Product Overview - A Guide to Cannon's Connectors

Cannon

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Engineered for life

Engineered for life

- ▶ Intelligent Solutions.
- ▶ Out-of-the-box thinking.
- ▶ Globally deployed Resources.
- ▶ True partnership.

Intelligent solutions. Out-of-the-box thinking. Globally deployed resources. True partnership.

In today's time-sensitive business world, these are the guiding principles ITT industries, Cannon can put to work for you.

We are a leading global designer and manufacturer of connectors, interconnects, cable assemblies, dome arrays, keypads, switches, multi-function grips, panel switch assemblies, I/O card kits, smart card systems and LAN components, as well as a provider of high-speed/high-bandwidth network systems and services.

And we provide these capabilities to leading companies—both large and small—throughout the world.

More than ever before, businesses are relying on robust technological solutions from Cannon to help them compete successfully.

At Cannon, everything we do is "Engineered for life."

To us, "Engineered for life" means our products meet or exceed your expectations in terms of durability, high-performance specifications and reliability. We back our products with worldwide engineering, customer service and distribution networks because we realize business now operates in an "As Soon As Possible" mode.

"Engineered for life" is more than just a slogan at our company. It is how we bring real value to our customers.

We design and manufacture one of the industry's broadest ranges of electronic products. For virtually every market where electronics plays a role, we provide the critical solutions and technology that enable the products you design and manufacture to perform faster, easier, safer and more reliably.

For more than 85 years, Cannon engineers have been creating dependable products to help you bring your products to market faster in today's global electronics industry.

Our dedication to quality, excellence and reliability means that "Engineered for life" is simply the way we approach each and every one of our customers' projects.
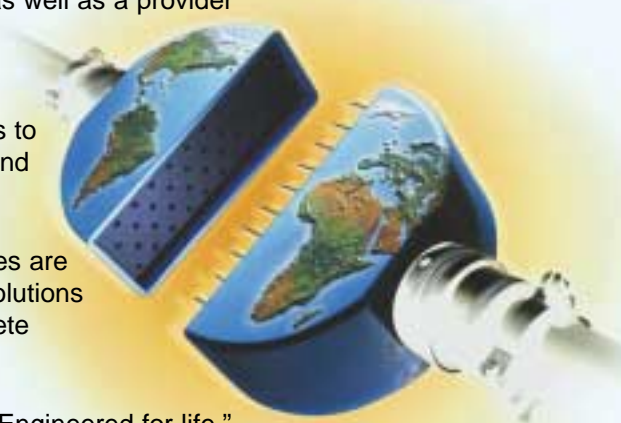
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ⓘ

For additional product information, please visit us on the web at
[www.ittcannon.com.](www.ittcannon.com)

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Dimensions are shown in mm (inch)
Dimensions subject to change

New

from ITT Industries, Cannon.
A product overview of Cannon connector products, including many new or improved product offerings:

Fiber Optics, see page 16

- FPA, Fiber Optic Patchcord Assembly

- PHD, High Density

For a list of obsolete/alternate products, see page XI.

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New

from ITT Industries, Cannon.
A product overview of Cannon connector products, including many new or improved product offerings:

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  – Battery
  – DC Jack
  – Keypad
  – LCD
  – Mini USB
  – Universal Contact

- RF
  – Fakra
  – LPC CP1/CP2
  – LPC CP1/CP2 Accessories
  – LPC Dual Port
  – LPC MID
  – LPC SP1
  – LPC TP-1

For a list of obsolete/alternate products, see page XI.

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New

from ITT Industries, Cannon.
A product overview of Cannon connector products, including many new or improved product offerings:

PC Card, PCMCIA I/O Card Kit, page 31
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Printed Circuit Board, see page 32
- MiniStack
- PFPC/FPC/FFC: Flexible Printed Circuit
- Tempus CBC-20-HS, Series 1000/2000

RF Coaxial Connectors, see pages 35-36
- BNC
- MMCX

For a list of obsolete/alternate products, see page XI.

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Audio: XLB2

XLB2

The XLB2 is a general purpose audio connector used for low level circuit applications when EMI/RFI elimination is required. Available in 2 to 7 position plugs and receptacles. This is a cost reduced version of XLR series with metal shell. Black or silver color shell available.

Applications:
- Audio Mixers
- Microphones

Product Features:
- Separate ground contact.
- Streamlined shell design.

ⓘ www.ittcannon.com/cat338

Audio: XLB-PC

XLB-PC

The XLB-PC audio connector is a low-cost PCB mounting receptacle with plastic shell. Intermateable with both XLB2 and XLR products.

Applications:
- Audio Mixers
- Microphones

Product Features:
- Lightweight design.
- Easy installation.

ⓘ www.ittcannon.com/cat339

Audio: XLM-PC
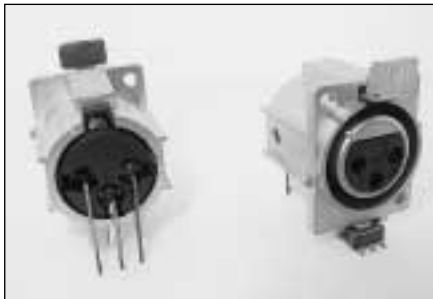
XLM-PC

The XLM-PC audio connector is a PCB mount type with metal shell. Improved EMI shielding. Intermateable with XLB2 and XLR products.

Applications:
- Broadcasting Equipment
- Public Address (PA) System

Product Features:
- Separate ground contact.
- Space-saving (smaller shell).

ⓘ www.ittcannon.com/cat340

Audio: XLR

XLR

The XLR is the most reliable commercial audio connector available. It is used for high grade, professional use audio and other low level circuit applications. 2 to 7 position plugs and receptacles feature precision machined contacts, a shock absorbing resilient rubber insulator and a lightweight aluminum shell.

Applications:
- Audio Visual Equipment
- Broadcasting Equipment

Product Features
- Rugged design to withstand extreme field use.
- Quick disconnect latch lock.

ⓘ www.ittcannon.com/cat341

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BIW Connector Systems: Electric Vehicles: Apollo Power Connectors, 400/200 Series
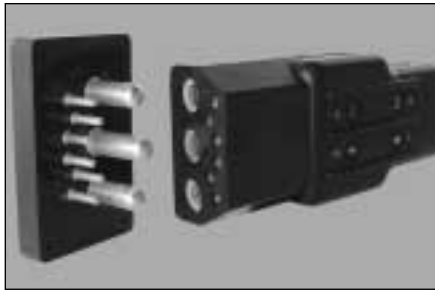
Apollo

Apollo EV power connectors, series 200 and 450, are designed for fast charging of battery powered electric vehicles. Connectors are intended to be used with microprocessor controlled off-board charging systems, which supply charging current to vehicle battery packs up to 450 A. Connectors are suitable for outdoor use and are field proven to withstand severe handling.

Applications:
- Electric Vehicle Fast Charging
- High Current Connection

Product Features:
- PowerGlide contacts, low insertion forces.
- Molded design.
- Optional LED lights.

ⓘ www.ittcannon.com/cat195

BIW Connector Systems: Industrial & Military: High Voltage Cable Assembly

High Voltage

The High Voltage Cable Assembly is unique in its ability to provide corona-free performance at 10,000 V dc, continuous working voltage, despite exposure to harsh environmental conditions.

Applications:
- Industrial/Electronic
- Military/Aerospace

Product Features:
- Gold plated contacts.
- Silicone insulation.
- Tapered contact inserts.
- 4-Conductor design.

ⓘ www.ittcannon.com/cat196

BIW Connector Systems: Railroad: Powerbus

Powerbus

Powerbus connectors provide head end power to passenger railcars. These connectors supply up to 420 A at 480 V ac in parallel circuits running the lengths of passenger trains.

Applications:
- Passenger railcar (lighting, heating, cooling, hotel power)

Product Features:
- Anti-collapse support ring.
- Springless socket contact design.
- PowerGlide contacts, low insertion forces.

ⓘ www.ittcannon.com/cat197

BIW Connector Systems: Underwater: WetSeal

WetSeal

WetSeal underwater connectors feature heavy duty metal shells and are available with 3 to 84 contacts. Elastomeric inserts provide redundant levels of sealing against fluid intrusion, and most connectors do not require O-rings.

Applications:
- ROV Military & Commercial

Product Features:
- Pressure rated to 10,000 psig.
- Low mating forces.

ⓘ www.ittcannon.com/cat198

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Cable Assemblies: Cabling Capabilities

www.ittcannon.com/cat035

Cabling Capabilities

What's unique about Cannon's cable assembly capabilities is that we have the flexibility to meet demanding schedules and design requirements. From concept to prototyping, engineering to manufacturing.

And it's all done with the personal attention you'd expect from a small company, plus the support and security only a major organization could provide.

Applications:

- Avionics/Military

- Communications

- Industrial

Product Features:

- Customized solutions.

- Harness design and/or design consultation.

Circular: BFR/TBF; MIL-DTL-5015

BFR/TBF

BFR/TBFR (bulkhead fitting or thru-bulkhead fitting with rubber insert) pressurized bulkhead receptacles are compatible with standard MS type plugs (3106, 3107, 3108) with corresponding size and contact arrangements.

Applications:
- Aerospace
- Military

Product Features:
- Threaded coupling.
- TBF allow coupling from both ends.

www.ittcannon.com/cat106

Circular: CA/MS-A&B; MIL-DTL-5015

CA/MS-A&B

The CA/MS-A&B design meets the performance requirements of MIL-DTL-5015. Available in 50 popular sizes and configurations in Class A (CA/MS-A, solid endbell) and Class B (CA/MS-B, split endbell) versions.

Applications:
- Industrial Controls
- Test Equipment

Product Features:
- Threaded coupling.
- Machined contacts.

www.ittcannon.com/cat107

Circular: CA-Bayonet; VG95234

CA-Bayonet

VG/CA-Bay signal and power connectors provide superior performance in extreme environmental conditions. They offer exceptional sealing against the ingress of fluids and will withstand the effects of high vibration.

Applications:
- Heavy Vehicle
- Industrial
- Transportation

Product Features:
- Bayonet coupling.
- Audible sound and color-code indicate positive mating.
- Quick mating/unmating.

www.ittcannon.com/cat108

Circular: CA-COM

CA-COM

CA-COM commercial signal and power connectors are designed to resist aggressive fluids like fuel, oil, etc. Compatible with MIL-DTL-5015 and VG95234 connectors with corresponding size, contact arrangements, and coupling method.

Applications:
- Commercial
- Industrial

Product Features
- Threaded and bayonet coupling.
- Nickel plated shells.

www.ittcannon.com/cat109

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Dimensions are shown in mm (inch)
Dimensions subject to change

Circular: CA-KE; MIL-DTL-5015

CA-KE

Environment-resistant firewall connectors combine moisture resistance with fireproof characteristics. Although fully compatible with standard MIL-DTL-5015 type connectors, to maintain their moisture seal and fire resistance, CA-KE connectors must mate with other CA-KE connectors with corresponding size and contact arrangements.

Applications:
- Industrial
- Military

Product Features:
- Threaded coupling.
- Fireproof and moisture resistant.

ⓘ www.ittcannon.com/cat110

Circular: CGE; VG96929

CGE

CGE connectors are designed to transmit very high current at low voltage. They meet the mating dimensions, mechanical features and rear panel installation requirements of VG96929.

Applications:
- Industrial
- Military

Product Features:
- Bayonet coupling.
- Audible sound and color-code indicate positive mating.

ⓘ www.ittcannon.com/cat111

Circular: CGKX/KPTA; VG96912/VG95328

CGKX/KPTA

Miniature CGKX/KPTA circular connectors offer high contact density in a rugged metal shell. They feature environmental sealing with fast and easy mating/unmating with bayonet coupling.

Applications:
- Industrial Automation
- Black Box

Product Features:
- Bayonet coupling.
- Lightweight.

ⓘ www.ittcannon.com/cat112

Circular: CGL/CGL-B; VG96912

CGL/CGL-B

For safety, CGL/CGL-B commercial circular power connectors feature a first-to-mate grounding contact which is securely linked to the connector shell to protect against mishandling.

Applications:
- Industrial Automation
- Machine Tools

Product Features
- CGL: Threaded coupling.
- CGL-B: Bayonet coupling.

ⓘ www.ittcannon.com/cat113

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Circular: FVF/FRA/WFB; MIL-DTL-5015

FVF/FRA/WFB

FVF lightweight firewall connectors are designed according to MIL-DTL-5015, Class K. They utilize fluid resistant elastomers to provide maximum protection against degrading fuels, oils, coolants, and cleaners.

FRA connectors are an aluminum shell version of the FRF.

WFB connectors are an aluminum shell version qualified to Boeing BACC63CD & CE.

Applications:
- Commercial Aircraft
- Military Aircraft

Product Features:
- Threaded coupling.
- Front release contacts.

www.ittcannon.com/cat114

Circular: KJL/KJ/KJA; MIL-DTL-38999 Series I, II, III

KJL/KJ/KJA

High performance, high contact density miniature circular connectors are designed according to MIL-DTL-38999.

Applications:
- Military
- Satellite

Product Features:
- Bayonet and threaded coupling.
- Rear release snap-in contacts.

www.ittcannon.com/cat115

Circular: KPT/KPSE; MIL-C-26482, Series I; VG95328

KPT/KPSE

Miniature circular series with general purpose solder contacts and high performance crimp contacts. They feature fast and easy mating/unmating with a three point bayonet coupling.

Applications:
- Industrial
- Military

Product Features:
- Bayonet coupling.
- Closed-entry socket contacts.

www.ittcannon.com/cat116

Circular: KPTC/KPTC-NG

KPTC/KPTC-NG

Miniature KPTC/KPTC-NG (New Generation) connectors offer high contact density in a rugged metal shell. They feature environmental sealing with a fast and easy mating/unmating with bayonet coupling.

Applications:
- Black Box
- Industrial Automotive
- Motion Control

Product Features:
- Bayonet coupling.
- Lightweight.

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Circular: M83723/CVA; MIL-DTL-83723, Series II (USAF)

M83723/CVA

M83723/CVA series is high reliability version of the MIL-DTL-5015 type connectors. They utilize removable rear release crimp contacts. They are compatible with MIL-DTL-5015 connectors with corresponding size and contact arrangements.

Applications:
- Military
- Space

Product Features:
- Threaded coupling.
- Rear release crimp contacts.

ⓘ www.ittcannon.com/cat119

Circular: MR; MIL-DTL-5015

MR

Waterproof connectors designed according to MIL-DTL-5015. They provide maximum resistance to severe environmental conditions (mud, ice and water) and are well suited for outdoor applications.

Applications:
- Radar Installations
- Rapid Transit

Product Features:
- Threaded coupling.
- Solder/Crimp termination.

ⓘ www.ittcannon.com/cat118

Circular: MS/CA-E/F/R/ER; MIL-DTL-5015

MS/CA-E/F/R/ER

MS/CA-E/F/R series are designed for extreme environmental sealing and high altitude conditions. MS/CA-ER are lightweight potting connectors that offer exceptional sealing against salt, water, fuels, etc., and will withstand the effects of high vibration.

Applications:
- Commercial
- Industrial

Product Features:
- Threaded coupling.
- Low cost, high reliability.

ⓘ www.ittcannon.com/cat120

Circular: MS/CA-K; MIL-DTL-5015

MS/CA-K

MS/CA-K Firewall connectors qualified to the fireproof test of MIL-DTL-5015. These connectors are not environmentally sealed.

Applications:
- Industrial
- Military

Product Features:
- Threaded coupling.
- Crimp or thermocouple (solder) contacts.

ⓘ www.ittcannon.com/cat121

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Circular: MS/CV345*; MIL-DTL-5015 (Navy), Rear Release

MS/CV345*

Standard circular high environmental (MS/CV345*) connectors according to MIL-DTL-5015 (Navy). They utilize fluid resistant elastomers to provide maximum protection against degrading fuels, oils, coolants, and cleaners.

Applications:

- Industrial
- Military

Product Features:

- Threaded coupling.
- Intermateable with threaded MIL-C-83723.

www.ittcannon.com/cat122

Circular: PV/PV-TBF; MIL-C-26482, Series 2

PV/PV-TBF

Miniature environmental circular series. Designed according to MIL-C-26482, Series 2. They feature fast and easy mating/unmating with a three point bayonet coupling.

Applications:

- Aerospace
- Space Shuttle

Product Features:

- Bayonet coupling.
- Closed-entry socket contacts.

www.ittcannon.com/cat123

Compact Flash Packaging Kit: C-Flash✦ Adapter

C-Flash Adapter

Allows compact flash cards to be read and written to via any device with PC card slots. Consists of two stainless steel covers and a PCB assembly forming a compact flash/PC card adapter.

★ Trademark of CompactFlash Association.
✦ Trademark of ITT Industries, Inc.

Applications:
- Global Positioning System (GPS) Devices
- Personal Computer (PC)

Product Features:
- Ultrasonically welded covers.
- Meets CompactFlash★ specifications.

Compact Flash Packaging Kit: C-Flash✦ Cards and Connectors

C-Flash Cards and Connectors

Compact Flash product family utilizes ultrasonically welded covers. This packaging process produces the most rigid products in the industry and allows OEMs to streamline their manufacturing process and deliver cost effective solutions in the minimum production time.

✦ Trademark of ITT Industries, Inc.

Applications:
- Personal Computer (PC)
- Digital Camera

Product Features:
- Small and lightweight.
- Available in both Type I and Type II packages.

Compact Flash Packaging Kit: C-Flash✦ Host Connector and Ejector

C-Flash Host Connector

The C-Flash Host Connector Kit consists of a 50 position host side connector with ejector and grounding clip. Headers are offered with a surface mount, single row solder tail configuration. The host ejector mechanism is offered with a right-hand ejector button. Ejectors offer easy removal of the compact flash card from any compact flash slot.

✦ Trademark of ITT Industries, Inc.

Applications:
- Handy Terminal
- Personal Computer (PC)

Product Features:
- The connector and the ejector are sold separately.
- The header accepts Type I compact flash cards.

D Subminiature: D*, Eurostyle, CECC 75 301 802 (DIN 41652), 90° PCB
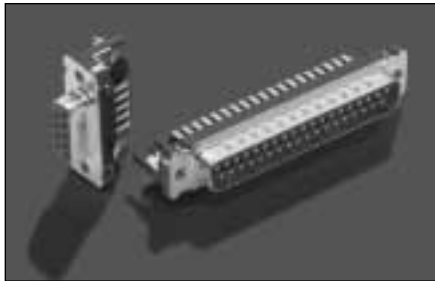
D*, Eurostyle

The Eurostyle D Subminiature (D*) low profile 90° PC tail connector is designed according to the CECC 75 301 802 (DIN 41652) European specification. The special low profile configuration provides additional space for the end user. D* connectors are compatible with all standard D subminiature connectors according to CECC 75 301 802 (DIN 41652).

Please Note: This Eurostyle D* connector replaces the D* version with the modification code 1AEN

Applications:
- Communications
- Industrial

Product Features:
- Available in Performance Class 1, 2 and 3, according to CECC 75 301 802 (DIN 41652).
- Clinch nut or jackpost with M3 or #4-40 UNC thread.

ⓘ www.ittcannon.com/cat223

D Subminiature: D*, Solder Cup Termination, Tin Shells, Cable Mount

D*, Solder Cup, Cable Mount

The D*, solder cup termination connectors with tin shells are used for cable or panel mount wiring applications. Solder cup connectors provide maximum flexibility and performance for applications requiring discrete solder terminations and field repair without termination tooling.

Applications:
- Communication Systems
- Transportation

Product Features:
- High performance commercial class connectors.
- Two contact performance classes.

ⓘ www.ittcannon.com/cat224

D Subminiature: D*, Solder Termination, 90° PCB – European Footprint 10,2◆ or 9,4 mm◆◆

D*, 90° PCB

The D*, 90° solder termination (machined contact) connectors are available for high performance uses according to CECC 75 301 802 (DIN 41652). Available with European footprint 1AON contacts, plastic and metal brackets, #4-40 or M3 threads and stamped pushfits/boardlocks.

◆ Connector footprint measured from the front shell.
◆◆ Connector footprint measured from the rear shell.

Applications:
- Information Systems
- Medical

Product Features:
- High performance commercial class connectors.
- Three contact performance classes.

ⓘ www.ittcannon.com/cat225

D Subminiature: D*, Solder Termination, Straight PCB – European PC Tails

D*, Straight PCB

The D*, straight solder termination (machined contact) — European PC tail connectors are available for high performance uses according to CECC 75 301 802 (DIN 41652). Available with European length OL2 and OL4 contacts.

Applications:
- Medical
- Test Equipment

Product Features
- High performance commercial class connectors.
- Two contact finish performance classes.

ⓘ www.ittcannon.com/cat226

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Dimensions are shown in mm (inch)
Dimensions subject to change

D Subminiature: D*, Wire Wrap Post Termination, Straight PCB

D*, Straight Wire Wrap Post

The D*, straight wire wrap post termination connectors are available for high performance uses according to CECC 75 301 802 (DIN 41652). Contacts available in two popular lengths.

Applications:

- Communication Systems
- Medical

Product Features:

- High performance commercial class connectors.
- Wrap post for 3 wraps.

www.ittcannon.com/cat227

D Subminiature: D*A, Combo D✦

D*A, Combo D

Combo D, D*A connector series offers the advantages of an industry standard shield I/O interconnect, with the flexibility of a customized special, designed for any application.

Applications:

- Video Coaxial Transmission (75 Ω)
- RF and Telecom Transmission (50 Ω)
- Power Interconnects

Product Features:

- Crimp and poke.
- Low Cost.

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✦ Trademark of ITT Industries, Inc.

D Subminiature: D*A, Crimp Connectors without Contacts, Cable Mount

D*A, Cable Mount

The D*A, crimp connectors without contacts are designed for reliable, fast cabling. Available in the industry standard D*A housing, the connectors provide a low-cost, quick cabling alternative compared to soldering.

Applications:

- Information Systems
- Transportation

Product Features:

- Crimp contacts available in reels of 5,000.
- Application tooling:
  – Hand or automatic
  – Stripper crimper

www.ittcannon.com/cat229

D Subminiature: D*BMA, Bulkhead

D*BMA, Bulkhead

The D*BMA feed-thru bulkhead connector is used when it is desirable to connect and disconnect a cable on both sides of a bulkhead or panel. This connector can also be used as a connector saver in test equipment applications where more than normal mating/unmating would soon degrade a permanently mounted connector.

Applications:

- Test Equipment

Product Features:

- Little Caesar rear insertion, rear release contact retention system.
- Durable design.

www.ittcannon.com/cat230

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Dimensions are shown in mm (inch)
Dimensions subject to change

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D Subminiature: D*D, Environmental D

D*D, Environmental D

The D*D environmental series is a rectangular connector in the popular D Subminiature shell configuration which meets all applicable performance requirements of MIL-C-24308. D*D is designed to meet demand for sealed subminiature plugs with superior vibration and moisture resistance characteristics.

Please Note: The D*D series is not intermateable with other D Subminiature connectors.

Applications:
- Aircraft
- Missile

Product Features:
- Little Caesar rear insertion, rear release contact retention system.
- MIL-C-24308 compatibility.

ⓘ www.ittcannon.com/cat231

D Subminiature: D*M, Combo D❖

D*M, Combo D

Combo D, D*M connector series offers the advantages of an industry standard shield I/O interconnect, with the flexibility of a customized special, designed for any application.

Applications:
- Power Interconnects (Up to 40 A)
- RF and Telecom Transmission (50 Ω)

Product Features:
- Standard and European footprints.
- Pre-installed 75 Ω/50 Ω coaxial or high power contacts (one part number).

ⓘ www.ittcannon.com/cat232   ❖ Trademark of ITT Industries, Inc.

D Subminiature: D*M, Solder Termination, 90° PCB, Standard Footprint .318♦ or .283 inch♦♦

D*M, 90° PCB

The D*M, 90° solder termination (machined contact) PCB connectors, equivalent to MIL-DTL-24308 qualified versions (except for finishes), for use with printed circuit boards in demanding applications.

♦ Connector footprint measured from the front shell.
♦♦ Connector footprint measured from the rear shell.

Applications:
- Communication Systems
- Test Equipment

Product Features:
- UL file number E8572.
- Metal bracket with threaded insert standard.
- Optional screw locks and boardlocks.

ⓘ www.ittcannon.com/cat233

D Subminiature: D*M, Solder Termination, Straight PCB, Standard PC tails

D*M, Straight PCB

The D*M, straight solder termination (machined contact) – standard PC tail connectors, equivalent to MIL-DTL-24308 qualified versions (except for finishes) for printed circuit boards and backplanes in demanding applications.

Applications:
- Aerospace
- Information Systems

Product Features:
- UL file number E8572.
- Optional vertical standoffs, screw locks and boardlocks available.

ⓘ www.ittcannon.com/cat234

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D Subminiature: D*M/D*MA, Space/High Reliability; MIL-DTL-24308

D*M/D*MA, Space/High Reliability

Space/high reliability D*M and D*MA high performance D Subminiature connectors meet stringent tests for outgassing and residual magnetism.

D*M and D*MA connectors meet the performance and dimensional requirements of the ESA/SCC 3401 and MIL-DTL-24308 specifications.

Applications:
- Medical
- Space – Low/High Orbit Satellites

Product Features
- Non-Magnetic.
- No outgassing.

(i) www.ittcannon.com/cat235

D Subminiature: D*MM/D*MAM, Military/High Reliability; MIL-DTL-24308

D*MM/D*MAM, Military/High Reliability

The D Subminiature D*MM and D*MAM connectors with fixed contacts in solder cup, straight and 90° PC contact terminations are qualified to MIL-DTL-24308. These high-reliability D Subminiature connectors are the finest quality connectors available at the most competitive prices in the market.

Applications:
- Aerospace
- Transportation

Product Features:
- Suitable for a variety of cable and printed circuit board options.
- Solder Cup version accommodates wire size #20 AWG maximum.

(i) www.ittcannon.com/cat236

D Subminiature: D*NG, Pressfit Termination, Straight PCB

D*NG, Pressfit, Straight PCB

The D*NG, straight pressfit termination is based upon the specification CECC 75 301 802. These connectors provide a low-cost alternative to traditional through hole solder contacts. Utilizing stamped "Eye of the Needle" compliant contact tails per IEC-352-5, the parts are quickly and easily mounted onto PCBs without soldering, crimping, or specialized tooling.

Applications:
- Information Systems
- Test Equipment

Product Features:
- Quick and easy press-in installation without specialized tooling.
- "Spoon" socket contact provides improved interface compared to "Tuning Fork".

(i) www.ittcannon.com/cat237

D Subminiature: D*SF

D*SF

The D*SF, connectors allow reliable, fast, and economical termination of ribbon cable without stripping and without splicing. They are intermateable with all D Subminiature connectors and offer an extremely low profile.

Applications:
- Communications
- Daisy-chain

Product Features:
- Low profile.
- No splitting of ribbon cable.

(i) www.ittcannon.com/cat238

D Subminiature: D*U
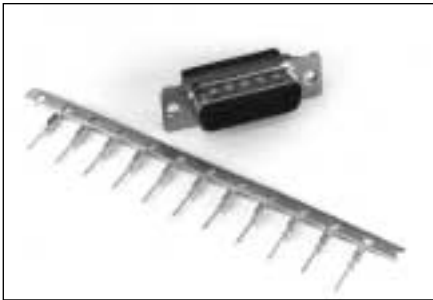
D*U

The D*U series, Cannon's low cost crimp-type D Subminiature connector, offers both machined and stamped contacts for crimp applications. Available in UL 94V-O material, D*U series features a snap-in, rear-release contact.

ⓘ www.ittcannon.com/cat239

Applications:
- Commercial Cabling
- Telecom/Industrial

Product Features:
- Corrects misaligned contacts.
- Mates with existing D Subminiature connectors.

D Subminiature: D*W, Discrete Wire IDC

D*W, Discrete Wire IDC

The D*W connector provides insulation displacement connection technology for either solid or stranded wires. With D*W, speed of cabling is increased significantly over solder cup or crimp solutions. Contacts are easily removable and replaceable. Several specialized accessories (including shield cans, ferrules, and plastic boots) are available to provide a complete product solution.

ⓘ www.ittcannon.com/cat240

Applications:
- Industrial
- Telecom

Product Features:
- Quick harnessing capability with simple hand or semi-automatic tooling.
- Accepts #30 AWG to #20 AWG wire; sizes can be mixed.

D Subminiature: ZD*, Solder Cup Termination, Tin Shells, Cable Mount

ZD*, Solder Cup, Cable Mount

The ZD*, solder cup termination (stamped and formed contact) connectors with tin shells are used for cable or panel mount wiring applications. Solder cup connectors provide maximum flexibility and performance for applications requiring discrete solder terminations.

ⓘ www.ittcannon.com/cat241

Applications:
- Communications Systems
- Test Equipment

Product Features:
- Economical.
- Stamped solder cup contacts, 5 A current capacity.

D Subminiature: ZD*, Solder Termination, 90° PCB – European Footprint 10,2 mm♦

ZD*, 90° PCB

The ZD*, 90° solder termination (stamped and formed contact) connectors are available for applications where price is the primary driver. They are available with integrated plastic brackets with European footprints.

♦ Connector footprint measured from the front shell.

ⓘ www.ittcannon.com/242

Applications:
- Medical
- Transportation

Product Features:
- Economical.
- Stamped PCB contacts, 5 A current capacity.

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D Subminiature: ZD*, Solder Termination, Straight PCB

ZD*, Straight PCB

ZD*, straight solder termination (stamped and formed contact) connectors are available for applications where price is the primary driver. They are available with or without boardlocks and screw locks.

www.ittcannon.com/cat243

Applications:

- Aerospace
- Information Systems

Product Features:

- Economical.
- Stamped PCB contacts, 5 A current capacity.

D Subminiature: ZD*A, High Density

ZD*A, Solder Cup, Cable Mount

High density commerical D, ZD*A, connectors feature size 22D contacts which are intermateable with the industry standard D Subminiature connectors. For cable-mounted connectors, crimp snap contacts are supplied on reels for fast semi-automatic crimping or in loose piece form for prototype applications.

www.ittcannon.com/cat244

Applications:

- Communication Systems
- Information Systems

Product Features:

- Economical.
- Metal front shell.
- Stamped solder cup contacts, 2 A current capacity.

D Subminiature: ZED*, Solder Termination 90° PCB – Standard Footprint .318 inch♦

ZED*, 90° PCB

The ZED*, 90° solder termination (stamped and formed contact) connectors are available for applications where price is the primary driver. They are available with integrated plastic brackets with Standard footprints.

♦ Connector footprint measured from the front shell.

www.ittcannon.com/cat245

Applications:

- Aerospace
- Transportation

Product Features:

- Stamped PCB contacts, 5 A current capacity.
- Plastic bracket with integrated boardlocks and grounding strap.

Fiber Optics: FOHC (Fiber Optic Hybrid Contacts) Termini

FOHC

Cannon Fiber Optic Hybrid Contacts (FOHC) are a standard in the industry. We offer the most complete line of fiber optic contacts, engineered to fit today's MIL-SPEC circular, rack and panel, edgecard/LRM, and D Subminiature connectors.

Applications:

- Harsh Environment
- Navy Shipboard

Product Features:

- Conforms to MIL-T-29504 fiber optic termini.

(i) www.ittcannon.com/cat295

Fiber Optics: FOMC (Fiber Optic Multi-Channel) Connectors

FOMC

Fiber Optic Multi-Channel connectors (FOMC) are designed to withstand rough handling and weather extremes with features of elastomeric cable and interface sealing, scoop proof interface to prevent optical contact damage, removable front insert for easy optical contact cleaning, anodized shell finish, and a tough, strong dust cap with attaching stainless steel strap.

Applications:

- Custom Applications
- Military Aerospace

Product Features:

- Rapid coupling.
- Attractive pricing.

(i) www.ittcannon.com/cat296

Fiber Optics: FPA (Fiber Optic Patchcord Assembly)

FPA

The Fiber Optic PatchCord Assemblies (FPA) are available in single-mode and multi-mode, in simplex and duplex. They are manufactured and tested to industry standards. They are in accordance to Telcordia, TIA/EIA, and IEC specifications.

Applications:

- Communication Equipment
- Networking Equipment

Product Features:

- FPA cable assemblies are available in premium and standard performance levels.

(i) www.ittcannon.com/cat297

Fiber Optics: PHD✦ (High Density)
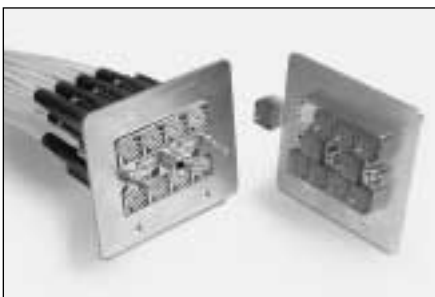
PHD

Cannon provides flexibility in optical system design with our PHD line of high density optical interconnects. The PHD connector system's open architecture delivers high performance, density and serviceability in a flexible and scalable product configuration.

New

Applications:

- Medical
- Military Electronics
- Optical Networking
- Telecommunications

Product Features:

- Increased density.
- Lower installed cost.

(i) www.ittcannon.com/cat298

✦ Trademark of ITT Industries, Inc.

Filter: D*JK/D*JT (Commerical D Subminiature)

D*JK/D*JT

D*JK and D*JT filter connectors utilize D Subminiature standard components and accessories which deliver 100% compatibility with equivalent products according to CECC 75 301 802 (DIN 41652) and offer a cost-effective production. They also provide excellent protection against EMI/RFI.

Applications:
- EMI/RFI Sensitive Electronics
- Telecommunication Transmission

Product Features:
- HF-tightness and mechanical stability by closed backshell.

ⓘ www.ittcannon.com/cat018

Filter: PSP (Phoenix Surge Protector), EMP Suppression, Series I, II, III, IV

PSP

Phoenix Surge Protectors (PSP) have been developed to protect today's sophisticated electronic circuitry from EMP generated by lightning, system transients, nuclear blasts, or static discharges.

Applications:
- Commercial/Military Avionics

Product Features:
- Available PSP connectors:
  – ARINC Series 600 Standard
  – MIL-C-24308
  – MIL-C-38999 Series I, II, III, and IV
  – MIL-C-81659 (ARINC Series 404 Standard)

ⓘ www.ittcannon.com/cat019

Filter: TBKA, ARINC Series 600 Standard (Rack & Panel)

TBKA, ARINC Series 600 Standard

These connectors provide solutions to high mating forces of pluggable modules in a rack by approximately two-thirds. Filter adaptations include either single module (gang) or complete connector filtering. The standard version features non-removable contacts with PC tail termination. Other versions include crimp piggyback rear release contacts and/or removable front sockets.

Applications:
- TCAS Commercial Avionics
- Wind Shear

Product Features:
- Low insertion force contacts.
- Up to 800 (size 22) contacts in one connector.

ⓘ www.ittcannon.com/cat020

Filter: TD1* (D Subminiature)

TD1*

These filter connectors have been developed to meet the industry's demands for improved control of EMI/RFI. They combine the functions of a standard electrical connector and feed-thru filters into one compact package. They are designed for applications where space and weight are the prime considerations.

Applications:
- Avionics
- Fire Control Systems

Product Features:
- Intermateable with all standard D Subminiature connectors.
- Intermateable with MIL-C-24308 connectors and meets applicable portions of this specification.

ⓘ www.ittcannon.com/cat021

Filter: TDPX, ARINC Series 404 Standard (Rack & Panel)

TDPX, ARINC Series 404 Standard

These filter connectors are used primarily on commercial and military aircraft for radio and instrumentation equipment. They are available in single through four gang versions with standard ARINC shells and polarizing posts. They are intermateable with the standard DPX connectors.

Applications:
- Commercial/Military Avionics
- Military Communications

Product Features:
- Small packaging.
- Large selection of contact arrangements.

i www.ittcannon.com/cat022

Filter: TKJL/TKJ/TKJA/TKJB (Miniature Circular)

TKJL/TKJ/TKJA/TKJB

These miniature circular filter connectors are designed to combine the functions of a standard electrical connector with a feed-thru filter into one compact package. They are designed to meet the applicable portions of MIL-C-38999, Series I, II, III, IV. These connectors feature arrangements that will accommodate up to 128 contacts.

Applications:
- Avionics
- Communication

Product Features:
- Series I – TKJL
- Series II – TKJ
- Series III – TKJA
- Series IV – TKJB

i www.ittcannon.com/cat023

Filter: TMDM (Microminiature D Subminiature)

TMDM

These microminiature filter connectors offer higher contact density than traditional rectangular connectors, making them ideally suited for applications where space is limited and EMI/RFI filtering is required. They are designed to meet applicable portions of MIL-PRF-83513.

Applications:
- Jamming Devices
- Telemetry Systems

Product Features:
- Transverse monolith capacitive filter for EMI/RFI shielding.
- Rugged aluminum one-piece shell.

i www.ittcannon.com/cat024

Filter: TPV (Miniature Circular)

TPV

These miniature circular filter connectors are designed to combine the functions of a standard electrical connector and a feed-thru into one compact package. They are designed to meet applicable portions of MIL-C-26482, Series 2 and MIL-C-83723, Series 1.

Applications:
- Avionics Systems
- Fire Control Units

Product Features:
- Small packaging.
- Total EMI protection.

i www.ittcannon.com/cat025

ITT Industries

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Hermetic: BFH/TBFH; MIL-C-5015 (Standard Circular)

BFH/TBFH

The BFH is a hermetically sealed version of the BFR (Bulkhead Fitting Receptacle). The TBFH is a hermetically sealed version of the TBF (Thru-Bulkhead Fitting Receptacle). It is flange mounted and mates with 3106, 3107 and 3108 plugs.

Applications:
- Commercial Aircraft
- Industrial
- Military

Product Features:
- Meets the requirements of MIL-C-5015.

www.ittcannon.com/cat280

Hermetic: D*H/D*TBH; MIL-DTL-24308 (D Subminiature)

D*H/D*TBH

The hermetically sealed D*H and D*TBH connectors are designed to meet environmental conditions of extreme pressure differential. These connectors are part of the D Subminiature series and are qualified to MIL-DTL-24308. The hermetic seal prevents leakage and subsequent accumulation of corrosive moisture behind the connector.

Applications:
- Commercial Aircraft
- Industrial
- Military

Product Features:
- Qualified to MIL-DTL-24308.

www.ittcannon.com/cat281

Hermetic: GS; MIL-C-5015 (Standard Circular)

GS

Cannon hermetic sealed GS (Glass Sealed) connectors are designed for applications where a vacuum, inert gas, or a constant or controlled pressure is required to eliminate adverse effects created by atmospheric changes.

Applications:
- Commercial
- Industrial
- Military

Product Features:
- Meets the requirements of MIL-C-5015.

www.ittcannon.com/cat282

Hermetic: KJLY/KJY/KJAY; MIL-DTL-38999, Series I, II, III (Miniature Circular)

KJLY/KJY/KJAY

Cannon's KJLY, KJY and KJAY connectors are hermetically sealed and designed to meet the critical performance and design requirements of MIL-DTL-38999. Engineered for high density circuitry capabilities, these connectors are designed to operate at temperatures ranging from −65°C to 200°C (−85°F to 392°F).

Applications:
- Industrial
- Military

Product Features:
- Qualified to MIL-DTL-38999.

www.ittcannon.com/cat283

ITT Industries

Cannon

Hermetic: KPTH/PVAH; MIL-C-26482, Series I, II (Miniature Circular)

KPTH/PVAH

Cannon's hermetically sealed KPTH and PVAH (MIL-C-26482, Series I and II) connectors are designed for those applications and environments that require delicate mechanisms to be protected from variations in atmospheric pressure.

Applications:
- Industrial
- Military
- Transportation

Product Features:
- Series I is qualified to MIL-C-26482.

www.ittcannon.com/cat284

Hermetic: MDMH; MIL-PRF-83513 (Microminiature D Subminiature)

MDMH

MDMH microminiature hermetic connectors feature compression glass sealed contacts into a steel shell with a high grade plastic "front end" insulator. An interfacial seal provides environmental protection when mated. MDMH receptacles are soldered to a chassis or container providing a completely leak-proof unit.

Applications:
- Commercial Aircraft
- Industrial
- Military

Product Features:
- Meets the requirements of MIL-PRF-83513.

www.ittcannon.com/cat285

ITT Industries

Cannon

IEEE-1394 Host Connector: Fire Wire

Fire Wire

The IEEE-1394 multimedia connection enables simple, low cost, high-bandwidth isochronous (real-time) data interfacing between computers, peripherals, and consumer electronics. A serial bus architecture that allows multiple connections from a single PC port.

Applications:

- Digital Video Recorders
- Computer Graphics Cards

Product Features:

- Ability to mix isochronous and asycnchronous data on a single connection.

New

Microminiature: Micro Line – MDM (Micro D Metal); MIL-DTL-83513

MDM

The Micro D Metal (MDM) connectors meet or exceed the applicable requirements of MIL-DTL-83513. MDM connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

i www.ittcannon.com/cat315

Applications:
- Military Electronics
- Navigation Systems
- Oil Exploration

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MDM-PCB (Micro D-Printed Circuit Board); MIL-DTL-83513

MDM-PCB

The Micro D Metal Printed Circuit Board (MDM-PCB) connectors meet or exceed the applicable requirements of MIL-DTL-83513. MDM-PCB connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

i www.ittcannon.com/cat317

Applications:
- Military Electronics
- Robotics
- Satellites

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MDM C/P (Micro D Metal Coaxial/Power)

MDM C/P

The Micro D Metal Coaxial/Power (MDM C/P) connectors meet or exceed the applicable requirements of MIL-DTL-83513. Coaxial and Power contacts can be interchanged as desired and offer the versatility of combining with signal lines in the same connector.

i www.ittcannon.com/cat316

Applications:
- Commercial Avionics
- Missiles

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MD (Micro D Plastic); MIL-DTL-83513

MD

The Micro D (MD) microminiature rectangular connectors meet or exceed the applicable requirements of MIL-DTL-83513. MD connectors are designed for use in applications requiring highly reliable, extremely small, lightweight connectors. Connectors are available in two insulator materials, allowing wide versatility in most applications required by industry.

i www.ittcannon.com/cat312

Applications:
- High Speed Data
- Scanners

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MDB C/P

MDB C/P

The Micro D (MD) microminiature rectangular connectors meet or exceed the applicable requirements of MIL-DTL-83513. MD connectors are designed for use in applications requiring highly reliable, extremely small, lightweight connectors. Connectors are available with your choice of two insulator materials, allowing wide versatility in most applications required by industry.

Applications:
- Avionic Equipment
- Computer Equipment

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MDB-PCB (Micro D Plastic-Printed Circuit Board)

MDB-PCB

The Micro D (MDB-PCB) microminiature rectangular connectors meet or exceed the applicable requirements of MIL-DTL-83513. They are designed for use in applications requiring highly reliable, extremely small, lightweight connectors. Connectors are available in two insulator materials, allowing wide versatility in most applications required by industry.
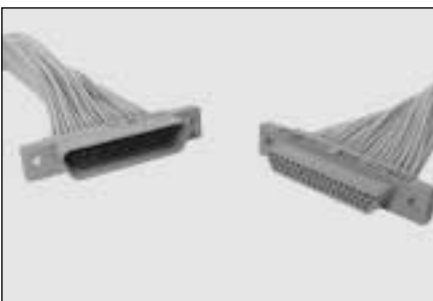
Applications:
- Commercial Instruments
- High Speed Data

Product Features
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MT (MTV/MTB) (Micro Strip)

MT (MTV/MTB)

The Micro Strip (MT) microminiature connectors provide an extremely dense and reliable interconnection solution in a minimum profile package. These connectors meet or exceed the applicable requirements of MIL-DTL-83513. MT connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

Applications:
- Satellites
- Instrumentation

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.

Microminiature: Micro Line – MEB (Micro Edgeboard)

MEB

The Micro Edgeboard (MEB) connector series provides a combination of high density and high reliability. MEB connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

Applications:
- Industrial Systems
- Military Electronics

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

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Microminiature: Centi Line – 2D (Double Density D)

2D

The Double Density D (2D) is a rectangular connector in the popular D Subminiature shell configuration. It offers (approximately) double the contact density in the same insert area.

Applications:
- Communications
- Instrumentation and Controls

Product Features:
- Contacts on 1,91 (.075) min. center spacing.
- Reliable, field-proven Centipin/Centisocket contacts.

www.ittcannon.com/cat308

Microminiature: Centi Line – 2DD (Environmental Double Density D)

2DD

The Environmental Double Density D (2DD) is an environmental rectangular connector in the popular D Subminiature configuration. It offers double the contact density in the same insert area and features superior vibration and moisture resistance characteristics.

Applications:
- Avionics
- Instrumentation

Product Features:
- Contacts on 1,91 (.075) min. center spacing.
- Reliable, field-proven Centipin/Centisocket contacts.

www.ittcannon.com/cat309

Microminiature: Centi Line – CDL (Centi D Lock)

CDL

The Centi D Lock (CDL) series is an all plastic monoblock high density rectangular connector. The CDL is a general purpose connector with a peripheral O-ring and wire sealing gasket. The CDL connector can accommodate 139 contacts.

Applications:
- Aircraft and Avionics
- Instrumentation and Controls

Product Features:
- Contacts on 1,91 (.075) min. center spacing.
- Reliable, field-proven Centipin/Centisocket contacts.

www.ittcannon.com/cat310

Microminiature: Centi Line – CTA (Centi Strip)
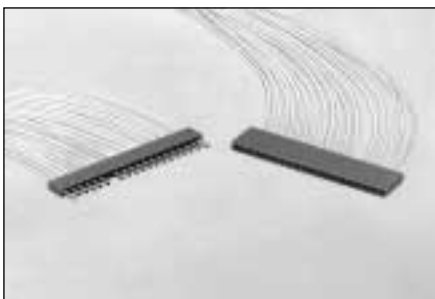
CTA

The Centi-Loc (CTA) series are low-cost nylon strip connectors designed for military and commercial applications. The Centi-Loc strip connector may be ordered as a kit or ordered in bulk and assembled as desired.

Applications:
- Communications
- Medical Equipment

Product Features:
- Reliable, field-proven Centipin/Centisocket contacts.

www.ittcannon.com/cat311

Microminiature: Nano Line – NDM (Nano D Metal)

NDM

The Nano D Metal (NDM) is a metal shell connector that features the highly reliable Twist Pin Contact system. Twist Pin design allows continuity in very dense areas and under severe shock and vibration environments.

Applications:

- Geological Exploration
- Panel-to-Board

Product Features:

- Contacts on 0,64 (.025) min. center spacing.

Microminiature: Nano Line – NJS (Nano Center Jackscrew Rectangular)

NJS

The Nano Jackscrew (NJS) series is a rectangular configuration with a center jackscrew. This connector features the highly reliable Twist Pin Contact system. Twist Pin design allows continuity in very dense areas and under severe shock and vibration environments.

Applications:

- Cable-to-Cable

Product Features:

- Contacts on 0,64 (.025) min. center spacing.
- Rectangular configuration with center jackscrew.

Microminiature: Nano Line – NT (NTP/NTDP) (Nano Strip)

NT (NTP/NTDP)

The single NTP or dual NTDP Nano Strip connectors feature the highly reliable Twist Pin Contact system. Twist Pin design allows continuity in very dense areas and under severe shock and vibration environments.

Applications:

- Medical
- Space Systems

Product Features:

- Max. 20 contacts on 0,64 (.025) min. center spacing.
- Max. 40 contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MJS (Micro Center Jackscrew)
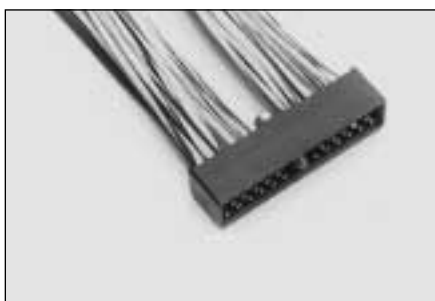
MJS

The Micro Center Jackscrew (MJS) series meets or exceeds the applicable requirements of MIL-DTL-83513. MJS connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

Applications:

- Board-to-Board
- Board-to-Cable

Product Features:

- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MIKM (Micro K Screw Coupling Series)

MIKM

The Micro K Screw Coupling (MIKM) series offers a steel shell for improved ruggedness and RFI resistance yet they are lightweight. They meet or exceed the applicable requirements of MIL-DTL-83513. MIKM connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

www.ittcannon.com/cat320

Applications:
- High Reliability Cameras
- Instrumentation

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MIKQ (Micro K Push/Pull Coupling Series)

MIKQ

The Micro K Push/Pull coupling (MIKQ) series offers a metal shell and a quick disconnect feature. They meet or exceed the applicable requirements of MIL-DTL-83513. MIKQ connectors utilize the unique Micropin/Microsocket contact design system. This system features seven points of electrical contact. It assures high normal force, excellent wipe and superior shock and vibration performance.

www.ittcannon.com/cat321

Applications:
- Computers
- Head Sets

Product Features:
- Micropin/Microsocket contacts, unique twist pin and solid tubular socket.
- Contacts on 1,27 (.050) min. center spacing.

Microminiature: Micro Line – MDSM

MDSM

MDSM's rugged construction and unique contact design provide durability of 500 mating cycles. All of this comes in a sleek package that includes a snap together shield can and a slide over boot producing a cable assembly with an overmolded look and a low assembled cost.

www.ittcannon.com/cat318

Applications:
- Bar Code Scanners
- Hand Held Devices

Product Features:
- UL file number E8572.
- Choice of two different latching options (thumbscrew or push-pull).

Microminiature: Micro Line – MSMC

MSMC

Microminiature Surface Mount Connectors (MSMC) are rectangular board-to-board and board-to-flat ribbon cable connectors with pitch of 1,27 x 1,27 mm (.050 x .050 inch). Straight and 90° SMT termination, pin and socket, as well as socket IDC with integrated latches.
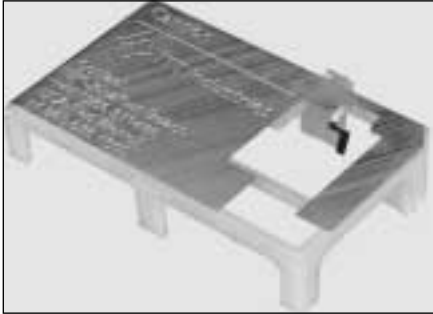
www.ittcannon.com/cat323

Applications:
- Communication
- Industrial
- Medical

Product Features:
- 12, 26, 50, 68, 80 positions.

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Dimensions are shown in mm (inch)
Dimensions subject to change

Mobile: Antenna Capabilities

Antenna Capabilities

Cannon is the ideal partner for the development and manufacture of internal antennas, thanks to extensive RF experience, state-of-the-art simulation and testing facility combined with global manufacturing skills.

Applications:
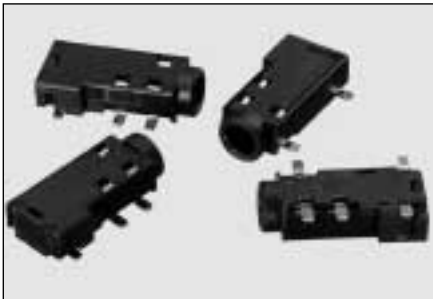
New

- Bluetooth
- Cordless Phones

Features and Services:

- Design, Prototype and Simulation; Testing; Manufacturing; Modular Tooling; Customer Support.

(i) www.ittcannon.com/cat255

Mobile: LF: Audio Jack

LF: Audio Jack

The 2.5 mm mini Audio Jack is designed for hands-free or music applications. Mating halves to these connectors are also available.
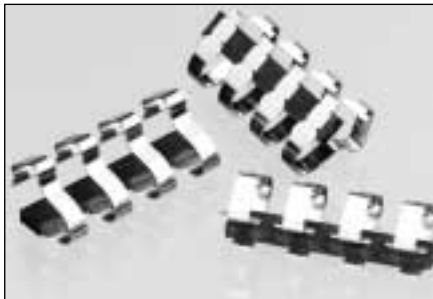
Applications:

New

- Hands-Free
- Music

Product Features:

- Available positions:
  – 4:4
  – 5:5
  – 6:6

(i) www.ittcannon.com/cat256

Mobile: LF: Battery

LF: Battery

Cannon offers a wide range of battery connectors either a standard design or customized to meet specific requirements. Available with stamped or wire formed contacts. Wire formed contacts can significantly reduce tooling costs and offer an improved contact surface leading to increased battery life.

Applications:

New

- Wireless Telecom

Product Features:

- Stamped or wire formed contacts.
- Standard or customized connector design.

(i) www.ittcannon.com/cat257

Mobile: LF: DC Jack

LF: DC Jack

Cannon offers a wide range of DC Jacks in various sizes and current ratings. All DC and Power Jacks have been tested and built in accordance with the EIA and MIL-STD guidelines. Coplanarity of 0,1 mm from the seating plane, can be held.

Applications:

New

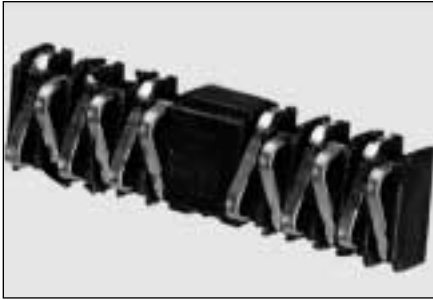- Mobile Cell phones
- PDA

Product Features:

- Gold or silver plated contacts.
- Convection or Infrared reflow soldering.

(i) www.ittcannon.com/cat258

ITT Industries

Cannon

Dimensions are shown in mm (inch)
Dimensions subject to change

Mobile: LF: Keypad

LF: Keypad

The Keypad connector can be integrated into a keypad module. Contacts are pre-loaded and offer an anti-lifting feature. Keypad connectors are overmolded and 100% inspected, to ensure the most stringent coplanarity and quality requirements are met.
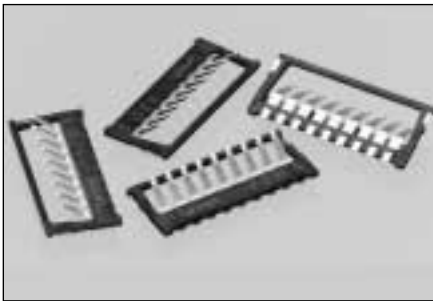
New

Applications:
- Wireless Telecom

Product Features:
- Contacts are pre-loaded and feature anti-lifting protection.
- 100% inspection ensures quality and coplanarity.

ⓘ www.ittcannon.com/cat259

Mobile: LF: LCD

LF: LCD

Cannon's small LCD connector enables a low cost connection between an LCD panel and a printed circuit board with a minimum height. The contact design is very robust, featuring a 0.2 N minimum contact force and a 0.6 N maximum.

New

Applications:
- Wireless Telecom

Product Features:
- Available positions: 9, 10.
- Compact size.
- Low profile and low cost.

ⓘ www.ittcannon.com/cat260

Mobile: LF: Mini USB

LF: Mini USB

Cannon's Mini USB series brings plug-and-play technology to the external and output devices found on today's high performance personal electronic equipment. Mini USB technology is ideal for connecting electronic devices to computer peripheral equipment. It is easy-to-use and features a standardized design, allowing use in a wide variety of applications.

New

Applications:
- Digital Cameras
- PDA

Product Features:
- Meets the current USB release standard.
- Compact in size and lightweight.

ⓘ www.ittcannon.com/cat261

Mobile: LF: Universal Contact

LF: Universal Contact

The Universal Contact provides a standard interface solution across many platforms, therefore reducing qualification testing. In addition, these contacts eliminate the need for individual spring contacts on modular components. Universal Contacts are very small and can be soldered directly onto the PCB with a minimum pitch of 1,35 mm between contacts.
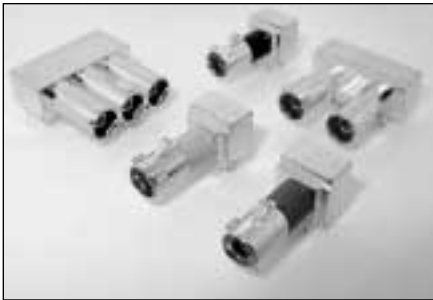
New

Applications:
- Speakers
- Microphones

Product Features:
- Contacts can be soldered directly onto PCB.
- Contacts are pre-loaded and feature anti-lifting protection.

ⓘ www.ittcannon.com/cat262

ITT Industries

Cannon

Mobile: RF: Fakra

RF: Fakra

The 50 ohm Fakra connector features a solid one piece metal design. It offers a low mating/unmating force with high electrical performance, at 3 GHz, while contact resistance values are maintained from connector to connector.

Applications:

New

- Global Positioning Satellite
- Vehicular Internet Access

Product Features:

- Supports 0 to 4 GHz transferring speed.
- Available in a variety of colors.

(i) www.ittcannon.com/cat263

Mobile: RF: LPC CP1/CP2

RF: LPC CP1/CP2

The LPC CP1/CP2 RF switchable connectors are ideal for small handsets and offer high performance in a very compact design and a unique cold pin to minimize the RF emissions in unmated conditions.

Applications:

New

- Mobile Phones
- PDA

Product Features:

- Cold pin to minimize RF emissions in unmated conditions.
- Low profile of 5,6 mm.

(i) www.ittcannon.com/cat264

Mobile: RF: LPC CP1/CP2 Accessories

RF: LPC CP1/CP2 Accessories

To compliment the LPC CP1/CP2 PCB connectors, Cannon offers a wide range of accessories to cover different needs for testing. These accessories are also ideal for the automotive industry.

Our accessories can be easily customized for specific projects.

Applications:

New

- Car kits
- On-line production testing
- Testing

(i) www.ittcannon.com/cat265

Mobile: RF: LPC Dual Port

RF: LPC Dual Port

The LPC Dual Port is a surface mount connector. It is easy-to-assemble and very robust. It allows dual connection to both cellular and satellite frequencies.

Applications:

New

- Portable Radio
- Portable Satellite

Product Features:

- Easy-to-assemble.
- Surface mount.

(i) www.ittcannon.com/cat266

ITT Industries

Cannon

Mobile: RF: LPC MID

RF: LPC MID

The MID switchable connector is lightweight, small in size, and surface mounted with a low profile of 3,47 mm. This new generation of mobile phone connectors uses the latest plated plastics technology, which permits the outer shape to be modified easily, allowing for a more flexible design.

Applications:

- Mobile Phones
- PDA

New

Product Features:

- Plastic plated shell.
- Compact design and lightweight.

(i) www.ittcannon.com/cat267

Mobile: RF: LPC Mk III

LPC Mk III

The decreasing size of mobile handsets and the quest for ever improving performance now requires the RF connector to be located near to the antenna. It is with these trends in mind that Cannon has developed the miniature LPC Mk III switchable connector to offer a high performance solution in an extremely small package.

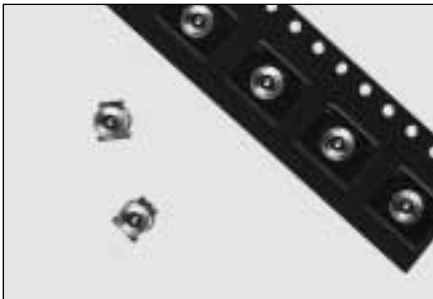**Applications:**

- Mobile Phones

New

Product Features:

- This surface mounted connector has a low profile with a nominal height of only 3,47 (.136).
- Designed for reflow soldering processes.

(i) www.ittcannon.com/cat268

Mobile: RF: LPC SP1

RF: LPC SP1

The LPC SP1 is the waterproof version of the LPC CP1/CP2 RF switchable connector. It features a special seal, allowing it to be IP67 compliant (1 meter of water). These connectors are ideal for small handsets. They offer high performance in a very compact design with a unique cold pin to minimize the RF emissions in unmated conditions.

Applications:

- Mobile Phones
- PDA

New

Product Features:

- Sealed to IP67.
- Low profile of 5,6 mm.

(i) www.ittcannon.com/cat269

Mobile: RF: LPC TP-1
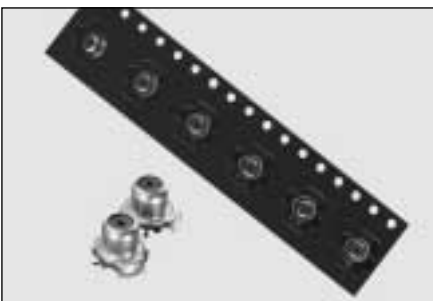
RF: LPC TP-1

The ultra-small LPC TP-1 has been developed as an antenna test port for portable terminal interfaces and the inspection of PCB boards. It is an ideal solution for applications that do not require a very high number of mating cycles.

Applications:

- Mobile Phones
- PDA

New

Product Features:

- 100% inspection ensures quality.
- Tape and reel packaging.

(i) www.ittcannon.com/cat270

PC Card: PCMCIA I/O Card Kit, StarCard II✦

StarCard II

The StarCard II is a frameless PCMCIA I/O Card Kit with two surface-mount connectors, stainless steel snap-on covers and a shielded cable connector. The StarCard II utilizes a custom I/O connector system which is the most robust in the market today.

Applications:
- GPS Devices
- HPC/PDA

Product Features:
- Meets current PCMCIA release standard.
- Maximizes available area on PCB.

ⓘ www.ittcannon.com/cat045

✦ Trademark of ITT Industries, Inc.

PC Card: PCMCIA I/O Card Kit, StarCard Ultra✦

StarCard Ultra

The Ultra product family utilizes ultrasonically welded covers. Available in both Type I and Type II packages. These packages offer a wide variety of standard PCMCIA I/O connectors.

New

Applications:
- LAN/Modems
- Wireless LAN

Product Features:
- Meets current PCMCIA release standard.
- Improved assembly cycle times.

ⓘ www.ittcannon.com/cat046

✦ Trademark of ITT Industries, Inc.

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Printed Circuit Board: MiniStack

MiniStack

MiniStack series is a surface mount technology (SMT) based on a hermaphroditic design, meaning the male and female connector are identical. This design meets the demand for an economical solution in modern miniature electronic applications. MiniStack series features a compact low profile, designed for modern board-to-board solutions. The dual-sided PCB application contact principle provides for a tilt-proof connector position on the PCB.

New

Applications:
- Electronic Toys
- Medical Equipment, Portable Diagnostics

Product Features:
- Gripper surface is integrated with the insulator body.
- Compact, low profile.

(i) www.ittcannon.com/cat182

Printed Circuit Board: PFPC/FPC/FFC

PFPC/FPC/FFC

The PFPC/FPC Series is a compact, low profile connector, featuring Zero Insertion Force (ZIF) technology. ZIF design allows repeated cycling with minimal wear to the contacts. The PFPC/FPC Series meets the most stringent electrical and mechanical requirements, assuring system integrity.

Cannon's Flexible Flat Cable (FFC) connectors incorporate multiple pitch contact systems. This system facilitates easy termination to flat cable.
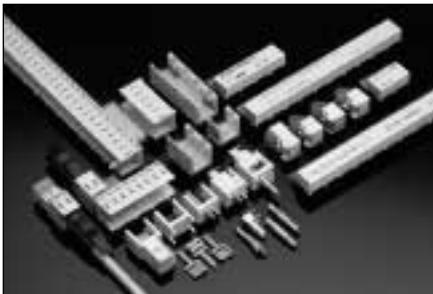
New

Applications:
- Digital Cameras
- Mobil Phones

Product Features:
- Compact, low profile.
- Offered in SMT or DIP variants.

(i) www.ittcannon.com/cat183

Printed Circuit Board: Tempus✦ CBC-20

Tempus CBC-20

Tempus CBC-20 is a modular two part plug and receptacle system. It is a reverse system with the male pin contacts mounted on the backplane and the female socket contacts mounted on the daughtercard. It is used in DC, low frequency analog & digital high speed applications.

Applications:
- Data Communication
- Telecommunication

Product Features:
- Optimum 2 mm connector pitch.
- Durability: 1000 mating cycles min.

(i) www.ittcannon.com/cat184

✦ Trademark of ITT Industries, Inc.

Printed Circuit Board: Tempus✦ CBC-20-HS, Series 1000/2000

Tempus CBC-20-HS

The Tempus 1000/2000 Series is a high-speed stripline-shielded backplane connector system. The 1000 Series features a unique stripline structure in both the header and receptacle. The 2000 Series adds column-wise stripline shielding to the header. They are similar in profile, footprint and mating interface to the Cannon Tempus CBC-20 connectors.
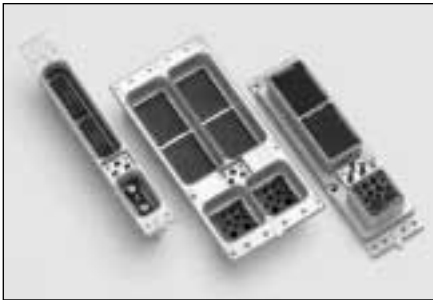
New

Applications:
- Backplane
- Midplane

Product Features:
- According to IEC 61076-4-104 specification.
- Available in 5 and 8-row configurations.

(i) www.ittcannon.com/cat185

✦ Trademark of ITT Industries, Inc.

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Dimensions are shown in mm (inch)
Dimensions subject to change

Rack and Panel: BKA; ARINC Series 600 Standard

BKA

Cannon's BKAD/BKAE connectors are available with rear release/rear removable, low insertion force contacts. They are interchangeable with the contacts used in the DPX series and permit retrofit of existing equipment.

BKAF connectors are totally intermateable and intermountable with ARINC Series 600 Standard connectors now in the field. They use front release/front removable, low insertion force contacts.

i www.ittcannon.com/cat134

Applications:
- Avionic Equipment
- Commercial Aircraft

Product Features:
- Up to 800, size 22 contacts in one connector.
- Low insertion force contacts.

Rack and Panel: DPA/DPAMA (Miniature)

DPA/DPAMA

DPA series connectors are rugged, miniature rack and panel plugs utilizing maximum insert space in a one-piece shell.

i www.ittcannon.com/cat135

Applications:
- Avionic Equipment
- Commercial Aircraft

Product Features:
- DPAMA connectors feature Little Caesar rear release contact retention assembly.

Rack and Panel: DPD/DPDMA

DPD/DPDMA

Cannon's DPD rack and panel connectors are distinguished from other connector lines by their rectangular shape which provides maximum space utilization on rack or chassis mounted equipment. They are available in non-environmental single and two-gang configurations.

i www.ittcannon.com/cat136

Applications:
- Computer Panels
- GFE Test Equipment

Product Features:
- DPDMA/DPD2MA connectors feature Little Caesar rear release contact retention assembly. Preferred for new design.

Rack and Panel: DPGM/DPJM/DPJMB

DPGM/DPJM/DPJMB

Cannon's DPGM, DPJM, and DPJMB connectors are designed for applications where space and weight are prime considerations. Their rectangular shape provides maximum space utilization and permits easy removal of equipment for inspection and/or repair.

i www.ittcannon.com/cat137

Applications:
- Avionics Equipment
- Commercial Aircraft
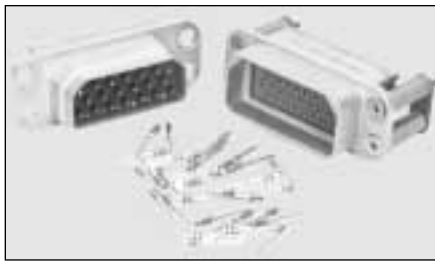
Product Features:
- DPJMB features Little Caesar rear release contact retention assembly. Preferred for new design.

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Dimensions are shown in mm (inch)
Dimensions subject to change

Rack and Panel: DPK; MIL-C-83733 (USAF)

DPK

Cannon's DPK series are high performance environment-resistant, rectangular connectors qualified to MIL-C-83733 (USAF). They feature crimp snap-in contacts in the dependable Little Caesar rear release contact retention assembly. This field-proven assembly permits contacts to be inserted and extracted at the rear of the connector.

Applications:
- Commercial Aircraft
- Military Aircraft

Product Features:
- Qualified to MIL-C-83733 (USAF).
- Little Caesar rear release contact retention assembly.

Rack and Panel: DPX; ARINC Series 404 Standard

DPX, ARINC Series 404 Standard

The DPX series are one-piece shell miniature rack and panel connectors. They are available in single through four gang versions with ARINC Series 404 Standard shells. Their construction offers high strength and maximum utilization of insert area.

Applications:
- Avionic Equipment
- Commercial Aircraft

Product Features:
- Accommodates up to 424 contacts.

Rack and Panel: DPXNA/DPXNE; MIL-C-81659

DPXNA/DPXNE

Cannon's DPXNA (non-environmental, Type IV) and DPXNE (environmental, Types II and III) rack and panel connectors are designed to meet or exceed the requirements of MIL-C-81659, Revision B. They are available in single through four gang configurations, with a total of 12 contact arrangements accommodating contact sizes 12, 16, 20 and 22, and combination standard and coaxial contacts.

Applications:
- Commercial Aircraft
- Military Aircraft

Product Features:
- Little Caesar rear release contact retention assembly.
- Qualified to MIL-C-81659.

Rack and Panel: SGA – Single Gang ARINC

SGA

SGA connectors utilize all the signal cavity inserts and contacts featured in the ARINC Series 600 Standard connector. It was designed to be used where there are space constraints in which an ARINC Series 600 Standard connector cannot be used. Cannon's SGA connector fills the need for a 150 maximum contact connector with a smaller shell design than shell size 2 of ARINC Series 600 Standard, and has more contacts available than single gang DPX with 106, size 22, contacts.

Applications:
- Avionic Equipment
- Commercial Aircraft

Product Features:
- Both environmental and non-environmental versions.
- Low insertion force contacts.

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Dimensions are shown in mm (inch)
Dimensions subject to change

RF: 1.0/2.3

1.0/2.3

The Cannon 1.0/2.3 connectors are offered in both 50 ohm and 75 ohm series. These connectors are now widely used in telecommunication systems where, due to their smaller size, significant space saving can be achieved. The new CoSMID range of surface mount modular PCB connectors offer 2, 3, & 4 port configurations. Ideally suited to RF and high speed digital equipment, the connectors are designed to meet the requirements of CECC 22230 and DIN 47247.

ⓘ www.ittcannon.com/cat072

Applications:
- Switching Equipment
- Transmisson Equipment

Product Features:
- Push-Pull coupling mechanism.
- CoSMID surface mount PCB modules.

RF: 1.6/5.6

1.6/5.6

The Cannon range of 1.6/5.6 connectors are suitable for use in 75 ohm communication systems. These connectors have become the recognized standard in telecommunication systems in many parts of the world. These connectors are designed to meet the requirements of DIN 47295, CECC 22240 and IEC 169-13.

ⓘ www.ittcannon.com/cat073

Applications:
- Switching Equipment
- Telecom Systems
- Transmission Equipment
- Voice over Internet Protocol

RF: Between Series Adapters (Adaptors)

Between Series Adapters

Cannon's Between Series Adapters are widely used for high efficiency transitions between various types of RF coaxial connectors. They are used for connecting test equipment to systems employing a different type connector, or they are used as a component in electronic equipment where it is desirable to have one type of connector for external connections and another type for internal connections.

All Between Series Adapters are designed for lowest VSWR characteristics up to the frequency limits of the connector types involved. All popular types of miniature, subminiature and microminiature designs are available.

ⓘ www.ittcannon.com/cat074

Applications:
- Industrial Systems
- Military Equipment
- Telecom Systems
- Test & Instrumentation Equipment

RF: BNC

BNC

The 75 ohm 90° BNC RF connectors are designed to meet and exceed the most rigorous demands in today's central offices. The 90° BNC connectors feature full crimp designs and can be easily terminated in the field with our recommended tools.

ⓘ www.ittcannon.com/cat075

New

Applications:
- Central Office Switching
- Telecommunications

Product Features:
- Fits 734 and 735 type DS3 coaxial cables.
- Available in single or bulk package.

◆ ITT Industries

Cannon

Dimensions are shown in mm (inch)
Dimensions subject to change

RF: Coaxial Terminators

Coaxial Terminators

Cannon's Coaxial Terminators provide a low cost means of cable junction to a printed circuit where engagement and disengagement are not required. This method of terminating cable on PCBs eliminates the inconsistency associated with hard wiring.

Applications:
- Consumer Products
- Industrial Equipment

Product Features:
- Easy to assemble.
- Low cost.

i www.ittcannon.com/cat076

RF: MMCX

MMCX

Tomorrow's base stations and wireless architectures require the highest level of RF performance. Cannon's MMCX connector series is rated at 6 GHz and is about 50 percent of the size of the MCX and SMB series. The MMCX connector is designed with a 50 ohm impedance and a reliable snap-on coupling method producing low "RF leakage". It is designed for use in applications where space requirements are small and weight limitations are demanded.

Applications:
- Automotive
- GPS

Product Features:
- High reliability and long service life.
- Low RF leakage value.

i www.ittcannon.com/cat077

RF: QT-BNC

QT-BNC

This totally new termination technique provides the QT-BNC with a high pressure, gas tight center conductor joint of exceptional mechanical integrity, without crimping the center contact. The QT-BNC is a 75 ohm pre-assembled connector with an integral center contact and rear crimp ferrule. This connector may be terminated onto cable in under 20 seconds, significantly reducing installation costs.

Applications:
- Telecommunications
- Broadcast Systems

Product Features:
- Plastic rear cap is color coded for easy identification of cable type.
- Meets Telcordia/SMPTE 292M standards.

i www.ittcannon.com/cat078

RF: Sealflex 2

Sealflex 2

Cannon's Sealflex 2 microwave cable assemblies are designed for applications requiring consistent microwave performance through to 18 GHz and may be used with minimal degradation to 26 GHz, with SMA connectors.

All connector designs, except BNC, exhibit "mode free" characteristics to 18 GHz, thereby allowing low VSWR to be specified without "spikes" being present in the upper frequency spectrum.

Applications:
- Avionic Systems
- Commercial Communications Equipment

Product Features:
- 100% tested for VSWR and insertion loss and test plots are supplied with each item.

i www.ittcannon.com/cat079

ITT Industries

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RF: SMA – Commercial

SMA – Commercial

Cannon offers a range of Commercial SMA, brass bodied connectors. These offer a more economic product for a slightly reduced performance. They are supplied with either gold or nickel plating. Also, available with passivated stainless steel coupling nuts.

Applications:

- Base Station - Networks
- Test & Instrumentation Equipment

Product Features:

- SMA plugs are environmentally sealed using a gasket.
- Intermateable with all SMA connectors currently available.

ⓘ www.ittcannon.com/cat080

RF: SMA – Precision

SMA – Precision

Cannon's Precision SMA connectors feature the MIL-C-39012 Series SMA interface and envelope configuration. They can be mated with all connectors meeting the MIL-SPEC dimensions. Designed for use with a variety of subminiature coaxial cables, superior results are obtained from DC to 18 GHz when used with semi-rigid cables and from DC to 12.4 GHz with flexible cable.

Applications:

- Military Equipment
- Radar – Ground and Airborne

Product Features:

- SMA plugs are environmentally sealed using a gasket.
- Intermateable with all SMA connectors currently available.

ⓘ www.ittcannon.com/cat081

RF: SMA – Slide-On Plug

SMA – Slide-On Plug

Slide-On SMA Plugs are designed to allow a reliable and fast method of testing equipment. This connector mates with the standard SMA jack. They completely eliminate the need for torquing and yet provide comparable SMA electrical performance with no wear and tear on the threads of the unit under test.

Applications:

- Blind Mating for Rack and Panel
- Production Test Equipment
- Quick Connect or Disconnect of Cables
- Slide-in Components

ⓘ www.ittcannon.com/cat082

RF: SMB/SMC

SMB/SMC

Cannon's SMB/SMC connectors are compatible with all SMB/SMC connectors conforming with MIL-C-39012, BS9210, UTE C93 561, UTE C93 562, CECC 22130 and CECC 22140.

SMB connectors feature snap-on coupling, allowing rapid mating/unmating. SMC connectors feature screw-on coupling, permitting a low VSWR under vibration conditions and a matched impedance of 50 ohms.

Applications:

- Body Scanners – Medical
- Hard Disk Drives
- Radar – Airport Search
- Telecom Systems
- Test & Instrumentation Equipment

ⓘ www.ittcannon.com/cat083

◆ **ITT** Industries

Cannon

RF: SMZ (Type 43)

SMZ (Type 43)

The SMZ connector is a telecommunication standard in the UK and in many areas of the world. A series of 75 ohm connectors which feature positive latching and Cannon's unique QT✦ (Quick Termination) assembly method.

✦ Trademark of ITT Industries, Inc.

Applications:
- Switching Equipment
- Telecom Network
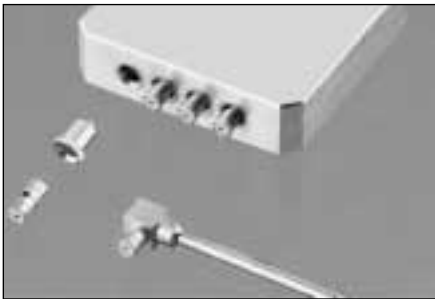- Transmisson Equipment
- Voice over Internet Protocol

Product Features:
- Center contact termination using crimp or QT termination method to reduce installed costs.
- Interface to BS9210 F0022.

ⓘ www.ittcannon.com/cat084

RF: SSIS

SSIS

Cannon's Subminiature Intermediate Slide-On Series (SSIS) connectors are miniature versions of the SIS range. The jack-to-jack adaptor has been designed to bias the mating forces. This feature ensures that the components will be retained in the desired module. One end of the adaptor has a higher engagement/separation force than the other. Consequently at separation the high force end of the adaptor will remain in one module while the low force end slides free.

Applications:
- Avionic Equipment
- Filters
- Radar
- Telecom – Base Station Equipment

ⓘ www.ittcannon.com/cat085

RF: SSMB/SSMC

SSMB/SSMC

SSMB 50 ohm connectors feature snap-on coupling, allowing rapid mating/unmating in applications where limited space prohibits the use of torque wrenches or when components/modules must be quickly changed to reduce downtime. SSMC 50 ohm connectors feature screw-on coupling, to provide positive mechanical engagement, where space permits the use of torque wrenches.

Applications:
- Avionic Equipment
- Military Radio – Manpack
- Missiles
- Portable Equipment
- Weapon Control Systems

ⓘ www.ittcannon.com/cat086

Smart Card: CCM01 (MKI, MKII, MKIII) – Full Size Friction
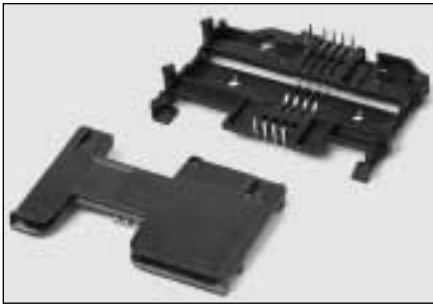
CCM01 (MKI, MKII, MKIII)

In addition to the CCM01 MKI design, featuring blade switches, Cannon offers the MKII and MKIII series. For applications where space is limited, the MKII provides significant space savings. The MKII features an extremely compact design integrating sealed switch. The SMT version is designed for pick and place compatibility. The MKIII family is the perfect cost effective solution in standard or reverse card reading.

www.ittcannon.com/cat208

* Trademark of EMVCo LLC.

Applications:
- Set Top Boxes
- Electronic Fund Transfer

New

Product Features:
- Available with 8 contacts.
- Through hole or SMT.
- Designed according to EMV* specification.

Smart Card: CCMO2 (MKI, MKII) – Full Size Landing

CCM02 (MKI, MKII) (Integrated System)

With more than 500,000 mating cycles, our exclusive landing technology extends the interconnect life, by having only a minimal contact wiping action. Integrating the ultra-low profile sealed switch, the MKII is the most compact long lasting solution. SMT versions are pick and place compatible.

www.ittcannon.com/cat209

* Trademark of EMVCo LLC.

Applications:
- Point of Sales (POS) Terminal
- ID Security

Product Features:
- Designed according to EMV* specification.
- Spooned contacts to reduce risk of accidental damage.
- Available with 8 through hole or SMT contacts.

Smart Card: CCM03 (MKI, MKII, MKIII) – SIM/SAM Holder
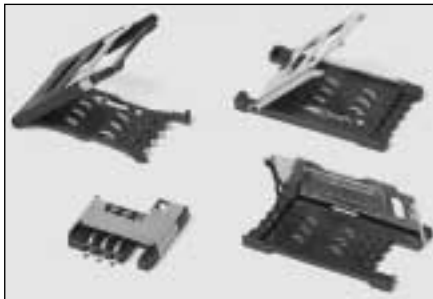
CCM03 (MKI, MKII, MKIII)

Designed for SIM/SAM cards; the ruggedized MKI design features hinged covers. The compact design of our MKII series offers fixed cover versions, as well as our exclusive Auto Lock hinged cover, designed for easy card handling.

The MKIII additions are the smallest interconnect solution for the SIM/SAM cards with our ultra low low profile sealed end travel card detection switch.

www.ittcannon.com/cat210

Applications:
- Mobile Phones
- Portable Devices

New

Product Features:
- Fixed or hinged cover.
- Auto Lock metal cover.
- Ultra-low profile sealed switch.

Smart Card: CCM04 (MKII, MKIII) – Contact Block

CCM04 (MKII, MKIII)

The CCM04 was designed for applications where the card guidance is built into the equipment to maximize space savings. We offer a wide range of surface mount interconnects with different configurations, different heights and optional end travel card detection switches.
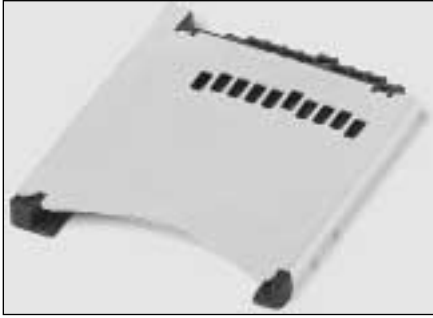
www.ittcannon.com/cat211

Applications:
- Mobile Phones
- Portable Devices

Product Features
- Inlay or gold plating.
- Ultra low profile sealed switch.

ITT Industries

Cannon

Smart Card/Flash Memory Card: CCM05 (MKI, MKII)

CCM05 (MKI, MKII)

Cannon's MKII series accepts both Secure Digital (SD) and Multi-Media Card (MMC) flash memory cards. The 9 contact interconnect with write protect detection switch is offered in different thickness. Our latest development of flash card interconnect solution includes a push-on/push-off Memory Stick Duo★ card reader. When only Multi Media card is needed, our MKI family will fit your requirements.

★ Trademark of Sony.

New

Applications:

- PDA
- Portable Devices

Product Features:

- MMC-SD compatible.
- Memory Stick Duo push-in/push-out mechanism.
- Lead free terminal.

Smart Card: CCM-J

CCM-J (Integrated System)

The CCMJ-014C-E with an ejector mechanism and landing system opens new opportunities for future on-board applications. It offers higher reliability, durability, maximized space savings, and easy installation. Higher performance in the most compact design.

Applications:

- Electronic Toll Collection
- Intelligent Transportation System

Product Features:

- Available with left side ejector button.
- Reads cards of the ISO standard 7816 (full size smart card).

ITT Industries

Cannon

Dimensions are shown in mm (inch)
Dimensions subject to change

www.ittcannon.com

Transportation: APD/DIN 72585

APD/DIN 72585

This series of in-line and bulkhead sensor connectors are resistant to engine, transmission and brake fluid – specifically designed for the harsh environment on a vehicle. It also boasts very low contact resistance, so you can benefit from maximum signal integrity.

Applications:

- ABS Brake control
- Valve control (water, oil, air pressure)

Product Features:

- Bayonet coupling.
- Environmentally sealed to IP69K.

www.ittcannon.com/cat057

Transportation: APE

APE

APE 2 and 3-way connectors are designed to protect against the harshest environmental conditions. It stands up to contaminants, vibration and shock. Low contact resistance provides a maximum signal integrity.

Applications:

- ABS/EBS Brake Systems for Truck and Trailers

Product Features:

- Environmentally sealed to IP69K.
- Individual wire seals.

www.ittcannon.com/cat058

Transportation: APV Vector✦

APV Vector

This series of connectors offers a low cost, lightweight environmental sealing solution with a maximum of space savings. Positive polarization is assured by the trapezoidal shape of the connectors and additional coding positions. Reliable mating and locking is indicated both visually and audibly.

Applications:

- Transportation

Product Features:

- In-line design.
- Positive mating.
- Secondary terminal locking.
- Signal and Power with single housing.

www.ittcannon.com/cat059

✦ Trademark of ITT Industries, Inc.

Transportation: CLC/Y-Splice

CLC/Y-Splice

Cannon's Clip Lock Circular (CLC) environmental miniature connector and Y-Splice series are designed to support electronic networks, sensors and actuators direct, in-line and feed-thru interconnect applications. CLC is one rugged connector system that can really take the heat, shock and vibration found in the harshest vehicle environments. CLC's Pass-Thru and Y-Splice connectors both offer field-proven elastomeric seals.

Applications:

- CAN Bus Systems (J1939)
- Engine Block – Fuel Injection
- Transmission – Automotive

Product Features:

- In-line design.
- Bulkhead feed-thru.

www.ittcannon.com/cat060

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Dimensions are shown in mm (inch)
Dimensions subject to change

Transportation: SLC/SLC-T

SLC/SLC-T

For tough performance circular connector requirements look to the environmentally sealed Snap-(Clip) Lock Circular (SLC/SLC-T) series from Cannon. The connector design ensures a tightly sealed connection that can withstand heat, shock and vibration, preserving the integrity of the solid state package.

Applications:

- Black Box
- Printed Circuit Board
- Transmission – Automotive

Product Features:

- Superior environmental sealing.
- Low installed cost.
- 5, 8, 10 and 15 contact cavities.

Transportation: SLE

SLE

For tough performance rectangular connector requirements look to the Snap Lock Environmental (SLE) series from Cannon. The connector design ensures a tightly sealed connection that can withstand heat, shock and vibration, preserving the integrity of the solid state package, while protecting against contaminants – even when unmated.

Applications:

- Black Box
- Control Module
- Printed Circuit Board

Product Features:

- Superior environmental sealing.
- Low installed cost.

Trident❖: Multiway – Rack & Panel

Multiway

The Multiway range is an extremely reliable and robust series of rack & panel connectors. The design is based on the requirements of MIL-C-28748 and will accept any of the Trident signal or coax contacts. It is available in 6 arrangements ranging from 14 to 75 ways, together with a wide range of accessories and mounting hardware.

❖ Trademark of ITT Industries, Inc.

Applications:
- Rail equipment
- Test equipment

Product Features:
- Fully tested to MIL-STD-202 and now IEC 512.
- Recognized under the component program of UL Inc. and CSA.

www.ittcannon.com/cat003

Trident❖: Neptune❖ – Circular

Neptune

Neptune is a range of circular connectors specifically designed for harsh environment applications. They are water sealed to IP67 and do not require blanking plugs for unused cavities. Contact arrangements include combinations of signal (13 A) and power (30 A) contacts. The mating uses a highly reliable bayonet coupling system with either high strength metal or corrosion resistant plastic coupling rings.

❖ Trademark of ITT Industries, Inc.

Applications:
- Off Road Vehicles
- Outdoor Electronics

Product Features:
- Mixes signal and 30 A power contacts in one housing.
- Full interface and cable sealing up to IP67.

www.ittcannon.com/cat005

Trident❖: Ringlock – Circular

Ringlock

Ringlock is a range of robust circular connectors for industrial applications. It uses a metal bayonet coupling system for quick and reliable connections and thermoplastic bodies for low installed cost. The connectors are available in several sizes ranging from 4 to 48 circuits for signals up to 13 A or coax. With the addition of a sealed cable clamp, the connectors can be water sealed to meet IP67.

❖ Trademark of ITT Industries, Inc.

Applications:
- Industrial Electronics
- Manufacturing Equipment

Product Features:
- Recognized under the component program of UL Inc. and CSA.
- Rugged metal coupling.

www.ittcannon.com/cat004

Trident❖: Snap Together – Rectangular

Snap Together – Rectangular

These are low installed cost connectors rated for up to 13 A and 250 V ac rms. They are typically used for circuit board and internal wiring applications. Snap Together connectors facilitate easy assembly and removal of equipment such as motors, fans, and transformers.

❖ Trademark of ITT Industries, Inc.

Applications:
- Circuit board connections
- Internal connections

Product Features:
- Easy cost effective installation.
- Recognized under the component program of UL Inc. and CSA.

www.ittcannon.com/cat001

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Trident◆: Snap Together – Slimline
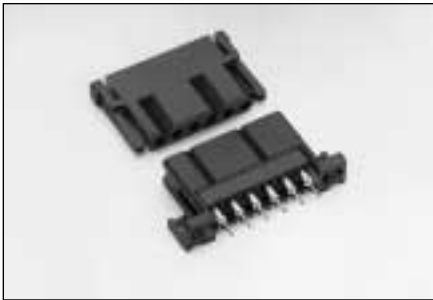
Snap Together – Slimline

The Slimline Range offers a low profile connector system that is well suited for circuit board applications. The precision machined contacts are ideal for power and sensitive signals.

◆ Trademark of ITT Industries, Inc.

Applications:

- Communications equipment
- Test equipment

Product Features:

- Five single row contact arrangements available.
- 10 A per circuit.

Trident◆: TNM (Trident Neptune Metal) Circular

TNM

TNM is a new series of metal shell connectors that, when used with the new shielded end bell, provides RF shielding from cable-to-equipment or cable-to-cable. Connectors and end bells are moisture sealed to IP67. They are ideal for applications that require the additional strength of metal shells.

◆ Trademark of ITT Industries, Inc.

Applications:

- Communication equipment
- Industrial electronics

Product Features:

- Can be sealed to IP67.
- Easy-to-assemble.

USB: Universal Serial Bus

USB

The Univeral Serial Bus (USB) connectors and cable assemblies are specifically designed for the new USB computer interconnectivity system which allows multiple connections on a PC and peripherals through a single interconnect system.

- Series A: Out to downstream connection.
- Series B: Out to upstream connection.

Applications:

- Computer Peripherals
- Storage Devices

Product Features:

- Ease-of-use through plug and play.
- Low cost.

ⓘ www.ittcannon.com/cat151

ZIF: DL (Plastic)

DL1/2/3/5

The Cannon DL Series of Zero Insertion Force (ZIF) connectors feature: a minimum rated life of 10,000 complete mating/unmating cycles with no performance loss; can be mated/unmated in less than two seconds even with as many as 2496 contacts; and they cost less (often as much as 25% less) per mated line than singular high-density rack & panel connectors.

Simple. Effective. Reliable. Durable.

ⓘ www.ittcannon.com/cat163

Applications:
- Entertainment
- Medical – Ultrasound

Product Features:
- Plastic Body.
- 60, 96, 156, or 260 contact cavities.

ZIF: DL Pressfit PCB Adapter

DL5 Pressfit

The DL Pressfit is a unique modification of the standard Zero Insertion Force (ZIF) – DL5 product offering. An eye-of-needle design allows the receptacle side product to be press fit onto an application circuit board assembly.

ⓘ www.ittcannon.com/cat164

New

Applications:
- Medical Ultrasound
- Test & Measurement Equipment

Product Features:
- Alignment plate sub-assembly assures proper positioning and structural support during insertion of the DL contacts.

ZIF: DL4

DL4

The Cannon DL4 series of Zero Insertion Force (ZIF) connectors feature; a minimum rated life of 20,000 complete mating/unmating cycles with no performance loss; can be mated/unmated in less than two seconds even with as many as 2496 contacts; and they cost less (often as much as 25% less) per mated line than singular high-density rack and panel connectors.

Simple. Effective. Reliable. Durable

ⓘ www.ittcannon.com/cat165

Applications:
- Medical
- Entertainment

Product Features:
- Panel Mount.
- Metal Frame.
- 624, 1248, or 2496 contact cavities.

ZIF: DLD (Drawer)

DLD1/2

Cannon has combined Zero Insertion Force (ZIF) technology with remote electrical engagement. The DLD Drawer allows the movement of a drawer or panel to effortlessly mate/unmate the connector halves. As an example: electrical sub-systems can be easily removed for service, interchangeability, or portability.

The contacts in the DLD Drawer product series do not touch each other while the connector halves are mating. This unique ZIF technology, introduced in the Cannon DL series in the early 1970's, has time-tested proven reliability and durability.

ⓘ www.ittcannon.com/cat166

Applications:
- Telecommunication
- Test Instrumentation
- Transportation

Product Features:
- Drawer Style.
- Plastic Body.
- 96 or 156 contact cavities.

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ZIF: DLM (Metal)

DLM1/2/3/5/6

Cannon has expanded the DL-ZIF series offering with the addition of the DLM (metal shell) versions. The DLM uses a rugged nickel plated aluminum housing. A shield-locking mechanism feature ensures uniform mating pressure around the perimeter of the mated connector to create an EMI/RFI shield. Facilitates compliance of equipment to CE EMC directives.

Applications:

- Commercial/Industrial Manufacturing
- Test Instrumentation

Product Features:

- Metal body.
- EMI/RFI shielding.
- 60, 96, 156, 260, or 360 contact cavities.

ZIF: DLP-272

DLP-272

The DLP is a new Zero Insertion Force (ZIF) wire-to-board connector. Developed for use in multi-conductor cable interface applications. DLP offers higher performance in the most compact design.

New

Applications:

- Mobile Medical Equipment
- Semiconductor Production

Product Features:

- A lower profile plug connector with high-density contact layout.
- EMI/RFI protection with metal shell and grounding spring.

ZIF: RDL – Round DL

RDL

The RDL employs the unique Zero Insertion Force (ZIF) technology introduced by Cannon. When the connector is mated, the contacts pass by each other without touching. When the coupling nut is turned 1/8 turn, the connector is locked and the hermaphroditic contacts are brought together with a slight wiping action. Zero Insertion Force means not just easy mating but also long life.

New

Applications:

- Medical
- Entertainment

Product Features:

- Plastic body.
- Die cast metal coupling ring for durability.
- Accommodates up to 82 contacts.

Cannon Prefix Index (products listed within this publication)

Prefix	Page	Chapter	Description
1			
1.0/2.3	35	RF Coaxial Connectors	Push/pull coupling, 50 ohm and 75 ohm
1.6/5.6	35	RF Coaxial Connectors	Screw coupling, 75 ohm
2			
2D	24	Microminiature	Centi Line, Double Density D
2DD	24	Microminiature	Centi Line, Environmental Double Density D
A			
APD	41	Transportation	DIN 72585
APE	41	Transportation	Environmentally Sealed
APV	41	Transportation	Vector Connector
B			
BFH	19	Hermetic	Circular; MIL-C-5015, Bulkhead Fitting Hermetic
BFR	4	Circular	MIL-DTL-5015, Bulkhead Fitting, Rubber insert
BKA	33	Rack & Panel	ARINC Series 600 Standard
BKAD	33	Rack & Panel	ARINC Series 600 Standard, Non-environmental, Rear release
BKAE	33	Rack & Panel	ARINC Series 600 Standard, Environmental, Rear release
BKAF	33	Rack & Panel	ARINC Series 600 Standard, Non-environmental, Front release or rear release
BNC	35	RF Coaxial Connectors	Bayonet Nut Connector
C			
CA-A	4	Circular	MIL-DTL-5015, (MS-A) Solid endbell (one piece)
CA-B	4	Circular	MIL-DTL-5015, (MS-B) Split endbell
CA-BAY	4	Circular	VG95234, Environment bayonet coupling
CA-COM	4	Circular	MIL-DTL-5015; Commercial circular, Threaded coupling
CA-E	7	Circular	MIL-DTL-5015, (MS-E) Environmental, Resilient insulator, Integral cable clamp
CA-ER	7	Circular	MIL-DTL-5015; (MS-ER) Environmental, Resillient insulator, Thread attachment ring, Nylon potting cup
CA-F	7	Circular	MIL-DTL-5015, (MS-F) Environmental, Resilient insulator, Integral cable clamp, O-ring
CA-K	7	Circular	MIL-DTL-5015, (MS-K) Firewall
CA-KE	5	Circular	MIL-DTL-5015, Firewall, Fireproof and moisture proof
CA-R	7	Circular	MIL-DTL-5015, (MS-R) Environmental, Resilient insulator, Short lightweight endbell, O-ring
CCM01	39	Smart Card	Full Size Friction, MKI, MKII, MKIII
CCM02	39	Smart Card	Full Size Landing, MKI, MKII
CCM03	39	Smart Card	SIM/SAM Holder, MKI, MKII, MKIII
CCM04	39	Smart Card	Block Contact, MKII, MKIII
CCM05	40	Smart Card	Flash Memory Card, MKI, MKII
CCM-J	40	Smart Card	Ejector and landing method
CDL	24	Microminiature	Centi Line, Centi-D Loc, High contact density, All plastic
CGE	5	Circular	VG96929, High current at low voltage
CGKX	5	Circular	VG96912, Metal shell, High contact density
CGL	5	Circular	VG96912
CGL-B	5	Circular	VG96912
CLC	41	Transportation	Clip Lock Circular
CTA	24	Microminiature	Centi Line, Strip Series, Centi-Loc
CV345*	8	Circular	MIL-C-5015, (MS345*) Rear release
CVA	7	Circular	MIL-C-83723, Series II (USAF), Threaded coupling, Intermateable with MIL-DTL-5015
D			
D*	10	D Subminiature	Eurostyle, CECC 75 301 802 (DIN 41652), 90° PCB, Low profile
D*	10	D Subminiature	Solder cup termination, tin shells, Cable mount
D*	10	D Subminiature	Solder termination, 90° PCB – European Footprint 10,2 or 9,4 mm

Cannon Prefix Index (products listed within this publication)

Prefix	Page	Chapter	Description
D (Continued)			
D*	10	D Subminiature	Solder termination, Straight PCB – European PC Tails
D*	11	D Subminiature	Wire Wrap Post Termination, Straight PCB
D*A	11	D Subminiature	Combo D
D*A	11	D Subminiature	Crimp connectors without contacts, Cable mount
D*BMA	11	D Subminiature	Bulkhead
D*D	12	D Subminiature	Environmental D
D*H	19	Hermetic	D Subminiature; MIL-DTL-24308
D*JK	17	Filter	D Subminiature, Commercial
D*JT	17	Filter	D Subminiature, Commercial
DL	46	Zero Insertion Force	Plastic, Up to 260 contact cavities
DL4	46	Zero Insertion Force	Metal, Up to 2496 contact cavities
DLD	46	Zero Insertion Force	Drawer, Plastic, Up to 156 contact cavities
DLM	47	Zero Insertion Force	Metal, Up to 360 contact cavities
D*M	12	D Subminiature	Combo D
D*M	12	D Subminiature	Solder termination, 90° PCB – Standard Footprint .318 or .283 inch
D*M	12	D Subminiature	Solder termination, Straight PCB – Standard PC tails
D*M	13	D Subminiature	Space/High Reliability; MIL-DTL-24308
D*MA	13	D Subminiature	Space/High Reliability; MIL-DTL-24308
D*MM	13	D Subminiature	Military/High Reliability; MIL-DTL-24308
D*MAM	13	D Subminiature	Military/High Reliability; MIL-DTL-24308
D*NG	13	D Subminiature	Pressfit termination, Straight PCB
DPA	33	Rack & Panel	Miniature
DPAF	33	Rack & Panel	Miniature, DPA with four rivets with washers
DPAL	33	Rack & Panel	Miniature, DPA with large flange
DPAMA	33	Rack & Panel	Miniature, DPA with Little Caesar contact assembly
DPD	33	Rack & Panel	Non-environmental, Single gang
DPD2	33	Rack & Panel	Non-environmental, Two gang
DPDMA	33	Rack & Panel	Non-environmental, Single gang, Little Caesar contact assembly
DPD2MA	33	Rack & Panel	Non-environmental, Two gang, Little Caesar contact assembly
DPGM	33	Rack & Panel	Environmental, One-piece insulator, Ring-type retention
DPJM	33	Rack & Panel	Environmental, One-piece insulator, Ring-type retention
DPJMB	33	Rack & Panel	Environmental, Little Caesar contact assembly
DPK	34	Rack & Panel	MIL-C-83733 (USAF), High performance, Environment-resistant
DPX	34	Rack & Panel	ARINC Series 404 Standard
DPXA	34	Rack & Panel	ARINC Series 404 Standard, Single gang
DPXB	34	Rack & Panel	ARINC Series 404 Standard, Single gang with polarized ARINC B shell
DPX2	34	Rack & Panel	ARINC Series 404 Standard, Two gang
DPX2-A	34	Rack & Panel	ARINC Series 404 Standard, Two gang with ARINC A shell
DPX3	34	Rack & Panel	ARINC Series 404 Standard, Three gang
DPX4	34	Rack & Panel	ARINC Series 404 Standard, Four gang
DPXMA	34	Rack & Panel	ARINC Series 404 Standard, Single gang, Little Caesar contact assembly
DPX2MA	34	Rack & Panel	ARINC Series 404 Standard, Two gang, Little Caesar contact assembly
DPX3MA	34	Rack & Panel	ARINC Series 404 Standard, Three gang, Little Caesar contact assembly
DPX4MA	34	Rack & Panel	ARINC Series 404 Standard, Four gang, Little Caesar contact assembly
DPXME	34	Rack & Panel	ARINC Series 404 Standard, Single gang, Environmental with Little Caesar contact assembly
DPX2ME	34	Rack & Panel	ARINC Series 404 Standard, Two gang, Environmental with Little Caesar contact assembly
DPX3ME	34	Rack & Panel	ARINC Series 404 Standard, Three gang, Environmental with Little Caesar contact assembly
DPX4ME	34	Rack & Panel	ARINC Series 404 Standard, Four gang, Environmental with Little Caesar contact assembly
DPXNA	34	Rack & Panel	MIL-C-81659B, Type IV, Non-environmental, Single gang
DPX2NA	34	Rack & Panel	MIL-C-81659B, Type IV, Non-environmental, Two gang

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Cannon Prefix Index (products listed within this publication)

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VIII

Cannon Prefix Index (products listed within this publication)

Cannon Prefix Index (products listed within this publication)

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Alternate/Obsolete Products

This is a list of many obsolete connector products. Alternates are listed, when available. This list is not comprehensive, but highlights many products previously sold.

For additional product information, please visit us on the web at www.ittcannon.com.

Product Group	Product Name/Service	Description	Alternate Product	Page
Audio	XLA	Reduced cost version of the XLR	XLR	1
Audio	XLG	Top-end audio connector	XLR	1
D Subminiature	AD*	Part number change only	ZD*	14-15
D Subminiature	D*1148/D* (SMT)	SMT – Surface Mount D, no replacement, only thru holes available	ZED*	15
D Subminiature	D*C	Burgun D with snap-in, rear release machined or stamped crimp contacts	D*U	14
D Subminiature	D*NE	Pressfit termination, 90º PCB	—	—
D Subminiature	D*P	90° connectors for I/O applications, UL 94V-0 rated	D*U	14
D Subminiature	D*P1	Machined pressfit replaced by stamped pressfit	D*NG	13
D Subminiature	D*PF	Straight and 90° degree PCB applications, UL 94V-0 rated	D*	10
D Subminiature	D*TC	Part number change only	D*	10
Filter	D*J	Rectangular Filter	TD1*	17
Filter	DPXJ	Filter Rack & Panel, ARINC 404	TDPX	18
Filter	KJJ	Miniature Circular Filter	TKJ	18
Filter	TD*J	Rectangular Filter	TD1*	17
Filter	PVJ	Filter Miniature Circular, MIL-C-26482/MIL-C-83723, Series 1	TPV	18
Microminiature	MIKQP	Microminiature circular plastic, guide release (push/pull)	—	—
PCMCIA I/O Card Kit	StarCard Classic✦	PCMCIA I/O Card Kit	—	—
PC Card	StarCard Nova✦	PCMCIA I/O Card Kit	—	—
PC Card	G08/G80	Board-to-flat ribbon cable 2,54 mm	—	—
Rack & Panel	DPG		DPGM	33
Rack & Panel	DPJ		DPJM	33
RF Coaxial Connectors	CMM	Self-aligning microminiature blind-mate connectors with non-butting interface	SSIS	38
RF Coaxial Connectors	MCX	Microminiature snap-on	—	—
RF Coaxial Connectors	SIS	Blind-mate slide-on	SSIS	38

Available Products Not Listed Within This Publication

Product Group	Product Name/Series	Description
Circular	CGM	—
Circular	FVA	Grommet compression ferrules, silicone elastomers, aluminum hardware with clear chromate finish
Circular	FVF	Grommet compression ferrules, silicone elastomers, steel hardware with clear chromate finish
Circular	KFS	Miniature circular series; MIL-C-28840
D Subminiature	GD	Environmental Grommet D
Microminiature	G88	Board-to-flat ribbon cable connector with pitch 1,27 mm
Microminiature	NJSC	Nano Line, Nano Center Jackscrew Circular
Mobile	Pogo Pins	—
Mobile	Board-to-Board	—
Printed Circuit Board	DIN 41612	CDR7 Connectors
Printed Circuit Board	E2X	Cable Terminated Connectors
Rack & Panel	BGG	—
Rack & Panel	BKW	—
RF Coaxial Connectors	DIN 41612 inserts	RF coaxial inserts both cable variants and PCB
RF Coaxial Connectors	K Series	—
RF Coaxial Connectors	MPC-Coax	Miniature 50 ohm
RF Coaxial Connectors	SMP	Reliability in low VSWR interconnections up to and beyond 18 GHz.
RF Coaxial Connectors	SMS (BMB)	Blind Mate connector capable of working to 18 GHz. Not compatible with BMA.

Please contact your local Cannon representative: www.ittcannon.com/support/ContactUs

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Dimensions subject to change

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Product Safety Information

THIS NOTE MUST BE READ IN CONJUNCTION WITH THE PRODUCT DATA SHEET/CATALOG. FAILURE TO OBSERVE THE ADVICE IN THIS INFORMATION SHEET AND THE OPERATING CONDITIONS SPECIFIED IN THE PRODUCT DATA SHEET/CATALOG COULD RESULT IN HAZARDOUS SITUATIONS.

1 MATERIAL CONTENT AND PHYSICAL FORM

Electrical connectors do not usually contain hazardous materials. They contain conducting and non-conducting materials and can be divided into two groups.

a) Printed circuit types and low cost audio types which employ all plastic insulators and casings.

b) Rugged, fire barrier and high reliability types with metal casings and either natural rubber, synthetic rubber, plastic or glass insulating materials.

Contact materials vary with type of connector and also application and are usually manufactured from either: Copper, copper alloys, nickel, alumel, chromel or steel. In special applications, other alloys may be specified.

2 FIRE CHARACTERISTICS AND ELECTRIC SHOCK HAZARD

There is no fire hazard when the connector is correctly wired and used within the specified parameters. Incorrect wiring or assembly of the connector or careless use of metal tools or conductive fluids, or transit damage to any of the component parts may cause electric shock or burns. Live circuits must not be broken by separating mated connectors as this may cause arcing, ionization and burning.

Heat dissipation is greater at maximum resistance in a circuit. Hot spots may occur when resistance is raised locally by damage, e.g. cracked or deformed contacts, broken strands of wire. Local overheating may also result from the use of the incorrect application tools or from poor quality soldering or slack screw terminals. Overheating may occur if the ratings in the product Data Sheet/Catalog are exceeded and can cause breakdown of insulation and hence electric shock.

If heating is allowed to continue it intensifies by further increasing the local resistance through loss of temper of spring contacts, formation of oxide film on contacts and wires, and leakage currents through carbonization of insulation and tracking paths. Fire can then result in the presence of combustible materials and this may release noxious fumes. Overheating may not be visually apparent. Burns may result from touching overheated components.

3 HANDLING

Care must be taken to avoid damage to any component parts of electrical connectors during installation and use. Although there are normally no sharp edges, care must be taken when handling certain components to avoid injury to fingers.

Electrical connectors may be damaged in transit to the customers, and damage may result in creation of hazards. Products should therefore be examined prior to installation/use and rejected if found to be damaged.

4 DISPOSAL

Incineration of certain materials may release noxious or even toxic fumes.

5 APPLICATION

Connectors with exposed contacts should not be selected for use on the current supply side of an electrical circuit, because an electric shock could result from touching exposed contacts on an unmated connector. Voltages in excess of 30 V ac or 42.5 V dc are potentially hazardous and care should be taken to ensure that such voltages cannot be transmitted in any way to exposed metal parts of the connector body. The connector and wiring should be checked, before making live, to have no damage to metal parts or insulators, no solder blobs, loose strands, conducting lubricants, swarf, or any other undesired conducting particles. Insulation resistance should be checked to make certain that no low resistance joints or spurious conducting path are existing between contacts and exposed metal parts of the connector body. Further the contact resistance of the connectors should be measured within the electrical circuit in order to identify high resistances which result in excessive connector heating.

Always use the correct application tools as specified in the Data Sheet/Catalog.

Do not permit untrained personnel to wire, assemble or tamper with connectors.

For operation voltage please see appropriate national regulations.

IMPORTANT GENERAL INFORMATION

(i) Air and creepage paths/Operating voltage

The admissible operating voltages depend on the individual applications and the valid national and other applicable safety regulations.

For this reason the air and creepage path data are only reference values. Observe reduction of air and creepage paths due to PC board and/or harnessing.

(ii) Temperature

All information given are temperature limits. The operation temperature depends on the individual application.

(iii) Other important information

Cannon continuously endeavors to improve their products. Therefore, Cannon products may deviate from the description, technical data and shape as shown in this catalog and data sheets.

(iv) Harnessing and Assembly Instructions

If applicable, our special harnessing and/or assembly instruction has to be adhered to. This is provided by request.

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Dimensions subject to change

XII

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Notes:

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XIII

ITT Industries, Cannon ...
providing a comprehensive offering of connectivity solutions.

In addition to our comprehensive offering of connector products, we provide a complete line of electronic components and solutions.

SWITCH PRODUCTS

Top/side actuated tacts

Low profile SMT

Navigation/scrolling switches

Long life key switches

Toggle, rocker, pushbutton, DIP,
slide, snap, switchlock, rotary, thumbwheel

SMART CARD INTERCONNECTS

SIM, full card, media and memory card configurations

Performance metal plating and inlays

Pick-and-place and IP65 compatible

"Spoon" shaped landing or friction contacts enhance interconnect performance and minimize damage from debris, mis-inserts and vandalism.

KEYPADS / PRECISION POLYMERS

Rubber and In Mold Decoration (IMD) products

Wide range of cosmetic options

Integration of decorated and metalized plastic keytops

Multiple PILL and contact options

Precision molded polymeric solutions

DOME ARRAYS / EL LAMPS

Metal or poly dome switch arrays

Modular assembly options include: ESD shielding, keypads, EL backlighting, rigid or flexible circuits

Complete design, engineering and test capabilities

Low, mid and high volume production capabilities

INTERFACE CONTROLS

From multi-function grips to sophisticated control systems, hall effect products and front panel assemblies

Electronics and software engineering development

Worldwide design and manufacturing

High-mix production capabilities

Global sourcing and supply chain management

Cannon

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Engineered for life

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Engineered for life

Connector Product Locations

AUSTRIA
Heinrich von Buol Gasse 10
Wien, 1210
phone: 43.0.1259.47.71
fax: 43.0.1259.47.72

BELGIUM
Residence Leopold
Genevestreet 10
Brussels, 1140
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fax: 32.0.2.7269201

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fax: 86.755.2726.7001

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