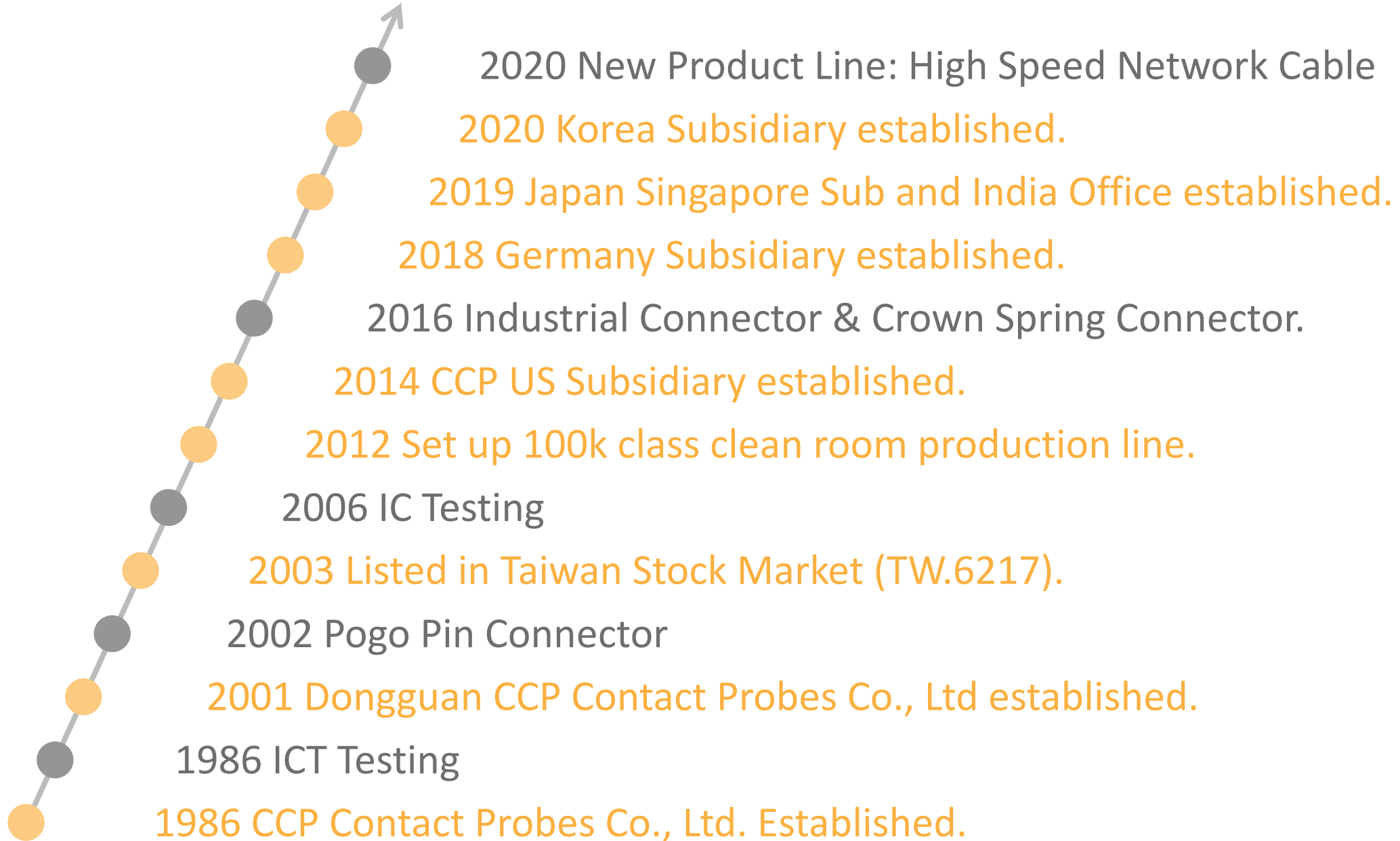


CCP Contact Probes

High Speed Cable



CCP Contact Probes - History





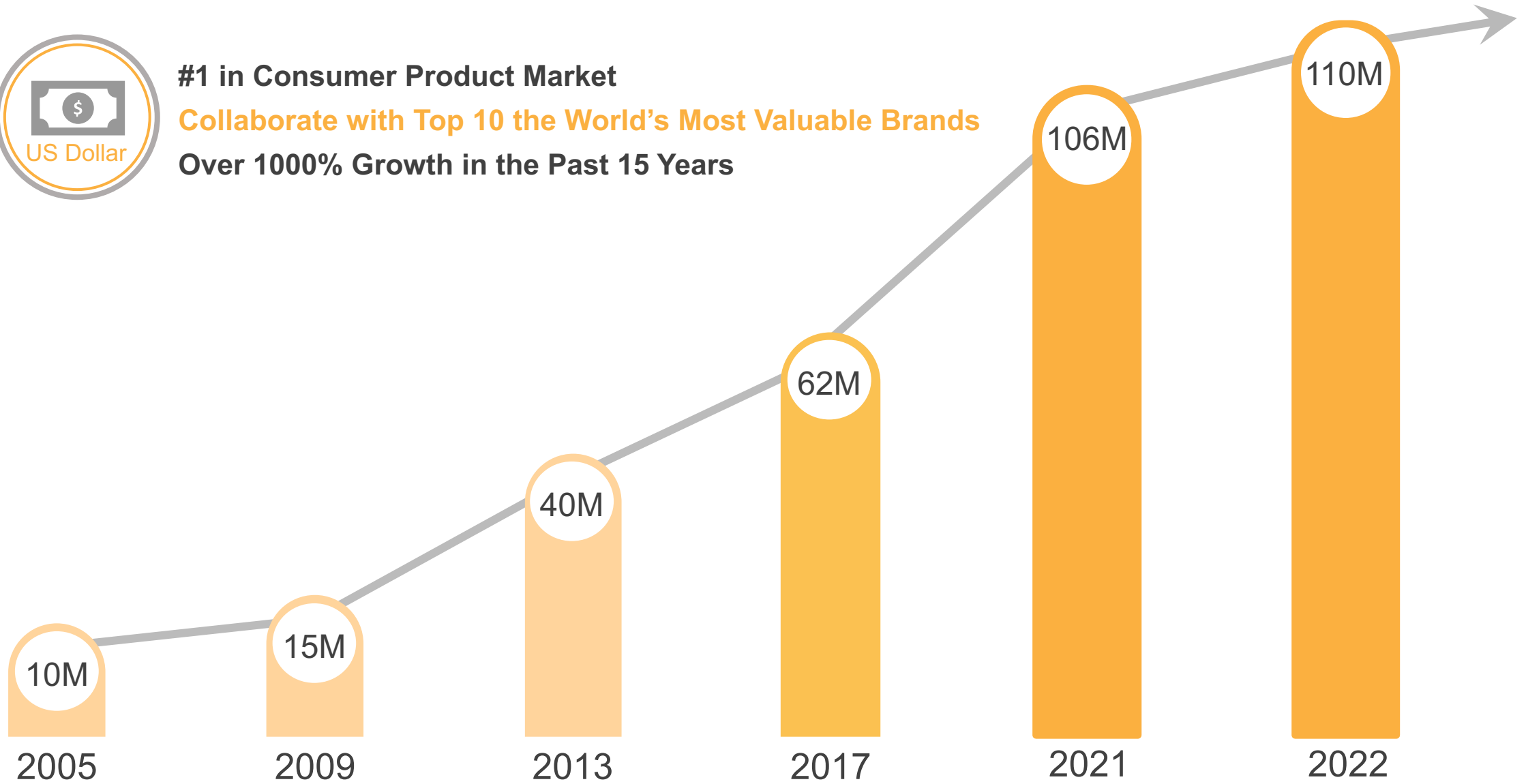
CCP Contact Probes - Growth



#1 in Consumer Product Market

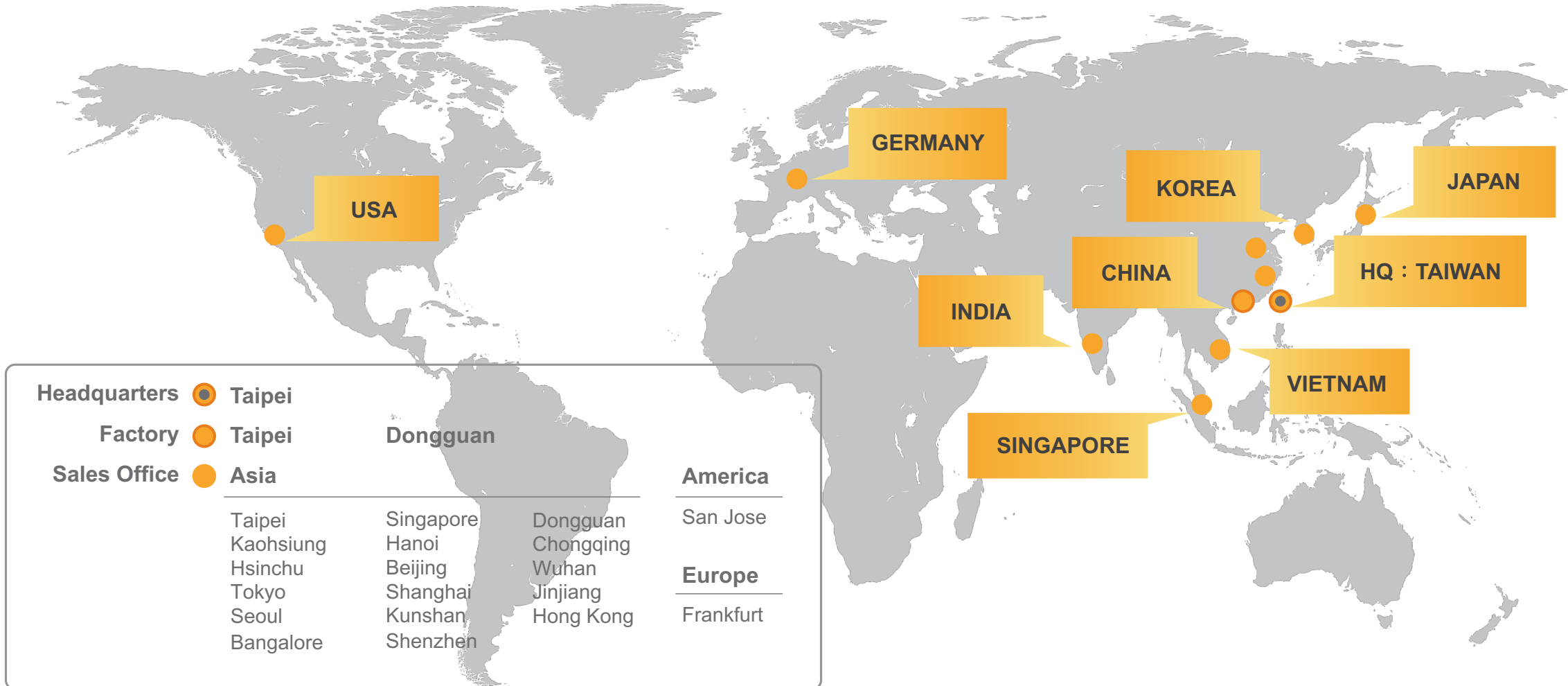
Collaborate with Top 10 the World's Most Valuable Brands

Over 1000% Growth in the Past 15 Years





CCP Contact Probes - Worldwide



Western
Digita



SKYWOKRS



Kingston

Google

amazon

ADVANTEST

flex

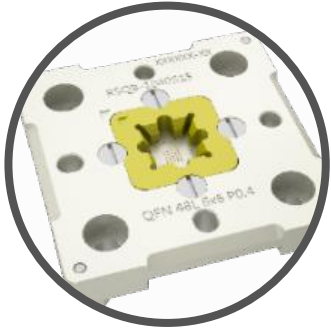


MICROCHIP

FOXCONN



CCP Contact Probes - Product Portfolio



Testing Solution

Fine Pitch

IC Testing Probe
PCB Testing Probe
Testing Socket



Pogo Pin Connector

1A~13A

Pogo Pin Conn.
Waterproof Conn.
Magnetic Conn.



High Current Connector

13A~250A

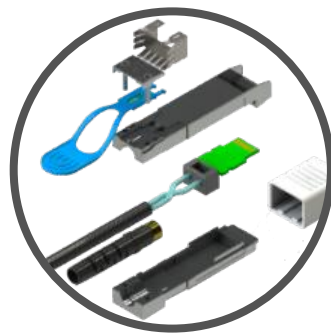
Electronic Vehicle
High Current Conn.



Medical Connector

Environmental Sensitivity

Circular Conn.
Endoscope Conn.



High Speed Cable

25Gbps~100Gbps

Server
Switch
Telecom



Industrial Solution

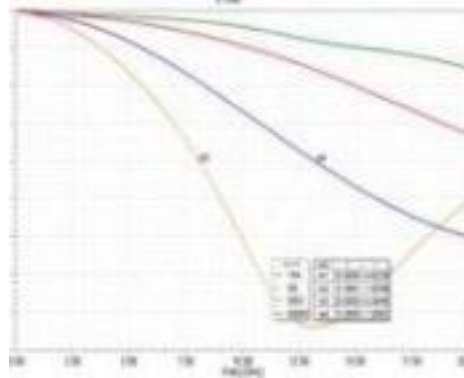
Extreme Environment

Aerospace
Military
Transportation



Core Advantages

High Frequency Simulation



HFSS

Material Development

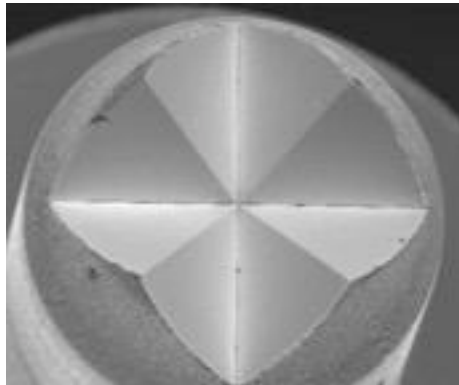


Plating Lab

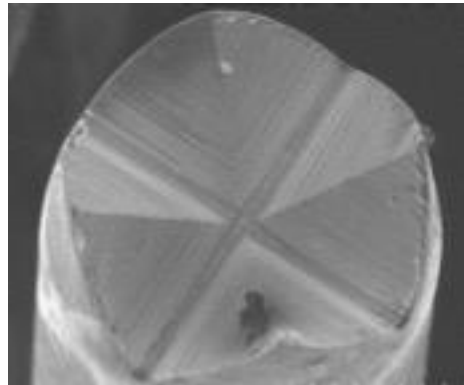


Self-owned Plating Factory

Mirror Process

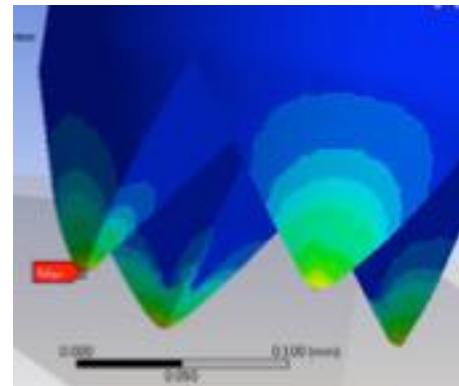


CCP's Product



Other Provider

Finite Element Analysis



ANSYS



Product Line - High Speed Cable

Data Center Solutions



Telecommunications/Networking





High Speed Cable - External

Enterprise Networking

SFP



QSFP



QSFP to SFP



QSFP to SAS HD



Data Storage

MINISAS HD



MINISAS to HD



MINISAS





High Speed Cable - Internal

Data Storage

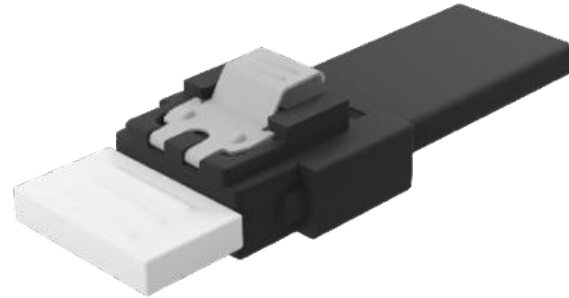
MINISAS



MINISAS HD



Slimline SAS



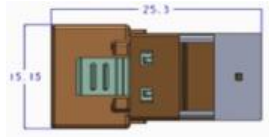
Oculink



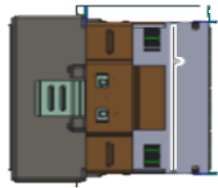


High Speed Cable - Internal Cable

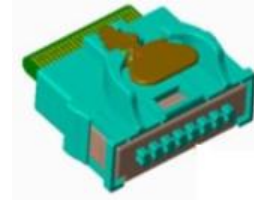
PCIE
Gen5



Low profile
4i



Low profile
8i



SLIVER
50pin



SLIVER
74pin



SLIVER
124pin



MCIO
4x

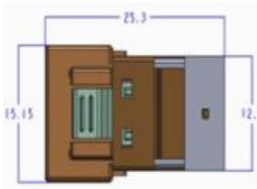


MCIO
8x

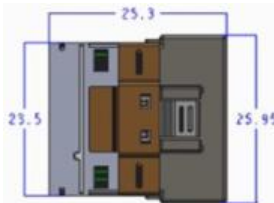


MCIO
16x

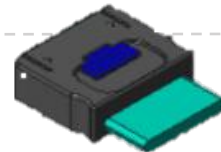
PCIE
Gen4



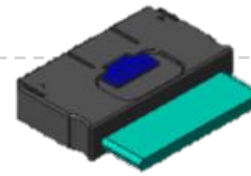
Slimline SAS
4i



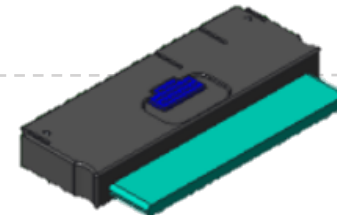
Slimline SAS
8i



Gen Z
1C



Gen Z
2C



Gen Z
4C

2020

2021

2022



High Speed Cable - Internal Cable

Product	Electrical Spec	High Speed Channel	DIFF PAIR	Side Band	Type	Maximum Length
Gen z	PCIe Gen5	1C	18	YES	STR-STR	1 M
					RAD-RAD	1 M
		2C	26		STR-STR	1 M
					RAD-RAD	1 M
		4C	44		STR-STR	1 M
					RAD-RAD	1 M
		4C+	52		STR-STR	1 M
					RAD-RAD	1 M

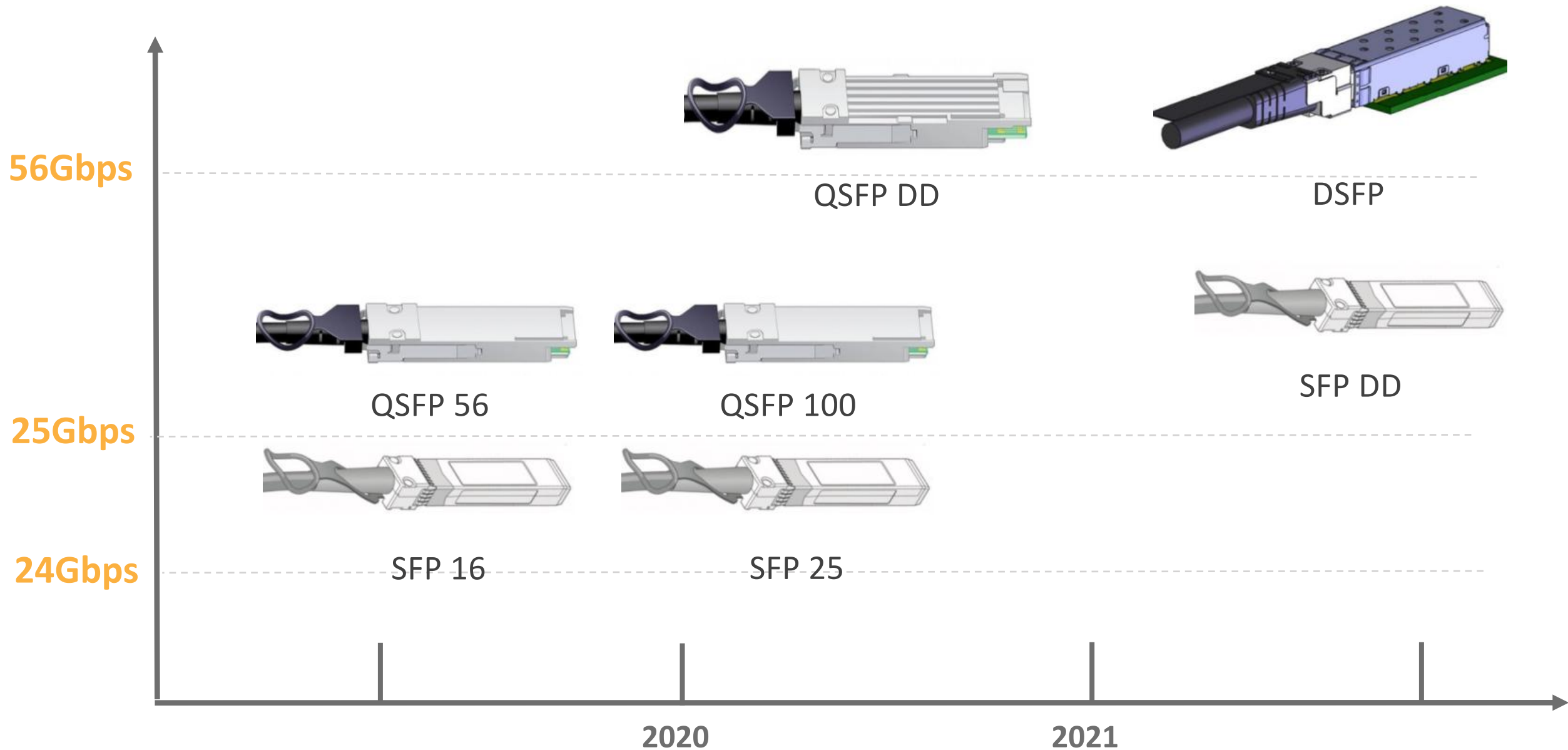


High Speed Cable - Internal Cable

Product	Electrical Spec	High Speed Channel	Side Band	Type	Maximum Length
MCIO	PCIe Gen5	4X	YES	STR-STR	1 M
				RAD-RAD	1 M
		8X		STR-STR	1 M
				RAD-RAD	1 M
		16X		STR-STR	1 M
				RAD-RAD	1 M



High Speed Cable - Internal Cable





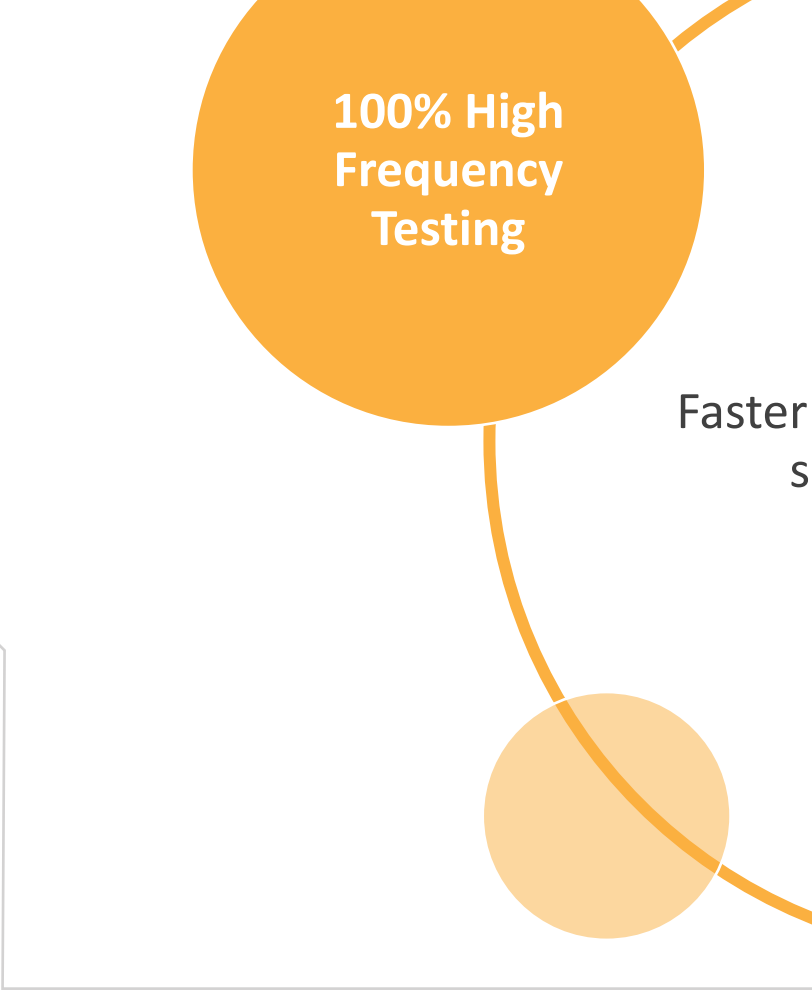
Our Advantages

**100% High
Frequency
Testing**

**Precise
Process
Control**

Faster and Complete technical
support and service

**Automation
Production
Line**





R & D Capability



- Ansoft HFSS
3D simulation



- Ansoft Designer
Fully system Link

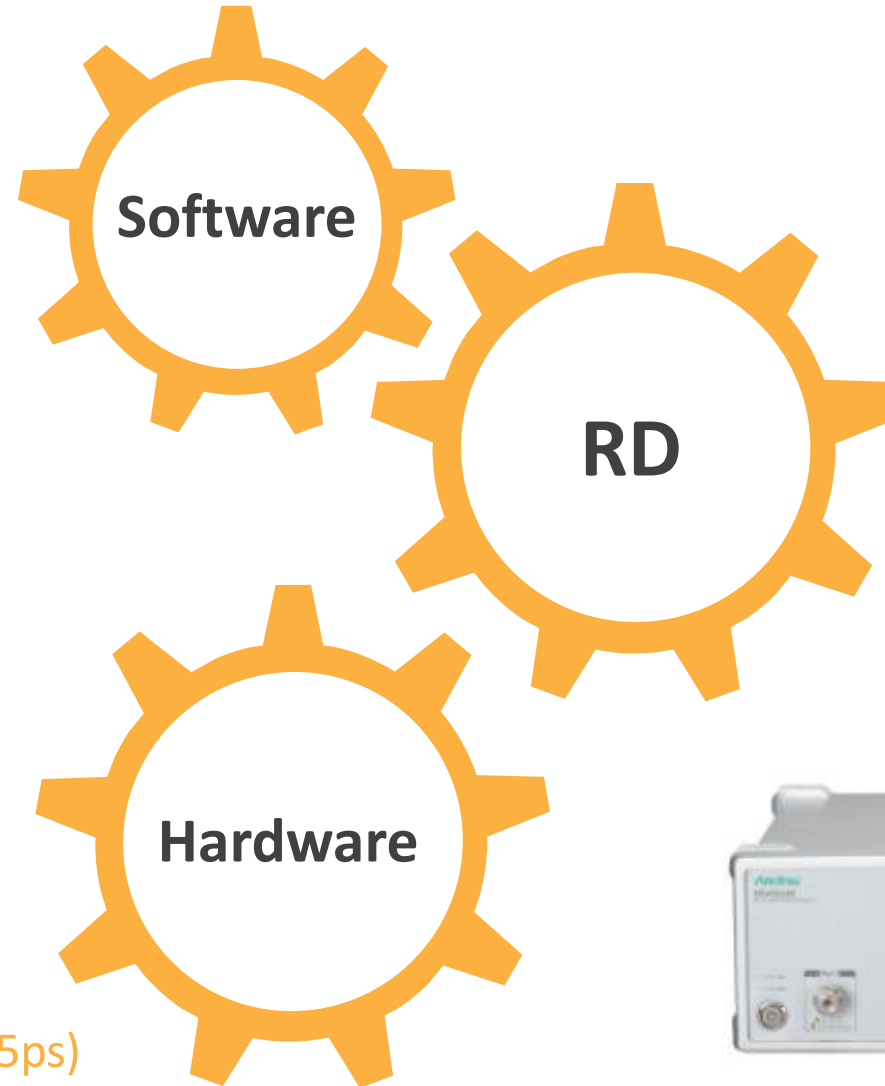


- Ansoft Q3D
2.5D simulation



- Altium
PCB layout tool

- MS46524B VNA
Frequency : 300KHz-20GHz
- MS46524B TDR Option
Rise time : 22.3ps
- Switch Matrix
300KHz-18GHz(phase match>0.5ps)



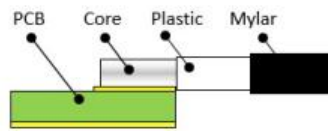
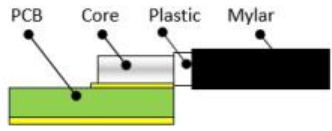
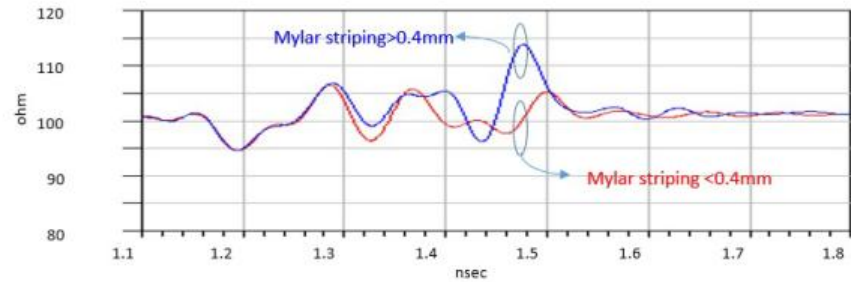
- SI(Signal Integrity Engineer)
Over 7 years experience have 3 peoples
Over 3 years experience have 2 peoples
- SE (Software Engineer)
2 peoples
- EE(Electrical Engineer)
2 peoples





Precise Process Control

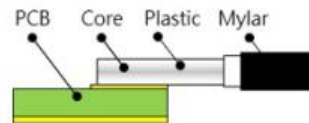
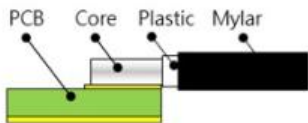
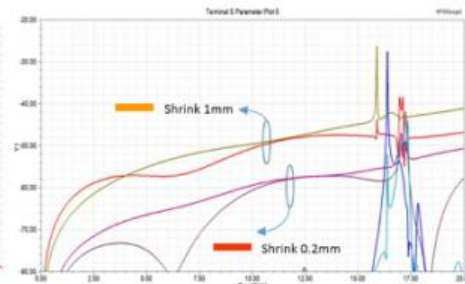
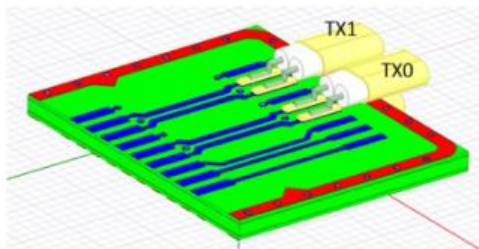
Stripping control



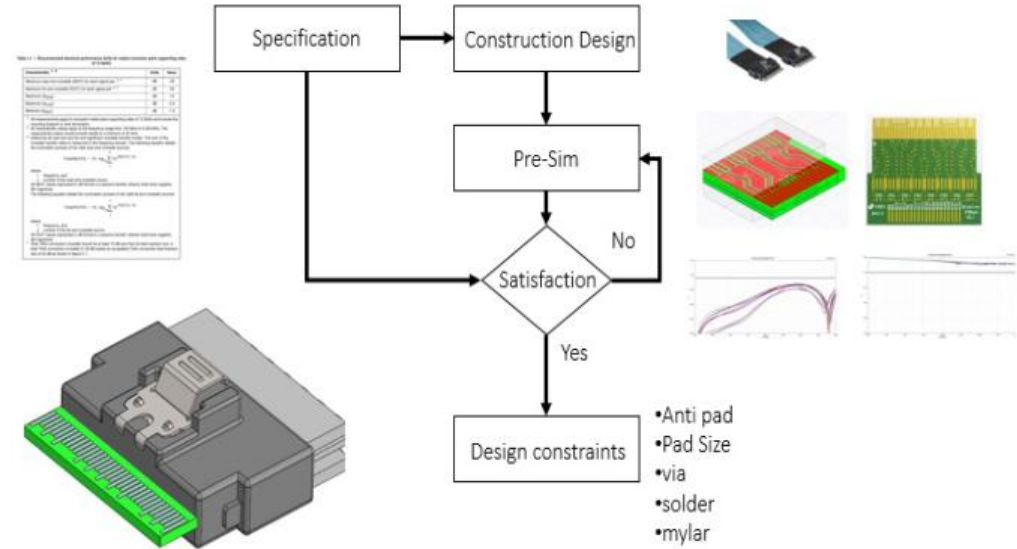
Mylar stripping < 0.4mm

Mylar stripping > 0.4mm

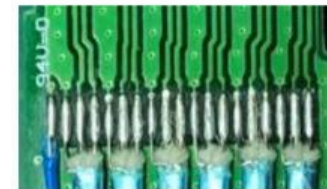
Laser Stripping Control



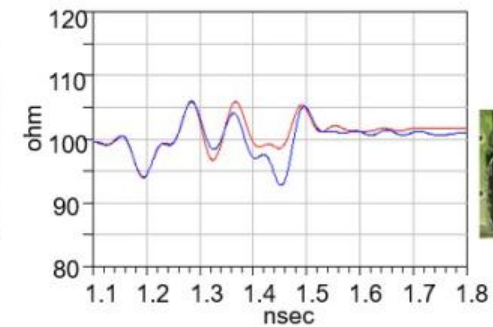
Design flow chart



Soldering control



Normal



Irregular



100% High Frequency Testing

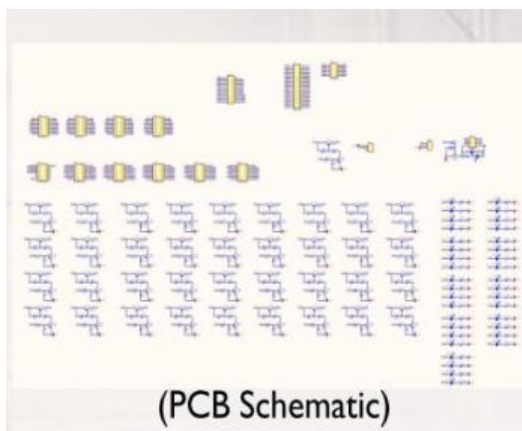
Environment



(Test Environment)



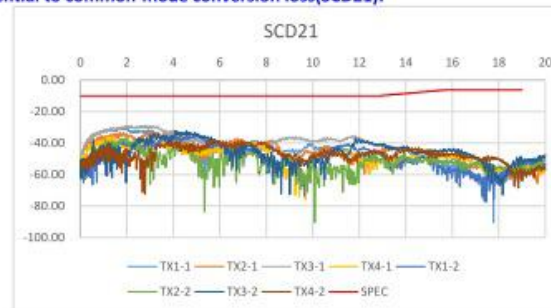
(Construction)



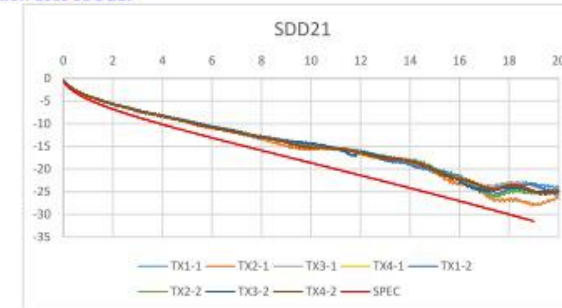
(PCB Schematic)

Testing Report

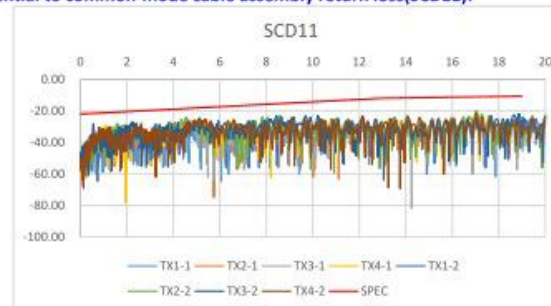
Differential to common-mode conversion loss(SCD21):



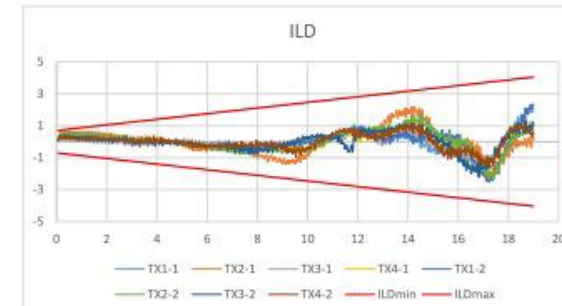
Insertion Loss SDD21:



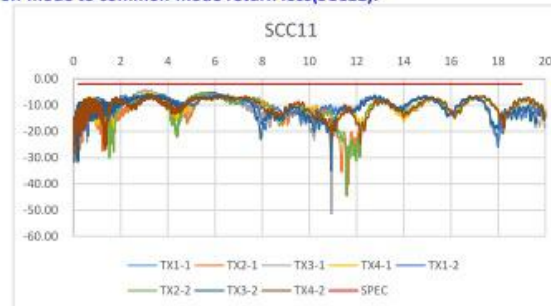
Differential to common-mode cable assembly return loss(SCD11):



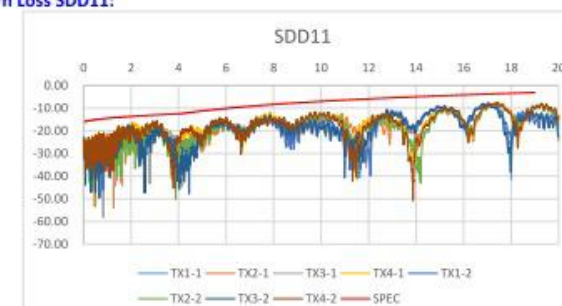
ILD:



Common-mode to common-mode return loss(SCC11):



Return Loss SDD11:





Automation Production Line

線材定位·YAG雷射鋁箔



鋁箔剝離



內被Co2雷射



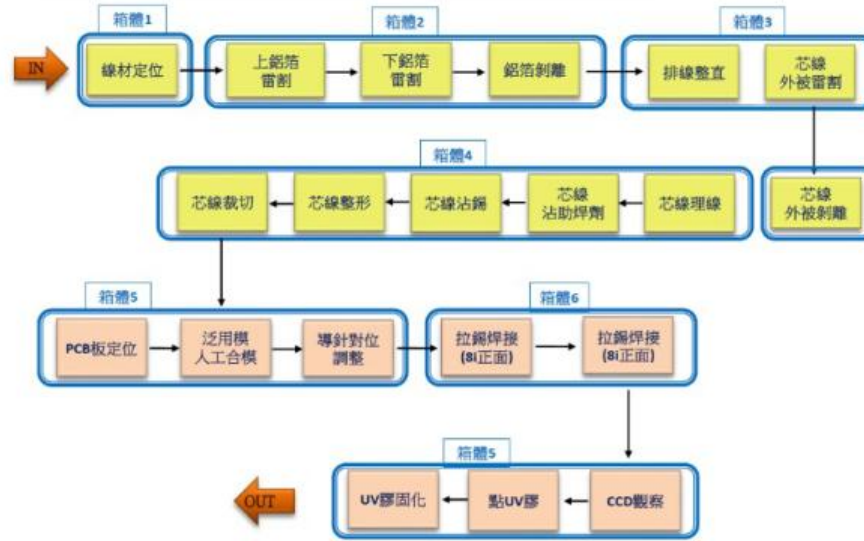
內被剝離



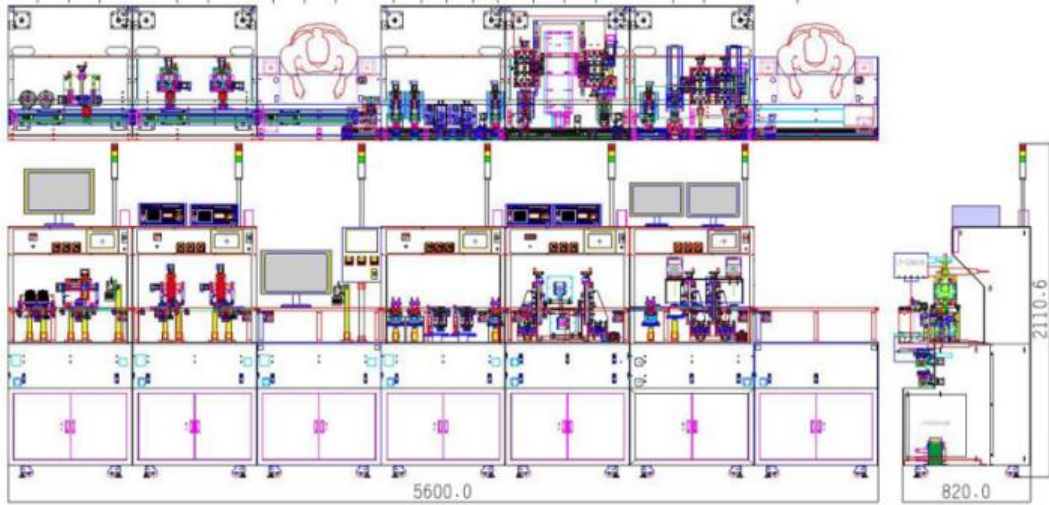
PCB 定位焊接



焊接成品



Yield: 95 %
Activation: 95%
UPH: 240 pcs





Testing Capability - Test Equipment

Electrical Performance



Network Analyzer



VNA (Vector Network Analyzer)



High Current Power Supply & Electronic Load



Contact Resistance Tester



RCA Tape Abrasion Tester

Mechanical Performance



Safety Comprehensive Analyzer



Mechanical Vibration/Shock

Environmental Testing



Oven



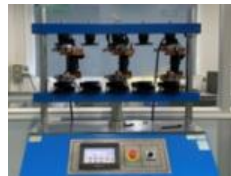
Waterproof test machine



Flush test chamber



Automatic Insertion Force Tester



Durability Cycling Machine



Thermal shock test machine



Salt spray test machine



Temperature & humidity test machine

Other



Hot-Air Reflow machine



3D laser scanning microscope



X-ray



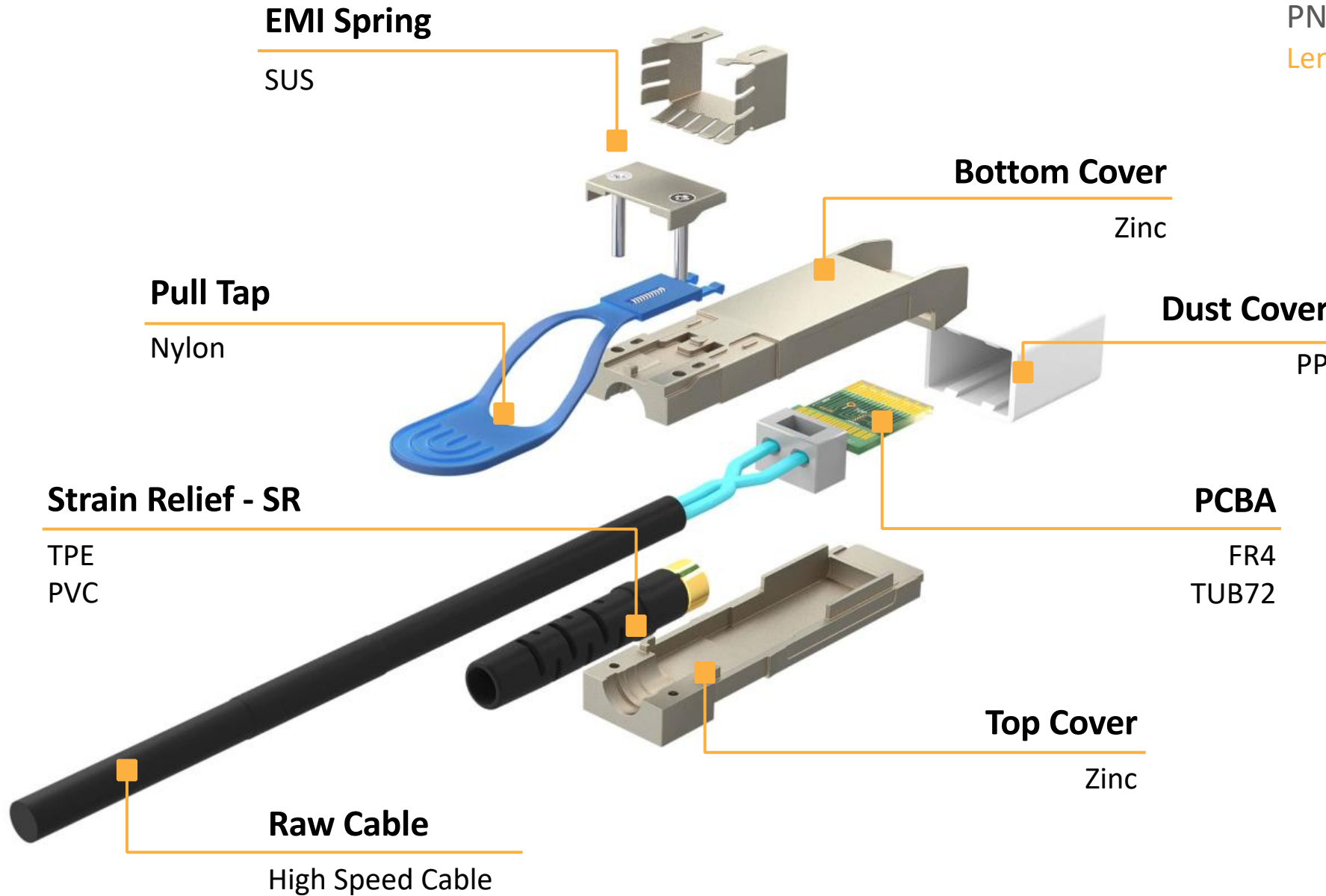
Electrochemical workstation



Terminal cross section analyzer



High Speed Cable - SFP 25Gbps

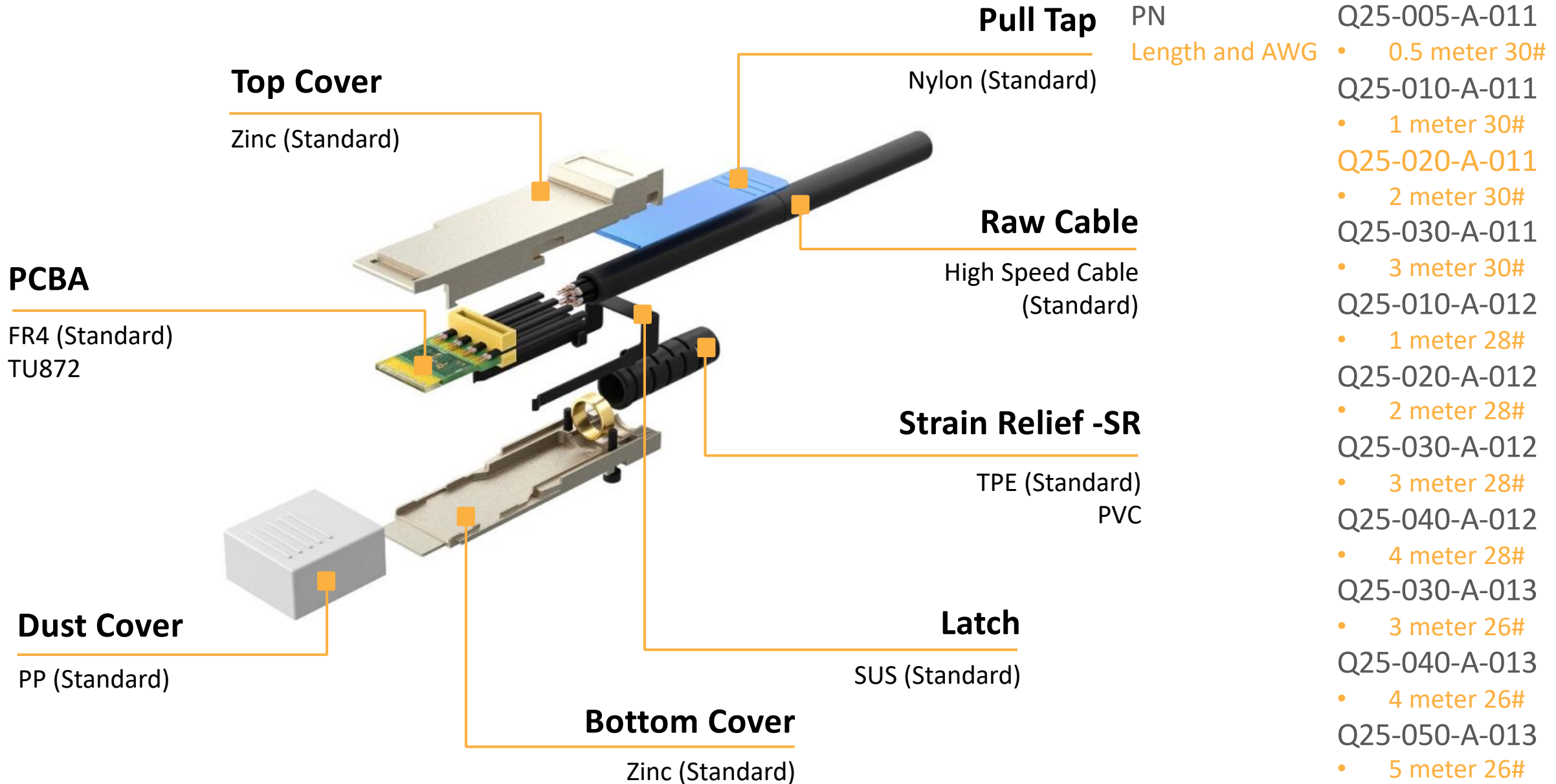


PN
Length and AWG

- S25-005-A-011
 - 0.5 meter 30#
- S25-010-A-011
 - 1 meter 30#
- S25-020-A-011
 - 2 meter 30#
- S25-030-A-011
 - 3 meter 30#
- S25-010-A-012
 - 1 meter 28#
- S25-020-A-012
 - 2 meter 28#
- S25-030-A-012
 - 3 meter 28#
- S25-040-A-012
 - 4 meter 28#
- S25-030-A-013
 - 3 meter 26#
- S25-040-A-013
 - 4 meter 26#
- S25-050-A-013
 - 5 meter 26#

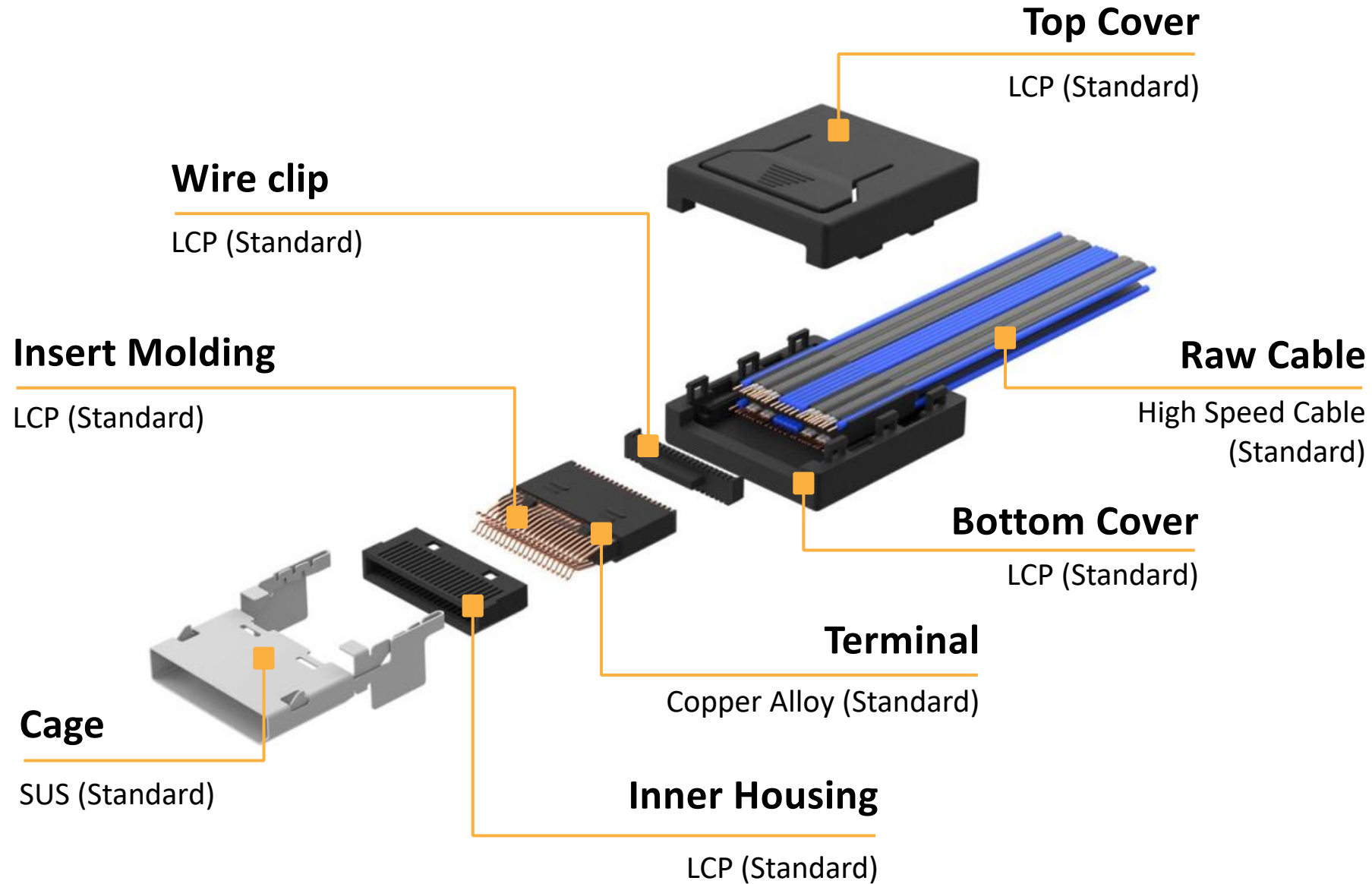


High Speed Cable - QSF 25Gbps





High Speed Cable - Oculink 1.0



PN

Length and AWG

016-005-A-015

- 0.5 meter 32#

016-006-A-015

- 0.6 meter 32#

016-007-A-015

- 0.7 meter 32#

016-005-A-011

- 0.5 meter 30#

016-006-A-011

- 0.6 meter 30#

016-007-A-011

- 0.7 meter 30#

016-008-A-011

- 0.8 meter 30#

016-009-A-011

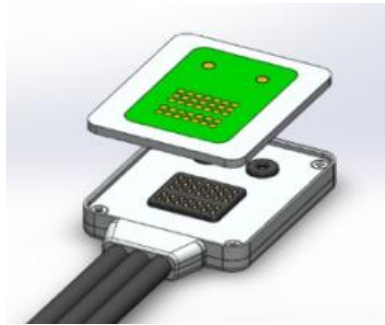
- 0.9 meter 30#

016-010-A-011

- 1.0 meter 30#



High Speed Cable - Customized 8K HDMI



Pogo pin

Top Cover

Zinc (standard)

PCBA

FR4 (standard)

Mid Cover

Zinc (standard)

High Speed Cable

Copper (standard)

Bottom Cover

Zinc (standard)

PCBA

FR4 (standard)

PN

Length and AWG

HD48-005-A-011

- 0.5 meter 30#

HD48-006-A-011

- 0.6 meter 30#

HD48-007-A-011

- 0.7 meter 30#

HD48-008-A-011

- 0.8 meter 30#

HD48-009-A-011

- 0.9 meter 30#

HD48-010-A-011

- 1.0 meter 30#

HD48-011-A-011

- 1.1 meter 30#

HD48-015-A-011

- 1.5 meter 30#

HD48-016-A-011

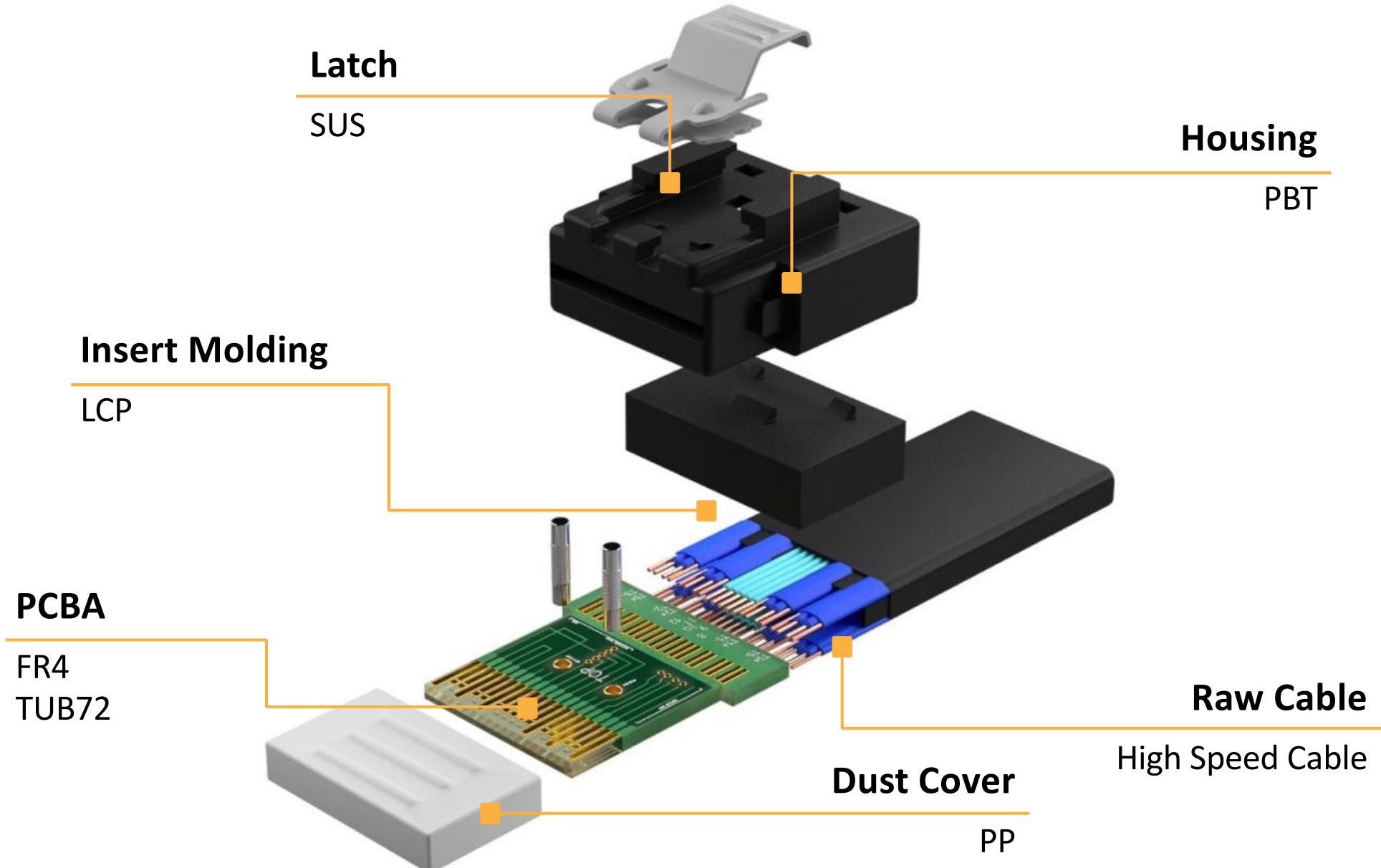
- 1.6 meter 30#

HD48-020-A-011

- 2.0 meter 30#

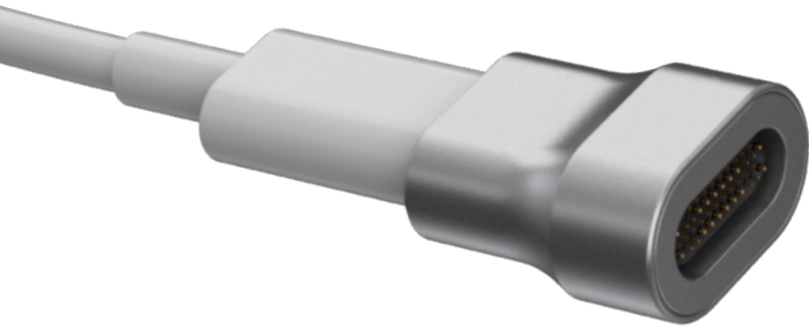


High Speed Cable - Slimline SAS 24Gbps





Thunderbolt 4 Magnetic Adapter



Pogo pin



PCBA



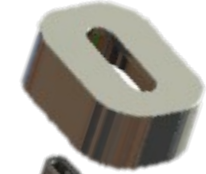
TB3 Connector



Aluminum alloy



Aluminum alloy



Magnet



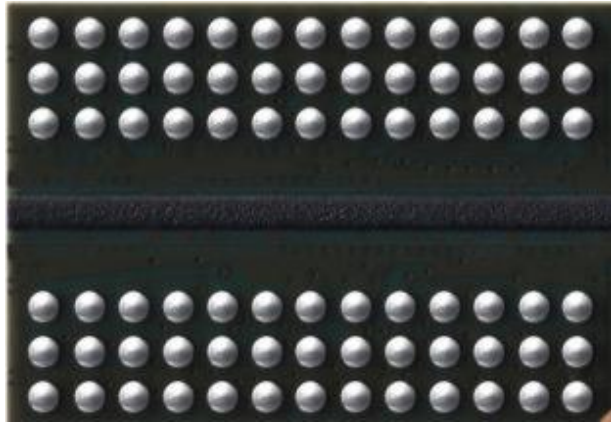
Pogo pin PCBA



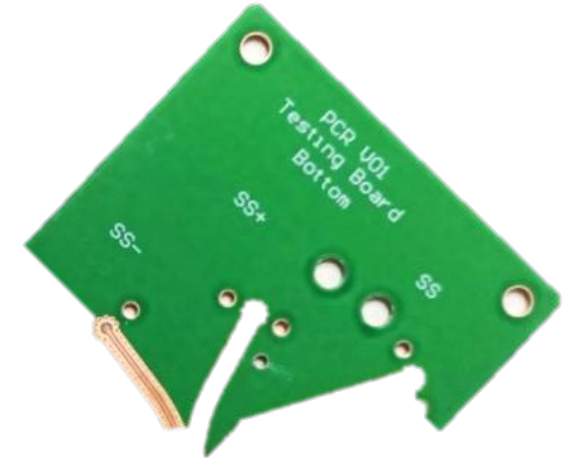
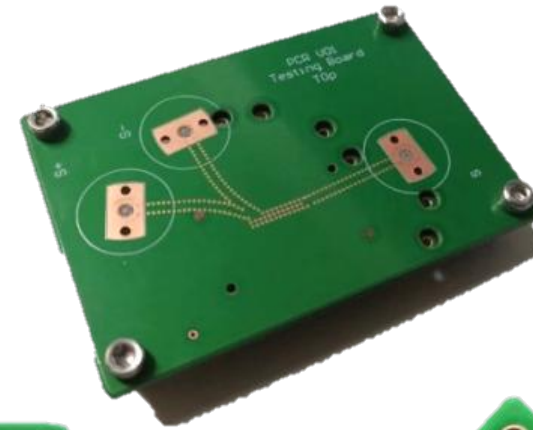
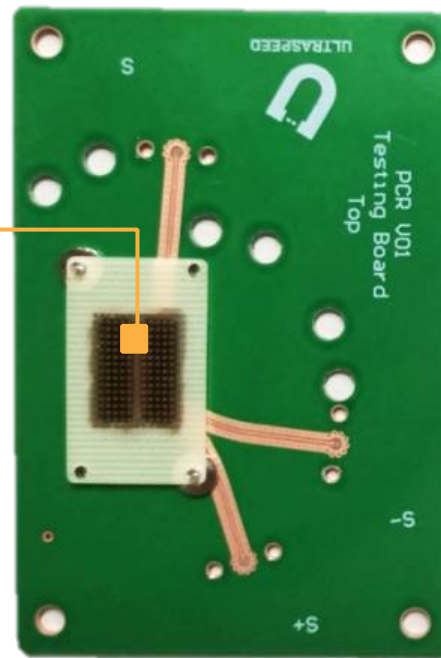


High Speed Module - Customization (PCR Test Fixture)

DDR4 IC



PCR



Test Fixture



Create Value for Customers



OUR VALUE

Solution Service
Engineering Service
Design for Manufacturing
Customization
Flexible Production.
Local and Instant Support



Quality System

ISO 9001:2015

Quality Management Systems

IATF 16949:2016

Automotive Quality Management System

ISO 14001 : 2015

Environment Management Systems

QC 080000

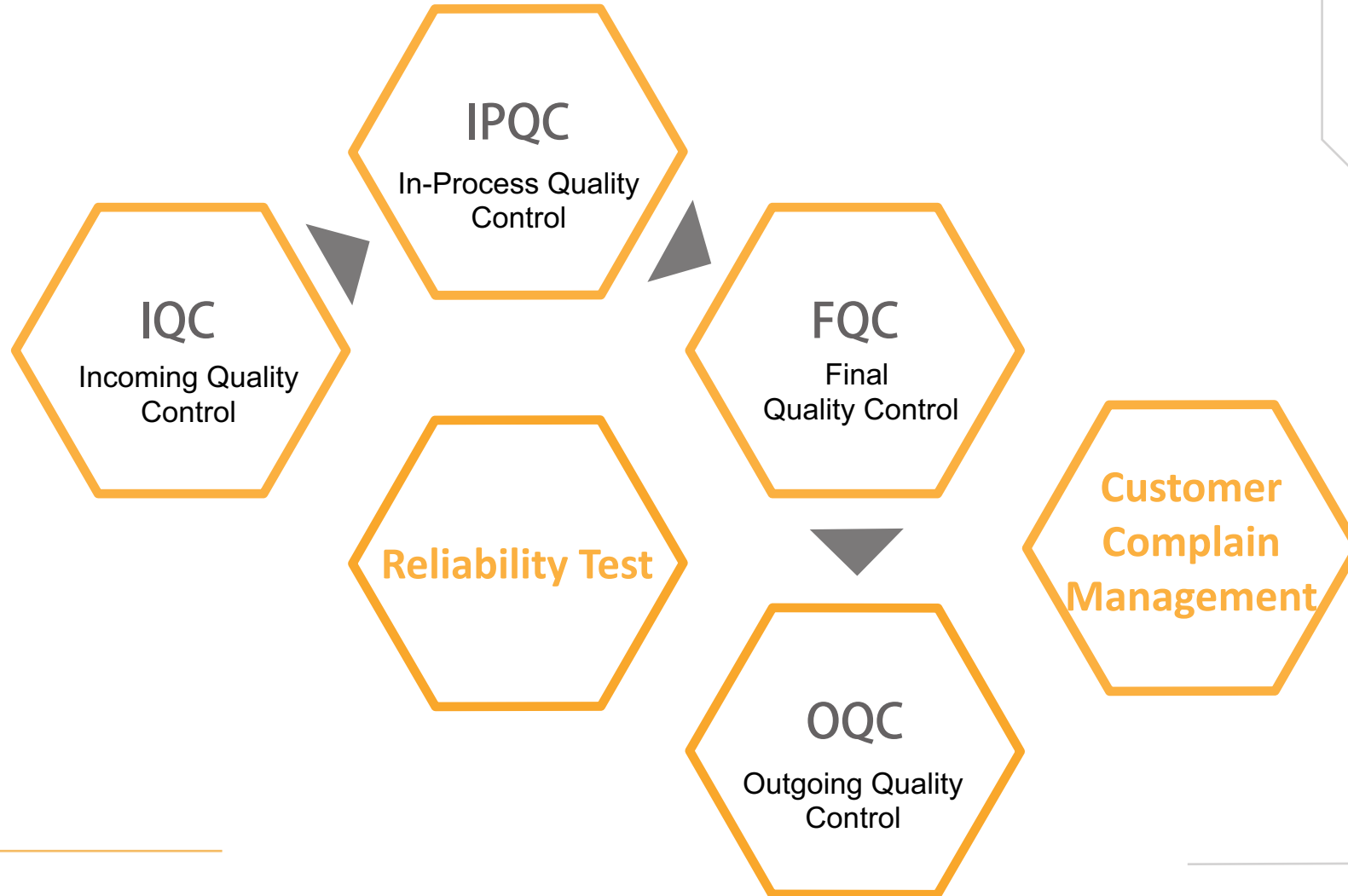
Hazardous Substance Process Management

ISO 13485:2016

Medical Devices Quality Management Systems



Quality Assurance





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

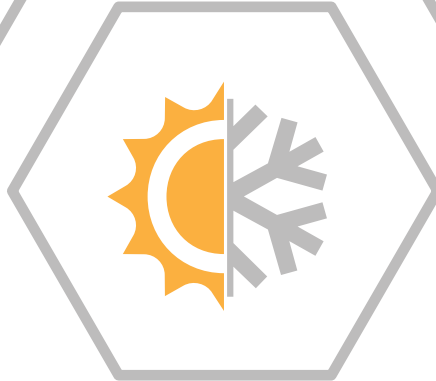
Rated Current

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.



Certificate

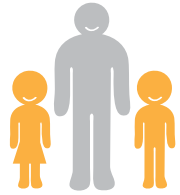


- ISO 9001
- ISO 13485
- ISO 14001
- ISO 14064
- IATF 16949
- IECQ QC080000





Social Responsibility



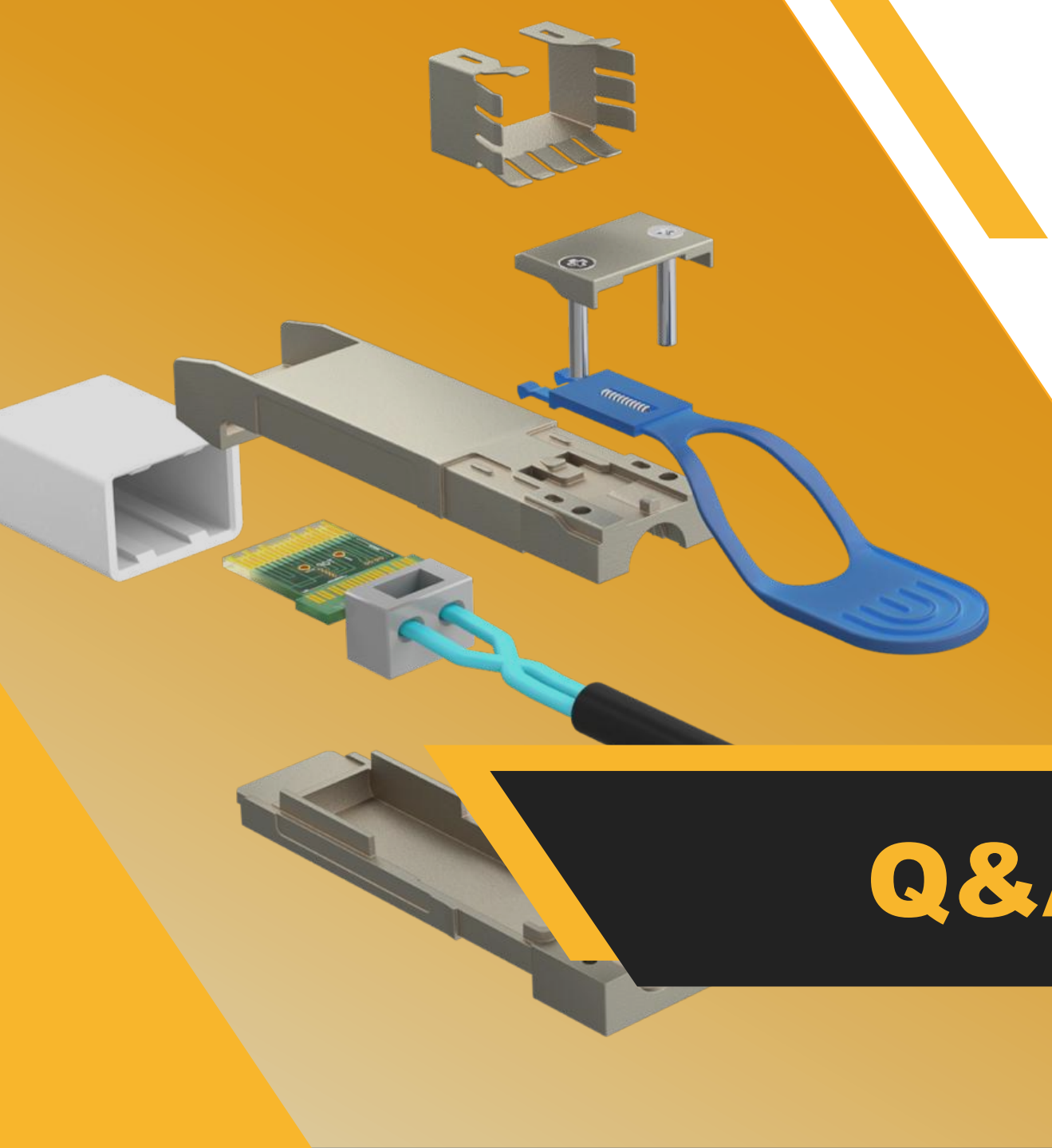
Summer camp for employees' children



Home visit to employees around the world



CCP offers tuition scholarship for employees' children



CCP Contact Probes

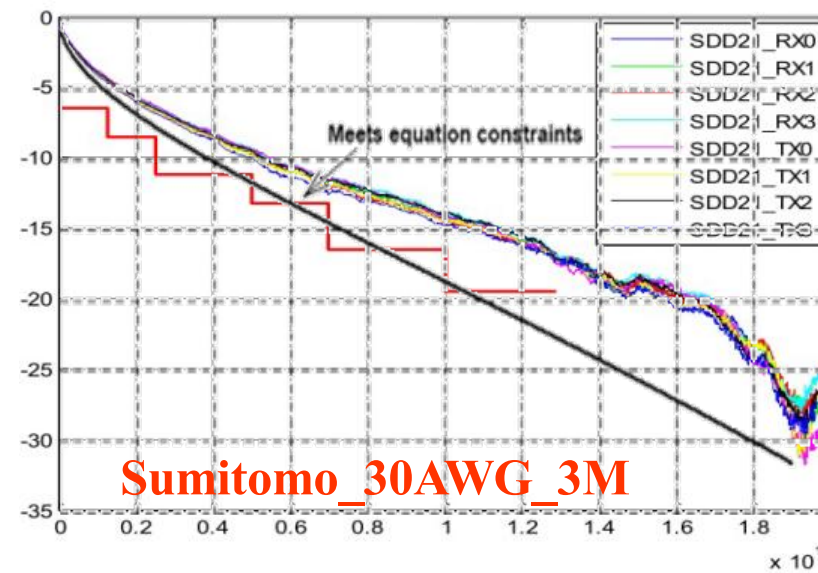
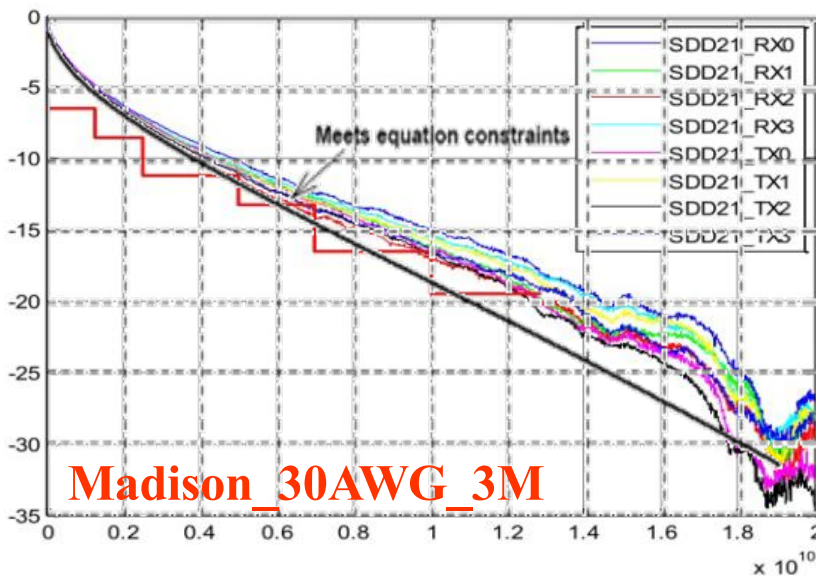
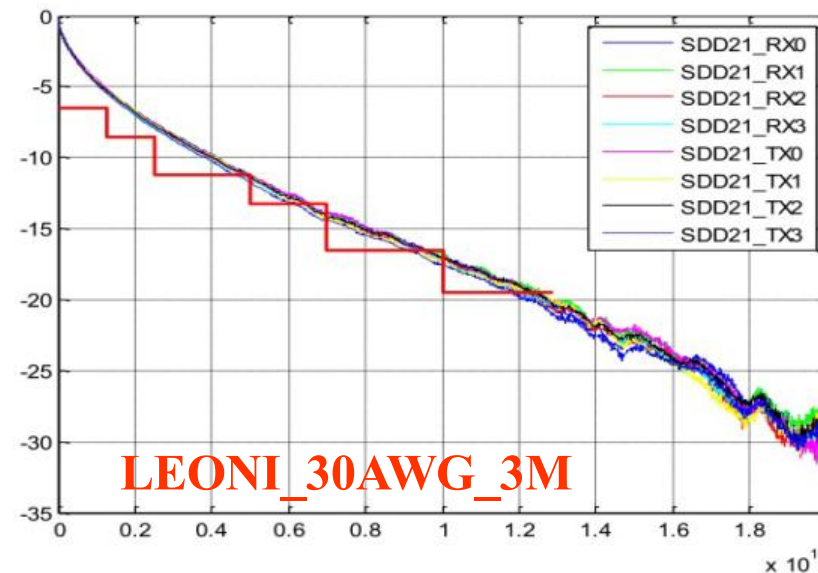
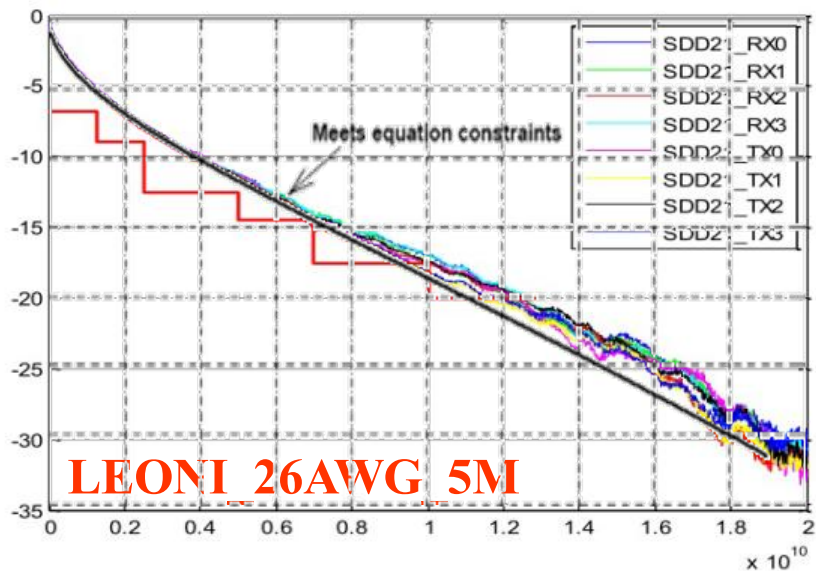
Q&A

info@pccp.com.tw
www.ccpccontactprobes.com



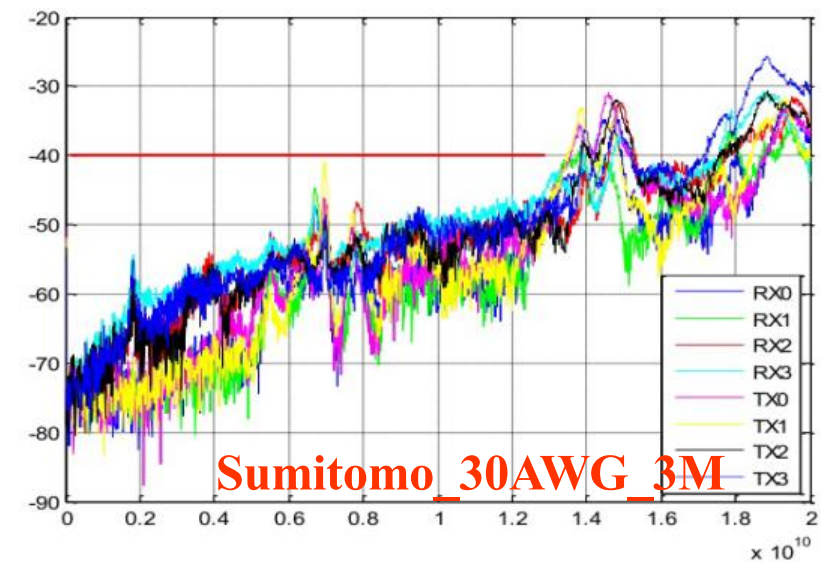
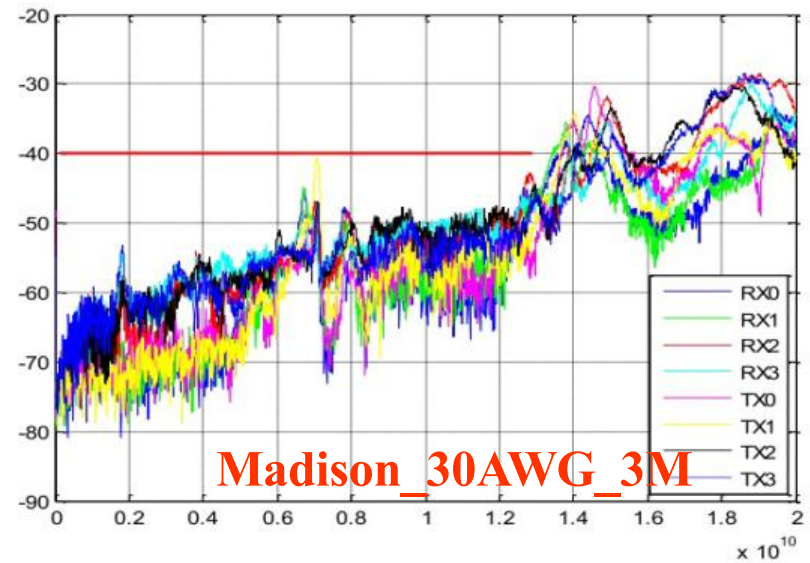
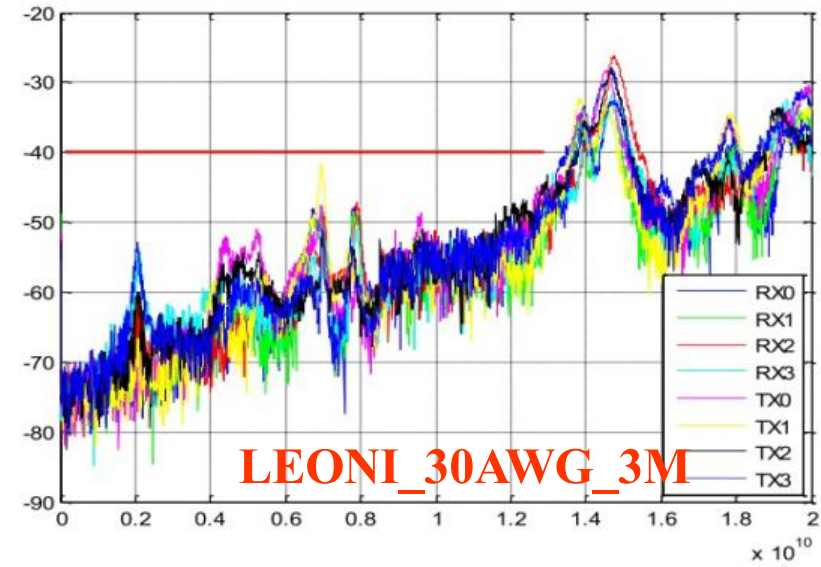
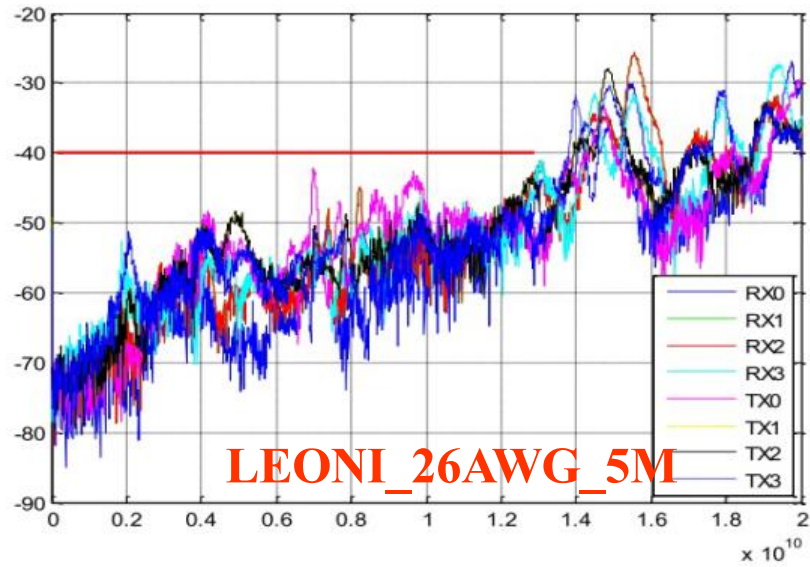


Appendix





Appendix





Appendix

The Traffic loss testing for 400Gbps DAC cable using Spirent Test Center

18Hours

The screenshot displays the Spirent TestCenter interface. At the top, the window title is "400g_2port_cfg_load99_20191008.tcc - Spirent TestCenter". The system clock shows 18:51:11. The main area is titled "Spirent TestCenter™" and contains sections for "Reserve Ports" and "Recent Files".

Below the main area, the "Results" section is visible, showing "Port Traffic and Counters > Basic Traffic Results" and "Streams > Detailed Stream Results".

Port Traffic and Counters > Basic Traffic Results

Port Name	Total Tx Count (Frames)	Total Rx Count (Frames)	Total Tx Count (bits)	Total Rx Count (bits)	Total Tx Rate (bps)	Total Rx Rate (bps)	Tx L1 Count
Port //1/1	11,089,799,580,604	11,089,796,257,305	2,537,043,856,922E+16	2,537,043,856,713E+16	0	0	2,714,780,488
Port //1/9	11,089,796,257,305	11,089,796,580,604	2,537,043,856,713E+16	2,537,043,856,922E+16	0	0	2,714,780,488
	22,179,575,837,909	22,179,575,837,909	50,746,869,517,135,800	50,746,869,517,135,800			54,295,601,6

Streams > Detailed Stream Results

Name/ID	Tx Port Name	Rx Port Names	Tx Count (Frames)	Rx Count (Frames)	Dropped Count (Frames)	Dropped Frame Percent	In-order Count (Frames)	Reordered Count (Frames)
StreamBloc	Port //1/1	Port //1/L	5,544,894,790	5,544,894,790	0	0.000	5,544,894,790,302	0
StreamBloc	Port //1/1	Port //1/L	5,544,894,790	5,544,894,790	0	0.000	5,544,894,790,302	0
StreamBloc	Port //1/9	Port //1/L	5,544,893,128	5,544,893,128	0	0.000	5,544,893,128,653	0
StreamBloc	Port //1/9	Port //1/L	5,544,893,128	5,544,893,128	0	0.000	5,544,893,128,652	0

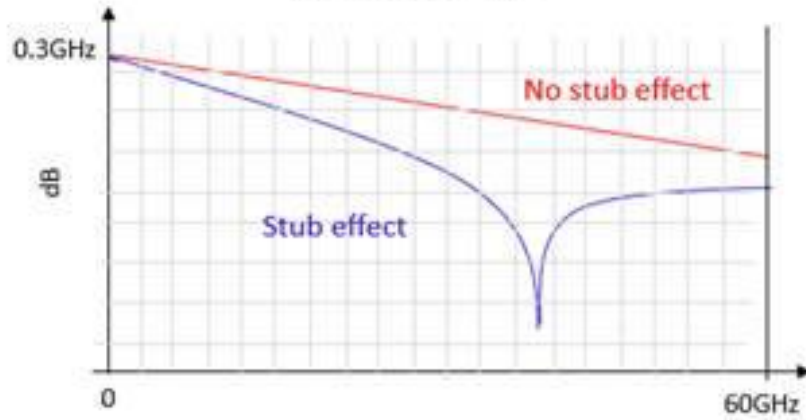
18Hours

No Traffic loss

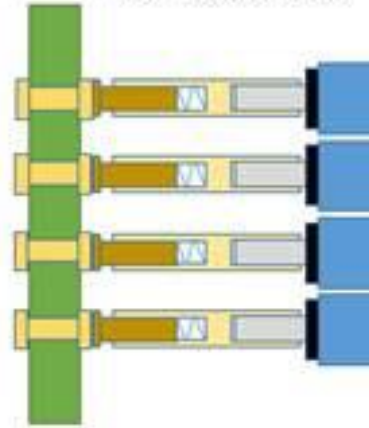


Appendix

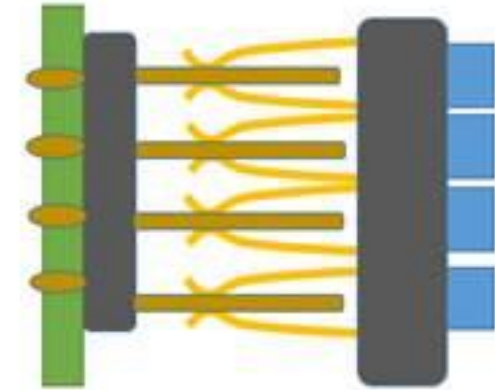
Insertion Loss



No stub effect



Stub effect



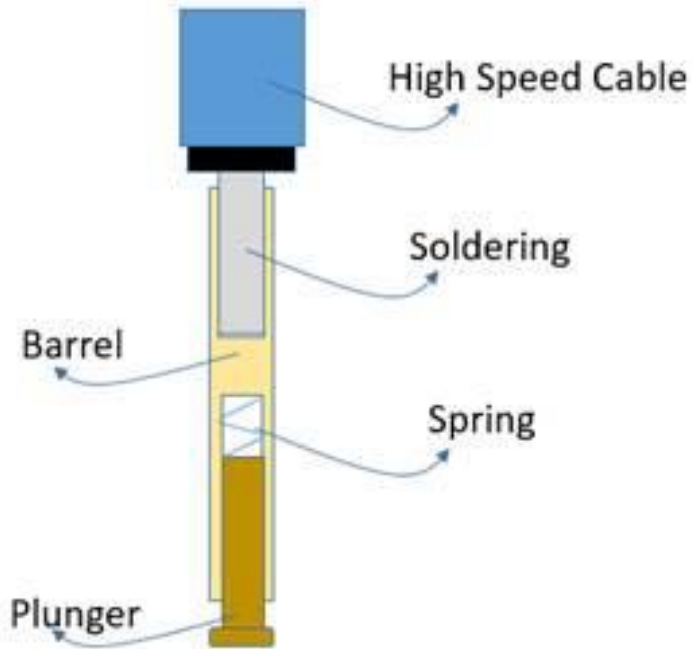
High Speed Cable

Soldering

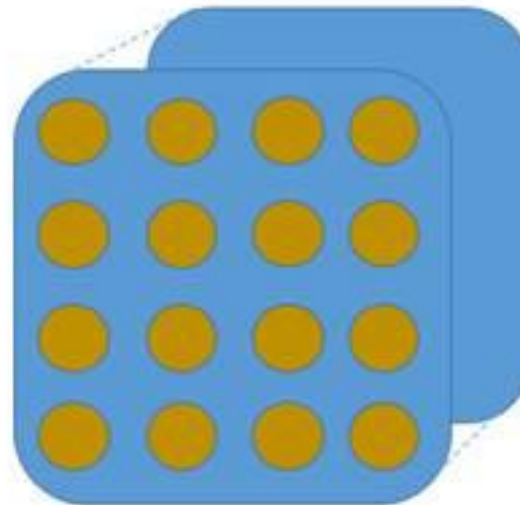
Spring

Barrel

Plunger



CCP



Poor Art

