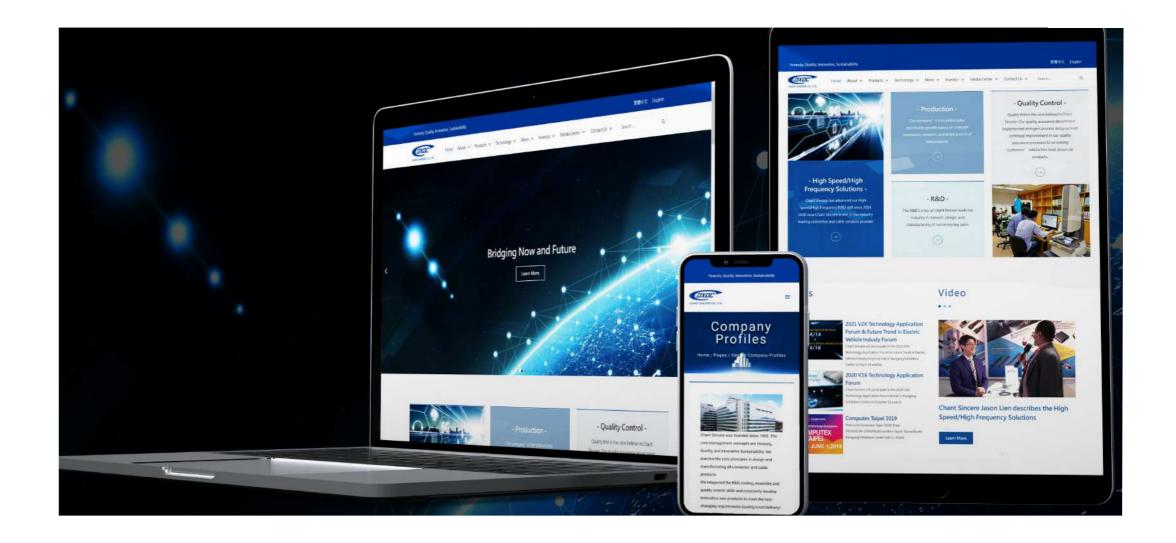


Consumer Electronics SD Card

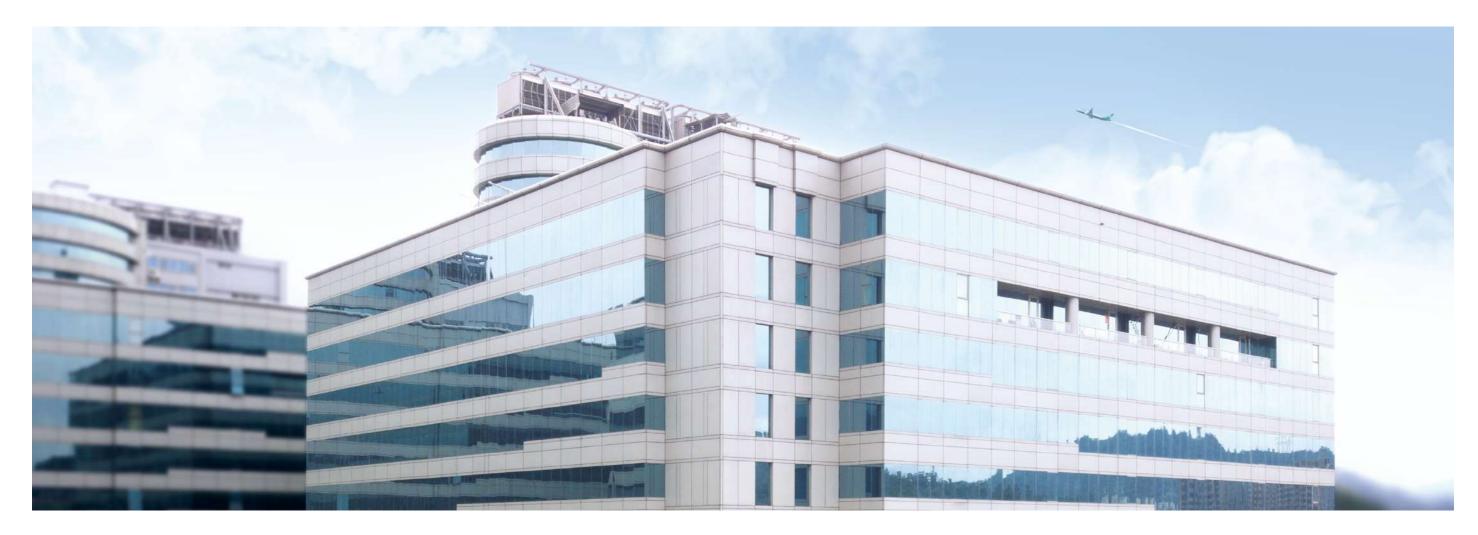
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CHANT SINCERE CO., LTD.





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.

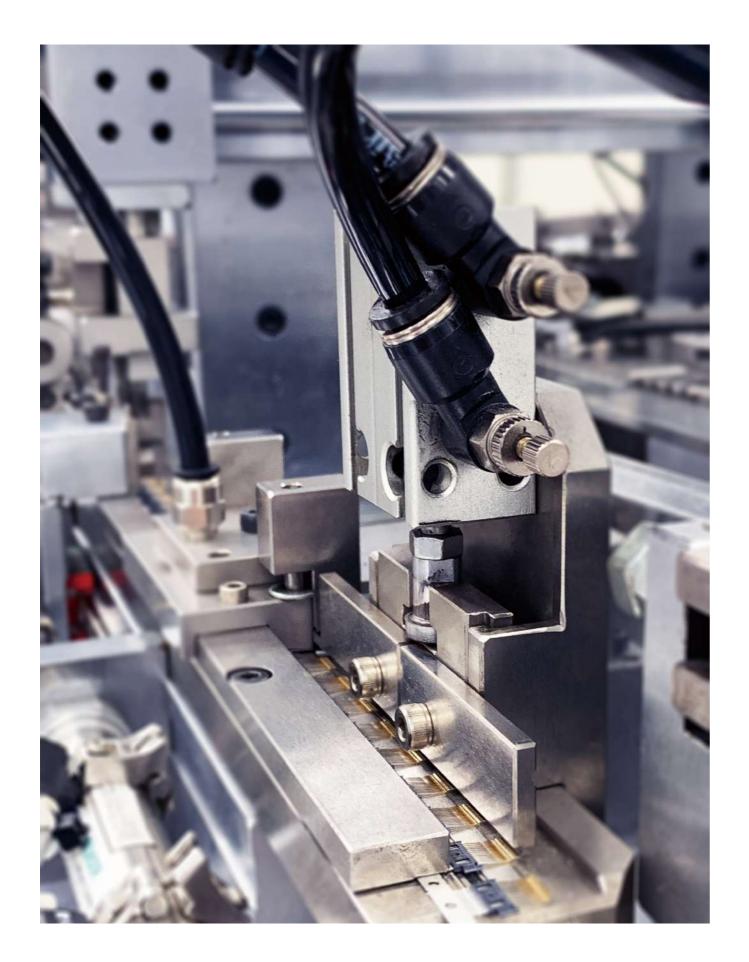
The Core Competence of Chant Sincere Co., Ltd. including.

- 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



SD Card

SD Card Application

Secure Digital, officially abbreviated as SD, is a proprietary non-volatile memory card format developed by the SD Card Association (SDA) for use in portable devices. The standard was introduced in August 1999 by joint efforts between SanDisk, Panasonic (Matsushita Electric) and Toshiba as an improvement over Multimedia Cards (MMC), and has become the industry standard. The three companies formed SD-3C, LLC, a company that licenses and enforces intellectual property rights associated with SD Memory Cards and SD host and ancillary products.

Application

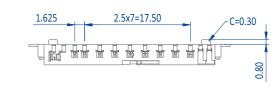
Portable Devices

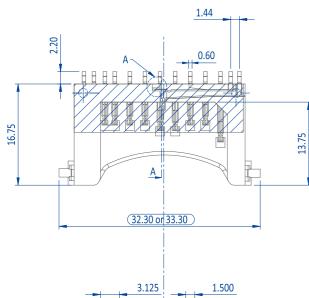
Product Characteristics

- The SD card's small footprint is an ideal storage medium for smaller, thinner and more portable electronic devices. Secure Digital includes five card families available in three different sizes. The five families are the original Standard-Capacity (SDSC), the High-Capacity (SDHC), the eXtended-Capacity (SDXC), the Ultra-Capacity (SDUC) and the SDIO, which com bines input/output functions with data storage.
- Comparison of SD card capacity standards, SD-Min. 128MiB/Max. 2GiB, SDHC-Min. 2GiB/Max. 32GiB, SDXC-Min. 32GiB/Max. 2TiB, SDUC-Min. 2TiB/Max. 128TiB.
- UHS-I- Specified in SD version 3.01 which could transfer 104 MB/s. UHS-II- Specified in version 4.0, further raises the data transfer rate to a theoretical maximum of 156 MB/s (full-duplex) or 312 MB/s (halfduplex) using an additional row of pins.
- UHS-III- Version 6.0, released in February 2017, added two new data rates to the standard. FD312 provides 312 MB/s while FD624 doubles that. Both are full-duplex.
- The physical interface and pin-layout are the same as with UHS-II, retaining backward compatibility.

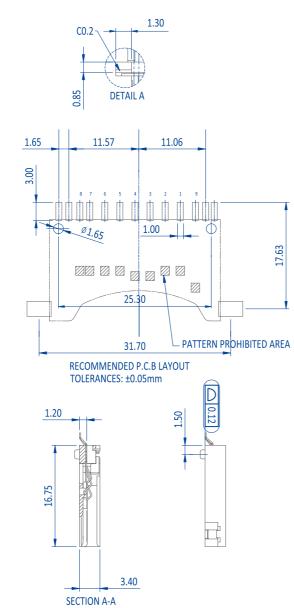
SD 3.0







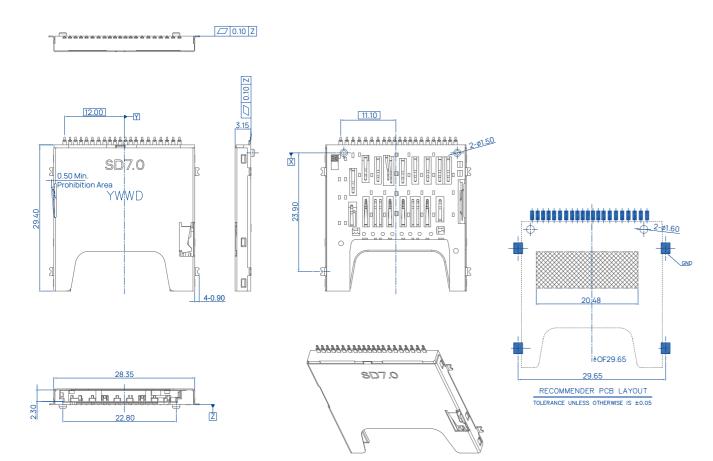




| 5732101XXXX |
|--|
| 9 |
| |
| Thermal Plastic UL94V-0 |
| Copper Alloy |
| Copper Alloy |
| |
| 50u" ~ 100u" Nickel |
| 1u" ~ 30u" Selective Gold |
| 100u"~200u" Tin/Lead or 100u"~200u" Tin(Lead Free) |
| |
| 1 Amps Max. |
| 100 Mohms Max. |
| 1000 Mohms Min. |
| |
| 10000 Cycles Minute |
| -40°C to +85°C |
| |

SD 7.0

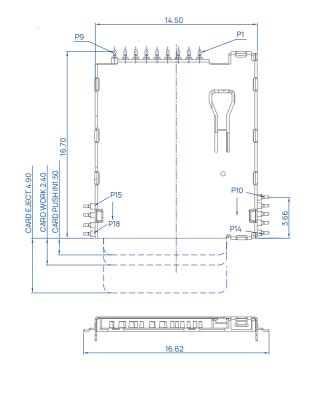




| opeometricit | | | |
|-----------------------|---------------------------|--|--|
| Part No. | 5731101XXXX | | |
| Contact | 19 | | |
| Material | | | |
| Insulator | Thermal Plastic UL94V-0 | | |
| Contact | Copper Alloy | | |
| Shell | Stainless Steel | | |
| Contact Plating | | | |
| Under Plate | Nickel 50u" Min | | |
| Contact Area | 1u" Selective Gold | | |
| Solder Tails Area | Tin 100u" Min | | |
| Electrical | | | |
| Current Rating | 1.0 A | | |
| Contact Resistance | 100 Mohms Max. | | |
| Insulation Resistance | 1000M ohms min. at 250VDC | | |
| Mechanical | | | |
| Mating Cycles | 5000 Cycles Minute | | |
| Operating Temperature | -40°C to +85°C | | |
| | | | |

Micro SD 4.0





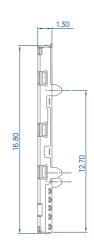
P6 o-

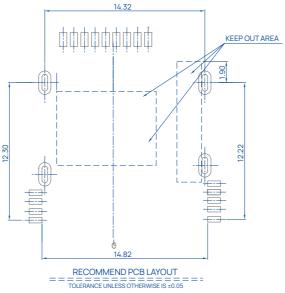
CARD DETECT

CARD OUT

P6 0 P7

CARD INSERT

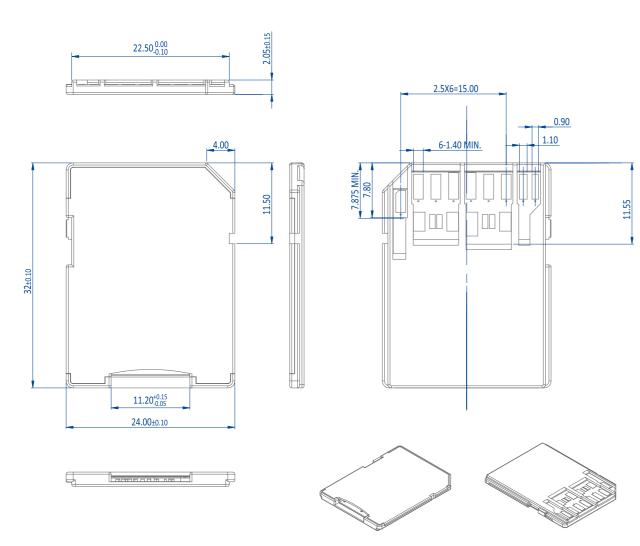




| Part No.5731001XXXXContact18MaterialInsulatorInsulatorThermal Plastic, Rated UL94V-0ContactPhosphor CopperShellStainless SteelContact Plating50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectrical0.5A Min.Contact Resistance100 MohmsInsulation Resistance1000 Mohms | Specification | |
|---|---------------------------------|--------------------------------|
| MaterialInsulatorThermal Plastic, Rated UL94V-0ContactPhosphor CopperShellStainless SteelContact PlatingUnder PlateUnder Plate50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectricalOperation VoltageOperation Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Part No. | 5731001XXXX |
| InsulatorThermal Plastic, Rated UL94V-0ContactPhosphor CopperShellStainless SteelContact PlatingUnder PlateUnder Plate50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectricalOperation Voltage0peration Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Contact | 18 |
| ContactPhosphor CopperShellStainless SteelContact PlatingUnder PlateUnder Plate50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectricalUnder PlateOperation Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Material | |
| Shell Stainless Steel Contact Plating Under Plate Under Plate 50u" ~ 100u" Nickel Contact Area Gold Flash Solder Tails Area 100u" ~ 200u" Tin Electrical Operation Voltage Operation Voltage 10 V Current Rating 0.5A Min. Contact Resistance 100 Mohms | Insulator | Thermal Plastic, Rated UL94V-0 |
| Contact PlatingUnder Plate50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectricalOperation VoltageOperation Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Contact | Phosphor Copper |
| Under Plate50u" ~ 100u" NickelContact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectricalOperation Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Shell | Stainless Steel |
| Contact AreaGold FlashSolder Tails Area100u" ~ 200u" TinElectrical100u" ~ 200u" TinOperation Voltage10 VCurrent Rating0.5A Min.Contact Resistance100 Mohms | Contact Plating | |
| Solder Tails Area 100u" ~ 200u" Tin Electrical 0peration Voltage Operation Voltage 10 V Current Rating 0.5A Min. Contact Resistance 100 Mohms | Under Plate | 50u" ~ 100u" Nickel |
| Electrical Operation Voltage 10 V Current Rating 0.5A Min. Contact Resistance 100 Mohms | Contact Area | Gold Flash |
| Operation Voltage 10 V Current Rating 0.5A Min. Contact Resistance 100 Mohms | Solder Tails Area | 100u" ~ 200u" Tin |
| Current Rating 0.5A Min. Contact Resistance 100 Mohms | Electrical | |
| Contact Resistance 100 Mohms | Operation Voltage | 10 V |
| | Current Rating | 0.5A Min. |
| Insulation Resistance 1000 Mohms | Contact Resistance | 100 Mohms |
| | Insulation Resistance | 1000 Mohms |
| Dielectric Withstanding Voltage 500V AC/Minute | Dielectric Withstanding Voltage | 500V AC/Minute |
| Mating Cycles 3000 Insertions | Mating Cycles | 3000 Insertions |

Micro SD 4.0 to SD Adapter





| Specification | | | |
|--------------------------------|--|--|--|
| 7616101XXXX | | | |
| 16 | | | |
| | | | |
| Thermal Plastic, Rated UL94V-0 | | | |
| Phosphor Copper | | | |
| 50u" ~ 150u" Nickel | | | |
| | | | |
| 3u" Gold | | | |
| 0.5 Amps Max. | | | |
| 1000 Mohms Min @500 VDC | | | |
| | | | |
| 500 VAC / Minute | | | |
| -25°C to +85°C | | | |
| 10,000 Insertions | | | |
| | | | |

SD Card

| Application Type | Description | Part No. |
|---------------------------------------|---|-------------|
| | Standard Non Push SD 3.0 SMT | 57321010010 |
| | Bottom Mount Non Push SD 4.0 SMT | 57304010010 |
| | Bottom Mount Push Push SD 4.0 SMT | 57302010010 |
| I I I I I I I I I I I I I I I I I I I | Normal Type Push Push Micro SD SMT | 57329010010 |

SD Card

| Application Type | Description | Part No. |
|--|--|-------------|
| | • UHS-II • Micro SD 4.0 • SMT | 57309010010 |
| | UHS-II Push Micro SD 4.0 SMT | 57310010010 |
| Reality of the second s | • TransFlash Adapter • TransFlash to SD Adapter | 76161020010 |
| Citerine Citerine | • UHS-II • Mirco SD 4.0 Adapter • Micro SD 4.0 to SD 4.0 Adapter | 76161010010 |
| | Top Mount Push Push SD 7.0 SMT | 5731101XXXX |
| and a month | Top Mount No Push SD 7.0 SMT | 5731201XXXX |



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