

CROSS REFERENCE CHART

CviLux	Molex	TE	JST	Hirose	Others
CA21	40312				
CA23	5360				
CA30		215083			
CA31		215570			
CA32		338070(H)/338068(V) 338069			
CA33	90327				
CA34	90584				
CA35	90325(V)/90800(H) 90816(M)				
CP-011	Mini Fit - 5556				
CP-012	5559				
CP-013	5566				
CP-014	5569				
CP02	1625				
CP33	70156				
CP35	Micro Fit - 43025/43020				
CP60	171692/170001/76823/ 172063/76829/172065/ 76825/172064				
CI01			PH/PHR/SPH/S2B S4B/B2B/B4B		
CI10			PA		
CI15			SHR/ZH		
CI21			EH/EHR/EHP		
CI22			XH/XHP		
CI23	5051/5045				
CI25	SPOX				
CI25	5264/5267				
CI26	51035		SCN		
CI31	6410/7395/2695				
CI32			RE		
CI33	70543/70400 70545/70066				
CI39		MTA-100			
CI40			GH		
CI44	51021				
CI51	KK 396				
CI52			VH		
CI54	5289/5199				
CI55	5281/5197				
CI60			XA		
CI88		MTA-100			
CID2		MTA-100			
CF07	52207				
CF16			FMN		
CF20	54132				FH12
CF23	54548				
CF25					
CF27			FH		
CF30		54809	FXL		FH23
CF31					FH12
CF34					FH28
CF38					FH26
CF43					FH39
CF35					FH19
CF42					FH34
CF82					OMRON
CBRC					XF2M
CBRD		X-179396-X X-179397-X			NAIS AXK
CH87	90708				
CH88	5340				

Established
Taiwan , year 1990

Main Business
CviLux Brand & ODM/OEM Business

Key Products
Connector, FFC, Wire Harness, Cable Assemblies, Fiber Optical, PCBA, Electronic Components, 3C Product Distribution.

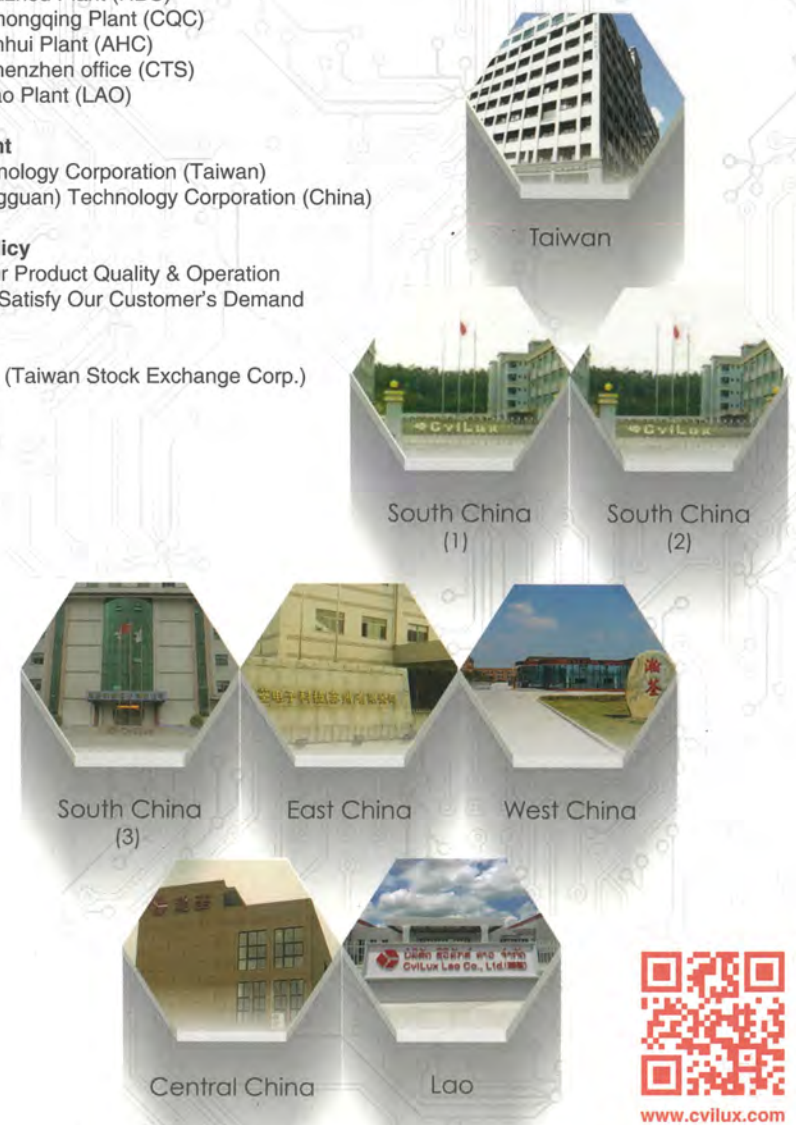
Competitive Advantage
(1) Listed Company in Taiwan Stock Market (TWSE8103)
(2) Worldwide Sales Network
(3) Advance ERP & Customer Service
(4) Integrated Marketing Service System
(5) Turnkey Green Product Solution
(6) International Standard of QC & Certificates

Factory & Office Location
Taiwan – Tamsui Plant – Headquarters (CCT)
China – Dongguan Plant – 1 (CED)
Dongguan Plant – 2 (DQH)
Dongguan Plant – 3 (CED2)
Suzhou Plant (HBC)
Chongqing Plant (CQC)
Anhui Plant (AHC)
Shenzhen office (CTS)
Lao – Lao Plant (LAO)

Sales Agent
Allsor Technology Corporation (Taiwan)
Allsor (Dongguan) Technology Corporation (China)

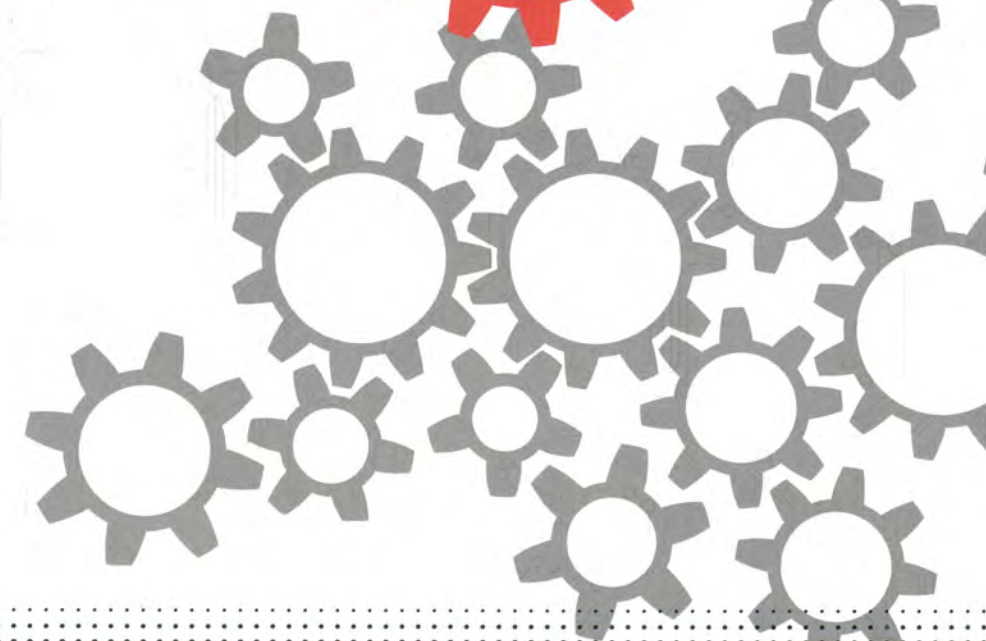
Quality Policy
Improve Our Product Quality & Operation System To Satisfy Our Customer's Demand

I.P.O.
TWSE8103 (Taiwan Stock Exchange Corp.)



Professional Connector & Cable Assembly Supplier

- Industrial Electronics
- Networking
- Optoelectronics
- Automotive Electronics
- Laptop Industry
- Consumer Electronics

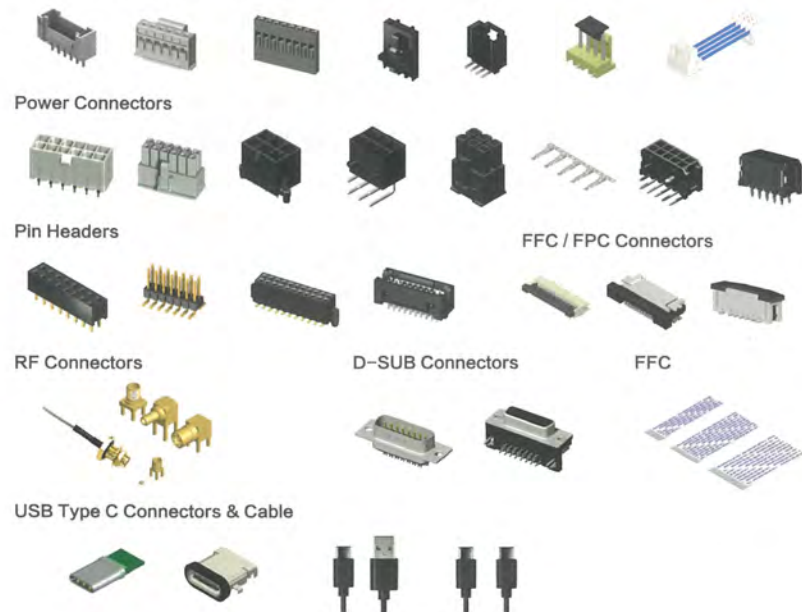


www.cvilux.com



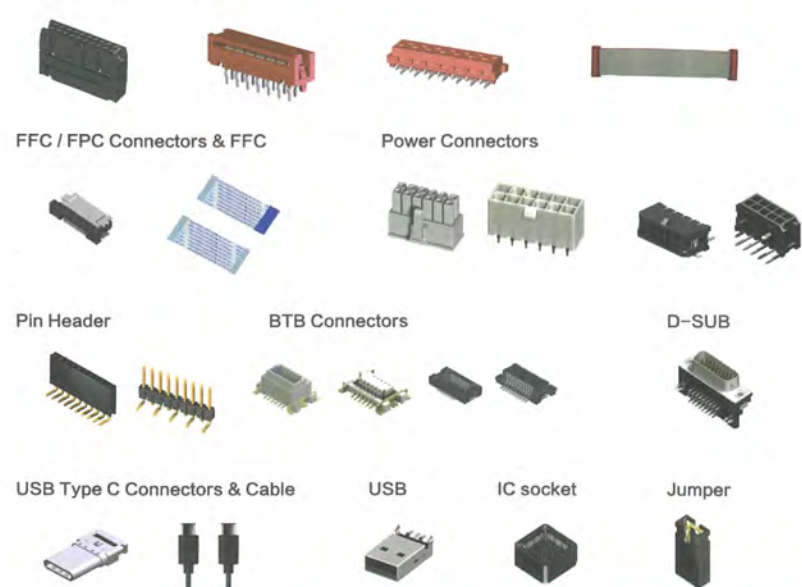
Industrial Electronics

Wire to Board & Cable Assembly



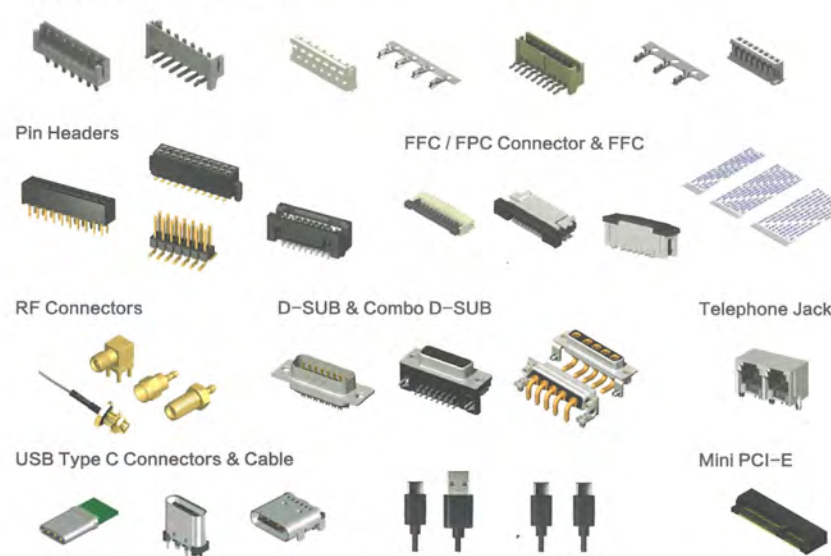
Automotive Electronics

IDC Connectors & Cable



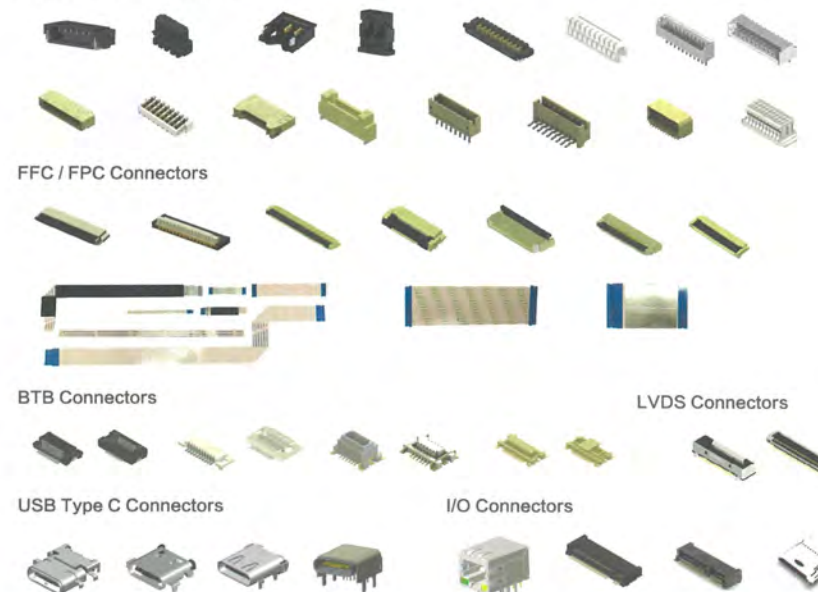
Networking

Wire to Board & Cable Assembly



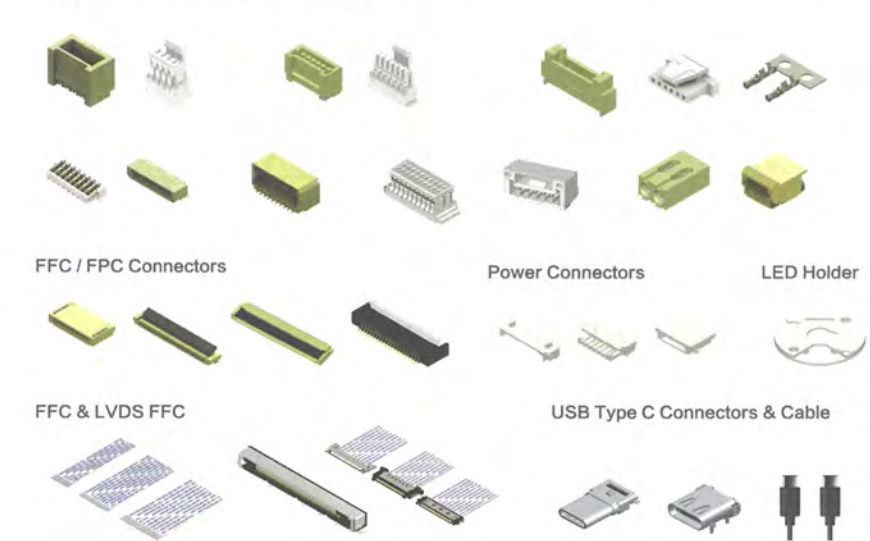
Laptop Industry

Wire to Board Connectors



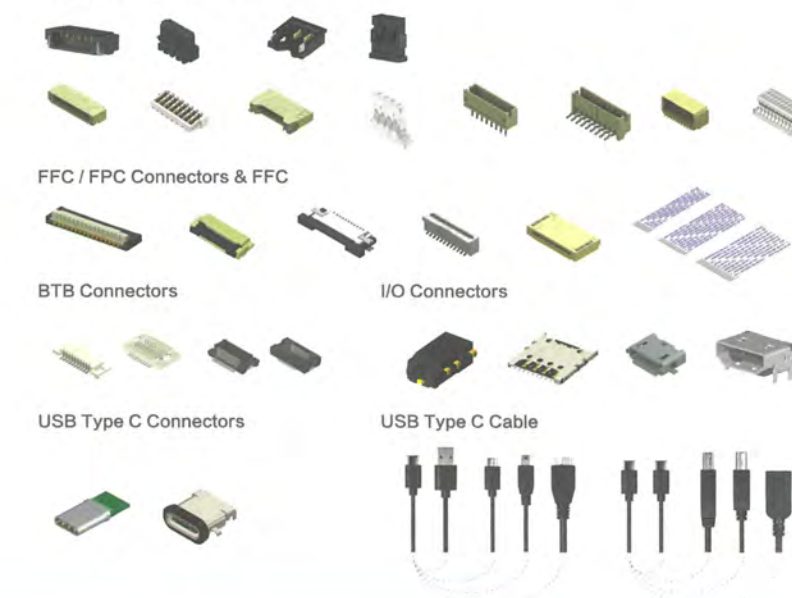
Optoelectronics

Wire to Board Connectors & Harness Cable



Consumer Electronics

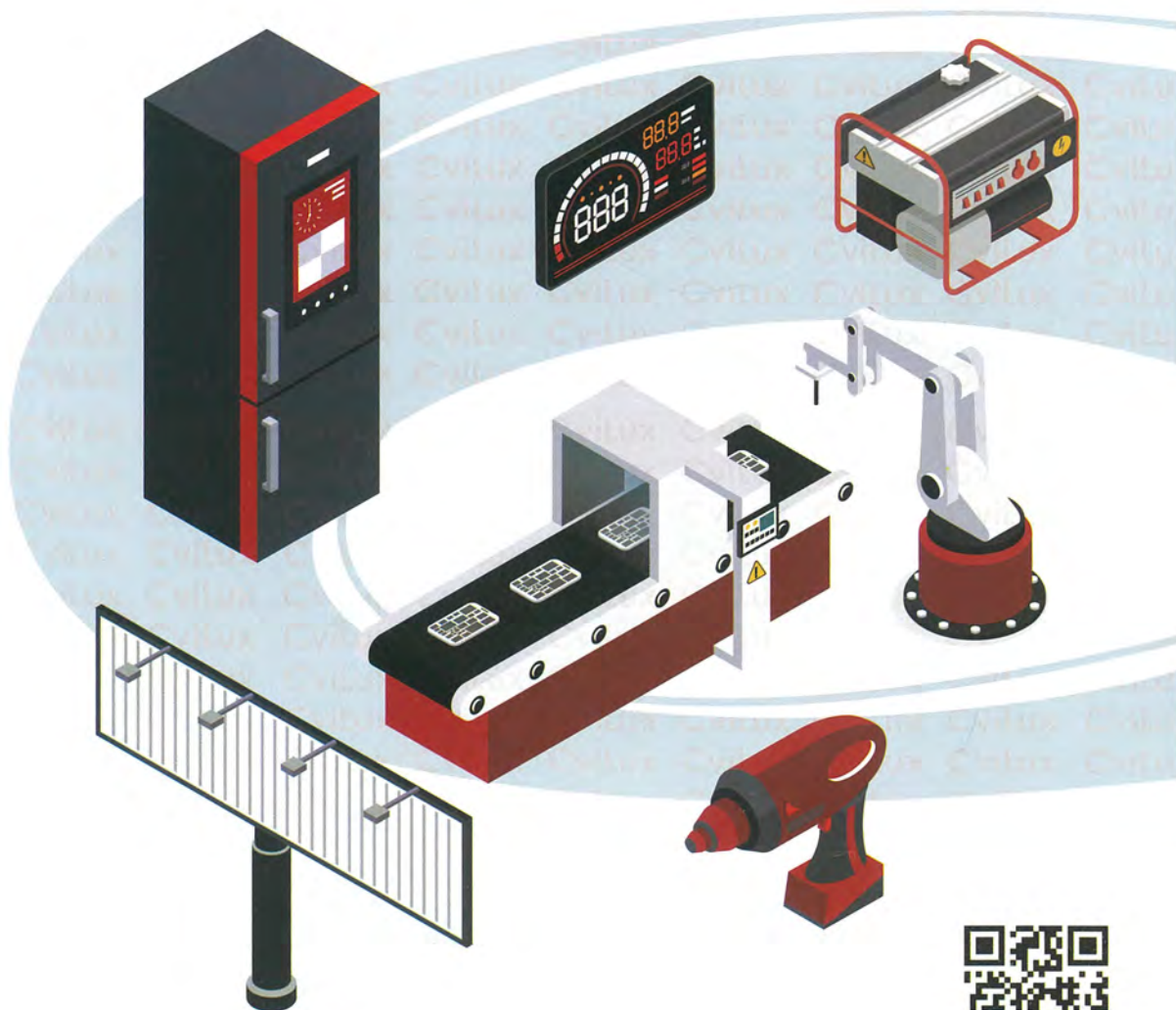
Wire to Board Connectors



CPB1 Waterproof Connector



Application



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NEW

CPB Series Waterproof Connector

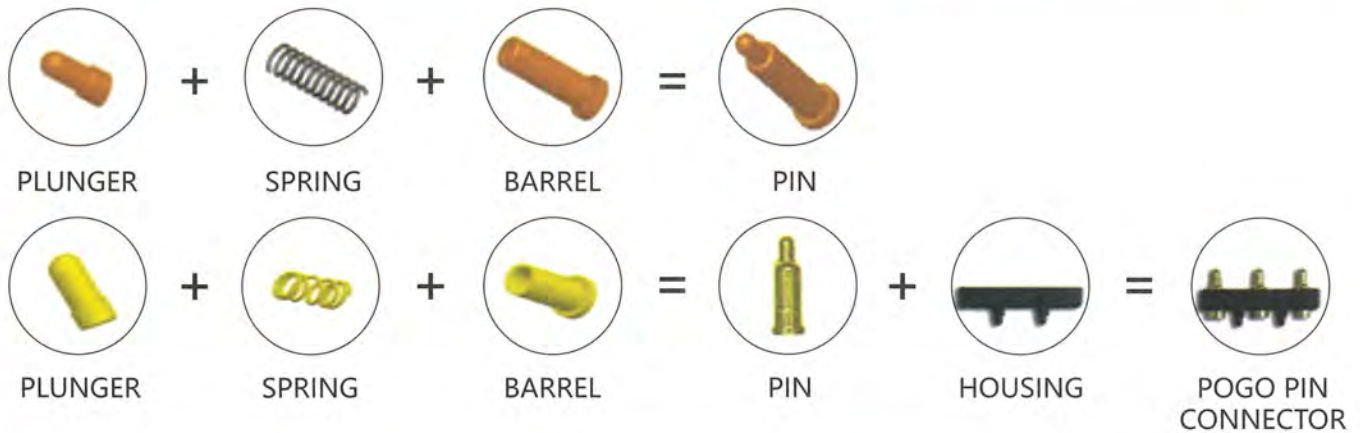


Series	Picture	Pitch	Row	PIN	Wire Range	Current Rating	IP
CPB1		-	-	1	AWG #14~#18	7A~15A	IPX7
CPB2		2.00 mm	Single Row	02, 03, 04	AWG #22~#26	1A~3A	IPX7
			Dual Row	06, 08			

CPB2 2.00mm Wire to Wire Waterproof Connector

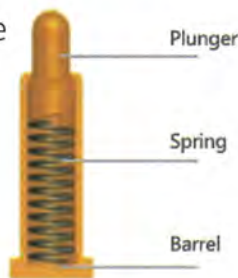
Picture	Specification	Materials	Plating	CviLux PN
	Receptacle Housing	Housing: PBT, UL 94V-0	-	CPB20250R00 CPB20350R00 CPB20450R00
	No. of circuits: Single Row: 02, 03, 04 Dual Row: 06, 08	Rubber Seal: Silicone Rubber		CPB2065DR00 CPB2085DR00
	Female Crimp Terminal	Copper alloy	Tin-Plated	CPB2T021PES
Wire gauge: AWG #22, #24, #26				
	Plug Housing	Housing: PBT, UL 94V-0		CPB202P0R00 CPB203P0R00 CPB204P0R00
	No. of circuits: Single Row: 02, 03, 04 Dual Row: 06, 08	Rubber Seal: Silicone Rubber		CPB206PDR00 CPB208PDR00
	Male Crimp Terminal	Copper alloy	Tin-Plated	CPB2T021BPP
Wire gauge: AWG #22, #24, #26				

POGO PIN Material Composition

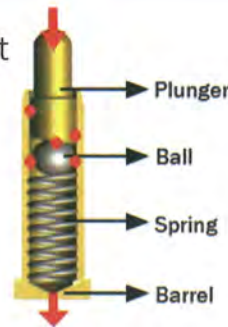


POGO PIN Structure

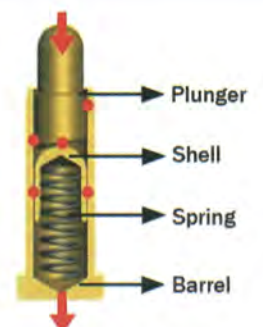
Basic Structure



Solution for High Current



5A Max.



10A Max.

Barrel Design

Bias Design



In order to make the plunger 100% contact with the edge of barrel, we slice the end of plunger like a bias style. The choices of degree of slope are 12°~18° to assure absolute consistency of external contact resistance.

Advantage: The resistance is small and stable, which assures the close touch between plunger and the wall to lessen the probability of outage.

Cone Design



The shape of the button of the plunger is cone, and the top of spring slightly combines with the button of the plunger, which lessens the probability of swing.

Advantage: Small skewness, and the degree of swing.

Slope and Ball Structure



In order to make contact more stable, steel beads are added to the needle tube or absolutely. Edge beads, thereby reducing the current through which the spring passes, inside the spring needle.

Advantage: The contact of steel beads is more stable, so the electrical performance will be better.

Back Drill



The plunger is hollow to save for the extension of spring.

Advantage: Make space for spring, lessens product's height, and have no block in static state.

Products of POGO PIN



Flat Type:
The bottom of barrel is designed as flat shape, easy to be mounted on PCB.



Plug-In Type:
With positioning pin on the bottom of barrel. Hard to shift after mounted on PCB. Good performance on positioning.



Double-ended pin Type:
Allows both sides capable of being used as contacts and has moderate clearance for when the pogo pin goes up/down



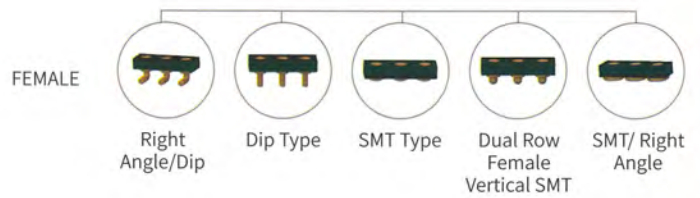
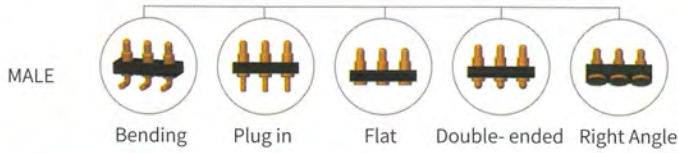
Solder Cup Type:
Convenient and reliable method to make connections between discrete wires or cables and mating components



Bending Type:
Bending tail of barrel offers more choices on space adjustment.



Embedded Type:
Space Saving



Material Composition

Parts	Material			
Plunger	Brass	Phosphor Bronze	Beryllium Copper	Tool Steel
Barrel	Brass	Phosphor Bronze	Beryllium Copper	Nickel Silver
Spring	Stainless Steel	Music Wire with gold plated	Beryllium Copper	
Ball Bearing	Stainless Steel			
Housing & Cap	NYLON6T	NYLON9T	NYLON10T	LCP
Reel	PET			

Plating

- a. Electroplating Requirements:
1. Good current transmission capacity
 2. The good ability on oxidation and corrosion as well as the substrate protection
 3. Can be welding or adhered easily on the surface
 4. high wear resistance and high hardness
- b. Plating method: Barrel Plating
- c. Plating Material Properties:

Plating	Appearance	Hardness	Film Thickness	Resistivity	Tensile Strength	Functions
Nickel	Silver	150~200	120~200	118.5~331	689~840.5	Improve the corrosion render ability
Gold	Gold	78~86	100	11.4~28.9	110~213.5	Improve signal transmission

POGO PIN Advantage

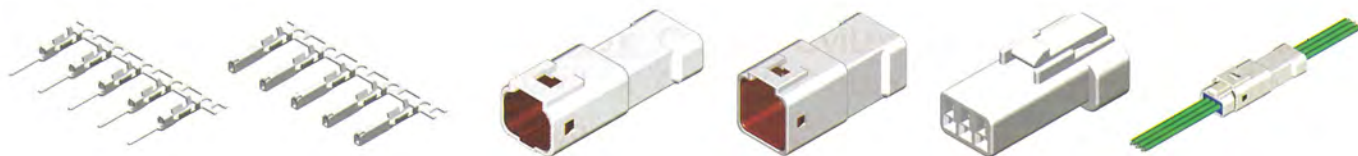
- Pogo Pin has smaller distributed capacitance and inductance due to shorter current path at the same working height, especially in high frequency band, which is more conducive to impedance matching
- Pogo Pin can realize the connection scheme of high current, and the current carrying capacity can reach more than 10 A.
- Compact size
- High Temperature Resistance
- High Corrosion Resistance
- Customized

POGO PIN NOTE for USE







- Usually, the working stroke is 2/3 of the total stroke. If stroke isn't pressed enough normal force is not big enough, thus contact impedance will be unstable. If stroke is pressed too much, it will deform the tube and lead to pin-sticking.
- The battery contact plate or FRC gold finger which mates with pogo pin cannot be dirty, oxidized, etc.

POGO PIN Application Solution





CPB2 series connector can be placed on the devices which is specially waterproof required, for example, outdoor lighting, lawn mower... and so on.

- 
 Positive Locking System
- 
 High Reliability
- 
 Wire to Wire connection
- 
 IPx7 Rating performance
- 
 Inner Seal Ring
- 
 Rubber Seal Ring

Application



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CPB2 Series Waterproof Connector



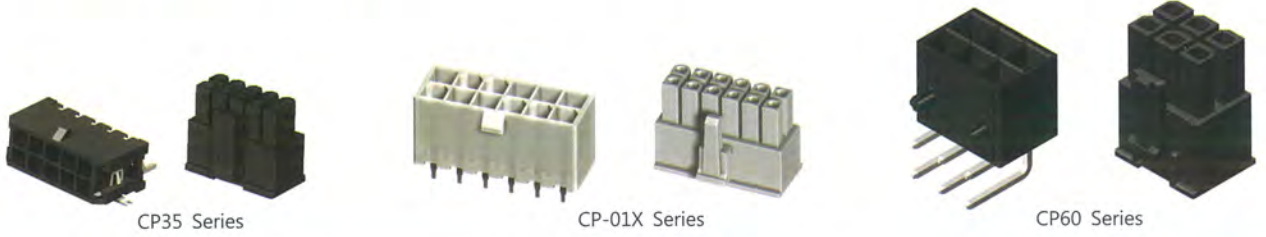
Series	Picture	Pitch	Row	PIN	Wire Range	Current Rating	IP
CPB2		2.00 mm	Single Row	02, 03, 04	AWG #22~#26	1A~3A	IPX7
			Dual Row	06, 08			



CPB2 2.00mm Wire to Wire Waterproof Connector

Picture	Specification	Materials	Plating	CviLux PN
	Receptacle Housing No. of circuits: Single Row: 02, 03, 04 Dual Row: 06, 08	Housing: PBT, UL 94V-0 Rubber Seal: Silicone Rubber	—	CPB202S0R00 CPB203S0R00 CPB204S0R00 CPB206SDR00 CPB208SDR00
	Female Crimp Terminal Wire gauge: AWG #22, #24, #26	Copper alloy	Tin-Plated	CPB2T021PES
	Plug Housing No. of circuits: Single Row: 02, 03, 04 Dual Row: 06, 08	Housing: PBT, UL 94V-0 Rubber Seal: Silicone Rubber		CPB202P0R00 CPB203P0R00 CPB204P0R00 CPB206PDR00 CPB208PDR00
	Male Crimp Terminal Wire gauge: AWG #22, #24, #26	Copper alloy	Tin-Plated	CPB2T021BPP

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Series	Pitch	Row	Pin	Wire Range	Current Rating
CP35	3.00 mm	Single Row Dual Row	02~12 02~24	AWG#20~#30	1A~7A
CP-01X	4.20 mm	Single Row Dual Row	03~05 02~24	AWG#16~#26	2A~12A
CP60	5.70 mm	Dual Row	02~12	AWG#12~#16	12A~23A

Application

- Industrial Electronics
- Home Electronics
- Automotive Electronics



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CP60 Series : 5.70mm Wire to Board Power Connector



Specification	Material	Plating	Cvilux P/N
Receptacle Housing No. of circuits: 02, 04, 06, 08, 10, 12	Nylon 94V-2 GWT	-	CP60**SN010
	PBT 94V-0	-	CP60**S0010
Female Crimp Terminal Wire gauge: AWG #12, #14, #16	High conductivity Copper alloy	Bright Tin	CP60T0*1PP0-HC
		Selective GF 15u" GF 30u"	CP60T0*BPP0-HC CP60T0*CPP0-HC
Vertical Header No. of circuits: 02, 04, 06, 08, 10, 12	LCP 94V-0 GWT	Bright Tin	CP60**P1V00-NH
		Selective GF 15u" Selective GF 30u"	CP60**PBV00-NH CP60**PCV00-NH
Right Angel Header No. of circuits: 02, 04, 06, 08, 10, 12	LCP 94V-0 GWT	Bright Tin	CP60**P1H00-NH
		Selective GF 15u" Selective GF 30u"	CP60**PBH00-NH CP60**PCH00-NH

ITEM	TEST CONDITION REQUIREMENT				
Rated voltage(max.)	600V AC (r.m.s.)				
Rated Current(max.) and Applicable Wire	Circuits/Wire gage	2	4	6	12
	AWG#12 wire gage, 4.00 mm ²	23A	20A	18A	16A
	AWG#14 wire gage, 2.50 mm ²	21A	17A	15A	13A
	AWG#16 wire gage, 1.50 mm ²	17A	15A	13A	12A
Suggestion	Highly suggest using Cvilux wire and board side together, it can secure the application safety.				

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APPLICABLE STANDARDS

- MIL - STD - 202 Methods for test of connectors for electronic equipment
- EIA - 364 Test methods for electrical connectors
- J-STD-020 Resistance to soldering Temperature for through hole Mounted Devices
- SS-00254 Test methods for electronic components ,LEAD-FREE soldering Part design standards

ACCOMMODATED P.C.BOARD

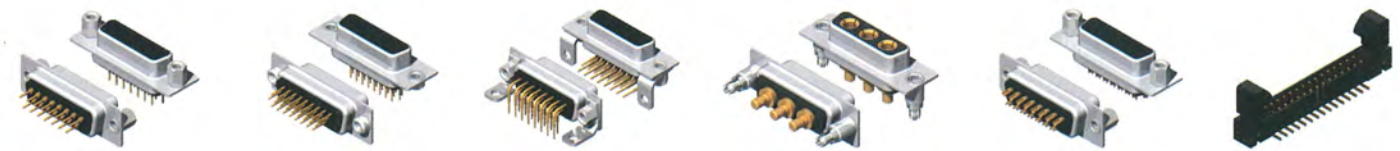
- Thickness PCB 1.6 mm (.063")
- See attached drawings



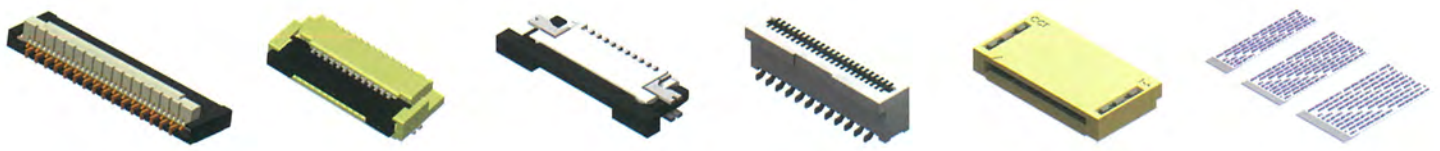
CP60 Series : 5.70mm



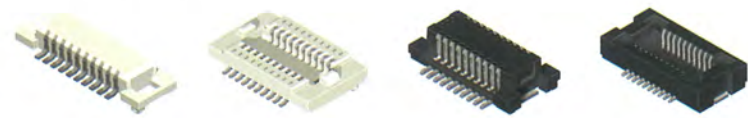
COMBO D-SUB / Header



FFC / FPC Connectors & FFC



BTB Connectors



WATERPROOF CONN



I/O Connectors



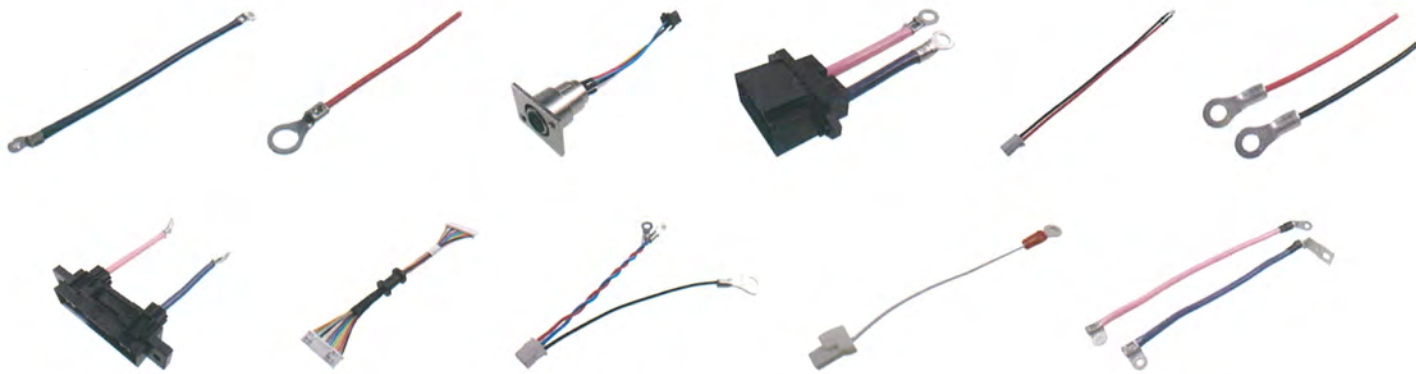
USB Type C Connectors



PV Ribbon and Flat
Conductors for Solar
Panel Applications



Industrial Control / Base Station / Server Battery Cable Assemblies



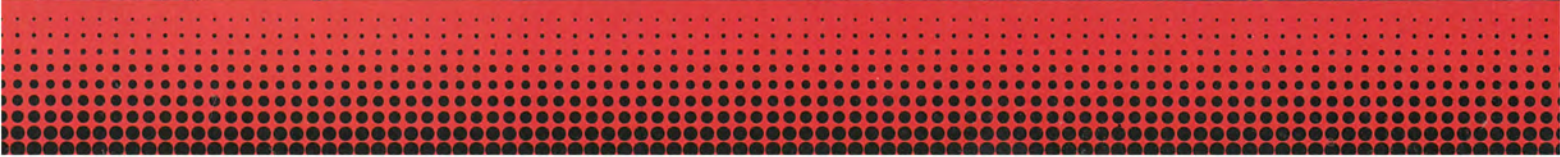
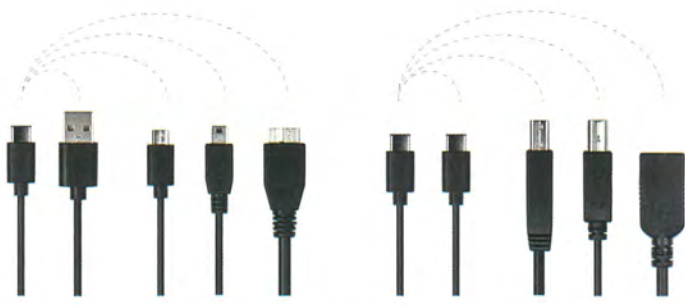
Waterproof Connector / Cable Assemblies



Solar Energy MC4 Connector



USB Type C Cable



HIGH POWER PIN



P/N : CPF1TLPSCPA



P/N : CPF1TLSSCPA

NOTE

1. Material : T2
2. Plating :
5 μ m(197 μ ") ~ 7 μ m(276 μ ") Silver Plated over
3 μ m(118 μ ") ~ 5 μ m(197 μ ") Nickel

NOTE

1. Material : T2
2. Plating :
5 μ m(197 μ ") ~ 7 μ m(276 μ ") Silver Plated over
3 μ m(118 μ ") ~ 5 μ m(197 μ ") Nickel

PRODUCT SERIES

Torsion Spring



3.6mm Terminal



6.0mm Terminal



3.0mm Terminal



PRODUCT APPLICATION



Storage - UPS



Electric Car / Fast Charging



e-Scooter / e-Bike

SOLAR CONNECTOR (MC4)

Solar panel dedicated MC4 Connector (MC4 Plug, MC4 Connector)
Solar Panel Connector - Solar Panel Plug-in Connector



Product name : MC4 connector (compatible with MC4 interface)

- Working current : 20A (4mm²), 30A (6mm²)
- Withstand voltage : DC1000V
- Contact resistance : $\leq 0.5\text{m}\Omega$
- Insulation resistance : $> 500\text{M}\Omega$
- Applicable single-core cable section : 1.5mm²--6mm²
- Cable outer diameter range : $\Phi 5\text{mm} \sim \Phi 7\text{mm}$
- Ambient temperature : $-40\text{ }^\circ\text{C} \sim +105\text{ }^\circ\text{C}$
- Protection level : IP67
- Security level : II
- Insertion force : $\leq 50\text{N}$
- Extraction force : $\geq 50\text{N}$
- Insulation material : PA, black
- Contacts : copper cn, nickel plated sn
- Flame retardant grade : UL94-V0
- Terminal connection method : crimp
- Weight : about 0.025Kg

PRODUCT ORDERING CODE

CPF1 #1	4 #2	150 #3	S #4	P #5	A #6	9 #7	4 #8	A #9	0 #10
Series No.	No. of Positions	Max Current Per Pin	Power Pin Plating	Male Female	Max Signal Use	Signal Pin Plating	Body Color	Lock Method	Prevention Key
CPF1 *HV Series	2 *Power Pin	150 AMP *Standard Pin Type 3000 Times	S *Silver Plated	S *Receptacle & Socket	A *6+6 Pins	9 *Gold Plated	4 *Orange Color	0 *W/O Lock & Solenoid Valve 2 in 1 Series	0 *W/O Key
	4 *Power Pin			P *Plug	B *6 + USB				P *With Key
CPF2 *Mini HV Series	4 *Blades 8 *Blades	75 AMP *Blade Type 500 Times			C *6+0 Pins			A - 2 Way B - 1 Way *With Lock & Solenoid Valve 3 in 1 Series	

CPF1



Characteristics

- Rated current : 150A x 2 couple with AWG #2
- Rated voltage : 1500V, both AC and DC
- Dielectric strength : 4250 AC
- Durability : 3,000 cycles
- Locking force : > 40 kgf
- IPX5 in mated condition
- Operating Temperature : -40°C ~ + 125°C

Material

- RoHS Compliant
- Base : High Temperature Plastic UL94V-0
- Cover : High Temperature Plastic UL94V-0
- Power Pin : Copper
- Signal Pin : Copper Alloy

CPF2

Characteristics

- Rated current : 75A x 4 couple With AWG #6
- Rated voltage : 400V, both AC and DC
- Dielectric strength : 1800V
- Durability : 500 cycles
- Locking force : > 40 kgf
- IPX5 in mated condition
- Operating Temperature : -40°C ~ 105°C

Material

- RoHS Compliant
- Base : High Temperature Plastic UL94V-0
- Cover : High Temperature Plastic UL94V-0
- Power Pin : Copper
- Signal Pin : Copper Alloy



Type C Charging Connector

5A
High current
charging

SMT
6pin Vertical
type

>10000
Mating Cycle



Material

1. Housing: LCP, Glass Fiber Filled Black, UL-94V-0
2. Contact Terminal: Copper Alloy
3. Shell: Stainless steel

Electrical

1. A current of 5.0 A shall be applied collectively to VBUS pins (pins A4, A9, B4, and B9)
2. 1.25 A applied to the VCONN pin (pins B5 of the plug connector) with the return path through the corresponding GND pins (pins A1, A12, B1, and B12).
3. A minimum current of 0.25 A shall also be applied individually to all the other contacts.
4. Contact Resistance: 40mΩ Max (Initial), 50mΩ Max (After Test)
5. Insulation resistance: 100MΩ Min
Dielectric withstanding voltage: 100V AC for 1 minute between adjacent terminal, no breakdown

Mechanical

- Durability: 10,000 Cycles
Mating Force: 5 to 20N
Unmating Force: 8 to 20N after testing

Environmental and Processing

- Operating Temperature: -40°C to +80°C
Solder Temperature: Peak temp 255°C (+5/-0°C) Maximum (5 seconds above 250°C)

Features

A one-stop interconnection solution that can satisfy data, power and A/V at the same time.

The interface adopts reversible design.

Support USB 2.0, USB 3.1 Gen 1 and USB 3.1 Gen 2 and other types.

Up to 100W at 20V.

Easily backward compatible with other USB connectors using conversion cables or adapters.

Application

- It can be widely used in the charging connection base of household appliances.
- Charging dock that can be used for rechargeable children's toys.
- It can be widely used in the general charging of products in the low-end application market, and has patent protection.



Since 1990

Proactive

Innovation

Efficiency


CviLux Group

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9F, No.9, Ln. 3, Sec. 1, Zhongzheng E. Rd., Tamsui Dist., New Taipei City

TEL:+886 2 2620-1000



USB4 40Gbps Cable



- 240W**
Delivery
- 8K 60HZ**
Display
- PD3.0**
Support

Features

- 1M/2.6 ft in length
- USB4 Type-C USB-IF Certified Cable.(USB4 Gen3X2)
- 40Gbps bandwidth/8K display @60Hz.
- Power Delivery up to 240W with built-in E-Mark and support PD3.0.
- Support DisplayPort, PCI Express and other certification.
- Backward compatible with USB 3.2, USB 2.0 and Thunderbolt 3.
- USB-IF Certified.
- UL94 V-1 material compliant.

Application

- Support HPD and PnP.
- Support 4K/8K UHD 60Hz display.
- Transfers at 40 Gbps in connection to portable storage devices, PCI express, and computers.
- Compatible with Thunderbolt 3, USB C for MacBook Pro, Windows Laptops, and More.
- Connect to Thunderbolt (USB-C) and USB devices and adapters.



Normative parameters :

1	Differential To CommonMode Conversion Scd12	Pass
2	Differential To CommonMode Conversion Scd21	Pass
3	USB2 Attenuation	Pass
4	USB2.0 Differential Impedance	Pass
5	USB2.0 Differential Delay	Pass
6	USB2.0 IntraPair Skew	Pass
7	ILfit@Nq	Pass
8	IRL	Pass
9	IXTi DP	Pass
10	IXTi USB	Pass
11	IDDXT 2NEXT	Pass
12	IDDXT NEXT FEXT	Pass



Test Report

Since 1990

Proactive
Innovation
Efficiency

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