



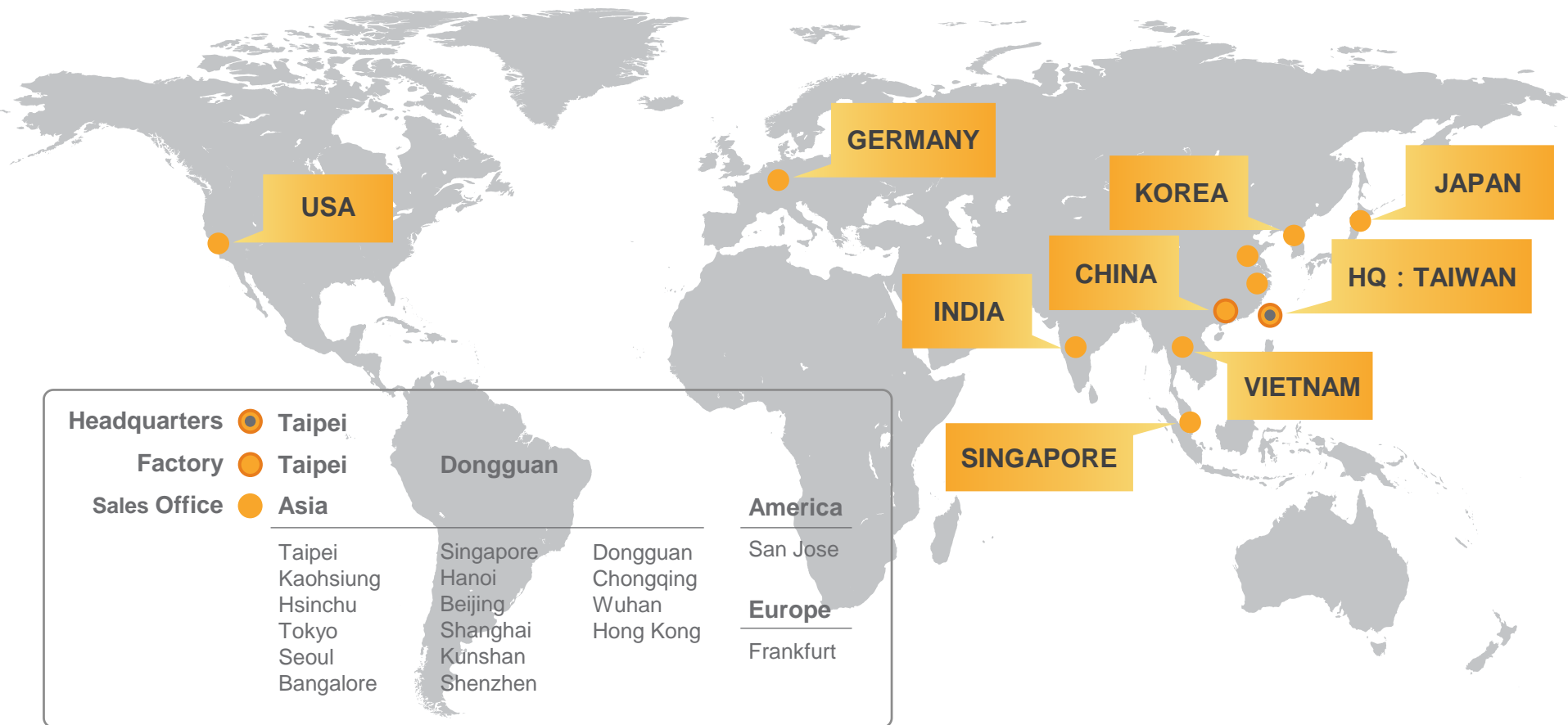
CCP Contact Probes

Testing Solution

History



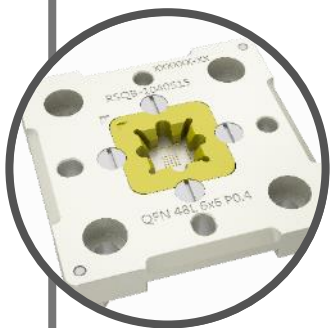
CCP Contact Probes



Selected Customers:



Product Portfolio



CCP - Testing Fine Pitch

IC Testing Probe
IC Probe Head
PCB Testing Probe



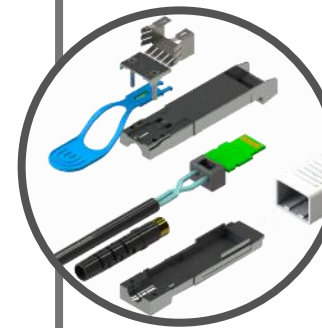
CCP - High Current 13A~250A

Electronic Vehicle
High Current Conn.



CCP - Connector 1A~13A

Pogo Pin Conn.
Waterproof Conn.
Magnetic Conn.

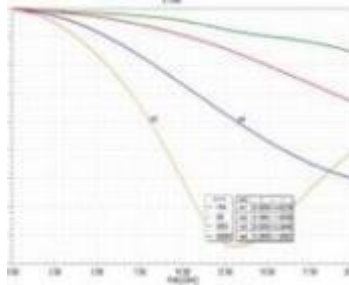


CCP - High Speed 25Gbps~100Gbps

Data Networking
Transceiver

Core Advantages

High Frequency Simulation



HFSS

Material Development

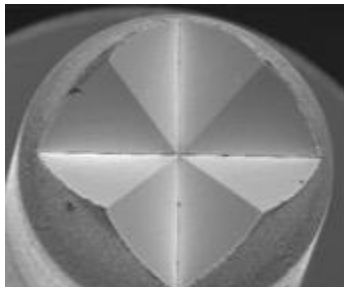


Plating Lab

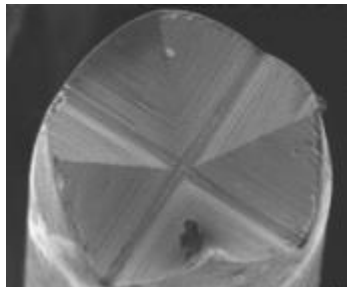


Self-owned
Plating Factory

Mirror Process

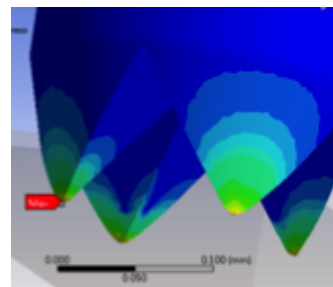


CCP's Product



Other Provider

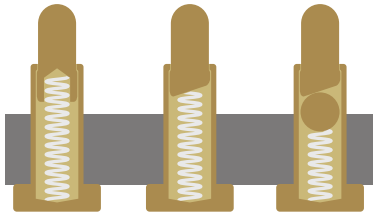
Finite Element Analysis



ANSYS

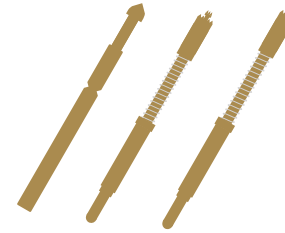
Manufacturing Capacity

Pogo Pin Connectors



60 Mio Pins / Month

Testing Probes



2 Mio Pins / Month



Verification Ability

Testing Items

Electrical

Contact Resistance
Insulation
HIPOT
Rated Current

Mechanical

Retention Force
Life Cycle
Vibration
Mechanical Shock

Other

Drop
Soldering Side Force
Solderability

Environmental

Waterproof
Humidity Test
Salt Spray
Thermal Impact
Resist. To Solder Heat
Vibration

Quality Management

Quality System

ISO 9001: 2015

Quality Management Systems

ISO 13485: 2016

Medical devices - Quality management systems

ISO 14001: 2015

Environmental Management System

IATF 16949: 2016

Automotive Quality Management System

QC 080000

Hazardous Substance Process Management

Quality Assurance



Testing Equipment

Rated Current
Max Rating : 1000Amp



Waterproof
Test Level: IPX7 Up

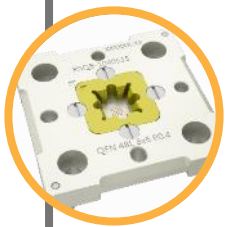


Thermal Impact
Range: -60~120°C
Resolution : 0.01 °C

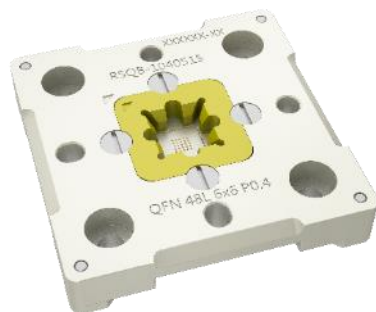


Vibration
Frequency : 3500Hz max
Acceleration : 50G max

Product Line - Testing Solution



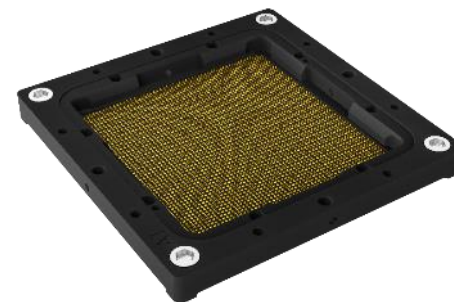
IC Package Test



Burn-In Test



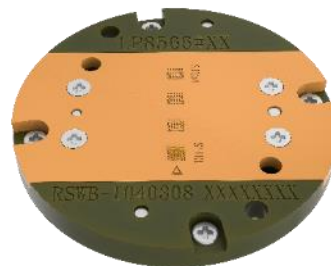
High Frequency Test



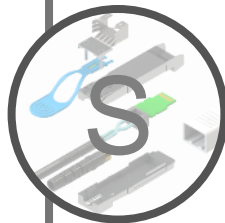
Memory Test



WLCSP Test



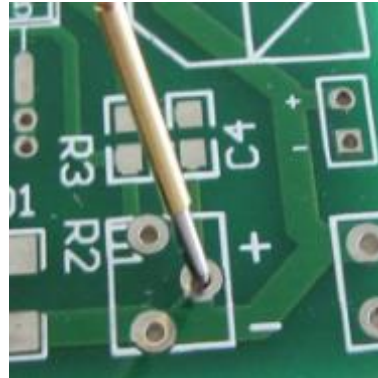
Battery Test



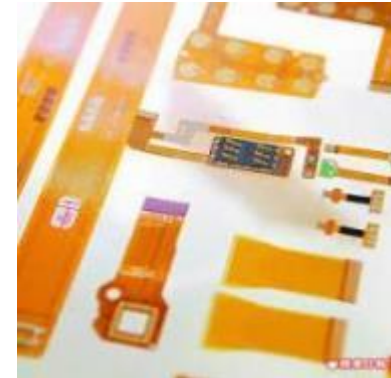
PCB Test Probe



PCB



FPC



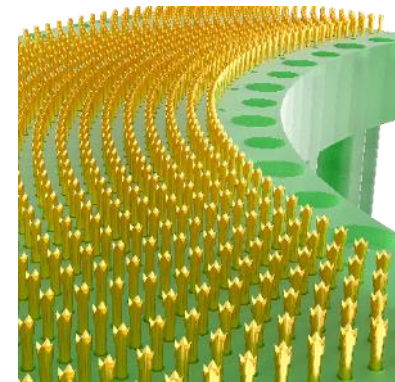
Battery



LED



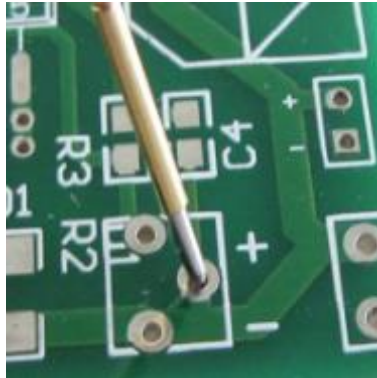
Pogo Tower



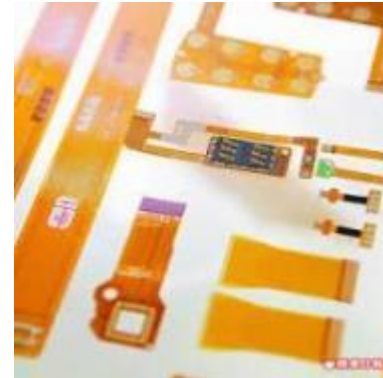
PCB Test Probe



PCB



FPC



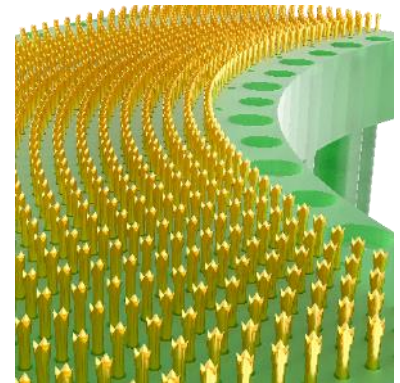
Battery



LED

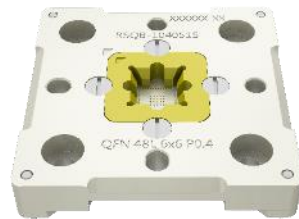


Pogo Tower



IC Test Probe

General Final Test



Burn-In Test



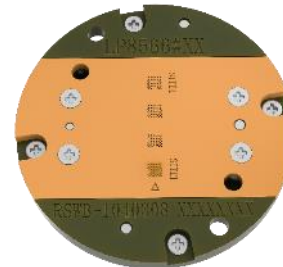
Memory Test



High Frequency Test



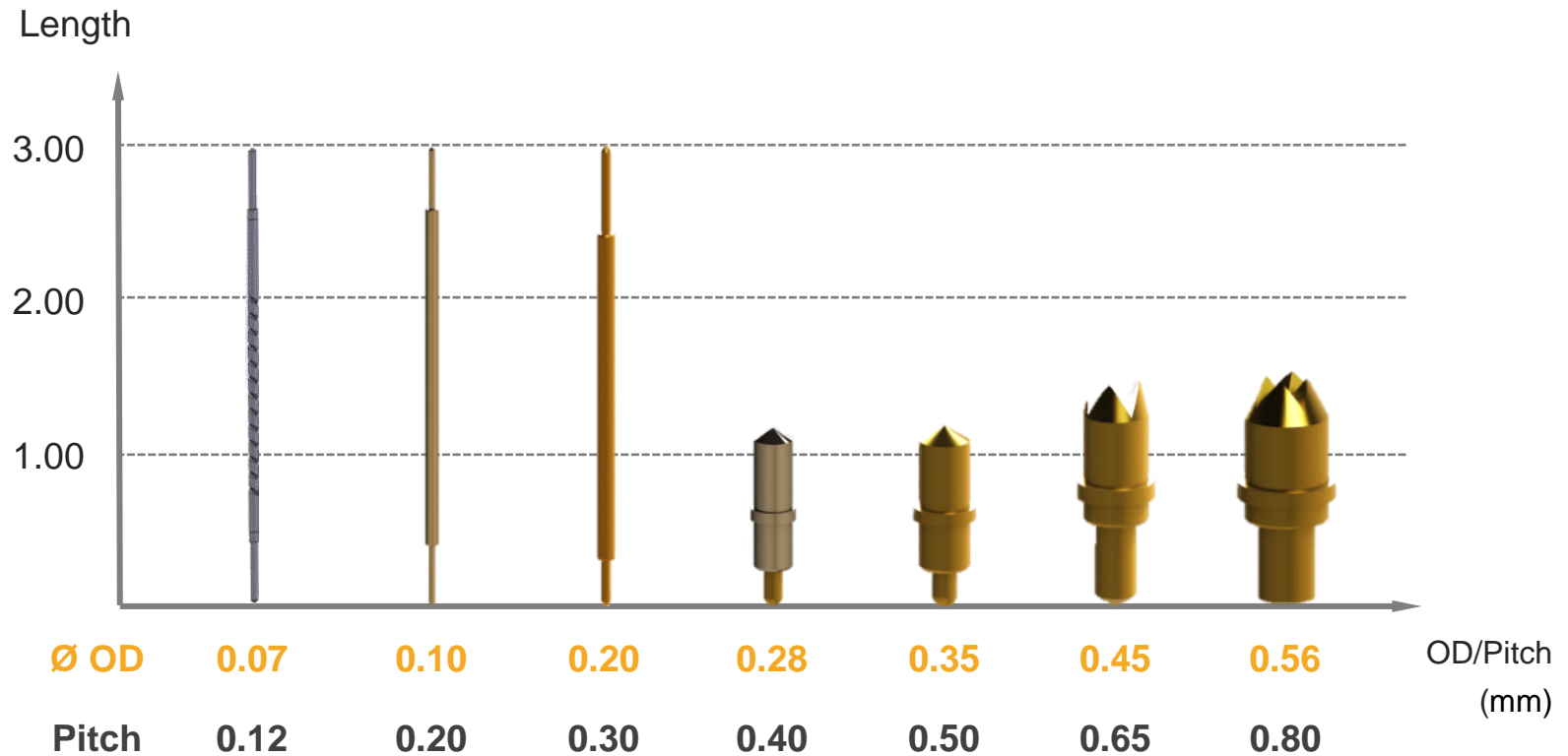
Wafer Level Test



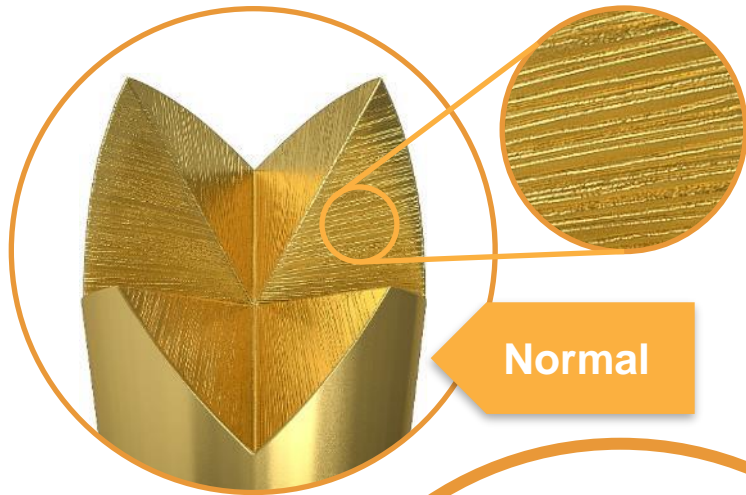
Fine Pitch Test



Testing Probe Design Capability



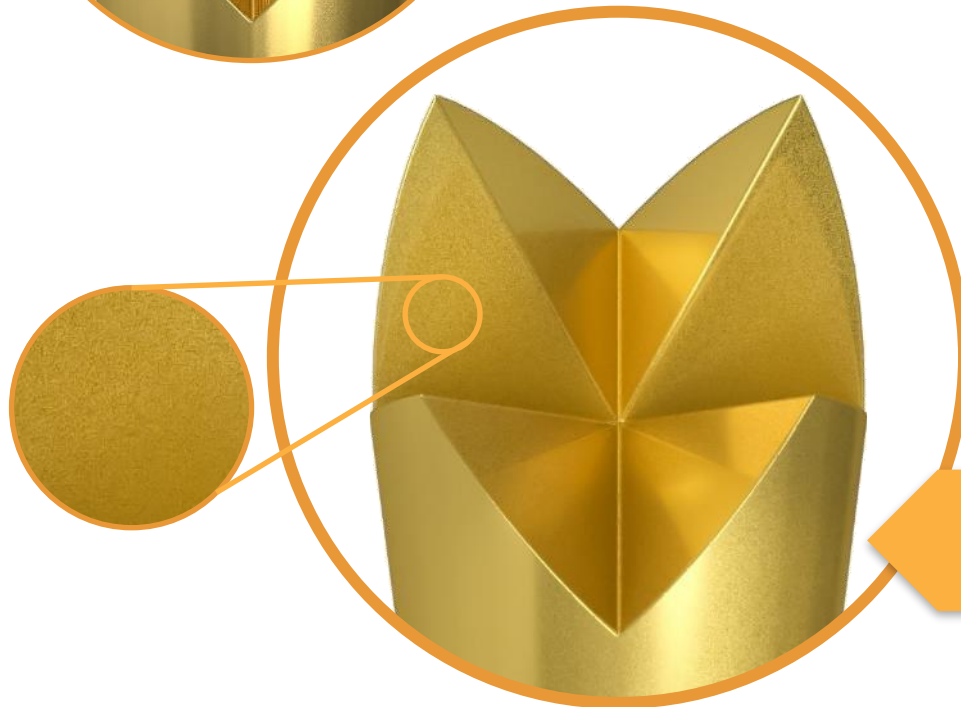
Testing - Mirror Process



Normal

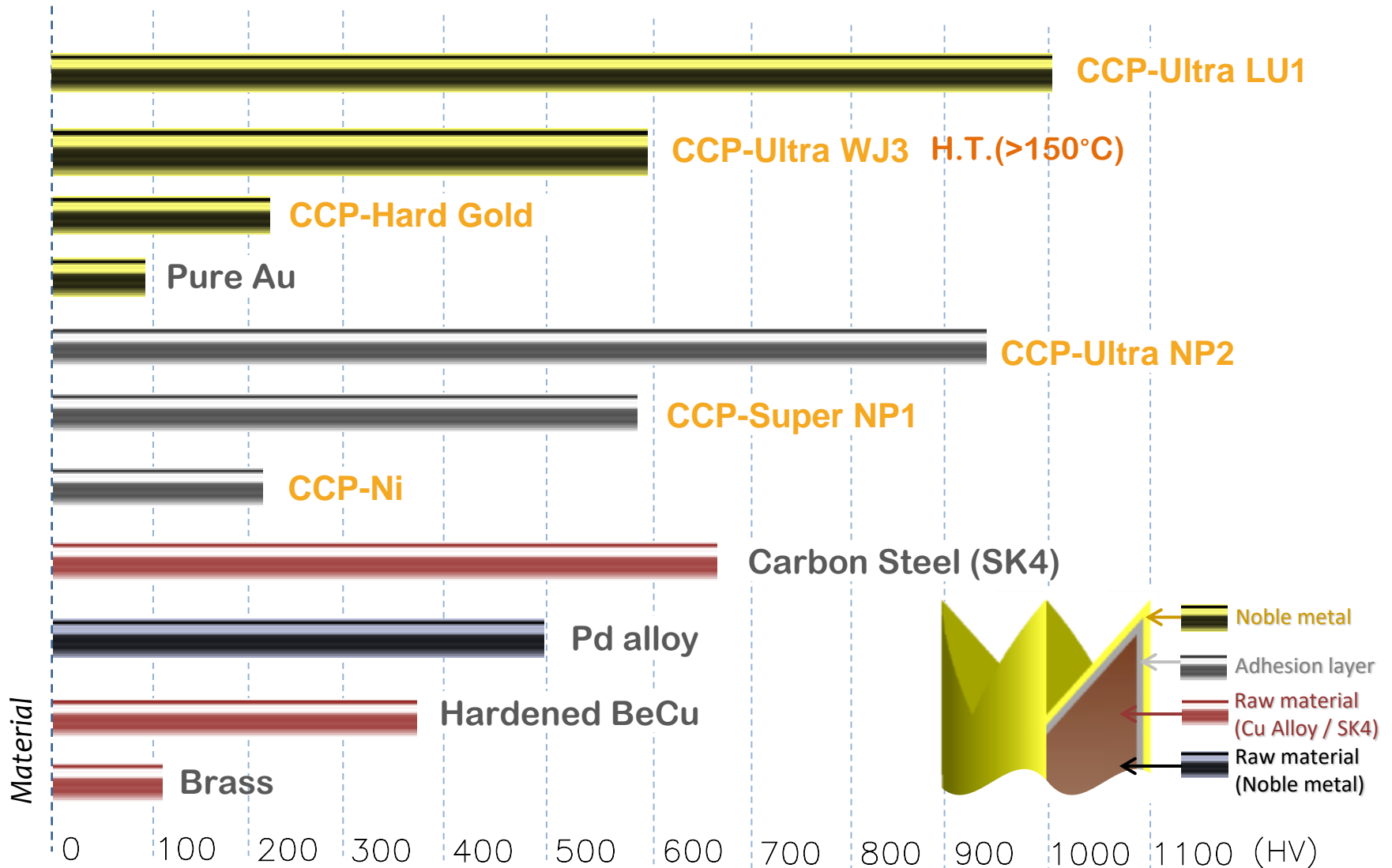
Mirror Process – The Best Probe Protector

- The Mirror Process makes the surface as smooth as a mirror so that solder splashes won't attach to the probe tip. This, in turn, decreases your probe cleaning frequency, as well as machine down time significantly.
- Pin durability increases 1.3~1.5 times as compared to normal process.



**CCP's Mirror
Process**

Material Development



Testing Instrument

Turning Parts Surface Inspection



Optical Profiler

Surface Roughness Inspection

Plating Layer Inspection



Nanoindenter

- Hardness measurement
- Adhesion Test



FE-SEM and EDS

- Surface profile observation
- Material analysis

Integrated Manufacturing



- Automatic CNC lath



- CNC spring coiling machine



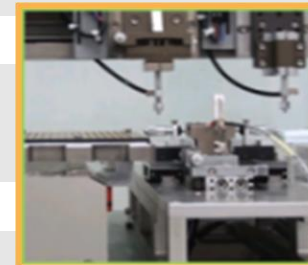
- Surface treatment production line



- Semi-automatic assembly machine



- Automatic assembly machine

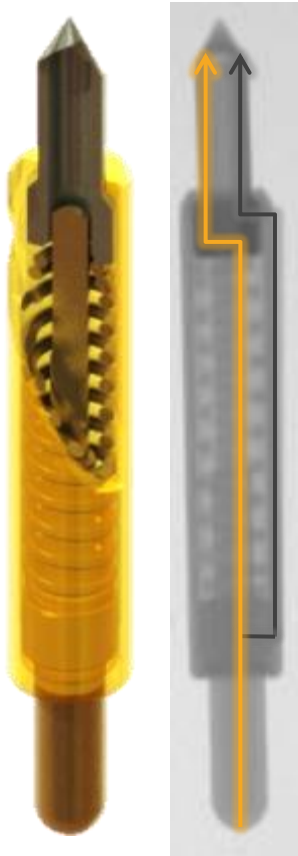


- Automatic probe **full inspection**

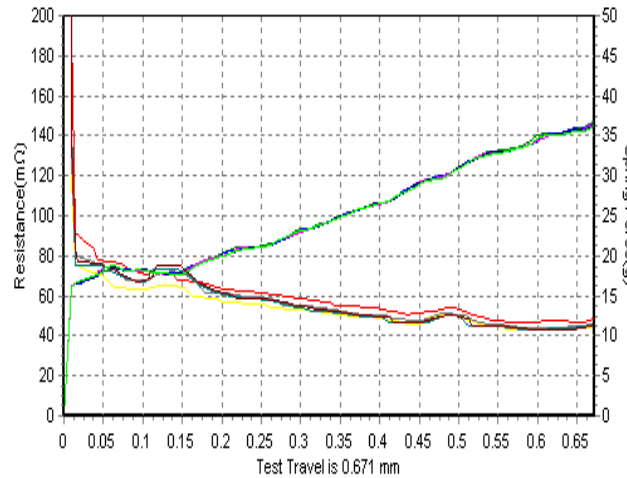


High Current Probe

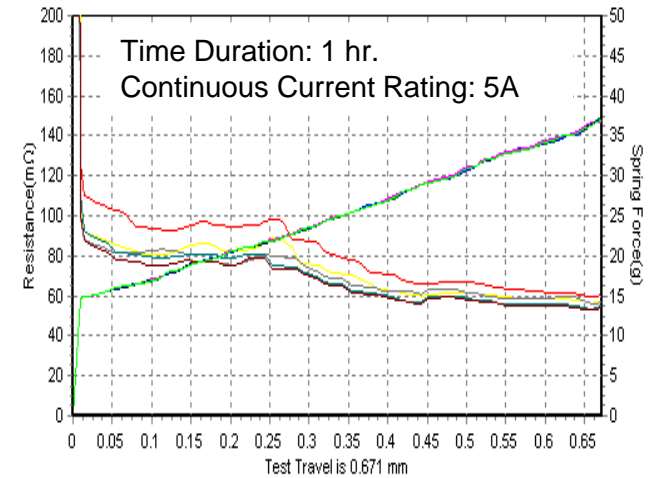
Patent No. M453149



Normal Testing



High Current Testing



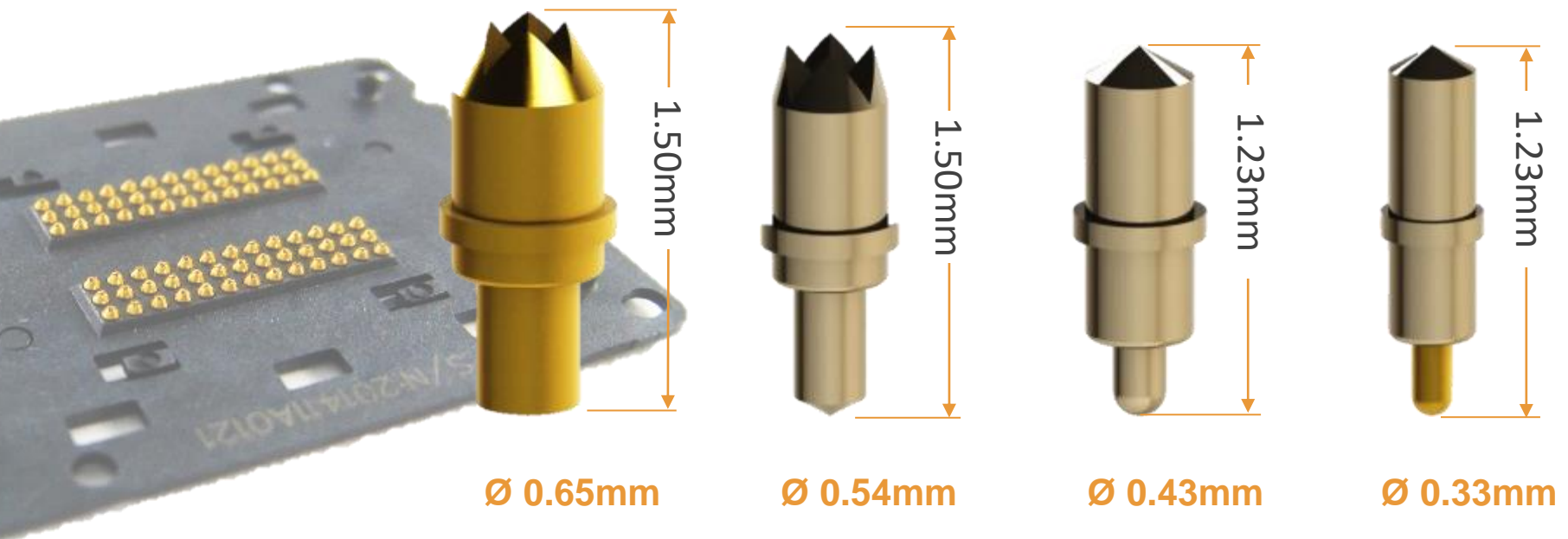
CCP Concentric Pin

Stroke	0.60mm
Contact force	30 g (Adjustable)
Durability	Contacts : >30k
Pitch	0.650mm
DC resistance	< 60mΩ
Current Rating	5A



Temperature Record

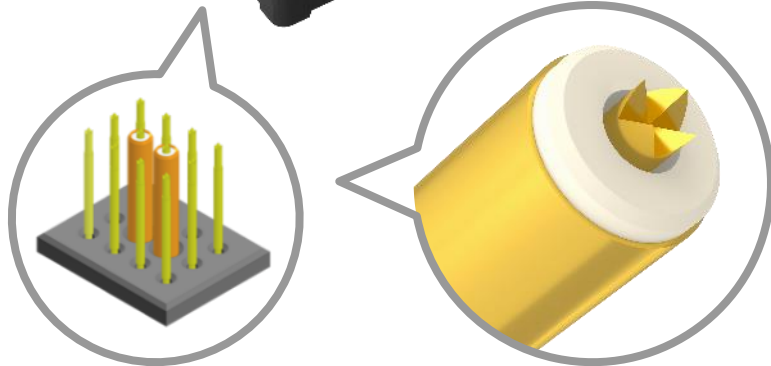
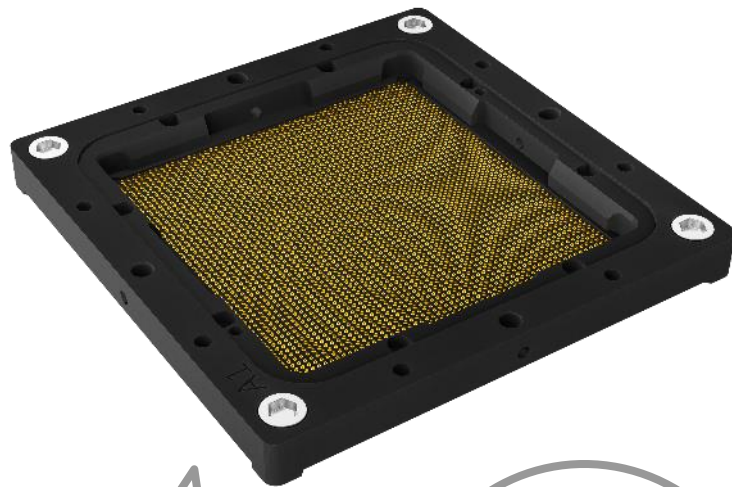
High Frequency Solution



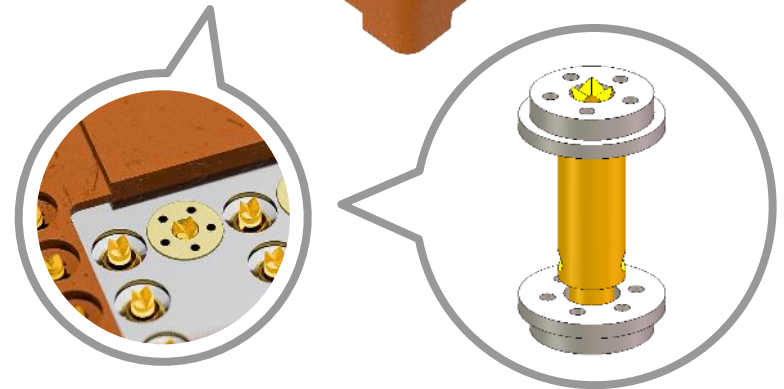
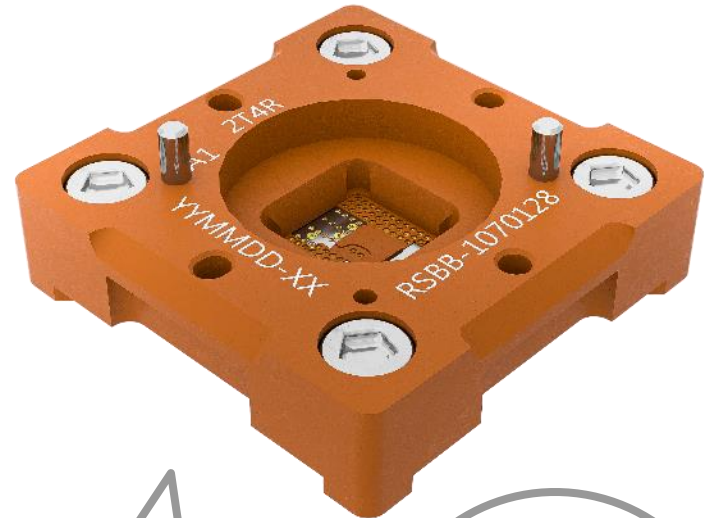
Spring Force	30g $\pm 20\%$ @ 0.40mm	30g $\pm 20\%$ @ 0.4mm	12~19g $\pm 20\%$ @ 0.18mm	15g $\pm 20\%$ @ 0.18mm
Insertion Loss	-1dB>20GHz	-1dB>20GHz	-1dB>20GHz	-1dB>20GHz
Pitch	>0.80mm	0.65mm	0.50mm	0.40mm

High Frequency Solution

Coaxial Probe Socket
5G IC



Hybrid Coaxial Socket
ADAS

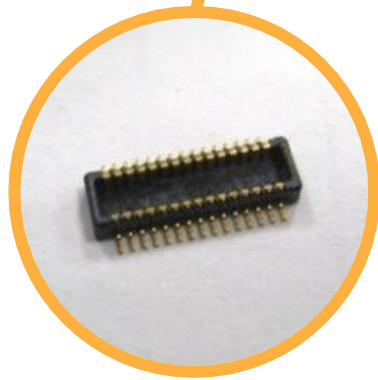


Testing : Fine Pitch Test Fixture

Dual-Side Pogo Socket

Min Pitch: 0.2

Mechanical Life: 200k

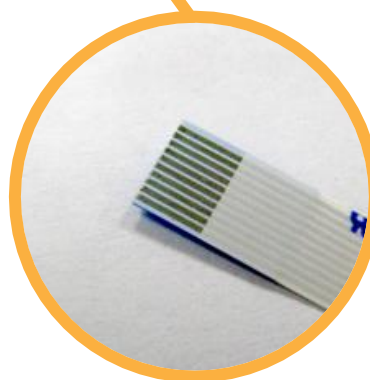


Device Under Test
Fine Pitch Connector

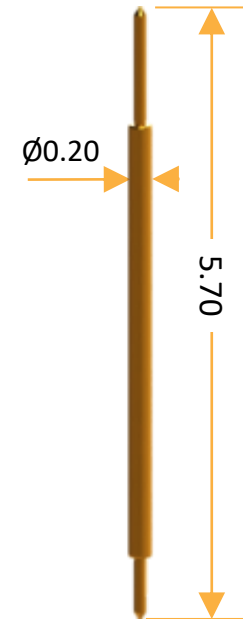
Clip Pogo Socket

Min Pitch: 0.2

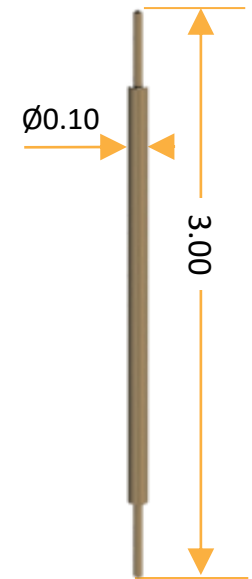
Mechanical Life: 200k



Device Under Test
FPC / FFC Gold Finger



Pitch
0.30mm



Pitch
0.20mm

Testing: IC Final Test Socket

BGA

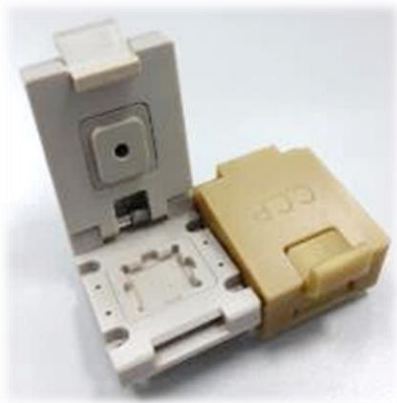


QFN



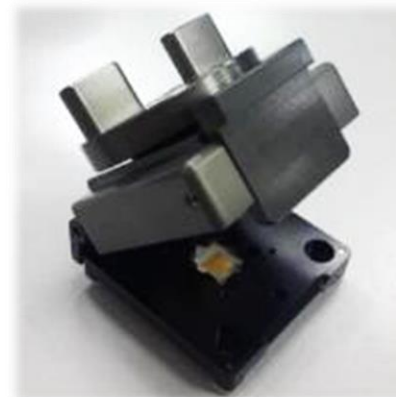
Memory Test

DDR 1~4
eMCP
Flash



Clamping Lid

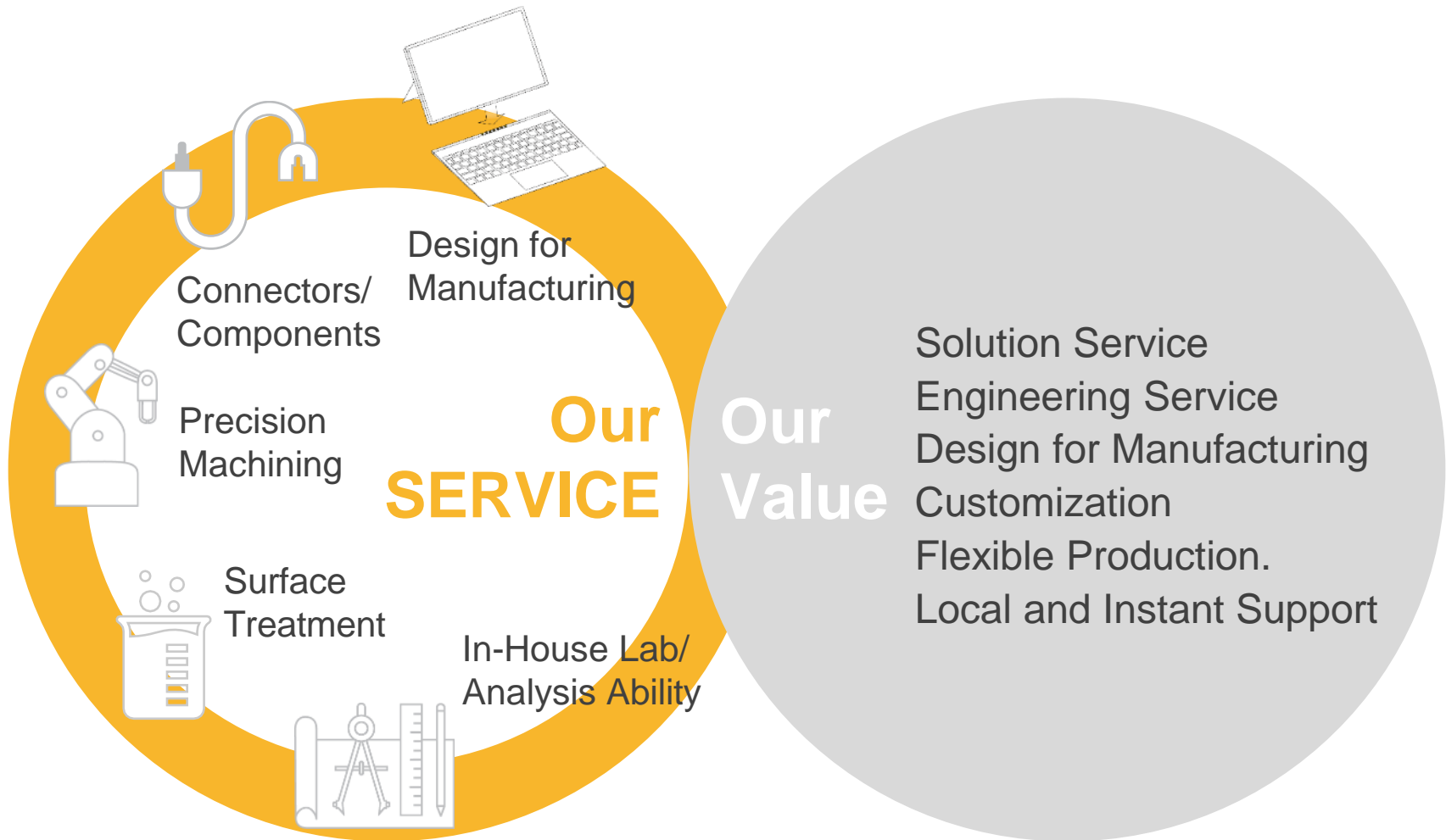
QFN QFP
<200 pins



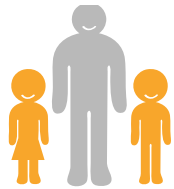
Knob Lid

All Kind
>200 pins

Create Value for Customers



Social Responsibility



Summer camp for employees' children.



Home visit to employees around the world.



CCP offers tuition scholarship for employees' children.



Q&A