



C.C.P.

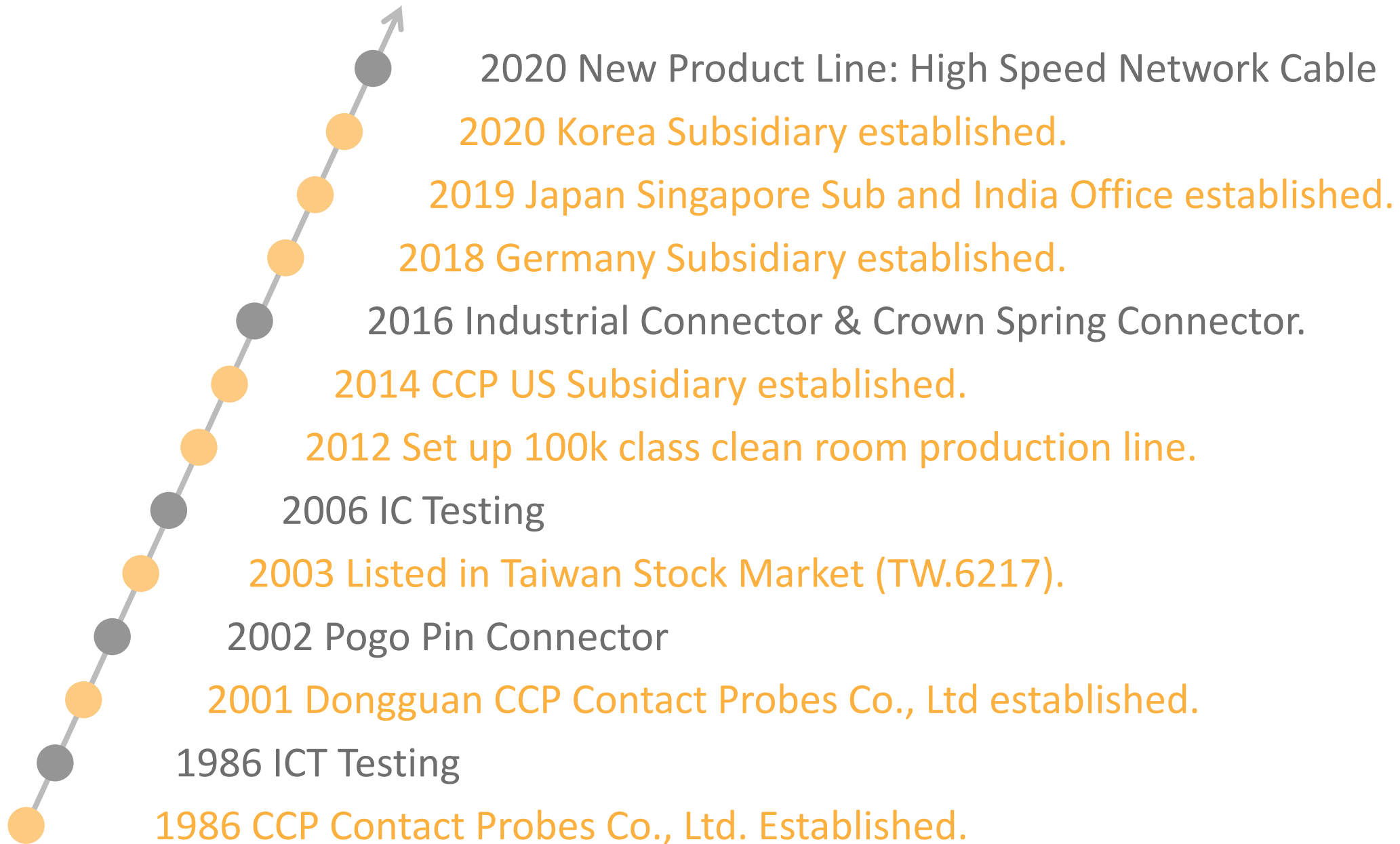


CCP Contact Probes

High Speed Cable



CCP Contact Probes - History





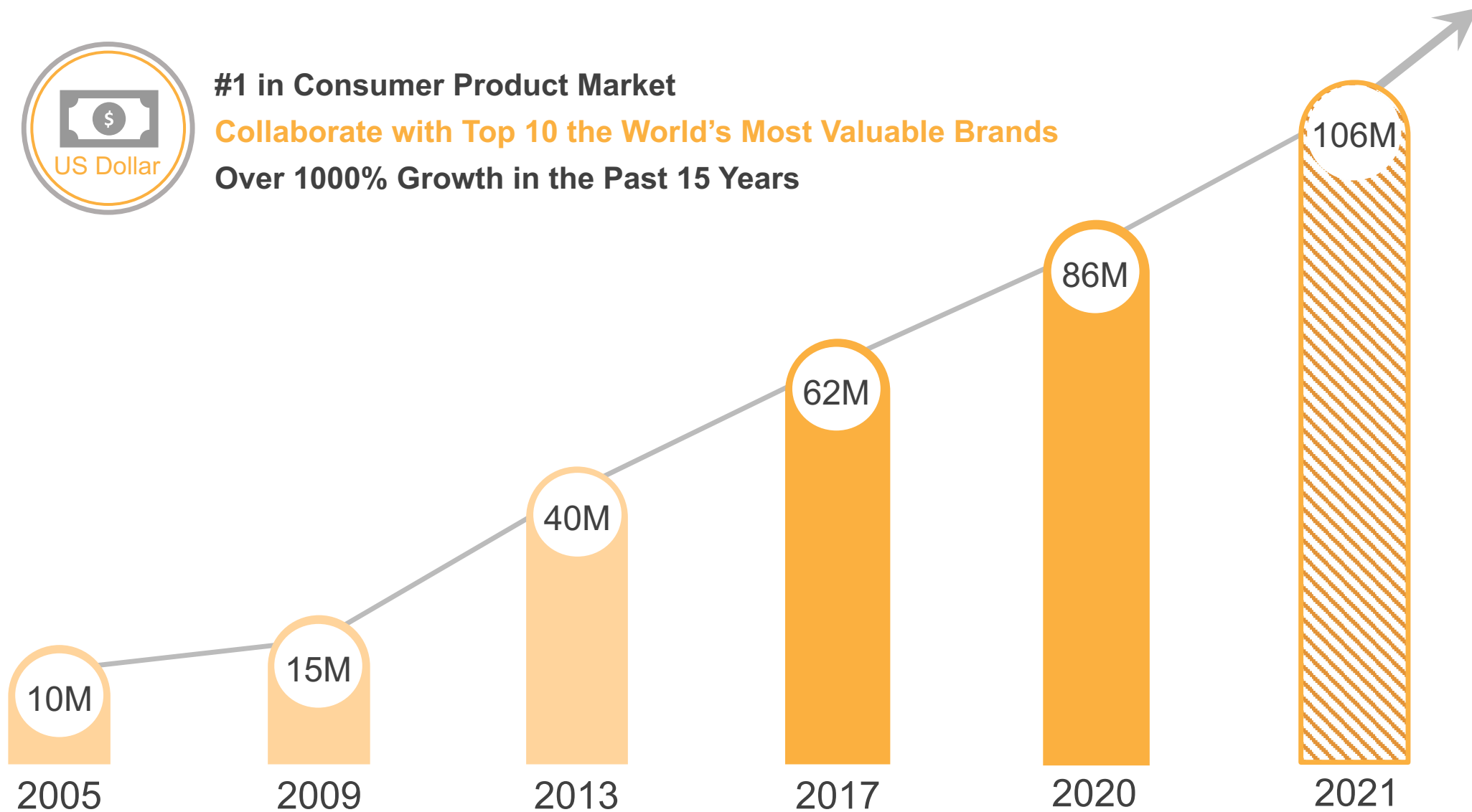
CCP Contact Probes - Growth



#1 in Consumer Product Market

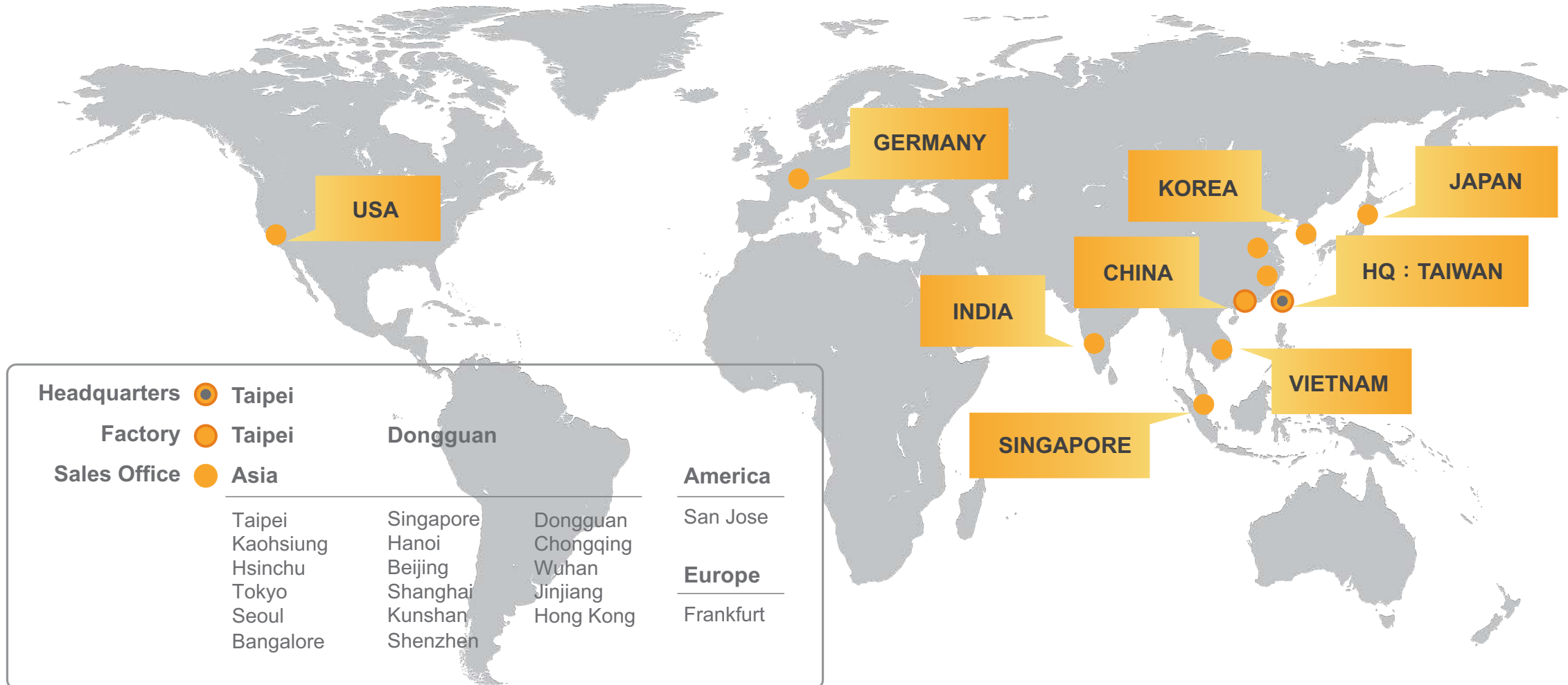
Collaborate with Top 10 the World's Most Valuable Brands

Over 1000% Growth in the Past 15 Years





CCP Contact Probes - Worldwide



Western
Digita



SKYWORKS



KINGSTON

Google

amazon

ADVANTEST

flex

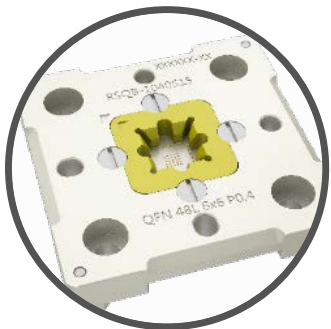


MICROCHIP

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

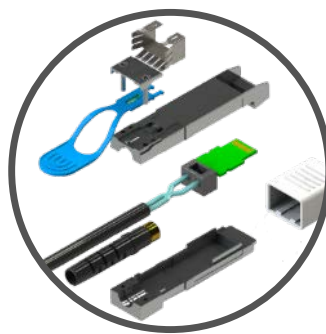
Electronic Vehicle
High Current Conn.



Medical Connector

Environmental Sensitivity

Circular Conn.
Endoscope Conn.



High Speed Cable

25Gbps~100Gbps

Server
Switch
Telecom



Industrial Solution

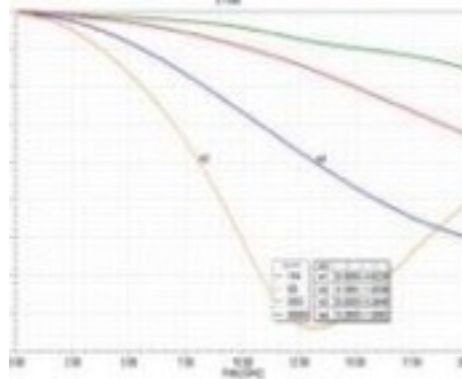
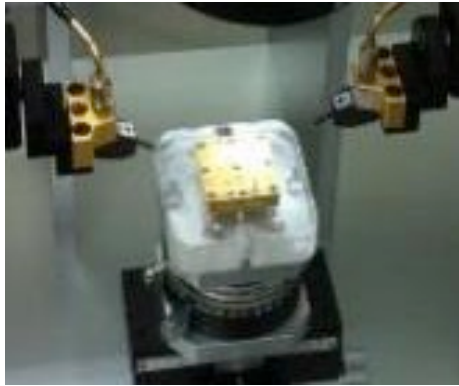
Extreme Environment

Aerospace
Military
Transportation



Core Advantages

High Frequency Simulation



HFSS

Material Development

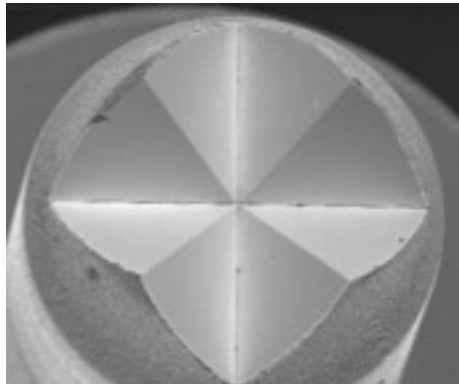


Plating Lab

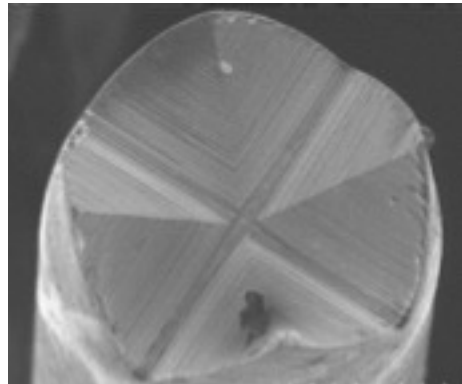


Self-owned Plating Factory

Mirror Process

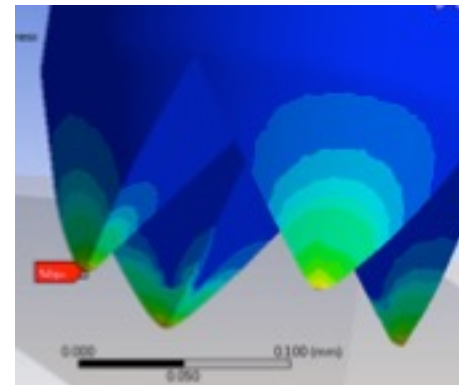


CCP's Product



Other Provider

Finite Element Analysis



ANSYS



Product Line - High Speed Cable

Data Center Solutions



Telecommunications/Networking





High Speed Cable - External

Enterprise Networking

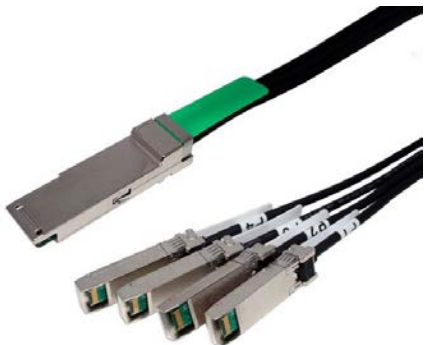
SFP



QSFP



QSFP to SFP



QSFP to SAS HD



Data Storage

MINISAS HD



MINISAS to HD



MINISAS





High Speed Cable - Internal

Data Storage

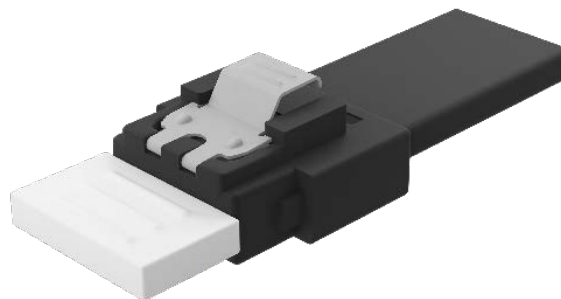
MINISAS



MINISAS HD



Slimline SAS



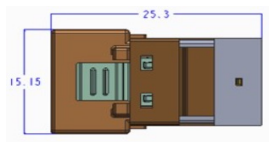
Oculink





High Speed Cable - Internal Cable

PCIE
Gen5



Low profile
4i



Low profile
8i



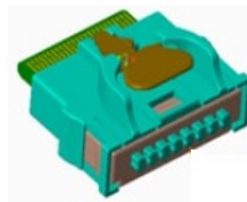
MCIO
4x



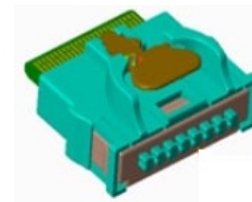
MCIO
8x



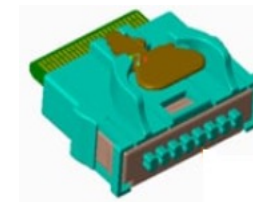
MCIO
16x



SLIVER
50pin

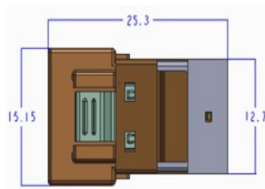


SLIVER
74pin

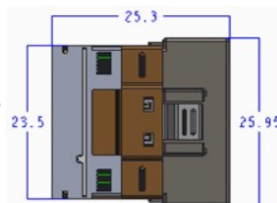


SLIVER
124pin

PCIE
Gen4



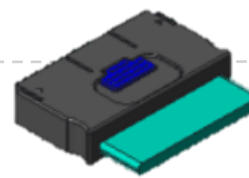
Slimline SAS
4i



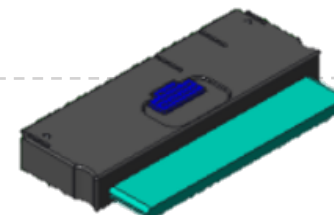
Slimline SAS
8i



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

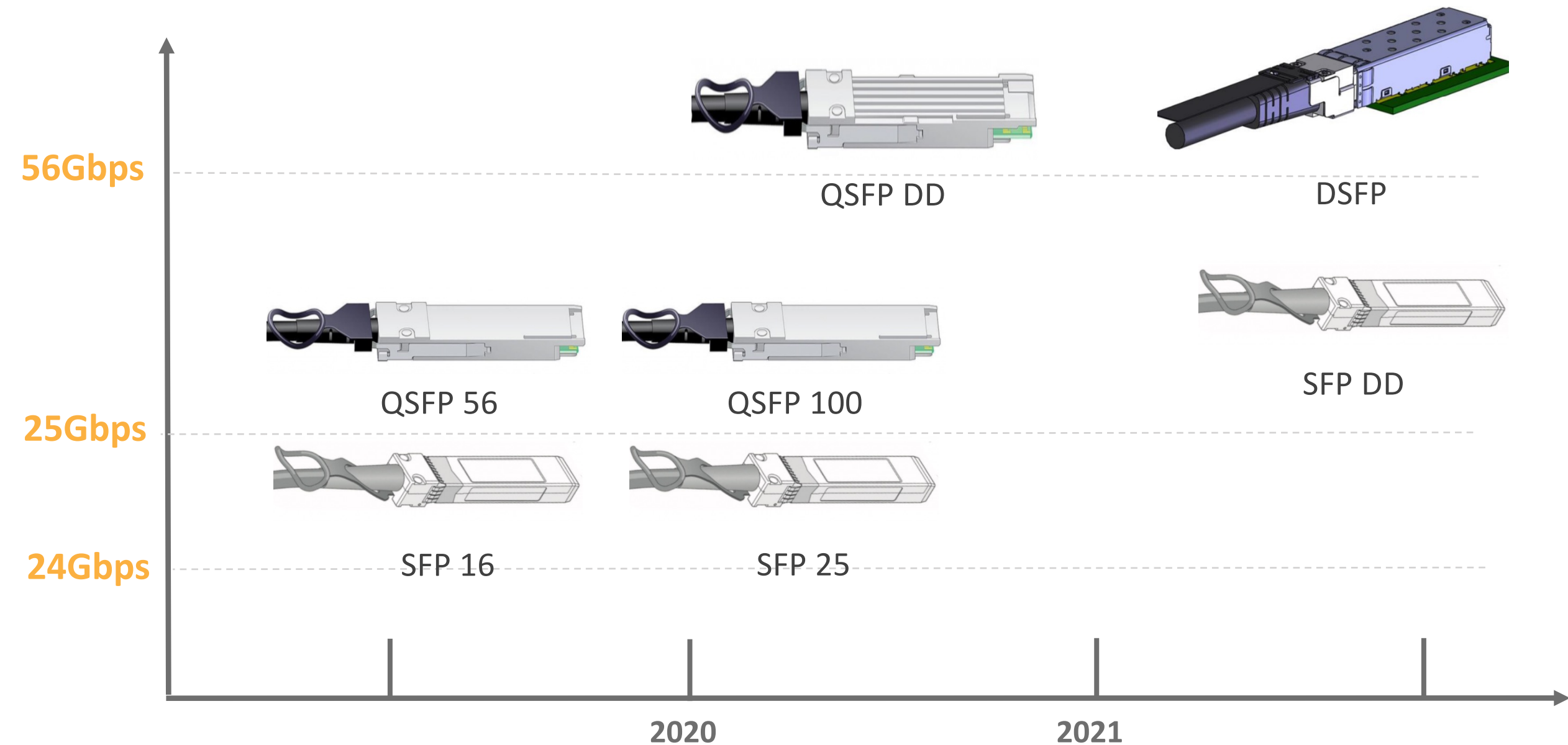


High Speed Cable - Internal Cable

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





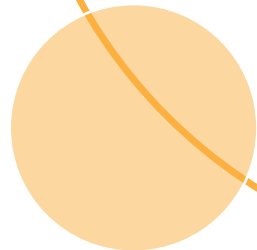
Our Advantages

**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

- Altium

PCB layout tool

- MS46524B VNA

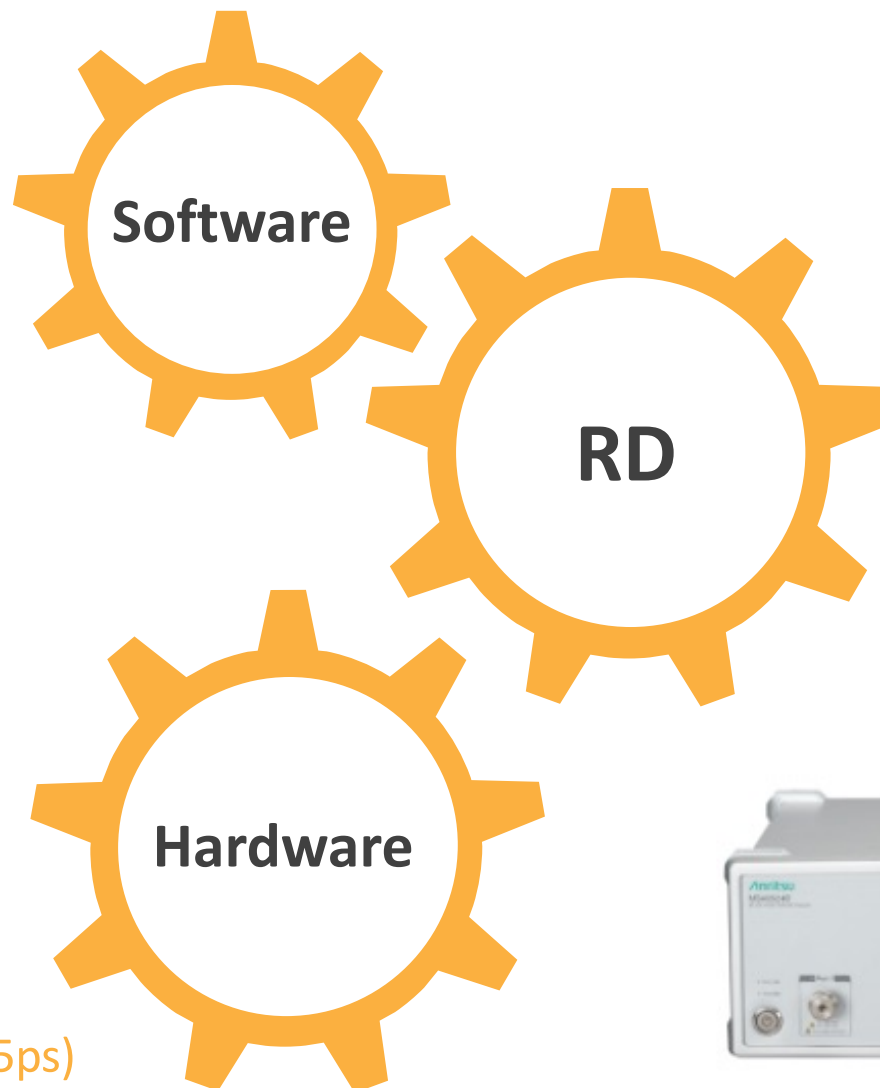
Frequency : 300KHz-20GHz

- MS46524B TDR Option

Rise time : 22.3ps

- Switch Matrix

300KHz-18GHz(phase match>0.5ps)



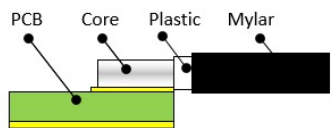
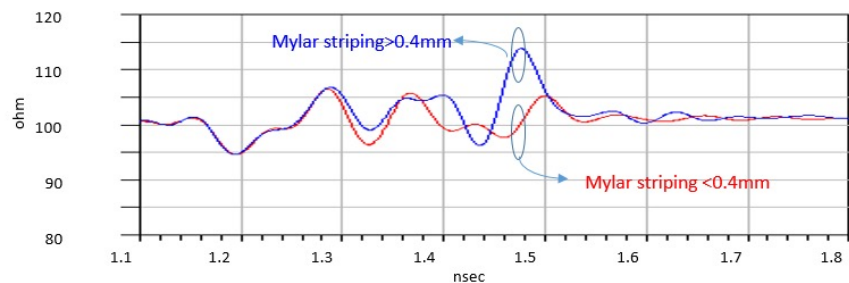
- SI(Signal Integrity Engineer)
Over 7 years experience have 3 peoples
Over 3 years experience have 2 peoples
- SE (Software Engineer)
2 peoples
- EE(Electrical Engineer)
2 peoples



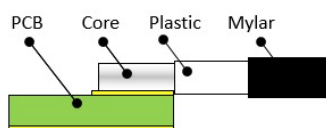


Precise Process Control

Stripping control

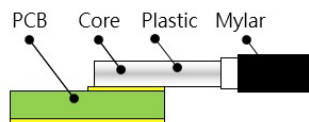
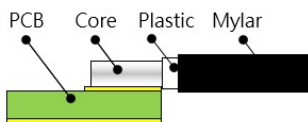
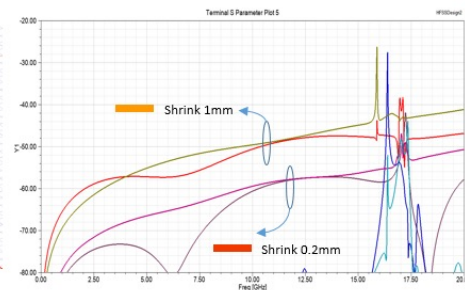
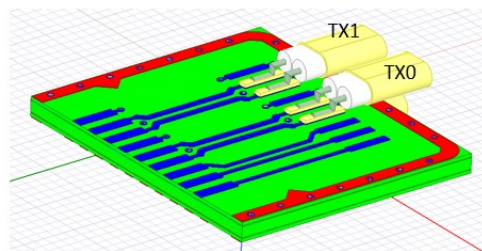


— Mylar stripping < 0.4mm

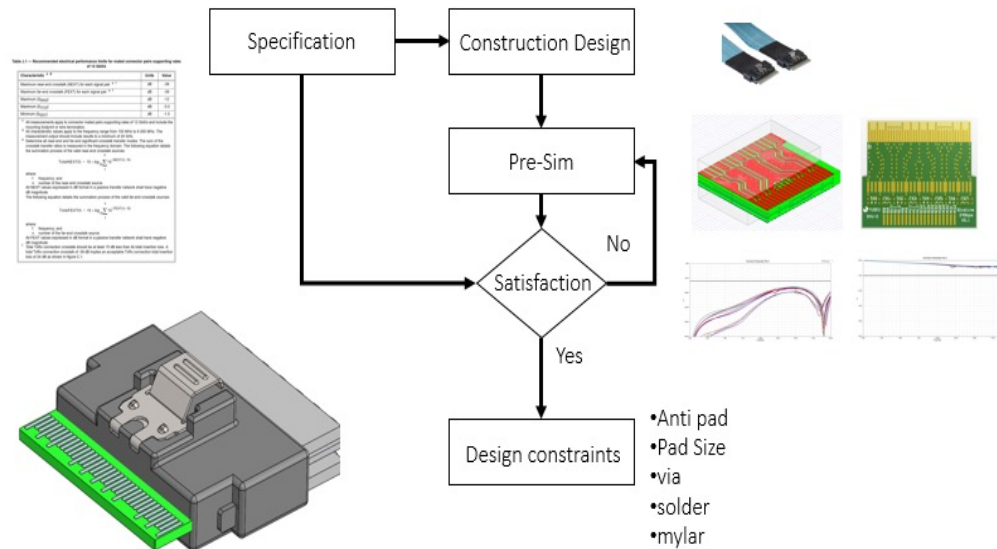


— Mylar stripping > 0.4mm

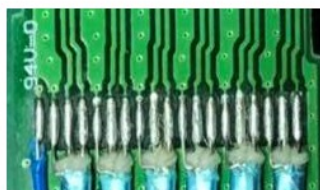
Laser Stripping Control



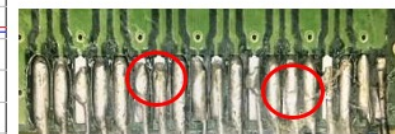
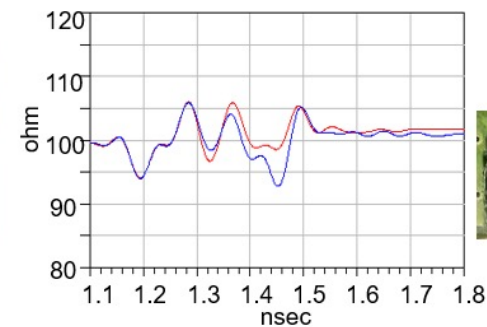
Design flow chart



Soldering control



Normal

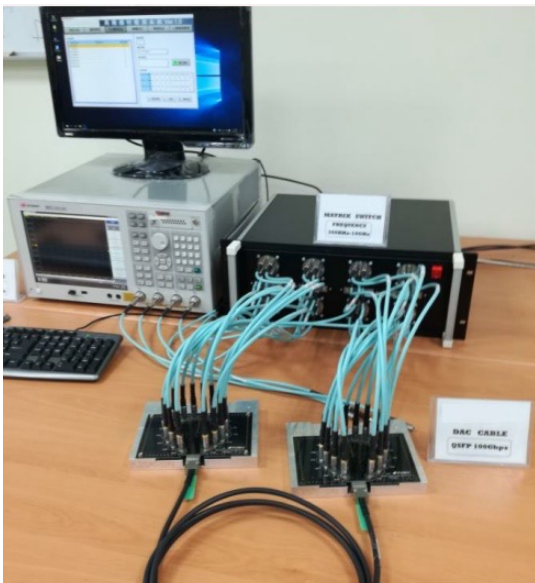


Irregular

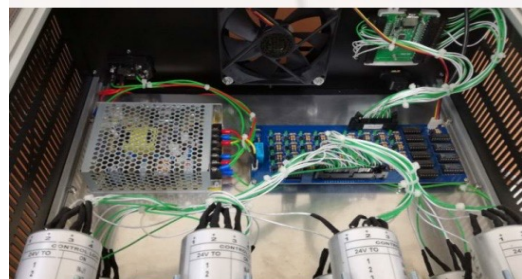


100% High Frequency Testing

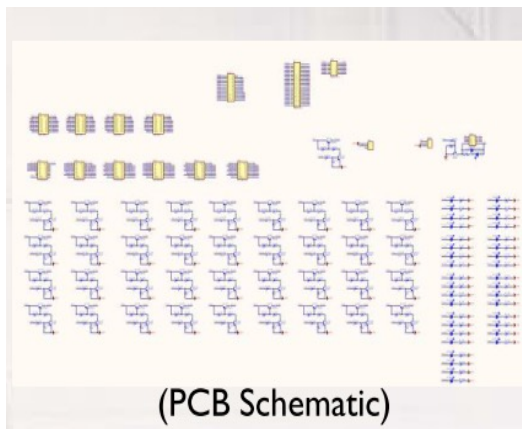
Environment



(Test Environment)



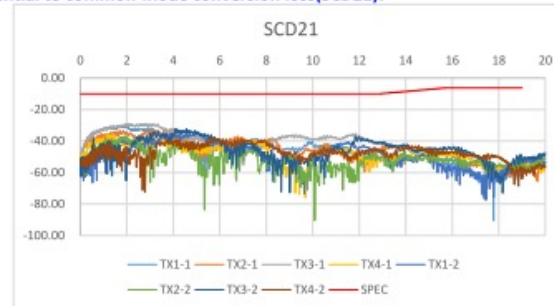
(Construction)



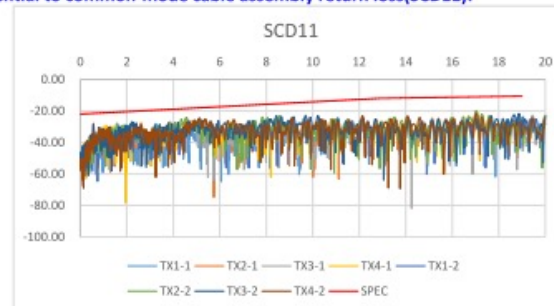
(PCB Schematic)

Testing Report

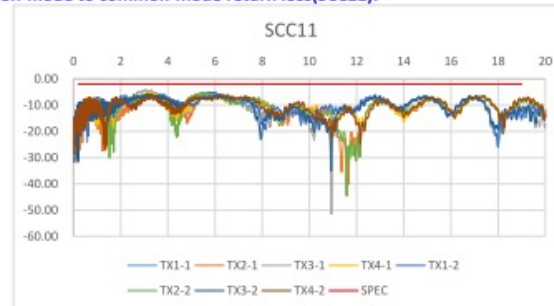
Differential to common-mode conversion loss(SCD21):



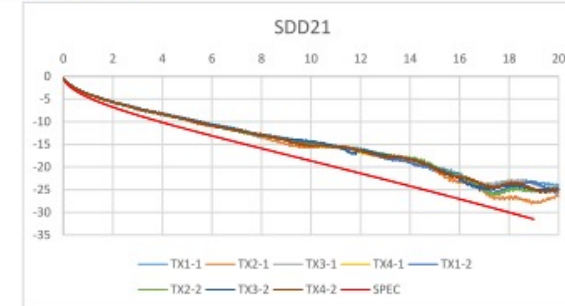
Differential to common-mode cable assembly return loss(SCD11):



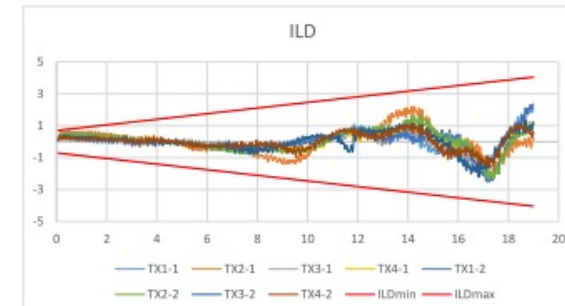
Common-mode to common-mode return loss(SCC11):



Insertion Loss SDD21:



ILD:



Return Loss SDD11:



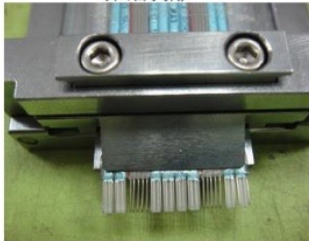


Automation Production Line

線材定位，YAG雷射割鋁箔



鋁箔剝離



內被Co2雷射割



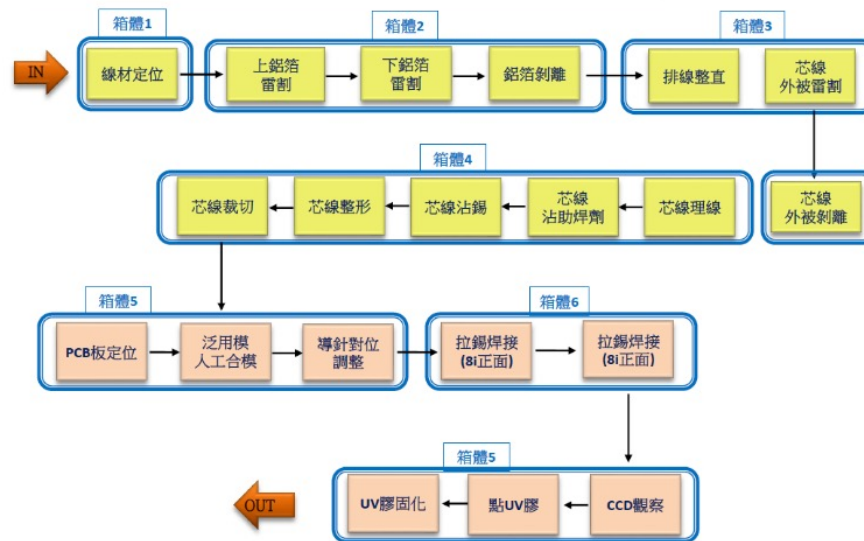
內被剝離



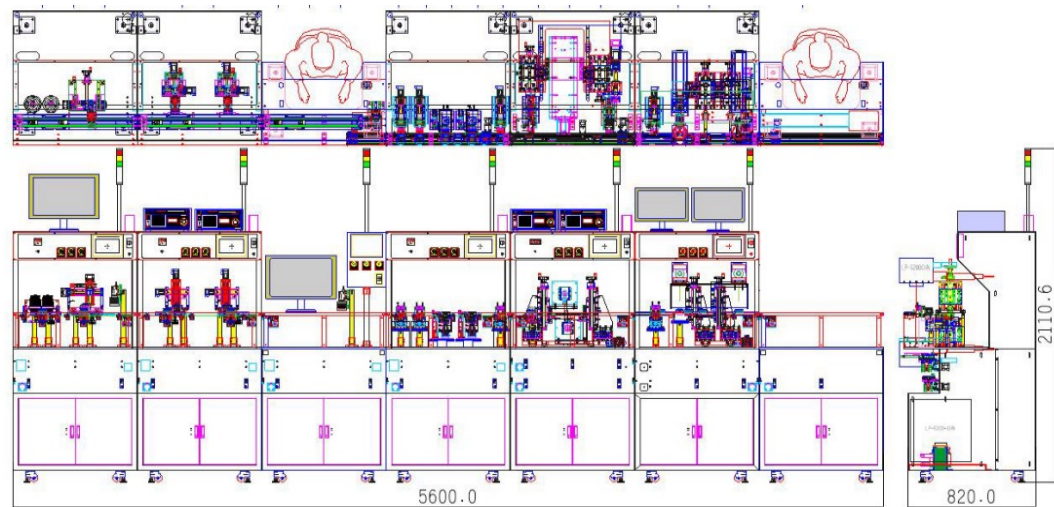
PCB 定位焊接



焊接成品



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





Testing Capability - Test Equipment

Electrical Performance



Network Analyzer



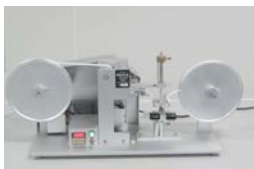
VNA
(Vector Network Analyzer)



High Current
Power Supply &
Electronic Load



Contact
Resistance
Tester



RCA Tape
Abrasion
Tester

Mechanical Performance



Safety
Comprehensive
Analyzer



Mechanical
Vibration/Shock



Automatic
Insertion Force
Tester



Durability
Cycling
Machine

Environmental Testing



Oven



Waterproof test
machine



Flush test
chamber



Thermal shock
test machine



Salt spray test
machine

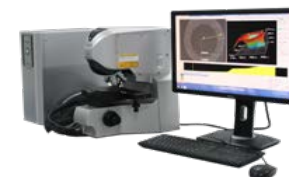


Temperature &
humidity test
machine

Other



Hot-Air Reflow
machine



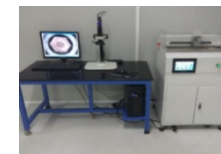
3D laser
scanning
microscope



X-ray

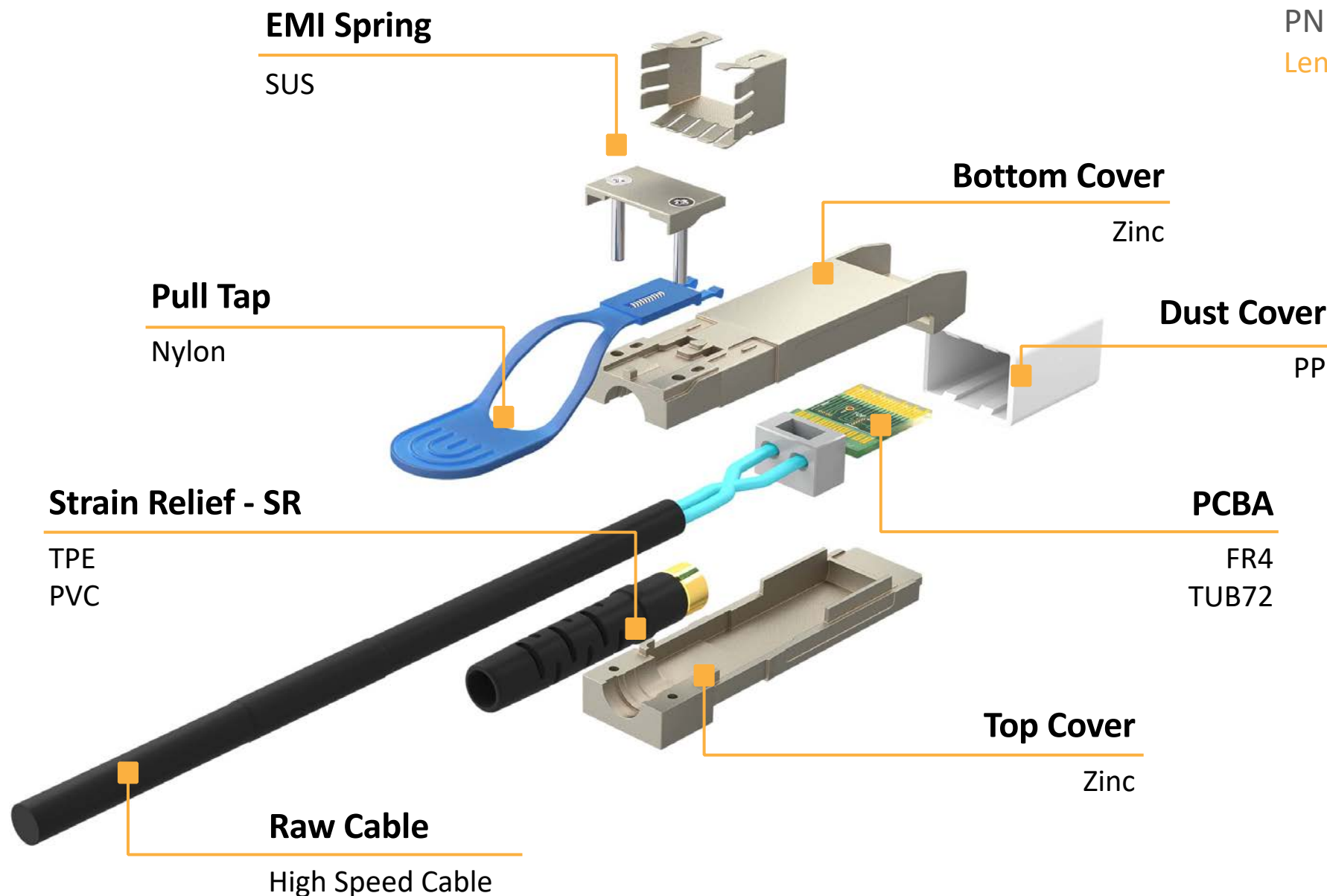


Electrochemical
workstation



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

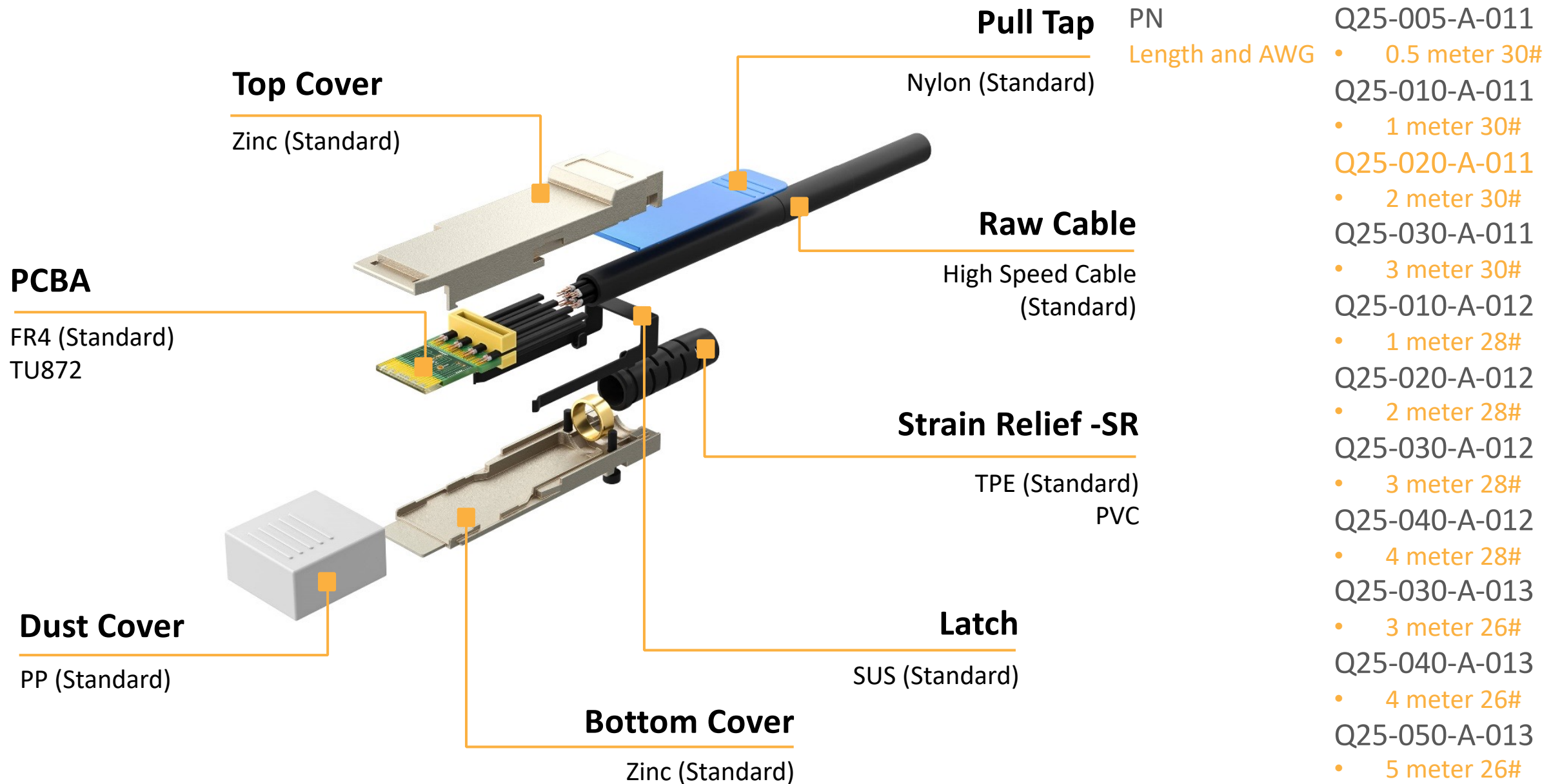
- 4 meter 26#

S25-050-A-013

- 5 meter 26#

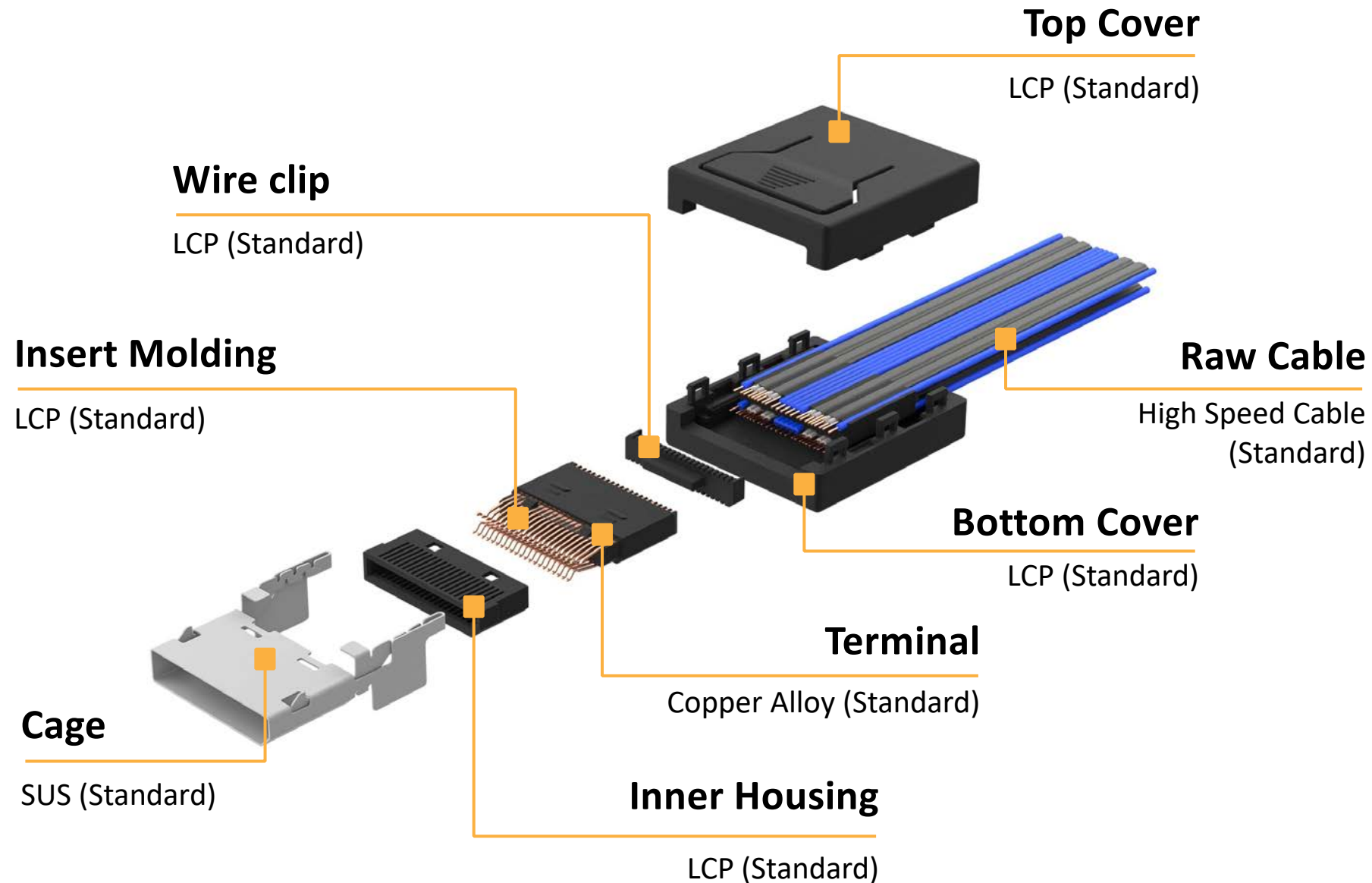


High Speed Cable - QSF 25Gbps





High Speed Cable - Oculink 1.0



PN

Length and AWG

O16-005-A-015

- 0.5 meter 32#

O16-006-A-015

- 0.6 meter 32#

O16-007-A-015

- 0.7 meter 32#

O16-005-A-011

- 0.5 meter 30#

O16-006-A-011

- 0.6 meter 30#

O16-007-A-011

- 0.7 meter 30#

O16-008-A-011

- 0.8 meter 30#

O16-009-A-011

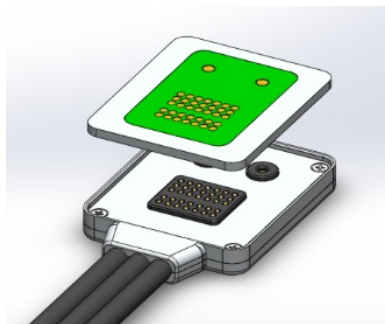
- 0.9 meter 30#

O16-010-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

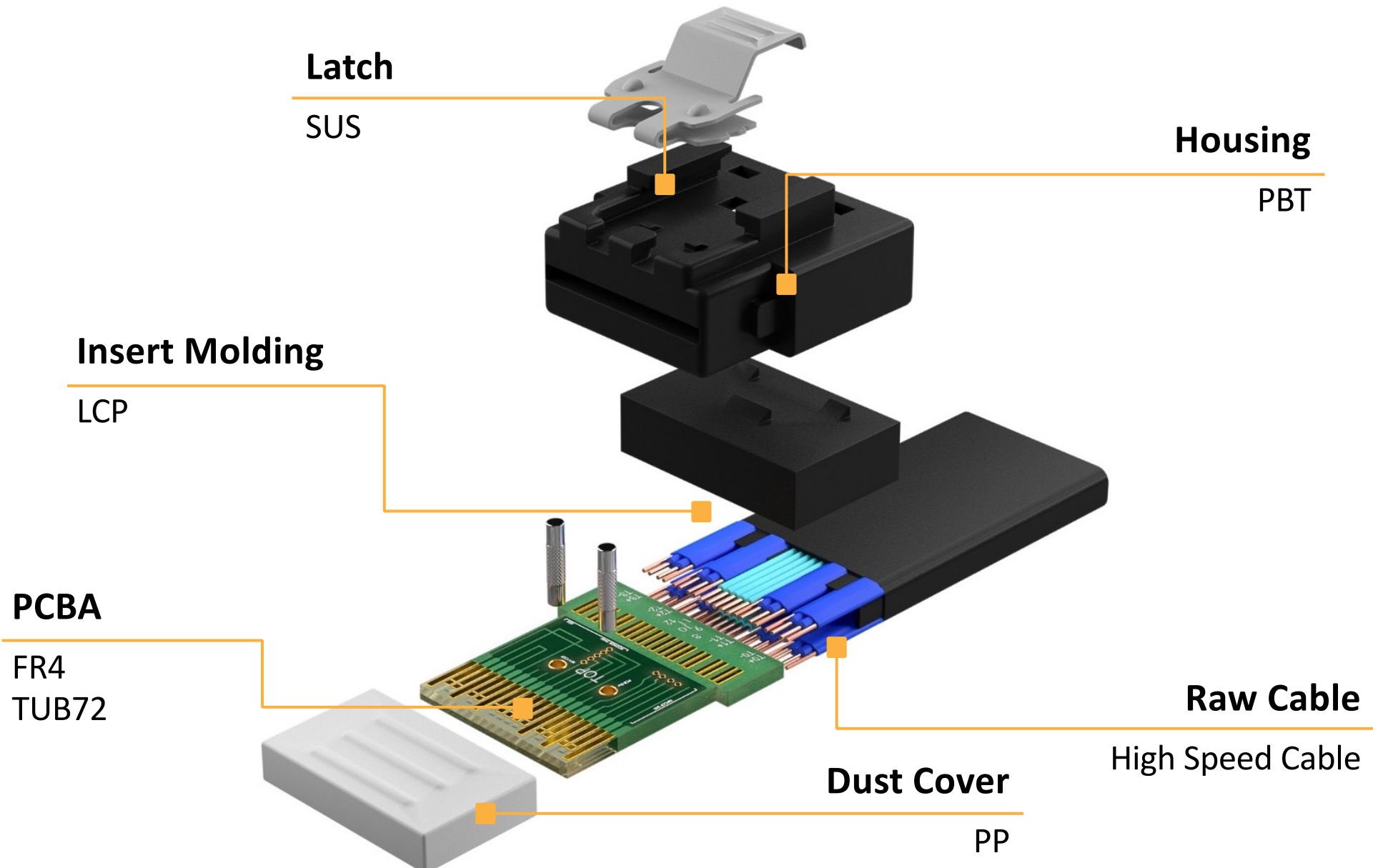
- 1.6 meter 30#

HD48-020-A-011

- 2.0 meter 30#

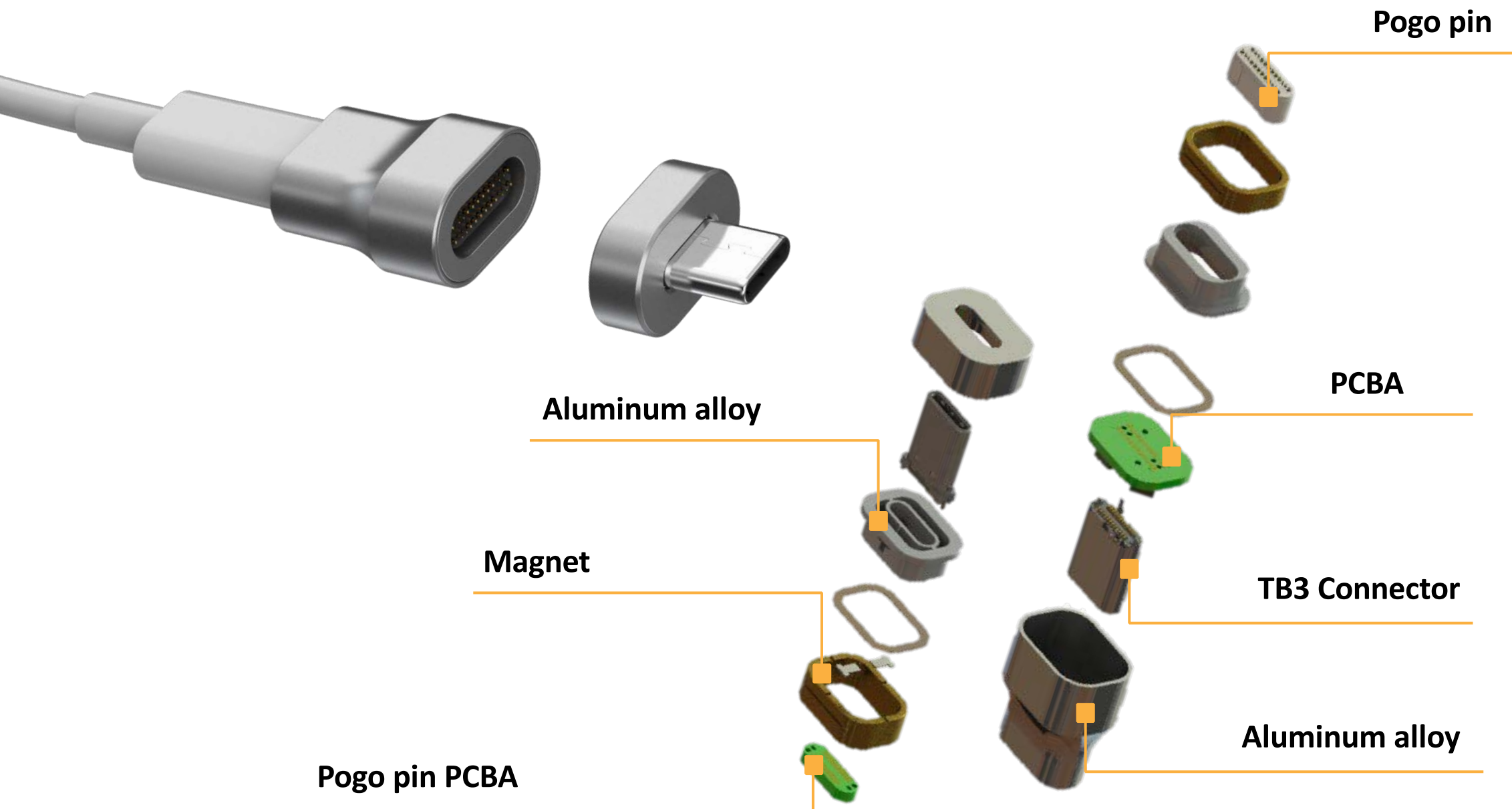


High Speed Cable - Slimline SAS 24Gbps



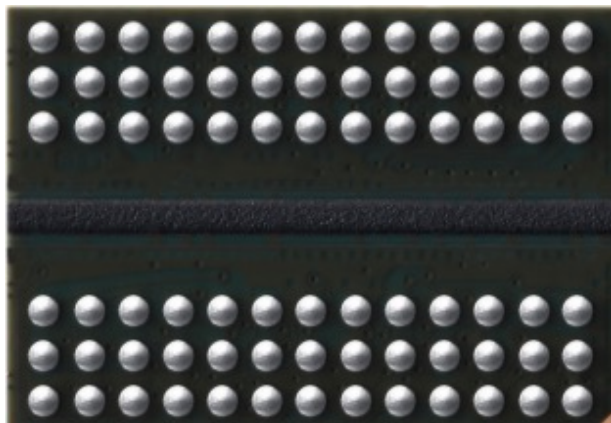


Thunderbolt 4 Magnetic Adapter

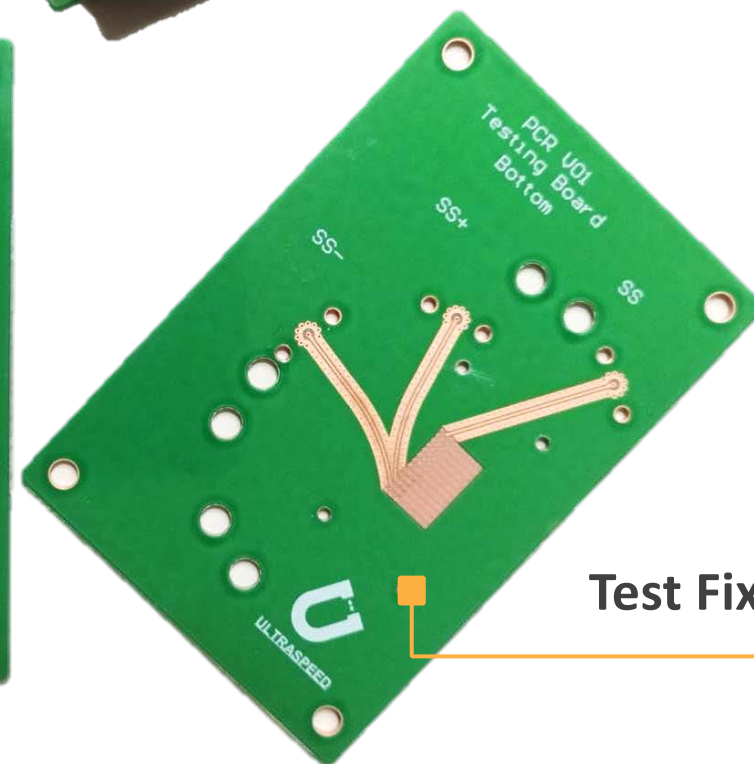
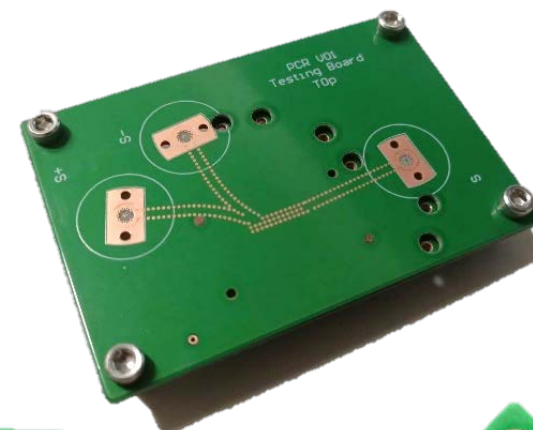
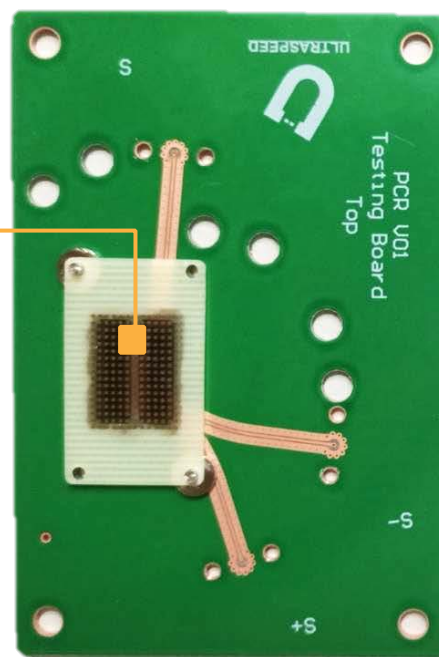


High Speed Module - Customization (PCR Test Fixture)

DDR4 IC



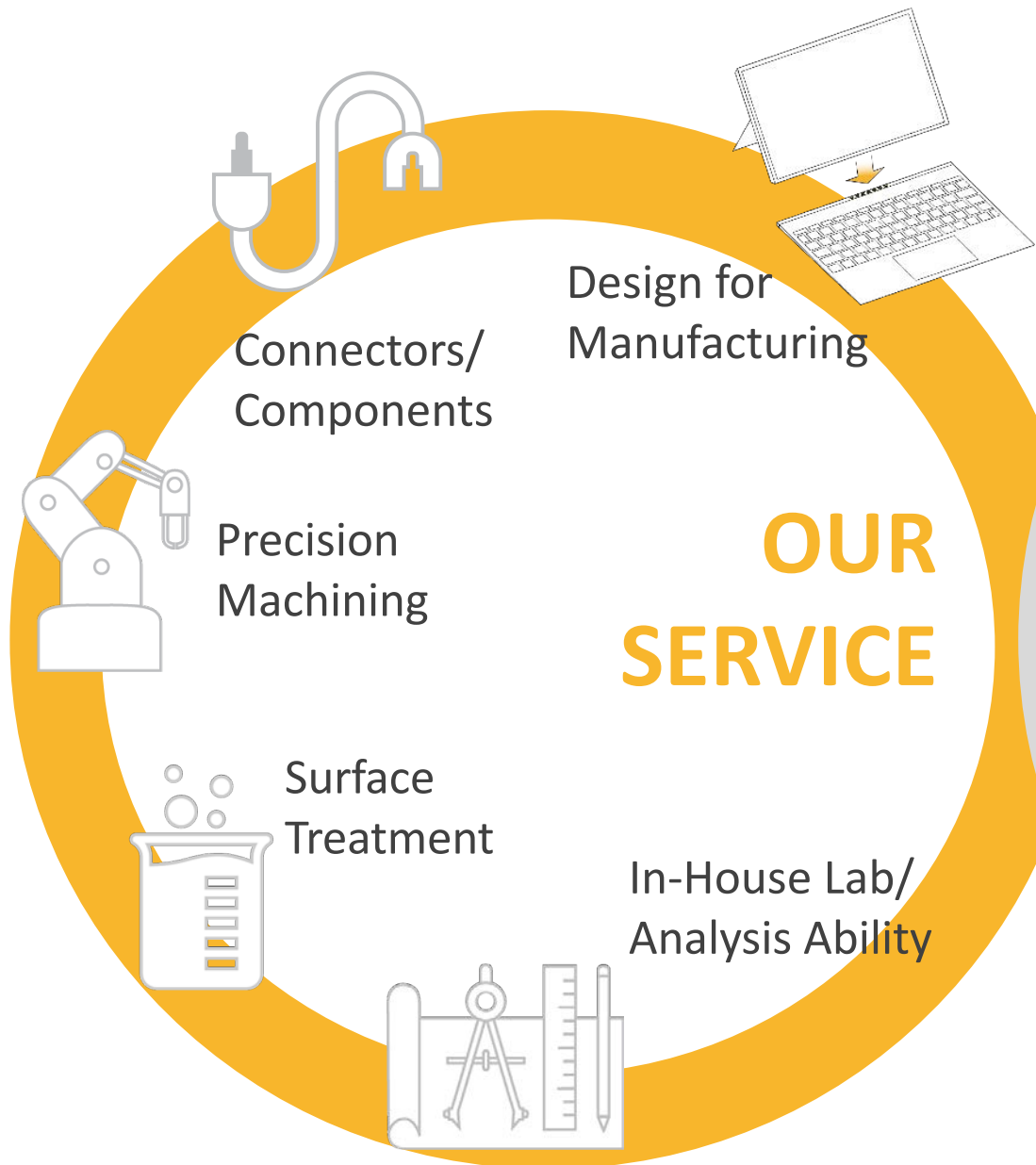
PCR



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

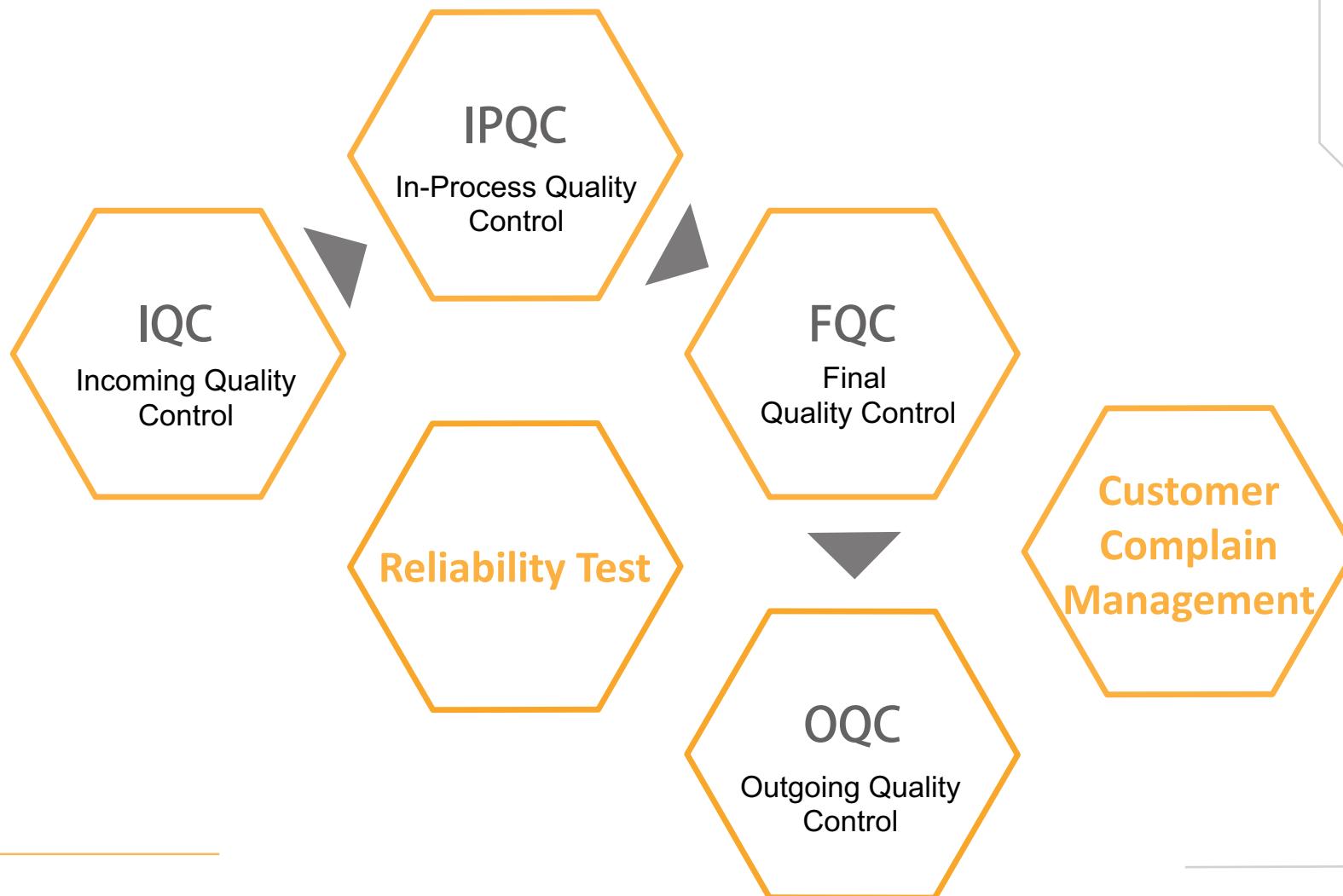
Hazardous Substance Process Management

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

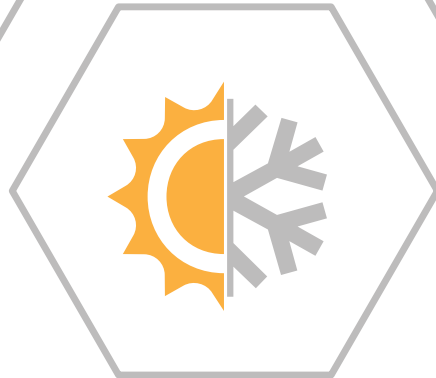
Rated Current

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

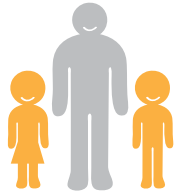
ISO 14001

ISO 14064

IATF 16949

IECQ QC080000





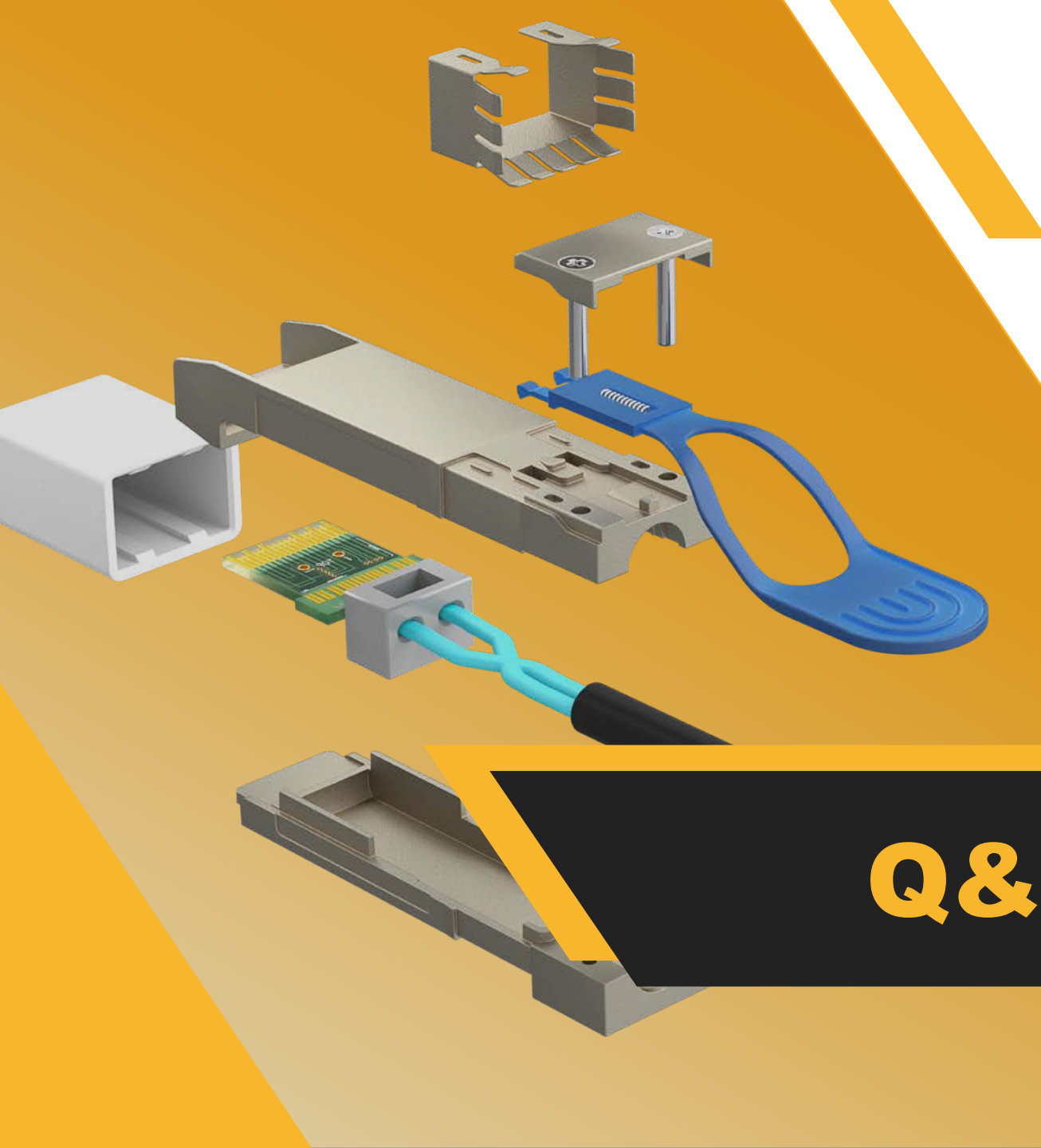
Summer camp for employees' children



Home visit to employees around the world



CCP offers tuition scholarship for employees' children



C.C.P.



CCP Contact Probes

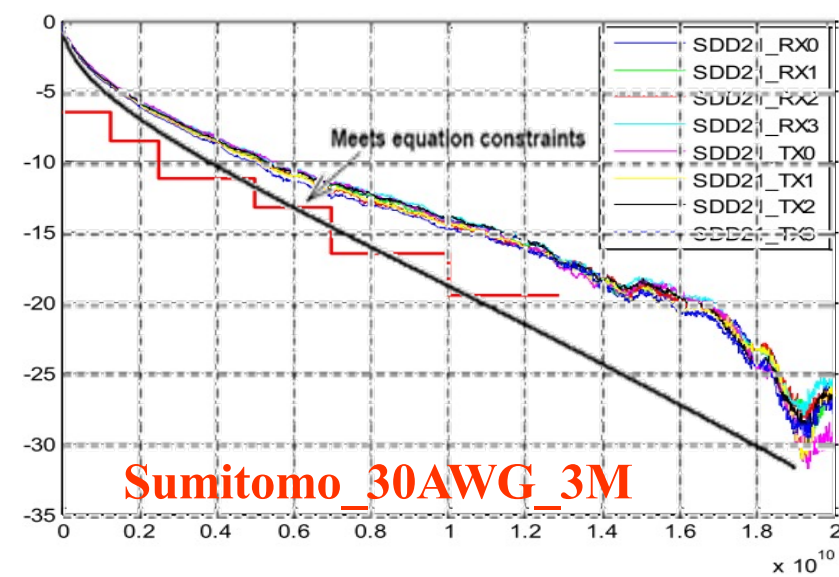
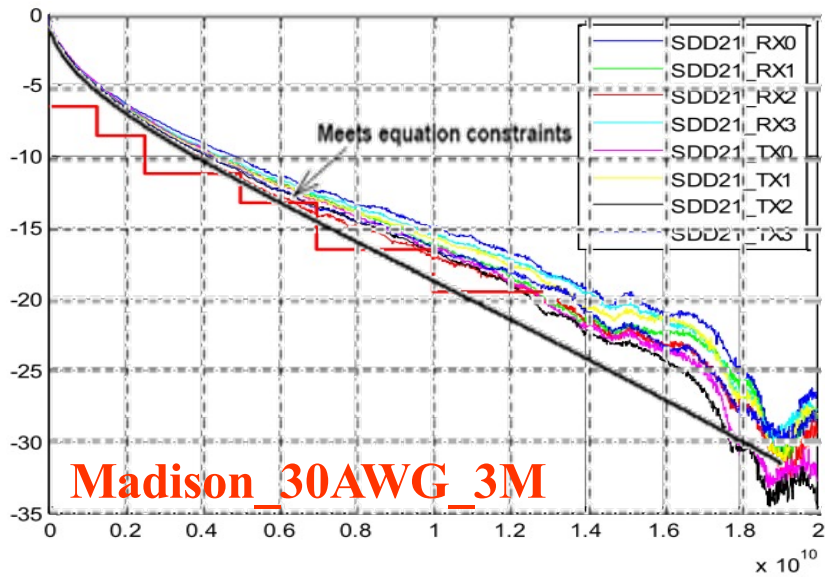
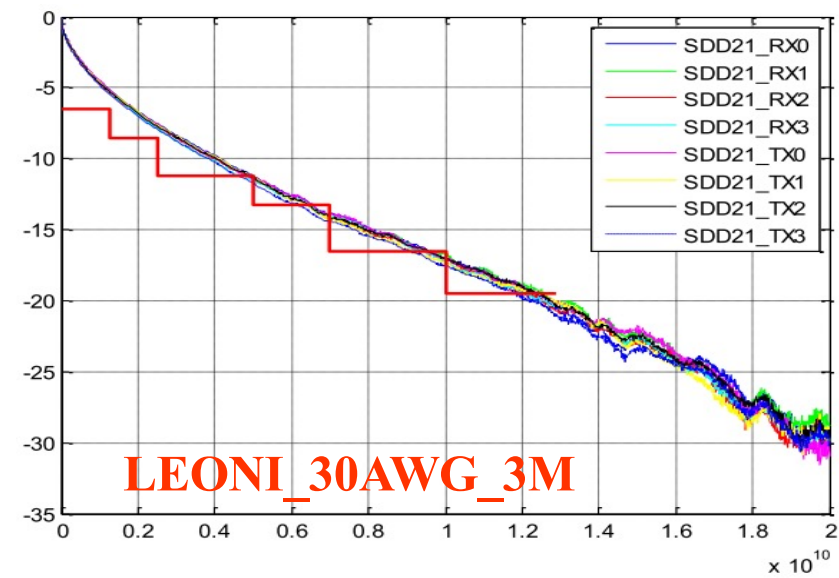
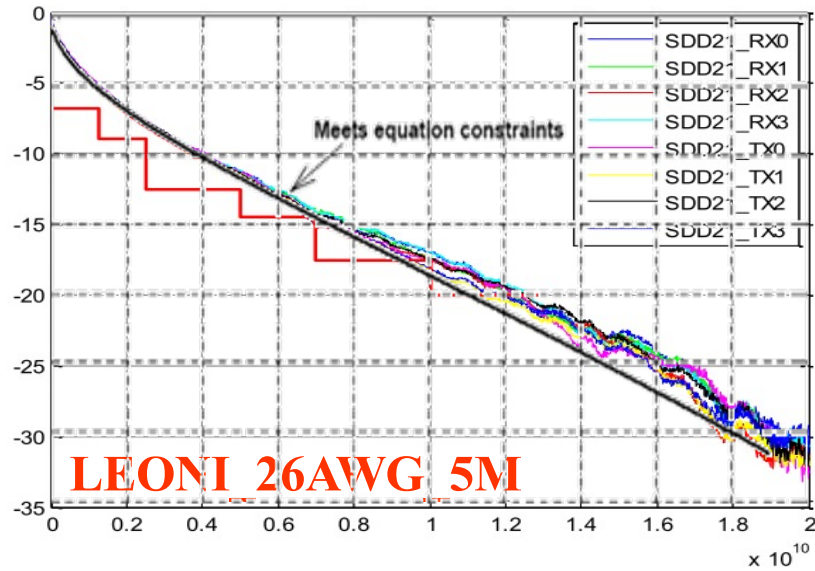
Q&A

info@pccp.com.tw
www.ccpcontactprobes.com



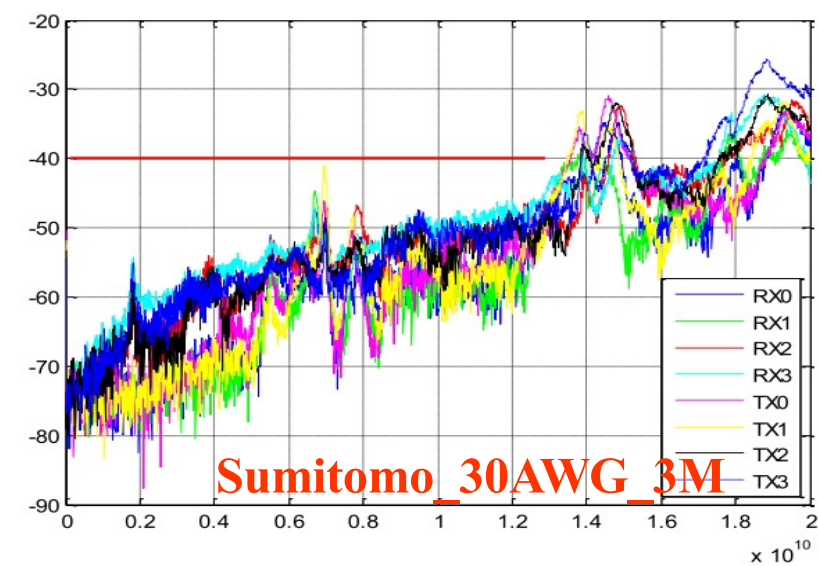
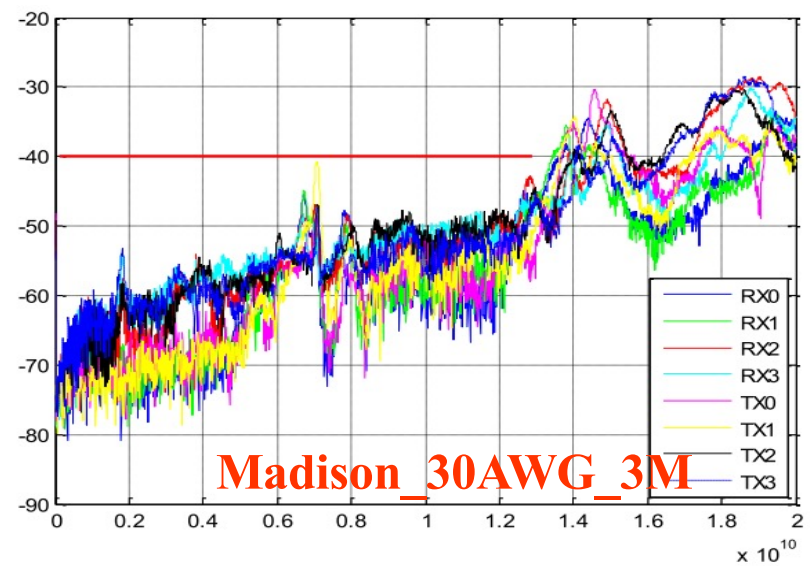
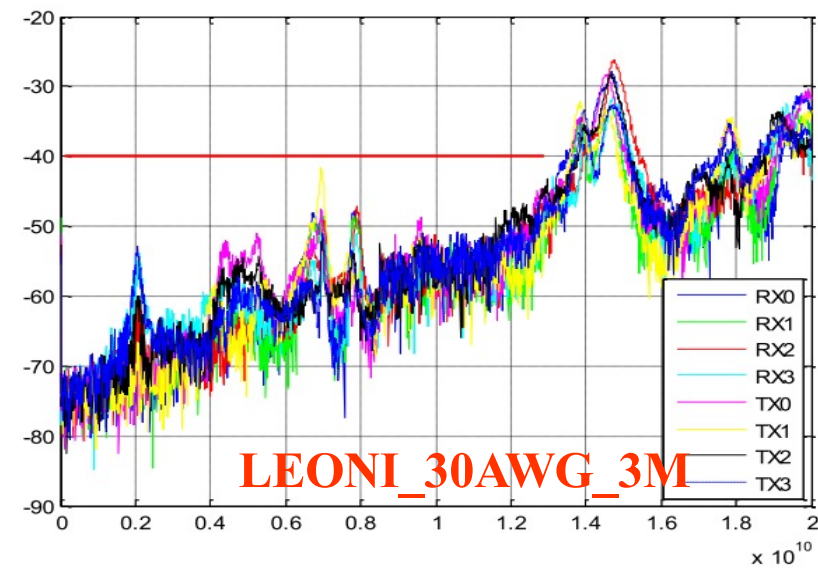
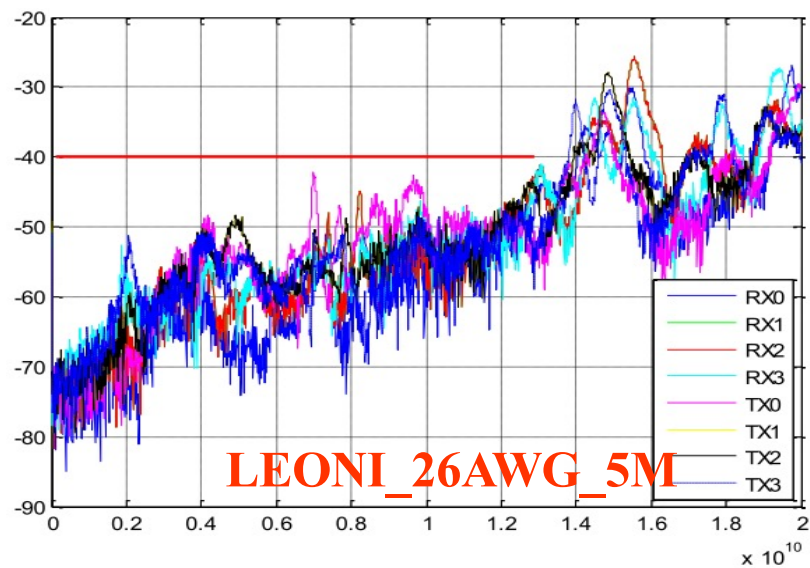


Appendix





Appendix



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

18Hours

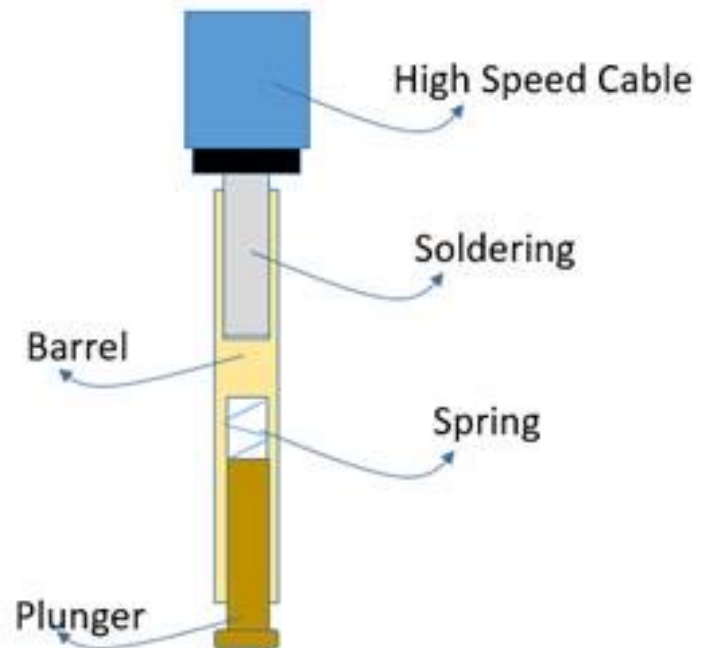
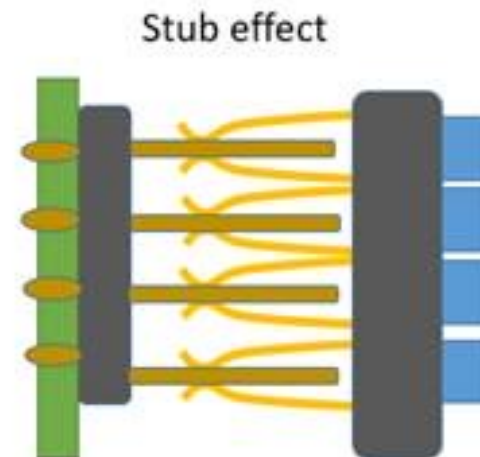
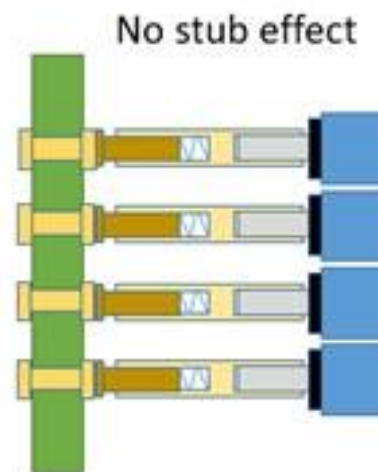
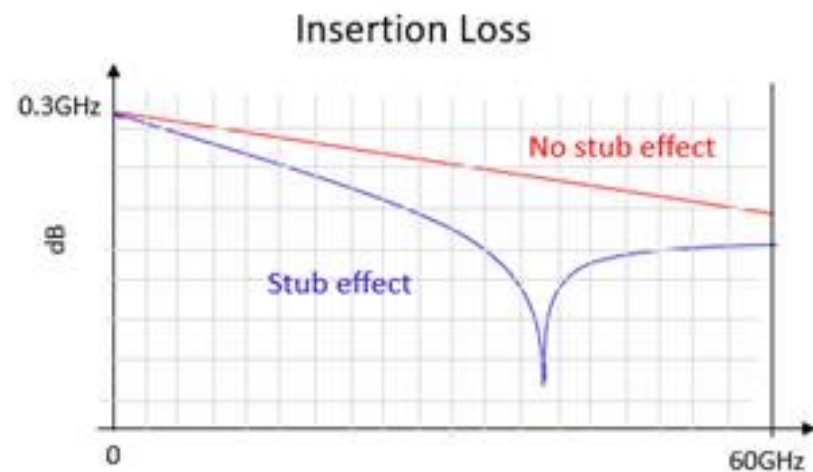
The screenshot displays the Spirent TestCenter software interface. At the top, a file path is visible: 400g_2port_cfg_load99_20191008.tcc - Spirent TestCenter. The main window is titled 'Test Configuration' and shows a tree view on the left with categories like 'Spirent TestCenter', 'TestCenter IQ Settings', 'All Devices (Hosts, Routers, ...)', 'All Traffic Generators', 'All Stream Blocks', 'All Traffic Analyzers', 'All Ports', and 'Settings'. The central area features a 'Spirent TestCenter™' logo and two panels: 'Reserve Ports' and 'Recent Files'. The 'Reserve Ports' panel shows a list of reserved ports, including 192.168.0.100/1/1, 192.168.0.100/1/2, 192.168.0.100/1/9, and 192.168.0.100/1/10. The 'Recent Files' panel lists files like 400g_2port_cfg_load99_20191008.tcc, TEST.tcc, 2020_09_11_spytest.tcc, 400g_2port_rfc2889_forwarding_a..., and 400g_2port_cfg_load99_apple_20....

Below the main configuration area, there is a section titled 'Port Traffic and Counters > Basic Traffic Results'. This section contains a table with columns: 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), and Tx L1 Count. The table shows data for two ports: Port //1/1 and Port //1/9. The data for Port //1/1 is highlighted with a red box, showing a total Tx count of 11,089,789,580,604 and a total Rx count of 11,089,786,257,305. The data for Port //1/9 is also highlighted with a red box, showing a total Tx count of 11,089,786,257,305 and a total Rx count of 11,089,789,580,604.

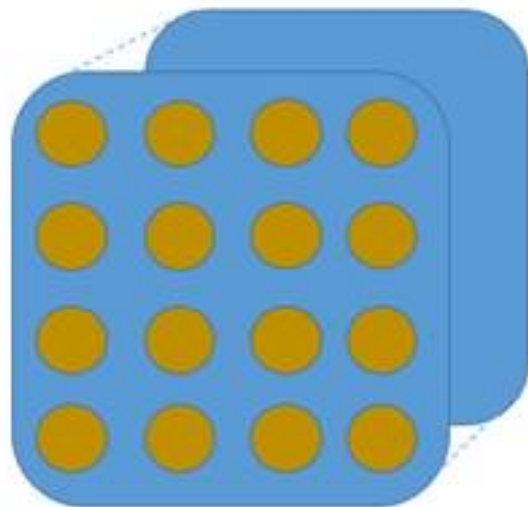
To the right of the 'Port Traffic and Counters' section, there is a section titled 'Streams > Detailed Stream Results'. This section contains a table with columns: Name/ID, Tx Port Name, Rx Port Names, Tx Count (Frames), Rx Count (Frames), Dropped Count (Frames), Dropped Frame Percent, In-order Count (Frames), and Reordered Count (Frames). The table shows data for four streams: StreamBloc, StreamBloc, StreamBloc, and StreamBloc. The data for the first three streams is highlighted with a red box, showing a total Tx count of 5,544,894,790,302 and a total Rx count of 5,544,894,790,302. The data for the fourth stream is also highlighted with a red box, showing a total Tx count of 5,544,893,128,653 and a total Rx count of 5,544,893,128,653.

At the bottom of the interface, there is a status bar with the text '400g_2port_cfg_load99_20191008:Results 1' and a 'Launch TestCenter IQ' button.

No Traffic loss



CCP



Poor Art

