



CHANT SINCERE CO., LTD.



Telecom

- ▮ SFP
 - ▮ QSFP
 - ▮ OSFP
- Cable

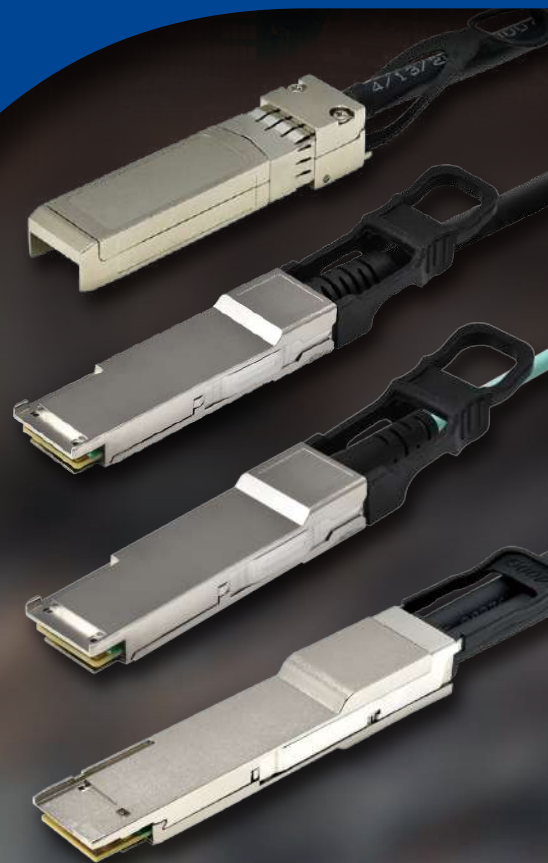
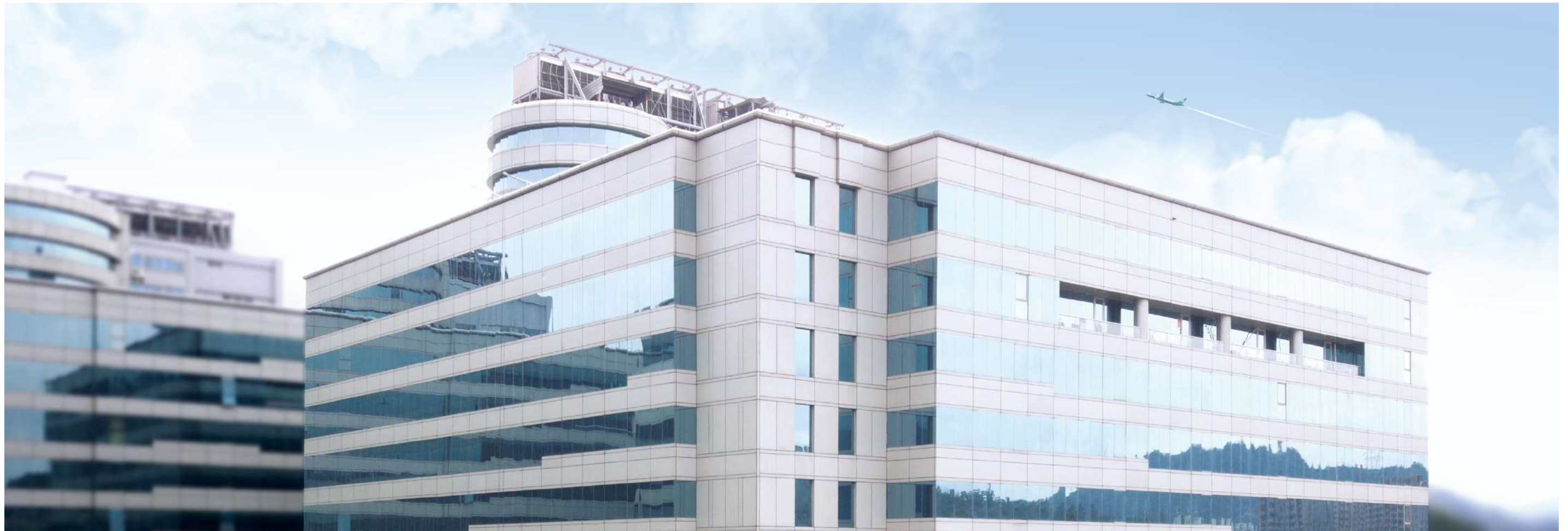


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About Chant Sincere

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.

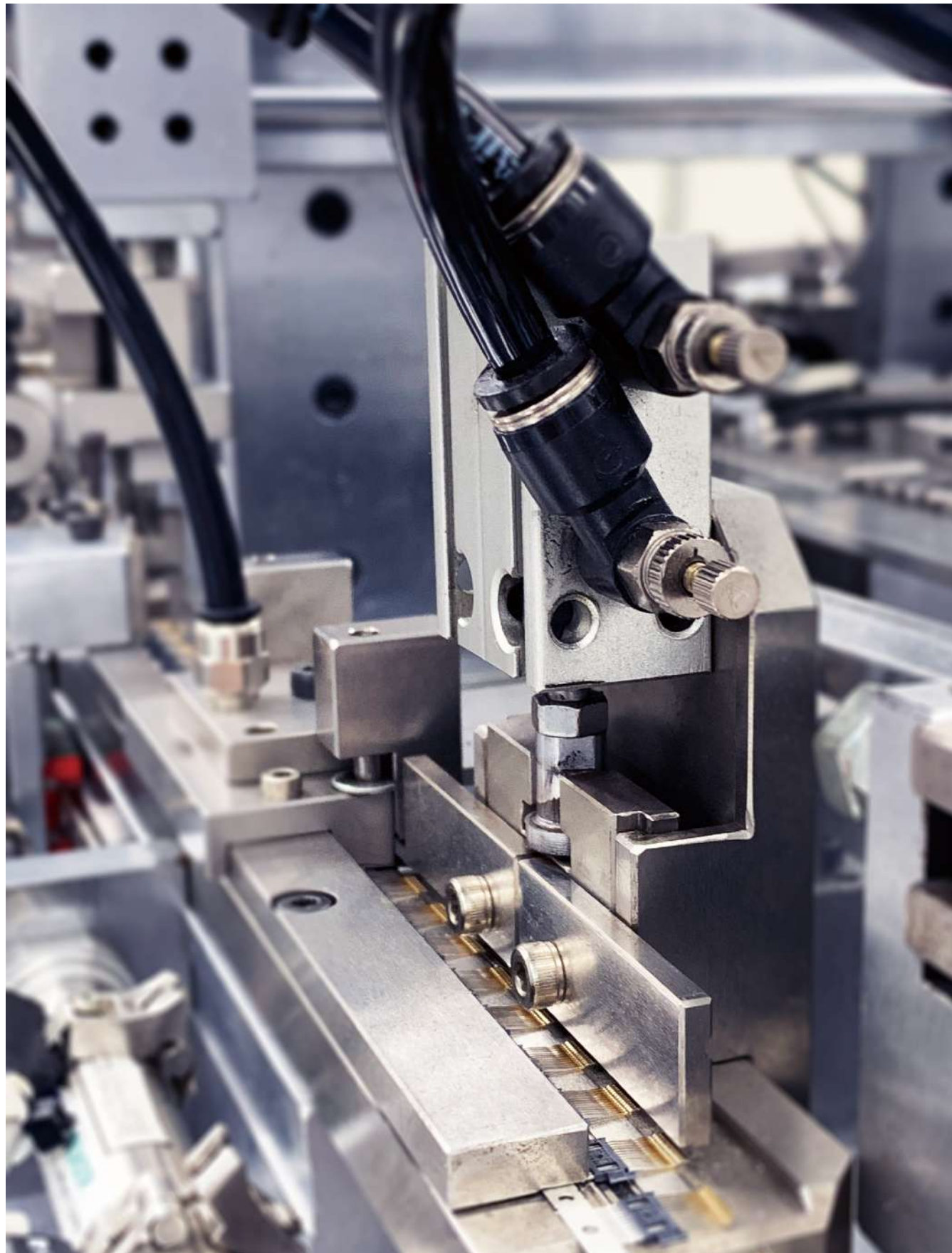
The connector and cable products are widely used in many different applications, such as Computing, Industrial & Automation, Telecommunication, Automotive, Waterproof, Consumer and Medical Industry.

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



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.



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.



SFP

SFP Application

SFP (Small form-factor pluggable) can transfer 2.5G to 10G data rate for Ethernet application. With upgraded level, it can speed up to 28Gbps or 56Gbps with PAM4 solution.

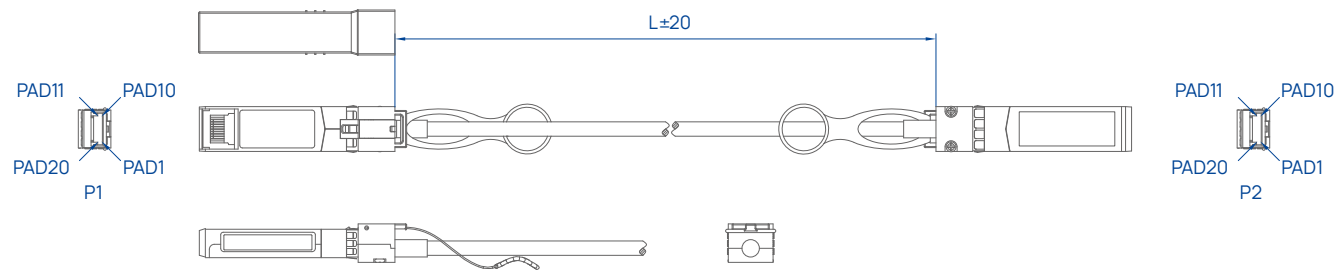
Application

- Server
- Switch
- Storage
- Router

Product Characteristics

- Up to 28Gbps and 56Gbps
- Good EMI Shielding
- Hot plugging

SFP+ Passive Cable



High Speed Signal				Low Speed Signal& Power			
P1			P2				
Pad	Signal		Pad	Signal			
12	RX1n		19	TX1n			
13	RX1p		18	TX1p			
18	TX1P		13	RX1P			
19	TX1N		12	RX1N			
GND Group			GND Group				
GND Group 01, 09, 10, 11, 14, 17, 20			GND Group 01, 09, 10, 11, 14, 17, 20				
Connector Shell			Connector Shell				

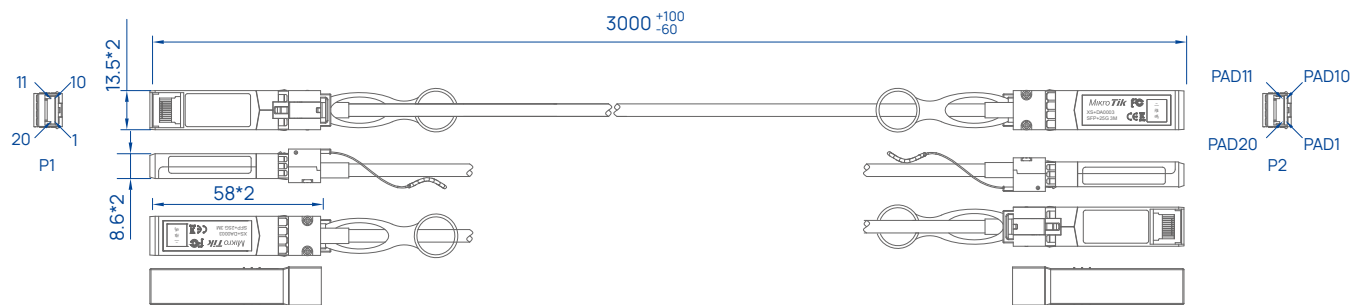
Low Speed Signal& Power				
Pad	Signal			
02	TX_FAULT			
03	TX_DISABLE			
04	MOD-DEF2			
05	MOD-DEF1			
06	MOD-DEF0			
07	RATESELE			
08	LOS			
15	VCCR			
16	VCCT			

Low Speed Signal& Power				
Pad	Signal			
02	TX_FAULT			
03	TX_DISABLE			
04	MOD-DEF2			
05	MOD-DEF1			
06	MOD-DEF0			
07	RATESELE			
08	LOS			
15	VCCR			
16	VCCT			

Specification

Part No.	1521101XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Shell	Zinc Alloy
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical / Mechanical	
Impedance	100 Ω
Data Rate	10 Gbps Per Channel, Quad
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	50 Mating Cycles
Mating Force	18 N Max.
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant

SFP28 Passive Cable



High Speed Signal			
P1		P2	
Pad	Signal	Pad	Signal
12	RX1n	19	TX1n
13	RX1p	18	TX1p
18	TX1P	13	RX1P
19	TX1N	12	RX1N
GND Group	GND	GND Group	GND
GND Group 01, 09, 10, 11, 14, 17, 20		GND Group 01, 09, 10, 11, 14, 17, 20	
Connector Shell		Connector Shell	

Low Speed Signal & Power	
P1	
Pad	Signal
02	TX_FAULT
03	TX_DISABLE
04	MOD-DEF2
05	MOD-DEF1
06	MOD-DEF0
07	RATESELE
08	LOS
15	VCCR
16	VCCT

Low Speed Signal & Power	
P2	
Pad	Signal
02	TX_FAULT
03	TX_DISABLE
04	MOD-DEF2
05	MOD-DEF1
06	MOD-DEF0
07	RATESELE
08	LOS
15	VCCR
16	VCCT

Specification

Part No.	1521103XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Shell	Zinc Alloy
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical / Mechanical	
Impedance	100 Ω
Data Rate	25 Gbps Per Channel, Quad
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	50 Mating Cycles
Mating Force	18 N Max.
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant



QSFP

QSFP Application

QSFP (Quad Small Form-factor Pluggable) can instead of CX4 in InfiniBand industry. With 4 channels transmitting, it can take 100Gbps or 400Gbps with PAM4 solution. With fiber, it can be used in longer distance application such as data center.

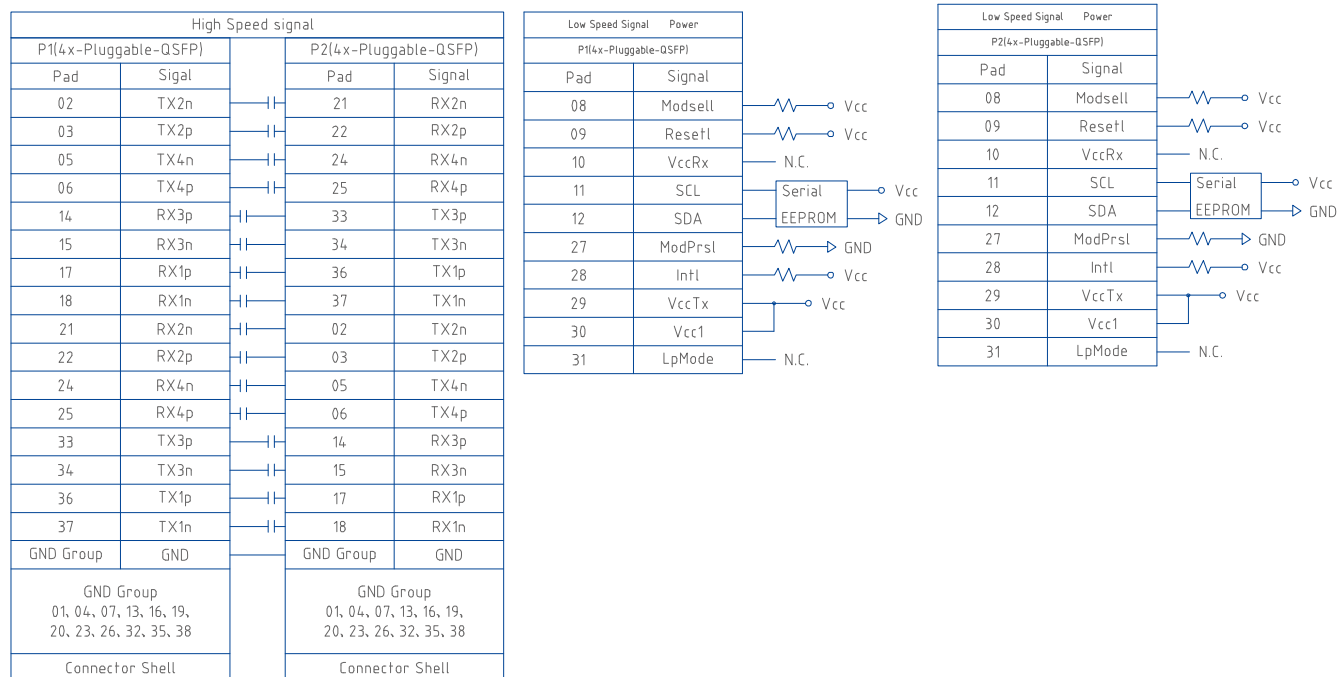
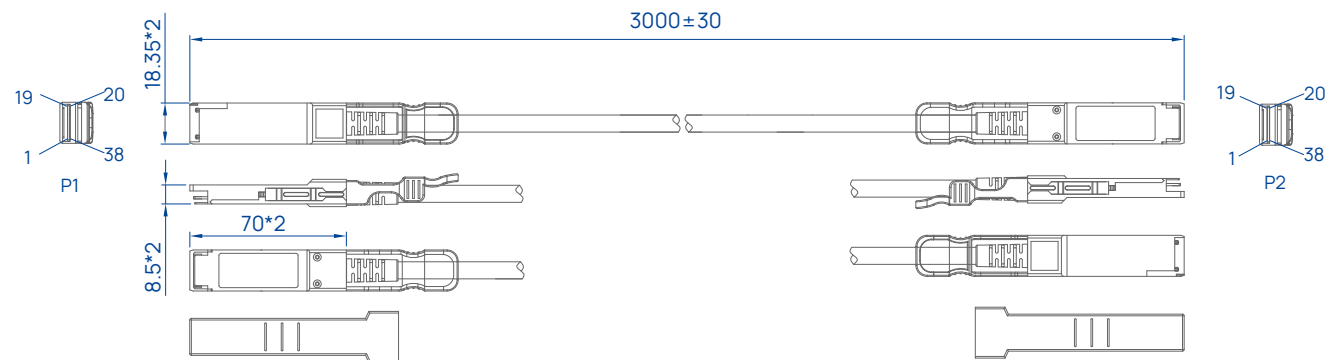
Application

- Server
- Switch
- Storage

Product Characteristics

- Up to 100Gbps with 4 channels
- Low Insertion Loss
- Low cross talk
- Good EMI Shielding
- Hot plugging

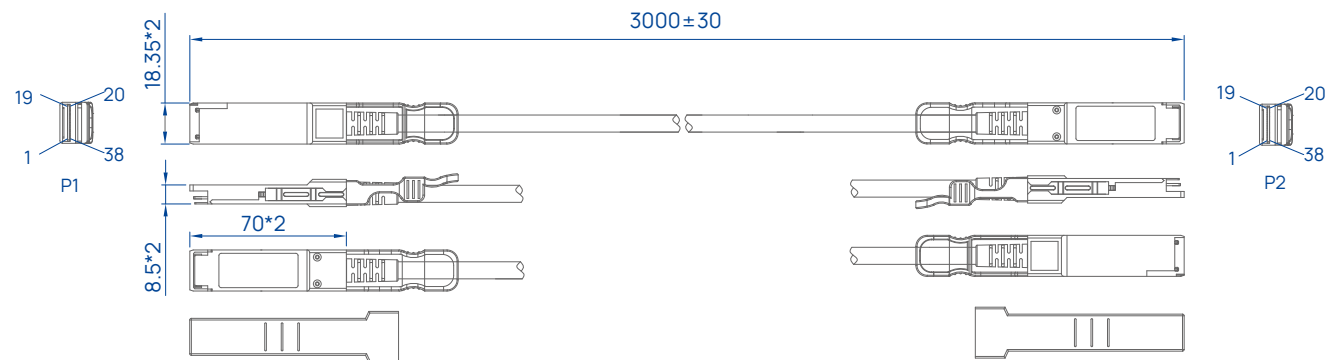
QSFP+ Passive Cable



Specification

Part No.	1523301XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Shell	Zinc Alloy
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical / Mechanical	
Impedance	100 Ω
Data Rate	25 Gbps Per Channel, Quad
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	50 Mating Cycles
Mating Force	40 N Max.
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant

QSFP28 Passive Cable



High Speed signal			
P1(4x-Pluggable-QSFP)		P2(4x-Pluggable-QSFP)	
Pad	Signal	Pad	Signal
02	TX2n	21	RX2n
03	TX2p	22	RX2p
05	TX4n	24	RX4n
06	TX4p	25	RX4p
14	RX3p	33	TX3p
15	RX3n	34	TX3n
17	RX1p	36	TX1p
18	RX1n	37	TX1n
21	RX2n	02	TX2n
22	RX2p	03	TX2p
24	RX4n	05	TX4n
25	RX4p	06	TX4p
33	TX3p	14	RX3p
34	TX3n	15	RX3n
36	TX1p	17	RX1p
37	TX1n	18	RX1n
GND Group	GND	GND Group	GND
GND Group 01, 04, 07, 13, 16, 19, 20, 23, 26, 32, 35, 38		GND Group 01, 04, 07, 13, 16, 19, 20, 23, 26, 32, 35, 38	
Connector Shell		Connector Shell	

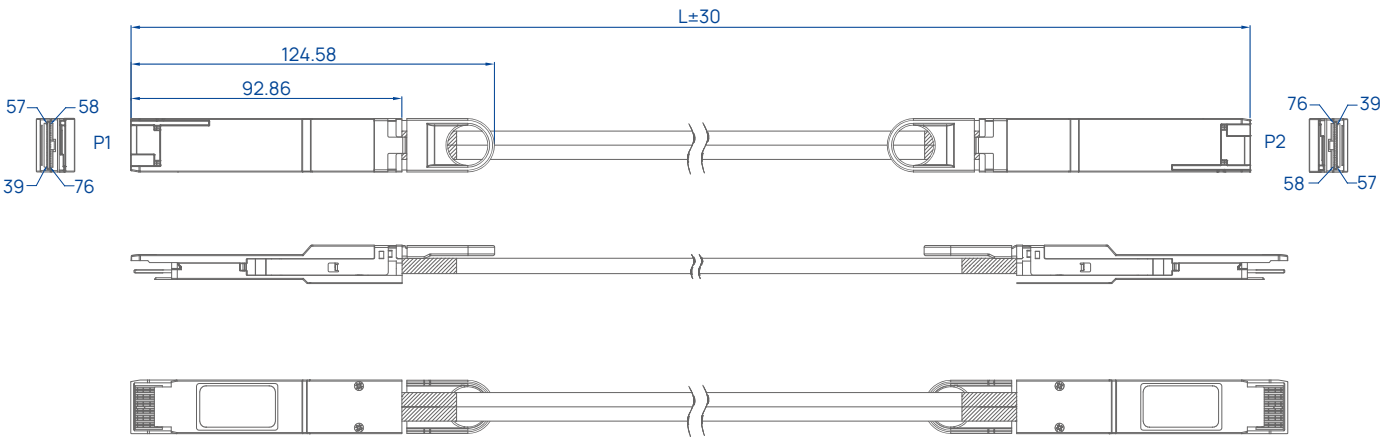
Low Speed Signal		Power	
P1(4x-Pluggable-QSFP)		P2(4x-Pluggable-QSFP)	
Pad	Signal	Pad	Signal
08	Modse1	08	Modse1
09	Rese1	09	Rese1
10	VccRx	10	VccRx
11	SCL	11	SCL
12	SDA	12	SDA
27	ModPrs1	27	ModPrs1
28	Int1	28	Int1
29	VccTx	29	VccTx
30	Vcc1	30	Vcc1
31	LpMode	31	LpMode
Serial EEPROM		Serial EEPROM	
Vcc		Vcc	
GND		GND	
Vcc		Vcc	
N.C.		N.C.	

Low Speed Signal		Power	
P1(4x-Pluggable-QSFP)		P2(4x-Pluggable-QSFP)	
Pad	Signal	Pad	Signal
08	Modse1	08	Modse1
09	Rese1	09	Rese1
10	VccRx	10	VccRx
11	SCL	11	SCL
12	SDA	12	SDA
27	ModPrs1	27	ModPrs1
28	Int1	28	Int1
29	VccTx	29	VccTx
30	Vcc1	30	Vcc1
31	LpMode	31	LpMode
Serial EEPROM		Serial EEPROM	
Vcc		Vcc	
GND		GND	
Vcc		Vcc	
N.C.		N.C.	

Specification

Part No.	1523204XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Shell	Zinc Alloy
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical / Mechanical	
Impedance	100 Ω
Data Rate	25 Gbps Per Channel, Quad
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	250 Mating Cycles
Mating Force	40 N Max.
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant

QSFP-DD Passive Cable



Specification

Part No.	1523102XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Shell	Zinc Alloy
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical / Mechanical	
Impedance	100 Ω
Data Rate	28G NRZ & 56G PAM-4 Per Channel (8 Lane 56G PAM-4)
Rated Voltage	30 V
Rated Current	0.5 A Per Pin
Durability	250 Mating Cycles
Mating Force	90 N Max.
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant



OSFP

OSFP Application

A low-cost assembly for short-reach 4X applications. Form factor and connection compatible under the QSFP28 Multi-Source Agreement & IEEE 400G.

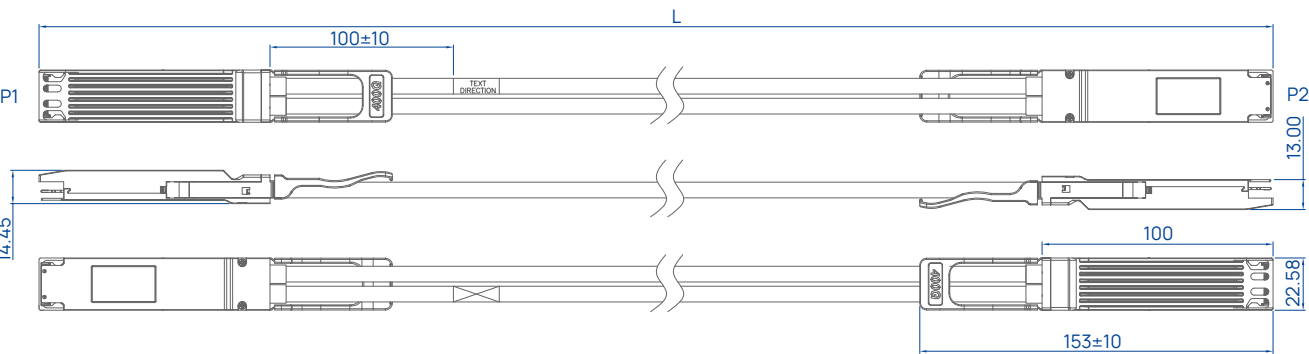
Application

- Storage, Switch, & RAID Systems
- High-Performance Computing (HPC)
- Network Interface Cards (NIC's)
- Telecommunication equipment
- Data center and enterprise storage systems

Product Characteristics

- Up to 100Gbps with 4 channels
- Low Insertion Loss
- Low cross talk
- Good EMI Shielding
- Hot plugging

OSFP to OSFP 400 Gbps DAC



Specification

Part No.	1522701XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical	
Supply Voltage 3.3 VDC +/- 5%	100 Ω
Supply Current	0.03A Max at 3.135V
Power Consumption (DAC)	0.125 Watt Max
Voltage	30VAC per contact
Current	0.5A/Signal Contact
Mechanical	
Module Insertion	40N Maximum
Module Extraction	30N Maximum
Latch Retention	125N Minimum
Rated Durability Cycles	50 Cycles Minimum
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant

OSFP to QSFP-DD 400 Cable Assembly

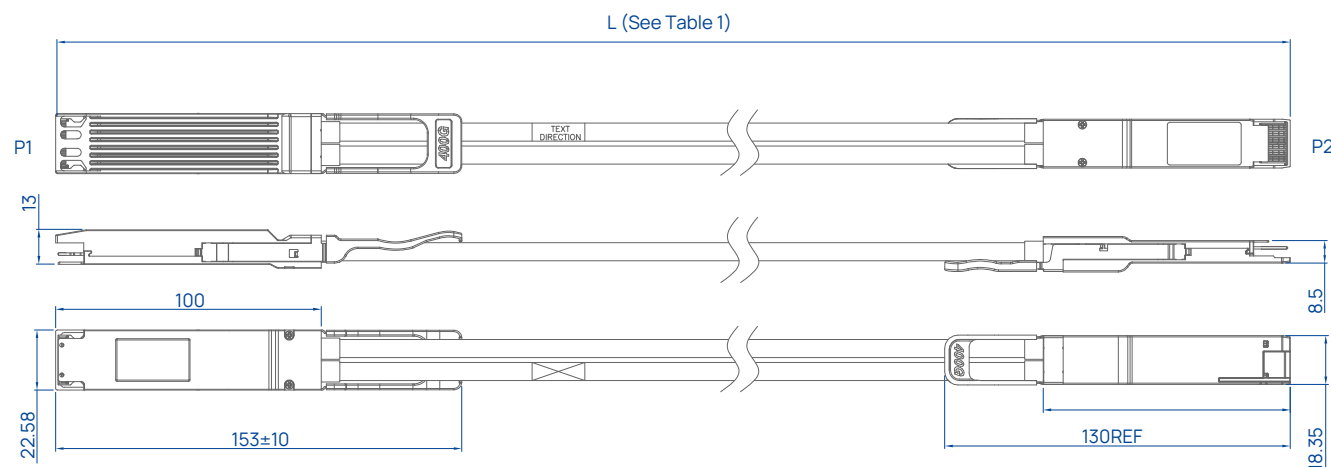


Table 1

©	15226010040	28	2.5m	2500	±50
	15226010030	28	2.0m	2000	±40
	15226010020	28	1.5m	1500	±40
	15226010010	28	1.0m	1000	±30
	P/N	XXAWG	X.Xm	L(mm)	TOL.

Specification

Part No.	1522601XXXX
Material	
Contact	15µin Min Hard Gold Plated Contact
Connector Housing	Zinc Alloy Die Casting
Raw Cable	Silver Copper Conductor 28 AWG
	Foam-PE Dielectric
	Tinned Copper Drain Wire
	PVC Tape Jacket
Electrical	
Supply Voltage 3.3 VDC +/- 5%	100 Ω
Supply Current	0.03A Max at 3.135V
Power Consumption (DAC)	0.125 Watt Max
Voltage	30VAC per contact
Current	0.5A/Signal Contact
Mechanical	
Module Insertion	40N Maximum
Module Extraction	30N Maximum
Latch Retention	125N Minimum
Rated Durability Cycles	50 Cycles Minimum
Environmental	
Storage Temperature	-20° to 80°C
Operating Temperature	0° to 80°C
Flammability Rating	VW-1
Safety Certificates	RoHS Compliant



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