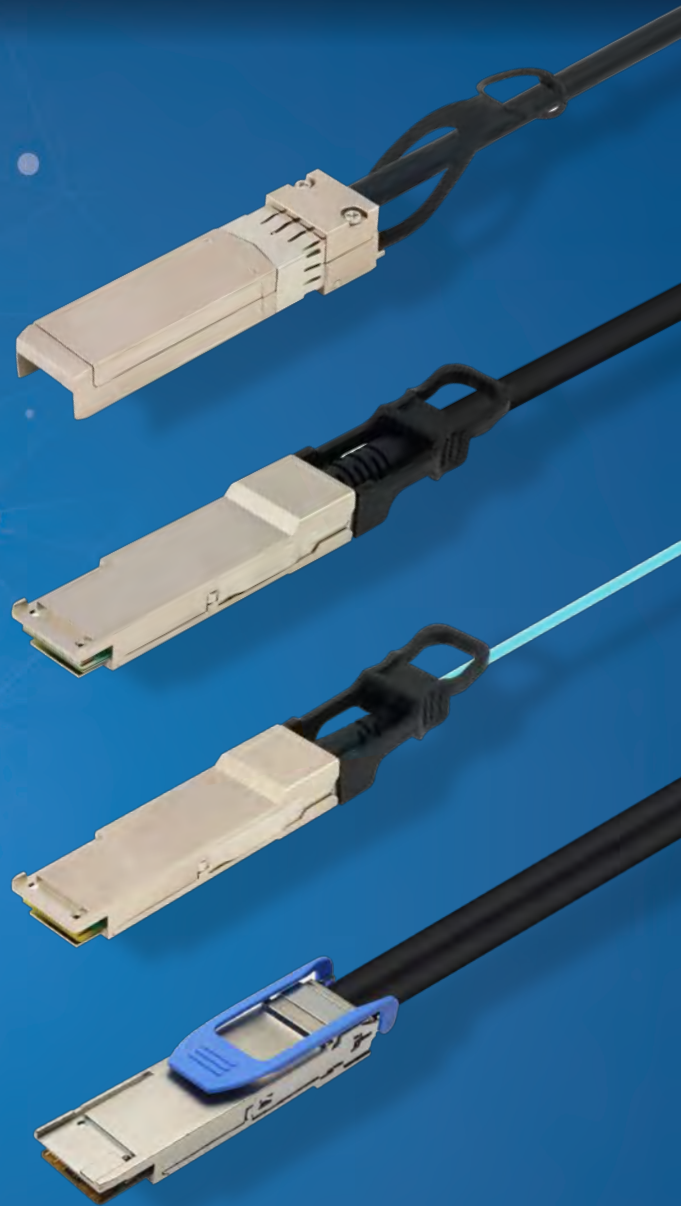




詮欣股份有限公司
CHANT SINCERE CO., LTD.

SFP
QSFP



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CHANT SINCERE CO., LTD.



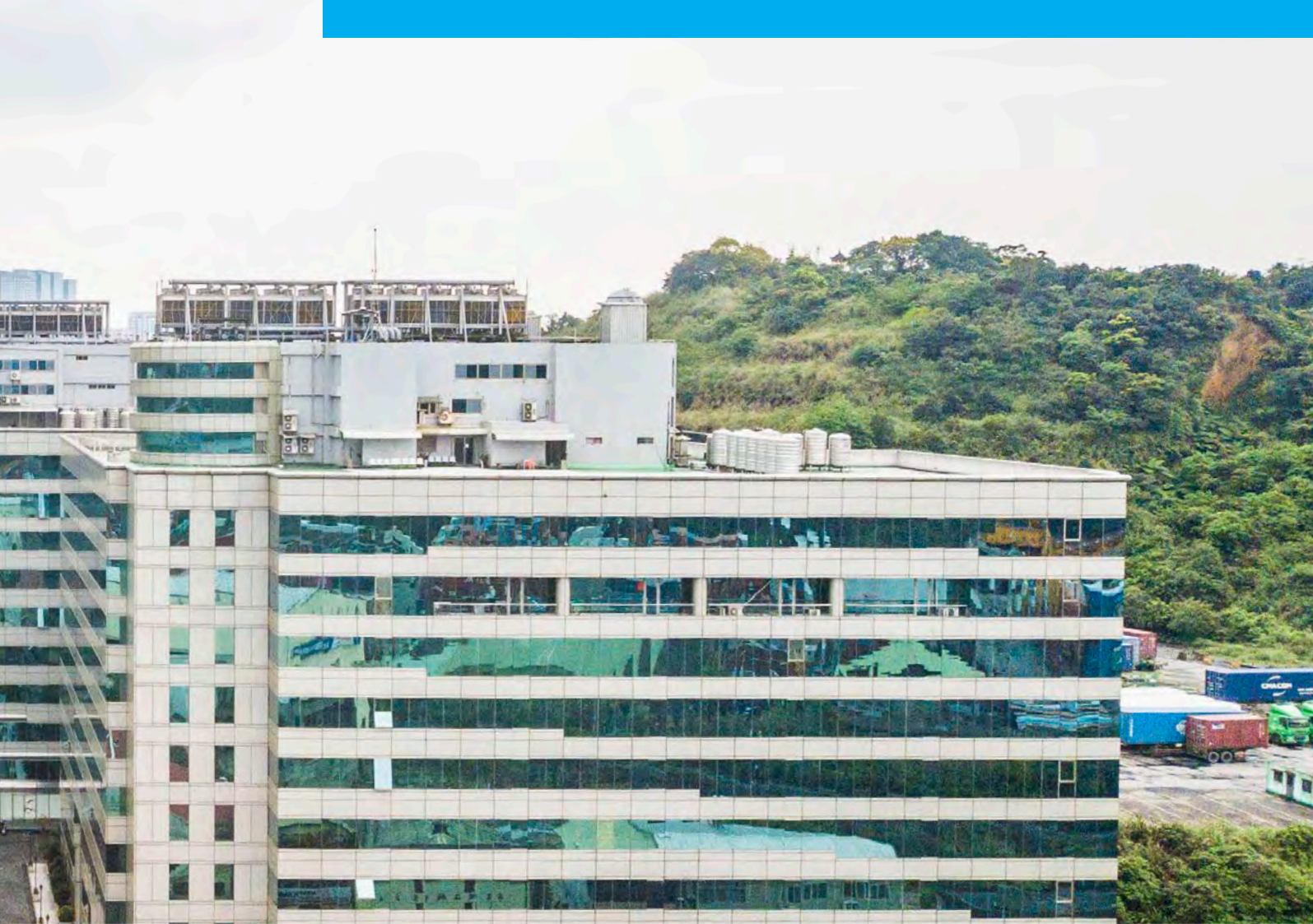
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About Chant Sincere

- **Chant Sincere Co.,Ltd.** was set up in 1985., With the management concept of "Honest, Innovative, Quality, Longterm" 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 various of product families to provide a total solution to customers.
The connector and cable products are widely used in many different application, 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 and cable (USB3.1), Audio & Vidio connector and cable (HDMI, Display Port)...etc.
Chant Sincere Co.,Ltd. Has been growing up as a global professional manufacturer for connector and cable.

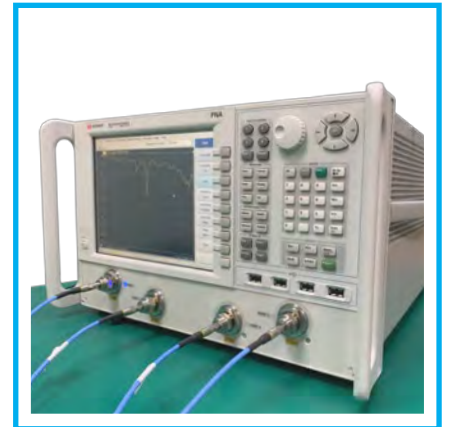
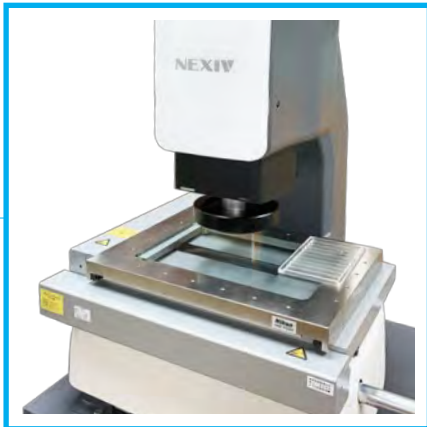


The Core Competence of Chant Sincere Co.,Ltd. including.

- Over 34 Years Manufacture Experience
- ODM/OEM Capability
- Vertical Integration (Design, Tooling, Manufacturing, Test)
- Automation Capability
- Precise Tooling Center
- Wide Range of Product Line
- Systematic Testing Process
- Customized Capability
- Quality System (ISO,IATF)
- National Awards Rising Sun Awards/Best Supplier Awards



ISO 13485
IATF 16949
ISO 14001
ISO 9001



Quality systems

COXOC 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 COXOC 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, COXOC integrated supply chain and devoted staff has enabled us to build a solid foundation and core capability to better serve our customers. It is COXOC principal to always meet and exceed customer expectation by providing superior products and services. COXOC ultimate goal is to create value for our customers by building collaborative and mutually beneficial relationships.

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 connectors 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 Gbits/s, 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 various 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 transmit data at 400Gbps speed. At this speed, stringent requirement for signal integrity and operating temperature is inviable 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.





S F P



SFP Application

SFP (Small form-factor pluggable) can transfer 2.5G to 10G data rate for Ethernet application.

Application

- Server
- Switch
- Storage
- Router

Product Characteristics

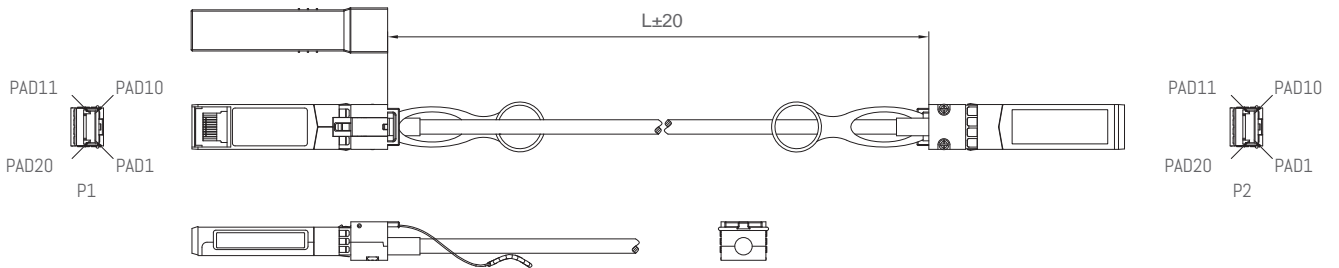
- Up to 25Gbps
- Good EMI Shielding
- Hot plugging



SFP+ Passive Cable



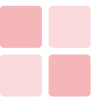
Drawing



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 Group	
01, 09, 10, 11, 14, 17, 20			01, 09, 10, 11, 14, 17, 20	
Connector Shell			Connector Shell	

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

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



Specification

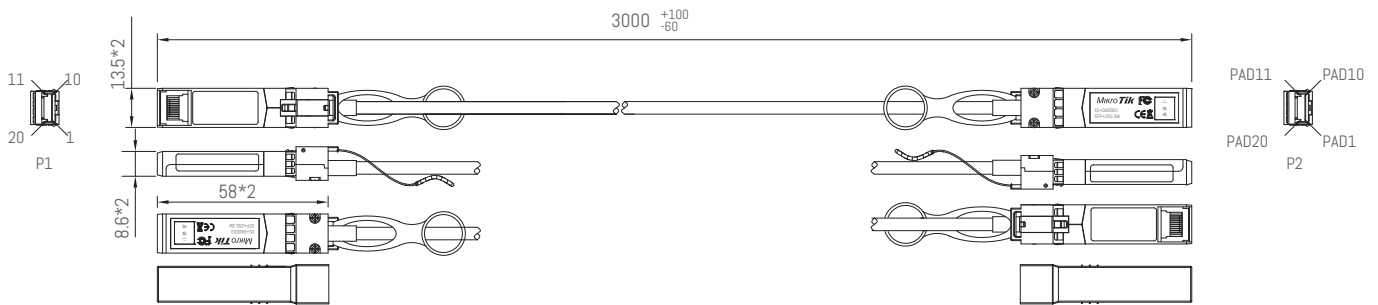
Description		SFF-8431	
Part no.		CN2113B01EXXX	
Material	Contact	15μin min hard Gold pated contact	
	Connector housing	Zinc Alloy Die Casting	
	Delatch	Zinc Alloy	
	Raw Cable		Depends on distance
			Foam-PE dielectric
			Tinned copper drain wire
			PVC tape jacket
Electrical Mechanical	Impedance	100Ω	
	Data Rate	10Gbps per channel, Quad	
	Rated Voltage	30V	
	Rated Current	0.5A per pin	
	Durability	50 mating cycles	
	Mating force	18N max.	
Environmental	Operating Temperature	0° to 70°C	
	Flammability Rating	VW-1	
	Safety Certificates	RoHS compliant	



SFP28 Passive Cable



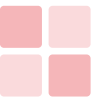
Drawing



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	Signal	Notes
02	TX_FAULT	TX_FAULT	
03	TX_DISABLE	TX_DISABLE	
04	MOD-DEF2	Serial EEPROM	Vcc, GND
05	MOD-DEF1		
06	MOD-DEF0		
07	RATESELE		
08	LOS		
15	VCCR		Vcc
16	VCCT		

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



Specification

Description		SFF-843 I	
Part no.		CN3113A01EXXX	
Material	Contact	15μin min hard Gold pated contact	
	Connector housing	Zinc Alloy Die Casting	
	Delatch	Zinc Alloy	
	Raw Cable		Depends on distance
			Foam-PE dielectric
			Tinned copper drain wire
			PVC tape jacket
Electrical Mechanical	Impedance	100Ω	
	Data Rate	25Gbps per channel, Quad	
	Rated Voltage	30V	
	Rated Current	0.5A per pin	
	Durability	50 mating cycles	
	Mating force	18N max.	
Environmental	Operating Temperature	0° to 70°C	
	Flammability Rating	VW-I	
	Safety Certificates	RoHS compliant	

Q S F P



QSFP Application

QSFP(Quad Small Form-factor Pluggable) can instead of CX4 in InfiniBand industry. With 4 channels transmitting.

Application

- Server
- Switch
- Storage

Product Characteristics

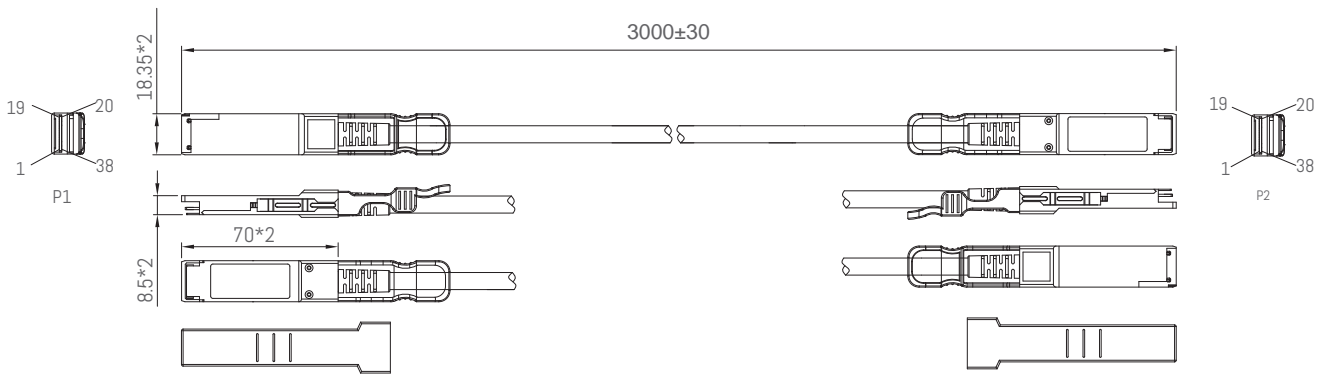
- Up to 400Gbps
- Low Insertion Loss
- Low cross talk
- Good EMI Shielding
- Hot plugging



■ QSFP + Passive Cable



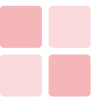
■ Drawing



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)			
Pad	Signal		
08	Modsell	~	Vcc
09	ResetI	~	Vcc
10	VccRx		N.C.
11	SCL	Serial EEPROM	Vcc
12	SDA	EEPROM	GND
27	ModPrsl	~	GND
28	IntI	~	Vcc
29	VccTx		Vcc
30	Vcc1		
31	LpMode		N.C.

Low Speed Signal		Power	
P2(4x-Pluggable-QSFP)			
Pad	Signal		
08	Modsell	~	Vcc
09	ResetI	~	Vcc
10	VccRx		N.C.
11	SCL	Serial EEPROM	Vcc
12	SDA	EEPROM	GND
27	ModPrsl	~	GND
28	IntI	~	Vcc
29	VccTx		Vcc
30	Vcc1		
31	LpMode		N.C.



Specification

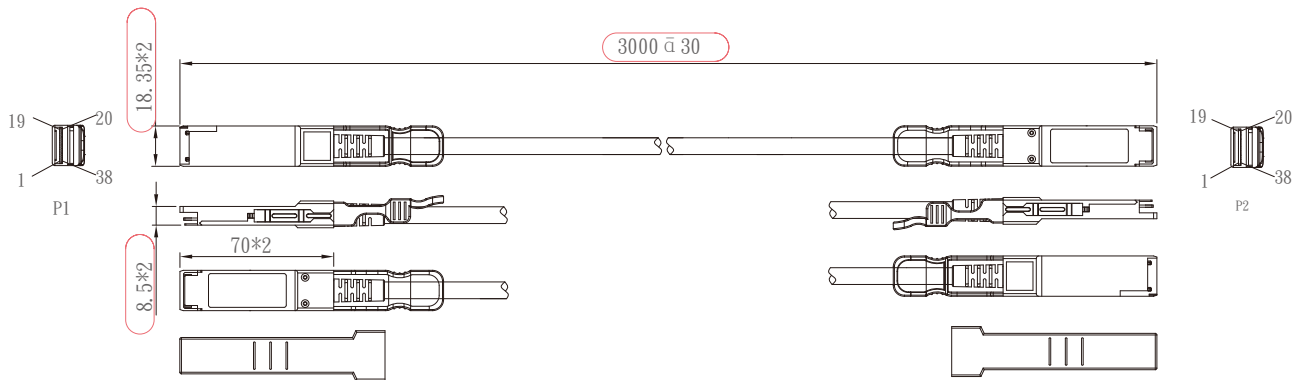
Description		SFF-8682	
Part no.		CN4113A04EXXX	
Material	Contact	15μin min hard Gold pated contact	
	Connector housing	Zinc Alloy Die Casting	
	Delatch	Zinc Alloy	
	Raw Cable		Depends on distance
			Foam-PE dielectric
			Tinned copper drain wire
			PVC tape jacket
Electrical Mechanical	Impedance	100Ω	
	Data Rate	10Gbps per channel, Quad	
	Rated Voltage	30V	
	Rated Current	0.5A per pin	
	Durability	50 mating cycles	
	Mating force	40N max.	
Environmental	Operating Temperature	0° to 70°C	
	Flammability Rating	VW-I	
	Safety Certificates	RoHS compliant	



■ QSFP28 Passive Cable

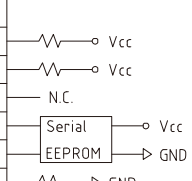


■ Drawing

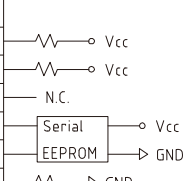


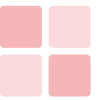
High Speed signal				
P1(4x-Pluggable-QSFP)			P2(4x-Pluggable-QSFP)	
Pad	Signal		Pad	Signal
02	TX2n	— —	21	RX2n
03	TX2p	— —	22	RX2p
05	TX4n	— —	24	RX4n
06	TX4p	— —	25	RX4p
14	RX3p	— —	33	TX3p
15	RX3n	— —	34	TX3n
17	RX1p	— —	36	TX1p
18	RX1n	— —	37	TX1n
21	RX2n	— —	02	TX2n
22	RX2p	— —	03	TX2p
24	RX4n	— —	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 Group	
GND			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)			
Pad	Signal		
08	Modsel	— —	Vcc
09	ReseFl	— —	Vcc
10	VccRx	— —	N.C.
11	SCL	— —	Vcc
12	SDA	— —	GND
27	ModPrst	— —	GND
28	IntFl	— —	Vcc
29	VccTx	— —	Vcc
30	Vcc1	— —	Vcc
31	LpMode	— —	N.C.



Low Speed Signal		Power	
P2(4x-Pluggable-QSFP)			
Pad	Signal		
08	Modsel	— —	Vcc
09	ReseFl	— —	Vcc
10	VccRx	— —	N.C.
11	SCL	— —	Vcc
12	SDA	— —	GND
27	ModPrst	— —	GND
28	IntFl	— —	Vcc
29	VccTx	— —	Vcc
30	Vcc1	— —	Vcc
31	LpMode	— —	N.C.





Specification

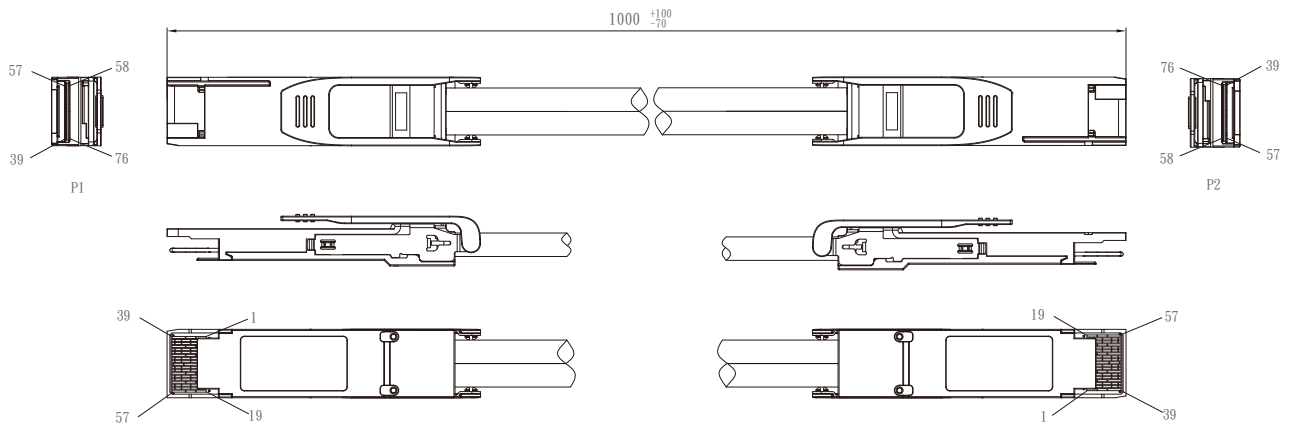
Description		SFF-8662	
Part no.		CN5I13A02EXXX	
Material	Contact	15μin min hard Gold pated contact	
	Connector housing	Zinc Alloy Die Casting	
	Delatch	Zinc Alloy	
	Raw Cable		Silver copper conductor 28AWG
			Foam-PE dielectric
			Tinned copper drain wire
			PVC tape jacket
Electrical Mechanical	Impedance	100Ω	
	Data Rate	25Gbps per channel, Quad	
	Rated Voltage	30V	
	Rated Current	0.5A per pin	
	Durability	250 mating cycles	
	Mating force	40N max.	
Environmental	Operating Temperature	0° to 70°C	
	Flammability Rating	VW-I	
	Safety Certificates	RoHS compliant	



■ QSFP-DD Passive Cable



■ Drawing



Wiring Diagram

High Speed signal				
P1			P2	
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, 39, 42, 45, 46 .47, 48, 49, 50, 51, 54, 57, 58 .61, 64, 65, 66, 67, 68, 69, 70 .73, 76			GND Group 01, 04, 07, 13, 16, 19, 20, 23 .26, 32, 35, 38, 39, 42, 45, 46 .47, 48, 49, 50, 51, 54, 57, 58 .61, 64, 65, 66, 67, 68, 69, 70 .73, 76	
Connector Shell			Connector Shell	

Wiring Diagram

High Speed signal				
P1			P2	
Pad	Signal		Pad	Signal
40	TX6n		59	RX6n
41	TX6p		60	RX6p
43	TX8n		62	RX8n
44	TX8p		63	RX8p
52	TX7p		71	RX7p
53	TX7n		72	RX7n
55	TX5p		74	RX5p
56	TX5n		75	RX5n
59	TX6n		40	RX6n
60	TX6p		41	RX6p
62	TX8n		43	RX8n
63	TX8p		44	RX8p
71	TX7p		52	RX7p
72	TX7n		53	RX7n
74	TX5p		55	RX5p
75	TX5n		56	RX5n



Specification

Description		SFF-8417	
Part no.		CN6I13A02EXXX	
Material	Contact	15μin min hard Gold pated contact	
	Connector housing	Zinc Alloy Die Casting	
	Delatch	Zinc Alloy	
	Raw Cable		Depends on distance
			Foam-PE dielectric
			Tinned copper drain wire
			PVC tape jacket
Electrical Mechanical	Impedance	100Ω	
	Data Rate	25Gbps per channel, Quad	
	Rated Voltage	30V	
	Rated Current	0.5A per pin	
	Durability	250 mating cycles	
	Mating force	90N max.	
Environmental	Operating Temperature	0° to 70°C	
	Flammability Rating	VW-I	
	Safety Certificates	RoHS compliant	

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