

# Ferrite Cores · Powder Cores · Amorphous & Nanocrystalline Cores Bobbins & Mounting Hardware · Thermistors, Filters & Chokes



## Ferrite Cores

### Manufacturers Represented:

- Fair-Rite
- Magnetics
- National Magnetics
- EPCOS
- TDK
- Ferroxcube

### Group Description:

Ferrites are ceramic, homogeneous materials composed of various oxides with iron oxide as their main constituent. Depending on the application, there are two types of ferrite core material.

**Manganese-Zinc ferrite (MnZn)** is used in applications requiring higher permeability and saturation levels, generally for high frequency transformer applications - important characteristics being high flux density and/or low core losses. **Nickel-Zinc ferrite (NiZn)** is

used in applications needing higher resistivity and is more suitable for frequencies above 1 MHz. Applications are EMC, filtering, power, wireless transfer of power, etc. Cores can also be classified by shape: Toroidal cores, U core, E cores, I cores, Pot cores, cylindrical cores, etc. Core geometries can be modified by machining to meet specific magnetic and mechanical requirements. Core gapping, Toroidal slotting and custom machining available.





## Powder Cores

### Group Sub-categories:

- MPP
- Kool Mu®
- High Flux
- XFlux®
- AmoFlux®

### Manufacturers Represented:

- Magnetics, Inc.

### Group Description

Powder Core products are distributed air gap cores primarily used in power inductor applications, specifically switched-mode power supply (SMPS) output filters (DC inductors). Other power applications include differential inductors, boost inductors, buck inductors and flyback transformers.

Power Core material characteristics are high resistivity, low hysteresis and eddy current losses and excellent inductance stability under both DC and AC conditions. Powder Core materials are not pressed with an organic binder so there is no thermal aging.



## Amorphous & Nanocrystalline Cores

### Group Sub-categories:

- Cobalt-based
- Iron-based

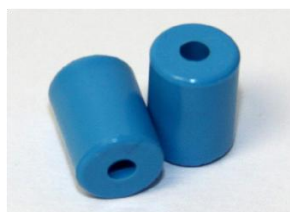
### Manufacturers Represented:

- Toshiba:
- AMOBEADS®
- SPIKE KILLER®
- Hitachi Metals:
- FINEMET®
- Metglas®

### Group Description

Amorphous metals are produced by using a rapid solidification technology where molten metal is cast into thin solid ribbons by cooling at a rate of one million degrees C/sec. Amorphous magnetic metal has high permeability due to no crystalline magnetic anisotropy allowing smaller, lighter and more energy efficient designs in many high frequency applications for inverters, adjustable speed drives and power

supplies. Due to the material having no crystalline magnetic anisotropy, amorphous magnetic metal has high permeability which makes it an ideal option for applications in the alternative energy sector. Amorphous iron (Metglas®) and nanocrystalline (FINEMET®) work well in mag amp and high efficient power applications while amorphous cobalt (Toshiba) works well in suppression devices.



## Bobbins & Accessories

### Group Sub-categories:

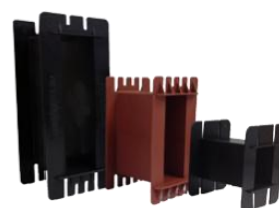
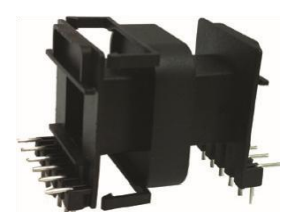
- Ferrite Bobbins
- Surface Mount
- Through Hole
- Lamination Bobbins
- Toroid Mounts
- Solenoids

### Manufacturers Represented:

- Miles-Platts
- Ferroxcube
- Magnetics
- EPCOS

### Group Description

Bobbins, also known as coil formers, are used for efficient winding and termination of magnetic components. Dexter provides precision plastic injection moldings for use in electrical, automotive and medical sectors. In addition to standard bobbin offerings, Dexter is able to configure customizations, including pin modifications, higher and lower profiles and custom stack heights. More than half of Dexter products are custom designs specific to application requirements. Dexter also supplies mounting clamps (clips), toroid mounts and toroid headers.



## Electronics

### Group Sub-categories:

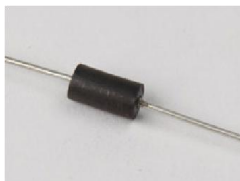
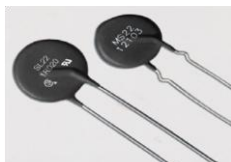
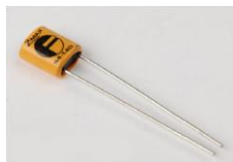
- Thermistors
- Capacitors
- Beads-on-leads
- Chokes/Filters

### Manufacturers Represented:

- Ferronics
- Fair-Rite
- EPCOS
- TDK
- Ametherm
- RTI Electronics

### Group Description

As a prime supplier for cores into the power supply industry, Dexter has expanded to include electronics such as thermistors, capacitors, beads, chokes, resistors and filters for varying power supply applications. We can assist in choosing the correct component for your application.



## Solutions to Fit Your Design Needs

- Engineering & Design Assistance
- Inductance Testing
- Special Packaging
- Bag and Tag
- Bar Coding
- Custom Fabrication
- System Assembly
- Inventory Management
- Material Warehousing
- Coating
- ISO9001 / AS9100



On-site Class 10000 Clean Room



Stocked Parts for Immediate Delivery



Core Gapping and Toroid Slotting

