

CHANT SINCERE CO., LTD.



# Telecom

Slimline

- OCulink
- Mini-SAS HD



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#### CHANT SINCERE CO., LTD.





# **About Chant Sincere**

**Chant Sincere Co., Ltd.** was set up in 1985, with the management concept of "Integrity, Innovative, Quality, Sustainability" to design and manufacture connector and cable. Keep developing new innovative products and integrating vertically from R&D, tooling, assembly and quality control to meet the demands (quality-cost/delivery) from customers. Chant Sincere Co., Ltd. has been constructing several of product families to provide a total solution to customers.

The connector and cable products are widely used in many different applications, such as Computing, Industrial & Automation, Telecommunication, Automotive, Waterproof, Consumer and Medical Industry.

**Chant Sincere** won the "National Bedrock Award" & "Small Giant Award" from Taiwan Connector maker competition and got many "Best Supplier Awards" from Global customers. We are focusing on improving our design and manufacture technology, and we have been applying for a lot of international patents for our products including I/O connector, Board to Board Connector, Waterproof Connector, Industrial Connector, Automotive Connector, Memory Card Connector and Adaptor, High Speed connector/cable (USB3.1), Audio & Video connector and cable (HDMI, DisplayPort)...etc.

Chant Sincere Co., Ltd. has been growing up as a global professional manufacturer for connector and cable.

#### The Core Competence of Chant Sincere Co., Ltd. including.

- Over 40 Years Manufacture Experience
- National Awards Rising Sun Awards/Best Supplier Awards
- Vertical Integration (Design, Tooling, Manufacturing, Test)
- Automation Capability
- Precise Tooling Center
- Wide Range of Product Line
- ODM/OEM Capability
- Customized Capability
- Quality System (ISO, IATF)
- Systematic Testing Process

#### About Chant Sincere

t Supplier Awards







# **Quality Systems**

Chant Sincere (hereinafter referred to as C.S.) Quality Assurance department meets our customers' quality requirements by practicing continual improvement in our quality assurance processes and increasing customers' satisfaction in the quality of our products.

The effectiveness of QA operation is certified by well-known organizations such as ISO9001 Quality Assurance Management System, ISO 14001 Environmental Management System, ISO/IATF 16949 for Automobile Industry Quality Management System, and ISO13485 Medical Devices Quality Management System, C.S. integrated supply chain and devoted staff has enabled us to build a solid foundation and core capability to better serve our customers. It is principal to always meet and exceed customer expectation by providing superior products and services. Our ultimate goal is to create value for our customers by building collaborative and mutually beneficial relationships.



#### Quality Systems



#### ISO 14064-1 / ISO 9001 / ISO 14001 / IATF 16949 / ISO 13485





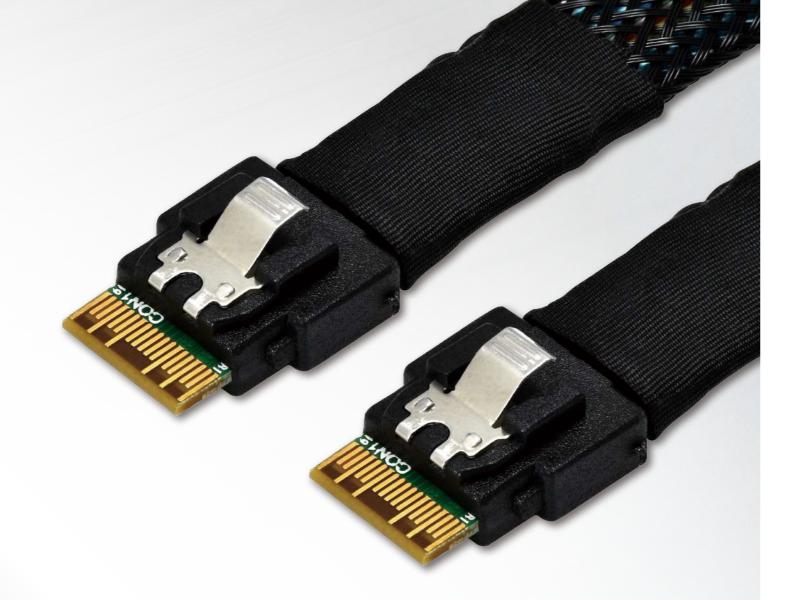
# **Competencies & Technology**

The R&D Center at Chant Sincere leads the industry in research, design, and manufacturing of numerous key parts. This center has successfully developed for both wired and wireless solutions for computer peripherals, communication systems, and automobiles/industrial/medical equipment. Our solid R&D team formed a strong foundation in advance manufacturing technology and superior quality control that also enabled high value adding service for customers.

USB type C connector is an example of the fruits of our research. This miniature and unidirectional interface provides many useful functions such as lighting data transfer rate up to 10 Gbps, DP ALT Mode high-definition video signal support, and brilliant 100W charging capability. Chant Sincere advanced the research further into higher specs such as USB 3.2 and USB 4.0 and offers customized solution for several of industrial applications. We delivered comprehensive solutions in bridging the diverse need for new interface and solve on-going product design issues for customers.

QSFP-DD is an ultra-fast interface that transmits data at 400Gbps speed. At this speed, stringent requirement for signal integrity and operating temperature is inevitable which imposed huge challenges for the industry. At Chant Sincere, we implemented comprehensive computational software, state of art measuring equipment and eminent R&D capability to aid the solution delivering process. The analysis process includes simulation under CST MSW (Time Domain Simulation), ANSYS HFSS (Frequency Domain Simulation) for signal integrity as well as real-time measurement using test boards and PNA (up to 43.5GHz) to deliver quality reports for signal integrity (S-parameter, Gain compression, conversion gain/loss, noise level). We further performed simulation of its operating temperature using Icepak (Heat transfer and fluid flow simulator). This enabled the performance optimization for heat dissipation solution. With the above R&D skills we successfully delivered the desired professional service within the shortest time frame for our customers.

#### Competencies & Technology



# Slimline



## **Slimline Application**

Slimline is an upgraded interface from Mini-SAS. With downsized form factor can save more space for new storage equipment which has dimension limit to cover more storage units.

#### Application

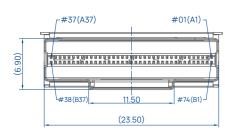
- Server
- Switch
- Storage

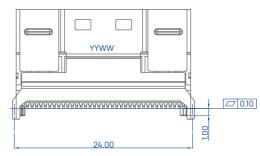
# **Product Characteristics**

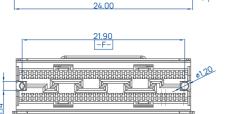
- Small and thin form factor
- Pitch 0.6mm and 4x, 6x, 8x, 12x options
- Being able to use in internal and external application
- Meet SAS 4.0(24Gbps)

# Slimline 8i Vertical Connector

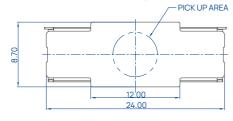


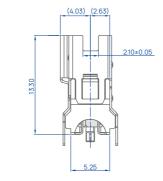


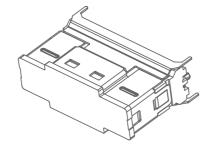








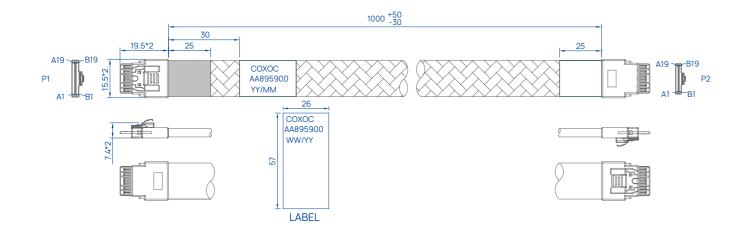




•	
Part No.	5511101XXX
Material	
Contact	15µin Min H
Cable Overmold	Thermoplas
Latch	Stainless St
Raw Cable	Tinned Cop
	Propylene F
	Tinned Cop
	Polyester T
Electrical / Mechanical	
Impedance	85 Ω, Option
Data Rate	24Gbps Per
Within Pair Skew	Max. 10 ps/
Rated Voltage	30 V
Rated Current	0.5 A Per Pii
Durability	50 Mating C
Mating Force	Connector
Un-Mating Force	Connector
Environmental	
Storage Temperature	-20°C to 80
Operating Temperature	0°C to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Comp
	1

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teel
oper Conductor 32 AWG
Polymers Dielectric
oper Drain Wire
ape Jacket
nal 100 Ω
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m
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Cycles
with Latch Feature Disabled:31 N Max.
with Latch Feature Disabled:24 N Max.
0°(
2
pliant

# Slimline 4i STR to 4i STR Cable



 P1
 P2

 GND
 B19
 A19
 GND

 TX3 B18
 A18
 RX3 

 TX3+
 B17
 A17
 RX3+

 GND
 B16
 A16
 GND

 TX2+
 B14
 A15
 RX2 

 GND
 B13
 A13
 GND

 SB 6A
 B10
 A12
 SB 6A

 SB 2A
 B11
 A10
 SB 8A

 SB 1A
 B9
 A9
 SB 1A

 SB 0A
 B8
 A7
 GND

 TX1+
 B5
 A5
 RX1 

 GND
 B41
 A4
 GND

 TX1+
 B5
 A5
 RX1 

 GND
 B4
 A4
 GND

 TX0 B3
 A2
 RX0+

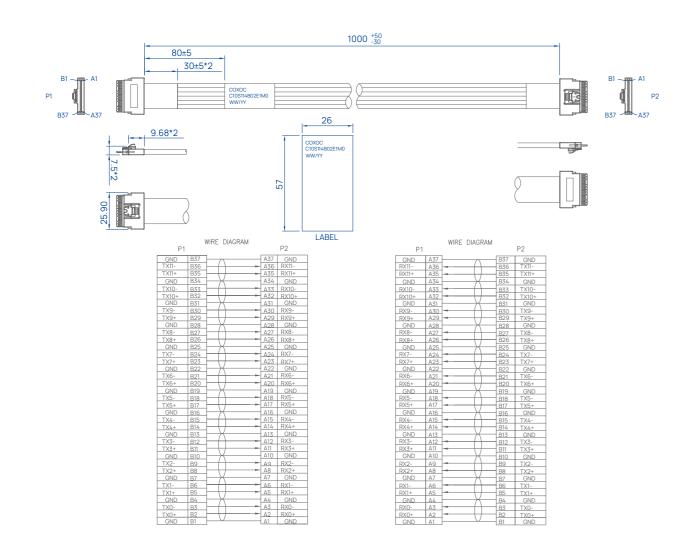
 GND
 B1
 A1
 GND

P1				P2
GND	A19		B19	GND
RX3-	A18	$\left  - \right $	B18	TX3-
RX3+	A17		B17	TX3+
GND	A16	<u> </u>	B16	GND
RX2-	A15		B15	TX2-
RX2+	A14		B14	TX2+
GND	A13		B13	GND
SB 5A	A12	1	B12	SB 5A
SB 4A	A11	1	B11	SB 4A
SB 9A	A10		B10	SB 9A
SB 3A	A9	1	B9	SB 3A
SB 7A	A8		B8	SB 7A
GND	A7		B7	GND
RX1-	A6	1 <u> </u>	B6	TX1-
RX1+	A5		B5	TX1+
GND	A4	<u> </u>	B4	GND
RX0-	A3	<u>├</u>	B3	TXO-
RX0+	A2		B2	TX0+
GND	A1	}V	B1	GND

Specification		
Part No.	1510102XXXX	
Material		
Contact	15µin Min Hard Gold Plated Contact	
Cable Overmold	Thermoplastic Resin UL94V-1	
Latch	Stainless Steel	
Raw Cable	Tinned Copper Conductor 32 AWG	
	Propylene Polymers Dielectric	
	Tinned Copper Drain Wire	
	Polyester Tape Jacket	
Electrical / Mechanical		
Impedance	85 Ω, Optional 100 Ω	
Data Rate	24Gbps Per Channel	
Within Pair Skew	Max. 10 ps/m	
Rated Voltage	30 V	
Rated Current	0.5 A Per Pin	
Durability	50 Mating Cycles	
Mating Force	Connector with Latch Feature Disabled:21 N Max.	
Un-Mating Force	Connector with Latch Feature Disabled:18 N Max.	
Environmental		
Storage Temperature	-20°C to 80°C	
Operating Temperature	0°C to 80°C	
Flammability Rating	VW-1	
Safety Certificates	RoHS Compliant	

# Slimline 8i STR to 8i STR Cable





Part No.	1510103XXX
Material	
Contact	15µin Min Ha
Cable Overmold	Thermoplas
Latch	Stainless St
Raw Cable	Tinned Cop
	Propylene P
	Tinned Cop
	Polyester Ta
Electrical / Mechanical	
Impedance	85 Ω, Optior
Data Rate	24Gbps Per
Within Pair Skew	Max. 10 ps/r
Rated Voltage	30 V
Rated Current	0.5 A Per Pir
Durability	50 Mating C
Mating Force	Connector
Un-Mating Force	Connector
Environmental	
Storage Temperature	-20°C to 80
Operating Temperature	0°C to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Comp

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stic Resin UL94V-1
teel
oper Conductor 32 AWG
Polymers Dielectric
oper Drain Wire
ape Jacket
nal 100 Ω
r Channel
m
n
Cycles
with Latch Feature Disabled:31 N Max.
with Latch Feature Disabled:24 N Max.
O°C
2
pliant

# SlimSAS

SlimSAS Product List				
	4i	8i		
Straight				
Right Angle				

# **SlimSAS Low Profile**

SlimSAS Low Profile Pr			
		4i	
Straight			
Right Angle			and the second
Right Side			
Left Side			





# **OCulink**



# **OCulink Application**

Based on PCI-SIG, OCulink can transmit multitude protocol in different storage applications. It also has small form factor suitable for future design with higher port density.

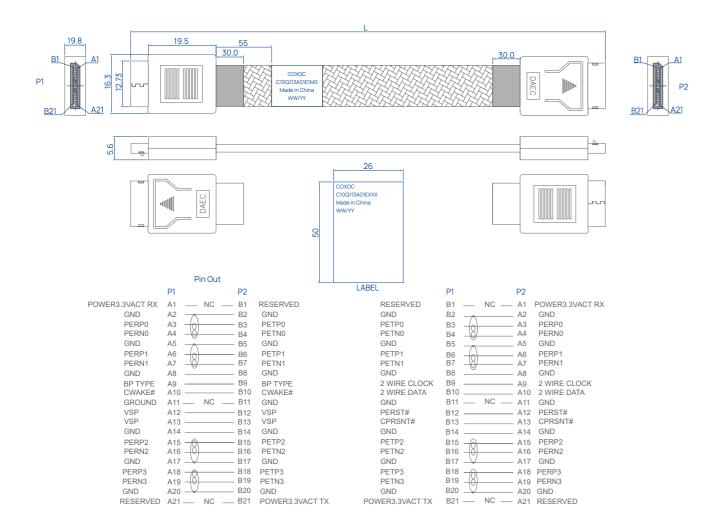
# Application

- Server
- Switch
- Storage

#### **Product Characteristics**

- Meet PCle Gen 4(16GTbps), SAS 4.0(24Gbps), SATA
- Pitch 0.5mm
- Internal and External Solution
- locking function with latch

# OCulink 4i STR to 4i STR Cable



Dert No	15101010000	
Part No.	1512101XXXX	
Material		
Contact	30µin Min Hard Gold Plated Contact Pads	
Cable Overmold	Thermoplastic Resin UL94V-0	
Latch	Stainless Steel	
Raw Cable	Tinned Copper Conductor 32 AWG	
	Propylene Polymers Dielectric	
	Tinned Copper Drain Wire	
	Polyester Tape Jacket	
Electrical / Mechanical		
Impedance	85 Ω, Optional 100 Ω	
Data Rate	24Gbps Per Channel	
Within Pair Skew	Max. 10 ps/m	
Rated Voltage	30 V	
Rated Current	0.5 A Per Pin	
Durability	250 Mating Cycles	
Mating Force	Connector w/Active Latch : 8 ~ 40 N	
Un-Mating Force	Connector w/Passive Latch : 10 ~ 40 N	
	8 ~ 25 N	
Environmental		
Storage Temperature	-20°C to 80°C	
Operating Temperature	0°C to 80°C	
Flammability Rating	VW-1	
Safety Certificates	RoHS Compliant	

# **OCulink Series**

Product List	Description	Part No.
	OCulink to Oculink 4i STR Cable 30C, 35C, 43C, 70C, 91C, 1M0	1512101XXXX
	OCulink 4i R/A to OCulink 4i STR Cable 55cm	1512201XXXX
	OCulink 4i STR to Mini-SAS HD 8i Cable 70cm	1512301XXXX
	OCulink 4i STR to SlimSAS 4i STR Cable 175mm	1512401XXXX





# **Mini-SAS HD**



# **Mini-SAS HD Application**

Mini-SAS HD is new interface for storage application and it can take 6/12/14Gbps bandwidth. The efficiency is better than SAS 2.1 and 3.0. For connector side, it has 4x, 8x, 16x and for cable side, it has 4x and 8x.

#### **Application**

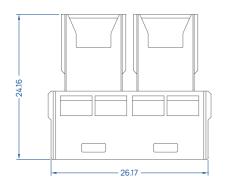
- Server
- Switch
- Storage
- RAID System

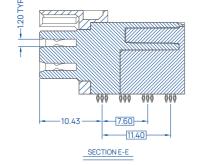
### **Product Characteristics**

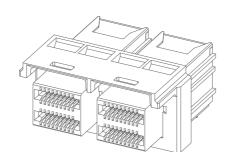
- Internal and external solution
- Same form factor for 6Gbps and 12Gbps
- Meet SAS 2.1 and 3.0
- Compatible with mini SAS

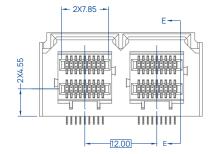
# Mini-SAS HD Receptacle R/A Connector

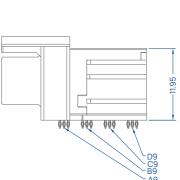


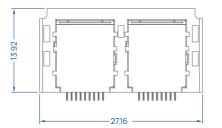








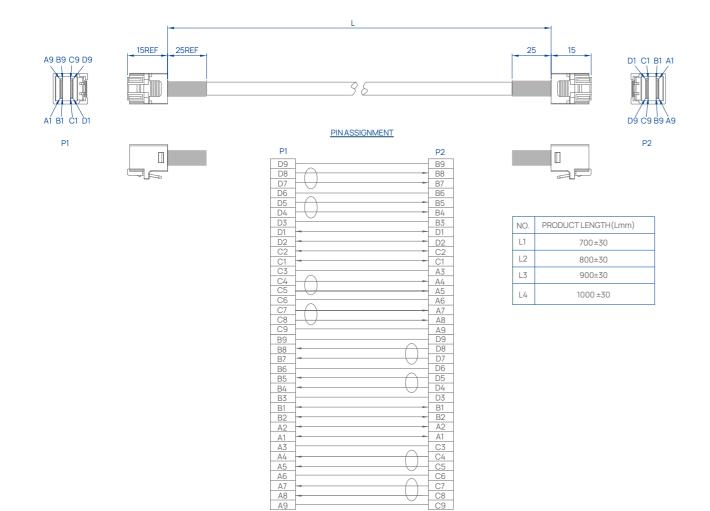




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Part No.	55121010010
Material	
Contact	15µin Min Hard Gold Plated Contact Pads
Connector Housing	Thermoplastic Resin UL94V-0
Active Latch	Stainless Steel
Raw Cable	Tinned Copper Conductor 30 AWG
	Propylene Polymers Dielectric
	Tinned Copper Drain Wire
	Polyester Tape Jacket
Electrical / Mechanical	
Impedance	85 Ω, Optional 100 Ω
Data Rate	12Gbps Per Channel
Within Pair Skew	Max. 10 ps/m
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	50 Mating Cycles
Mating Force	150 N Maximum
Un-Mating Force	250 N Maximum
Wrenching Test	Max 10 N for Each Axis Direction
Environmental	
Storage Temperature	-20°C to 80°C
Operating Temperature	0°C to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant

# Mini-SAS HD 4i STR to 4i STR Cable





D5 D4 D3

B1 B2 A2 A1 C3

C4 C5 C6 C7 C8 C9

 $\cup$  $\overline{\bigcirc}$ 

Part No.	1511105XXXX	
Material		
Contact	15µin Min Hard Gold Plated Contact Pads	
Connector Housing	Thermoplastic Resin UL94V-0	
Active Latch	Stainless Steel	
Raw Cable	Tinned Copper Conductor 30 AWG	
	Propylene Polymers Dielectric	
	Tinned Copper Drain Wire	
	Polyester Tape Jacket	
Electrical / Mechanical		
Impedance	85 Ω, Optional 100 Ω	
Data Rate	12Gbps Per Channel	
Within Pair Skew	Max. 10 ps/m	
Rated Voltage	30 V	
Rated Current	0.5 A Per Pin	
Durability	250 Mating Cycles	
Mating Force	150 N Maximum	
Un-Mating Force	250 N Maximum	
Environmental		
Storage Temperature	-20°C to 80°C	
Operating Temperature	0°C to 80°C	
Flammability Rating	VW-1	
Safety Certificates	RoHS Compliant	

# **Mini-SAS HD Series**

Product List	Description	Part No.
	Mini-SAS HD to Mini-SAS HD 4i STR Cable	1511106XXXX
	Mini-SAS HD 4i STR to 4i R/A Cable	1511001XXXX
	Mini-SAS HD 8i STR to 4i STR Cable	1511107XXXX
	External Mini-SAS HD 4i STR to 4i STR Cable	15111080010







7F-2, No 188, Sec. 3, Datong Road
Xizhi, New Taipei City 22103, Taiwan
⊕ www.coxoc.com.tw
\$ +886-2-8647-1251
> service@coxoc.com.tw



www.coxoc.com.tw/er