詮欣股份有限公司
CHANT SINCERE CO., LTD.

SD Card

www.coxoc.com.tw

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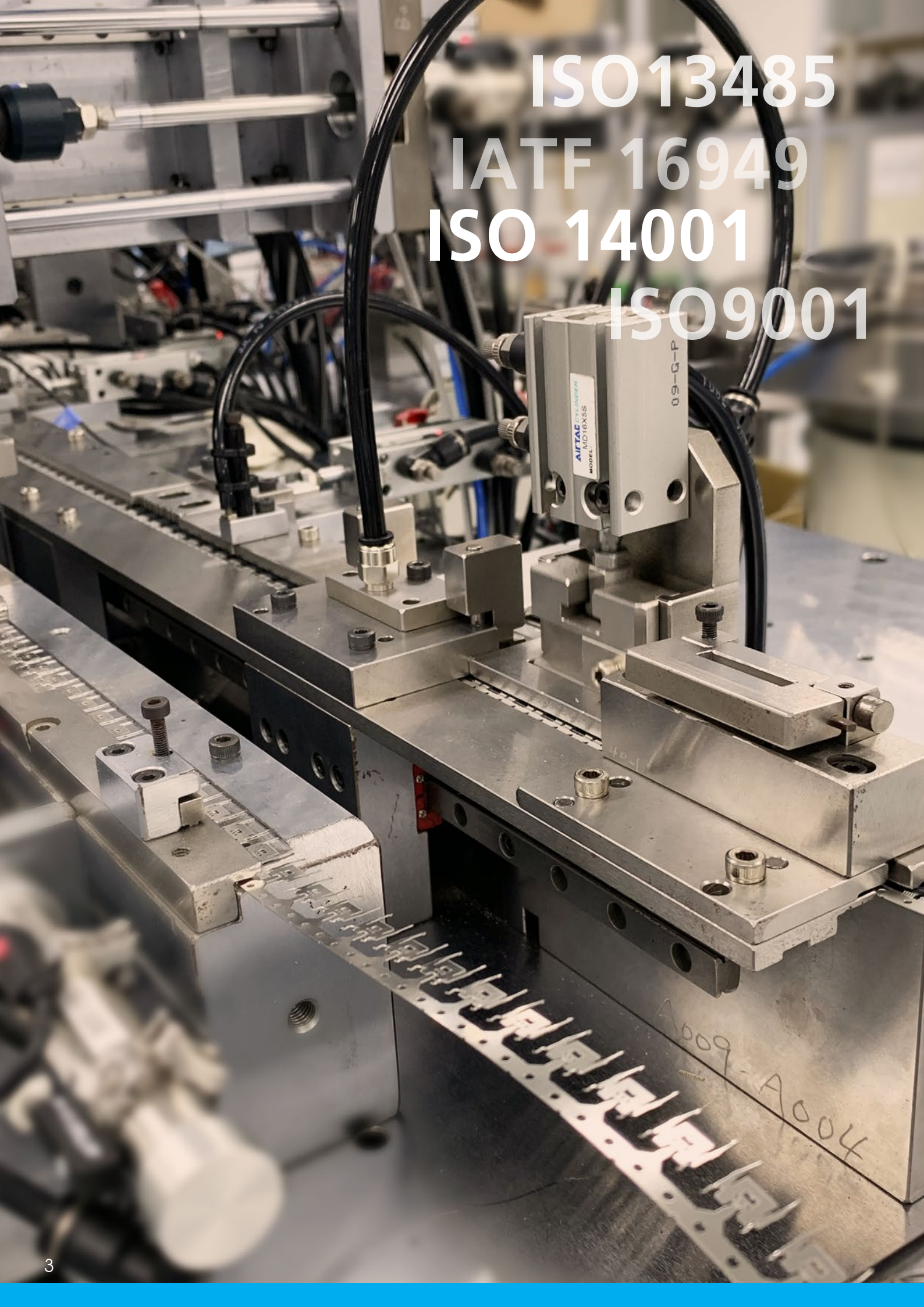
About Chant Sincere

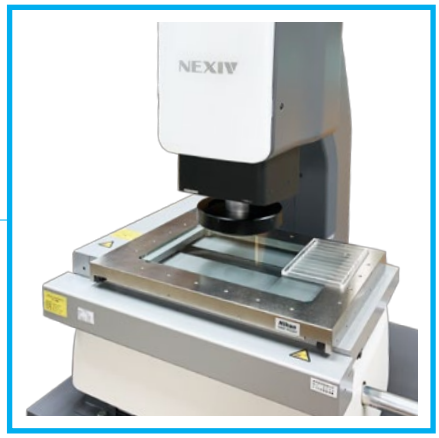
■ **Chant Sincere Co.,Ltd.** was set up in 1985., With the management concept of "Honest, Innovative, Quality, Longterm" to design and manufacture connector and cable.
Keep developing new innovative products and integrating vertically from R&D, tooling, assembly and quality control to meet the demands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

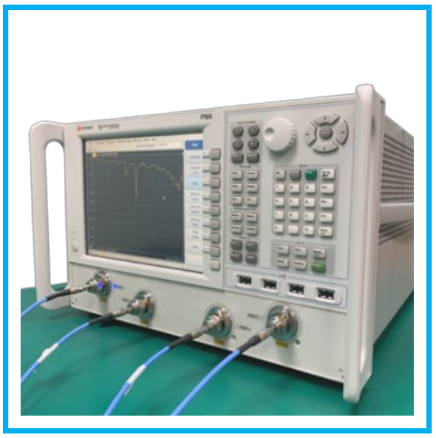
■ **Chant Sincere** won the "National Bedrock Award" & "Small Giant Award" from Taiwan Connector maker competition and got many "Best Supplier awards" from Global customers.
We are focusing on improving our design and manufacture technology, and we have been applying for a lot of international patents 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


ISO13485
IATF 16949
ISO 14001
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.

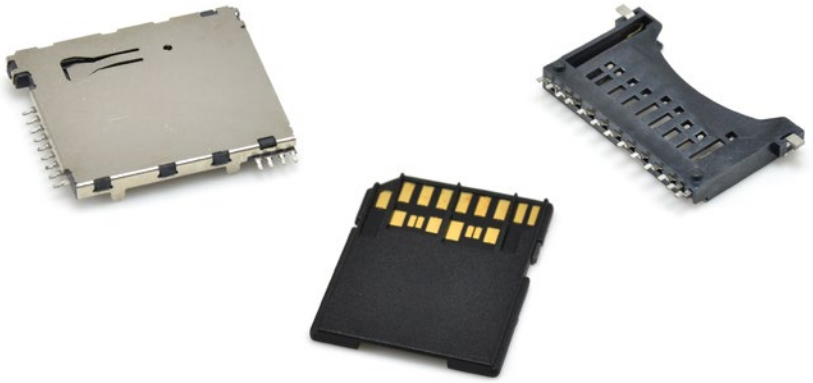
Competencies & Technology

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.

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 MultiMediaCards (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.

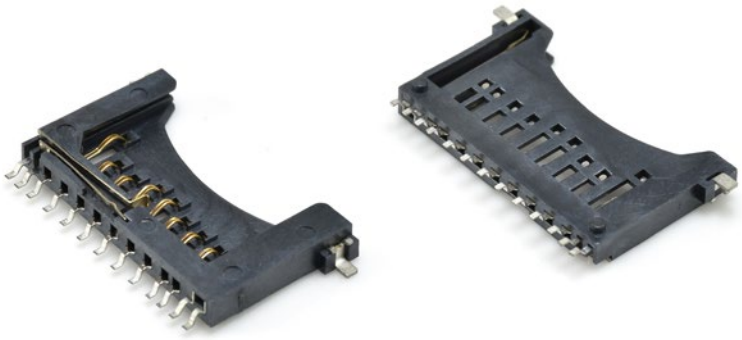
Application

- 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 combines 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 (half-duplex) 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



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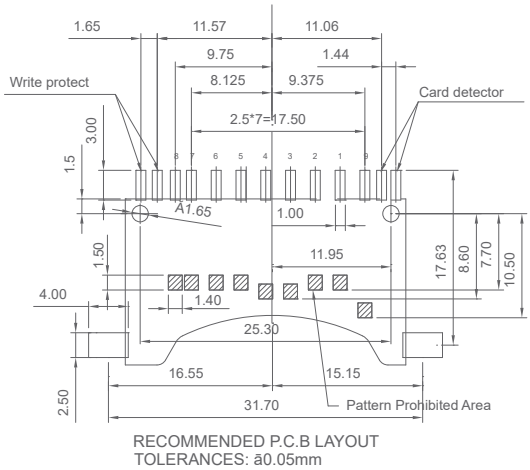
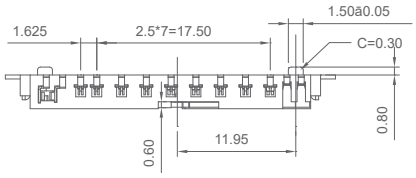
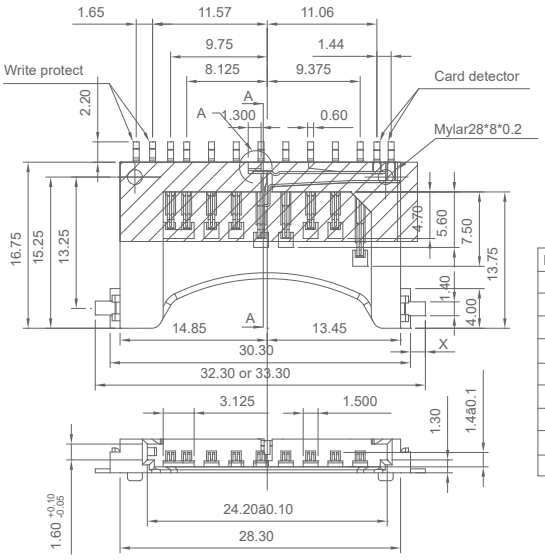
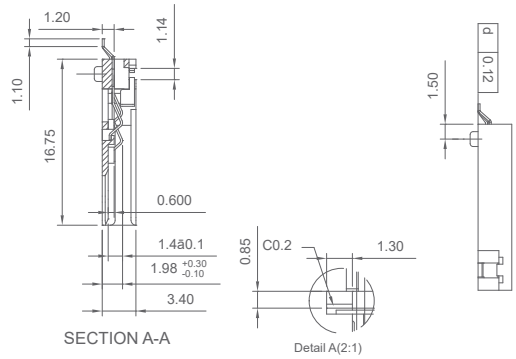


RECOMMENDED P.C.B LAYOUT
TOLERANCES: ā0.05mm





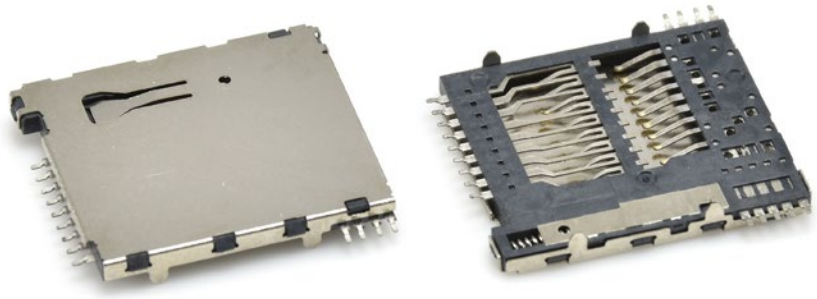
PIN#	NAME
1	CD/DAT3
2	CMD
3	VSS1
4	VDD
5	CLK
6	VSS2
7	DAT0
8	DAT1
9	DAT2



Specification

Description		SD 3.0, Top mount, Push-Pull Type
Part no.		412D02K09PX0X3
Material	Insulator	Thermal Plastic UL94V-0
	Contacts	Copper Alloy
	Boardlock	Copper Alloy
Contact Plating	Underplate	50u"~100u" Nickel
	Contact Area	1u"~30u" Selective Gold
	Solder Tails Area	100u"~200u" Tin/Lead or 100u"~200u" Tin(Lead Free)
Electrical	Current Rating	1 Amps Max.
	Contact Resistance	100 mohms Max.
	Insulation Resistance	1000 Mohms Min.
Mechanical	Mating Cycle	10000 Cycles Minute
	Operating temperature	-40°C To +85°C

micro SD 4.0



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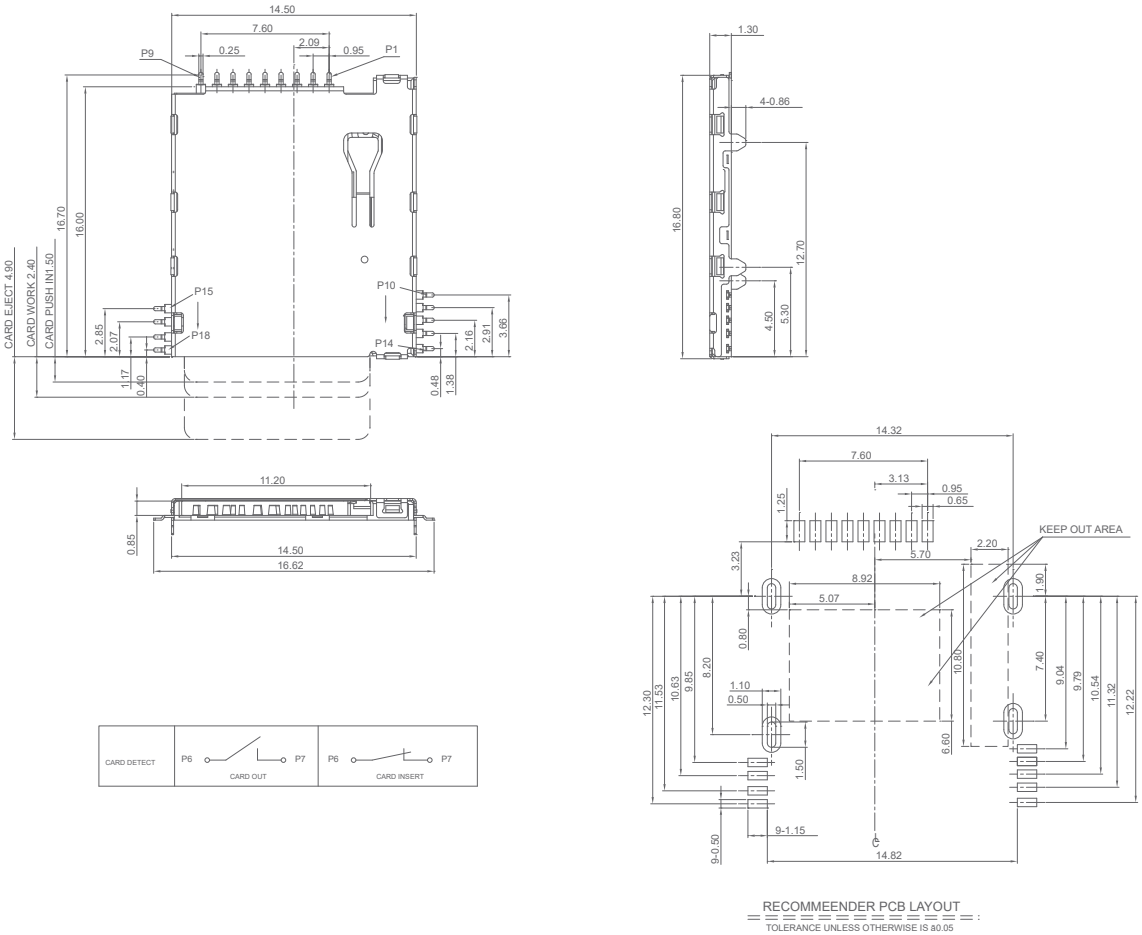
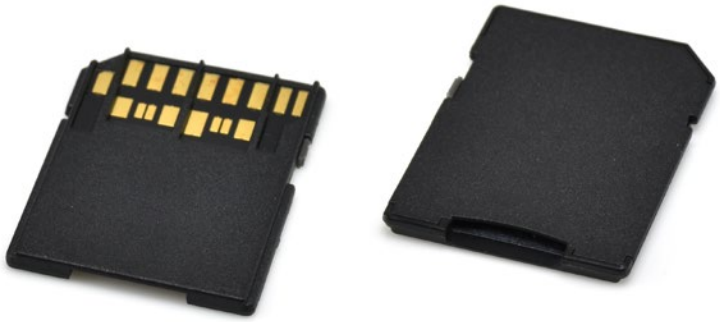


Specification

Description		micro SD 4.0, Top mount, Push-Push Type
Part no.		460DH18PSTS2N0C3
Material	Insulator	Thermal Plastic, Rated UL94V-0
	Contacts	Phosphor Copper
	Shell	Stainless steel
Contact Plating	Underplate	50u"~100u" Nickel
	Contact area	Gold Flash
	Solder tails area	100u"~200u" Tin
Electrical	Operation voltage	10V
	Current rating	0.5A min.
	Contact resistancr	100mohms
	Insulation resistance	1000Mohms
	Dielectric withstanding voltage	500V AC/Minute
	Temperature range	-20°C to +60°C
	Mating cycles	3000 insertions

micro SD 4.0 to SD Adapter



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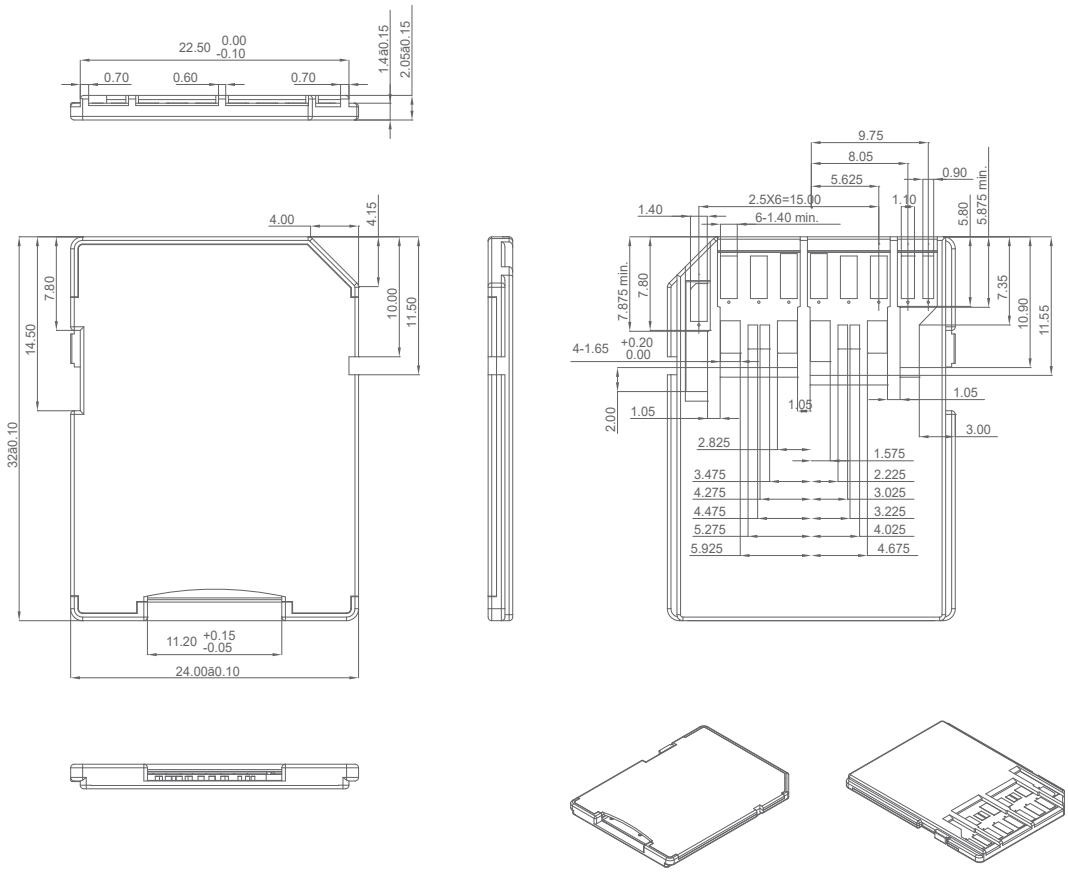

Specification

Description		micro SD 4.0 to SD Adapter, Push-Pull Type
Part no.		C-461SF16PSNS1A003
Material	Insulator	Thermal Plastic, Rated UL94V-0
	Contacts	Phosphor Copper
	Underplate	50u"~150u" Nickel
Gold Finger Plating	Contact area	3u" gold
	Current rating	0.5 Amps max.
	Insulation resistance	1000 Mohms min @ 500 VDC
Electrical	Dielectric withstanding voltage	500 VAC / minute
	Operating Temperature range	-25°C TO +85°C
	Mating cycles	10,000 insertions

SD Card

Photo	Description	Part No.
SD Card Connector (UHS Ⅰ)	• Top mount • Push-Pull • SD 3.0 • W/O Metal Shell	412D02K09PX0X3
SD Card Connector (UHS Ⅰ)	• Top mount (Short Type) • Push-Pull • SD 3.0 • With Metal Shell	412D07X09PX24X
SD Card Connector (UHS Ⅰ / UHS Ⅱ)	• Top mount (Short Type) • Push-Push • SD 4.0 • With Metal Shell	412DH19HSTS180X3
SD Card Connector (UHS Ⅰ / UHS Ⅱ)	• Reverse Type (Short Type) • Push-Push • SD 4.0 • With Metal Shell	412DH19HSTS281C3
SD Card Connector (UHS Ⅰ / UHS Ⅱ)	• Reverse Type • Push-Push • SD 4.0 • With Metal Shell	412DH19HSTS480A3
SD Card Connector (UHS Ⅰ / UHS Ⅱ)	• Reverse Type (Middle Mount H=1.55) • Push-Push • SD 4.0 • With Metal Shell	412DH19HSTS571CC

Photo	Description	Part No.
SD Card Connector (UHS Ⅰ / UHS Ⅱ)	• Top Mount • Push-Push • SD 4.0 • With Metal Shell	412DH19HXTS380A3
micro SD Connector (UHS Ⅰ)	• Top Mount • Push-Push • micro SD 3.0 • With Metal Shell	460DA3F08PC001C
micro SD Connector (UHS Ⅰ / UHS Ⅱ)	• Top Mount • Push-Push • micro SD 4.0 • With Metal Shell	460DH18PSTS2N0C3
micro SD Connector (UHS Ⅰ / UHS Ⅱ)	• Top Mount • Push-Pull • micro SD 4.0 • With Metal Shell	C-460DH18PSTS1N0C3
micro SD to SD Adapter (UHS Ⅰ)	• Push-Pull • micro SD 3.0 • W/O Metal Shell	C-461SA5J08PX1003
micro SD to SD Adapter (UHS Ⅰ /UHS Ⅱ)	• Push-Pull • micro SD 4.0 • W/O Metal Shell	C-461SF16PSNS1A003

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