



Testing Capabilities

Verification Ability

Testing Items

Environmental

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

Electrical

Contact Resistance
Insulation
HIPOT
Rated Current

Mechanical

Retention Force
Life Cycle
Vibration
Mechanical Shock

Other

Drop
Soldering Side Force
Solderability

Testing Equipment

Rated Current
Max Rating: 1000Amp



Waterproof
Test Level: IPX7 Up



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

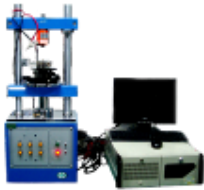


Vibration
Frequency: 3500Hz max.
Acceleration: 50G max.



Testing Equipment (1)

Electrical Performance



Spring Force / Contact Resistance Tester

The test machine measures and records the spring force and the contact resistance of each spring pin at the specific working height.

Function: Spring force test
Contact resistance test

Network Analyzer(6GHz/20GHz)



Basic Spec
Freq range: 300KHz~20GHz
Dynamic range: 123dB
Test Ports: 4-ports Applications
Extraction of S-Parameters

64-Pin Contact Resistance/Lifetime Tester



Life cycle testing for whole series of pogo pin products. Monitor the change of contact resistance during compression.

Function: Life cycle test
Contact resistance test

Single-Pin Contact Resistance/Lifetime Tester



Life cycle testing for single pin. Monitor the change of contact resistance during compression.

Function: Life cycle test
Contact resistance test

Environmental Testing



Thermal Shock Tester

Continuous environmental testing under the flashy cycle of extremely high and low temperature. To make sure the qualified electrical performance of material.

Function: Highest and lowest temperature test



Salt Spray Tester

Checking the corrosion resistance of gold-plated pogo pin. Based on this test, we can predict the suitability in use as a protective finish.

Function: Oxidation Resistance Test



Temperature & Humidity Chamber

To create repeatable environmental conditions for numerous product lines.

Function: Environmental Test



Hot-Air Reflow Machine

Simulate the situation of SMT process. Make sure gold-plated products and plastic materials keep same electrical performance and physical appearance. Do side force test for the pins mounted on PCB after though Reflow machine.

Testing Equipment (2)

Electrical Performance



Profile Projector

Measure the length, width, angle of products
Function: Physical Inspection



30X to 350X Measuring Microscope

Enlargement, photo, and high precision measurement. Enlarge one part of product to check physical situation and provide effective analysis.
Function: Physical Inspection



Life Tester

Check the durability of pogo pin, including the damage situation of plunger and fatigue of spring.
Function: Life cycle test



2.5 Microscope

Enlargement, photo, and high precision measurement. Enlarge one part of product to check physical situation and provide effective analysis.
Function: Physical Inspection

Environmental Testing



Micro-focus X-Ray Fluoroscopic Inspection Tester

Analyzed the inside condition of pogo pin without breaking the surface.
Function: Mechanical Inspection



X-Ray Plating Thickness Tester

Measure the thickness of plating and check the data fitting customer demand.
Function: Plating thickness Inspection



Vickers Hardness Tester

Test the hardness of raw materials or the parts after heat treatment. Make sure the degree of hardness fit the standard and the material with wear-resistant
Function: Hardness test



X ray fluorescence spectrometer (ROHS)

It's could use for analyses or measurement the element kinds and content, (This element will be show slide, liquid or farinose.)
to test the content of poisonous and harmful substances
Function: ROHS Compliance

Testing Equipment (3)

Electrical Performance – Power Testing Equipment (~60 Amp)



AC Source

To make sure the pogo pin connector can work successfully under a particular range of voltage and current

Function: high current test



DC Power Supply(ITECH/IT6512)

To make sure the pogo pin connector can work successfully under the particular range of DC voltage and current .

Function: Supplied high current test



midi LOGGER

Basic Spec

Analog Input :10CH

Measurement Range :-200~2000°C

Resolution : 0.1°C

Function: Temperature records



Programmable DC Power Supply

Wide range of voltage & current combinations with constant power

Voltage range: 0 ~ 100V

Current range: 0 ~ 25A

Power range: 600W

Applications: High current test



DC Electronic Load

Basic Spec

63102

Power : 100W *2

Current : 0~20A

Voltage : 1~80V

Resolution : 5mA

Accuracy : 0.1%

63103

Power : 300W

Current : 0~60A

Voltage : 1~80V

Resolution : 15mA

Accuracy : 0.1%

Applications

Hight Current Test



High Current Test Machine

1~25 pins / cycle

Dynamic / Static testing method

Highest : 30 Amp

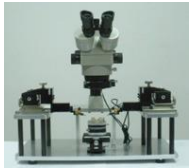
Distance: 40mm

(Power supply or 熱電耦 are necessary)

Function:大電流檢驗 High current testing

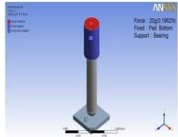
Testing Equipment (4)

Testing Equipment & Analysis Software



RF Probe Station

Applications
High Frequency Test



ANSYS V12.1

Applications
Analysis stress of product structure
Analysis Mating & Unmating Force of product structure

White Light Interferometers

Objectives: 1.5X, 2.5X, 5X, 10X, 20X, 50X for magnifications from 0.75X to 100X
Field-of-View: Multipliers 0.55X, 0.75X, 1X, 1.5X, 2X
Measurement Array: 640 x 480, non-interlaced; Optional 1392 x 1040 camera
Light Source: Long-lifetime green and white LEDs
Vertical Resolution: <0.1nm RMS
Repeatability: 0.05nm

Function: Surface roughness, step heights, critical dimensions, and other topographical features with excellent precision and accuracy



Vibration tester (LC-600)

This test a connector system to variable vibration simulating accelerated exposure to actual vehicle or transport conditions.

Function: Random/sine vibration test, typical mechanical shock test



Microscope

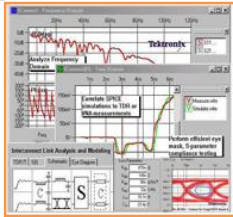
Eyepiece: 10X
Objectives: 5X, 10X, 20X, 50X, 100X
Stage clip: 150x60mm
Mode: Light/Dark Mode
High precision measurement Software

Function: Physical Inspection



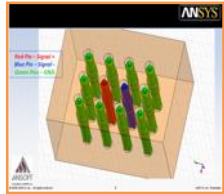
Testing Equipment (5)

Testing Equipment & Analysis Software



IConnector and MeasureXtractor

Applications
Signal Integrity Analysis
Convert TDR or VNA Data
Eye diagram analysis
Use TDR/T or VNA S-Parameter data for modeling
Time domain impedance analysis



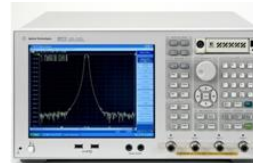
ANSYS HFSS

Analysis of S-parameters
E and H fields
Current densities
Material losses
Radiation losses



Agilent ADS 2009U1

Applications
Analysis of high-frequency circuits
RLC equivalent circuit simulation



Network Analyzer(6GHz/20GHz)

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Time Domain Reflectometer

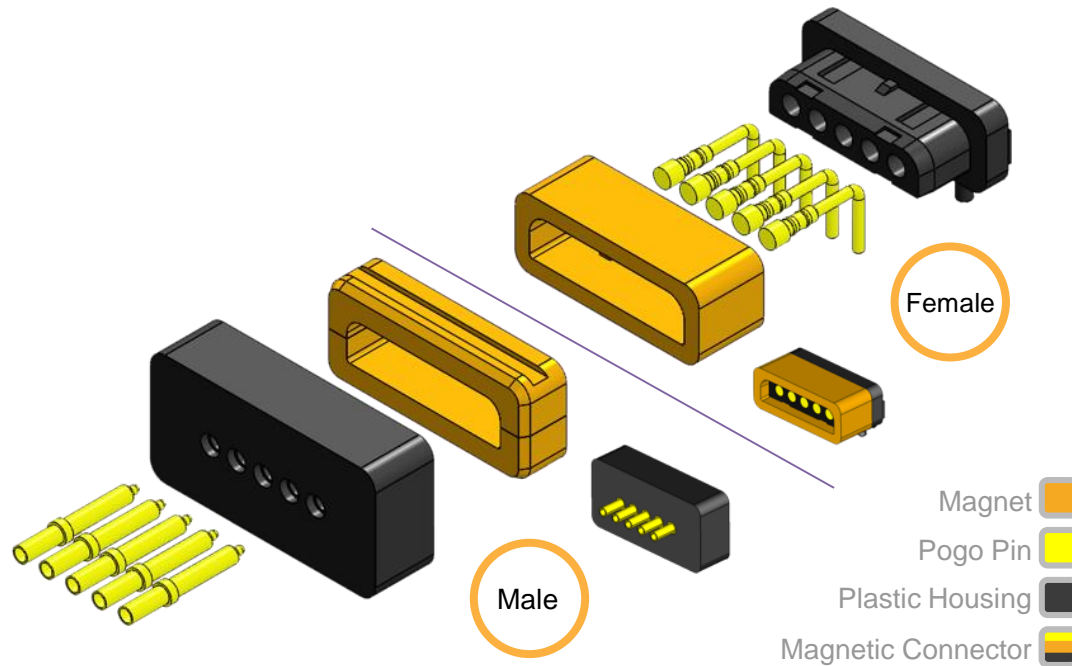
Basic Spec
Incident Rise Time 23ps
Reflected Rise Time 28ps
S-parameter Bandwidth 20GHz

Applications
TDR/T Measurements

About CCP

CCP Contact Probes Co., Ltd. is a leading global manufacturer of Contact Probes, Pogo Pins, Testprobes, Springloaded Connectors, and Crown Spring Connectors. In 1986 we began as a specialized provider of test probes and socket auxiliary solutions and slowly expanded our product portfolio in related industries such as electronic components manufacturing. Among our customers are renowned brands like Apple and Amazon and our products are revered by our customers for their exceptional reliability and superior quality. Our research and development teams are continuously improving our existing products and bringing new innovations to the market to meet the growing demands of our clients.

Since 2001 CCP Contact Probes has been a public traded company listed on the Taiwan Stock Exchange. Today CCP has subsidiaries in the United States, China, Germany, India, and Singapore, meeting the needs of our customers around the world.



C.C.P.

