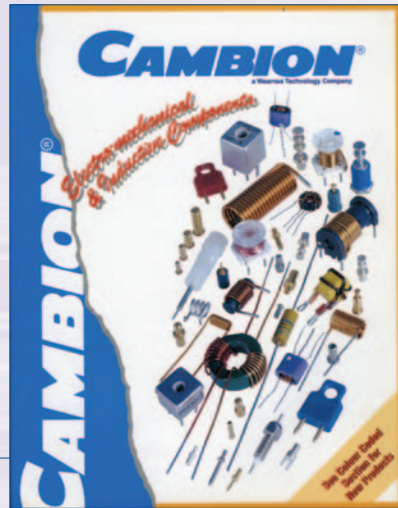


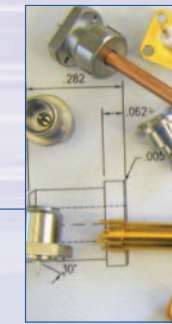
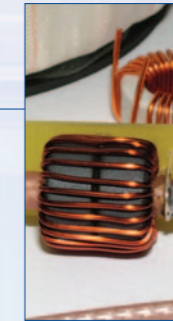
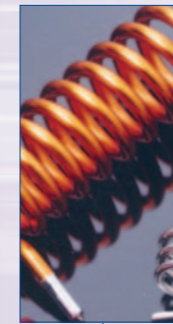
short form
catalogue



full line catalogue



capability brochure



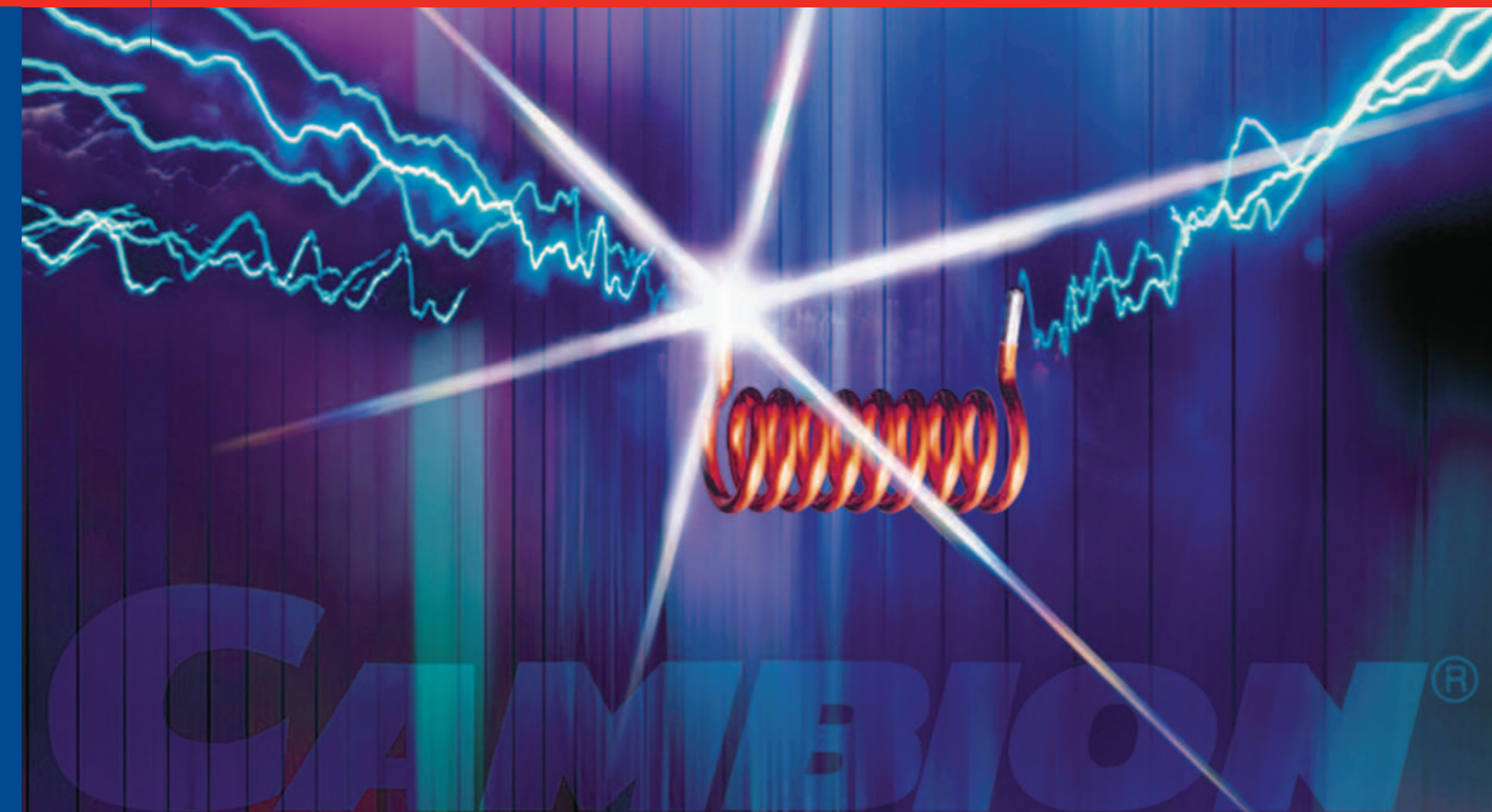
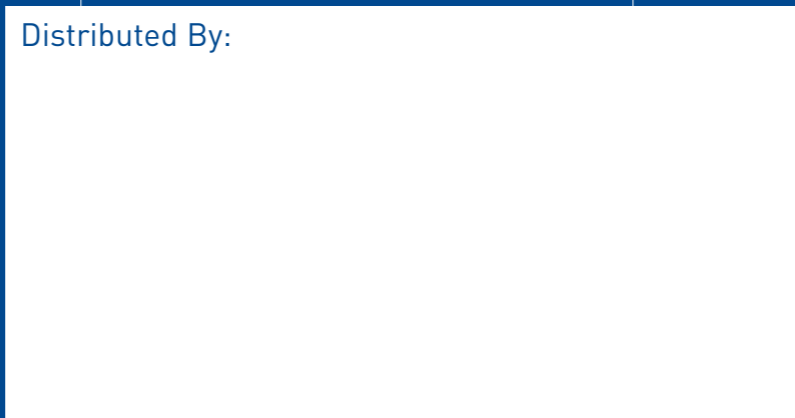
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Distributed By:



about the company

electro mechanical

Cambion - The Story So Far...

The Cambridge Thermionic Corporation was founded in the 1930's in Cambridge, Massachusetts. The name Cambion being derived from the first four and last three letters of that name.

The company quickly established a reputation in the USA as a quality supplier of small electro-mechanical and electronic components for the military and professional electronics markets.

In 1961 a parallel manufacturing facility

was established in Castleton, England to service an ever-expanding global market. During the 1980's ownership changes gave rise to name iterations such as Midland Ross, IPI Limited & Hollingsworth.

In 1991 the Singaporean multi national Wearnes Corporation acquired the organisation to support its objectives for a greater Global presence.

Cambion - World-class manufacturing

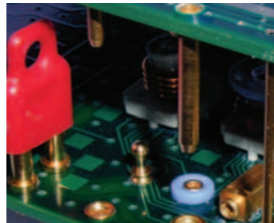
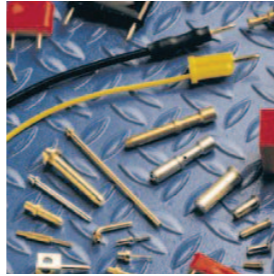
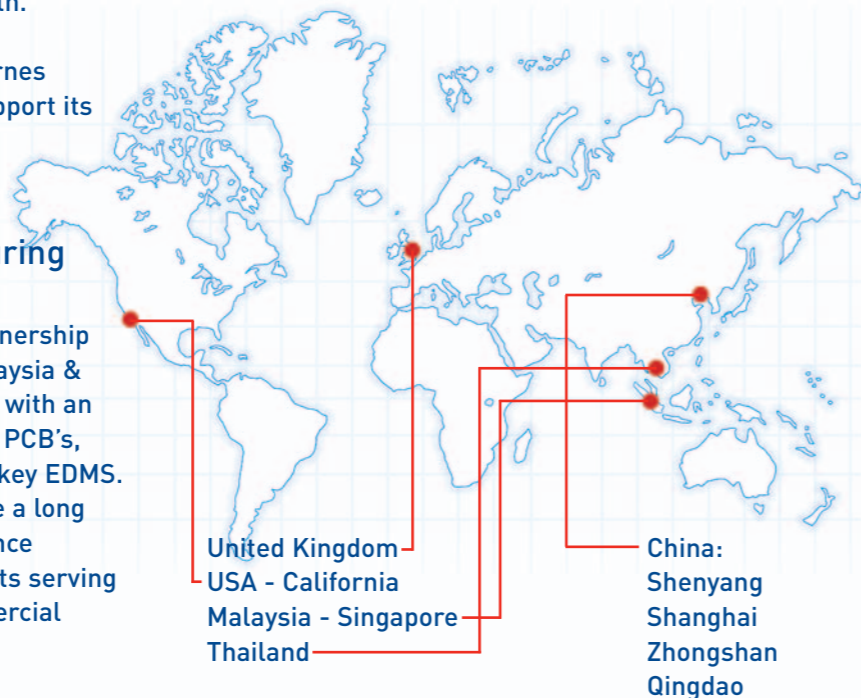
Since this time, Cambion has worked in partnership with its associated Companies in China, Malaysia & Thailand, supporting the Electronics market with an array of services and products ranging from PCB's, Die Casting, Electronic assembly to full turnkey EDMS. As the history shows Wearnes Cambion have a long and established pedigree for high performance electro-mechanical and inductive components serving professional, military, aerospace and commercial markets.

Cambion is a full-accredited ISO9000:2000 Facility as well as having BSI approvals on a range of products.

Custom product manufacture is our specialty, capabilities include:

- Turning - Over 50 automatic lathes (10 million parts per week capacity)
- Moulding - Fully and semi-automatic injection and transfer moulding.
- Assembly - Automatic equipment for high volume production, and lower volume with manual assembly tooling and highly skilled operatives.

Cambion offer a full service of design and prototyping, through to full volume production. Cambion also offer access to low cost manufacture in Wearnes facilities in Mainland China.



Cage Jack – PCB mounted single pole sockets

Highly reliable PCB connector with multiple contact points to 60% of the circumference of the mating pin. Used in conjunction with Connector Pins and Shorting Links. Also known as Jacks, Jack Sockets or PCB Sockets..

Mount - Solder, Press-fit, Swage, Crimp & Eyelet

Versions - Straight & Right Angled, Closed & Open ended, Insulated.

Acceptance Diameter - 0.41mm (0.016") to 2.54mm (0.100")

Current Carrying Capacity - up to 32 Amps.

Material

Spring - Beryllium Copper
Body - Copper or Brass, Deep Drawn or Machined

Plating Options

Gold - Tin - Tin/Gold
Right-angled versions can be supplied with colour code snap on insulator. Swaging tools available on request. Custom Designs available on request



Connector Pins - Also known as Plugs, Pins or PCB Pins.

A range of precision machined Connector Pins for through board or used in conjunction with Cage Jack or Shorting Link Socket. Can be used when inserting into various PCB materials such as FR4 and Ceramic.

Mount - Solder, Press-fit, Swaged & Crimp

Versions - Straight & Right Angled. Standard, Slotted, Turreted, Eyelet & Patch Cord form.

Crimp AWG - 16 AWG - 28 AWG

Pin Diameter - 0.41mm (0.016") to 2.54mm (0.100")

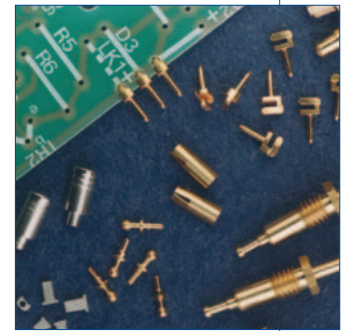
Board Thickness - 0.79mm (0.31") - 3.96mm (.125")

Material

Brass or High performance Tellurium Copper

Plating Options - Gold - Tin

Polygon turning available. Connector Pins also designed in Patch Cord style or supplied individually or as a Cable Harness in various configurations, email: sales@Cambion.com for more details. Swaging tools available.



Shorting Links - Also known as Handbags or Jumpers

Type - Male & Female

Styles - Insulated & Non Insulated

Pitch - 2.54mm (0.100") to 12.7mm (0.500")

Colours - Red, Blue & Black as standard other colours available on request

Material

Link - Brass
Insulator - Polypropylene
Female Spring - Beryllium Copper
Female Body - Copper

Plating Options

Gold - Tin - Tin/Gold



Solder Terminals

A range of Terminals specific to the desired method of soldering.

Mount - Solder, Press-fit & Swaged

Versions - Slotted, Turreted & Threaded. Insulated & Non-Insulated.

Board Thickness - 0.79mm (0.31") - 3.18mm (.125")

Material

Brass & Phosphor Bronze

Plating Options

Silver
Gold
ElectroTin
Electro Solder

Comprehensive range of insertion tools specific to the Terminal mount



electro mechanical

Insulated Terminals

A range of Insulated Terminals in the stand off or feed-through style.

Versions - Slotted, Turreted & Threaded

Insulator Material - PTFE (Teflon)

Diallyl Phthalate
Ceramic
Tufnol

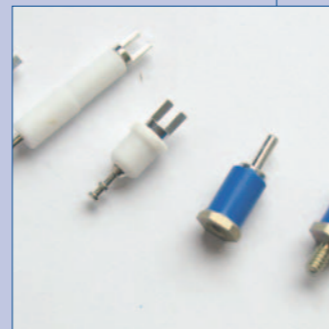
Terminal Material

Brass

Plating Options

Silver
Gold
Electro Tin
Electro Solder

Comprehensive range of insertion tools specific to the Terminal type.



Wire Wrap Terminals

A range of Wire Wrap Terminals either stamped or polygon machined.

Termination - 2 & 3 Wrap lengths

Board Thickness - 1.59mm (0.620")
- 4.76mm (.187")

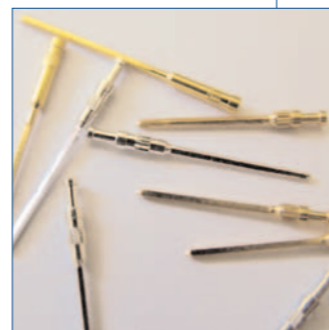
Versions - Turreted, Press-fit, Swaged

Material

Brass

Plating Options

Gold
Tin



Connectaball - PCB test points

A Quick and simple means of termination for PCB test points. Machined for high performance and reliability with eight points of contact on engagement. Unhindered movement of the assembly within a solid angle of 90° about the axis of the test point, Beyond which the assembly disengages automatically.

Mount - Surface Mount, Press-fit, Swaged & Edge Mount

Type - Ball & Socket Wire Assembly

Electrical - Working Voltage - 3 Amps
Max. Contact Resistance - 5mW

Mechanical - Engaging force - 60N
Pull off force - 4.9N

Material - Ball & Socket - Brass
Socket Insulator - PTFE

Socket Wire - 19*0.2, silver-plated copper, Teflon insulated or 28*0.15, tinned copper, PVC Insulated. Supplied in standard length of 457mm (18.00"), other length made to order.

Plating Options - Silver - Gold - Electro Tin

Colours - Red, Blue & Black as standard other colours available on request



IC Socket

An industry standard range of Commercial and high reliability dual-in-line (DIL) socket and Plastic leaded chip carrier (PLCC) Socket. Buttable end-to-end and side-to-side for board real estate saving.

Mount - Through hole PCB & SMT.

Contact Arrangement - DIL Socket 6 to 48,
PLCC 20 - 84

Versions - Socket Adapter.

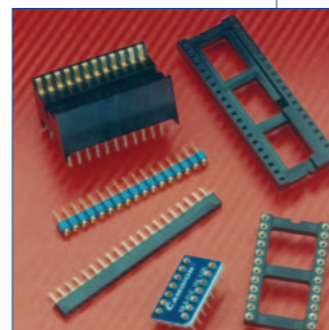
Operating Temperature - DIL -55°C to +105°C,
PLCC -55°C to +125°C

Material

Contact - Phosphor Bronze
Insulator - Black, GF Polyester UL 94V-0

Plating Options

Tin
Various Packaging methods available.



Battery Holders / Component Clips / Stand Offs

Battery Holders

A range of Battery Holders to accept a range of industry standard batteries.

Styles - AA, C, D & PP3

Mount - Screw & Through Board Solder

Material

Body & Clip - Polyester

Spring/Solder Lug - Phosphor Bronze

Plating (Spring/Lug) - Tin

Battery Clip Supplied loose with assembly

Component Clips

Consist of a metal housing and a spring-loaded plunger which, when depressed opens to accept a component lead. Mainly used for testing and burning in components.

Mount - Thread (2-56 & 3-48), Swage, Press-fit, Pluggable

Version - Insulated & Non-Insulated, Capped Plunger.

Material Housing & Plunger - Brass.

Spring - Cres. Steel, Passivated

electro mechanical

Insulator - PTFE (Teflon)

Plunger Cap - Nylon

Plating Options - Nickel - Electro Solder

Stand Offs & Spacers

A range of stand-offs and spacer in both round and hex forms.

Lengths 4mm (.157") to 25.4mm (1")

Versions - Through hole or Threaded.

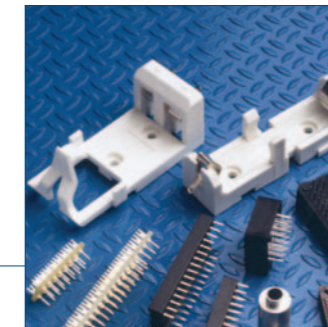
Tapped Imperial 2-56 to 6-32 / Metric M2 to M4

Material Options

Brass - Stainless Steel - Aluminum

Plating Options

Nickel - Cadmium

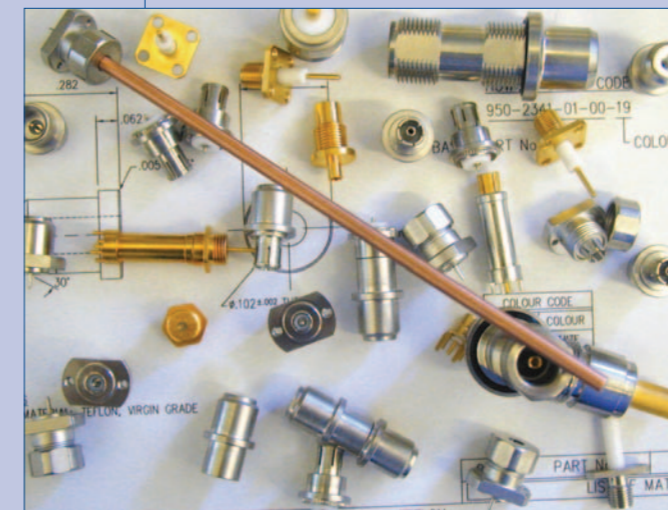


RF Connectors

Recent major investment in 'state of art' CNC machining centres and contact less measurement systems, has allowed Cambion to compliment its range of high performance connectors and inductive products, with RF Connectors. Specialising in manufacture of custom variants of industry standards. Cambion can offer a unique development facility of precision turning and prototyping of application specials in styles such N type, 7/16, SMA, SMB, SSMB, MCX, Din 41626

and many more, incorporating blind mates, quick termination with minimal outlay.

Also available are custom converters and adaptors theoretically between any standard range of RF Connectors. Contact our Technical Sales Desk on +44 1433 621555 or send enquiry via email to sales@cambion.com



Inductive products

Air Coils

Types - without or with ferrite, Iron powder and steel cores

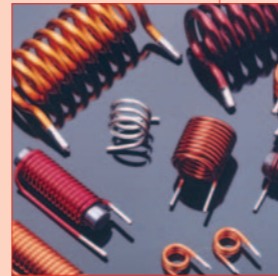
Diameter - 1mm to 40mm

Turns - up to 100

Wire size - 0.1mm to 5mm

Wire type - silver plated, tinned, enamel coated copper and aluminium

Applications include - power supplies, noise suppression, RF filters



Coil Forms

Core type - phenolic, ferrite, Iron powder and brass

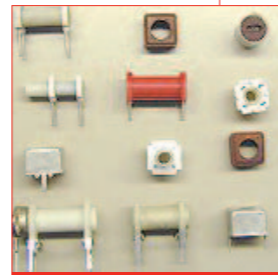
Pattern size - 5, 7 and 10mm others to order

Frequency range - from below 1KHz to over 500MHz

Materials - polyester, PBT, PPS, Nylon 6, Dyalphthalate

Mounting - through hole and surface mount

Applications Include - filters, if transformer, communications systems, telemetry



Variable Coils

Inductance - 50nH to over 100mH

"Q" - greater than 200

Frequency range - from below 1KHz to over 500MHz

Styles - Open and magnetically shielded versions

Pattern size - 5, 7 and 10mm others to order

Mounting - through hole and surface mount

Applications Include - filters, if transformer, communications systems, telemetry



Chokes

Inductance - 22nH to over 100mH

Current - greater than 4A

DCR - less than 10mΩ

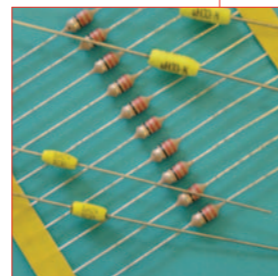
"Q" - greater than 100

Tolerance - 5% and 10% available others to special order

Case type - open, shrink sleeve, epoxy and moulded

Packaging - loose, ammo pack or tape and reel

Applications include - communications equipment, RFID, filter networks



Toroids

Outside Diameter - 1.5mm to 175mm

Core material - strip steel, amorphous, iron powder and ferrite

Wire size - 0.05mm to over 3mm

Mounting - self-ledged, surface mount, open frame, potted

Applications include - dc-dc converters, common mode and differential mode filter, RF mixer, baluns, current sensors, audio systems



Inductive products

Wire Wound Chip

Footprint - 0402, 0603, 0805, 1008 and 1812

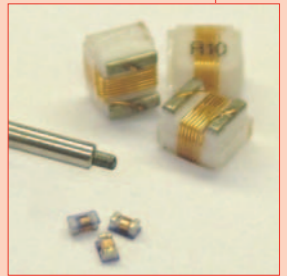
Inductance - 1nH to 1mH

Current - up to 1.3A

Tolerance - 2%, 5%, 10% and 20%

Core materials - ceramic and ferrite

Applications Include - communication systems, cellular telephones, filter networks, telemetry



Drum Cores

Inductance - 3.3μH to over 250mH

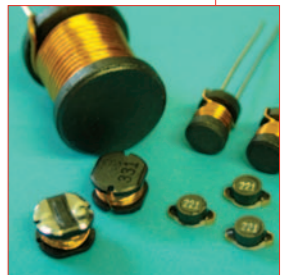
Current - up to 30A

Tolerance - 5%, 10% and 20%

Packaging - loose or tape and reel

Covering - heat shrink or ferrite sleeved versions available

Mounting - through hole and surface mount
Application include - power supplies, class D amplifiers and speaker crossovers



RFID

Inductance - 250nH to 23.8mH

Tolerance - 2%, 5% and 10% others to order

Core types - air core, ceramic, phenolic, ferrite and iron powder

Packaging - loose or tape and reel

Applications include - various frequency

segments including 60KHz, 125KHz, 134KHz, 8.3MHz, 13.56MHz, 432MHz and 915MHz



Transformers

Types - linear and switching

Core material - laminated steel, laminated nickel, iron powder and ferrite

Power rating - from 0.2VA to over 500VA

Styles - through hole and surface mount, open frame and potted

planar and traditional winding methods

Applications include - dc-dc converter, ac-dc or dc-ac power supplies, impedance matching



Custom

All of the products listed can be tailored to customer requirements. Our in house tooling and moulding facility can provide fast turnaround together with competitive pricing

Cambion are able to take your project from drawing board through prototype to low cost, high volume production with industry recognised standards

