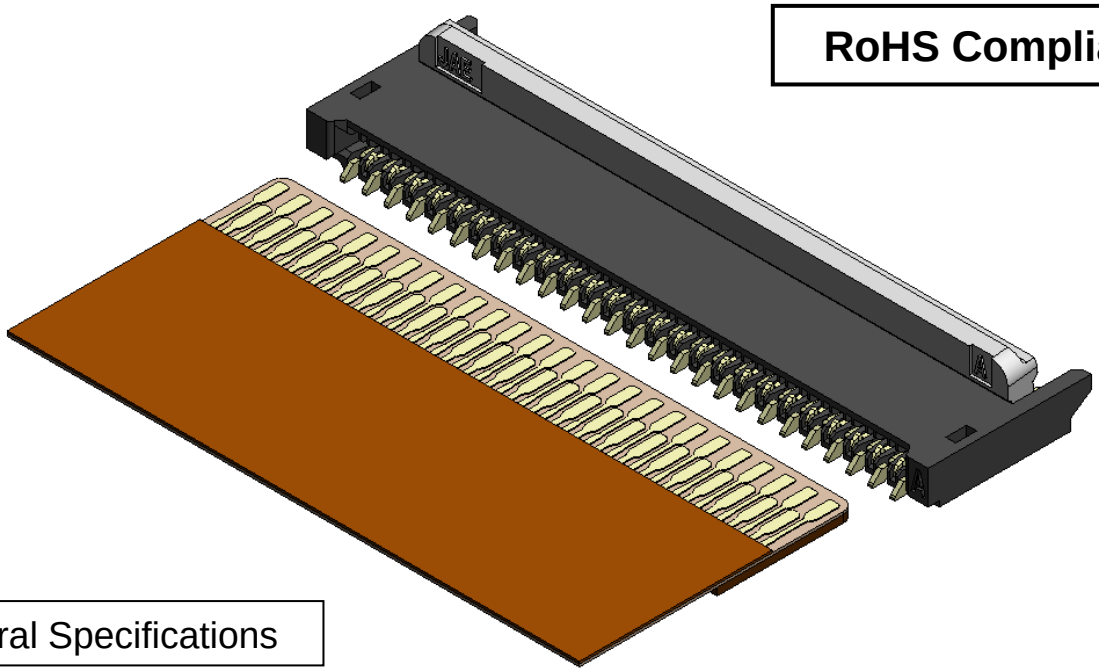
NEW

0.2 mm Pitch, 0.82mm Mating Height FPC Connector

FR02 Series

CONNECTOR
MB-0269-1
August 2013

RoHS Compliant



General Specifications

The “FR02 Series” is a 0.2mm pitch, top-and-bottom surface connection type FPC connector for space-saving of hand-held devices such as smartphones and tablet PCs.

Features

- ■0.2mm pitch, 0.82mm height, and 3.0mm depth, space-saving FPC connector.
- ■Applicable FPC thickness 0.2mm ± 0.03mm, top-and-bottom surface connection type, rear flip type FPC connector.
- ■LIF (Low Insertion Force) structure temporarily holds FPC in place.
- ■Tapered guides in the insertion area for improved FPC insertion guidance.
- ■Good operational feeling is provided during actuator operation.
- ■Board pattern traces are possible under the connector excluding terminal area.
- ■With a structure that prevents the actuator from coming off during actuator operation.
- ■Pb-free, halogen-free compliant product.
- ■Ni barrier prevents solder wicking.

General Specifications

- ■No. of Contacts: 23, 41, 51, and 61 positions
- ■Contact Resistance (top connection, bottom connection):
  Odd pin count: initial 120m Ω max., 140m Ω max. after test
  Even pin count: initial 100m Ω max., 120m Ω max. after test
- ■Dielectric Withstanding Voltage:
  AC250V per minute max.
- ■Operating Temperature:
  -40 Deg. C + 85 Deg. C
- ■Durability: 20 mating cycles
- ■Rated Current:
  AC, DC each 0.25A per terminal
- ■Rated Voltage:
  AC, DC each 50V per terminal
- ■Applicable FPC Thickness:
  0.2mm ± 0.03mm
- ■Pitch:
  0.2mm staggered pitch

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Materials and Finishes

Components	Material and Finish
Housing	Heat resistant plastic (Black, halogen-free)
Actuator	Heat resistant plastic (White, halogen-free)
Contact	Copper alloy, Au plating over Ni Au0.1μm min.

Ordering Information

FR02 C0** JA1 - R 5000

- FR02: Series
- C0**: No. of Contacts
- JA1: Modification Code
- R 5000: Reeled: 5000 pcs.

No. of Contacts Developed

No. of Contacts	Development Status
23	Now in mass-production
41	Now in mass-production
51	Now in mass-production
61	Now in mass-production

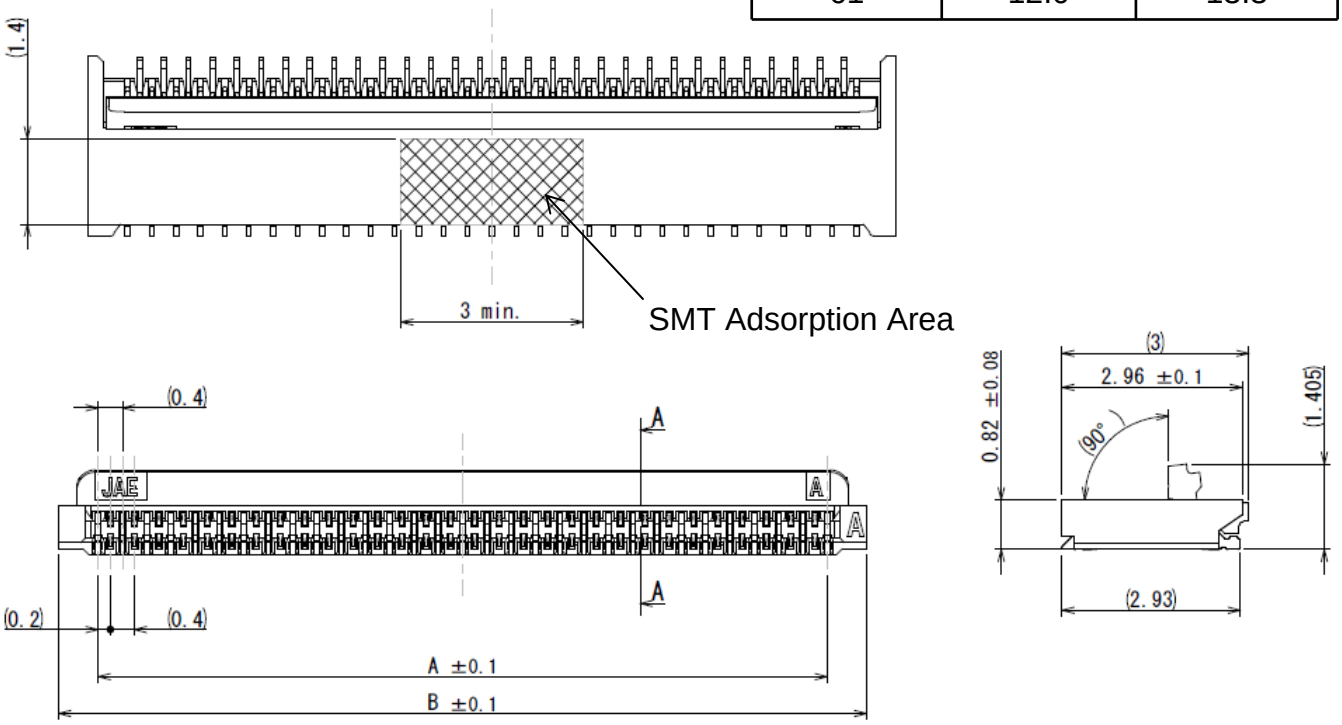
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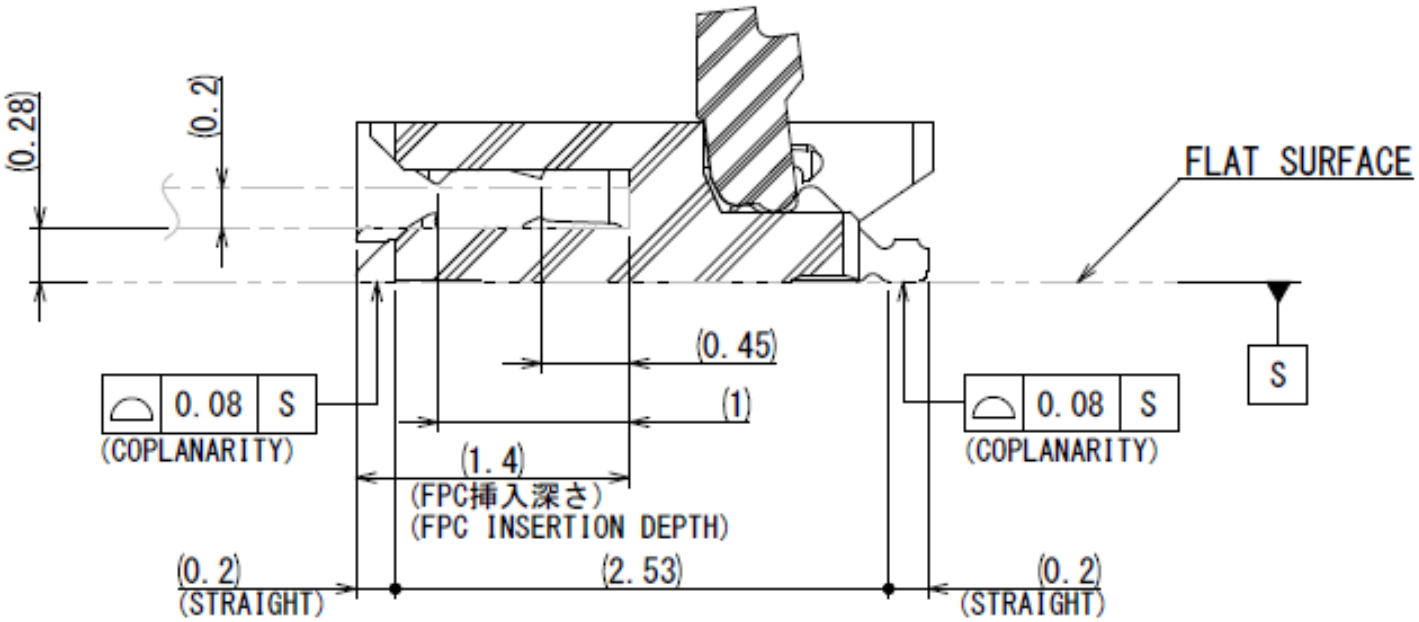
Connector Dimensions

Unit: mm

No. of Contacts	Dimension A	Dimension B
23	4.4	5.7
41	8.0	9.3
51	10.0	11.3
61	12.0	13.3

Part Number	SJ Drawing
FR02C0**JA1	SJ113749





SECT A-A
SCALE (20 : 1)

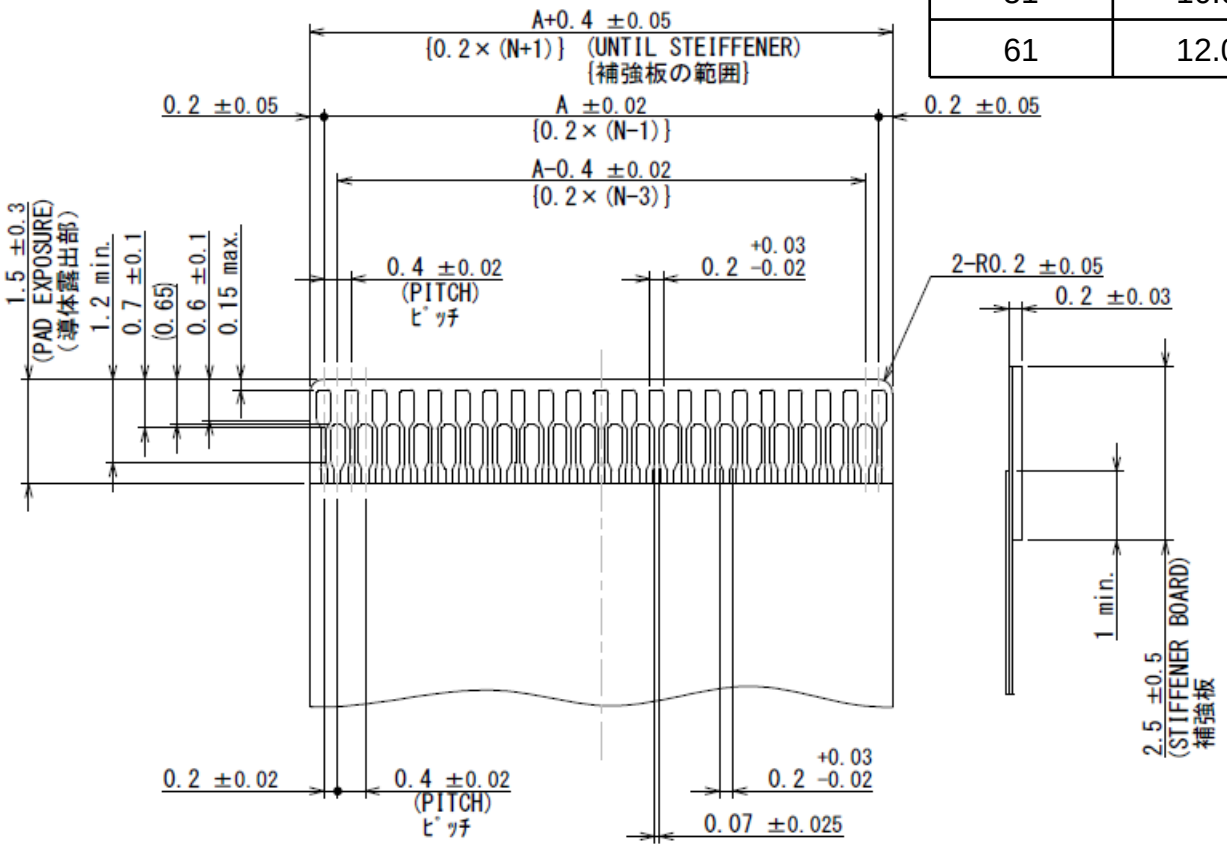
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Applicable FPC Dimensions

Unit: mm

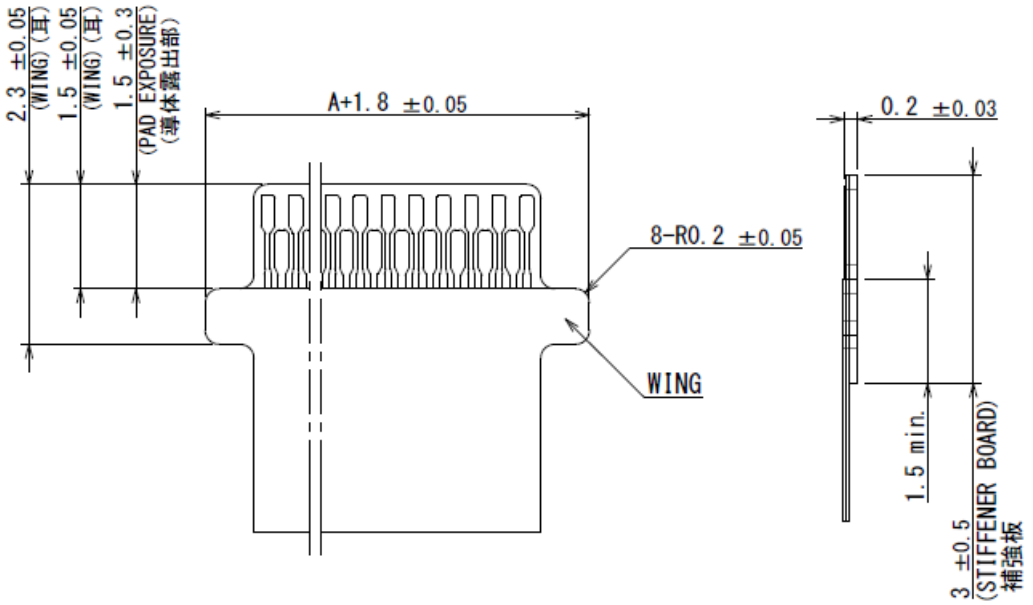
No. of Contacts	Dimension A
23	4.4
41	8.0
51	10.0
61	12.0

<Without Guides>



<With Guides>

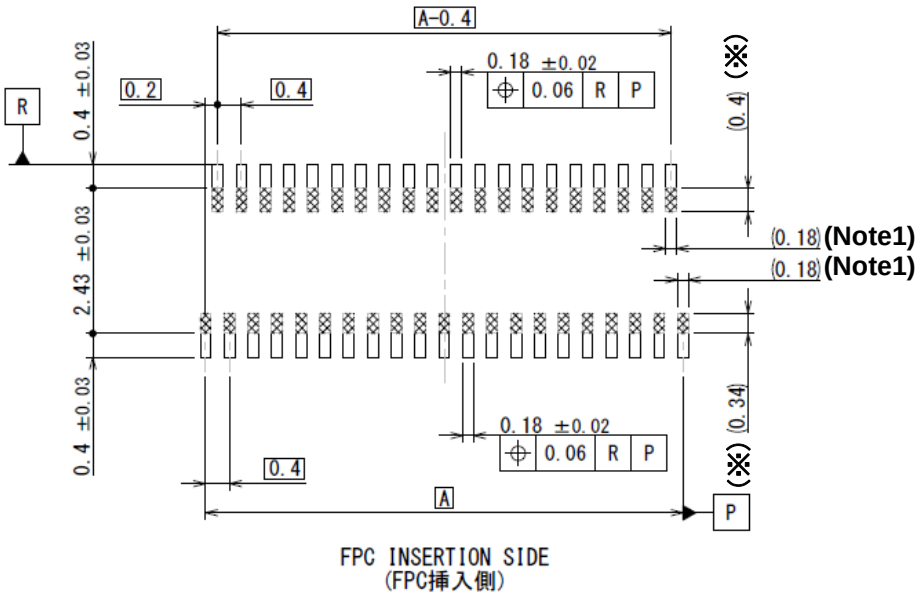
The guide structure enables visual confirmation of complete FPC mating and prevents misaligned mating.



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Applicable Board Dimensions

Unit: mm



No. of Contacts	Dimension A
23	4.4
41	8.0
51	10.0
61	12.0

(Note 1) Board pattern is prohibited in this area shown excluding the pad where each range touches and the pattern electrically connected.

Related Documents

Product Drawing	SJ113749
Packaging Drawing	SJ113750
Specifications	JACS-10807-0
Handling Instructions	JAHL-10807

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.
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(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

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