



# About Ferroxcube

Formerly, a Philips Components company, now belong to the Yageo Group, one of the world's strongest suppliers of passive components. FERROXCUBE, widely recognized as a leading supplier of ferrite components, has manufacturing operations, sales offices, and customer service centers all over the world.

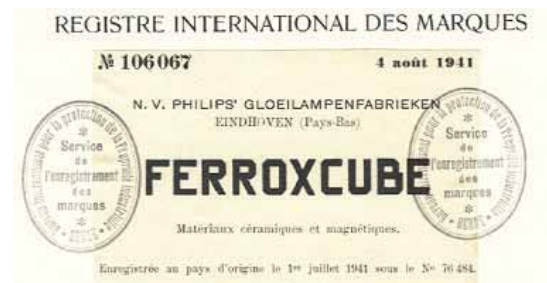
We supply one of the broadest ranges of high-quality, innovative products and place strong emphasis on miniaturization of magnetic functions. Ferrite components and accessories from FERROXCUBE are used in a wide range of applications, from alternative energy, telecommunications and computing electronics through consumer electronic products to automotive.

# Ferroxcube At a Glance

Building on our Philips Magnetic Components heritage, FERROXCUBE offers customers the highest level of support in the development of their new innovative design. As a leading innovator in ferrite-ceramic technology, we offer a broad range of soft ferrite cores, accessories and EMI suppression products to support equipment manufacturers in their drive for greater miniaturization, reduced power consumption and lower electromagnetic interference. We also offer extensive design-in support including application information and software to help designers optimize their new designs.

With a strong R&D team, we continue to develop lower power losses and higher saturation magnetic flux densities over a wide range of operating frequencies. Our aim is to support today's digital electronics markets with products combining miniaturization with ever-greater functionality.

For us, the ferrite components business is more than supplying high-quality products. It's about striving for quality and excellence in everything we do, including customer support and service.



## Quality & Environmental Approach

Our commitment towards excellence applies also to the environment. We strive for highest standards of health and safety for everyone.

Within FERROXCUBE, quality is the way of life. In addition to assure outstanding quality in both products and services, all our production centers are certified to ISO-9001/9002 standards. In line with the worldwide lead-free legislation, FERROXCUBE has introduced lead-free plating on all of our formerly tin/lead containing products. We comply strictly with the directive on Waste Electrical & Electronic Equipment (WEEE 2002/96/EC), Restriction on Hazardous Substances (RoHS 2002/95/EC) and Registration, Evaluation, Authorisation, and restriction of Chemicals (REACH).

- ISO-9001 Certification
- RoHS Compliance
- WEEE Compliance
- REACH Compliance



# Materials, Products & Applications

## Materials

Material selection depends on the application, application frequency, operating flux density, the resulting core loss, and temperature of operation. We offer various properties of material - permeability, frequency, resistivity to fulfill customer's versatile requirements.

## Products

At the world of electronics in which soft magnetic products are applied can roughly be divided into three main parts - power conversion, signal processing and EMI suppression.

### Power conversion

Covering all the ferrite and metal alloy cores and materials giving the best performance (e.g. lowest core losses in combination with small volumes) for power conversion in all kinds of applications. From low to high frequencies (10MHz), low to high flux densities (1.5T) and over a wide temperature range, we can supply you with the best solution.

### Signal processing

This incorporates the typical cores and ferrite materials in filters and transformers in modems for telecom technologies like cable & xDSL. Stable ferrite properties for various application conditions are important here, in keeping the transmitted signals undistorted and getting the best performance.

### EMI suppression

To reduce EMI to a minimum, we have a broad range of products available, all with their typical shapes and frequency range of suppression. FERROXCUBE has defined a standard range with balanced size distribution and logical material selection. Apart from the standard range, products can be custom designed to fit specific applications.

Radio Frequency Identification (RFID) is a technique of contactless identification finding rapidly increasing employment. Ferrite antennas in HF materials improve the working distance greatly, thus opening new applications. We supply metalized antenna cores in a variety of custom RFID transponder with IC and ferrite antenna. These are capable of operating when attached on metallic subjects due to a special antenna design.

## Applications








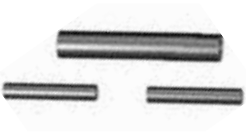

Soft ferrites are used wherever effective coupling between an electric current and a magnetic flux is required. They form an essential part of inductors and transformers used in today's main application areas, such as: alternative energy, industrial, consumer electronics, telecommunication, automotive & EV.







## Shape Cores & Accessories

 E cores	 Plannar E cores	 EFD cores	 EP cores
 EPX cores	 EQ cores	 Plannar ER cores	 ETD cores
 Frame & Bar cores	 PH core	 P cores	 PTS cores
 PQ cores	 RM cores	 U cores	 PM cores

## Small Ferrites

 Cable shields	 SMD beads	 Multihole cores	 Wideband chokes	 Multilayer suppressors
 SMD wideband chokes	 Rods	 Tubes	 IIC	

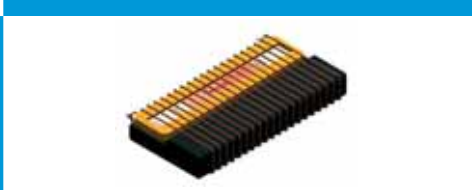
## Toroids

 Ferrite toroids	 Gapped toroids	 Alloy powder toroids	 Accelerator cores
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## Specialty cores



## Ferroxtag



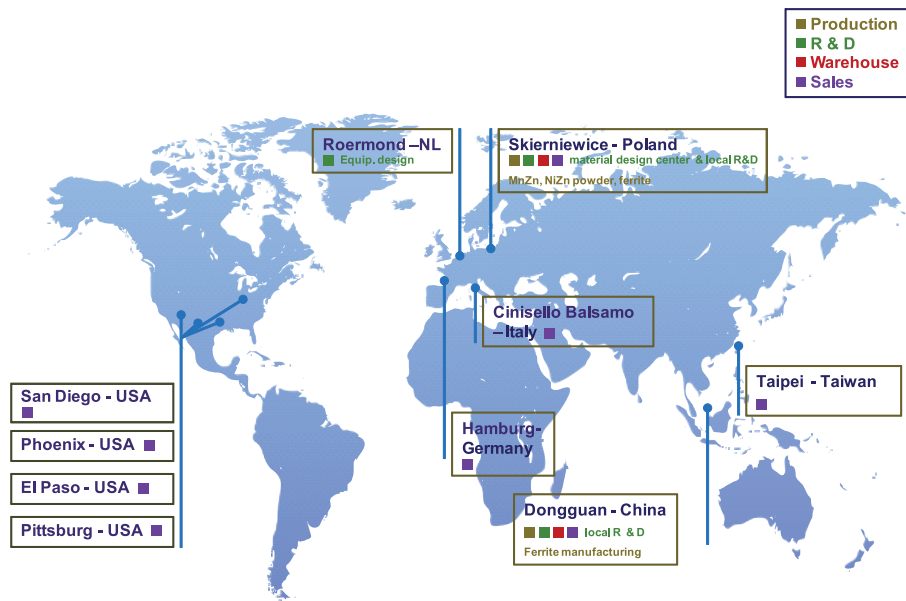
## Absorber tiles



# Global Network & Support

## Ferroxcube Operates Worldwide

FERROXCUBE has manufacturing operations, sales offices and customer service centers all over the world.



## Manufacturing, Research & Development

The research and development for soft ferrite products, bobbins and accessories has built upon on more than 50 years of experience in ferrite technology, the longest track records in industry. The R&D activities take place in several directions and teams - Roermond, the Netherlands, specializes in equipment R&D; Skierniewice, Poland is the material design center and also concentrates local R&D, Dongguan, China is also focuses on local R&D.

### Skierniewice, Poland

FERROXCUBE in Poland, also named Ferpol, started operations at the end of 1998, having an output of 5 kilotons of ferrite products. Ferpol is delivering the full range of soft ferrite cores. It also produces Nickel-Zinc and Manganese-Zinc powder of 10 kilotons capacity.

### Dongguan, China

FERROXCUBE in Dongguan started mass production in July 2001. The production capacity has been growing rapidly over the years – the current output is around 8 kilotons – and is still expanding. The production site is located in Dongguan city, Qingxi town and close to our customers in the Guangdong province and Hong Kong. This enables us to deliver our ferrites by truck within hours, making a very short door-to-door leadtime possible.

## Sales & Customer Service Centers

Dedicated sales teams globally representing FERROXCUBE in all three regions – America, Europe and Asia Pacific – we have a regional sales office or scattered strategically over the area a number of customer service centers. In order to better serve customers, we also have distributors, manufacturing representatives all over the world.



## FERROXCUBE - A GLOBAL COMPANY

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For a complete listing of all Ferroxcube sales offices, distributors, and representatives, please visit "contact us" at

[www.ferroxcube.com](http://www.ferroxcube.com)

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