



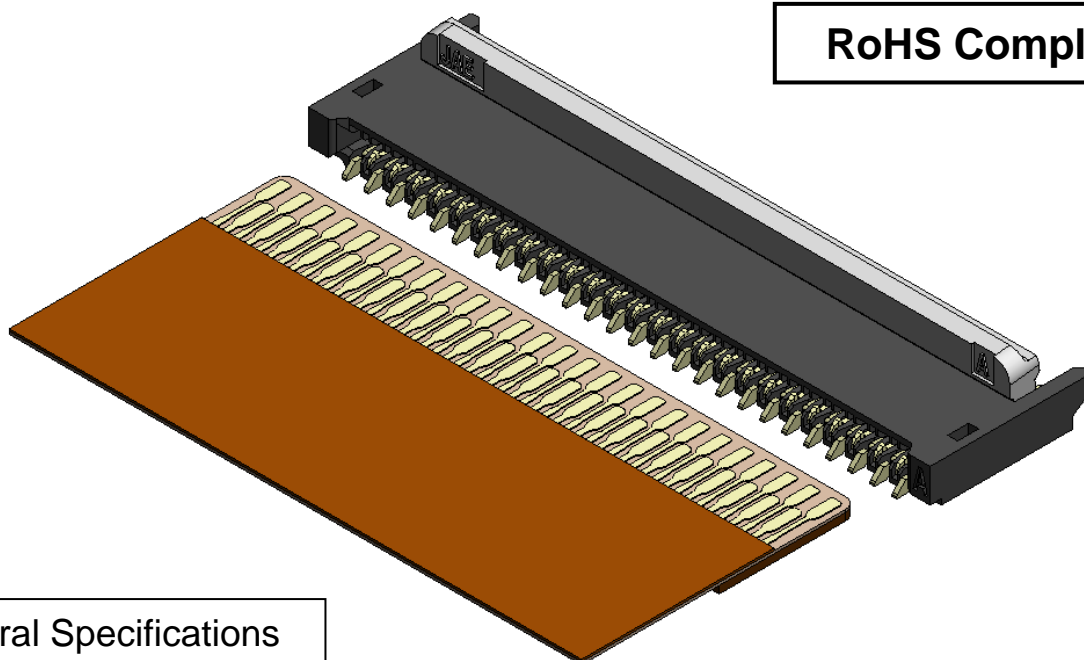
0.2 mm Pitch, 0.82mm Mating Height FPC Connector

CONNECTOR

MB-0269-1

August 2013

FR02 Series

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 $0.2\text{mm} \pm 0.03\text{mm}$, 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 | ■ Rated Current:
AC, DC each 0.25A per terminal |
| ■ Contact Resistance (top connection, bottom connection):
Odd pin count: initial $120\text{m}\Omega$ max., $140\text{m}\Omega$ max. after test
Even pin count: initial $100\text{m}\Omega$ max., $120\text{m}\Omega$ max. after test | ■ Rated Voltage:
AC, DC each 50V per terminal |
| ■ Dielectric Withstanding Voltage:
AC250V per minute max. | ■ Applicable FPC Thickness:
$0.2\text{mm} \pm 0.03\text{mm}$ |
| ■ Operating Temperature:
-40 Deg. C + 85 Deg. C | ■ Pitch:
0.2mm staggered pitch |
| ■ Durability: 20 mating cycles | |

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
Series				Reeled: 5000 pcs.
No. of Contacts		Modification Code		

No. of Contacts Developed

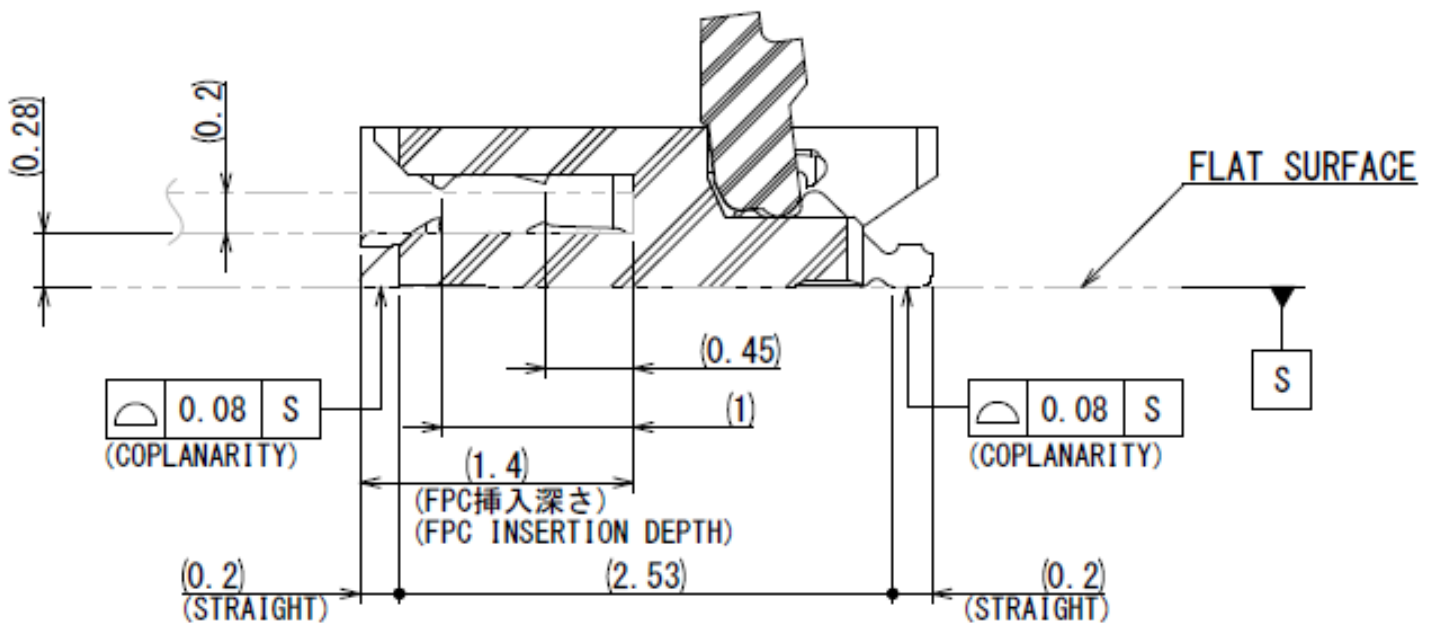
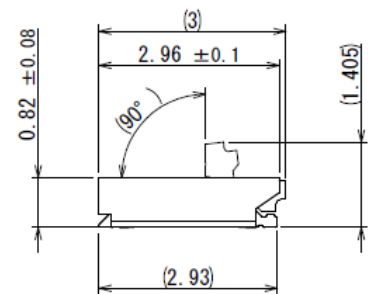
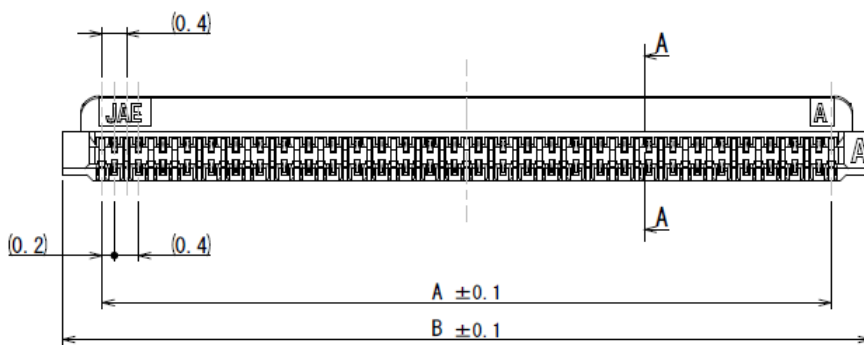
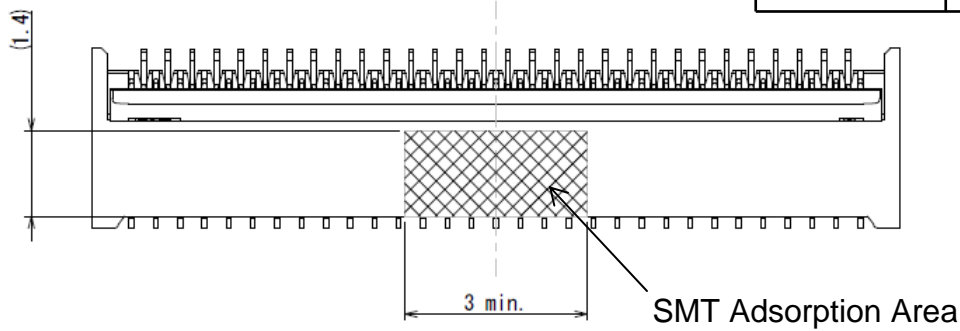
No. of Contacts	Development Status
23	Now in mass-production
41	Now in mass-production
51	Now in mass-production
61	Now in mass-production

Connector Dimensions

Unit: mm

Part Number	SJ Drawing
FR02C0**JA1	SJ113749

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



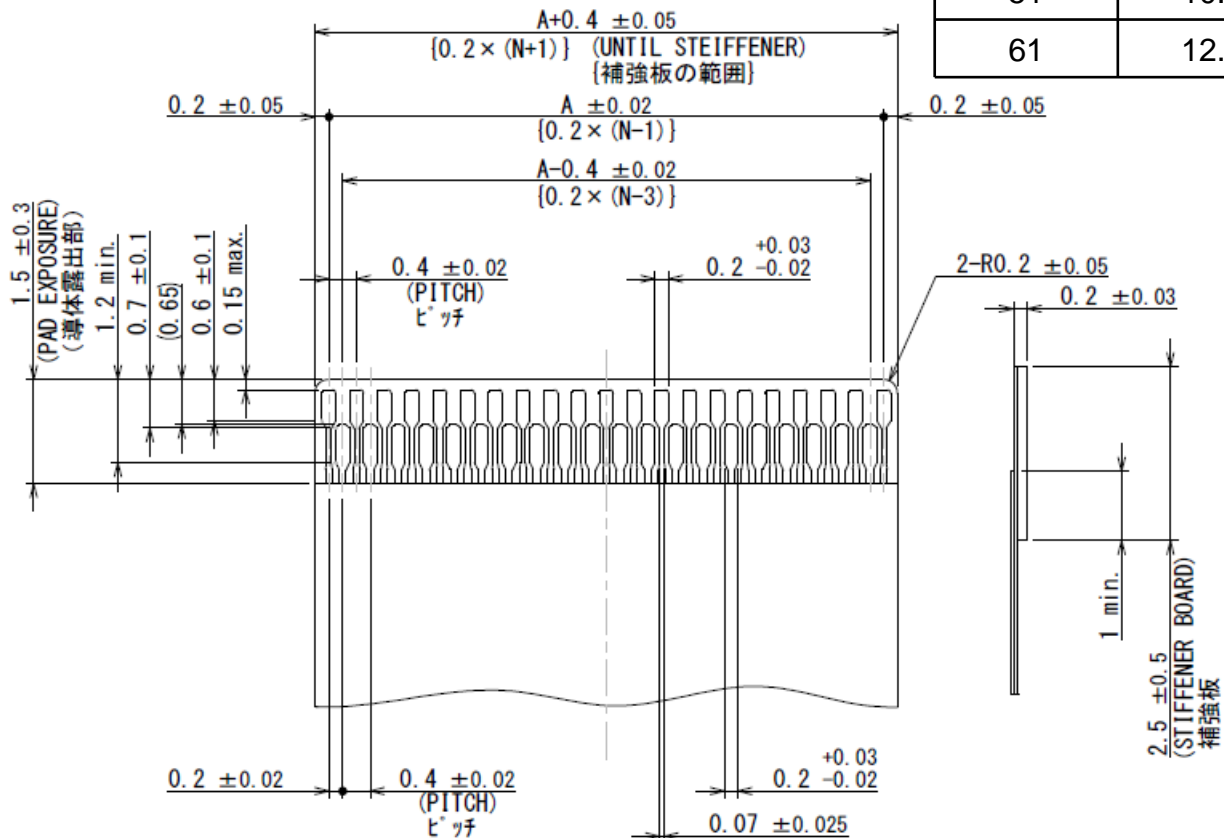
SECT A-A
SCALE (20 : 1)

Applicable FPC Dimensions

Unit: mm

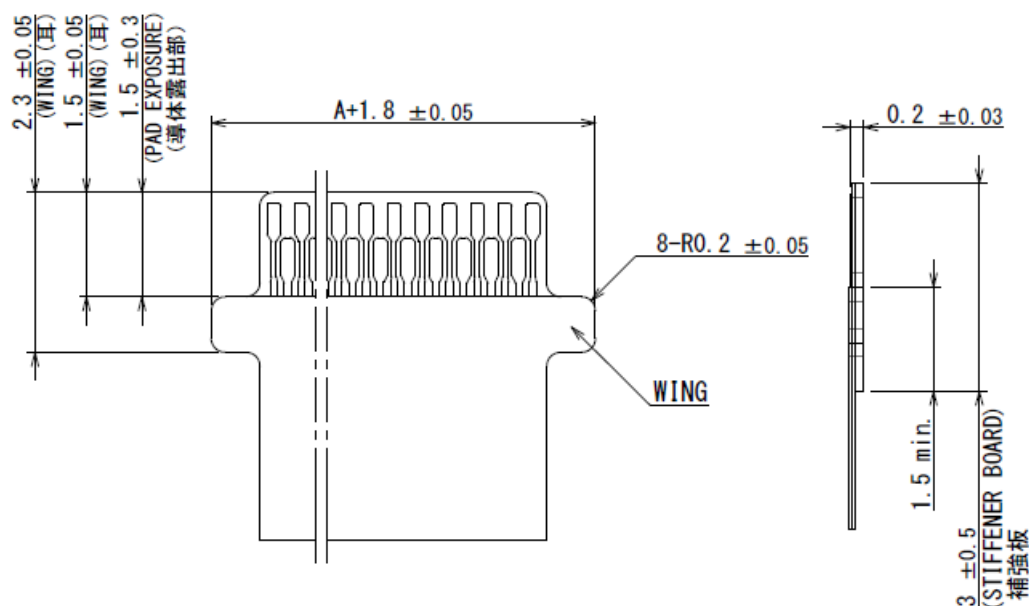
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No. of Contacts	Dimension A
23	4.4
41	8.0
51	10.0
61	12.0



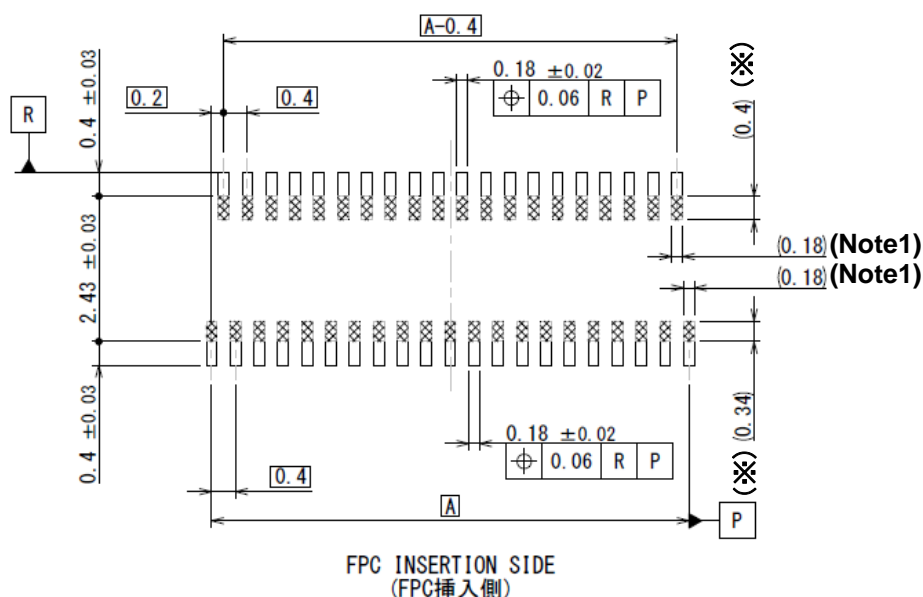
<With Guides>

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



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:

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 - 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

Product Marketing Division
Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539
Phone: +81-3-3780-2882 FAX: +81-3-3780-2946

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