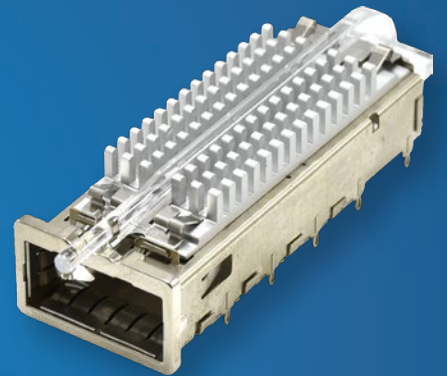




詮欣股份有限公司
CHANT SINCERE CO., LTD.

SFP

QSFP





詮欣股份有限公司
CHANT SINCERE CO., LTD.



Contents

| | |
|---------------------------------|------|
| ■ About Chant Sincere | P.1 |
| Quality System | P.3 |
| Competencies & Technology | P.5 |
| ■ SFP/QSFP Series | P.7 |
| Cage | P.17 |
| Assembly | P.21 |
| Connector | P.24 |



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.

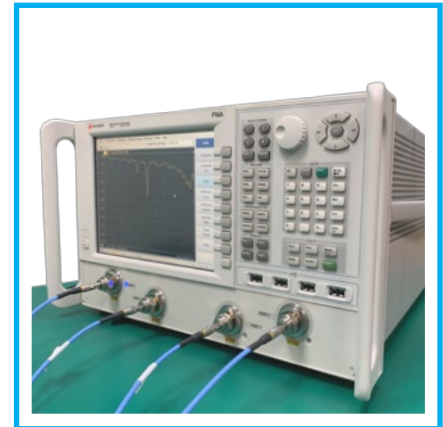
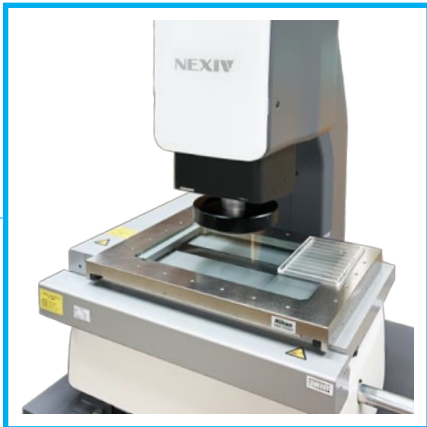


The Core Competence of Chant Sincere Co.,Ltd. including.

- 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 ISO 13485 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.

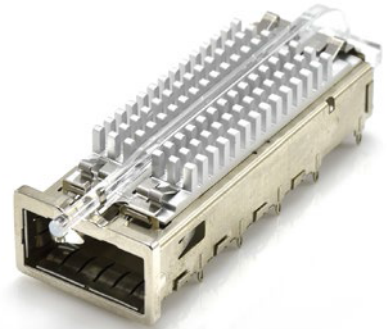
USB type C connectors is an example of the fruits of our research. This miniature and unidirectional interface provides many useful functions such as lighting data transfer rate up to 10 Gbits/s, DP ALT Mode high-definition video signal support, and brilliant 100W charging capability. Chant Sincere advanced 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 / QSFP



SFP/QSFP Application

The small form-factor pluggable (SFP) is a compact, hot-pluggable network interface module used for both telecommunication and data communications applications. The form factor and electrical interface are specified by a multi-source agreement (MSA) under the auspices of the Small Form Factor Committee.[1] It is a popular industry format jointly developed and supported by many network component vendors.

Application

- Server
- Switch
- Storage
- Router

Product Characteristics

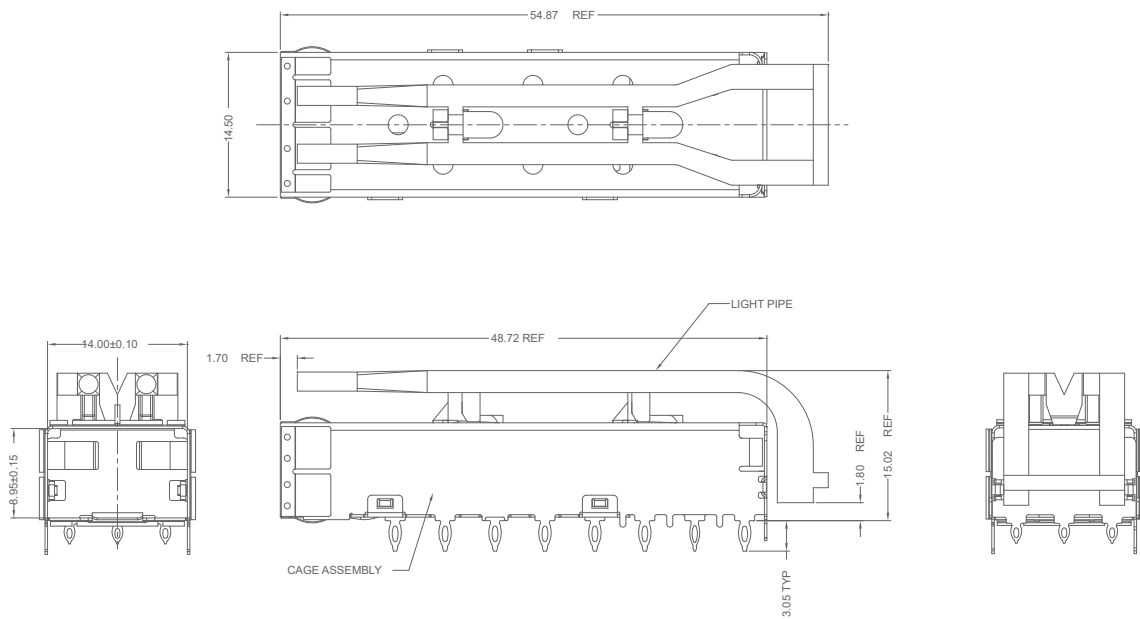
- SFPs instead of fixed interfaces (e.g. modular connectors in Ethernet switches) are that the interface port can be equipped with any suitable type of transceiver as needed.
- Supporting SONET, Gigabit Ethernet, Fibre Channel, PON, and other communications standards.
- A slightly larger sibling is the four-lane Quad Small Form-factor Pluggable (QSFP). The additional lanes allow for speeds 4 times their corresponding SFP. The QSFP28 variant was published allowing speeds up to 100 Gbit/s.
- SFP Types- 1 Gbit/s SFP , 10 Gbit/s SFP+, 25 Gbit/s SFP28
QSFP types- 4 Gbit/s QSFP, 40 Gbit/s QSFP+, 100 Gbit/s QSFP28

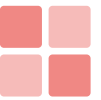


SFP+ Cage



Drawing



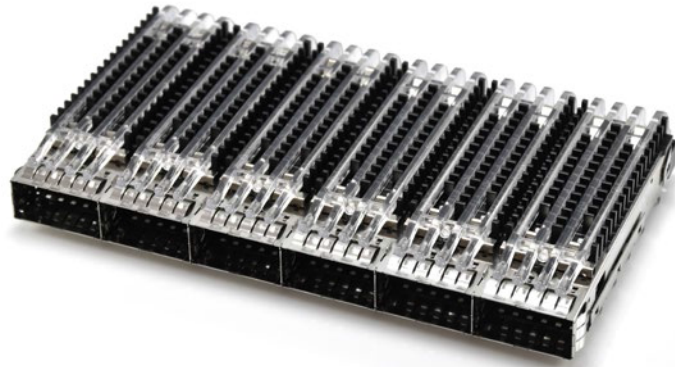


Specification

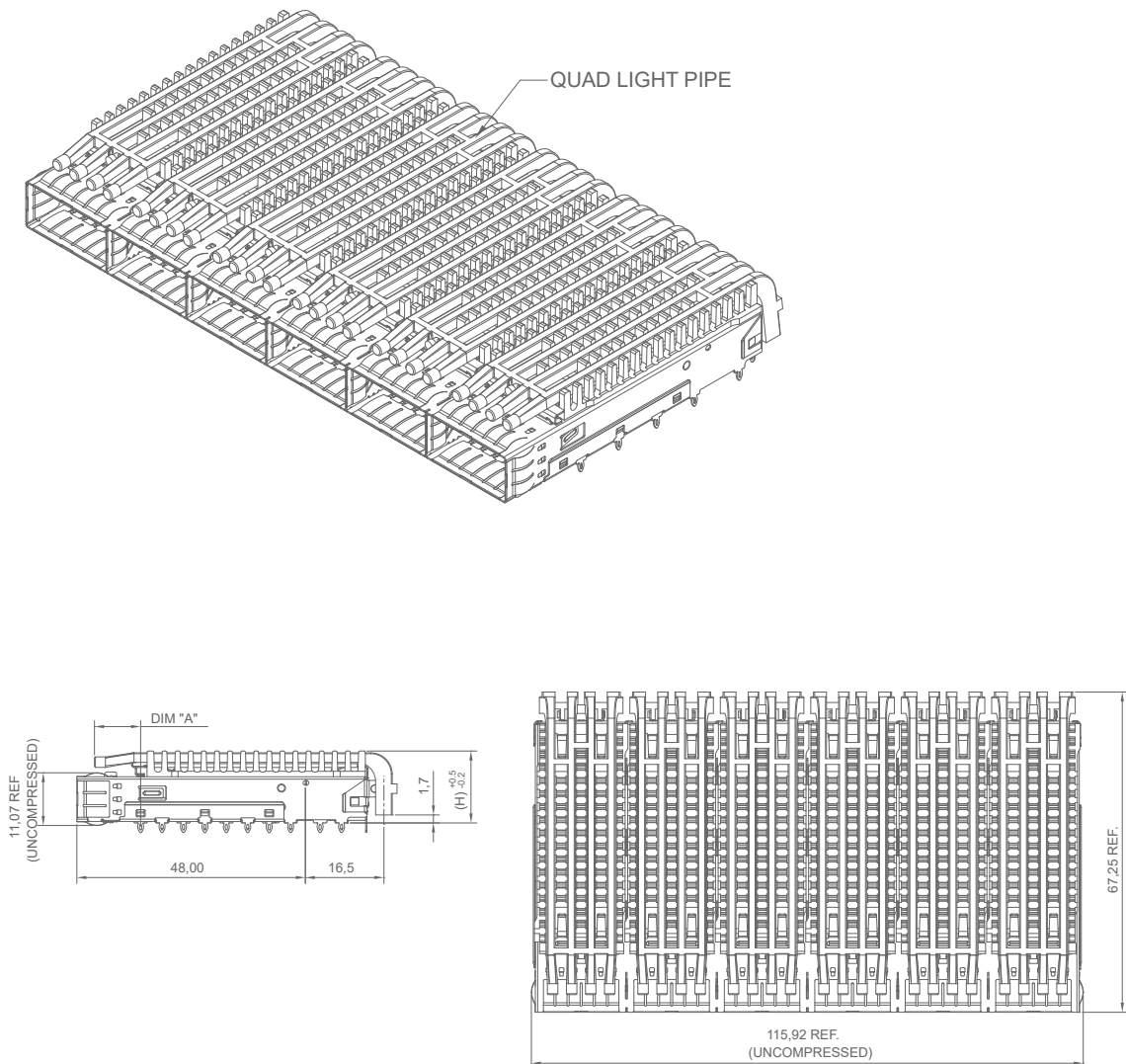
| | | |
|-------------|---|-----------------------|
| Description | SFP+ Cage, 1X1, PressFit, with Grounding Pin, with Light Pipe, with EMI Springs | |
| Part no. | 902GEA1SG0C2N0A0 | |
| Material | Cage Assembly | Copper Alloy. |
| | EMI Springs | Copper Alloy. |
| | Light Pipe | PC, Clear. |
| Finish | Cage Assembly | Nickel Plated. |
| | Mates With SFP+ MSA Compliant Transceivers & Cable | |
| | Minimum PC Board Thickness | Single Sided = 1.50mm |
| | Operating Temperature | -55°C To +85°C |
| | Light Pipe Shipped Unassembled To Cage Assembly. | |
| | Cage Assembly To Be Pressed Into The PCB Prior To Attaching The Light Pipe To The Cage. | |
| | This Part Meets The Restriction Of Hazardous Substances In Electrical And Electronic Equipment (Rohs) Directive (2011/65/Eu). | |

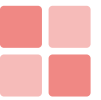


■ QSFP + Cage



■ Drawing





Specification

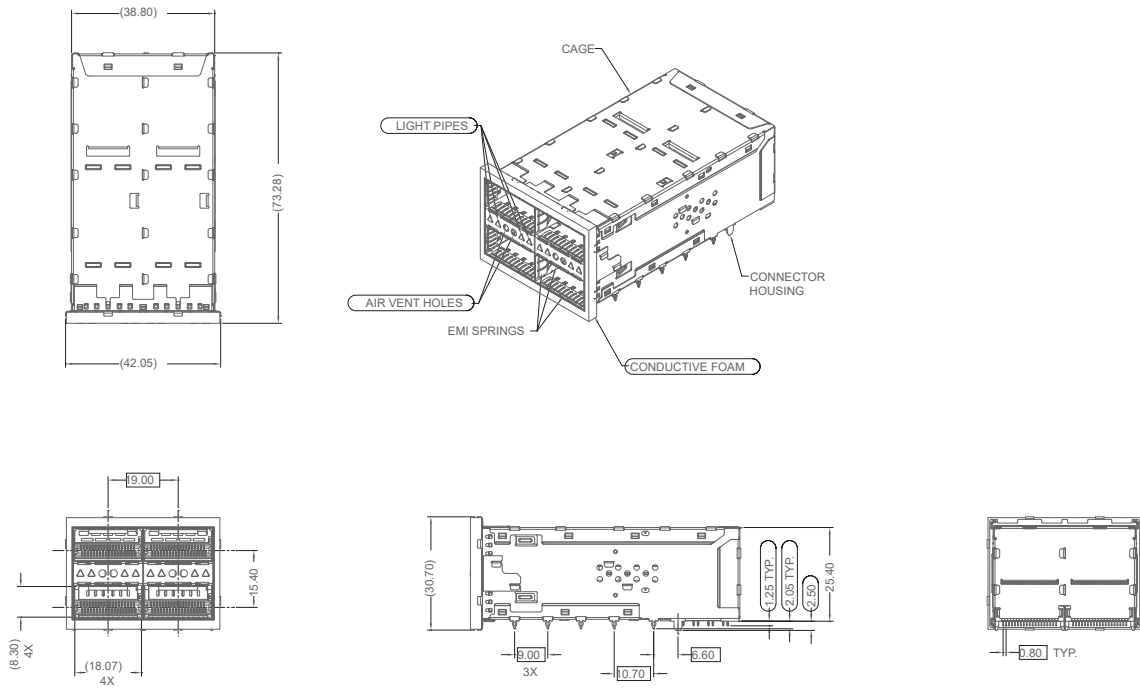
| | | |
|-------------|---|---------------------------------|
| Description | QSFP+ Cage, 1X6, Through Bezel, Press Fit, with Light Pipe, with Heatsink, with EMI Springs | |
| Part no. | 902GEA6PXXC41XA0 | |
| Material | Cage Up | Stainless Steel, 0.25 Thickness |
| | Cage Down | Stainless Steel, 0.25 Thickness |
| | Partition | Stainless Steel |
| | EMI Fingers | Stainless Steel |
| | Heatsink | Aluminum |
| | Heatsink Clip | Stainless Steel |
| | Light Pipe Material | Clear Polycarbonate |
| Finish | Body Cage | Cleaning |
| | EMI Spring Finish | Cleaning And Hole Sealing |
| | Heatsink Finish | Black Anodized |
| | Heatsink Clip Finish | Cleaning |
| | Mate With QSFP+ 4X SFF8436 Compatible Transceiver & Cable | |



■ QSFP Assembly



■ Drawing



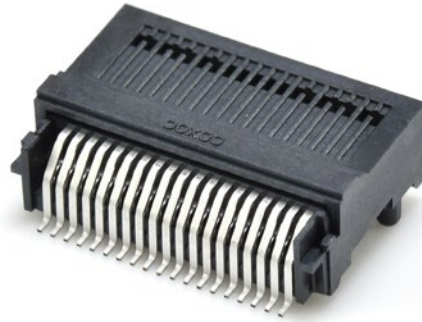


■ Specification

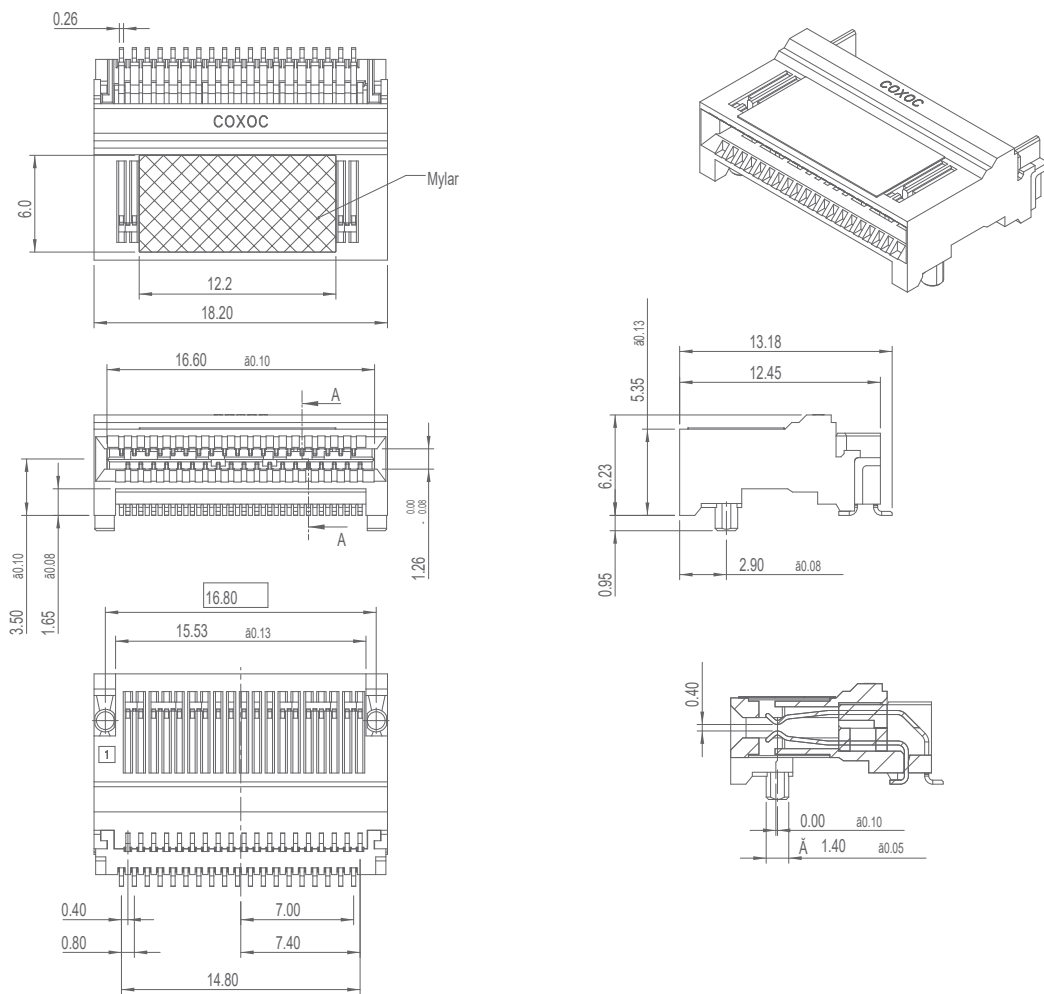
| | | |
|-------------|--|--|
| Description | QSFP+ Assembly, 2X2, Press Fit, with Light Pipe, with EMI Gasket | |
| Part no. | 902GHB2BXTA4AXA3 | |
| Material | Cage | Stainless Steel. |
| | EMI Springs | Stainless Steel. |
| | EMI Gasket | Conductive Foam. |
| | Connector Housing | High Temperature Thermoplastic, UI94v-0, Color : Black. |
| | Contacts | Copper Alloy. |
| | Light Pipe | Polycarbonate, Clear. |
| Finish | Contacts | Gold Plated On Contact Area; Matte Tin Plated On Tail Area. |
| | This Part Meets The Restriction Of Hazardous Substances In Electrical And Electronic Equipment (Rohs) Directive (2011/65/Eu). | |

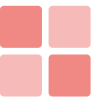


■ QSFP+28G Connector



■ Drawing




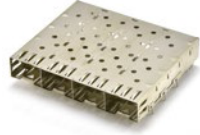




Specification

| Description | QSFP+28G Connector | |
|-----------------|---------------------------------|------------------------------|
| Part no. | 902DD38BXT0601CX | |
| Material | Insulator | Thermoplastic, Rated UI94v-0 |
| | Contact | Copper Alloy |
| | Cover | Thermoplastic, Rated UI94v-0 |
| Contact Plating | Underplate | 50u"~100u" Nickel |
| | Contact Area | Selective Gold |
| | Solder Tails Area | 100u"~200u" Tin (Lead Free) |
| Electrical | Current Rating | 0.5 A Per Contact |
| | Rated Voltage | 30 Vdc Per Contact |
| | Insulation Resistance | 1000 Megaohms Minimum |
| | Dielectric Withstanding Voltage | 300 Vdc For 1 Minute |
| | Storage Temperature | -20°C To +85°C |



SFP Cage

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|---|
| Solder | 1X1 | 902AEA1S00C100A0 |  1X1 Solder Type |
| | 1X2 | 902AEA2P00C100A0 | |
| | 1X4 | 902AEA4P00C100A0 |  1X4 Solder Type |
| | 1X6 | 902AEA6P00C100A0 | |
| PressFit | 1X1 | 902GEA1SF0C100A0 |  1X1 PressFit |
| | 1X2 | 902GEA2P00C100A0 | |
| | 1X4 | 902GEA4P00C100A0 |  1X2 PressFit |
| | 1X6 | 902GEA6S00C100A0 | |




SFP+ Cage

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|---|
| PressFit | 1X1 | 902GEA1P00C20PA0 |  Light Pipe, EMI Spring |
| | 1X2 | 902GEA2S00C2N0A0 |  EMI Spring |
| | 1X4 | 902GEA4S00C2N0A0 |  1X6 PressFit |
| | 1X6 | 902GEA6P00C2A0A0 | |

| Type | Port No. | Part No. | Photo |
|--------|----------|------------------|---|
| Solder | 1X1 | 902AE11SK0C200C0 |  Heat Sink, EMI Spring |
| | 1X2 | 902AEA2P00C2A0A0 |  EMI Spring |
| | 1X4 | 902AEA4P00C200A0 |  Light Pipe, EMI Gasket |
| | 1X6 | 902AEA6P00C2A0A0 | |



■ QSFP+ Cage

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|---|
| PressFit | 1X1 | 902GEA1PXXC40XA0 |  PCI Heat Sink |
| | 1X2 | 902GEA2PXXC46XAD |  SAN Heat Sink, Single Light Pipe, Bezel |
| | 1X3 | 902GEA3PXXC46XA0 |  Networking Heat Sink, Bezel |
| | 1X4 | 902GEA4PXXC46XA0 |  PCI Heat Sink, Double Light Pipe, Gasket |
| | 1X6 | 902GEA6PXXC46XA0 |  Networking Heat Sink, Single Light Pipe, Bezel |



■ QSFP+ 28G Cage

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|--|
| PressFit | IX1 | 902GGA1P5BC641A0 |  <p>Single Light Pipe, Open Top, Bezel</p> |
| | IX2 | 902GEA2P7XC61XA0 |  <p>Double Light Pipe, Networking Heat Sink, Bezel</p> |
| | IX3 | 902GEA3P7XC61XA0 |  <p>Quad Light Pipe, PCI Heat Sink</p> |
| | IX4 | 902GEA4PCAC61XA0 |  <p>Open Top, Bezel</p>  <p>Open Top, PCI Heat Sink, Double Light Pipe, Gasket</p> |

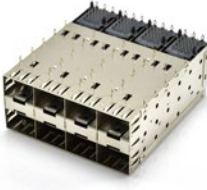


SFP Assembly

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|--|
| PressFit | 2X1 | 902GHB1BCTAA01A3 |  |
| | 2X2 | 902GHB2BCTAA01A3 | 2X1, w/o Light Pipe  |
| | 2X4 | 902GHB4BCTAA01A3 |  |
| | 2X6 | 902GHB6BCTAA01A3 | 2X2, Light Pipe  |
| | 2X8 | 902GHB8BCTAA01A3 |  |



SFP+ Assembly

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|--|
| PressFit | 2X1 | 902GHB1BCTA203A3 |  <p>2X4, w/o Light Pipe</p> |
| | 2X2 | 902GHB2BCTA201A3 |  |
| | 2X4 | 902GHB4BCTA201A3 |  |
| | 2X6 | 902GHB6BCTA201A3 |  <p>2X2, Light Pipe, EMI Gasket</p> |
| | 2X8 | 902GHB8BCTA201A3 | |



■ QSFP+ Assembly

| Type | Port No. | Part No. | Photo |
|----------|----------|------------------|---|
| PressFit | 2X1 | 902GHB1BXTA4TXA3 |  <p>2X2, Light Pipe</p> |
| | 2X2 | 902GHB2BXTA4TXA3 |  <p>2X2, Light Pipe, Conductive Foam</p> |
| | 2X3 | 902GHB3BXTA4TXA3 | |

■ Connector

| Description | Part No. | Photo |
|--------------------------------------|------------------|--|
| SFP + 28G Connector Positions: 20 | 902DH20BXT0701CX |  |
| QSFP Connector Positions: 38 | 902DH38BXT0400C3 |  |
| QSFP + 28G Conn. Positions: 38 | 902DH38BXT0601CX |  |

2019 11 rev 1



詮欣股份有限公司
CHANT SINCERE CO., LTD.

7F-2, No.188, SEC.3, Ta Tung Road, Hsi Chih City,
Taipei Hsien, Taiwan, R.O.C.

TEL : 886-2-8647-1251 FAX : 886-2-8647-1842
Mail : service@coxoc.com.tw