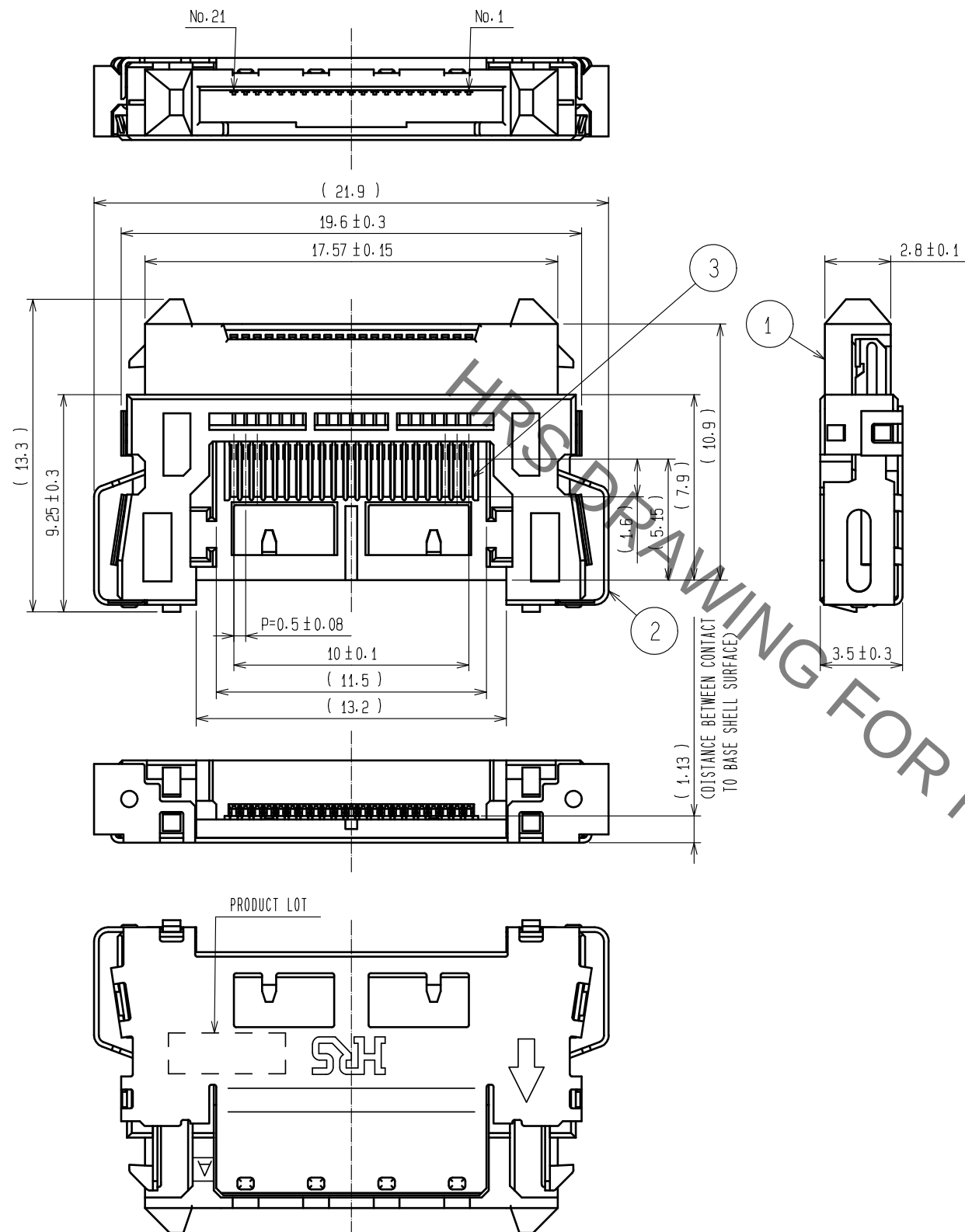


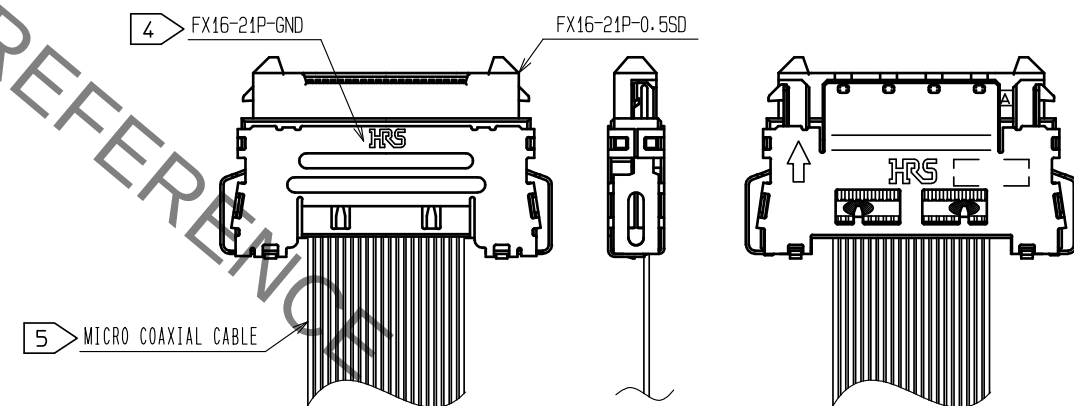
Aug.1.2021 Copyright 2021 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.



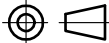
APPLICATION DIAGRAM (2:1)

Deleted

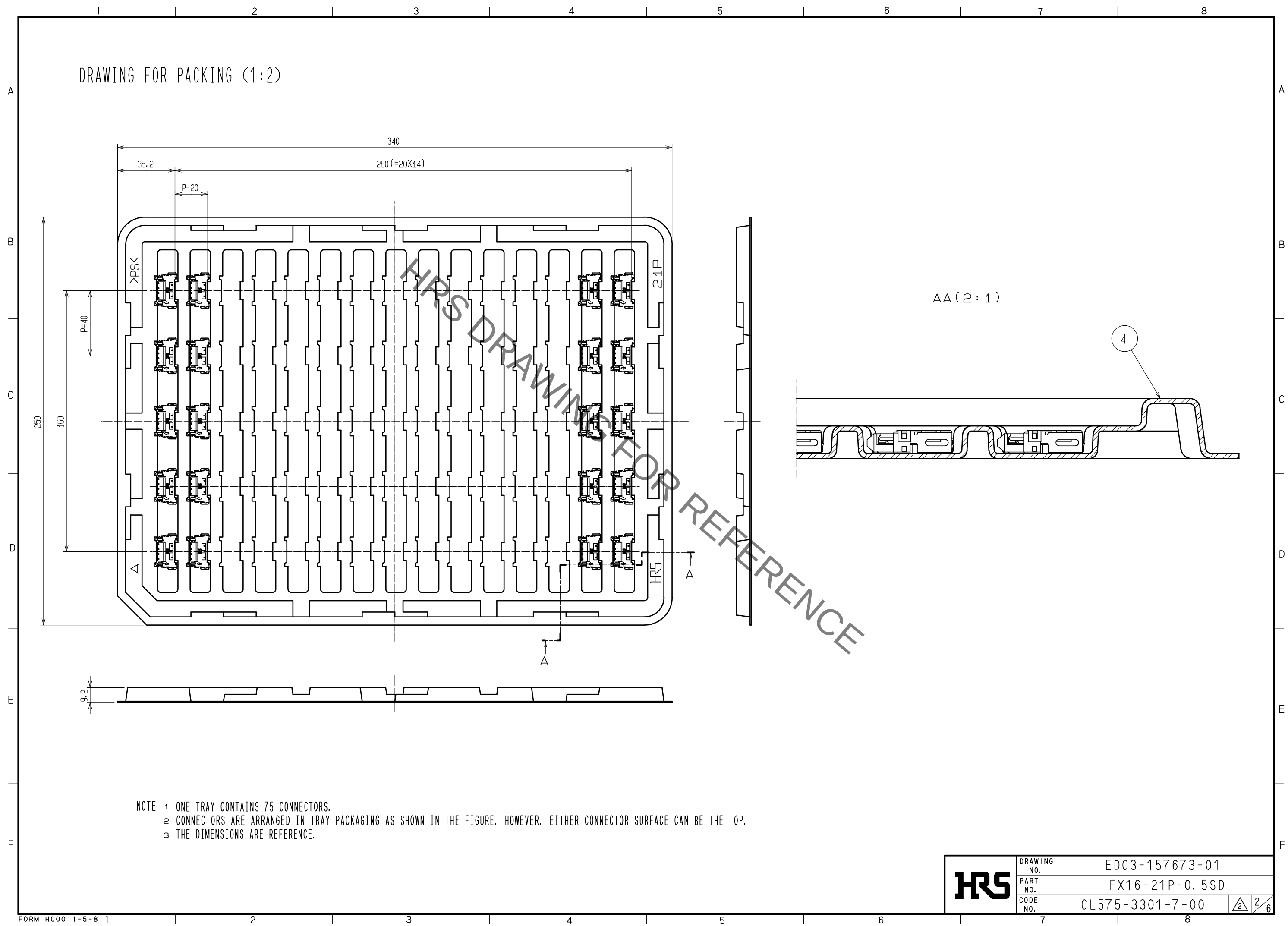
Deleted



- NOTE 1 () INDICATES A REFERENCE DIMENSION.
2 MANUFACTURING PROCESS COULD LEAVE SCRATCH AND/OR PUNCH MARKS HAVING NO AFFECT ON THE PRODUCT PERFORMANCE. AND THE DARK SPOTS MIGHT OCCASIONALLY OCCUR ON MOLDED PLASTIC.
3 THE CONNECTORS ARE DELIVERED IN TRAY PACKAGING.
4 COVER SHELL IS SEPARATELY AVAILABLE.
5 THE ACCEPTABLE CABLE OF THE CONNECTOR IS MICRO COAXIAL CABLE:36-40AWG. CABLE PREPARATION IS REQUIRED PRIOR TO CABLE ASSEMBLY. REFER TO PAGE 3 FOR THE RECOMMENDED CABLE PROCESS DIMENSIONS.
6 REFER TO PAGE 4 FOR THE CABLE ASSEMBLY PROCEDURES AND PRECAUTIONS FOR HANDLING.

4	PS	(TRAY)		3	PHOSPHOR BRONZE	CONTACT AREA:GOLD 0.1μm min				
2	STAINLESS	NICKEL 0.3μm min				TERMINAL AREA:TIN-PLATING 2μm min				
1	PA	BEIGE UL94V-0				UNDER PLATING:NICKEL 1μm min				
NO.	MATERIAL		FINISH . REMARKS		NO.	MATERIAL		FINISH . REMARKS		
UNITS mm			SCALE 4 : 1		COUNT 14	DESCRIPTION OF REVISIONS DIS-F-00005761		DESIGNED MM. ISHII	CHECKED HT. YAMAGUCHI	DATE 20200326
 HIROSE ELECTRIC CO., LTD.			APPROVED : HS. OKAWA		20101126		DRAWING NO. EDC3-157673-01			
			CHECKED : HT. YAMAGUCHI		20101126		PART NO. FX16-21P-0.5SD			
			DESIGNED : KN. SHIBUYA		20101126		CODE NO. CL575-3301-7-00			
			DRAWN : YJ. ASAO		20101126		 1 6			

Aug.1.2021 Copyright 2021 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.



NOTE 1 ONE TRAY CONTAINS 75 CONNECTORS.
2 CONNECTORS ARE ARRANGED IN TRAY PACKAGING AS SHOWN IN THE FIGURE. HOWEVER, EITHER CONNECTOR SURFACE CAN BE THE TOP.
3 THE DIMENSIONS ARE REFERENCE.

HRS	DRAWING NO.	EDC3-157673-01			
	PART NO.	FX16-21P-0.5SD			
	CODE NO.	CL575-3301-7-00		2	6



2	8	Deleted
2	9	Deleted
	10	SHOWS T

→ SHOWS THE CABLE ASSEMBLY POSITION AND THE CABLE LENGTH FITTING INTO THE CONNECTOR WHEN THE CABLE IS CUT AT THE RECOMMENDED CUTTING POSITION OF EXTRA CABLE LENGTH.

HRS	DRAWING NO.	EDC3-157673-01	
	PART NO.	FX16-21P-0.5SD	
	CODE NO.	CL575-3301-7-00	 

Aug.1.2021 Copyright 2021 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Cautions for soldering

1. Recommended solder

Flux cored solder (Lead-free: Sn-3Ag-0.5Cu)

Micro coaxial cable · · · 0.15 mm dia. Length 10.5 mm

Deleted

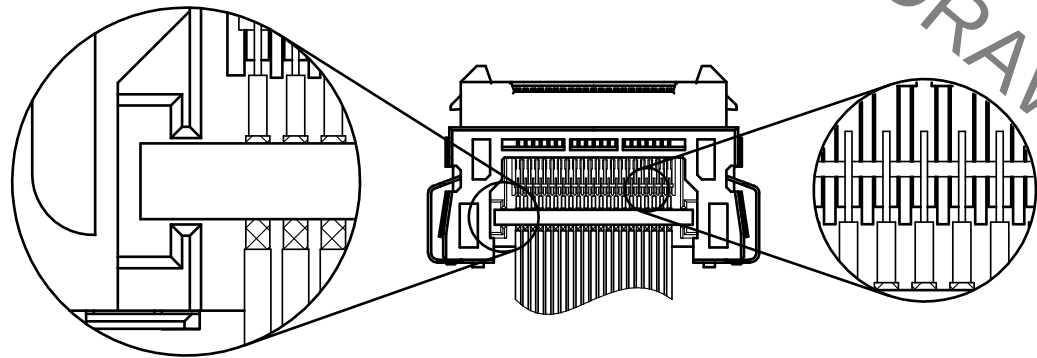
If you consider using additional flux, please pay enough attention not to have flux wicking to the contact area.
Flux wicking to the contact area will cause contact failure.

2. Setting the cable

Set the conductors as each conductor is placed at the center of the contact.

In case of micro coaxial cable, set it as the metal bar fits in the guide on the connector.

Deleted



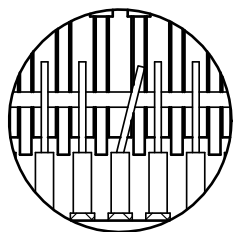
Deleted

3. Place the cable to the connector and check the below points before soldering by pulse heat.

- Transformation of conductor
- Misalignment of conductor to the terminals in pitch direction
- Excessive floating of conductor

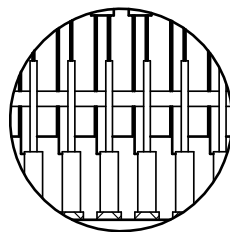
The above could cause soldering failure and/or solder bridge.

Transformation of conductor

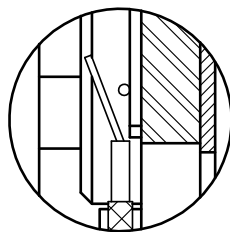


Misalignment in pitch direction

Deleted



Floating



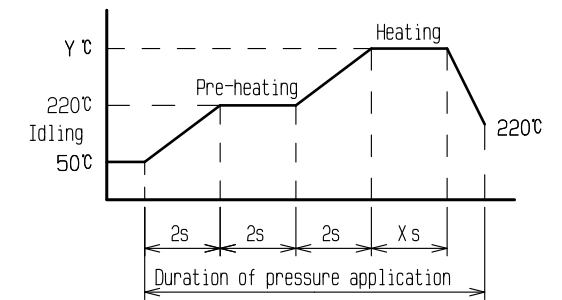
4. Follow the recommended temperature profile shown below for the soldering.

The optimum condition could vary depending on various factors including type of cable and its length, solder type. Therefore refer to the recommended temperature profile and optimize the condition if necessary.

Solder tip pressurization	13 ~ 17 N
---------------------------	-----------

heating	Micro coaxial cable
Temperature (Y)	275± 5 °C
Duration (X)	2± 0.5 sec

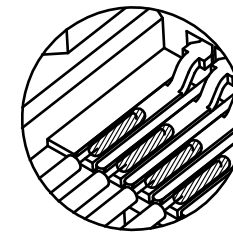
Deleted



5. After soldering, check that no defect is found at soldered area.

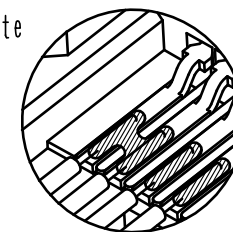
Examples of correct soldered and defective soldered state are shown below.

Correct soldering

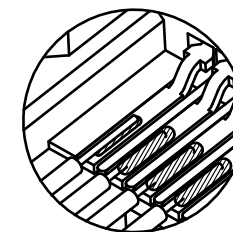


Conductors are placed at the center of the contact, and whole area is equally wetted.

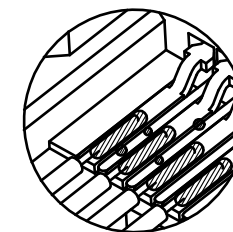
Defective soldered state



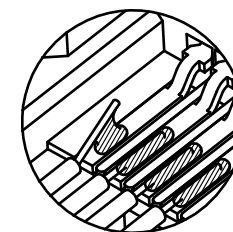
Solder bridge



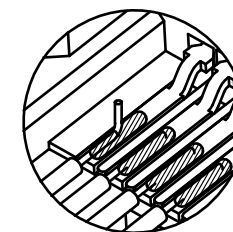
Solder shortage



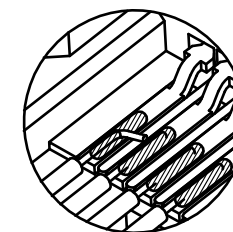
Solder ball dispersion



Floating



Conductor sticking out



The conductor approaches to the adjacent contact

*Note: The figures shown in this page are solely for the instruction purpose. Therefore, the appearance could differ from the actual connectors. Refer to the drawing for the actual design (Sheet 1).

HRS

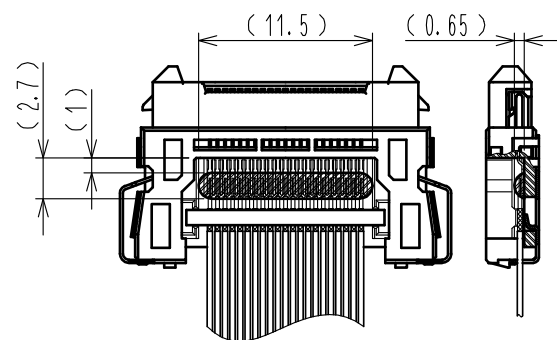
DRAWING NO.	EDC3-157673-01
PART NO.	FX16-21P-0.5SD
CODE NO.	CL575-3301-7-00

4/6

Aug.1.2021 Copyright 2021 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

Cautions for potting process

1. Protect the soldered area by UV cured resin or any equivalent (referred to as 'potting' hereafter). In order to prevent insulating failure caused by metal adhering, cable breakage during cabling and other troubles.
2. Apply 3033 manufactured by THREEBOND CO., LTD. or any equivalent product for potting. Follow the instruction of potting manufacture's for the condition of UV exposure.
3. Refer to the following conditions for the potting area.

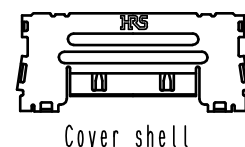


Deleted

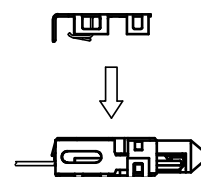
4. Use extreme care for the handling after soldering to the end of potting process not to apply stress to the cable, otherwise, cable could be broken. Exercise extreme caution during the process so that no resin flows or adheres to the contact area.

Cautions for cover shell assembly

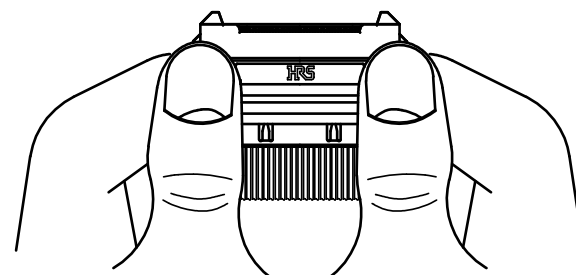
1. Attach a cover shell separately provided after the cable assembly process.
For micro coaxial cabla : FX16-21P-GND 
-  Deleted
2. Place the cover shell onto the connector horizontally and pinch two components from top and bottom with fingers.



① Prepare the cover shell



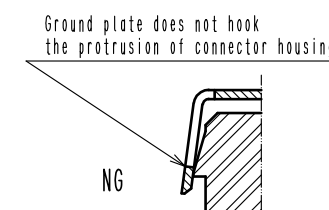
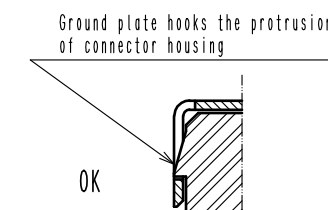
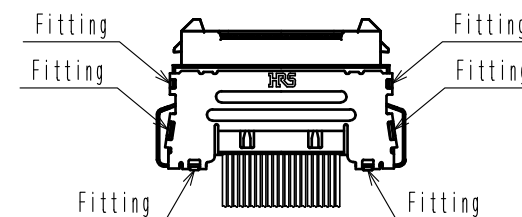
② Horizontally from the top



③ Pinch with fingers

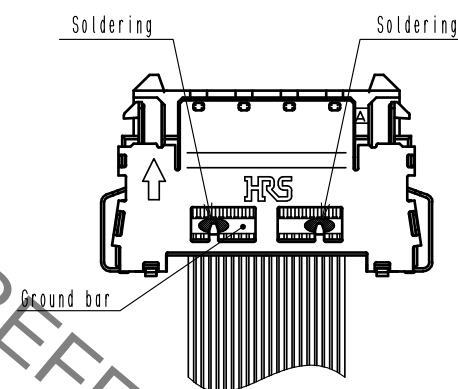
3. Check the six fitting points after assembly and make sure that they are all correctly fitted together.

How to check fitting points (Cut section of fitting points)



Soldering to ground plate

1. Solder down the metal bar of the cable and ground plate after the assembly of ground plate in order to enhance the grounding performance and robustness against cable stroke to up and down direction.



Deleted

2. Excess solder and/or excess heating could cause cable and connector deformation and/or melt.

Cable assembly process is completed.

*Note: The figures shown in this page are solely for the instruction purpose. Therefore, the appearance could differ from the actual connectors. Refer to the drawing for the actual design (sheet 1).

HRS

DRAWING NO.	EDC3-157673-01
PART NO.	FX16-21P-0.5SD
CODE NO.	CL575-3301-7-00

5/6

【 1 】 Insertion to on-board connector

RECEPTACLE : FX16-SS-0.5SH

△ MARK

ARROW

MATING

HRS

Please insert gripping this surface.
Do not touch the button of the plug.

MATING

△ MARK

RECEPTACLE : FX16-SS-0.5SH

[2] After mating

Take enough bend radius and/or distance from the connector for the cable not to apply stress to the connector base when the application requires cable bend back.



The connectors are locked while they are mated.
In order to unmate the connectors, pull out straight, with the button pushed to release the lock.
At this time, do not pull the cable.
Also, avoid the withdrawal in angle, which may damage the connectors.

① Push

HRS

WITHDRAWAL

② Pull out straight

Three diagrams illustrating incorrect handling of the device, each crossed out with a large 'X':

- The first diagram shows a hand twisting the device, with a curved arrow indicating the direction of rotation.
- The second diagram shows a hand bending the device, with a curved arrow indicating the direction of the bend.
- The third diagram shows a hand pulling the cable, with a curved arrow indicating the direction of the pull.



DRAWING NO.	EDC3-157673-01
PART NO.	FX16-21P-0.5SD
CODE NO.	CL575-3301-7-00

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Hirose Electric:](#)

[FX16-21P-0.5SD](#)