, DIN rail etc.
- Ferrites

Our partners include manufacturers large and small from every electrical and electronic sector from commercial equipment to traction, medical to aerospace.

Our manufacturing sites in China, Thailand, Finland, Switzerland and Hungary have embedded development teams capable of providing the appropriate support to our customers: be it low cost or high performance.

Our UK organization provides a range of expertise and resources in support of your design activities, including pre-compliance radiated, immunity and on-site testing.



Spectrum Control

Represented by Midas Components Ltd

Great Yarmouth

Norfolk

Tel: +44 (0)1493 602602
Fax: +44 (0)1493 665111
Email (Main): sales@midascomponents.co.uk
URL: www.specemc.com
 www.midascomponents.co.uk
Other Emails:
Europe: baeumler@spectrumcontrol.com

Company Profile

Spectrum Control GmbH is the European division of Spectrum Control Inc, the largest and long established manufacturer of ceramic-based filters.

The standard product offering includes single line feedthrough capacitors, Pi filters, surface mount devices, plate assemblies, terminal blocks, filtered D-Sub connectors, circular connectors, power line filters, power distribution systems etc. Custom designs, supported by highly experienced sales engineering, design engineering and production teams, allows EMC solutions for military, telecommunications, wireless, industrial or any other application area to be developed in a competitive and timely manner using all capacitor technologies.

All production sites are ISO 9001 qualified and component qualifications include MIL-F-15733, MIL-F-28861, UL, CSA, and where applicable, the European standards for supply mains related components.

By its in-house capability, ranging from the formulation of the ceramic dielectric, screening, pressing or extruding of the capacitor element through to its final incorporation into the filter assembly, quality and reliability are meticulously controlled.

Such attention to detail results in finished product meeting the demanding expectations of an extensive list of industry leaders throughout the world in every industry sector where there is a need for EMC components.

Comprehensive data on all ranges and services is available on line or in hard copy upon request. Technical and sales support is available throughout Europe from a sales team possessing many years of experience in all aspects of EMC.

Application Notes:

An Overview of EMI Filters

Catalogues or Brochures:

EMI Filters and Filtered Interconnects
 Power Products
 Wireless Components

Filters Manufactured or Supplied:

Antenna
 Arrays
 Automotive
 Bulkhead
 Connector
 Control Line
 Custom Design
 Data Line
 Discrete

Feedthrough
 Inlet
 Mains
 Microwave
 Military
 Miniature Ceramic
 Multi-Phase
 PCB
 PI
 Pin
 Power Line
 R.F. Lowpass
 R.F. Bandpass
 Resonator
 Signal Line
 SMPS
 Surface Mount
 Switched
 Tempest
 Varistor

Midas Components Ltd
Electra House
32 Southtown Road
Great Yarmouth
Norfolk
NR31 0DU

Spectrum Control GmbH
Hansastraße 6
91126 Schwabach
Germany
Tel: +49 9122 7950
Fax: +44 9122 79558



Syfer Technology Ltd

NORWICH

Norfolk

Tel: +44 (0)1603 723300

Fax: +44 (0)1603 723301

Email (Main): sales@syfer.co.uk

URL: www.syfer.com

Company Profile

Syfer Technology Limited is a UK company dedicated to the manufacture of EMI filters and multilayer ceramic capacitors. With extensive experience in EMI filter manufacture, we are able to offer a wide range of standard components, and the flexibility to produce custom specials and application specific devices.

Of world class quality, our products are available through a network of UK and European Distributors, backed up by the highest standards of customer service and technical support.

Our comprehensive EMI filter range includes :

- Surface mount pi-filters with capacitance values up to 470nF, current ratings up to 10A, and voltage ratings up to 500Vdc
- 3 terminal EMI chips, in sizes from 0805 to 1806, and current ratings up to 2A
- X2Y integrated passive components for dc motor and balanced line filtering *
- Panel mount feedthrough filters in screw and solder mount options
- Feedthrough varistor EMI filters providing EMI suppression and voltage clamping
- Multiway custom EMI filter assemblies
- Discoidal feedthrough capacitors
- Planar capacitor arrays for filter connectors

Our capacitor range includes safety and surge suppression approved capacitors, high frequency capacitors, high voltage and high temperature capacitors.

Company and product approvals include ISO 9001:2000, ISO 14001, IECQ-CECC, UL, TÜV and AEC-Q200.

*Manufactured in the UK by Syfer Technology Limited under license from X2Y Attenuators LLC



Syfer's extensive Filter Range, including threaded types, solder mount feedthroughs, SMD filters, multiway filter assemblies and planar capacitor arrays for filter connectors



SMD EMI Filters including High Current Pi-filters, 3 Terminal EMI Chips, and X2Y Balanced Line Chips

Application Notes:

1. Advances in EMI Filters.
2. Affordable Transient Protection Filter Connectors with Multilayer Planar Varistor Arrays.
3. Multilayers Ceramic EMI Filters.
4. New Integrated Passive Components (X2Y).

Catalogues/Brochures:

EMI Filter
Hi-Res Products
Capacitors & Filters
EMI Power Filters

Filters Manufactured or Supplied:

Arrays
Automotive
Control Line
Custom Design
Data Line
Discrete
Feedthrough
Mains
Microwave
Military
Miniature Ceramic
PCB
PI
Power Line
R.F. Lowpass
Signal Line
SMPS
Surface Mount
Varistor

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Company Profile

Tyco Electronics Ltd. is a leading global provider of engineered electronic components, network solutions, specialty products and undersea telecommunication systems, with fiscal 2009 sales of US\$10.3 billion to customers in more than 150 countries. We design, manufacture and market products for customers in a broad array of industries including automotive; data communication systems and consumer electronics; telecommunications; aerospace, defence and marine; medical; energy; and lighting. With approximately 7,000 engineers and worldwide manufacturing, sales and customer service capabilities, Tyco Electronics' commitment is our customers' advantage.

The Corcom RFI / EMI filter range from Tyco Electronics encompasses a wide range of power line filters, power entry modules and filtered modular jacks (RJ11 - RJ45) specifically designed to help bring equipment (even those with switching power supplies) into compliance with strict FCC and International emissions standards.

Power Line RFI filter models include standard as well as low-leakage designs for medical specifications. Power Entry Modules include IEC inlet types, with models offering fuse holder, switching, voltage selection and, of course, EMI-RFI filtering with a variety of mounting styles. Corcom Power Line Filters for DC applications are specifically designed for the communications market. Also available are DC rated power entry modules and inlet filters.

Also included in the range, Corcom filtered modular jacks are useful for any electronic equipment that sends or receives data on unshielded twisted pair or other multi-conductor, cabling systems.

Tyco Electronics also offers a wide range of connector solutions, many configured for EMC-sensitive applications.

Corcom, TE (logo) and Tyco Electronics are trademarks of the Tyco Electronics group of companies and its licensors.



The Corcom range of RFI/EMI filters from Tyco Electronics

Catalogues or Brochures:

Corcom Product Guide
 Corcom - RFI Power Line Filters
 Various Product Flyers

Filters Manufactured or Supplied:

Bulkhead
 Control Line
 Data Line
 Facility
 IEC Inlet
 Mains
 Medical
 Military
 Multi-Phase
 PCB
 Power Entry Modules
 Signal Line
 Single Phase
 Three Phase

Tyco Electronics Ltd
Merrion Avenue
Stanmore
Middx
HA7 4RS

Other Locations:
 Tyco Electronics UK Ltd
 Faraday Road, Dorcan
 Swindon
 Wilts
 SN35HH



EMC and Inductive Solutions



Standard and Custom Transformers

Member **emcia**

Catalogues or Brochures:

- Catalogue
- Training-Instruction Book:
- The Trilogy of Inductors
- The ABC of Transformers

Filters Manufactured or Supplied:

- Antenna
- Absorbitive
- Arrays
- Automotive
- Chokes
- Coils
- Connector
- Custom Design
- Data Line

- Discrete
- EE Seal
- Mains
- Medical
- Microwave
- Military
- Minature Ceramic
- PCB
- Power Line
- R.F. Lowpass
- R.F. Bandpass
- R.F. Tunable Bandpass
- Semi Custom Design
- Shielded Room
- Signal Line
- SMPS
- Surface Mount
- Switched
- Transformers
- Varistor

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URL: www.we-online.com

Company Profile

Würth Electronics – More than you expect

Würth Elektronik is a European manufacturer of inductive, EMC and RF components. We have a worldwide presence through our technical sales force and support your product design from concept to manufacture.

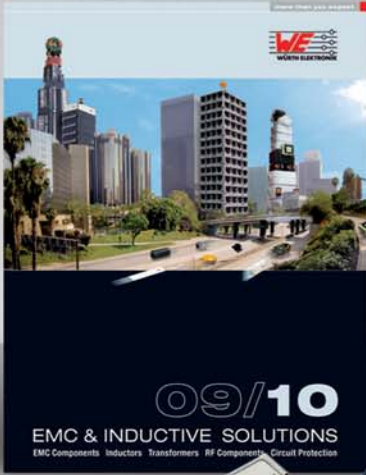
Our product range contains ferrites for cable assembly, SMD ferrites, D-Sub-Filter connectors as well as EMC shielding material. As inductors we offer filter and RF chokes, power chokes and common mode chokes. In the field of RF components we have RF inductors and LTCC components such as baluns and band pass filters.

Würth Elektronik differs in several aspects from all other component manufacturers: We deliver all catalogue products ex stock and our technical sales force can support your designs with good levels of experience and as always samples are supplied free of charge.

We are the only European manufacturer of power inductors which has reference design with IC manufacturers like National Semiconductor, Linear Technology, Texas Instruments, Fairchild Semiconductor, Texas Instruments, ON Semiconductor and ST Microelectronics. Therefore, we have a variety of different design-kits with free refill. We also provide you with helpful practical knowledge for easy and quick EMC-Design with our handbook for EMC engineers: "Trilogy of Inductors".

In Jan 2007 the Würth Elektronik group acquired the company Midcom Inc. Midcom are a manufacturer of custom/standard transformers as well as RJ45 connectors with magnetics for SMPS topologies such as Buck, Boost, Flyback etc. Our facility now offers the world's fastest customized transformer samples shipped from within 24hrs. Norbert Heckmann and Oliver Konz, managing directors of the Würth Electronics eiSos Group said: "This acquisition is an important element in the Würth Electronics long term business strategy. With the motto "More than you expect" Würth Electronics eiSos gained a lot of attention in the area of passive components through dynamic worldwide sales activities and service orientation. We expect through Würth Electronics Midcom, the new name of the company, a push in US sales activities through the strong existing brand recognition. With this acquisition we secured expertise in development and production of transformers as well as the necessary production capacities for future growth. While Midcom previously primarily focused on key accounts, we will expand products availability to our broad customer base without compromising service and availability, for which we are know for. At the same time our Chinese manufacturing facilities remain focused toward the production of customer specific solutions". The current product range extends from standardized LAN transformers for digital applications to ADSL transformers and customer specific solutions for power applications. Despite the previous focus on the US market the whole product range is available in RoHS.

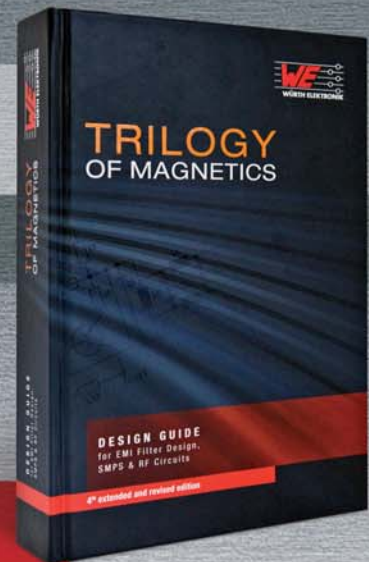
Expect more! We are here to service YOU!



Würth Electronics

EMC & Inductive Solutions

Manufacturer of EMI ferrites, inductors, RF components and transformers



- 14,500 catalogue parts ex stock
- Reference designs with the manufacturer of switching regulator IC's
- Design kits with life time refill
- Samples free of charge, usually within 48 hours
- Small quantities: We can deliver upon request our technology leading components direct from stock to assist with pre production runs
- Worldwide technical sales force: We are present worldwide to support you in finding solutions
- Application guide „Trilogy of Magnetics”

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