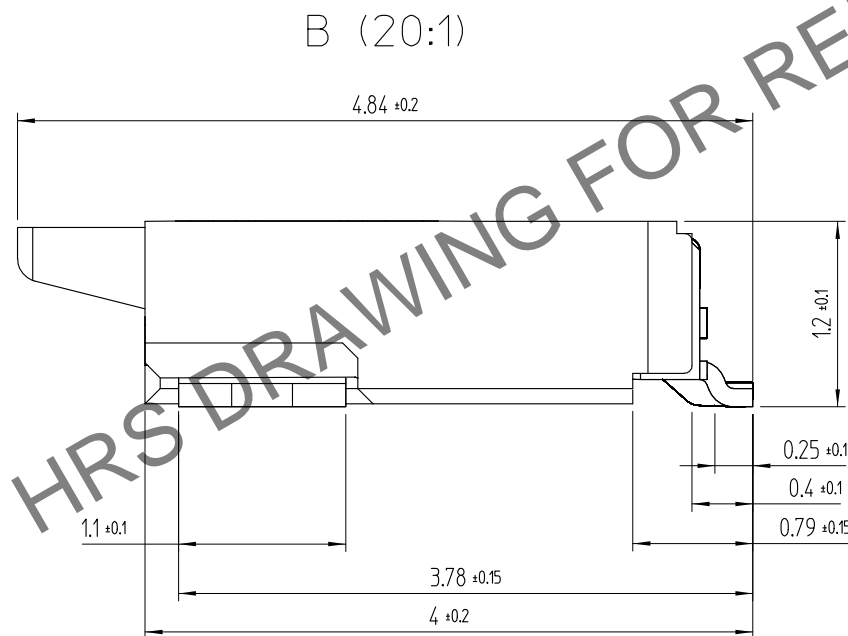
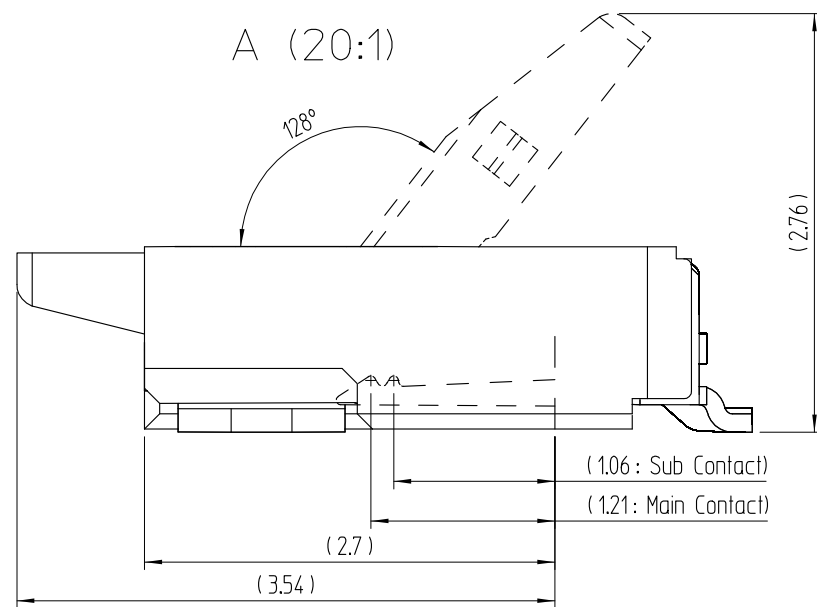
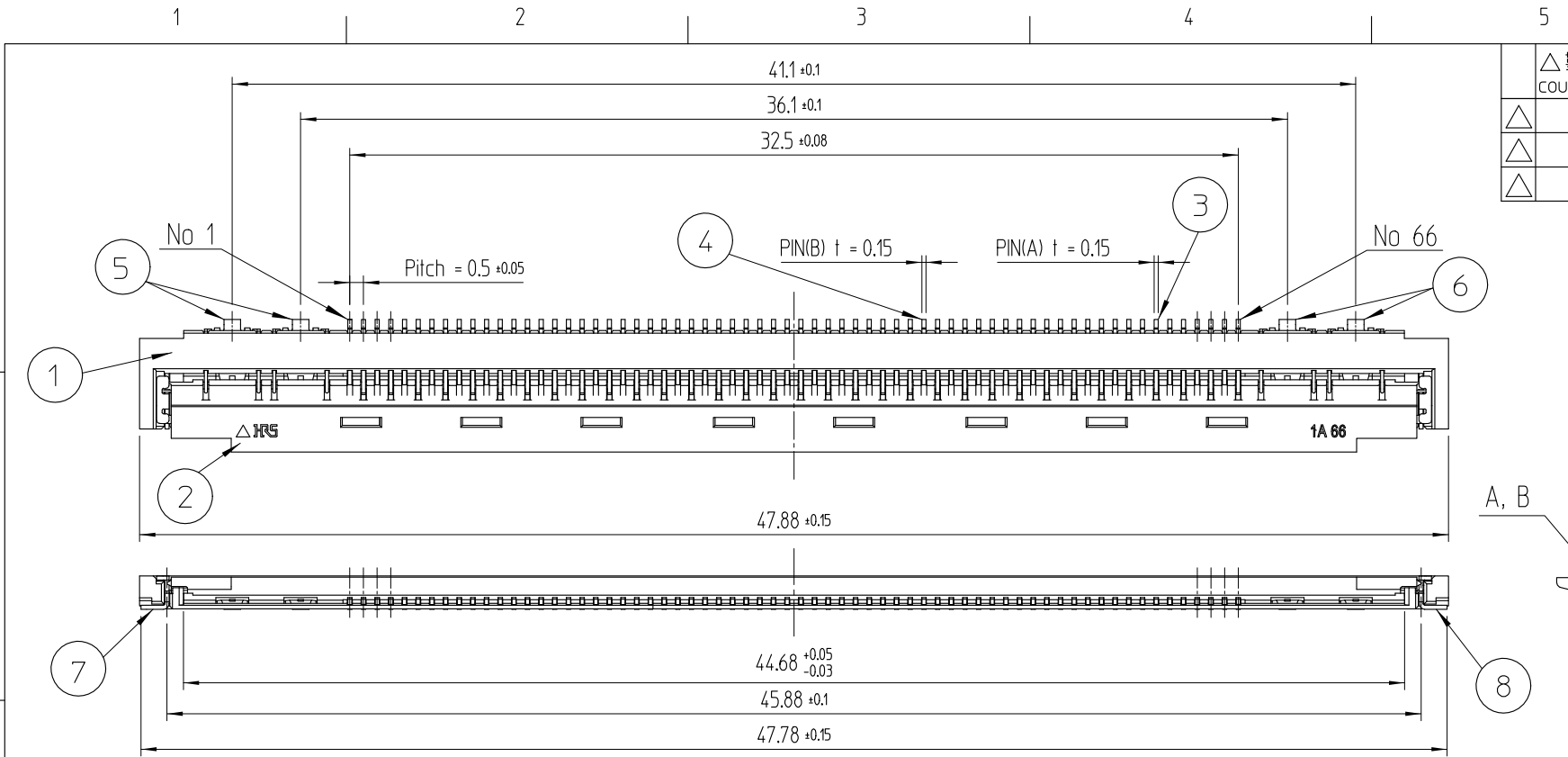
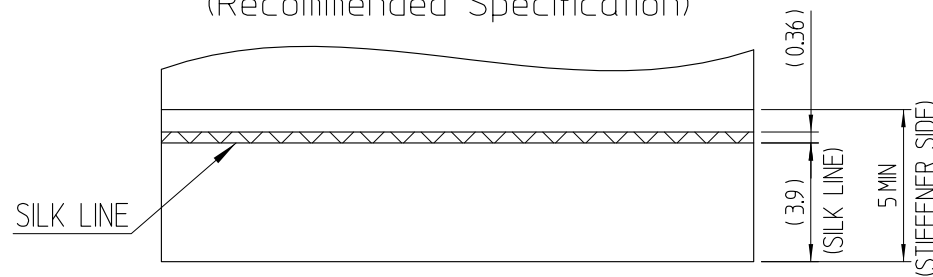


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FPC SILK LINE (No scale)  
STIFFENER SIDE  
(Recommended Specification)

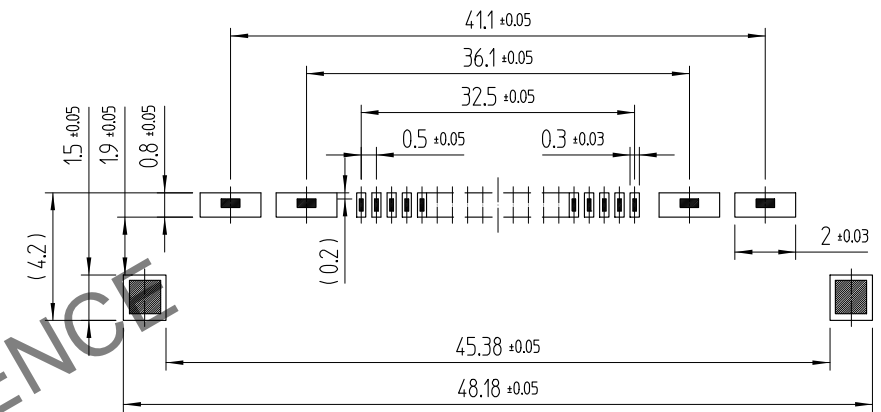


- NOTE 1 : EMBOSS PACKING  
2 : LEAD CO-PLANARITY SHALL BE 0.1mm MAX  
3 : COOPER FOIL THICKNESS : 2oz  
It is applicable up to 6A for 1 pad

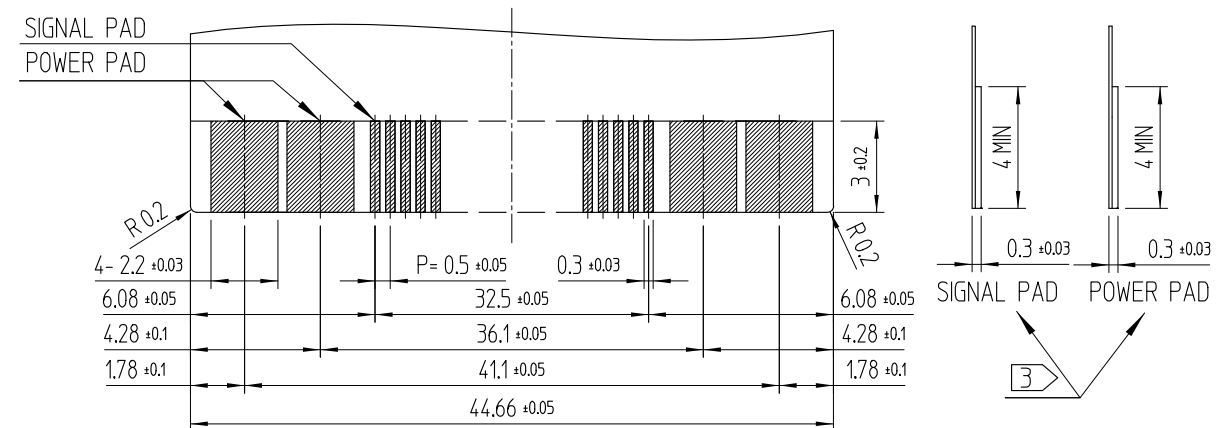
△數 COUNT	訂正事項 DESCRIPTION OF REVISIONS	擔當 B Y	檢圖 CHKD	年月日 DATE	△數 COUNT	訂正事項 DESCRIPTION OF REVISIONS	擔當 B Y	檢圖 CHKD	年月日 DATE
△					△				
△					△				
△					△				

RECOMMENDED LAND PATTERN , METAL MASK (No Scale)

RECOMMENDED METAL MASK THICKNESS : t=0.12

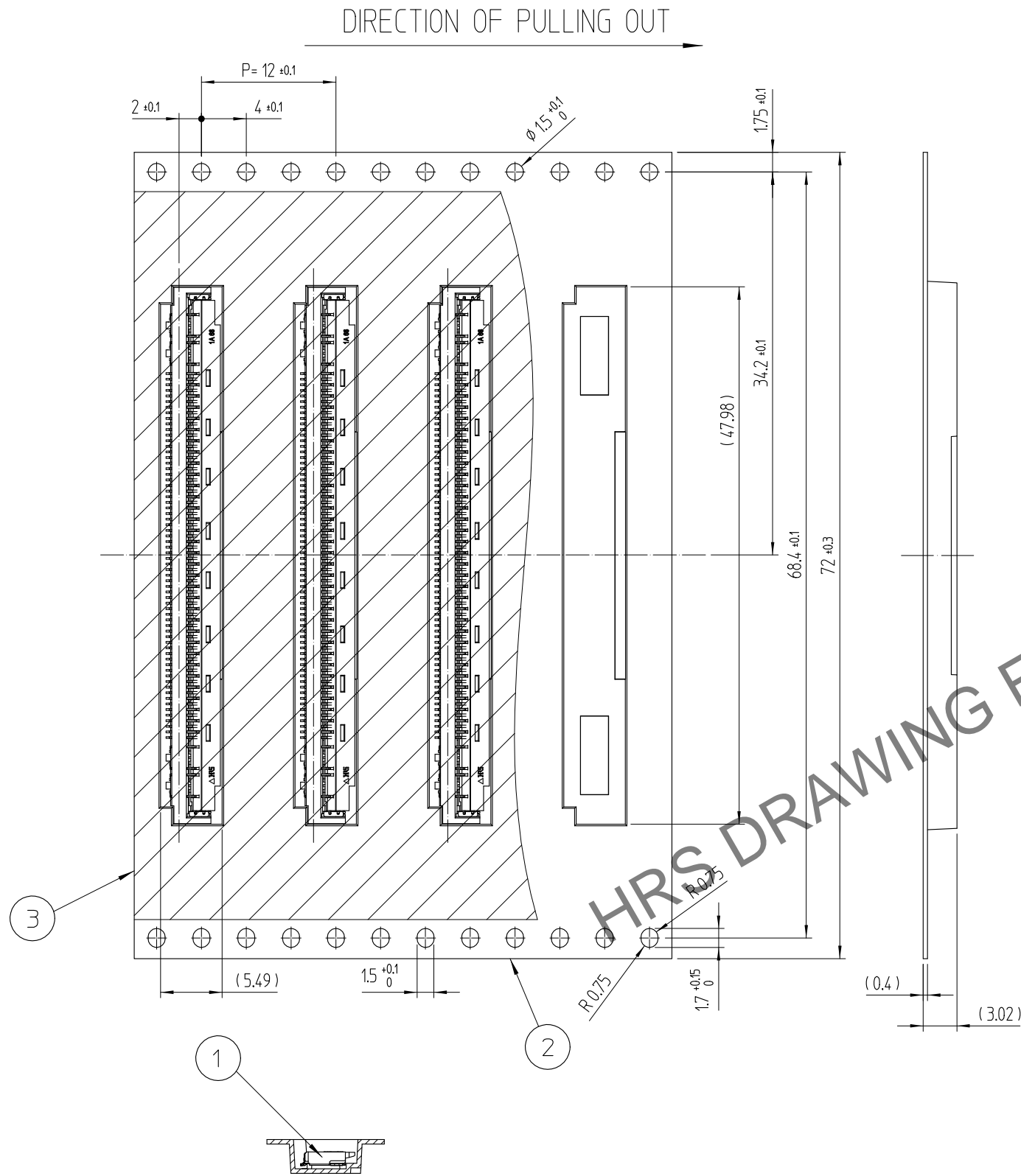


RECOMMENDED FPC/FFC(No scale)

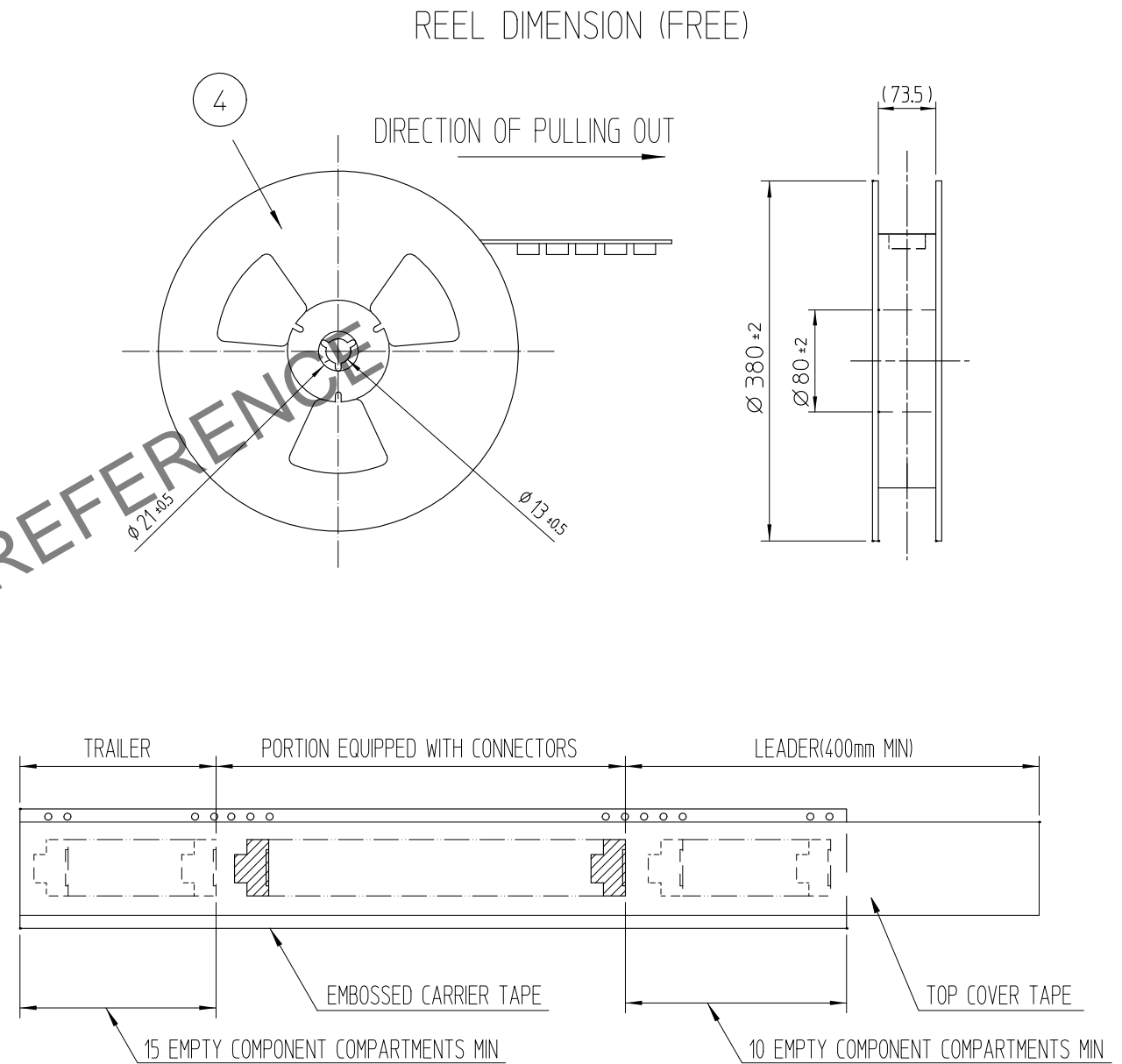


4	PHOSPHOR BRONZE	Gold Plating Over Nickel	8	PHOSPHOR BRONZE	Tin Plating Over Nickel
3	PHOSPHOR BRONZE	Gold Plating Over Nickel	7	PHOSPHOR BRONZE	Tin Plating Over Nickel
2	PA	UL94V-0, BLACK	6	COPPER ALLOY	Contact Part : NiPtum Min + AuP0.05um Min Lead Part: NiPtum Min + AuP0.05um Min Others : NiPtum Min
1	LCP	UL94V-0, BLACK	5	COPPER ALLOY	
NO.	MATERIAL	FINISH,REMARKS	NO.	MATERIAL	FINISH,REMARKS
CODE NO. (OLD)			DRAWN SEO 18.01.29 J.H		
			DESIGNED SEO 18.01.29 J.H		
			CHECKED CHO 18.01.29 D.H		
			APPROVED SONG 18.01.29 H.C		
			RELEASED ENG 20.11.23 DEPT		
DRAWING NO. EDC3-632535-80			PART NO. TF43SW-66S/4-0.5SH(800)		
SCALE 4:1 UNITS mm			CODE NO CL 6553-0003-5-800		

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△數 COUNT	訂正事項 DESCRIPTION OF REVISIONS	擔當 B Y	檢圖 CHKD	年月日 DATE	△數 COUNT	訂正事項 DESCRIPTION OF REVISIONS	擔當 B Y	檢圖 CHKD	年月日 DATE
△					△				
△					△				
△					△				



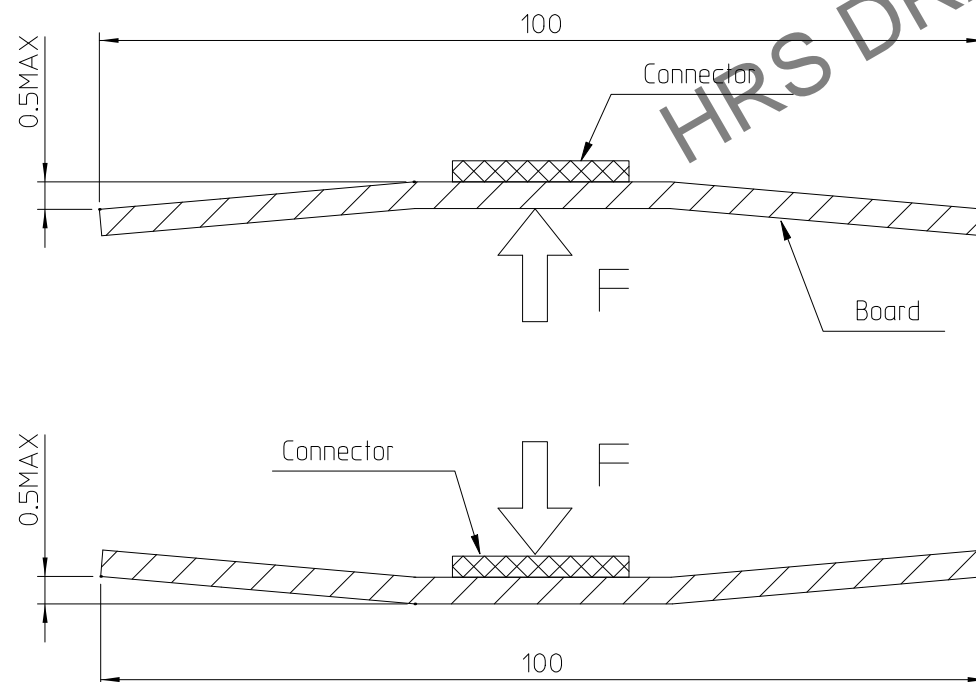
2	PET		4	PS	
1	CONNECTOR		3	PET	
NO.	MATERIAL	FINISH,REMARKS	NO.	MATERIAL	FINISH,REMARKS
CODE NO. (OLD)			DRAWN		
			DESIGNED		
			CHECKED		
			APPROVED		
			RELEASED		
			SCALE		
			UNITS		
			mm		
DRAWING NO. EDC3-632535-80			PART NO. TF43SW-66S/4-0.5SH(800)		
HRS HIROSE KOREA CO.,LTD.			CODE NO CL 6553-0003-5-800		
			2/4		

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This connector requires delicate and careful handling.  
Read through the instructions shown below and the connector properly.  
Each values indicating here are for reference and may differ from standard value.

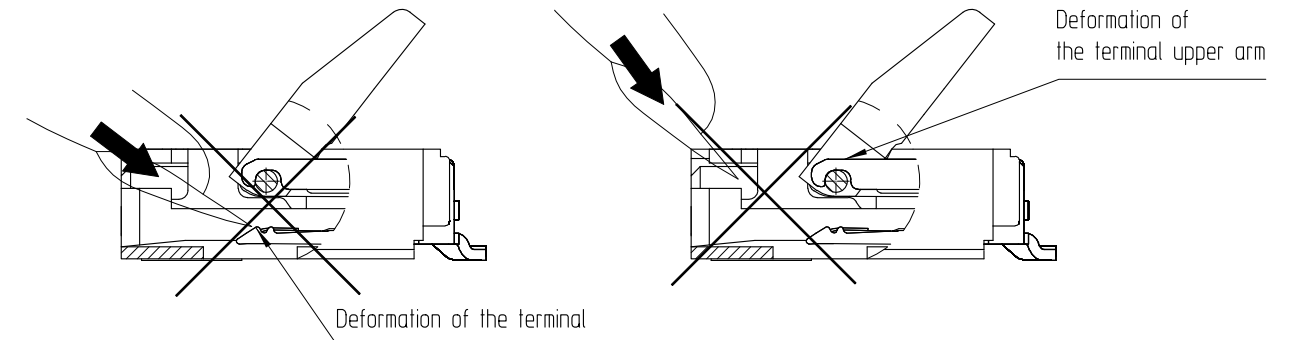
### [Board Mounting Precautions]

- ◆ Board Warpage  
Be sure to minimize the board warpage as much as possible.  
The lead co-planarity is 0.1mm or less.  
Excessive board warpage may result in soldering failures or co-planarity issues.
- ◆ Connector Load  
If the connector is not mounted onto a board, refrain from doing any of the following actions:  
Do not apply a force of 0.5N or more to the connector.  
Do not insert the FFC or operate the connector.  
Any of these actions may damage or break the connector.
- ◆ Board Stress  
It may advisable to split larger boards into smaller sections to reduce overall board stress.  
Avoid placing any excess force on the board during the assembly process.  
When using screws to secure the boards, be sure to check for any unwanted stress that may occur from this operation as well.
- ◆ Acceptable Amount of Board Warpage  
A 100 mm wide board has an acceptable warp range of 0.5 mm or less.  
(Below) Excessive amounts of warping will place stress on the connector which may result in damage and malfunctions.



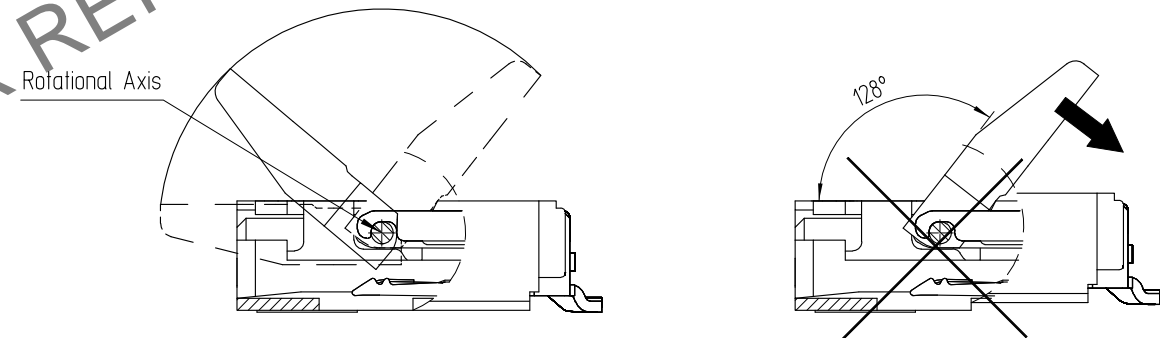
### [FFC/FPC Insertion/Mating Precautions]

- ◆ Actuator Operation  
1. Do not apply excessive force on the actuator when releasing it from its initial position.  
Using a nail or finger as shown below, may result in terminal deformation.

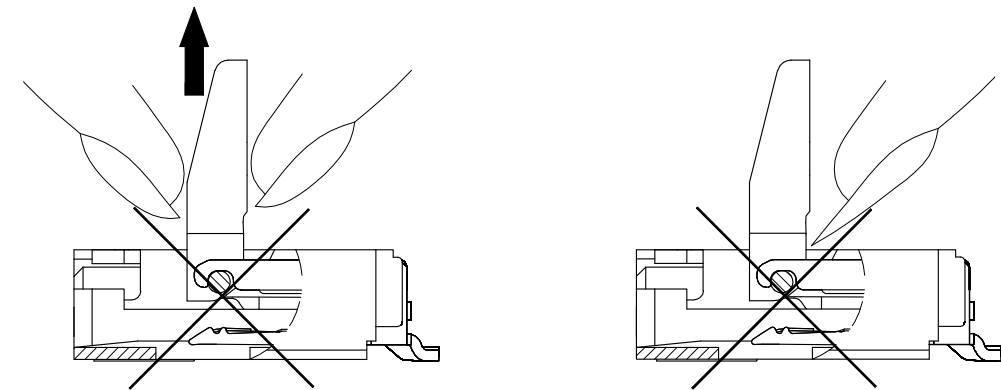


- 2. The actuator rotates around the axis as shown below.  
Make sure to rotate the whole actuator and not just the center portion.

- 3. The actuator opens up to 128°.  
Do not force the actuator beyond this point.  
Doing so may damage or break off the actuator.



- 4. Operate the actuator towards the center.  
Operating one side only may result in actuator damage or incomplete mating.
- 5. Do not pull or pick at the actuator. Doing so may damage it.  
(Do not carry out any operation other than the actuator rotation operation described in 2.)



<INSTRUCTION MANUAL(1)>

**HRS** HIROSE KOREA CO.,LTD.

PART NO. TF43SW-66S/4-0.5SH

3/4

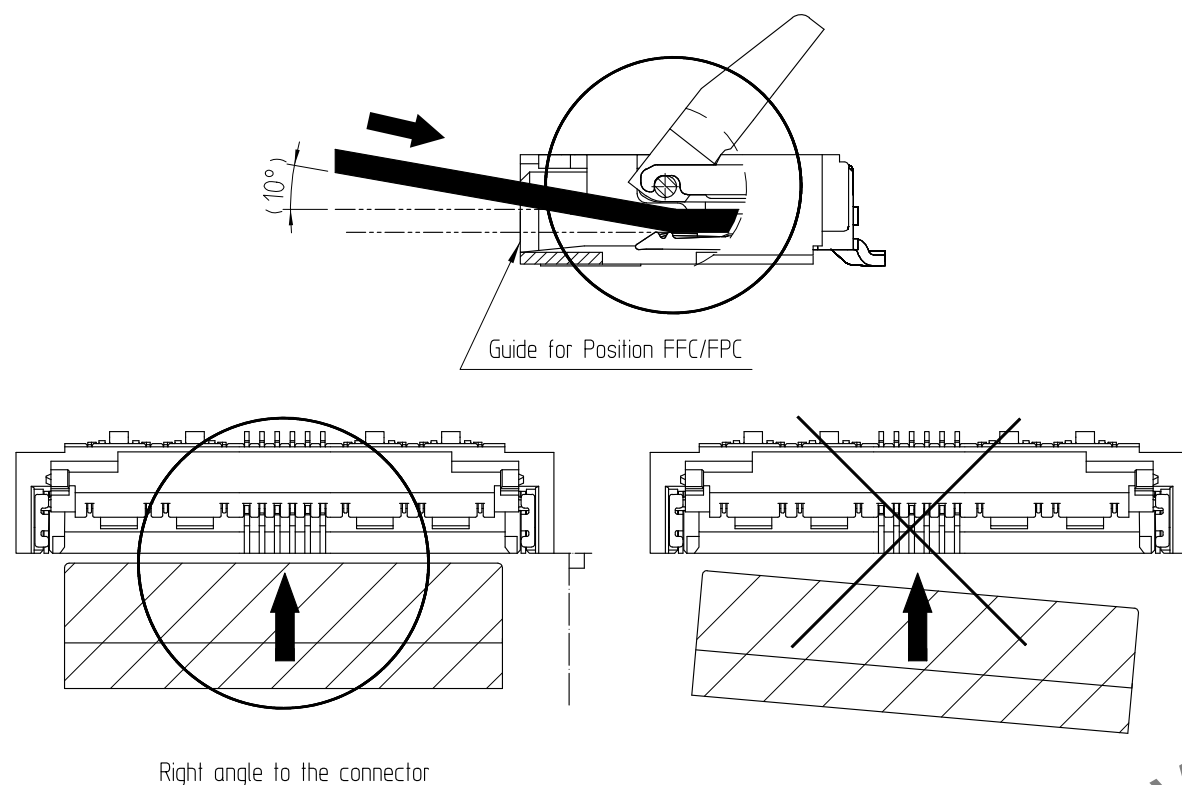
◆ Contact orientation

This connector utilizes bottom contacts. Insert the FFC/FPC with the exposed conductors face down.

◆ Inserting the FFC/FPC

1. There is a FPC/FFC positioning guide.

Insert the FPC/FFC straight into the connector while at a 10° angle to the board surface (see illustration below).  
Make sure that it has been fully inserted.



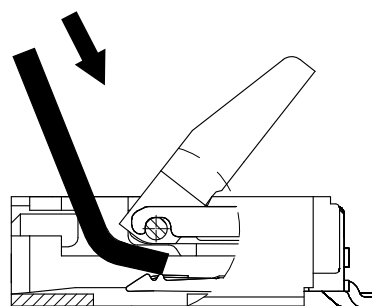
2. Do not insert the FFC/FPC in a diagonally

If the FFC/FPC is inserted in skewed orientation as illustrated above, the FFC/FPC may be caught by the terminals resulting in deformation.

Additionally the FPC/FFC may be bent, resulting in pattern breakage or insufficient insertion which may cause conduction failure.

※ Secure sufficient FPC/FFC insertion space during layout design to prevent diagonal FPC/FFC insertion.  
Additionally if the FPC/FFC is too short, it may be difficult to insert. Arrange appropriate parts during layout.

※ Consult with your FPC/FFC manufacturer to select a flex circuit that has the correct flex characteristics to avoid breakage.



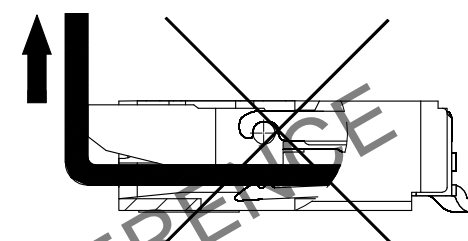
◆ Ensuring a completed connection

After completing the locking operation, be sure to check that the actuator is horizontal to the board surface.  
Do not apply excessive force, when the actuator reaches 0°, doing so may damage the terminals.

[Instruction on FFC/FPC layout after Mating]

◆ Load to FFC/FPC

Do not apply direct force to the connector during FPC/FFC routing.  
Contact failure, disconnection or breakage may occur when using a FPC/FFC bent near the connector.  
In general the FPC/FFC should not be bent sharply near the insertion opening.  
Secure the FPC/FFC when applying a continuous load.



Load:  $0.1 \times n \text{ N MAX}$   
(n: number of contacts)

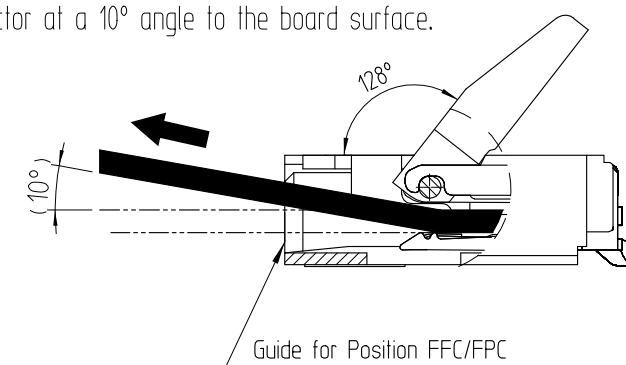
[FPC/FFC Removal Precautions]

◆ Release the actuator near the center. Operating one side only may result in actuator damage or incomplete mating.

◆ Remove the FPC/FFC with the actuator released.

There is a FPC/FFC positioning guide.

Pull the FPC/FFC straight out of the connector at a 10° angle to the board surface.



[Other Precautions]

Instruction on Manual Soldering

Follow the instructions shown below when soldering the connector manually during repair work, etc.

1. Do not perform reflow soldering or manual soldering with the FPC/FFC inserted into the connector.

2. Do not overheat the connector.

Do not allow the soldering iron to contact any part other than the intended connector leads.  
Unnecessary contact may lead to damage and deformities of the connector.

3. Do not use excessive solder (flux).

If excessive solder (flux) is used on the terminals, solder or flux may adhere to the contacts or rotating parts of the actuator, resulting in poor contact or a rotation failure of the actuator.

<INSTRUCTION MANUAL(2)>