

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
TITLE 1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 1 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
		APPROVED BY Y.Kameda	
		CLASSIFICATION : UNRESTRICTED	

1. Scope

This specification summarizes the important items for using the 1.0mm pitch connector for FPC/FFC "SFW-R Series". Before this connector is used, please be sure to look through these specifications.

2. Application product

TITLE	Product No.
1.0mm pitch SMT type connector for FPC/FFC "SFW-R Series" with cable lock	SFW__R-ST_E_LF

3. Each part name

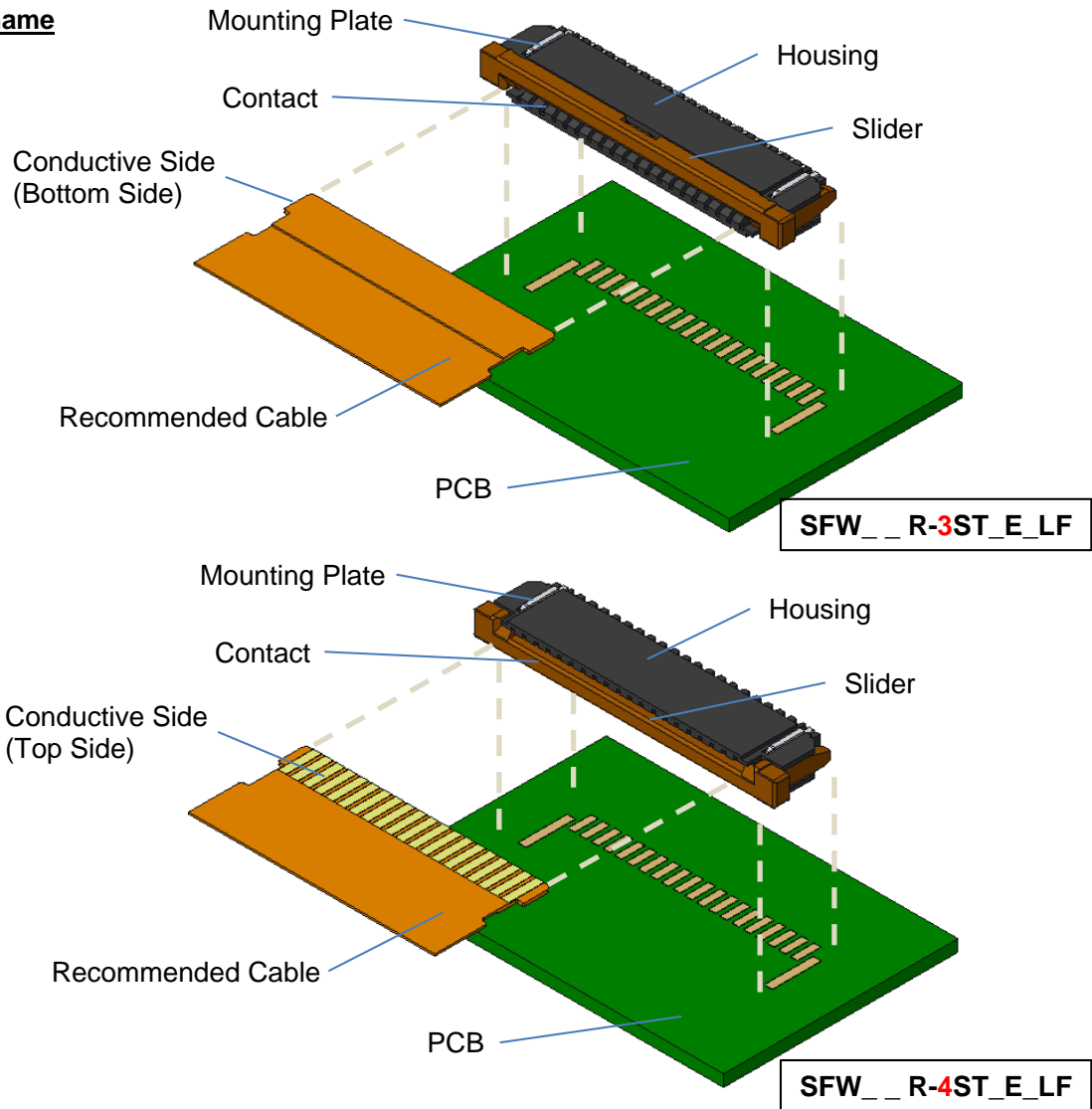


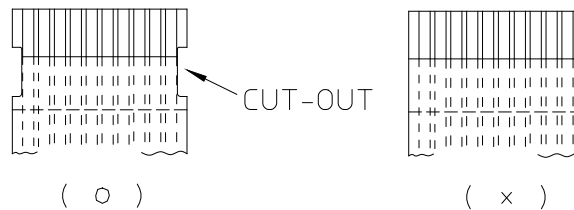
Fig.1 Each part name

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 2 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
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4. Recommendation stencil condition and Application conductor (FPC/FFC)

Refer to each drawing.

This connector series apply cable lock mechanism.
Please make sure to use the Cable with cut out as shown in the following figure.
(Please refer to each drawing to our specification for detailed dimensions.)



5. Mounting method to PCB

This connector has adopted the form of automatic mounting and the surface mount match. Therefore, please mount the connector to PCB with the automatic mounting machine. Then, please perform reflow soldering by the following our recommendation conditions.

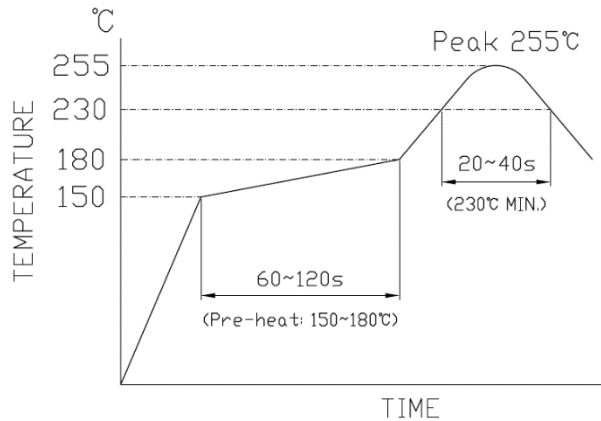
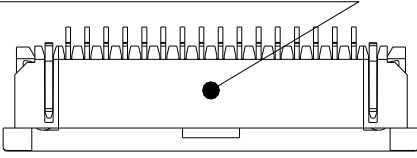


Fig.2 Recommendation reflow temperature profile

Notes:

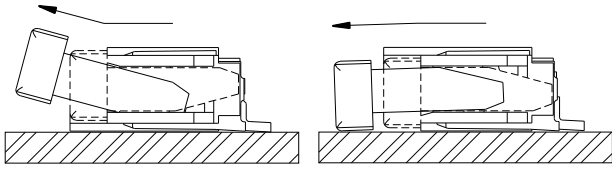
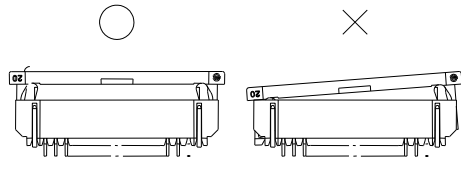
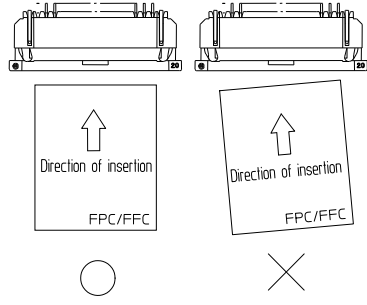
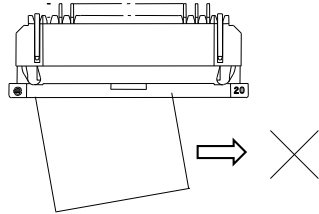
Appropriate quantity of solder paste should be applied so that neither the flux nor solder gets into the inside of the connector. If flux or solder gets into the connector, contact fault, performance degradation, etc. may occur.

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 3 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
		APPROVED BY Y.Kameda	
		CLASSIFICATION : UNRESTRICTED	

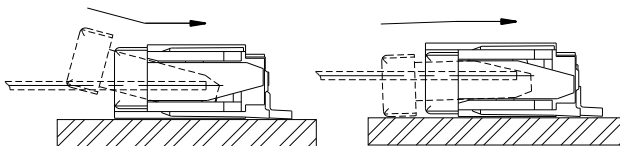
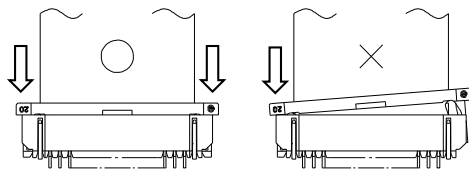
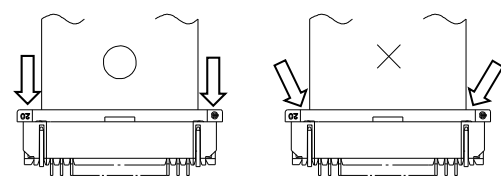
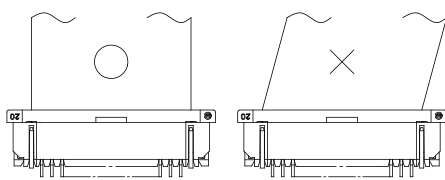
No.	Procedure	Remarks
5-1	<p><u>Mounting on PCB</u></p> <p>1) By using automatic mounting machine (One by one system) which copes with plastic tape packing. Mount the connector on predetermined position on PCB coated with solder paste.</p> <p style="text-align: center;">Area for the nozzle of mounter</p>  <p style="text-align: center;"><u>Top view</u></p> <p>2) Recommended solder paste SAC305 (Sn - 3.0Ag - 0.5Cu)</p> <p>3) Recommended number of reflow : up to 2 times</p>	<ul style="list-style-type: none"> - Please confirm carefully mounting accuracy of automatic mounting machine and dimensional accuracy of PCB. - Use by selecting adequate one for vacuum nozzle diameter of automatic mounting machine. - Please coat solder paste with adequate quantity by adjusting thickness of stencil. - For the stencil condition like as PCB pattern dimensions, thickness and open ratio are referred to each drawing.

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 4 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
		APPROVED BY Y.Kameda	
		CLASSIFICATION : UNRESTRICTED	

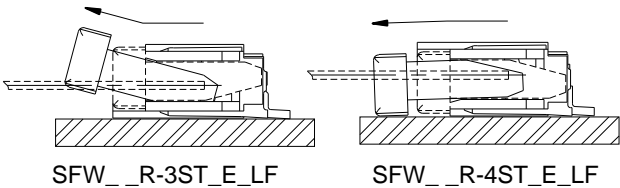
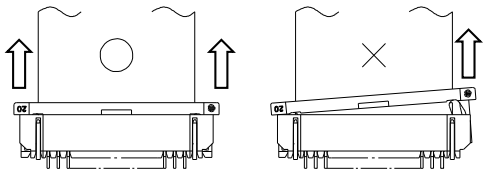
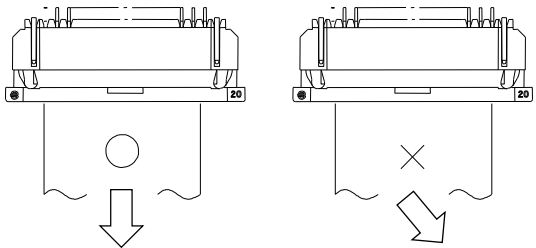
6. Operation method

No.	Procedure	Remarks
6-1	<p><u>Connection of conductor (FPC/FFC)</u></p> <p>- Open a Slider</p> <p>1) Operate the slider to open it. In this case, be sure to operate both edges of slider.</p>  <p style="text-align: center;">SFW_R-3ST_E_LF SFW_R-4ST_E_LF</p>	<p>- When opening slider, operate both ends of slider in parallel until it stops completely.</p>  <p>- Do not apply excess force after the slider stops at the latch part.</p>
6-2	<p>- Insert a cable</p> <p>1) To match conductor side of the cable with connecting side of the connector.</p> <p>2) Insert a cable straight into insertion window until it hits inner bottom of the housing.</p>	<p>- Insert a cable straight when inserting a cable</p>  <p>- Avoid absolutely the operation which moves horizontally after inserting the cable aslant</p> 

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 5 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
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6-3	<p>- Close a Slider</p> <p>1) After confirming that the conductor is inserted correctly, close a slider.</p>  <p style="text-align: center;">SFW_R-3ST_E_LF SFW_R-4ST_E_LF</p> <p>2) Make sure that there is no joint gap between Housing and Slider.</p>	<p>- When close slider, operate both ends of slider in parallel until it stops completely.</p>  <p>- Do not apply excess force after the slider stops completely. - Do not apply the force at an angle.</p>  <p>- A cable and slider should become a right-angle when the slider is closed with inserted cable.</p>  <p>- Don't put excess force on the cable and connector when the slider is closed with inserted cable.</p>
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NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
TITLE 1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 6 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
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No.	Procedure	Remarks
6-4	<p><u>Remove of conductor (FPC/FFC)</u></p> <p>- Open a Slider</p> <p>1) Open a slider by pulling slider vertically. In this case, be sure to operate both edges of slider.</p>  <p>SFW_R-3ST_E_LF SFW_R-4ST_E_LF</p>	<p>- Pull slider horizontally by the operation method of pulling both ends of the slider parallel.</p>  <p>- Do not apply excess force after the slider stops at the latch part</p>
6-5	<p>- Remove a Cable</p> <p>2) Extract a cable straightly.</p>	<p>- Remove the cable after the slider is opened completely.</p> 

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
TITLE 1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 7 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
		APPROVED BY Y.Kameda	
		CLASSIFICATION : UNRESTRICTED	

7. Other handling notes

- 7.1 When cable is pulled by excessive force or twists too much after cable insertion, connector deformation, contact fault, performance degradation, breakage, etc. may occur.
Do not apply excessive force to the cable after cable insertion.
- 7.2 Ensure connector is properly mounted and secured onto PCB.
If force is continually being applied to the connector, cracks on soldering area, connector deformation, contact fault, performance degradation, breakage, etc. may occur.
- 7.3 Please do not insert cable prior to soldering process.
- 7.4 Please do not insert any other items into the connector except the specified cable.
- 7.5 If force is applied to the connector prior to mounting, connector deformation, contact fault, performance degradation, breakage, etc. may occur.
(Including insertion of application cable before mounting, etc.)
- 7.6 Any rework soldering by manual soldering process should not be applied directly to the connector insulator. Maximum condition should be 350°C at soldering tip and a heating time of not more than 2 seconds.
When using wire solder for rework process, take note of solder and flux should not leak into the connector.

8. Handling in storage of the connector

- 8.1 Please avoid contact terminals from dust, oil, water, etc. as it may affect the connector performance.
- 8.2 Please avoid direct sunlight as it may cause deformation of packing material, connector discoloration and poor contact and solder performance.
- 8.3 Recommendation conditions.
If stored for long periods under high temperature and humidity, it will impact to the connector performance.
Therefore, please keep the connector at the following recommended conditions.
In addition, when kept out of the following condition, please confirm the performance of the connector before use. (In that case, please consult to our company as much as possible.)

<Recommendation storage conditions>

Temperature : 5 ~ 40 °C
Humidity : 10 ~ 75 %RH
Air pressure : 70 ~ 106 kPa
Period : Less than 6 months

—End—

NUMBER GS-20-130	CATEGORY APPLICATION SPECIFICATION	Amphenol FCI	
1.0mm pitch SMT type connector for FPC/FFC SFW_R series with cable lock		PAGE 8 of 8	REVISION B
		GUARDIAN (VERIFIED BY) S.Watanabe	DATE 12/22/23
		APPROVED BY Y.Kameda	
		CLASSIFICATION : UNRESTRICTED	

9. Revision record

REV	PAGES	DESCRIPTION	EC #	DATE
A	ALL	NEW RELEASED	J09-0378	10/26/09
B	ALL 6	FORMAT CHANGE AND PROCEDURE RENEW CHANGE RECOMMENDED STRAGE CONDITION TO MATCH WITH GS-20-060	ELX-J-501789	12/22/23