### **CCP Confidential**





**CCP CONTACT PROBES Co., Ltd.** 

**COMPANY PROFILE** 

## Introduction of CCP Group





#### C.C.P. Contact Probes Co., Ltd.

- @ Taipei County
- Opened in 1983
- Capital: 18 million USD
- Employees: 150
- Stock: TW.6217 (Jan 9, 2003)

Focusing on product lines about semiconductor industry IC Testing pins, IC sockets

#### Dong Guan C.C.P. Contact Probes Co., Ltd.

- @ Humen Town, DongGuan City
- Opened in the end of 2000
- Capital: 13 million USD
- Employees: 550
- Production base in China

Focusing on design and production of pogo pin connectors and traditional probes

#### 2014 CCP Product Lines





Pogo pin connector



**Customized Connector** 



CCP-T

# Customized Design Mass Production

- Customization Design Process
- Supply Chain Management Skills
- Quality Control Process
- Strong Financial Ability
- Screwing Parts Knowhow
- Raw Material Development
- Plating Technology

CCP-A

CCP-

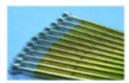


Crown Spring Connector



**IC Testing Pins** 





**PCB Testing** 



**Contact Pins** 



Kovar Alloy

## C.C.P. Core Technology – Ultra Precision Turning

# We provide "Customization Service" Flexible production line – high mix/low volume manufacturing

- Strong Brand Name "CCP" is shown up in the market for 30 years
- Quality Oriented with Reasonable Price
- Instant and Flexible Service
- Automation : Assembly Inspection Package

#### All of our products are RoHS compliant and Halogen-free.

- AFAQ ISO 9001: 2008 Certification
- IECQ QC080000 Certification
- ISO 14000 : 2011 Certification
- ■TS16949











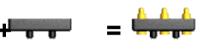
## Introduction of Pogo Pin Connector

a device used in electronics to establish a connection between two printed circuit boards

Pogo Pin Connector is composed of plunger, spring, barrel and other plastic or metal components.



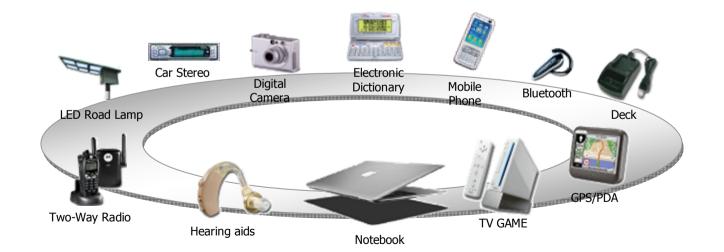




膠芯 探針式連接器 (Housing) 頂針式連接器 (Pogo Pin Connector)

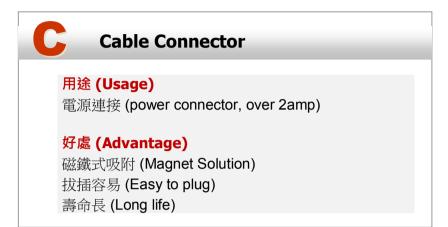


- 1. 壽命長 (Long life cycle: 100,000 times)
- 2. 免開模,適合客製化 (No tooling fee, easy to customize)
- 3. 彈力可以準確的衡量和調整 (Adjustable and measurable spring force)
- 4. 減省空間,並且給設計師更有彈性的配置結構 (Save space: help mechanical engineer easily allocate components on PCB)
- 5. 間距小 (Fine pitch)
- 6. 提供客戶多原性的生產模式: SMT自動生產、 插件... (Flexible manufacturing ways: SMT, plug-in...)
- 7. 高頻解決方案可達 6G (Good performance on RF solution)
- 8. RoHS and Halogen Free



# Pogo Pin Connector Applications – Power solution for Ultra Book









Mag-Safe 電源轉換器



由於電源線的接頭是磁性的,因此如果有人不小心絆到電源線,它會俐落的自動脫離機身,而 Ultra Book 則會安全的留在原來的位置上。

The MagSafe connector is held in place magnetically. As a result, if it is tugged on—for instance, by someone tripping over the cord—it comes out of the socket safely, without damaging it or the computer or potentially pulling the computer off of a table or desk.

- Usage on Board to Board





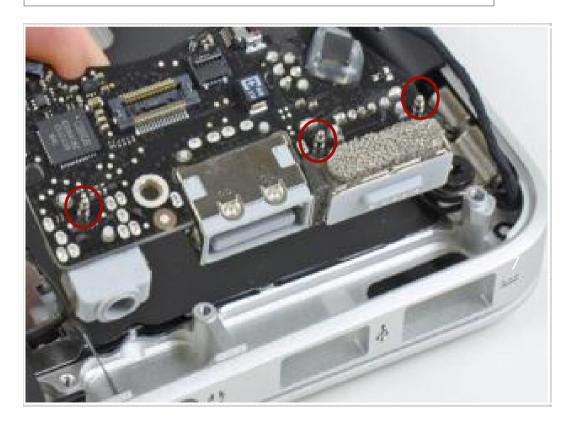


#### 用途 (Usage)

1. EMI

#### 好處 (Advantage)

- 1. Super lower profile
- 2. SMT





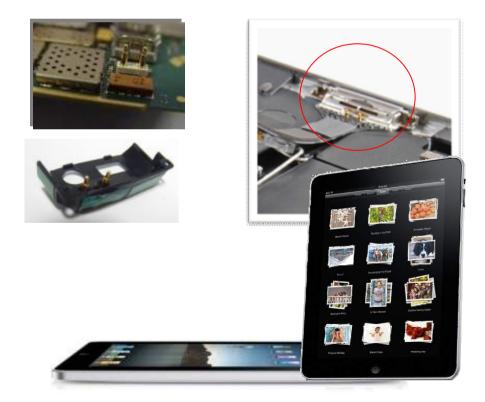


The mother board of notebook is smaller than other NB. Pitch between part and part is very limited to put other solutions.

#### Antenna Connector for Tablet PC and Mobile Phone











#### Pogo Pin Connector Applications – Battery Connector for 4G Mobile Phone











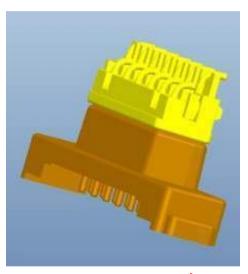
Hinge docking Connector for transform Notebook



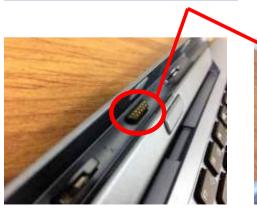


用途 (Usage)

Pad with Keyboard connection











**Keyboard Connector for Tablet** 







Receptacle connector on pad M/B







Pogo connector on keyboard cable side



**Keyboard Connector for Transform Notebook** 











**Keyboard Connector for Transform Notebook** 



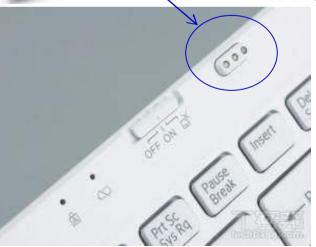


用途 (Usage)

Pad with Keyboard connection

好處 (Advantage)

Black & silvery surface treatment



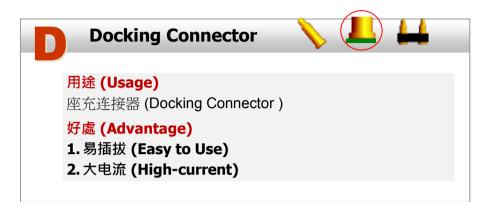
Receptacle connector on keyboard PCB



Pogo connector on pad M/B

# Pogo Pin Connector Applications — Water-proof Pogo Pin Connector for outdoor GPS











## **Level IPX7 -PASS**

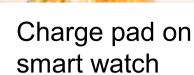




Power supply for smart watch



Pogo pin on Charge cable smart





Power supply for smart watch

#### 好處 (Advantage)

- 1. Super lower profile
- 2. Waterproof









Power supply for smart wristband





Pogo pin on flex charge cable



Charge pad on device



Charge sketch

## 穿戴式产品













# Pogo Pin Connector Applications Docking Connector for handy POS



#### Data transmission and power supply for handy POS







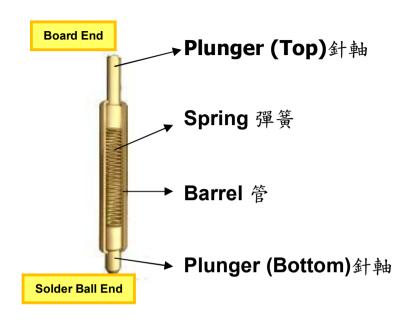


IO for female connector



## Introduction of IC Testing Probes





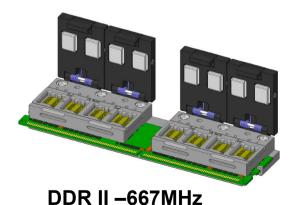
#### **CCP Probe Characteristics:**

- 針對不同的封裝方式,提供不同的頭型 Different types of probe tip (B 、 E 、 F 、 D )
- 動態阻值穩定 Consistent Resistance
- 穩定的壽命 20萬次 200K Stable Lifecycles(min)
- 低阻抗 Low contact resistance

#### **Probe Barrel Diameter Specs:**

- 0.58 mm (B, E, F, D)
- 0.51 mm
- 0.38 mm
- 0.30 mm
- 0.25 mm (fine pitch)

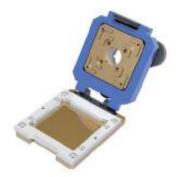
#### IC Test Socket 測試座:



**Memory Test Socket** 







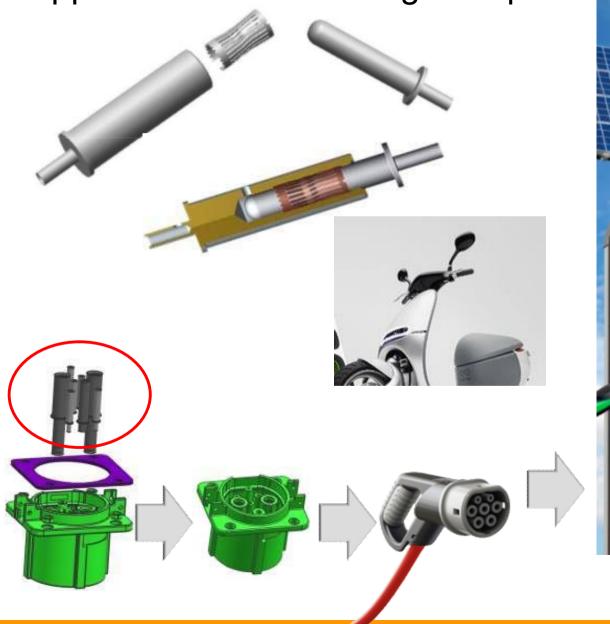
Package Type: BGA, LGA, QFN, CSP(micro BGA)

Package Pitch: 1.27~0.30mm

# Connector Applications Automobile Products – Crown Spring Connector



## Applied in EV/HEV charge coupler





## **Kovar Alloy Product**



Thus kovar finds wide usage in the electronics industry for metal parts bonded to hard glass envelopes for such devices as power tubes, x-ray tubes, connector, relay etc., and other applications requiring glass-to-metal seals.

Kovar parts



Connector



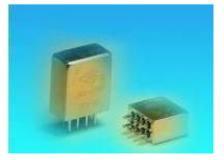
Power tube



Xay tube



Relays





## **Special Connector Solution**



industry pin

- Kovar Alloy (可伐合金)/ Tin Bronze(錫氰銅) / Phosphor Bronze(鏻氰銅)





Connector





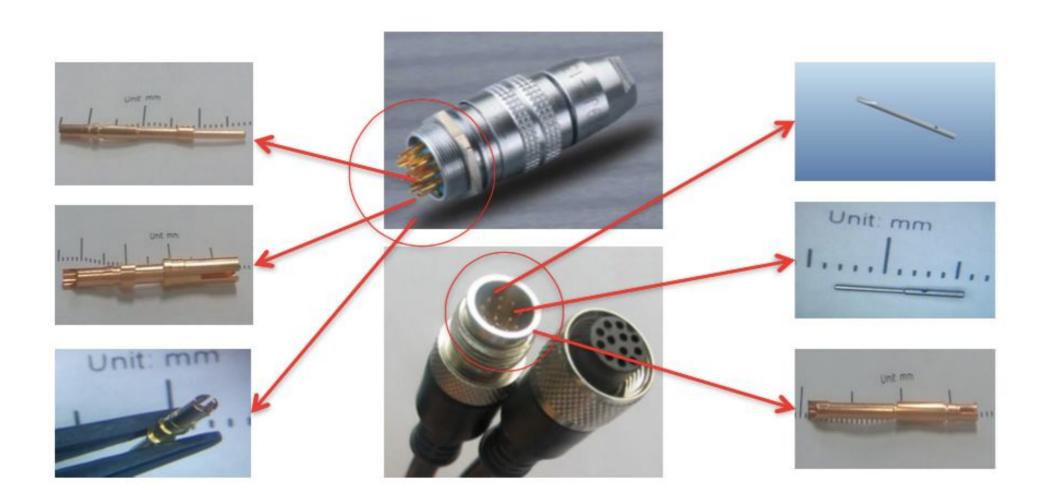


#### 完美防水防氣連接器解決方案 - Kovar + 玻璃燒結

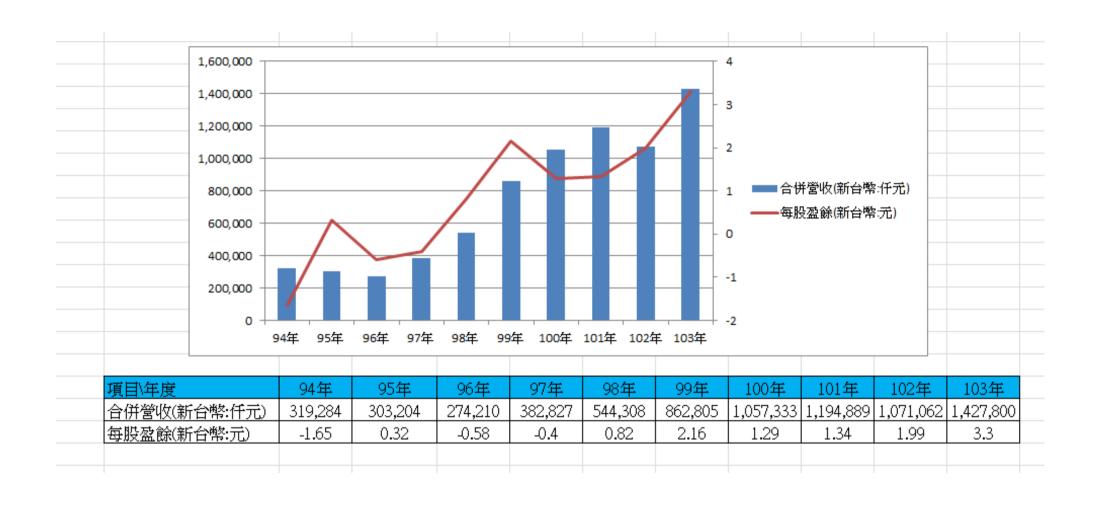
在惡劣環境下、極端溫度環境下,kovar和玻璃之間由於膨脹係數一致,可保持連接器的防水及氣密效果

# Precision Machining Solution





## 最近10年營收及獲利趨勢

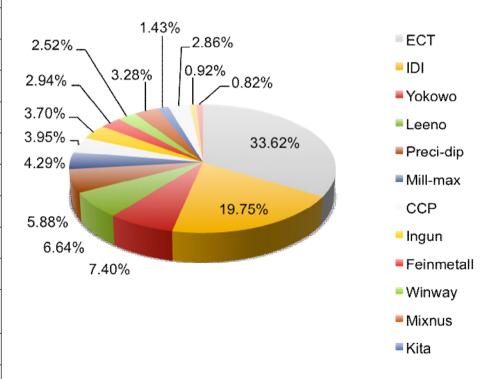


## **CCP Market Share**



#### Reveue

		Reveue			
	Company	s (US\$M)	Product Line	%	Location
1	ECT	400	PCB/IC/Socket/Conn	33.62%	USA
2	IDI	235	PCB/IC/Socket/Conn	19.75%	USA
3	Yokowo	88	IC/Socket/Conn	7.40%	Japan
4	Leeno	79	IC/Socket	6.64%	Korea
5	Preci-dip	70	Conn/IC/Socket	5.88%	Swiss
6	Mill-max	51	Conn	4.29%	USA
7	ССР	47	Conn/IC/Probe	3.95%	Taiwan
8	Ingun	44	РСВ	3.70%	Germany
9	Feinmetall	35	РСВ	2.94%	Germany
10	Winway	30	Socket	2.52%	Taiwan
11	Mixnus	39	IC/Socket	3.28%	Japan
12	Kita	17	IC	1.43%	Japan
13	Rika Denshi	34	IC, Inspection Machine	2.86%	Japan
14	Johnstech	11	Socket	0.92%	USA
15	QA	10	РСВ	0.82%	USA
	Total	1,190			



Source: 2014 annual revenue data from Hoovers and each company annual report



## The End