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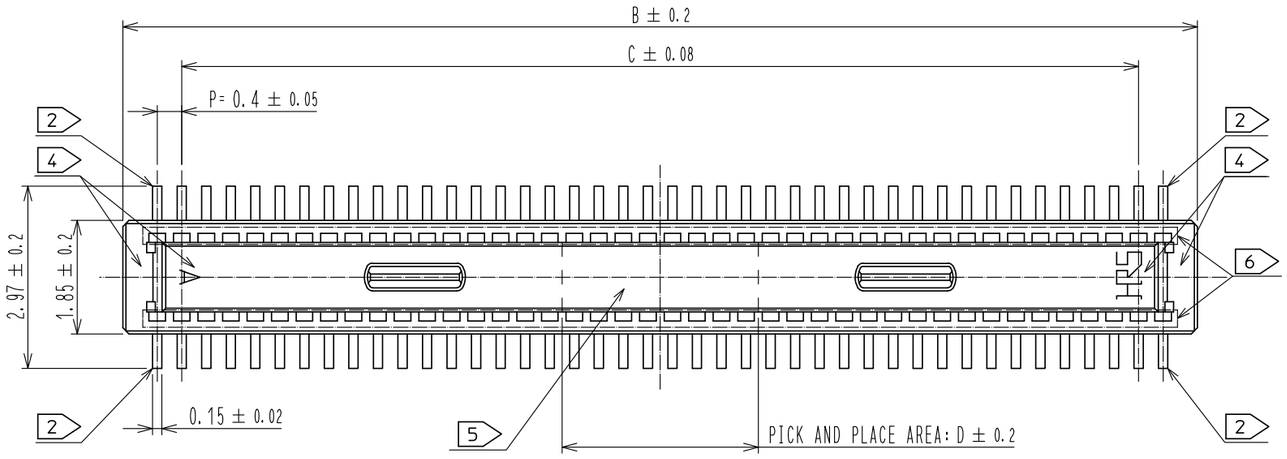
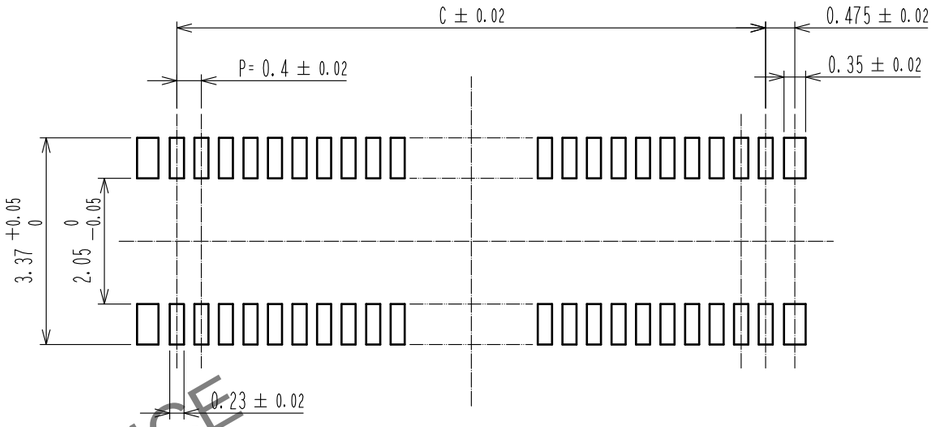
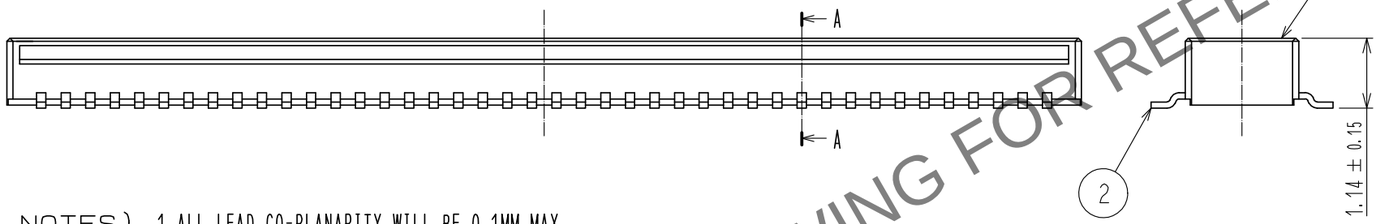


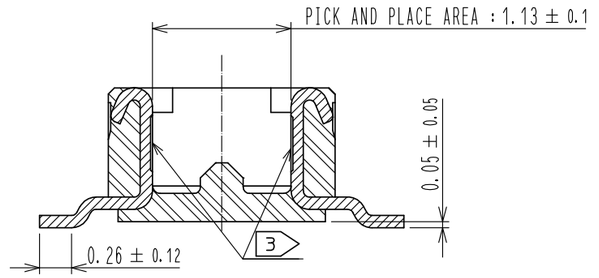
RECOMMENDED PATTERN



RECOMMENDED METAL MASK THICKNESS : 120μm
RECOMMENDED METAL MASK OPENING RATIO : 80% FOR LEAD PAD



A-A(20:1)



NOTES) 1. ALL LEAD CO-PLANARITY WILL BE 0.1MM MAX.
2 THE TERMINALS AT THE FOUR CORNERS SHOULD BE USED AS METAL FITTINGS, WHICH HAVE NO ELECTRICAL CONTINUITY.
3 10 TO 50 POSITIONS HAVE LOCKING SYSTEM BY CONCAVE DESIGN ON CONTACTS.
60 TO 120 POSITIONS HAVE NO CONCAVE DESIGN ON CONTACTS.
4 HRS MARK AND CAVITY NUMBER ARE INDICATED AT APPROXIMATE LOCATION.
THE INDICATION COULD BE ON THE UPPER SURFACE OF DESIGN ON THE CONNECTOR.
5 90 TO 120 POSITIONS HAVE CONCAVE PORTION.
6 THERE IS A POSSIBILITY THAT THE RESIN WILL BE EXPOSED AT THIS AREA. BUT THIS WILL NOT AFFECT THE CONTACT RELIABILITY.

PART NO.	CODE NO.	B	C	D
DF40C-10DP-0.4V(51)	CL684-4035-0-51	3.52	1.6	1.0
DF40C-12DP-0.4V(51)	CL684-4149-9-51	3.92	2.0	1.0
DF40C-20DP-0.4V(51)	CL684-4010-9-51	5.52	3.6	1.0
DF40C-24DP-0.4V(51)	CL684-4011-1-51	6.32	4.4	1.2
DF40C-30DP-0.4V(51)	CL684-4012-4-51	7.52	5.6	1.5
DF40C-34DP-0.4V(51)	CL684-4024-3-51	8.32	6.4	2.3
DF40C-40DP-0.4V(51)	CL684-4013-7-51	9.52	7.6	3.2
DF40C-44DP-0.4V(51)	CL684-4077-0-51	10.32	8.4	3.2
DF40C-50DP-0.4V(51)	CL684-4014-0-51	11.52	9.6	3.2
DF40C-60DP-0.4V(51)	CL684-4003-3-51	13.52	11.6	3.2
DF40C-70DP-0.4V(51)	CL684-4015-2-51	15.52	13.6	3.2
DF40C-80DP-0.4V(51)	CL684-4001-8-51	17.52	15.6	3.2
DF40C-90DP-0.4V(51)	CL684-4125-0-51	19.52	17.6	3.2
DF40C-100DP-0.4V(51)	CL684-4032-1-51	21.52	19.6	3.2
DF40C-120DP-0.4V(51)	CL684-4107-9-51	25.52	23.6	3.2

THIS DRAWING FOR REFERENCE

NO.	MATERIAL	FINISH . REMARKS	NO.	MATERIAL	FINISH . REMARKS
2	PHOSPHOR BRONZE	CONTACT AREA:GOLD 0.05μm MIN	6	PS	CLEAR, REINFORCEMENT COLLAR
		SMT LEAD:GOLD 0.05μm MIN	5	PS	BLACK
		UNDERPLATING:NICKEL 1μm MIN	4	POLYESTER	CLEAR,COVER TAPE
1	LCP	BLACK	3	PS	CLEAR,EMBOSSED CARRIER TAPE

UNITS	SCALE		COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
mm	10 : 1	10	2	DIS-H-00021070	TY. AMEMIYA	RT. SHIMIZU	20240708

HIROSE ELECTRIC CO., LTD.

APPROVED	MO. NAKAMURA	20051209	DRAWING NO. EDC3-311351-00
CHECED	KH. IKEDA	20051209	PART NO. DF40C-*DP-0.4V(51)
DESIGNED	MY. GOTO	20051209	CODE NO. CL684
DRAWN	MY. GOTO	20051209	10 1/3

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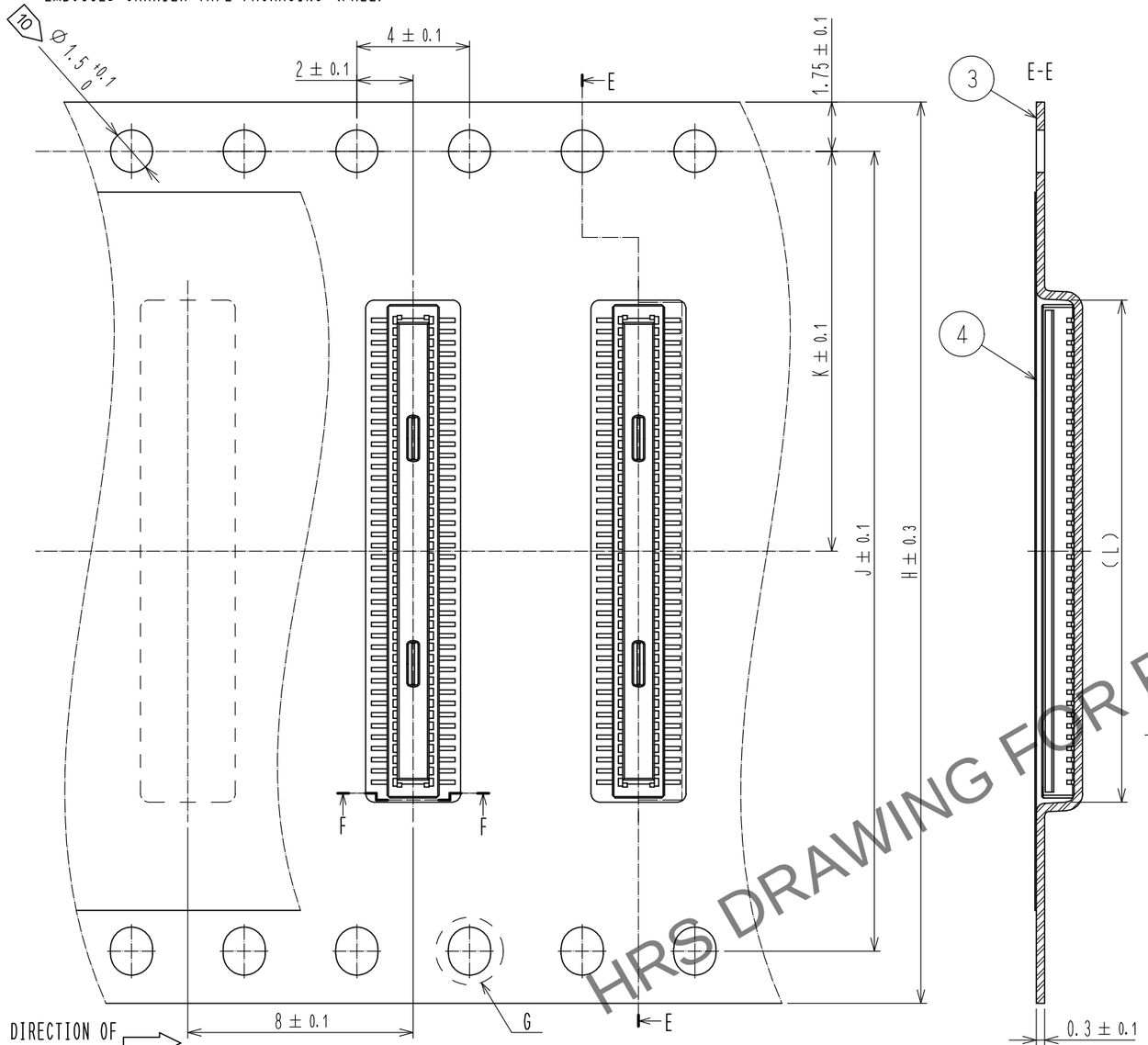
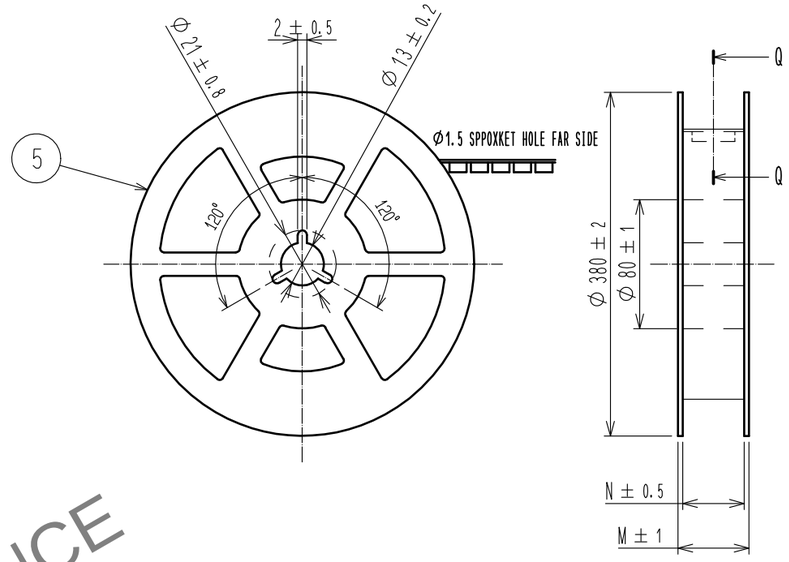
EMBOSSED CARRIER TAPE PACKAGING (FREE)

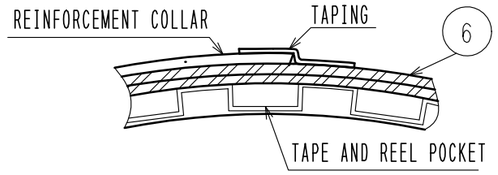


STYLE AND DIMENSION OF REEL(FREE)

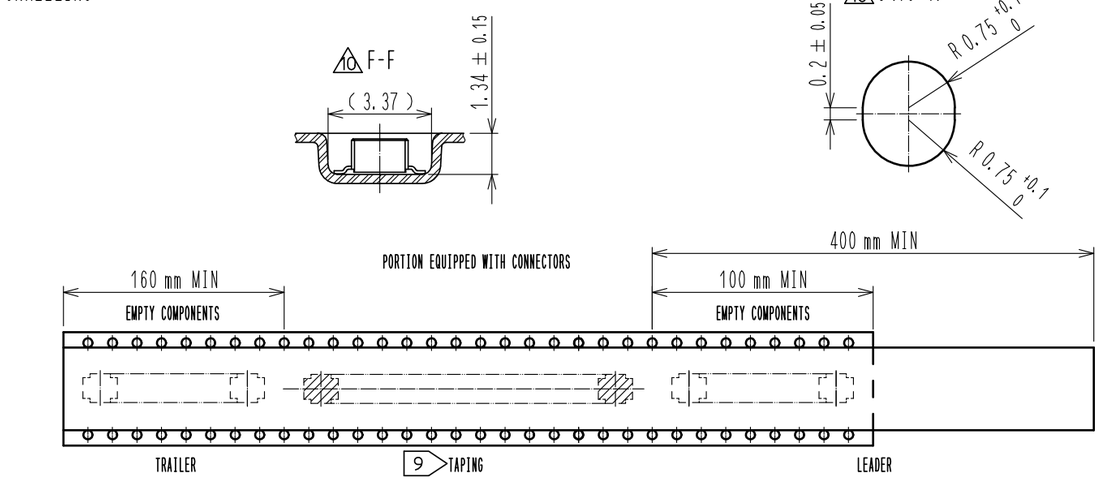


HRS DRAWING FOR REFERENCE

11 Q-Q (FREE)



PART NO.	H	J	K	L	M	N
DF40C-10DP-0.4V(51)	12	—	5.5	3.82	17.5	13.5
DF40C-12DP-0.4V(51)	12	—	5.5	4.22	17.5	13.5
DF40C-20DP-0.4V(51)	16	—	7.5	5.82	21.5	17.5
DF40C-24DP-0.4V(51)	16	—	7.5	6.62	21.5	17.5
DF40C-30DP-0.4V(51)	16	—	7.5	7.82	21.5	17.5
DF40C-34DP-0.4V(51)	24	—	11.5	9.82	29.5	25.5
DF40C-40DP-0.4V(51)	24	—	11.5	9.82	29.5	25.5
DF40C-44DP-0.4V(51)	24	—	11.5	10.62	29.5	25.5
DF40C-50DP-0.4V(51)	24	—	11.5	11.82	29.5	25.5
DF40C-60DP-0.4V(51)	24	—	11.5	13.82	29.5	25.5
DF40C-70DP-0.4V(51)	32	28.4	14.2	15.82	37.5	33.5
DF40C-80DP-0.4V(51)	32	28.4	14.2	17.82	37.5	33.5
DF40C-90DP-0.4V(51)	44	40.4	20.2	19.82	49.5	45.5
DF40C-100DP-0.4V(51)	44	40.4	20.2	21.82	49.5	45.5
DF40C-120DP-0.4V(51)	44	40.4	20.2	25.82	49.5	45.5

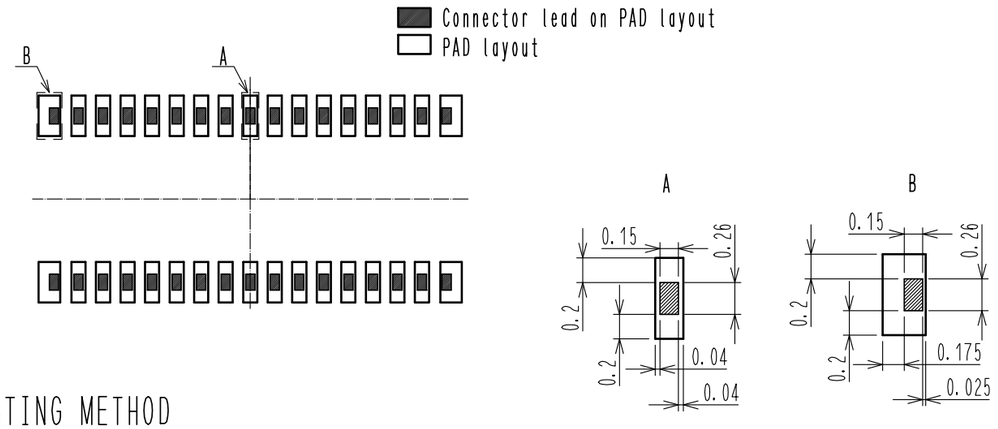


NOTES
7. 5,000 CONNECTORS PER REEL.
8. THE DIMENSIONS IN PARENTHESES ARE ONLY FOR REFERENCE.
9 REFER TO IEC 60286-3
(PACKAGING OF COMPONENTS FOR AUTOMATIC HANDLING)
10 10 TO 60 POSITIONS EMBOSSED CARRIER TAPE HAS THE SPROCKET HOLE ON ONE SIDES.
11 THE REINFORCING COLLAR IS WRAPPED AROUND THE EMBOSS TAPE AND TAPED DOWN AT THE END OF THE COLLAR.
12. PRODUCT REELS AND PACKAGING WILL BE CLEARLY LABELED WITH THE PART NUMBER. LOT NUMBER AND QUANTITY.

HRS	DRAWING NO.	EDC3-311351-00
	PART NO.	DF40C-*DP-0.4V(51)
	CODE NO.	CL684

13. PLEASE REFER TO THE PRODUCT GUIDELINE ETAD-H1015 FOR DETAIL OF CONNECTOR HANDLING.

THE POSITION BETWEEN THE CONNECTOR AND PAD

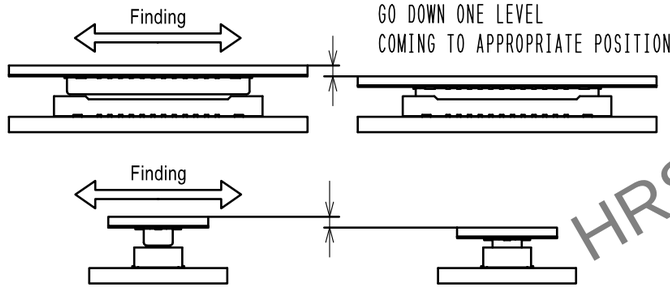


MATING METHOD

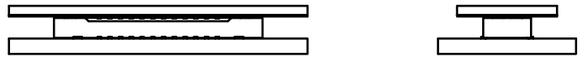
PLEASE MATE THE CONNECTOR BY HAND.

MATING PROCEDURE

(1) FIND THE ALIGNMENT AREA TO THE CONNECTOR IN THE APPROPRIATE MATING POSITION.
THIS CONNECTOR HAS AN ALIGNMENT CHAMBER(GUIDANCE RIBS) ON RECEPTACLE SIDE AND 'R' ON PLUG SIDE, SO THAT THE CONNECTOR WILL BE SELF-ALIGNED.
WHEN THE CONNECTOR COMES TO THE APPROPRIATE POSITION, THE CONNECTOR GOES INTO THE ALIGNED POSITION.
WHEN ALIGNED, IT CAN BE FELT BY HAND.



(2) WHEN GUIDING, THE CONNECTORS ARE ALIGNED PARALLEL TO EACH OTHER, WITH LONGITUDINAL AND LATERAL MOVEMENTS RESTRICTED. MATE THEM PROPERLY BY APPLYING FORCE IN THIS CONDITION.

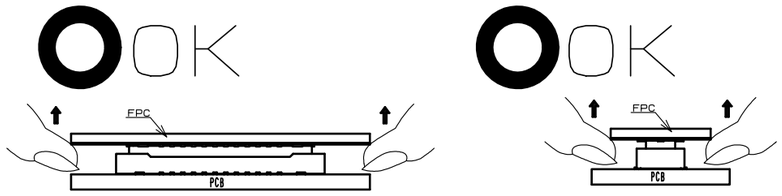


(3) MAKE SURE THE CONNECTORS ARE MATED CORRECTLY. IF ONE SIDE IS FLOATING OR THE CONNECTORS ARE MATED IN ONE DIRECTION, UN-MATE THEM ONCE, AND THEN MATE THEM AGAIN, FOLLOWING THE PROCEDURES ABOVE FROM THE BEGINNING.

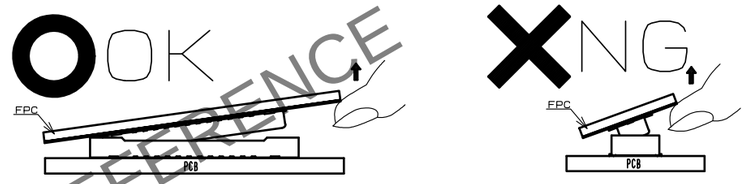
UN-MATING METHOD

PLEASE UN-MATE THE CONNECTOR BY HAND

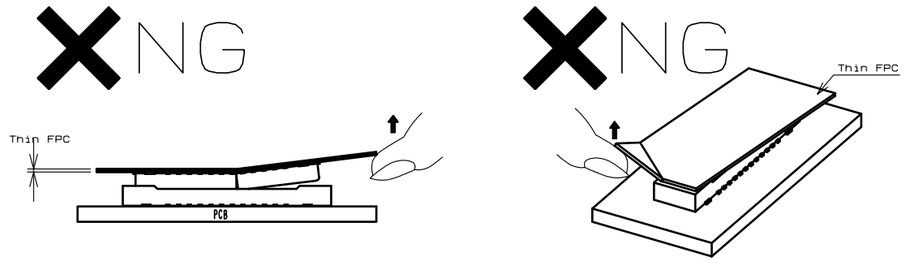
(1) UN-MATE THE CONNECTORS PARALLEL TO EACH OTHER. HOWEVER, IF THE CONNECTORS HAVE HIGH PIN COUNTS OR THINNER FPC AND STIFFENER, IT BECOMES MORE DIFFICULT TO DO SO.



(2) IF THE CONNECTOR CANNOT BE UN-MATED PARALLEL IT CAN BE REMOVED DIAGONALLY FROM THE PITCH DIRECTION. BE CAREFUL TO DO SO SINCE THIS ACTION APPLIES STRESS ON THE CONTACT.

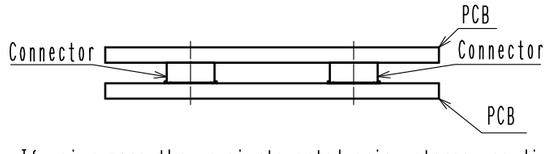


(3) IF THE FPC IS NOT RIGID, THE CONNECTOR CAN BE BROKEN. PLEASE CHECK THE ACTION OF THE FPC TO BE USED REPEATEDLY AT THE TIME OF TRIAL PRODUCTION. BE CAREFUL TO UN-MATE THEM FROM THE PITCH DIRECTION. PULLING IT FROM THE CORNER CAN ALSO RISK TO PUTTING STRESS ON CONTACTS.

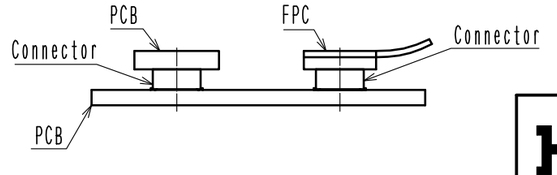


(4) Caution for using multiple connectors.

Please avoid using more than a single mated pair of connectors between two sandwiched PCBs, like the picture on the below.
Due to possible misalignment, connector breakage while and after mating may occur.



If using more than a single mated pair, please use divided boards for each connection.



HRS DRAWING FOR REFERENCE

DRAWING NO.	EDC3-311351-00
PART NO.	DF40C-*DP-0.4V(51)
CODE NO.	CL684-4001-8-51
	10
	3/3

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