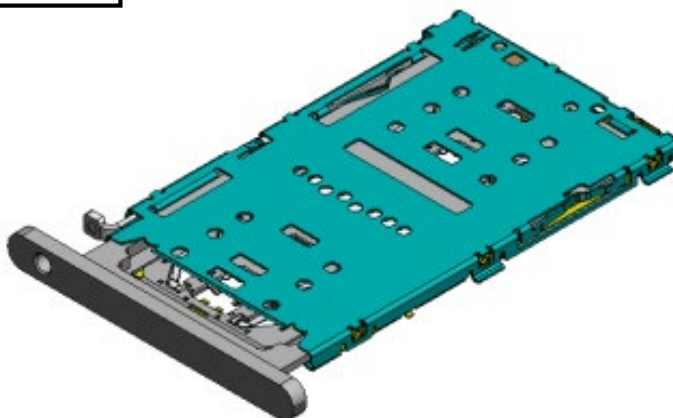


3-in-2 Type Card Connector
(For nano SIM + nano SIM / microSD™ Cards)

CONNECTOR
MB-0321-2
Dec.2021

ST19 Series

RoHS Compliant



For devices with communication functions such as smartphones, feature phones, and tablets, there is a growing demand to use multiple SIM cards on one device.

Furthermore, due to the downsizing of the devices, SIM cards are shifting from the conventional micro SIM (3FF) cards to smaller size nano SIM (4FF) cards. The ST19 Series is a compact and light weight 3-in-2 type combo push-eject tray connector that is compatible with two types of combination card usage patterns. 2 nano SIM cards, or 1 nano SIM card and 1 microSD card. (SIM: **S**ubscriber **I**dentify **M**odule)

Applicable Market

Mobile phones, smartphones, tablet PCs, notebook PCs, and other small portable devices

Features

- Compact and slim design --- 1.3 mm height, 17.49 mm width, 28.15 mm depth
- Compatible with two patterns
Combination 1) nano SIM card x 1 pcs. + microSD™ card x 1 pcs.
Combination 2) nano SIM card x 2 pcs.
- With tray detection switch (normally-closed type)
- Contact buckling prevention structure to avoid deformation of the contacts even if an empty card adapter is inserted.
- Tray mis-insertion countermeasure to prevent insertion of tray upside down.
- Compatible with thickness of nano SIM Cards that are manually cut to size by user.

* microSD™ is a trademark of **SD** Card **A**ssociation

General Specifications

| | |
|---------------------------------|--------------------------|
| Number of Contacts | 20 positions |
| Insulation Resistance | 100MΩ min. (initial) |
| Dielectric Withstanding Voltage | AC250V rms. for 1 minute |
| Durability | 2,500 mating cycles |
| Operating Temperature Range | -40°C ~ +85°C |
| Rated Current | 0.5A |
| Rated Voltage | 10 V |

Materials and Finishes

| Components | Materials | Finishes |
|------------------|-----------------|--|
| Signal Contact | Copper alloy | Au plating over Ni (Contact area) Au plating over Ni (Board mounting area) |
| Housing | Synthetic Resin | |
| Cover | Stainless steel | Au plating over Ni (Board mounting area) |
| Detection Switch | Copper alloy | Au plating over Ni (Contact area) Au plating over Ni (Board mounting area) |
| Eject Bar | Stainless steel | |
| Eject Lever | Stainless steel | |

Ordering Information

ST19 S 020 V C A R1400

Series

Connector Type
S: Non-ZIF structure

No. of Contacts

Reeled Part Number (Note)

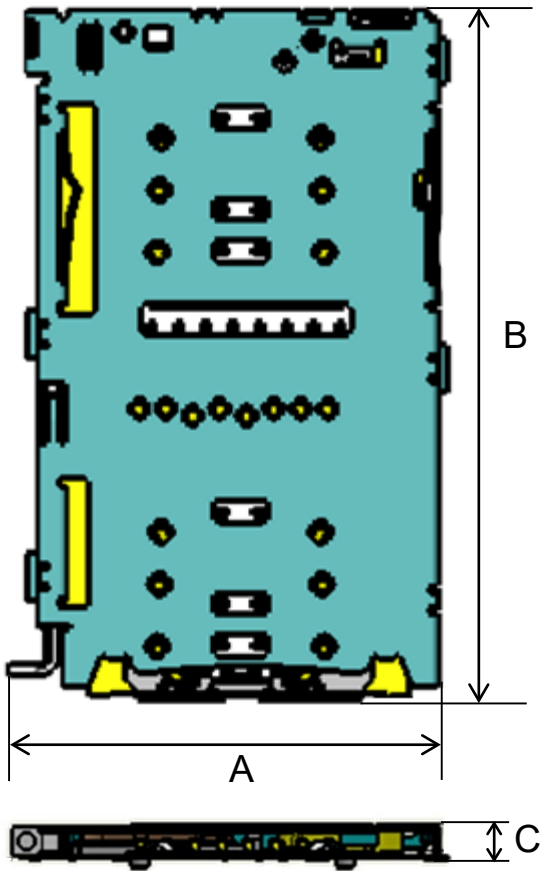
Modification Code
A: Card insertion slot has a guide shape
C: No guide shape at card insertion slot

Plating Specification
C: Au / Au flash plating

Connection Type
V: SMT mounting with hold-downs

Note) An embossed tape reel contains 1,400 pcs.
Please contact us for details on embossed tape specifications.

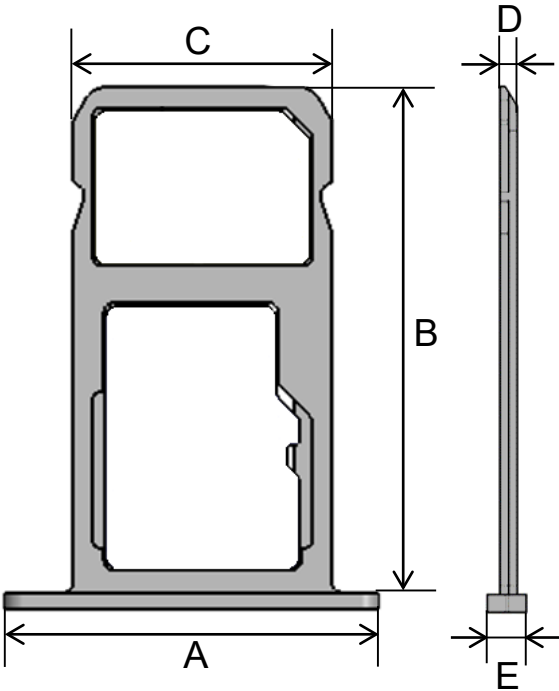
Outer Dimensions



Unit: mm

| Dimensions Product name | | | |
|----------------------------|-------|-------|-----|
| | A | B | C |
| ST19S020VCA | 17.49 | 28.15 | 1.3 |
| ST19S020VCC | 17.49 | 28.15 | 1.3 |

Recommended Tray External Dimensions



Unit: mm

| Dimensions | A | B | C | D | E |
|--------------|------|------|------|------|-----|
| Product name | | | | | |
| Tray | 21.2 | 28.7 | 14.7 | 0.97 | 2.2 |

Note 1: Above are recommended dimensions for tray which should be designed and manufactured by customers.

Note 2: The drawing above is for reference only.
Please refer to our latest product drawing when using this product.

Product Drawings and Specifications

| Part Number | Drawing Number | Specifications | Handling Instructions |
|------------------|------------------------------|----------------|-----------------------|
| ST19S020VCAR1400 | SJ117667(Individual Product) | JACS-11162 | JAHL-11162 |
| | SJ117668(Reeled Product) | | |
| ST19S020VCCR1400 | SJ116137(Individual Product) | | |
| | SJ116136(Reeled Product) | | |

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products.
For purchase, a product specification must be agreed upon.
2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.
3. The products presented in this brochure are designed for the uses recommended below.
We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.
(1) Applications that require consultation:
(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:
Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.
(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :
Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.
(2) Recommended applications include:
Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

Japan Aviation Electronics Industry, Limited

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