



詮欣股份有限公司
CHANT SINCERE CO., LTD.

SFP/QSFP

Cable





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About Chant Sincere



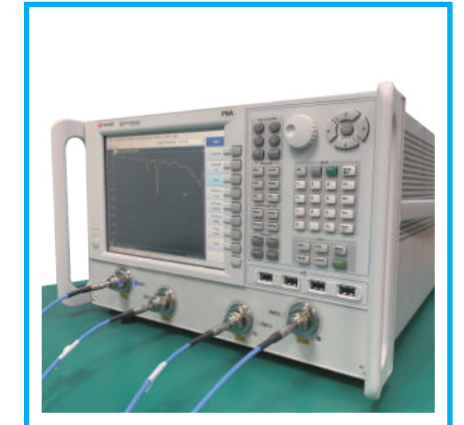
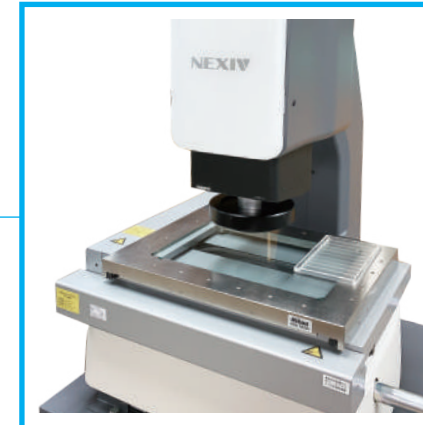
- **Chant Sincere Co., Ltd.** was set up in 1985., With the management concept of “Honest, Innovative, Quality, Longterm” to design and manufacture connector and cable. Keep developing new innovative products and integrating vertically from R&D, tooling, assembly and quality control to meet the demands (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/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 36 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

ISO13485
IATF16949
ISO14001
ISO9001



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.



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.

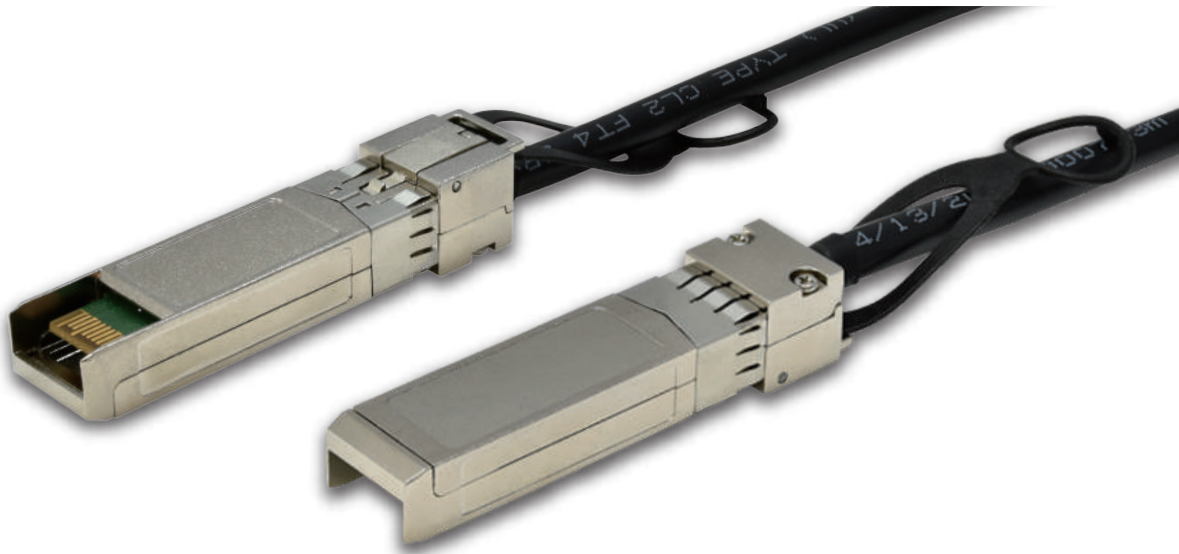
Application

- Server
- Switch
- Storage
- Router

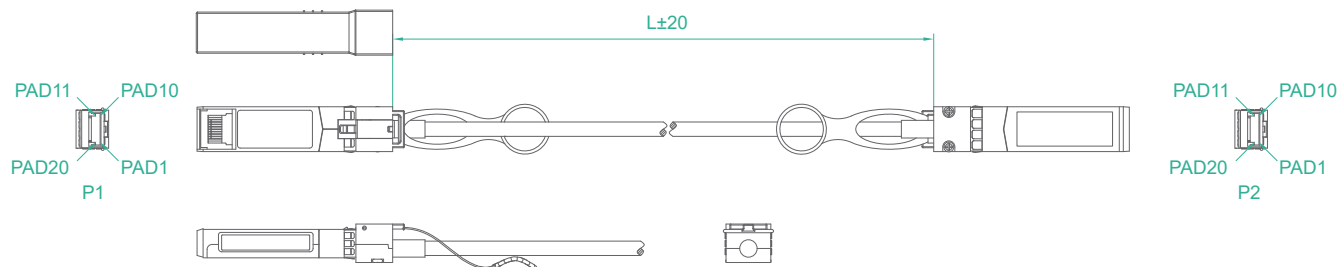
Product Characteristics

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

SFP+ Passive Cable



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	

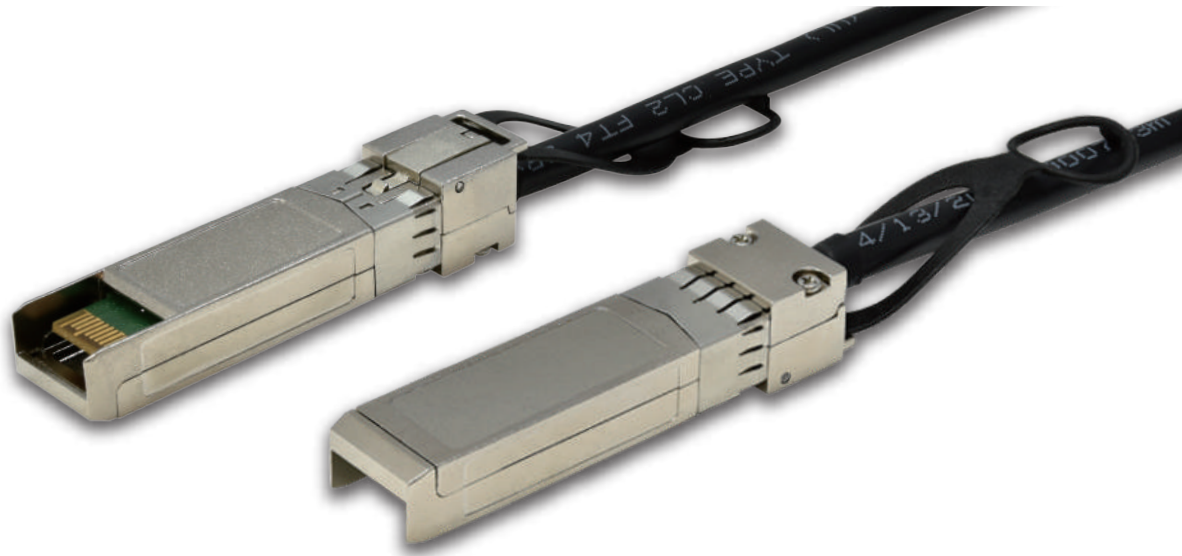
Low Speed Signal& Power			
P1		P2	
Pad	Signal	Pad	Signal
02	TX_FAULT	02	TX_FAULT
03	TX_DISABLE	03	TX_DISABLE
04	MOD-DEF2	04	MOD-DEF2
05	MOD-DEF1	05	MOD-DEF1
06	MOD-DEF0	06	MOD-DEF0
07	RATESELE	07	RATESELE
08	LOS	08	LOS
15	VCCR	15	VCCR
16	VCCT	16	VCCT

Low Speed Signal& Power			
P1		P2	
Pad	Signal	Pad	Signal
02	TX_FAULT	02	TX_FAULT
03	TX_DISABLE	03	TX_DISABLE
04	MOD-DEF2	04	MOD-DEF2
05	MOD-DEF1	05	MOD-DEF1
06	MOD-DEF0	06	MOD-DEF0
07	RATESELE	07	RATESELE
08	LOS	08	LOS
15	VCCR	15	VCCR
16	VCCT	16	VCCT

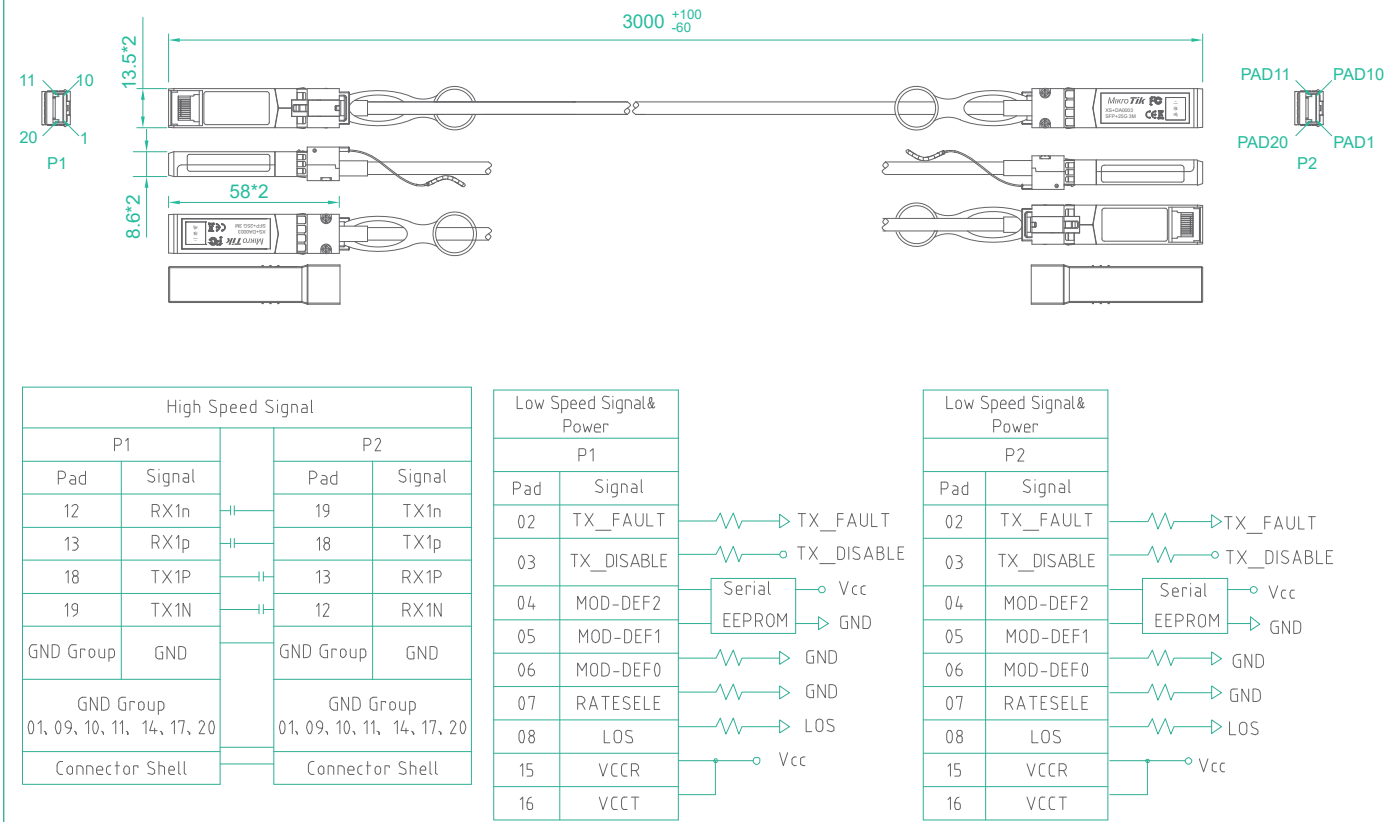
Specification

Description		SFF-8431
Part no.		CN2113B01EXXX
Material	Contact	15µin Min Hard Gold Plated Contact
	Connector Housing	Zinc Alloy Die Casting
	Delatch	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



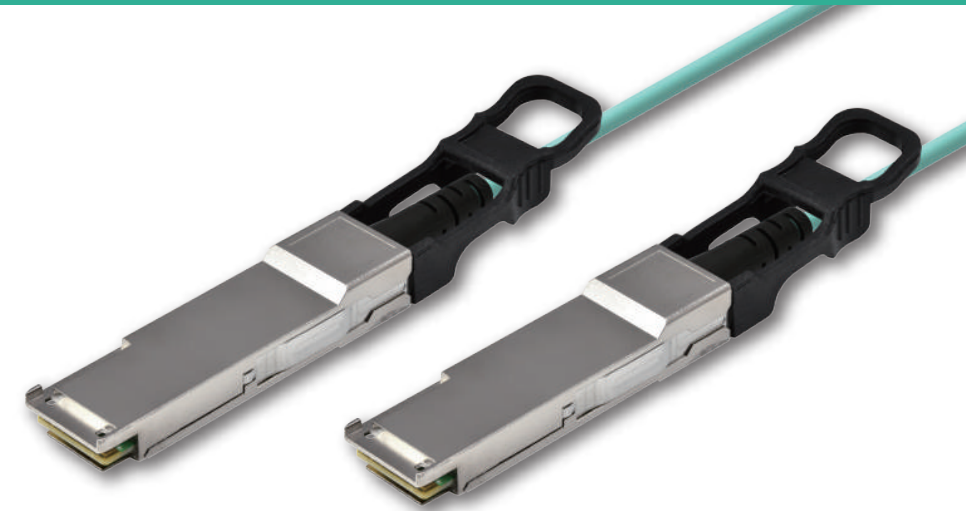
Drawing



Specification

Description		SFF-8431
Part no.		CN3113A01AE3M0
Material	Contact	15µin Min Hard Gold Plated Contact
	Connector Housing	Zinc Alloy Die Casting
	Delatch	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

- QSPF(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

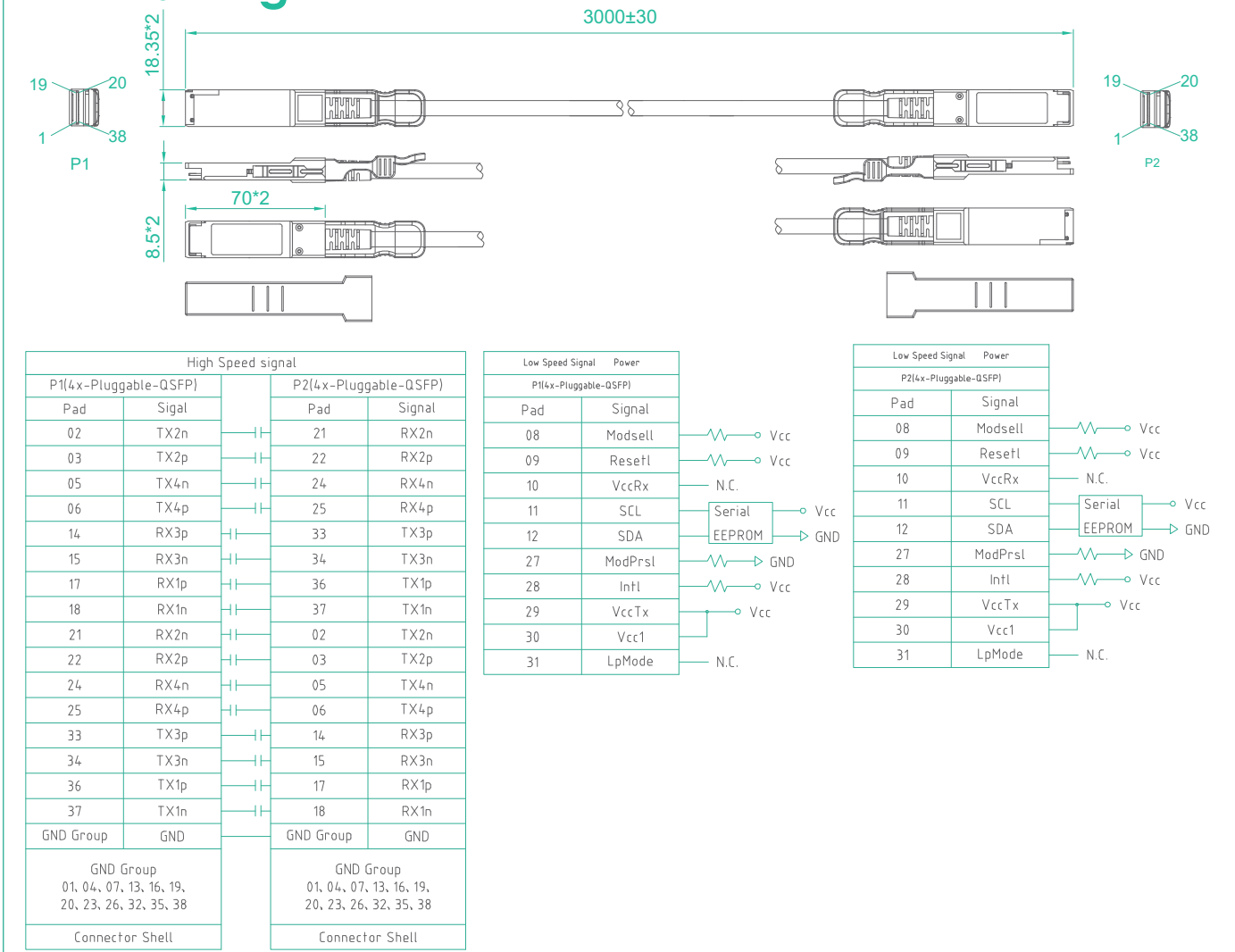
Product Characteristics

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

■ QSFP+ Passive Cable



■ Drawing



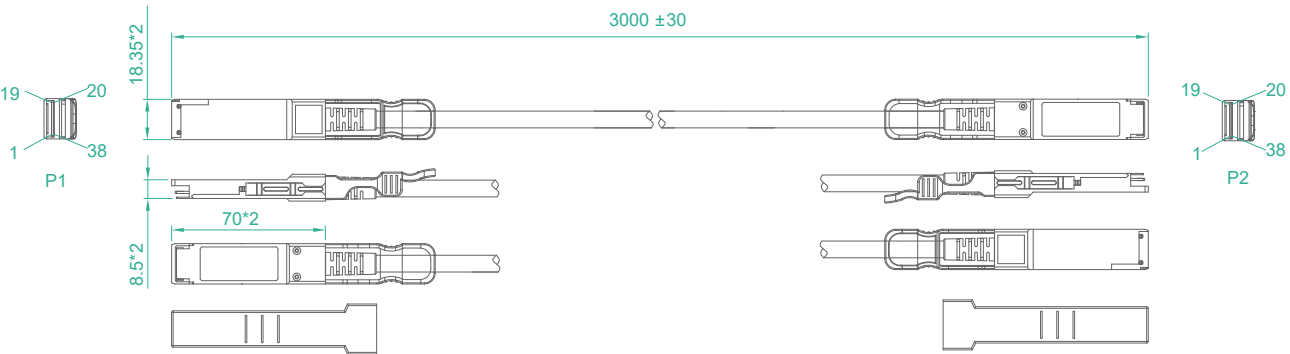
■ Specification

Description		SFF-8682
Part no.		CN4113A04E3M0
Material	Contact	15μin Min Hard Gold Plated Contact
	Connector Housing	Zinc Alloy Die Casting
	Delatch	Zinc Alloy
	Raw Cable	Silver Copper Conductor 28 AWG
		Foam-PE Dielectric
		Tinned Copper Drain Wire
Electrical Mechanical	PVC Tape Jacket	
	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
Environmental	Mating Force	40 N Max.
	Storage Temperature	-20° to 80°C
	Operating Temperature	0° to 80°C
	Flammability Rating	VW-1
	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		GND Group	
01, 04, 07, 13, 16, 19, 20, 23, 26, 32, 35, 38		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	ModSelI		Vcc
09	ResetI		Vcc
10	VccRx		N.C.
11	SCL		Vcc
12	SDA		GND
27	ModPrsI		GND
28	IntI		Vcc
29	VccTx		Vcc
30	Vcc1		
31	LpMode		N.C.

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

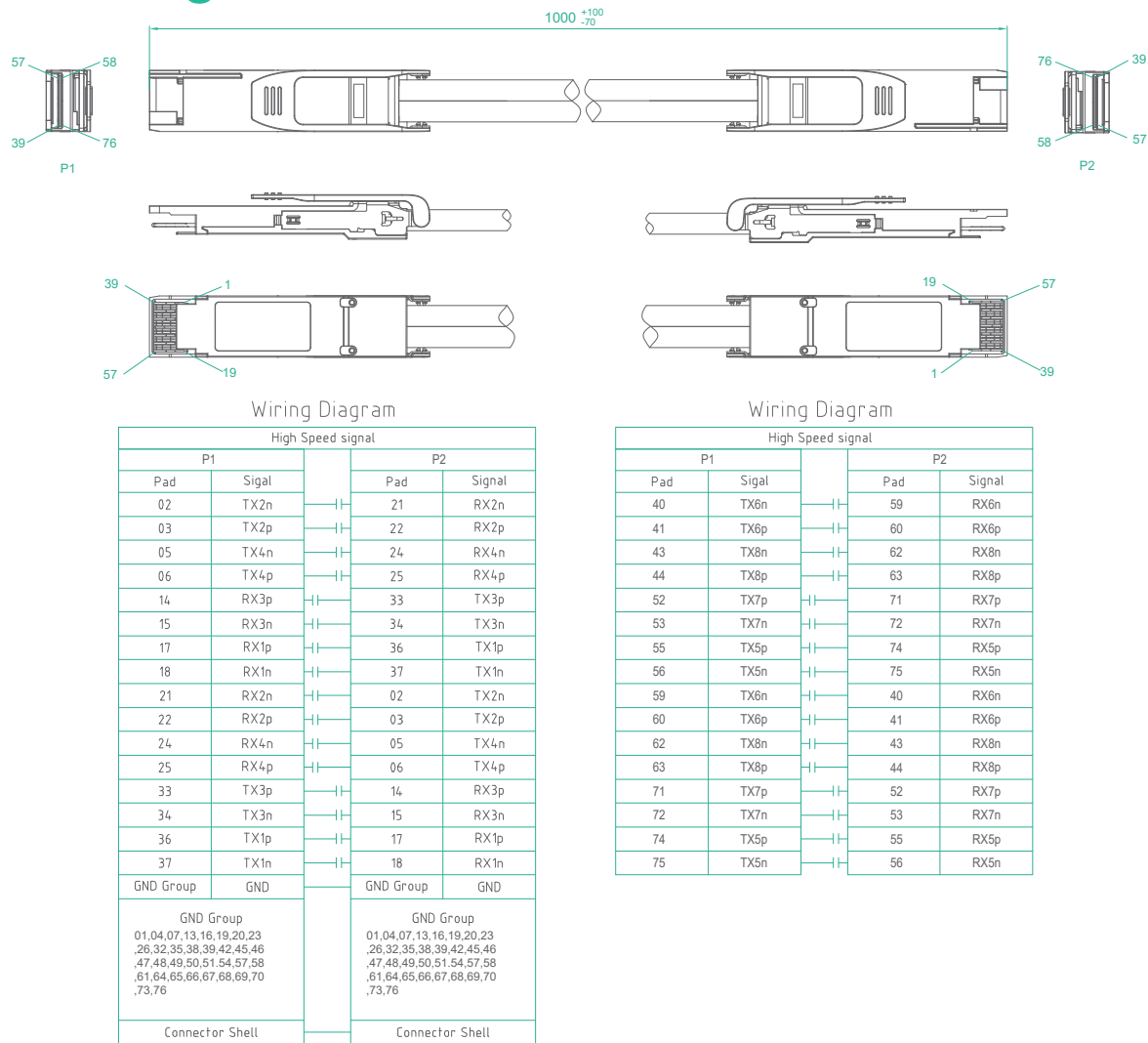
■ Specification

Description		SFF-8662
Part no.		CN5113A02E3M0
Material	Contact	15µin Min Hard Gold Plated Contact
	Connector Housing	Zinc Alloy Die Casting
	Delatch	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



■ Drawing



■ Specification

Description		SFF-8417
Part no.		CN6113A01E1M0
Material	Contact	15μin Min Hard Gold Plated Contact
	Connector Housing	Zinc Alloy Die Casting
	Delatch	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	90 N Max.
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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