



CCP Contact Probes

High Speed Cable

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



MINISAS HD



MINISAS to HD



High Speed Cable: Internal

Data Storage

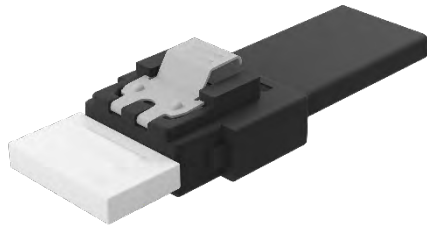
MINISAS



MINISAS HD



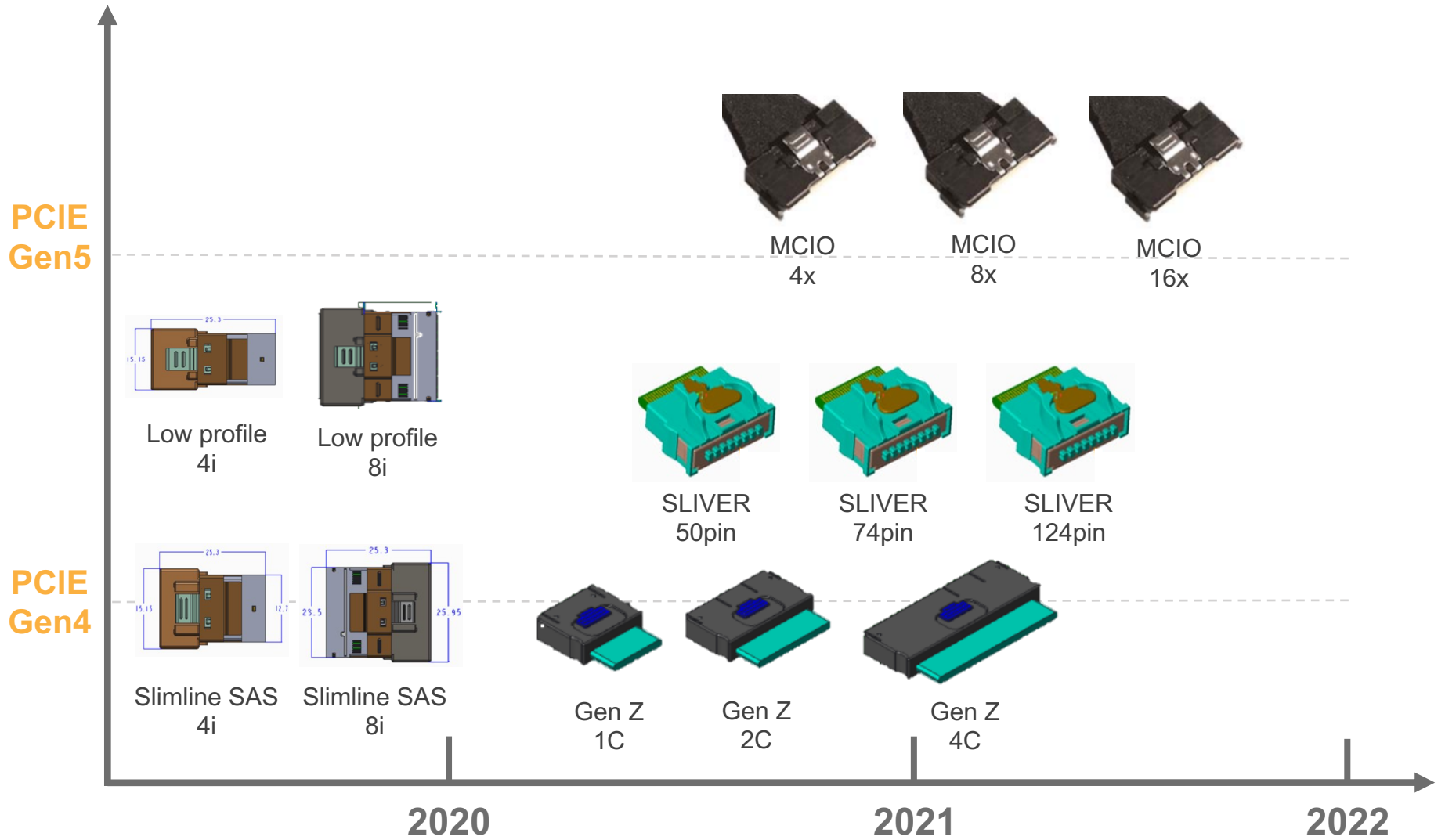
Slimline SAS



Oculink



High Speed Cable: Internal Cable



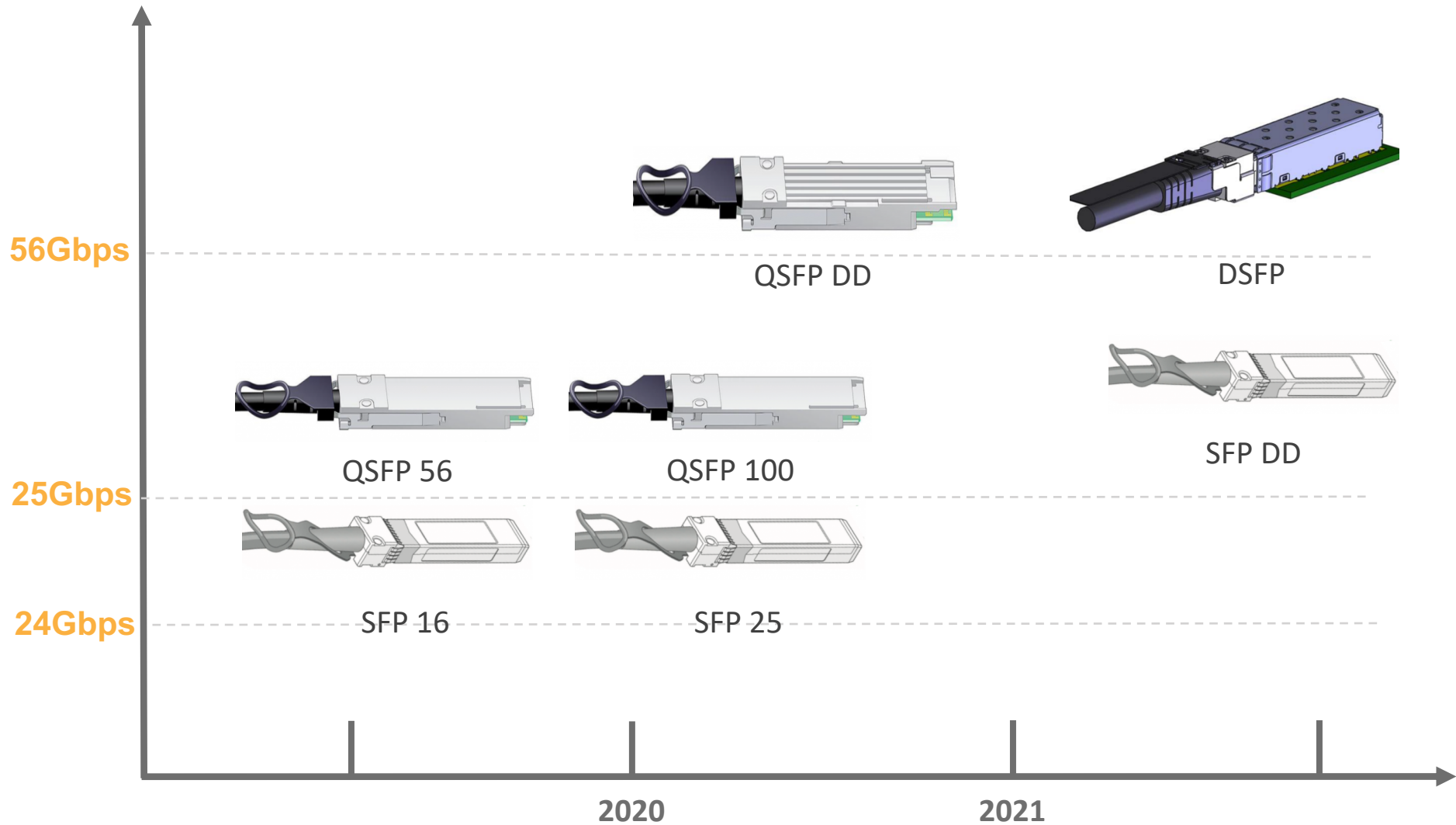
High Speed Cable: Internal Cable

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

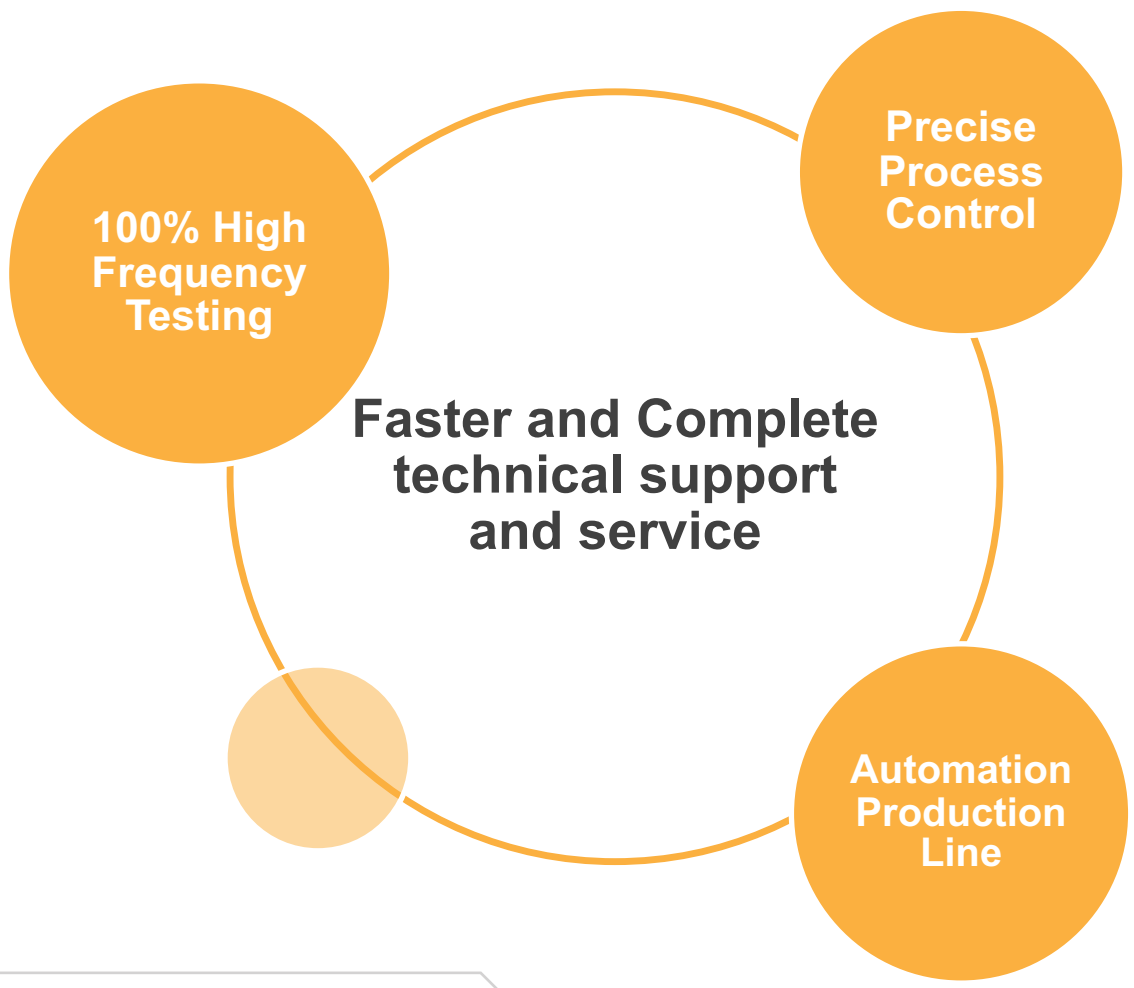
High Speed Cable: Internal Cable

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



R & D Capability



- Ansoft HFSS
3D simulation



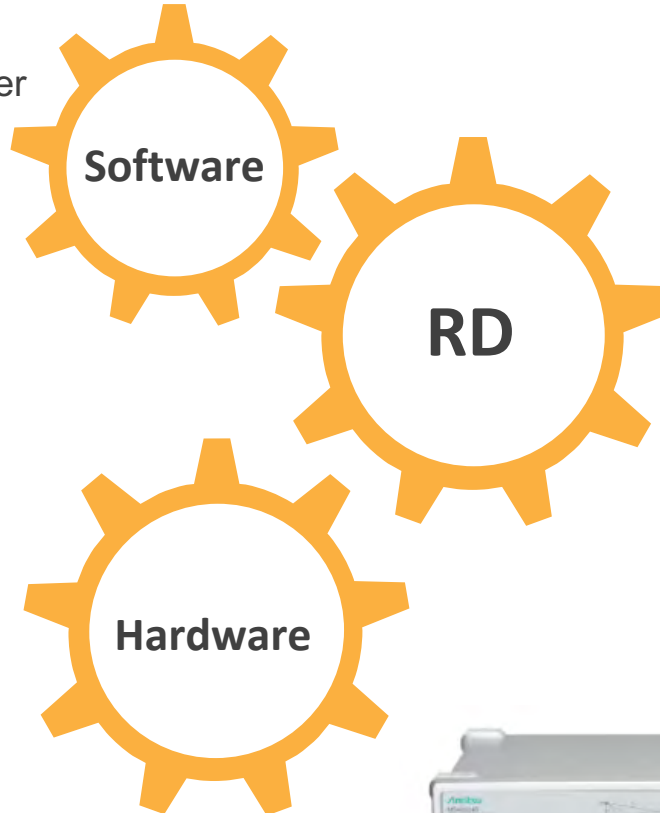
- Ansoft Designer
Fully system Link



- Ansoft Q3D
2.5D simulation



- Altium
PCB layout tool



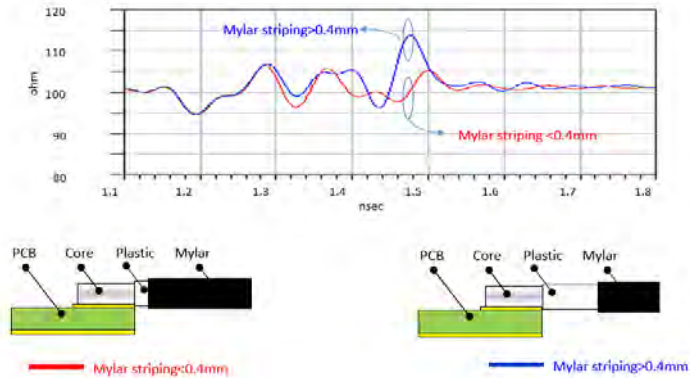
- SI(Signal Integrity Engineer)
Over 7 years experience have 3 peoples
Over 3 years experience have 2 peoples
- SE (Software Engineer)
2 peoples
- EE(Electrical Engineer)
2 peoples

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

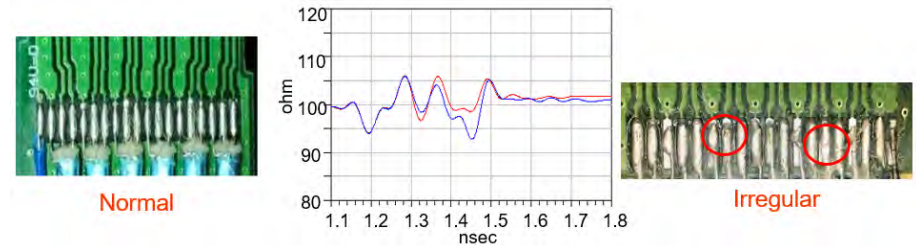


Precise Process Control

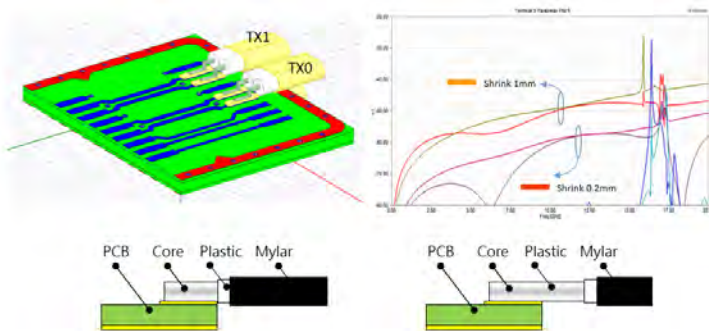
Stripping control



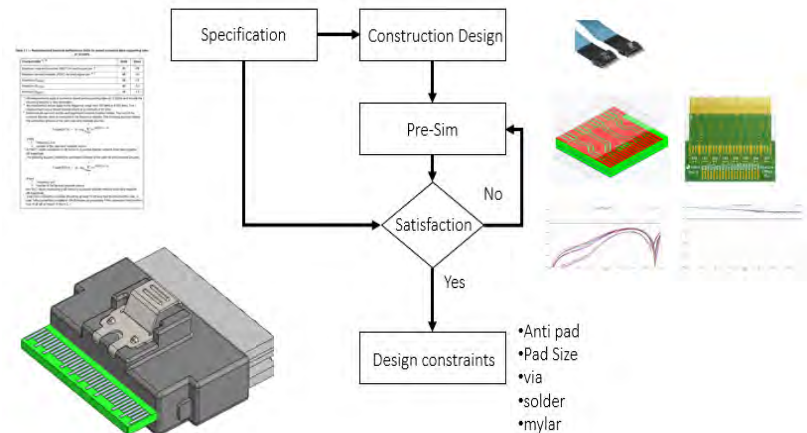
Soldering control



Laser Stripping Control



Design flow chart



100% High Frequency Testing

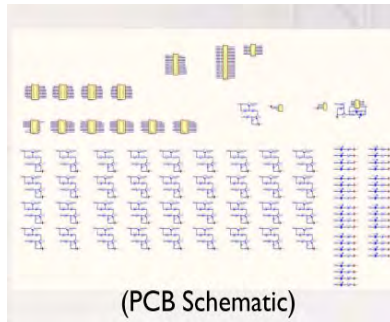
Environment



(Test Environment)



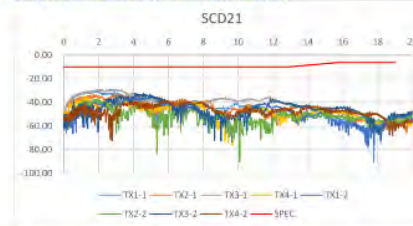
(Construction)



(PCB Schematic)

Testing Report

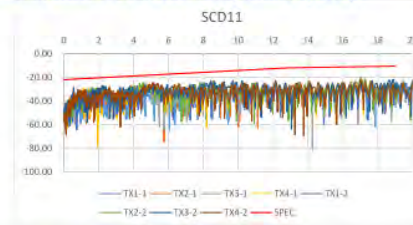
Differential to common-mode conversion loss(SCD21):



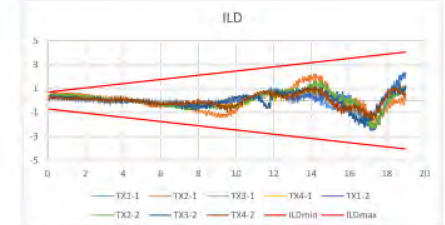
Insertion Loss SDD21:



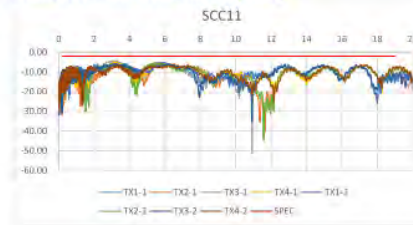
Differential to common-mode cable assembly return loss(SCD11):



ILD:



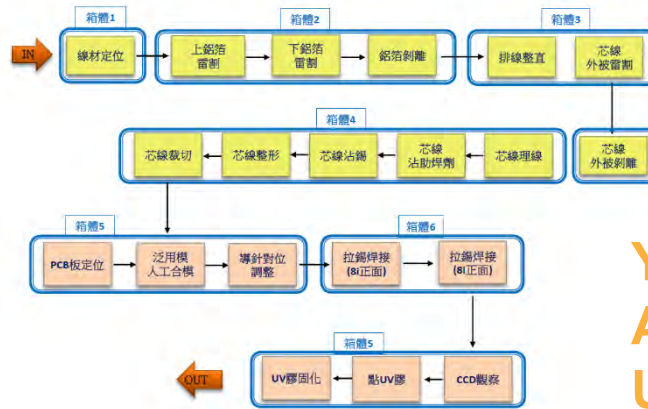
Common-mode to common-mode return loss(SCC11):



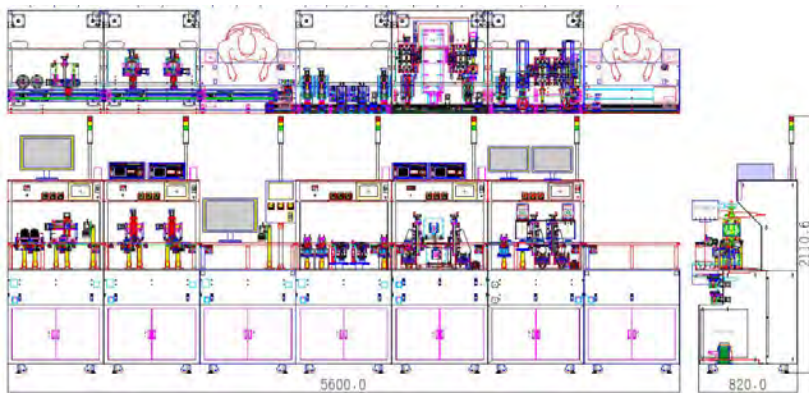
Return Loss SDD11:



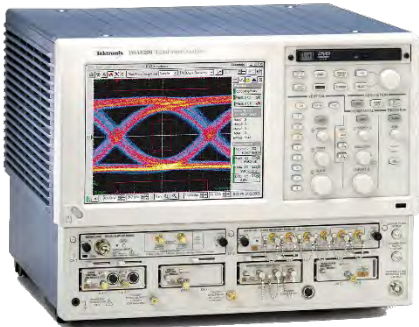
Automation Production Line



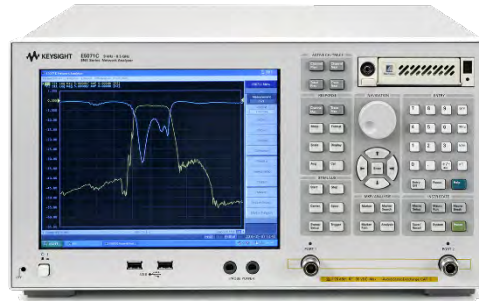
Yield: 95 %
Activation: 95%
UPH: 240 pcs



Testing Equipment



Digital Oscilloscope



Vector Network Analyzer



HFSS Analysis Program



Thermal Shock Tester

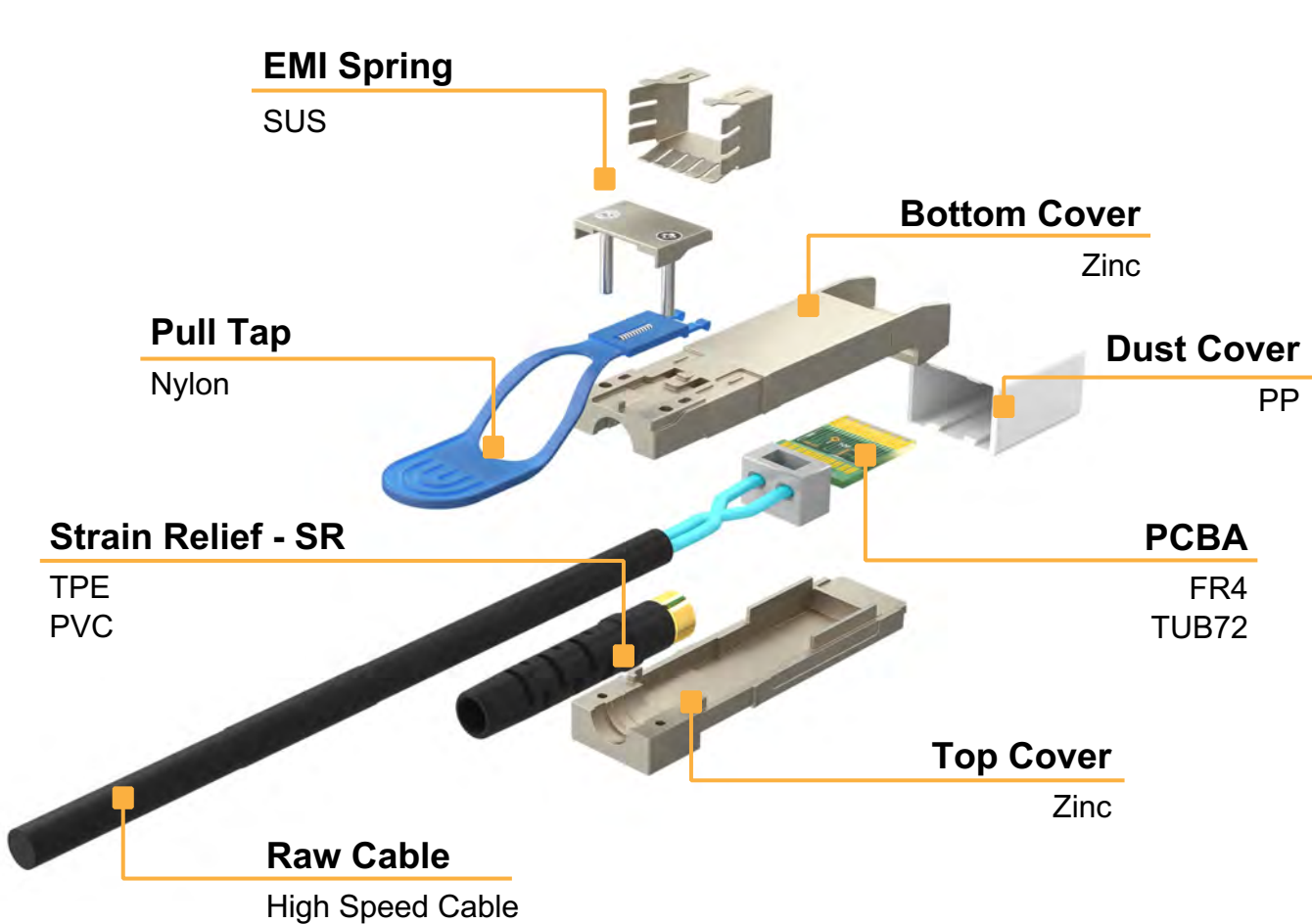


Salt Spray Tester



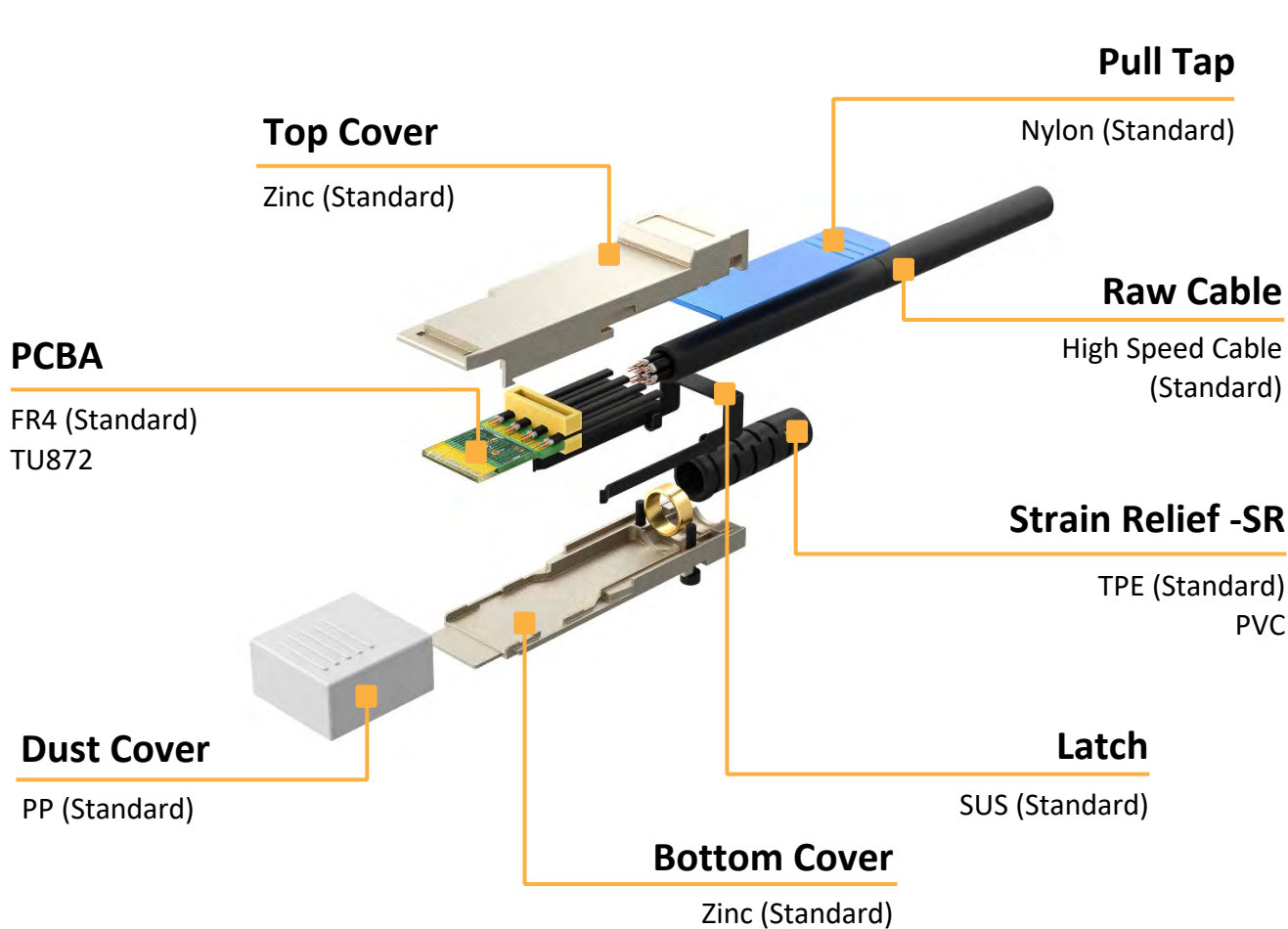
Electron Microscope

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



PN

Length and AWG

Q25-005-A-011

- 0.5 meter 30#

Q25-010-A-011

- 1 meter 30#

Q25-020-A-011

- 2 meter 30#

Q25-030-A-011

- 3 meter 30#

Q25-010-A-012

- 1 meter 28#

Q25-020-A-012

- 2 meter 28#

Q25-030-A-012

- 3 meter 28#

Q25-040-A-012

- 4 meter 28#

Q25-030-A-013

- 3 meter 26#

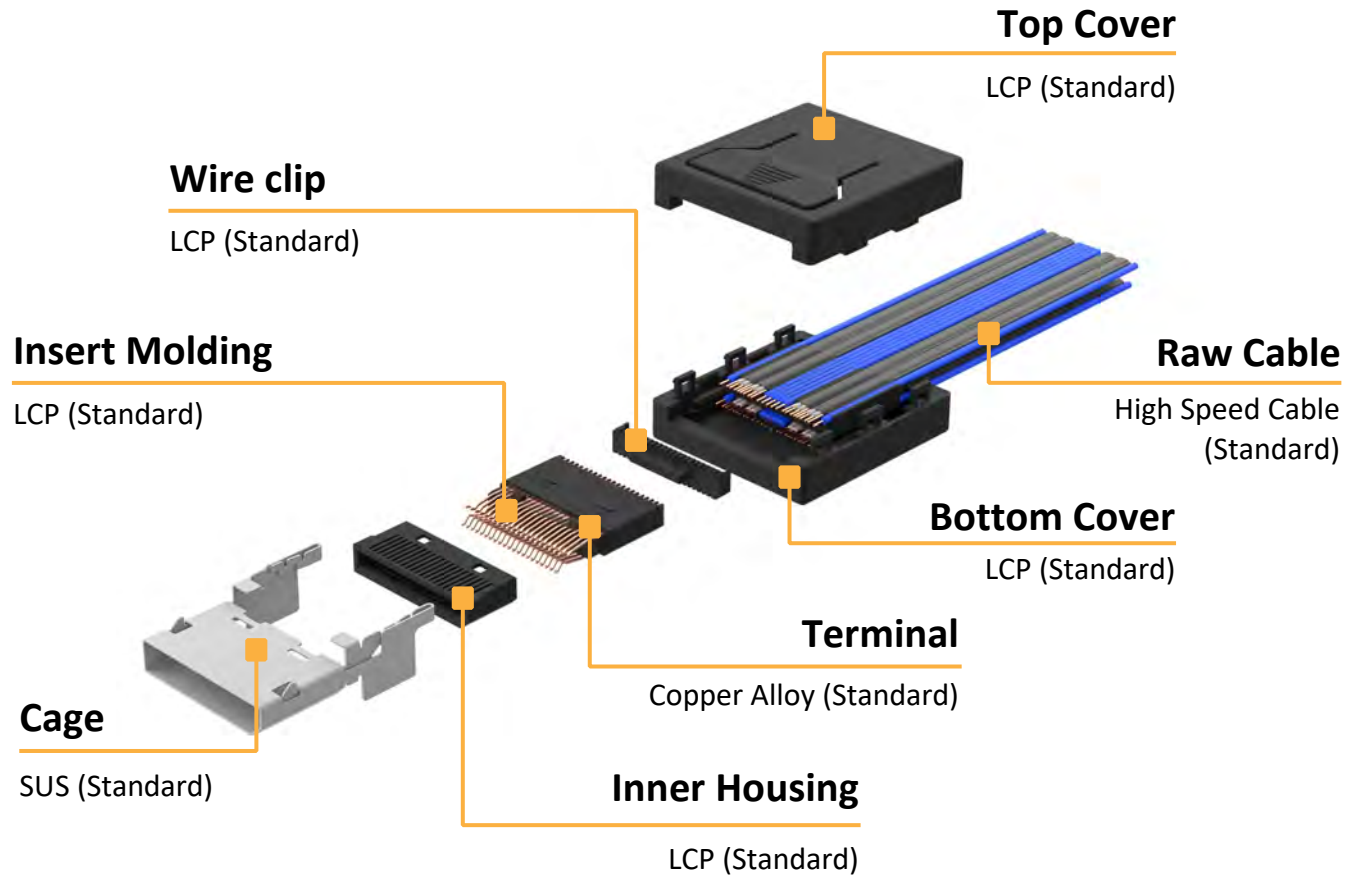
Q25-040-A-013

- 4 meter 26#

Q25-050-A-013

- 5 meter 26#

High Speed Cable - Oculink 1.0

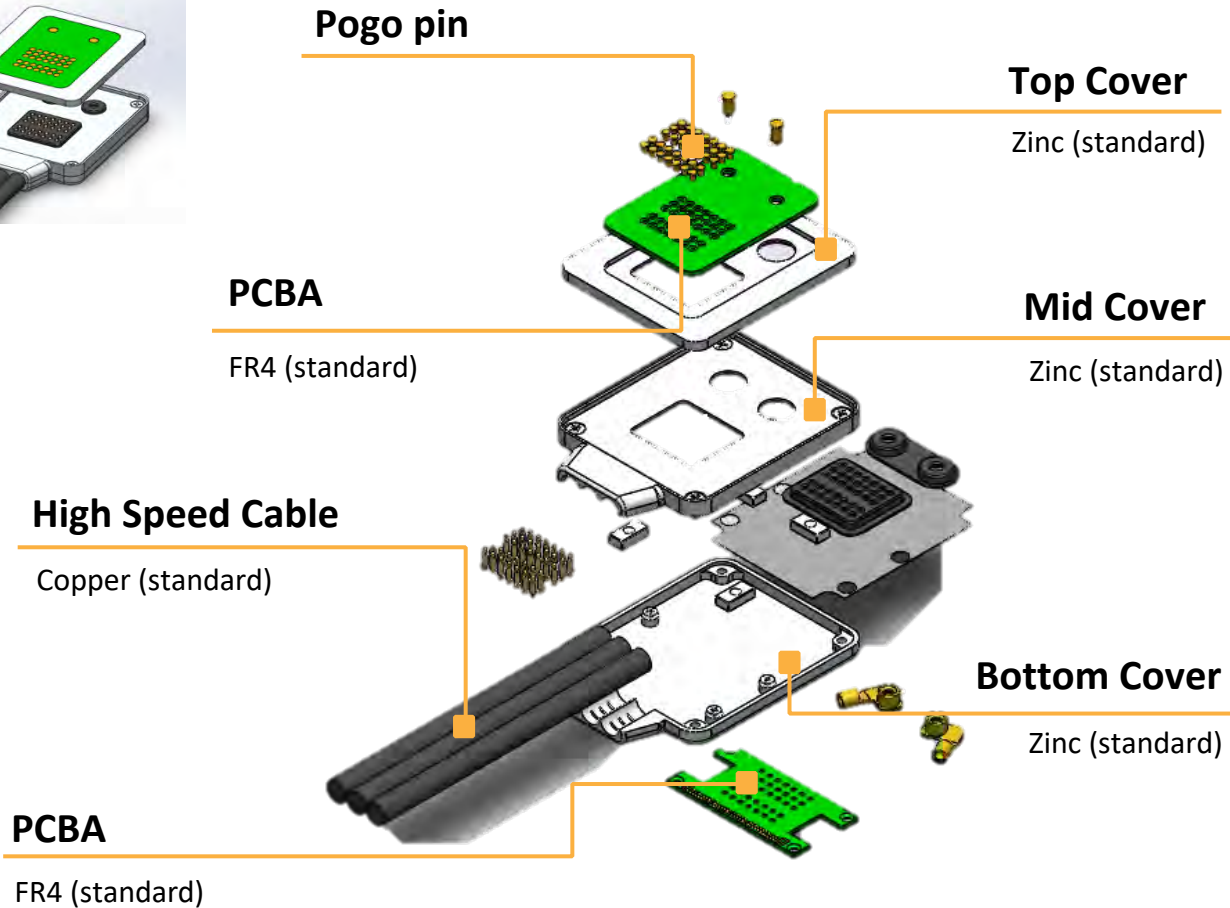
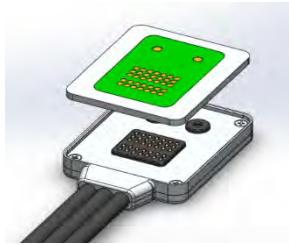


PN

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

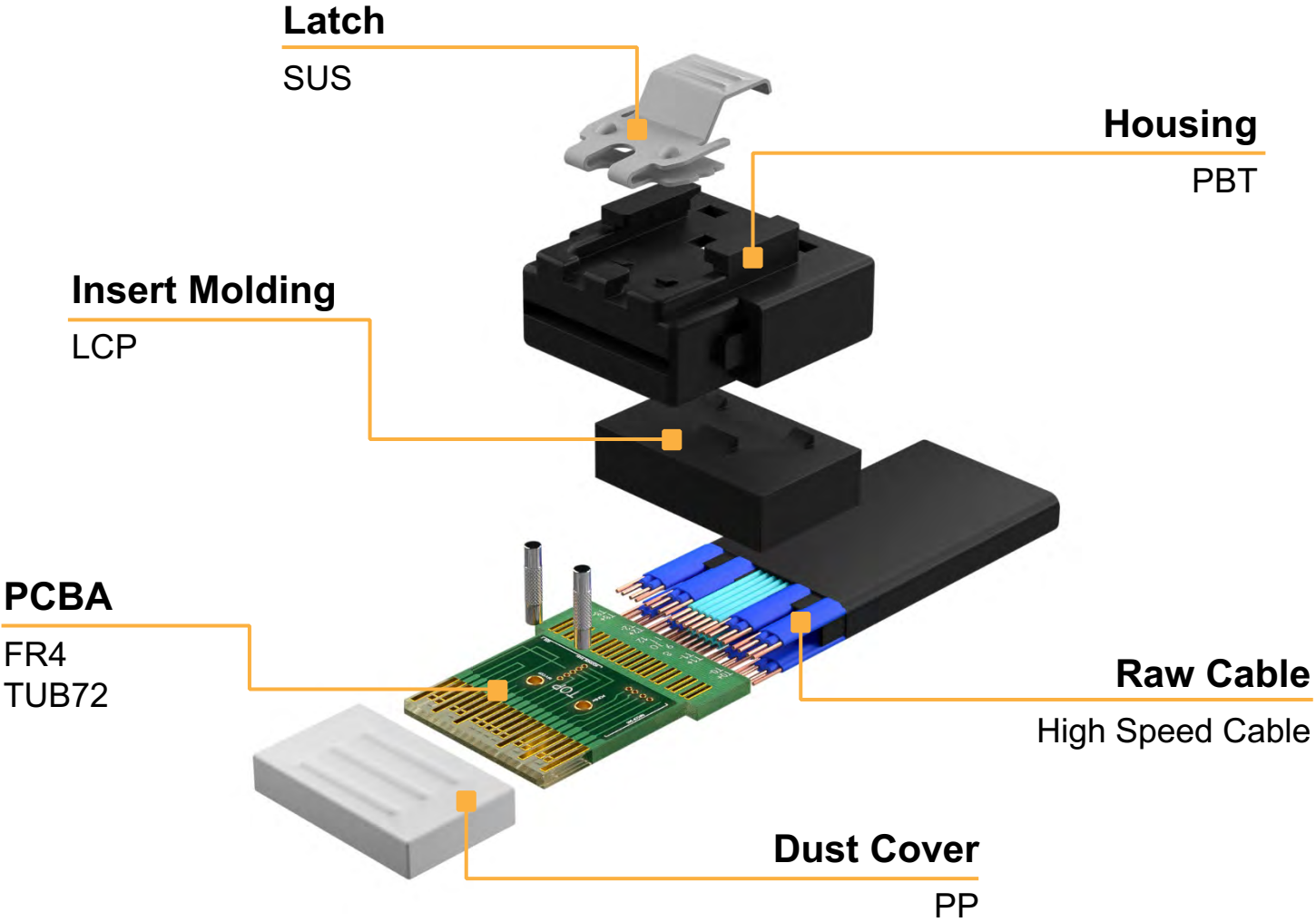


PN

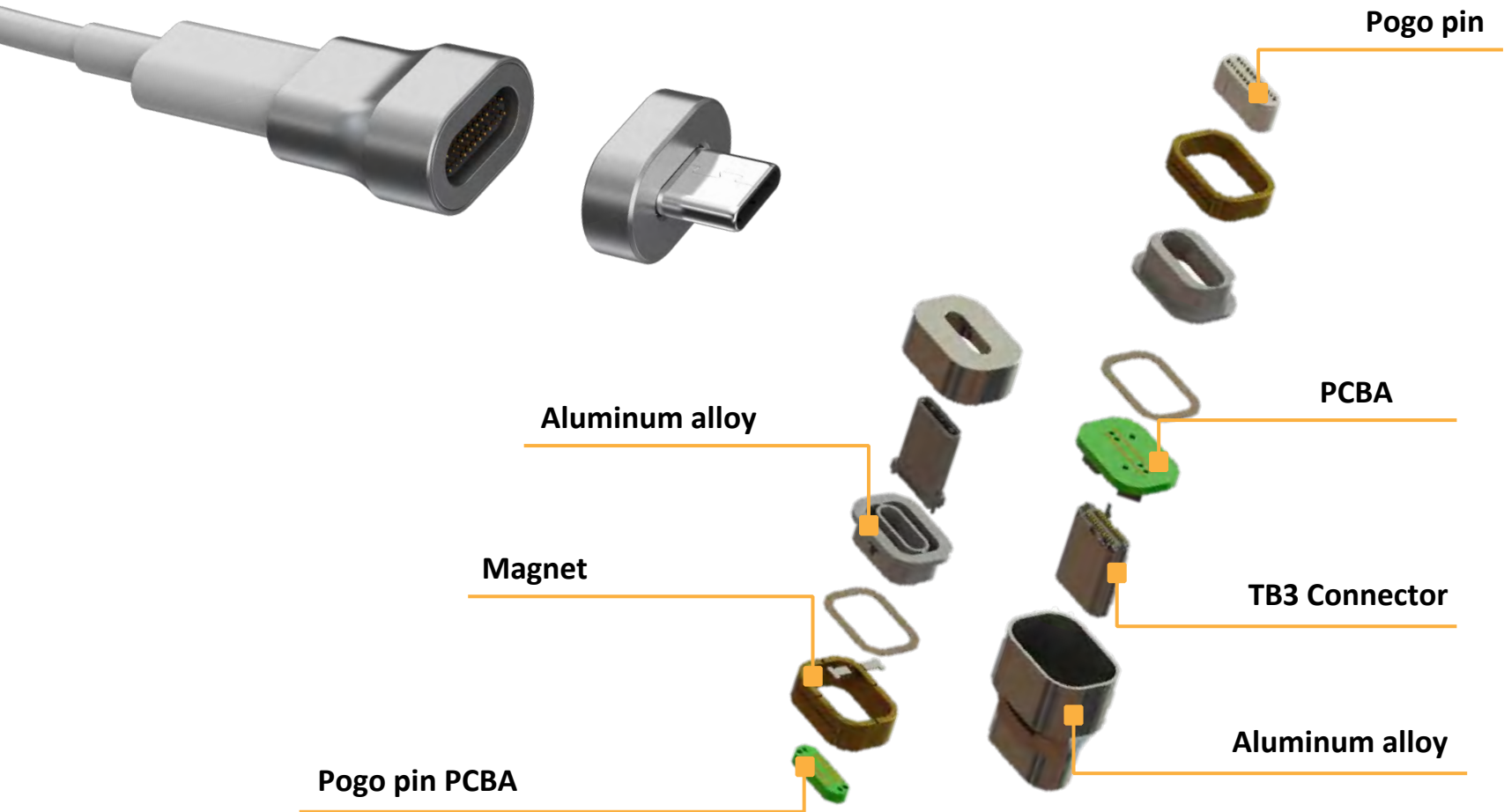
Length and AWG

- 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

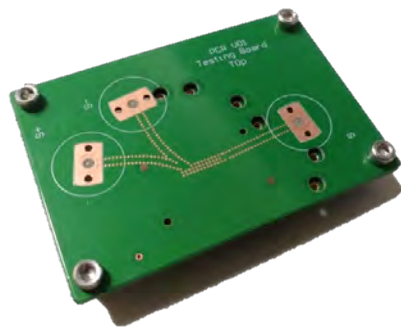


Thunderbolt 4 Magnetic Adapter

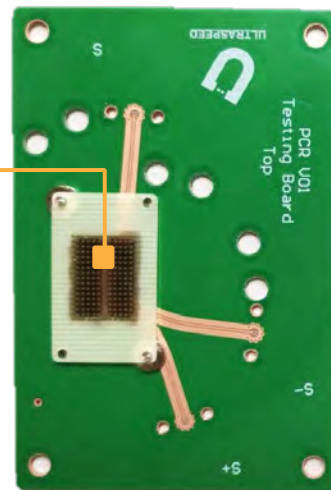


High Speed Module: Customization (PCR Test Fixture)

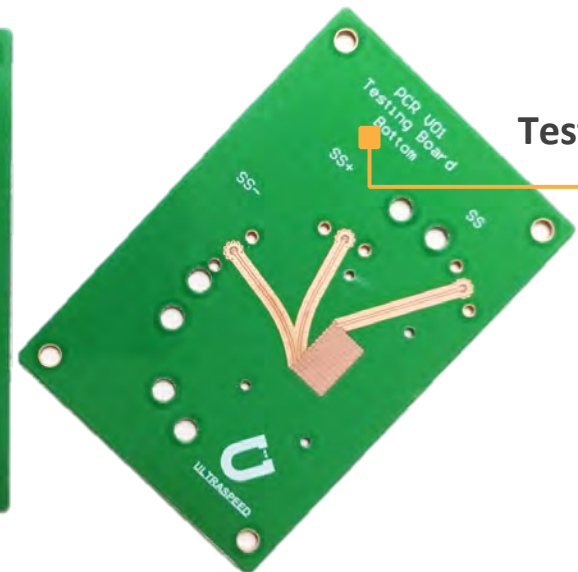
DDR4 IC



PCR



Test Fixture



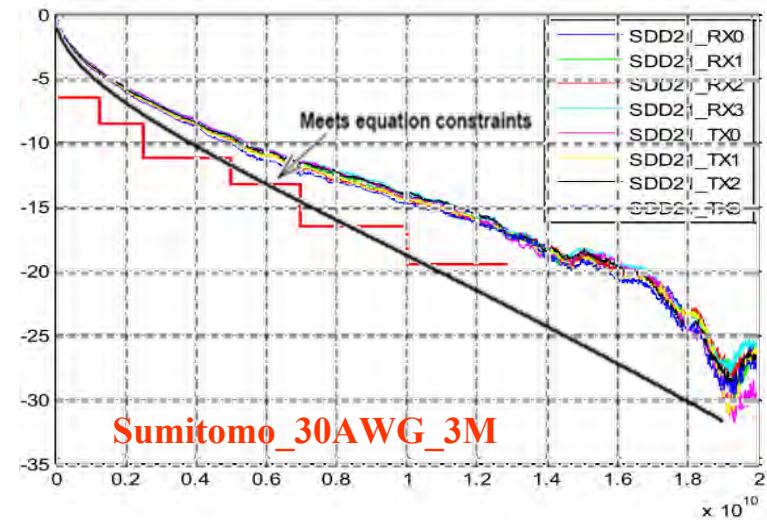
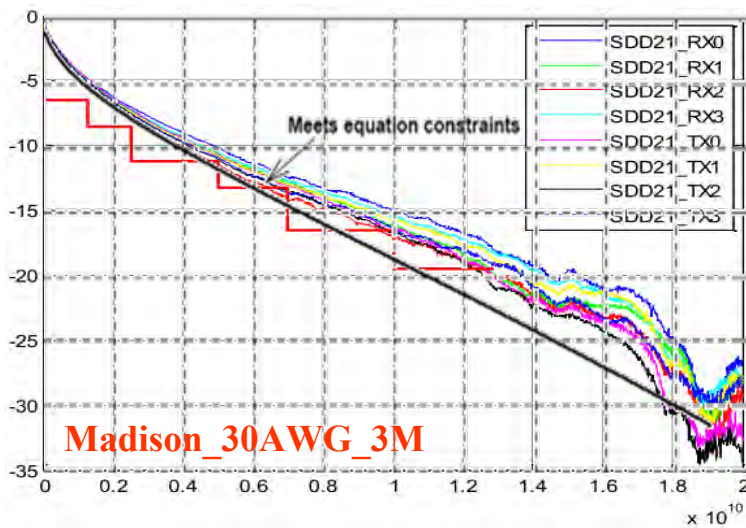
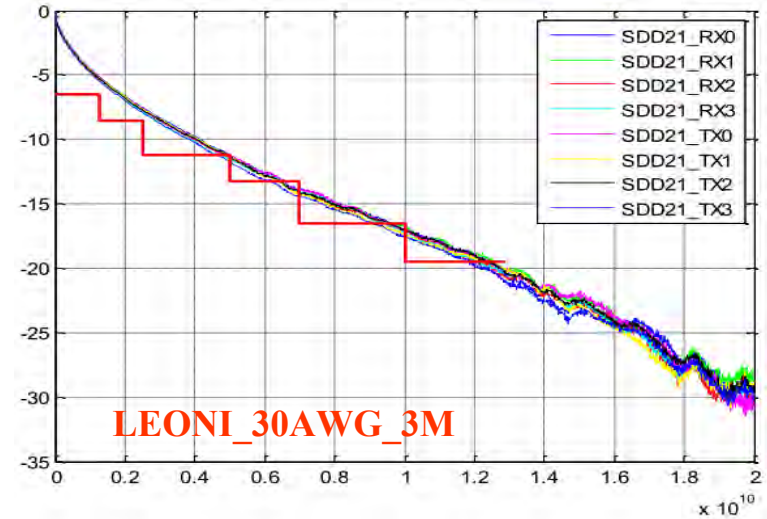
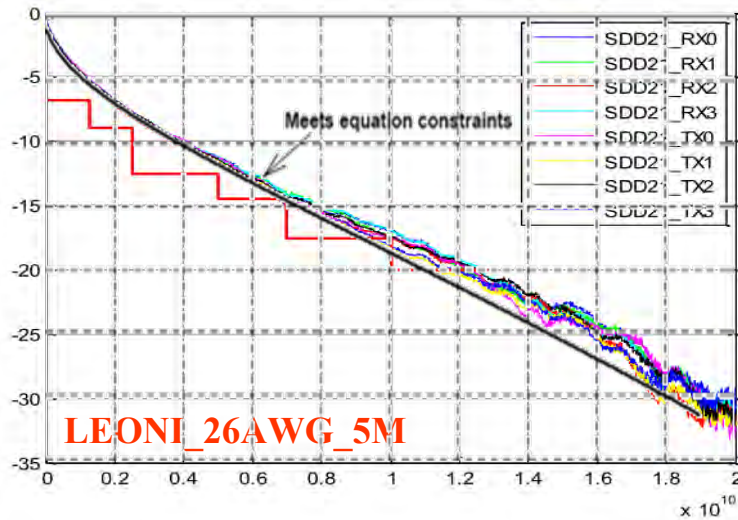
Certificate



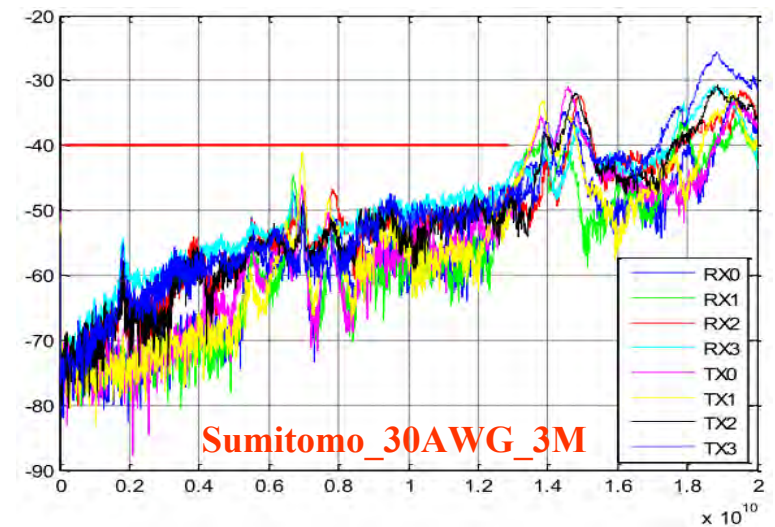
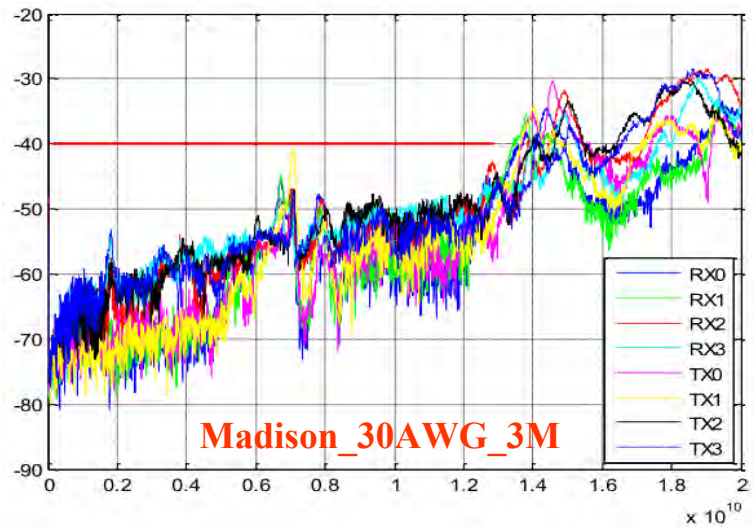
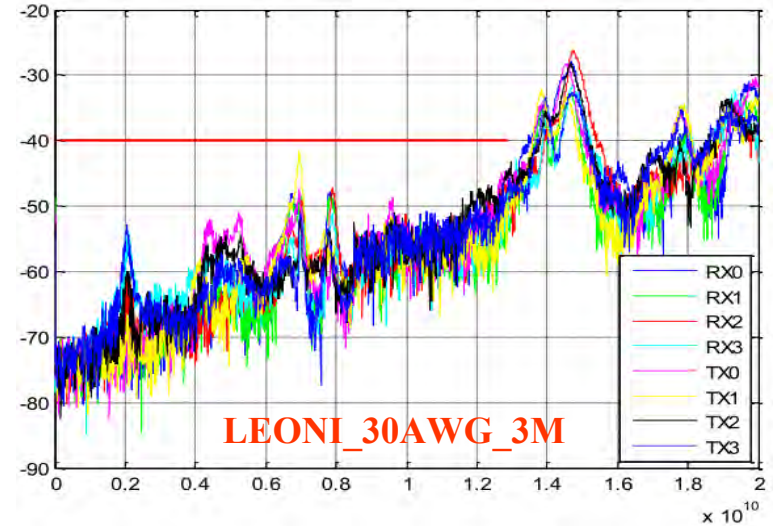
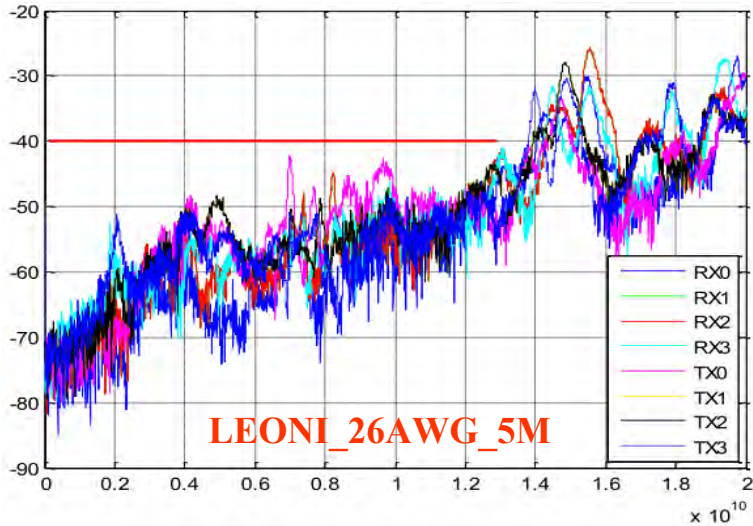
- ISO 9001
- ISO 14001
- ISO 14064
- IATF 16949
- IECQ QC080000



Appendix



Appendix



Appendix

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

18Hours

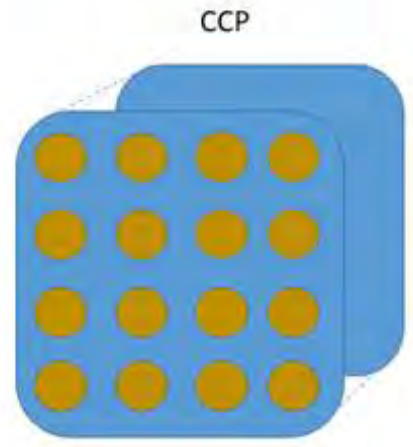
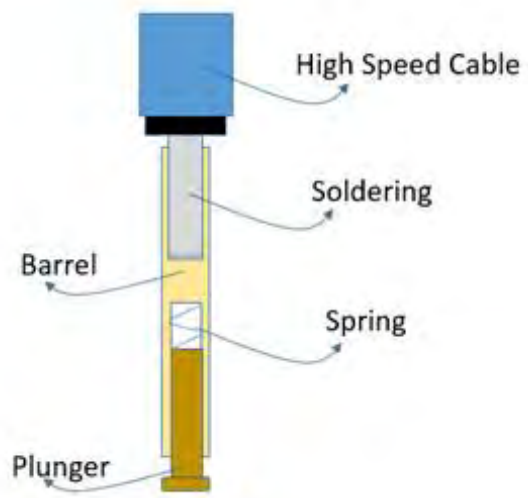
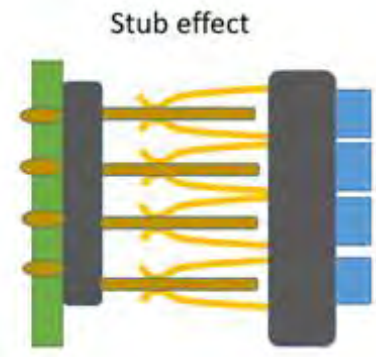
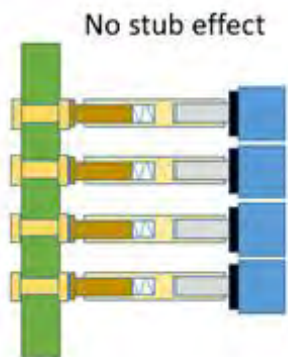
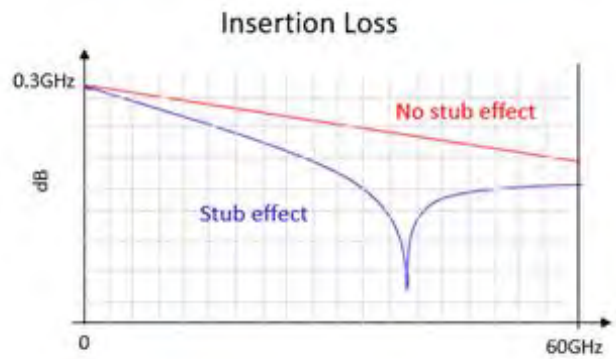
The screenshot shows the Spirent TestCenter Test Configuration window. The title bar indicates the file path '400g_2port_cfg_load99_20191008.tcc - Spirent TestCenter'. The main area displays the 'Spirent TestCenter™' logo and two panels: 'Reserve Ports' and 'Recent Files'. The 'Reserve Ports' panel includes options to connect to chassis, create port sets, and lists reserved ports: 192.168.0.100/1/1, 192.168.0.100/1/2, 192.168.0.100/1/3, 192.168.0.100/1/4, 192.168.0.100/1/9, 192.168.0.100/1/10, 192.168.0.100/1/11, and 192.168.0.100/1/12. The 'Recent Files' panel lists files like '400g_2port_cfg_load99_20191008.tcc' and 'TEST.tcc'. A red box highlights the system clock '18:51:11' in the taskbar.

No Traffic loss

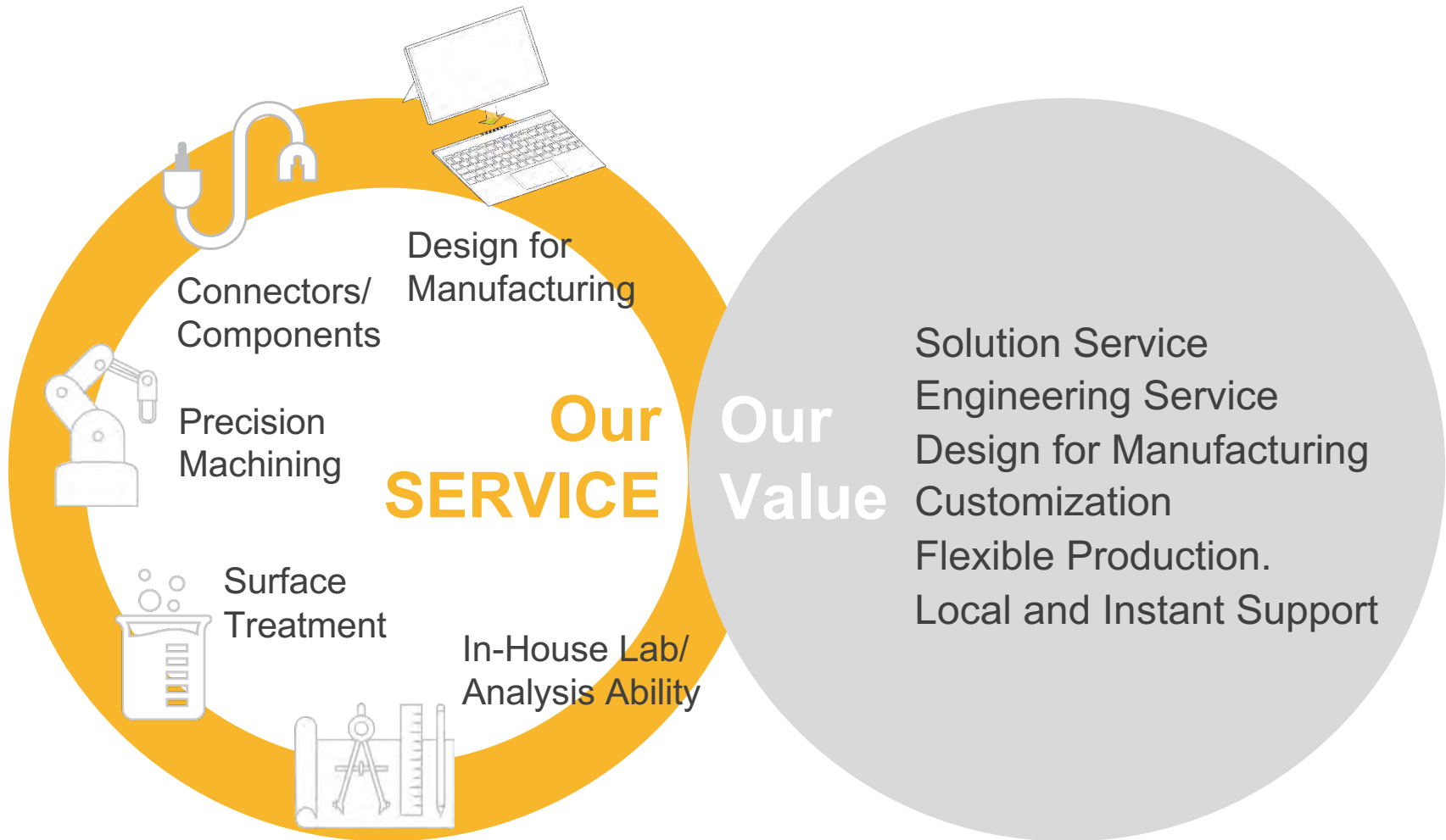
The screenshot shows the '400g_2port_cfg_load99_20191008.Results 1' window. It contains two main tables: 'Port Traffic and Counters > Basic Traffic Results' and 'Streams > Detailed Stream Results'. Both tables show zero dropped frames and zero percent dropped frame percent, indicating no traffic loss.

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	11,089,789,500,694	11,089,786,257,305	2,537,343,856,042,22E+16	2,537,343,095,671,38E+16	0	0	2,714,780,448
Port //1/9	11,089,789,500,694	11,089,786,257,305	2,537,343,856,042,22E+16	2,537,343,095,671,38E+16	0	0	2,714,780,448
	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

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 //1/1...	5,544,894,790...	5,544,894,790...	0	0.000	5,544,894,790,302	0
StreamBloc...	Port //1/1	Port //1/1...	5,544,894,790...	5,544,894,790...	0	0.000	5,544,894,790,302	0
StreamBloc...	Port //1/9	Port //1/1...	5,544,893,128...	5,544,893,128...	0	0.000	5,544,893,128,653	0
StreamBloc...	Port //1/9	Port //1/1...	5,544,893,128...	5,544,893,128...	0	0.000	5,544,893,128,652	0



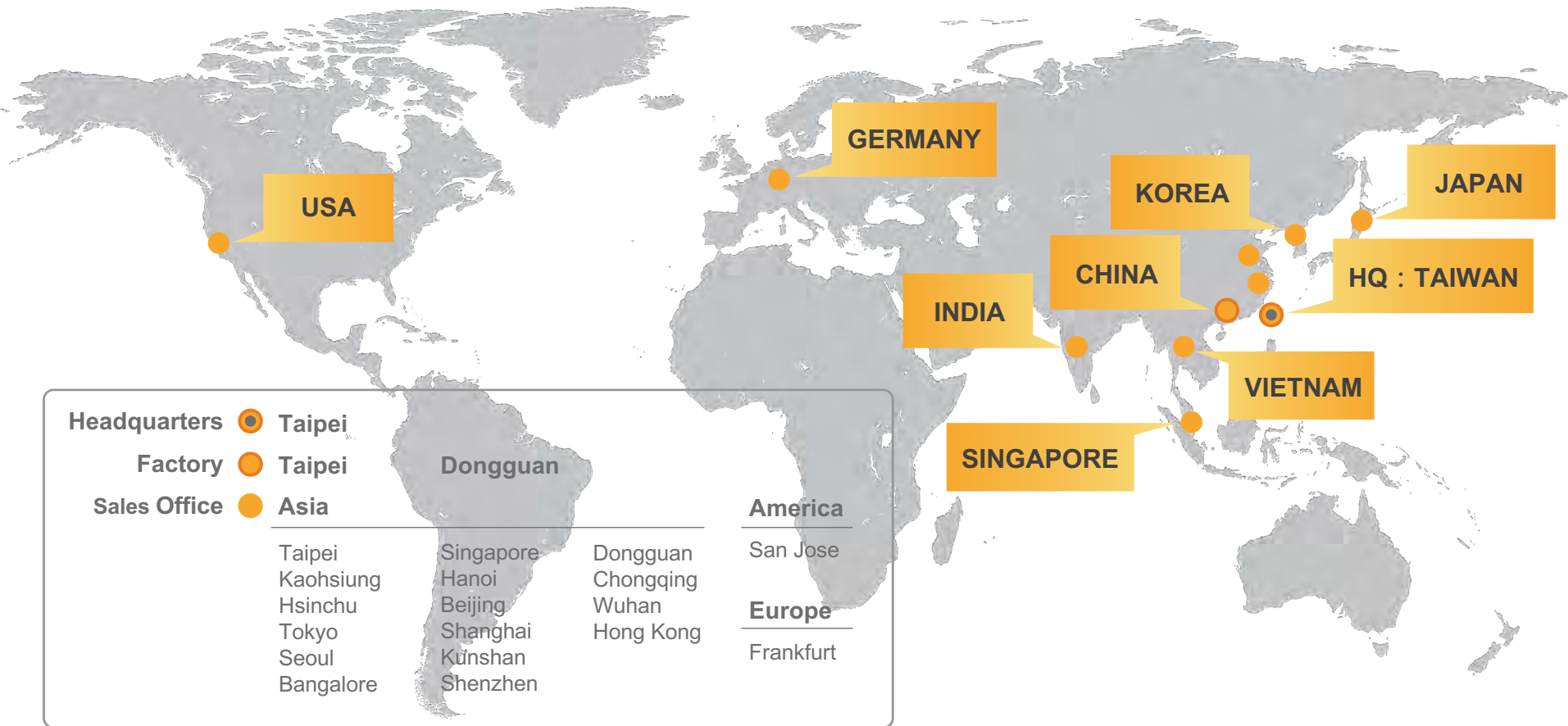
Create Value for Customers



History

-
- 2020 New Product Line: High Speed Network Cable
 - 2020 Korea Subsidiary established.
 - 2019 Japan Singapore Sub and India Office established.
 - 2018 Germany Subsidiary established.
 - 2016 Industrial Connector & Crown Spring Connector.
 - 2014 CCP US Subsidiary established.
 - 2012 Set up 100k class clean room production line.
 - 2006 IC Testing
 - 2003 Listed in Taiwan Stock Market (TW.6217).
 - 2002 Pogo Pin Connector
 - 2001 Dongguan CCP Contact Probes Co., Ltd established.
 - 1986 ICT Testing
 - 1986 CCP Contact Probes Co., Ltd. Established.

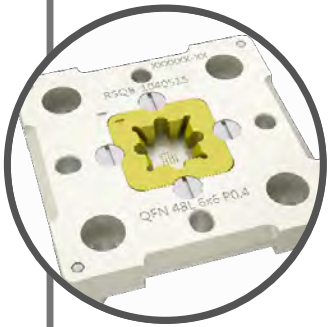
CCP Contact Probes



Selected Customers:



Product Portfolio



CCP - Testing

IC Testing Probe
IC Probe Head
PCB Testing Probe
MEMS Probe



CCP - High Current

13A~250A

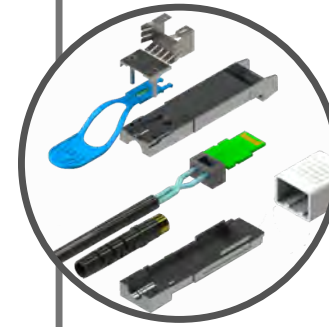
Electronic Vehicle
High Current Conn.



CCP - Connector

1A~13A

Pogo Pin Conn.
Waterproof Conn.
Magnetic Conn.



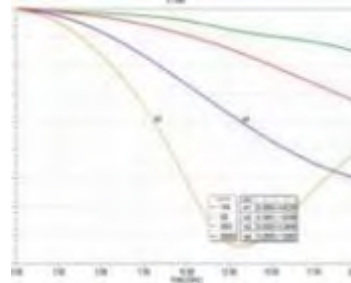
CCP – High Speed

25Gbps~100Gbps

Data Networking
Transceiver

Core Advantages

High Frequency Simulation



HFSS

Material Development

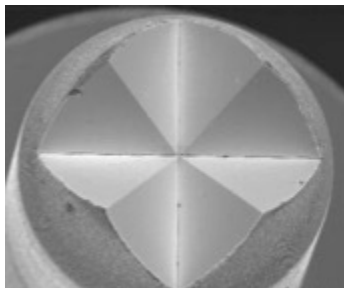


Plating Lab

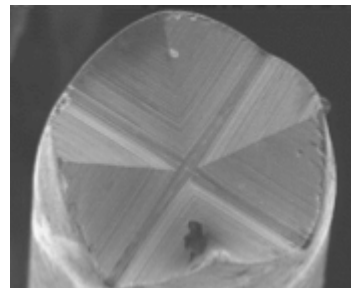


Self-owned
Plating Factory

Mirror Process

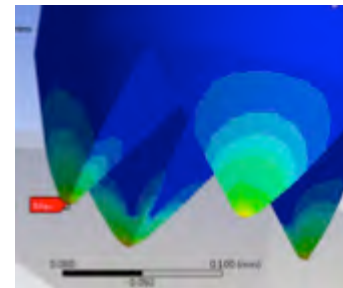


CCP's Product



Other Provider

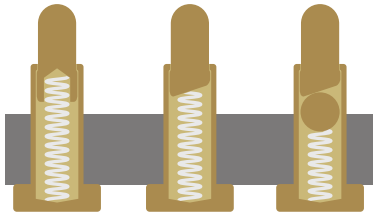
Finite Element Analysis



ANSYS

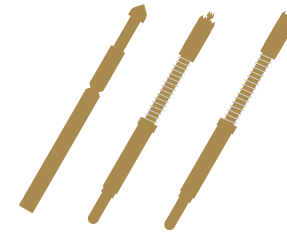
Manufacturing Capacity

Pogo Pin Connectors



60 Mio Pins / Month

Testing Probes



2 Mio Pins / Month



Verification Ability

Testing Items

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

Quality Management

Quality System

ISO 9001: 2015

Quality Management Systems

ISO 14001: 2015

Environmental Management Systems

IATF 16949: 2016

Automotive Quality Management System

QC 080000

Hazardous Substance Process Management

Quality Assurance



Testing Equipment

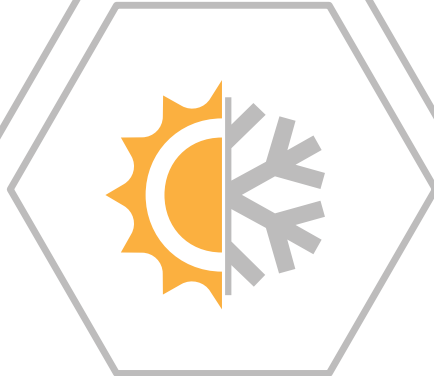
Rated Current
Max Rating : 1000Amp



Waterproof
Test Level: IPX7 Up



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



Vibration
Frequency : 3500Hz max
Acceleration : 50G max



Social Responsibility



Summer camp for employees' children.



Home visit to employees around the world.



CCP offers tuition scholarship for employees' children.

C.C.P.



Q&A



www.ccpcontactprobes.com
ccp_service@pccp.com.tw