CABLINE® V PLUG

Part No. 20345-***T-##

Assembly Manual

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1	S13342	August 29, 2013	M.I		E.K
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Rev.	ECN	Date	Prepared by	Checked by	Approved by

1.Purpose

This manual is to explain the soldering method / process of the CABLINE V PLUG with cable, and assembly of SHELL A.

2. Applicable connector

Name : CABLINE V PLUG

Parts No. :

Set P/N	CABLE ASS'Y	20345-***T-##
Discrete P/N	HOUSING ASS'Y	20346-0**T-##
	SHELL A	2047-#**#

3. Fixtures

- Pulse heater
- Heater chip

  Pressure : 9.8N (1.0kgf)

【Size】

Positions	Width (mm)	Thickness (mm)
10P	4.6	0.6
15P	6.6	
20P	8.6	
25P	10.6	
30P	12.6	
35P	14.6	
40P	16.6	

- Solder bar

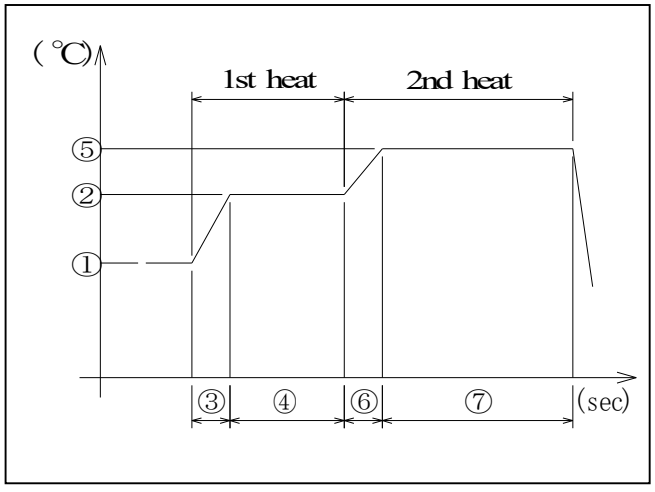
  (Recommended) φ0.1mm (resin-cored solder) is pressed and used.

Positions	Length (mm)	Width (mm)	Thickness (mm)
10P	$4.0^{\pm0.2}$	$0.2^{\pm0.1}$	$0.05^{\pm0.02}$
15P	$6.0^{\pm0.2}$		
20P	$8.0^{\pm0.2}$		
25P	$10.0^{\pm0.2}$		
30P	$12.0^{\pm0.2}$		
35P	$14.0^{\pm0.2}$		
40P	$16.0^{\pm0.2}$		

- Soldering iron 50W

4. Recommended pulse heat condition

①Idle temp.	150℃
②1st heat temp.	220℃
③1st rise time	0.5sec.
④1st holding time	3.0sec.
⑤2nd heat temp.	305℃
⑥2nd rise time	0.5sec.
⑦2nd holding time	3.0sec.

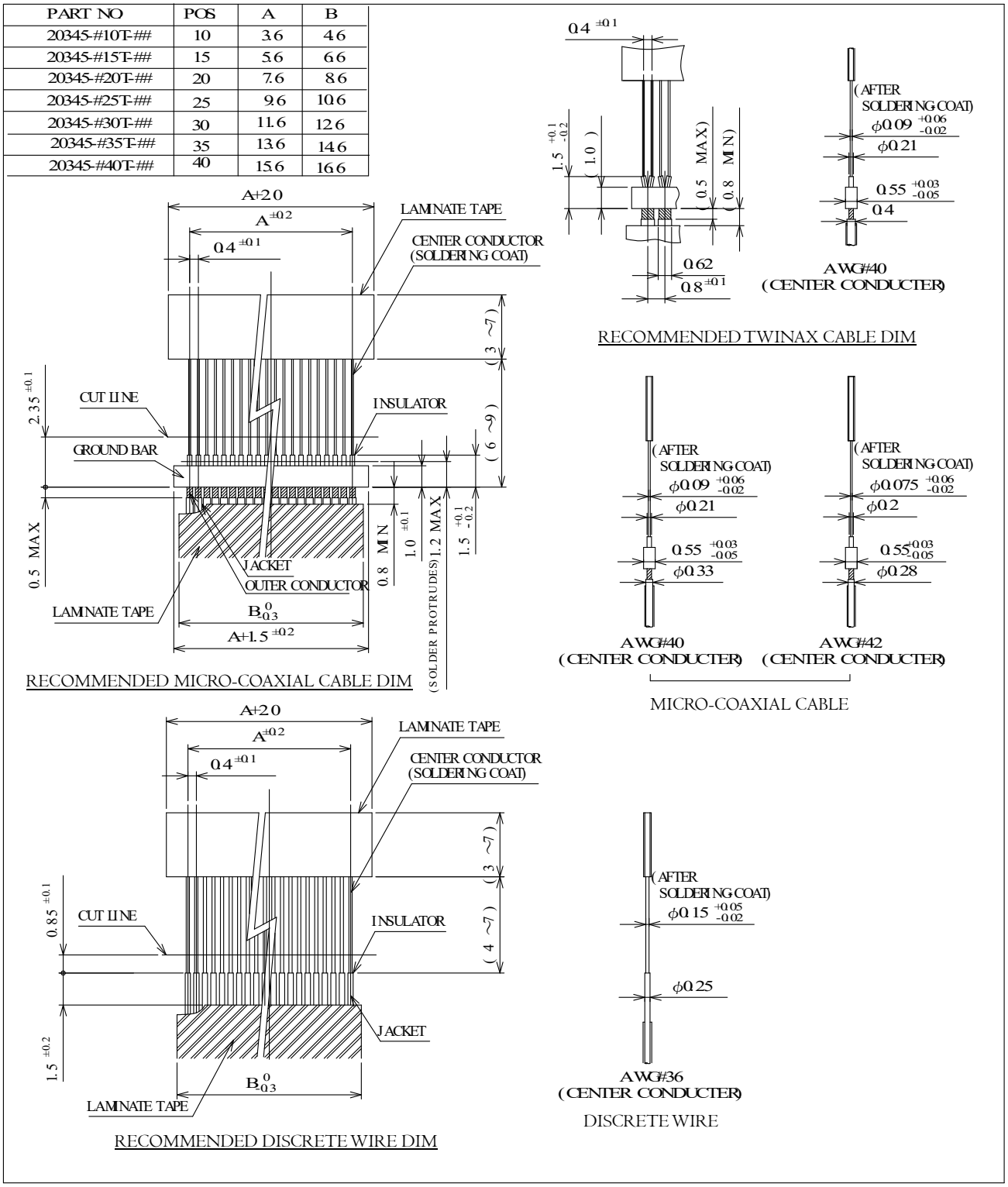


5. Work procedures

5-1. Soldering of center-conductor

①The cables have to be fabricated as shown below in advance of soldering.

PART NO	POS	A	B
20345-#10T-##	10	3.6	4.6
20345-#15T-##	15	5.6	6.6
20345-#20T-##	20	7.6	8.6
20345-#25T-##	25	9.6	10.6
20345-#30T-##	30	11.6	12.6
20345-#35T-##	35	13.6	14.6
20345-#40T-##	40	15.6	16.6



②Pre-set and locate solder bar at center of connector (HSG ASS'Y).

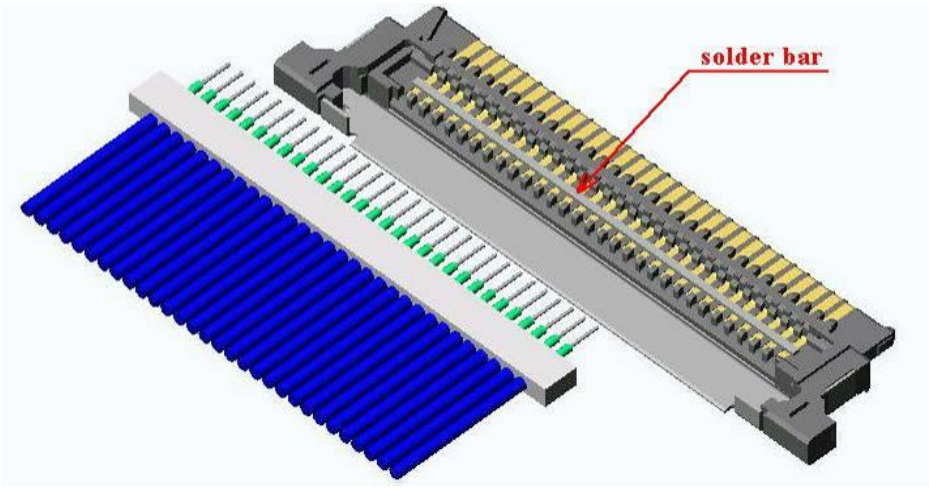
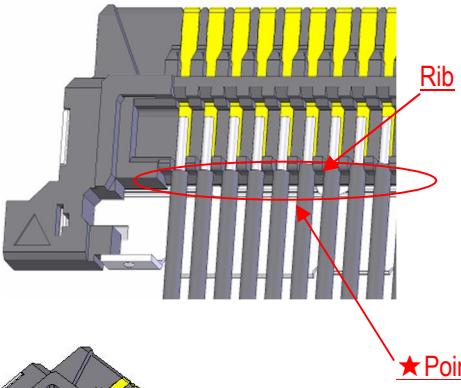
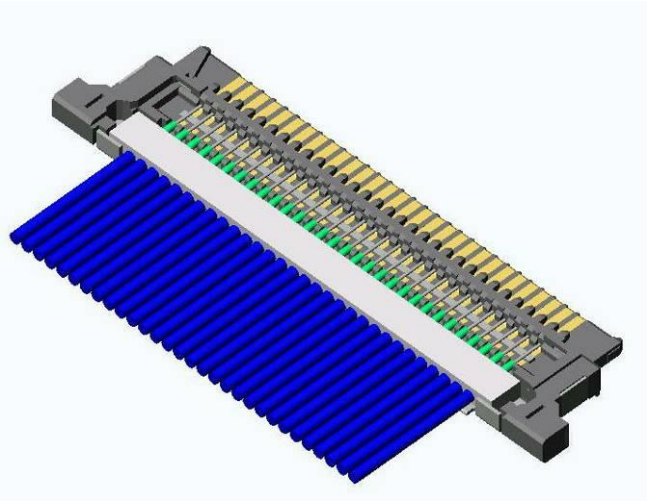


Fig.1 Set of solder bar

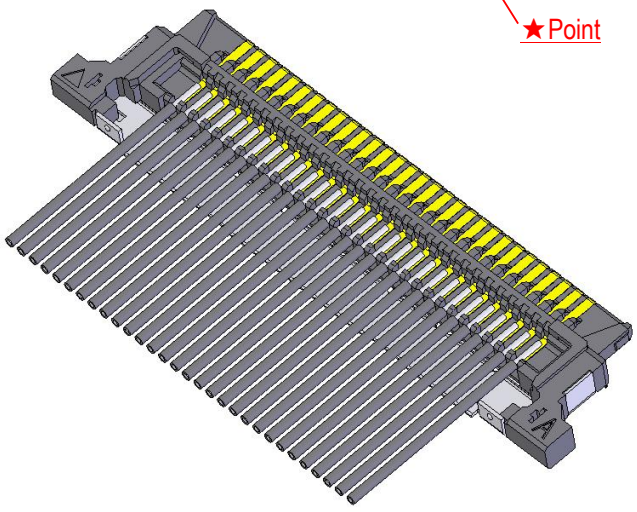
③Set the cable.

In case of Discrete wire, the jacket sets to between the ribs or bumps the rib. （Fig2 ★Point）





Micro-coaxial cable



Discrete wire

Fig.2 Set of cable

④Center-conductors are soldered with pulse heater. See photo.1 of soldering condition.

Wicking to the mating side is 0.15 MAX.. (See photo.2.)

When you use recommended solder bar, solder wicking isn't appeared. (See sheet 2 of 8)

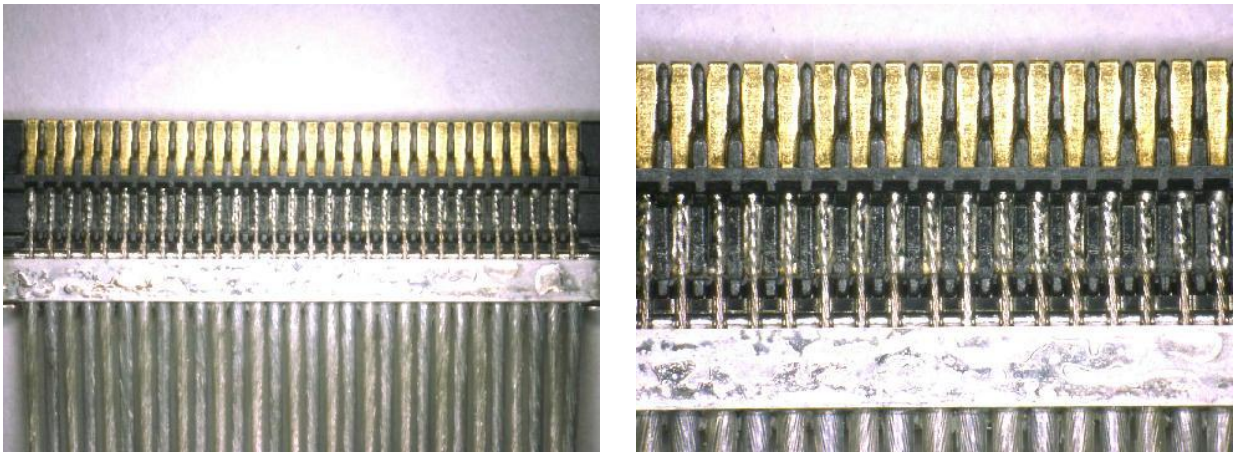


Photo.1 Center Conductor

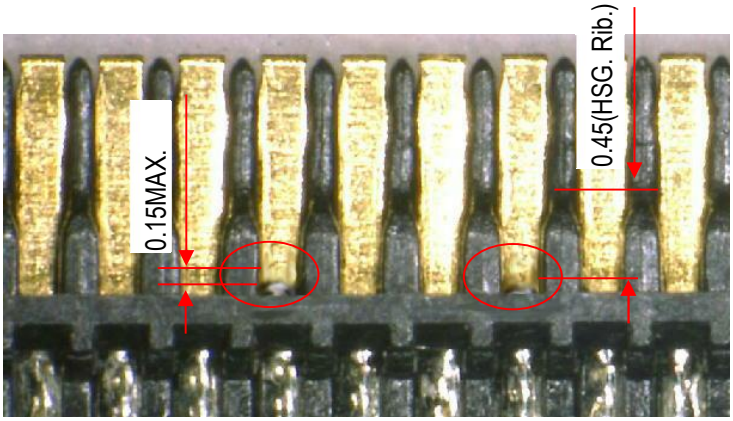


Photo.2 Passed solder to the mating side.

※When solder bridge is appeared between the terminal, try heating again with pulse heater only one time.

If the bridge isn't repaired, use the soldering iron only a NG point.

Condition of Soldering iron： 50W

Operating temperature ： 350℃

Application time of soldering iron ： Within 5sec.

5-2. Assembly of SHELL A

5-2-1. Cautions in treating SHELL A

SHELL A is delivered in the reel with a career.- The following is the method to cut SHELL A from Career.

① Cut carrier on the cut line (green line) by a scissors for metal. （See photo.3）

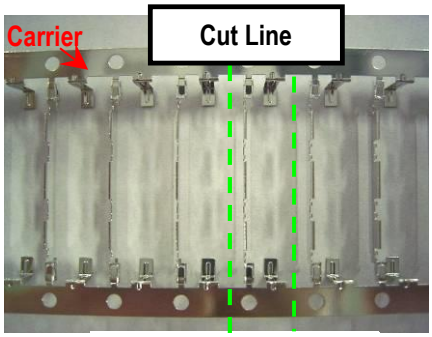


Photo.3 Before cut

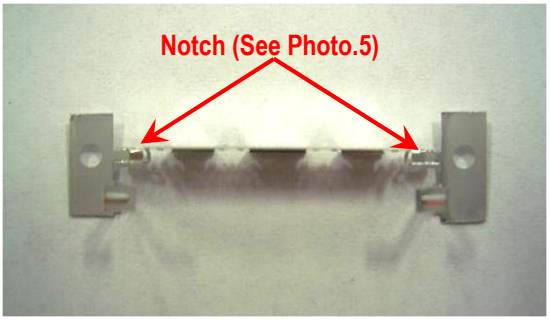


Photo.4 After cut

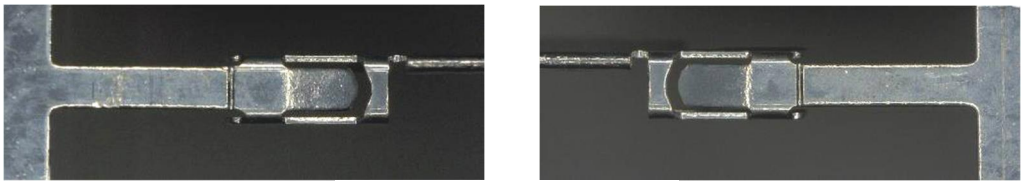
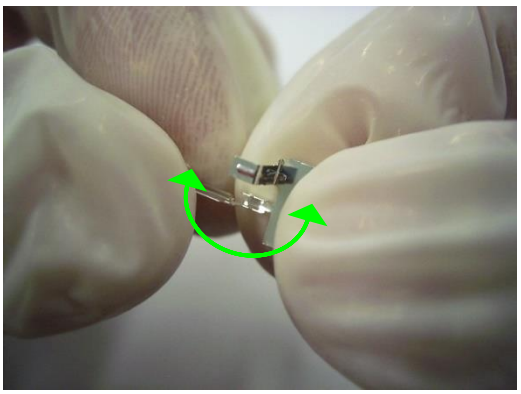


Photo.5 Detail of Notch

② Hold the center of SHELL A and bend it 45 deg back and forth to cut it from Notch. (photo.6)

When it does not be cut, bend it again.

After separated, check there is no burr around the cut part.(photo.7)



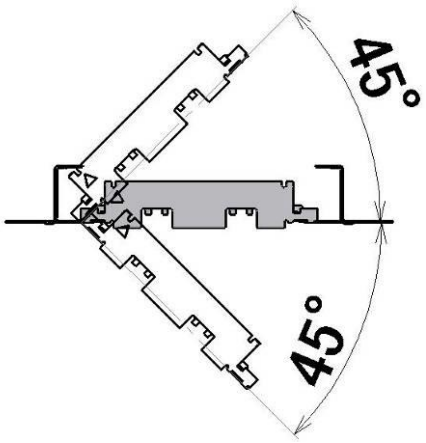


Photo.6 Cut condition

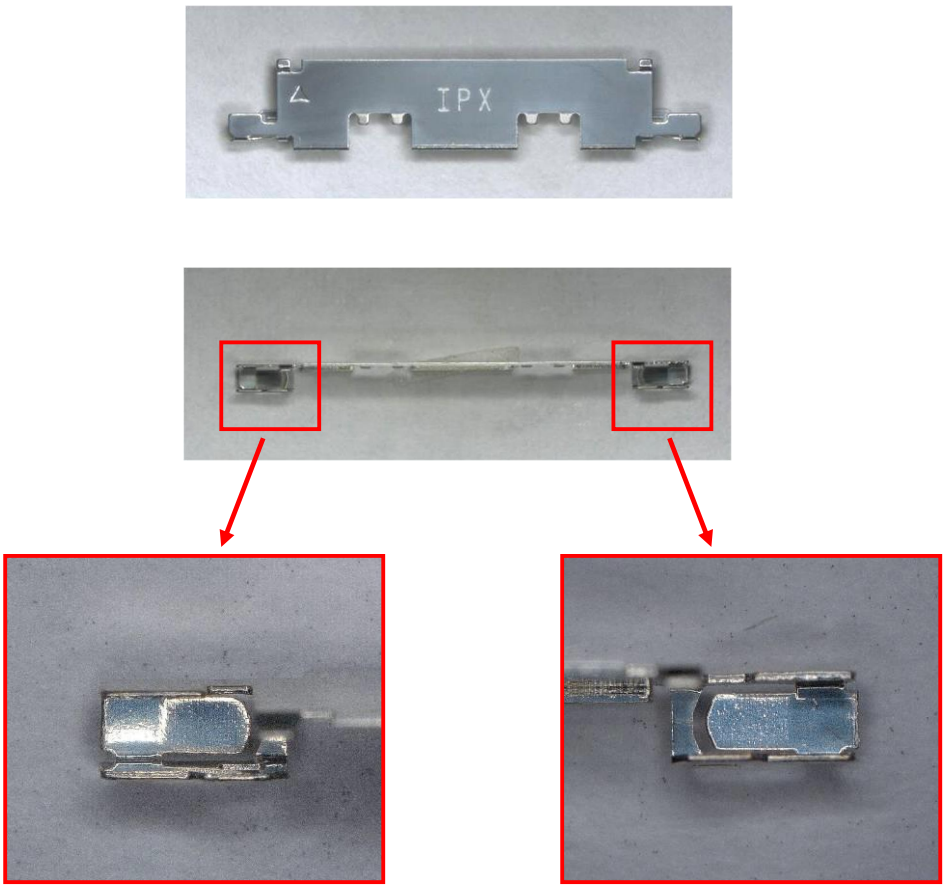


Photo.7 After cut (Inspection of burrs)

Caution：By pulling like a lower photo to cut off by force (Red arrow direction),
burrs and transformation can be caused.

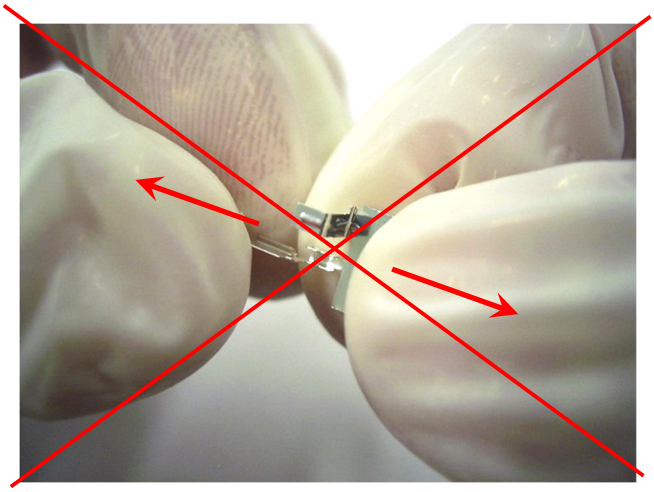


Photo.8 Cut by force (Bad example)

5-2-2. Assembly

①SHELL A is assembled along the guide of HOUSING from the cable side.

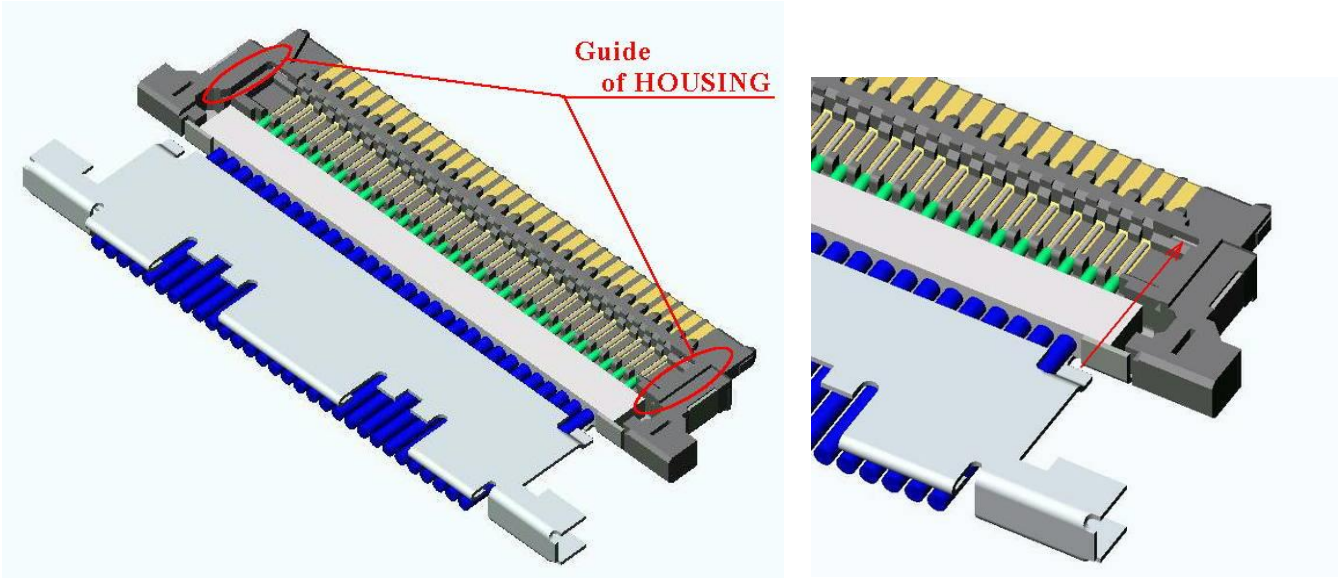


Fig.3 Assembly of SHELL A

②It confirms whether SHELL A is being assembled normally.

Whether the both ends of SHELL A get into the HOUSING. (Fig.4 ★ point)

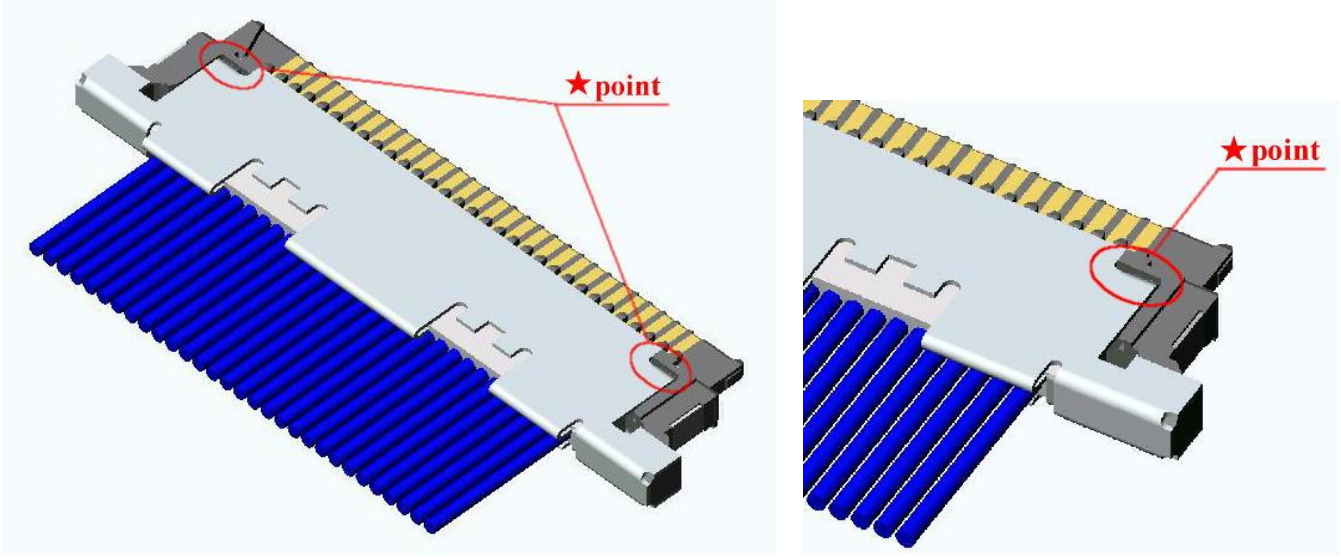


Fig.4 The assembly confirmation of SHELL A (1)

Whether SHELL rocks are being assembled normally. (Fig.5 ▲ point)

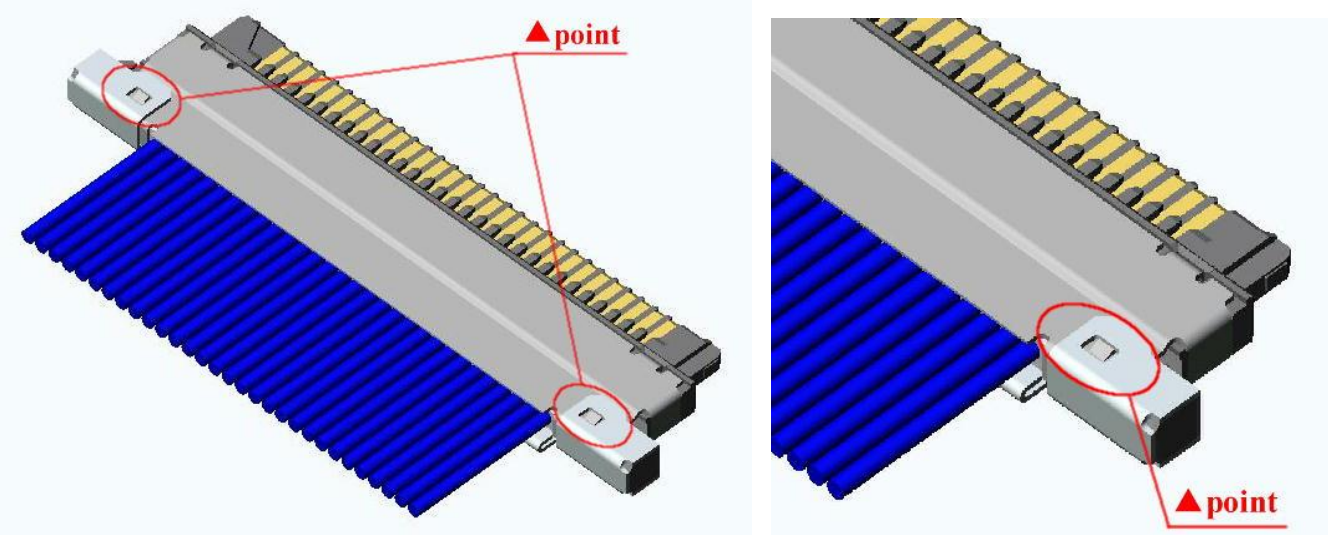


Fig.5 The assembly confirmation of SHELL A (2)

③SHELL A and GND BAR are soldered with the soldering iron. Micro-coaxial Cable only (Fig.6 ◆ point)

Refer to Fig.7 for a limit of the solder height. (Connector height : 1.1mm MAX.)

Conditions of Soldering iron refer to sheet 5.

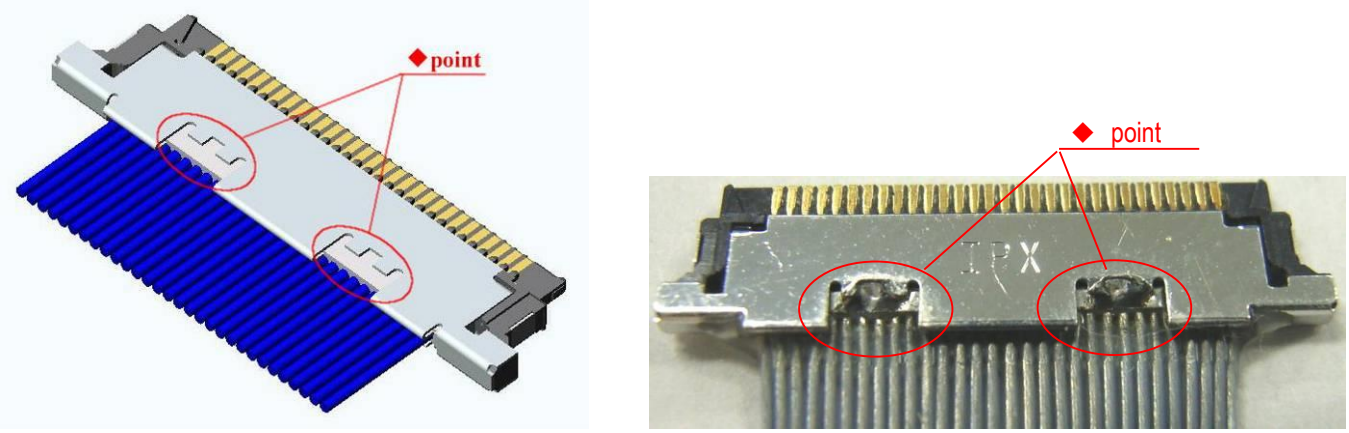


Fig.6 Soldering of SHELL A and GND BAR (Micro-coaxial cable only)

5-3. The cable terminal part is fixed with the bond.

Recommended bond: LOCTITE 352

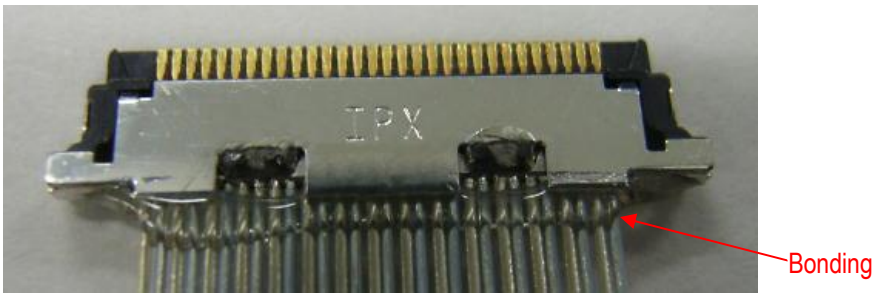


Photo.9 Bonding

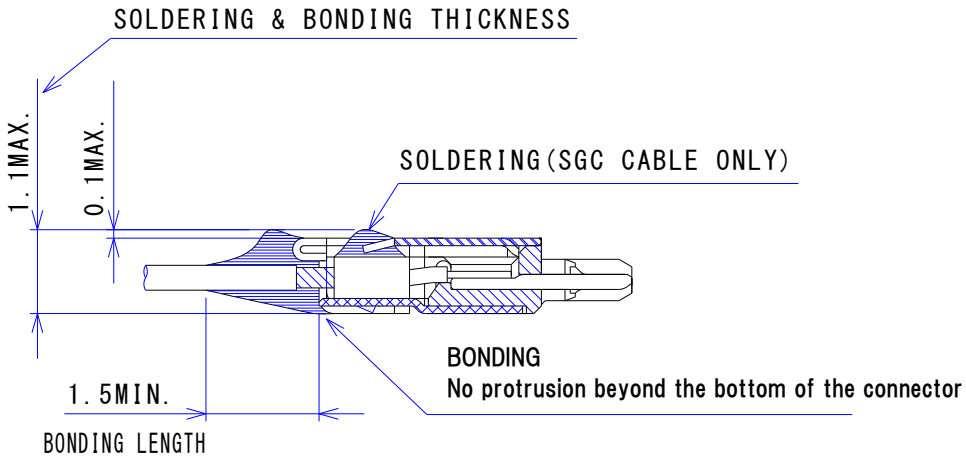


Fig.7 Soldering & Bonding