

MINIFLEX® 3-BFN LK

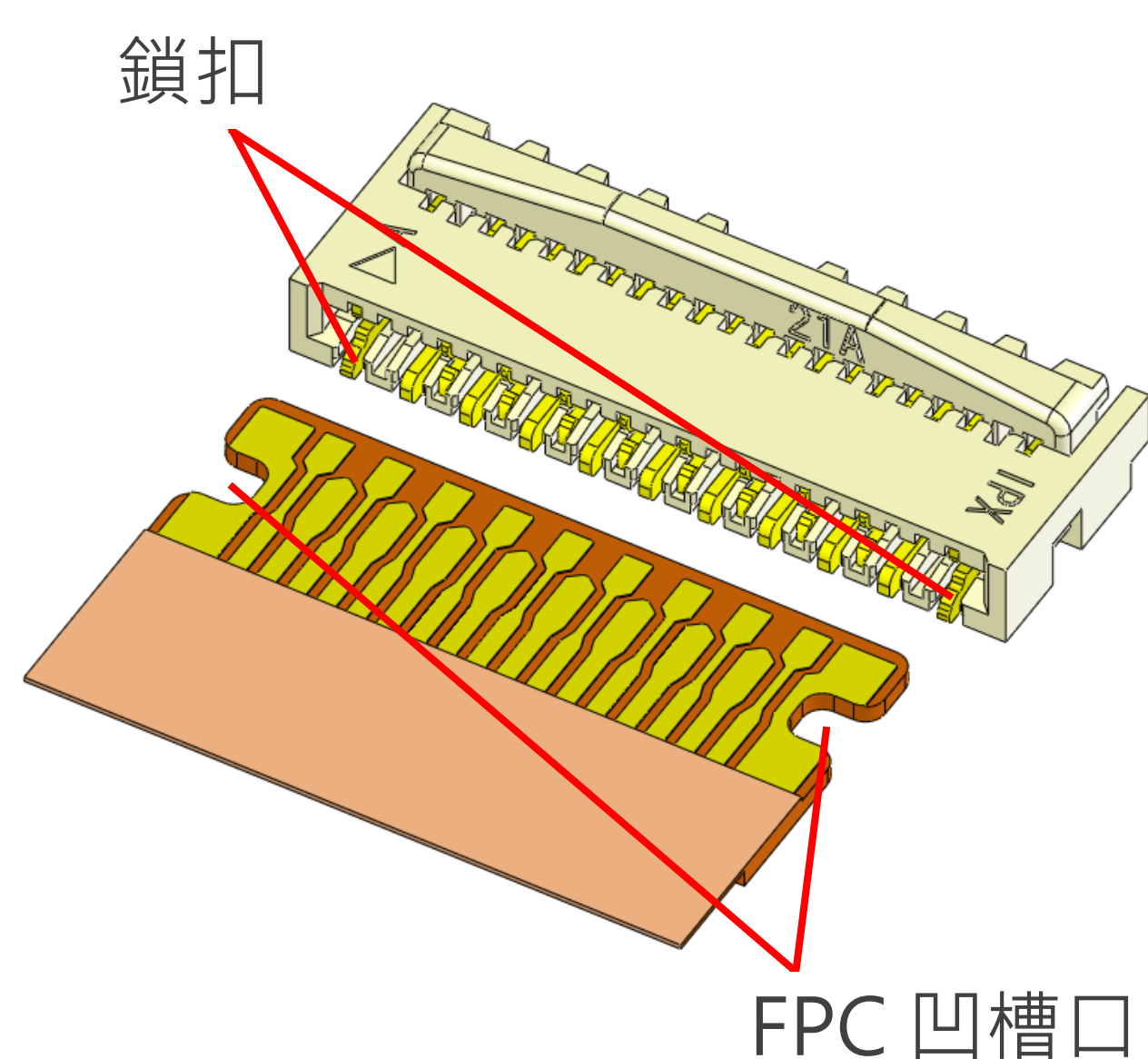
機械鎖扣 · 低背(高度 = 0.9 mm) · 0.3 mm 間距, 水平插拔, 後鎖式

Product Specifications:		Short Actuator	Long Actuator	Applicable FPC/FFC:	
Board Pitch (mm)		0.3		FPC/FFC Contact Pitch	0.3
Wiping Length (mm)		Contact A: 0.9		FPC/FFC Contact Point	Top and Bottom
		Contact B: 0.45		FPC/FFC Thickness (mm)	0.2 +/- 0.03
Size (mm)	Height	0.90 +/- 0.10			
	Width	Formula: 2.1 + (0.3 * ?p)			
	Depth	Open: 2.55			
Close: 3		Close: 3.5			
Pin counts	Range	9-37 (odd)	29-71 (odd)		
	Available	9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37	51, 53, 57, 61, 71		

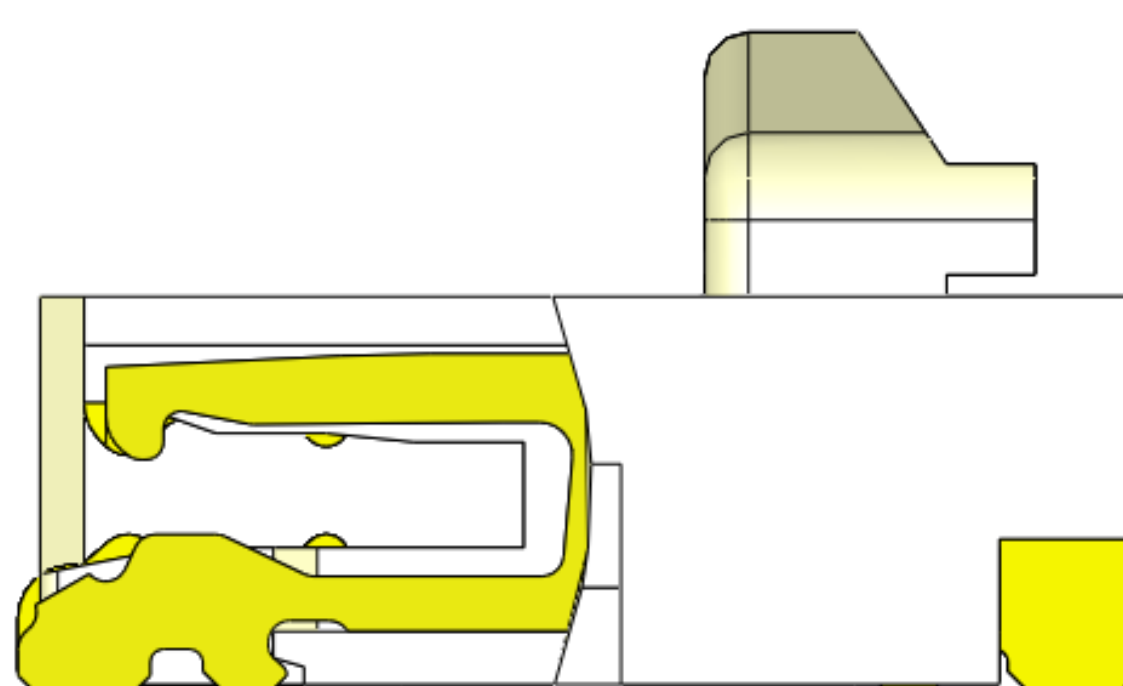
*若有規格外 Pin 數需求, 請與當地負責業務窗口聯繫。



▶ 附加機械鎖扣提高 FPC 保持力



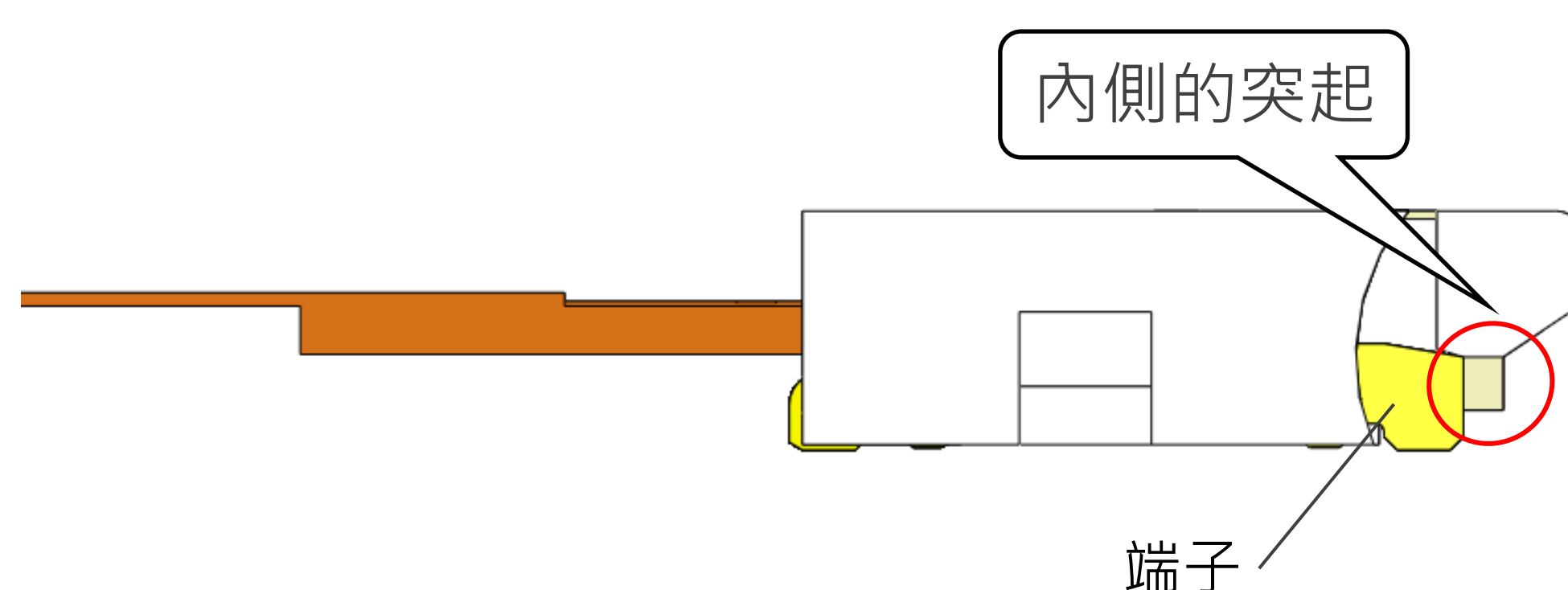
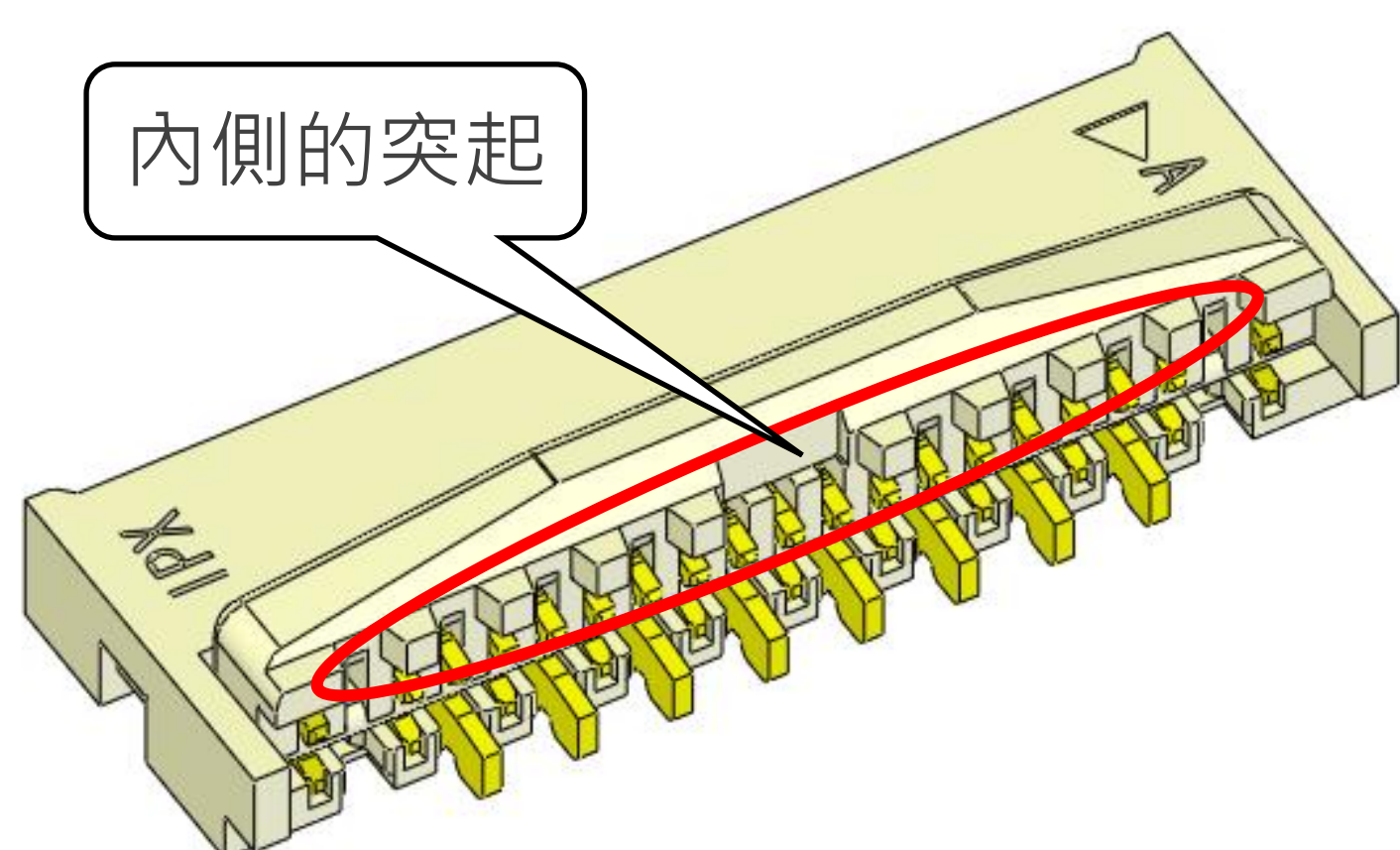
FPC 鎖扣機制維持 FPC 高保持力



FPC 保持力比較 (19 p)

MINIFLEX® 3-BFN LK	MINIFLEX® 3-BFN
11.34 N	6.7 N

▶ 防止端子變形的結構

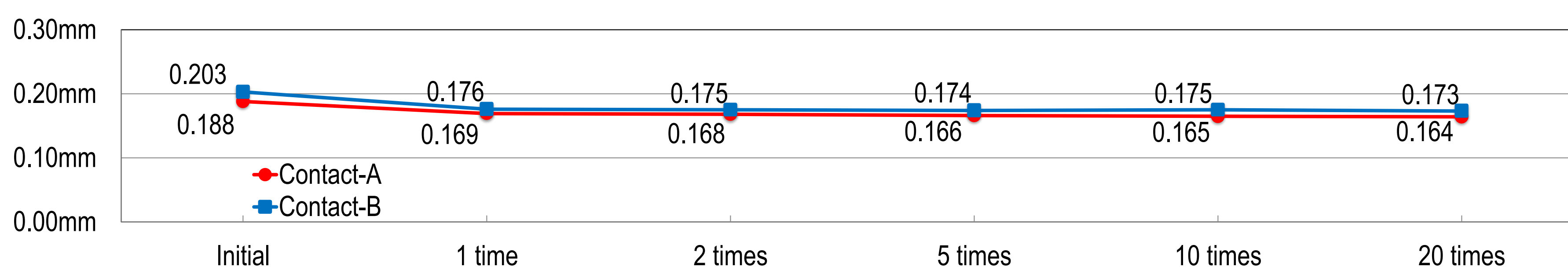


當鋼琴蓋被打開時, 鋼琴蓋內側的突起可以防止指甲碰觸到端子而造成的變形

▶ 在沒有插入FPC的情況下關閉鋼琴蓋，連接器仍可使用

在 SMT 加工後，如果鋼琴蓋在沒有插入 FPC 的情況下意外閉合，連接器仍可使用

- FPC未插入情況下閉合鋼琴蓋，其前後的接點間距比較如圖(圖表為 MINIFLEX® 3-BFN LK 35 pins)

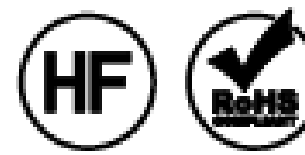
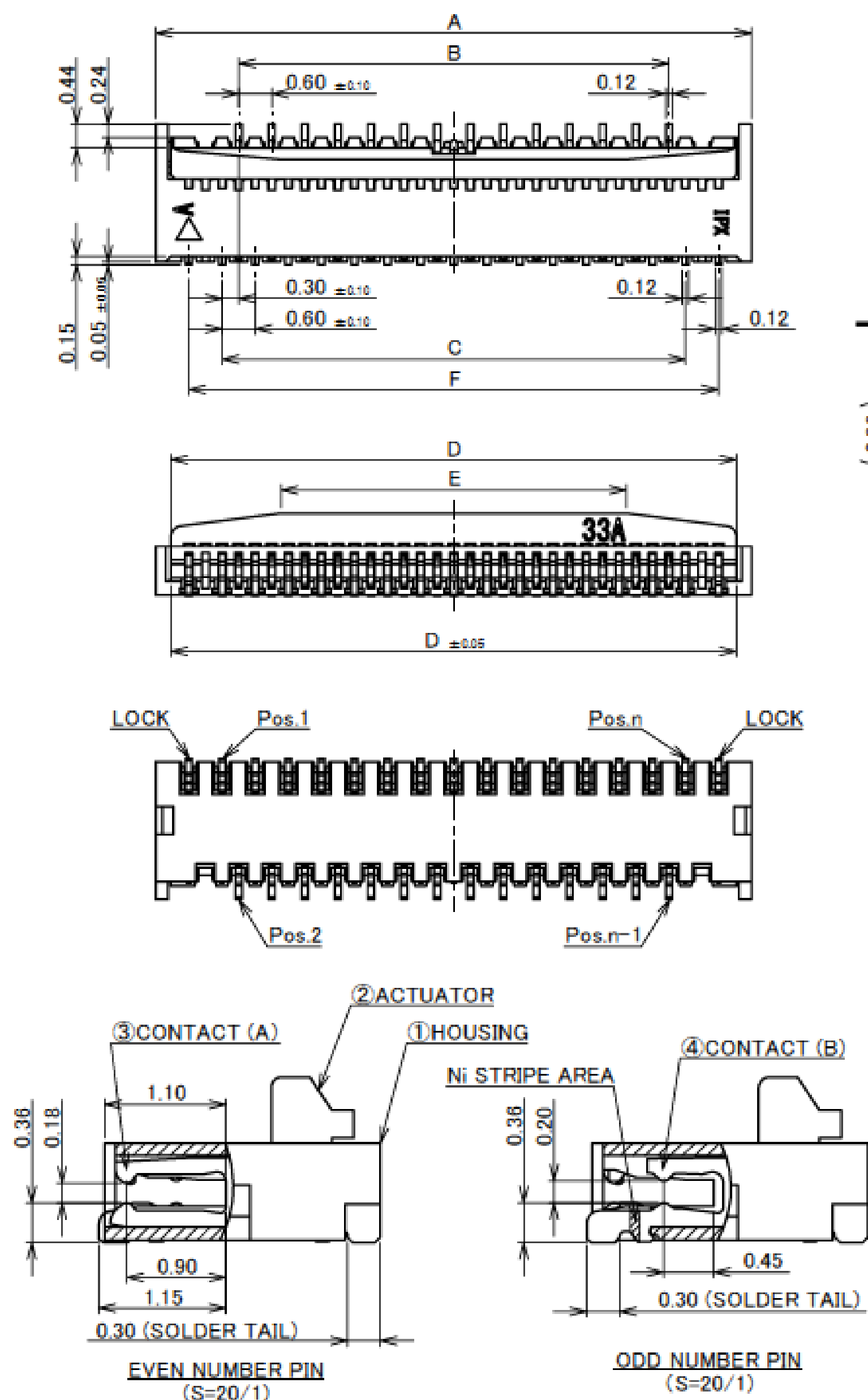


- FPC插入力上升
- FPC保持力無太大變化

Component Parts Details

Connector Assembly

Recommended P/N 20599-0**E-01



PART NO.	Pos.	A	B	C	D	E	F
20599-009E-01	9P	4.80	1.80	2.40	4.25	2.25	3.60
20599-011E-01	11P	5.40	2.40	3.00	4.85	2.85	4.20
20599-013E-01	13P	6.00	3.00	3.60	5.45	3.45	4.80
20599-015E-01	15P	6.60	3.60	4.20	6.05	4.05	5.40
20599-017E-01	17P	7.20	4.20	4.80	6.65	4.65	6.00
20599-019E-01	19P	7.80	4.80	5.40	7.25	5.25	6.60
20599-021E-01	21P	8.40	5.40	6.00	7.85	5.85	7.20
20599-023E-01	23P	9.00	6.00	6.60	8.45	6.45	7.80
20599-025E-01	25P	9.60	6.60	7.20	9.05	7.05	8.40
20599-027E-01	27P	10.20	7.20	7.80	9.65	7.65	9.00
20599-029E-01	29P	10.80	7.80	8.40	10.25	8.25	9.60
20599-031E-01	31P	11.40	8.40	9.00	10.85	8.85	10.20
20599-033E-01	33P	12.00	9.00	9.60	11.45	9.45	10.80
20599-035E-01	35P	12.60	9.60	10.20	12.05	10.05	11.40
20599-037E-01	37P	13.20	10.20	10.80	12.65	10.65	12.00

NOTES
1. CONTACT POINT: TOP AND BOTTOM CONTACT

CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12007 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

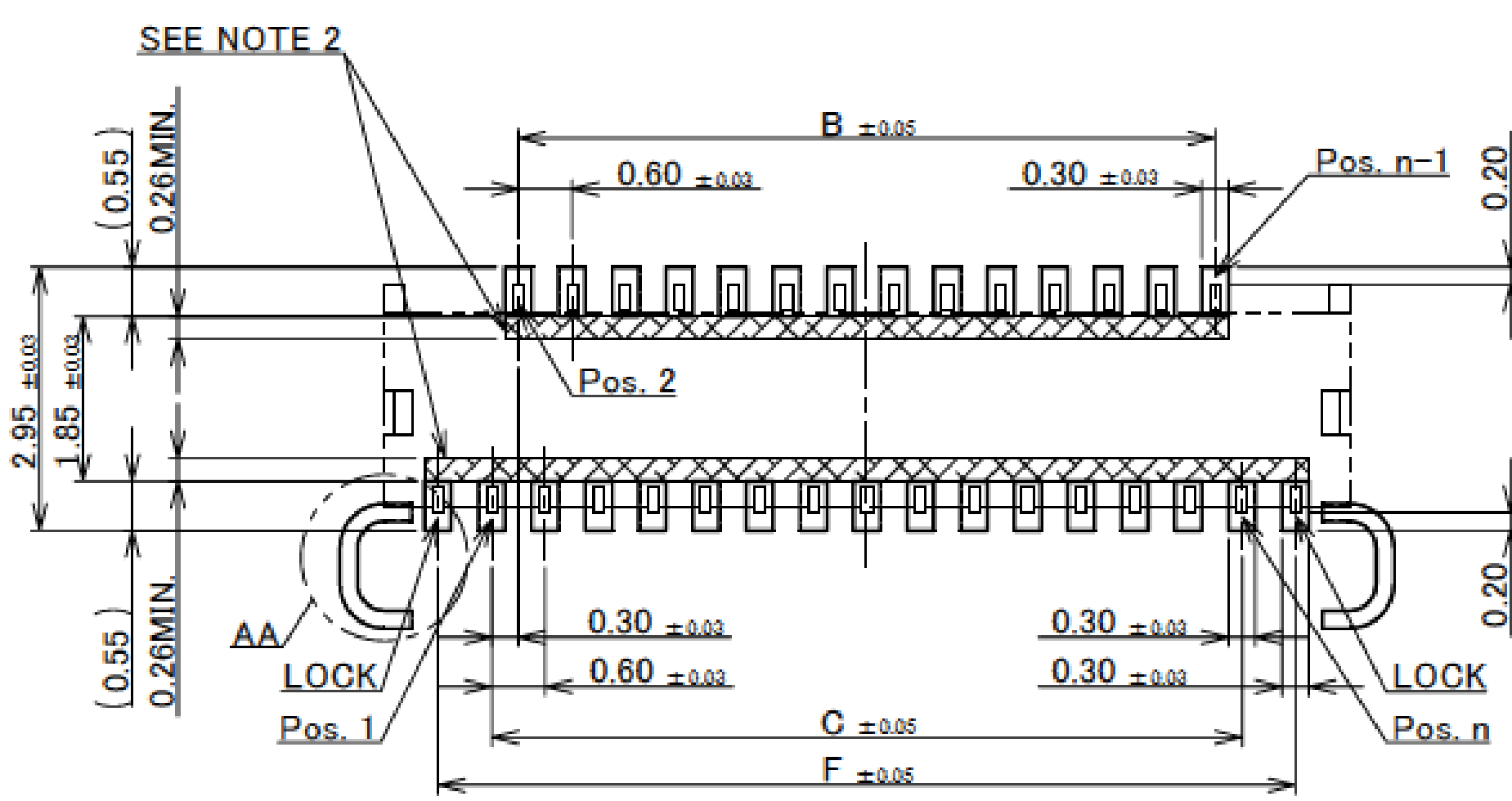
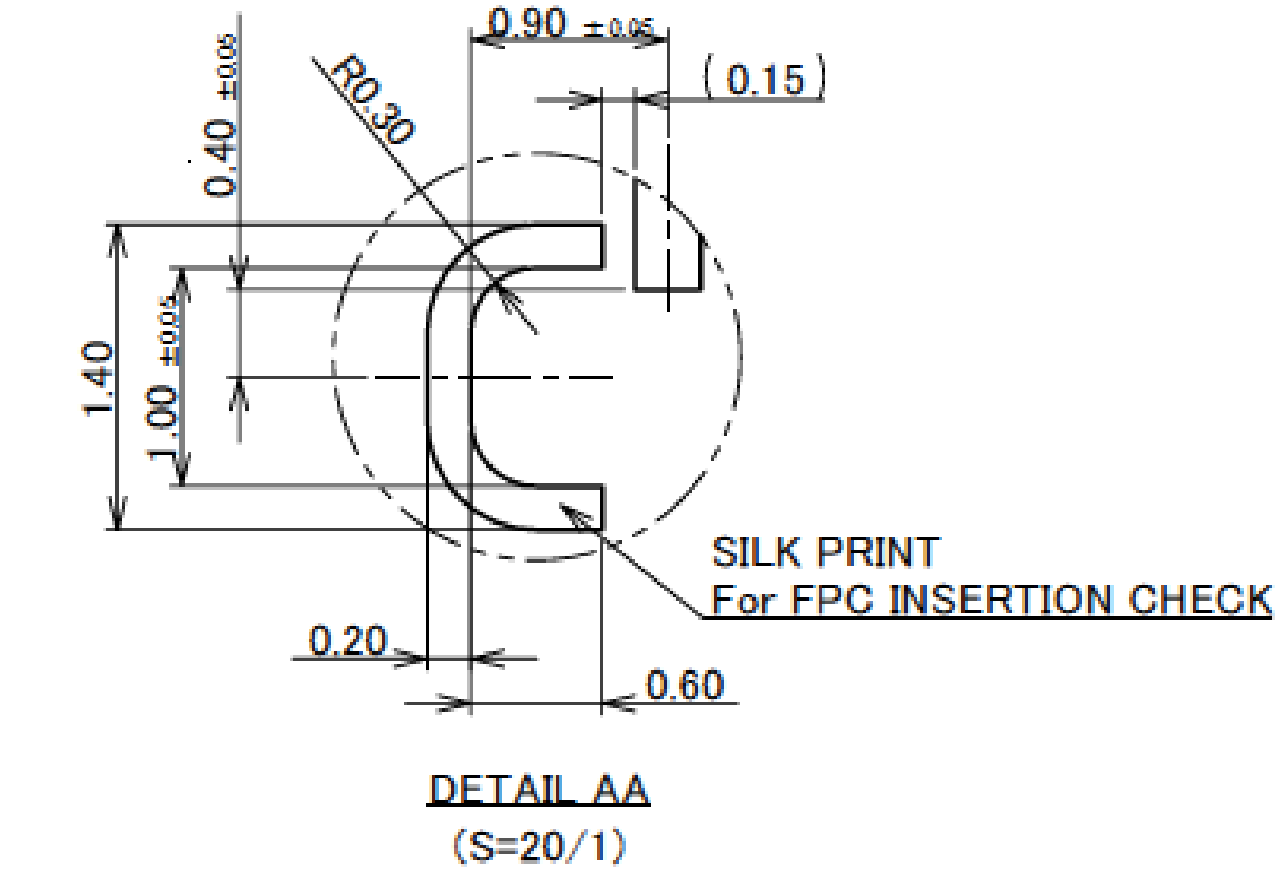
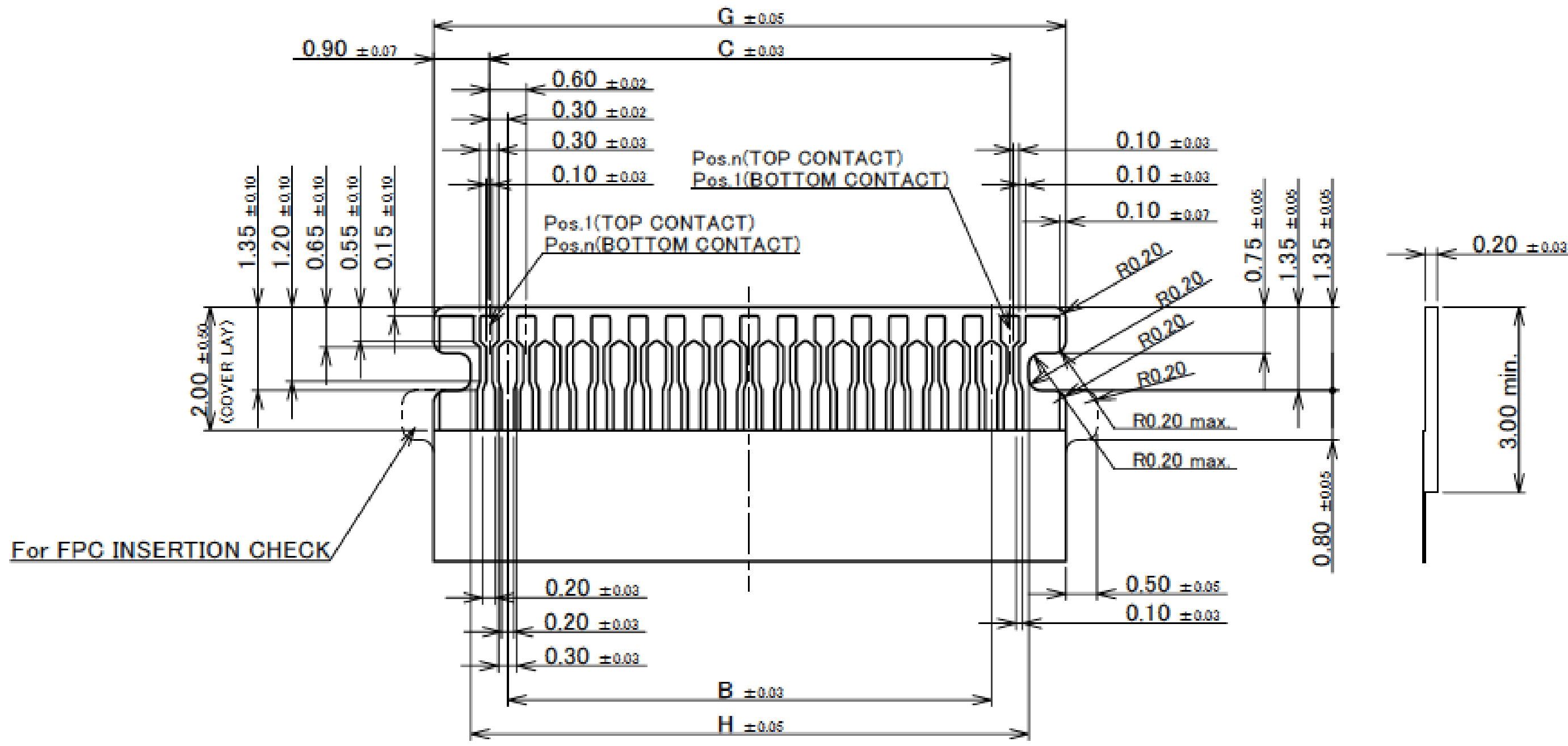
TABLE 1

PART NO.	FINISH		
20599-0**E-01	CONTACT AREA : Au 0.10 μm MIN. OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.		
5	LOCK	PHOSPHOR BRONZE SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.	
4	CONTACT (B)	PHOSPHOR BRONZE SEE TABLE 1, WITH Ni STRIPE	
3	CONTACT (A)	PHOSPHOR BRONZE SEE TABLE 1	
2	ACTUATOR	LCP UL94V-0, BEIGE	
1	HOUSING	LCP UL94V-0, BEIGE	
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Connector Assembly

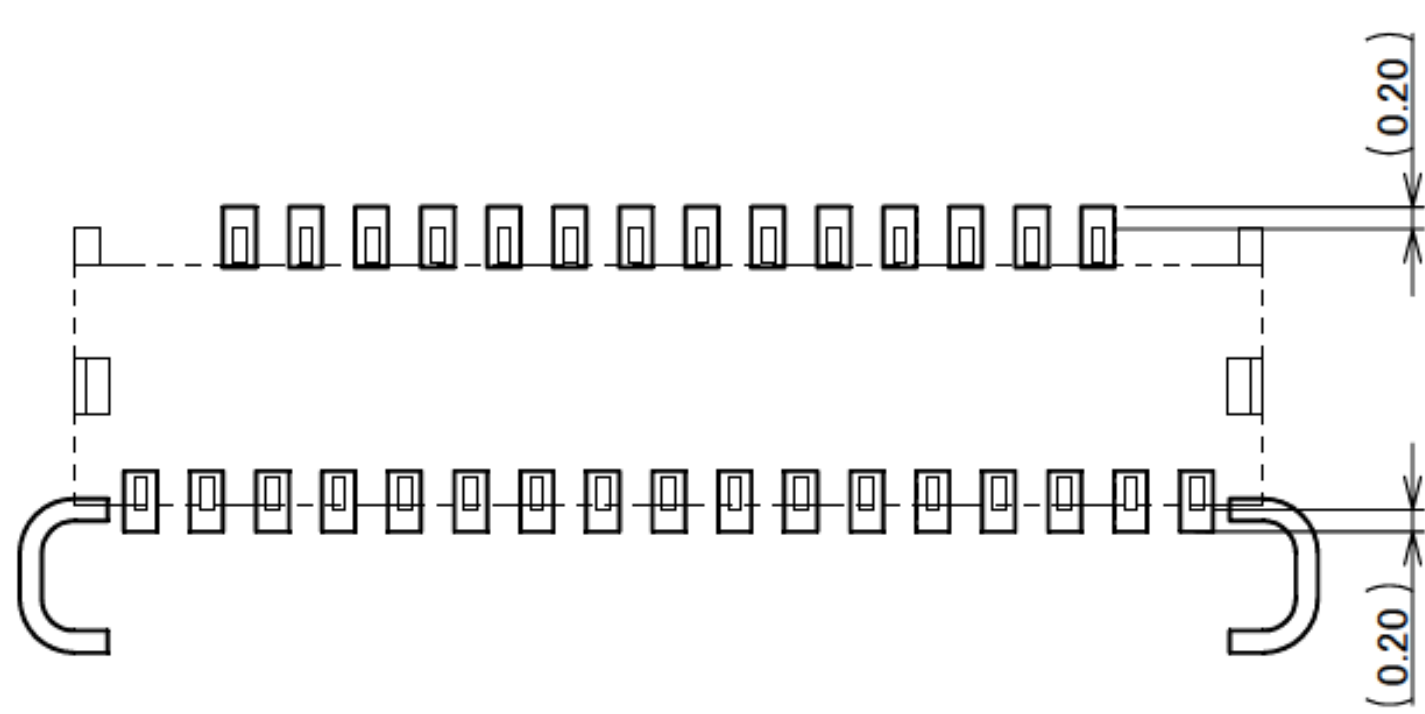
PART NO.	Pos.	B	C	F	G	H
20599-009E-01	9P	1.80	2.40	3.60	4.20	3.00
20599-011E-01	11P	2.40	3.00	4.20	4.80	3.60
20599-013E-01	13P	3.00	3.60	4.80	5.40	4.20
20599-015E-01	15P	3.60	4.20	5.40	6.00	4.80
20599-017E-01	17P	4.20	4.80	6.00	6.60	5.40
20599-019E-01	19P	4.80	5.40	6.60	7.20	6.00
20599-021E-01	21P	5.40	6.00	7.20	7.80	6.60
20599-023E-01	23P	6.00	6.60	7.80	8.40	7.20
20599-025E-01	25P	6.60	7.20	8.40	9.00	7.80
20599-027E-01	27P	7.20	7.80	9.00	9.60	8.40
20599-029E-01	29P	7.80	8.40	9.60	10.20	9.00
20599-031E-01	31P	8.40	9.00	10.20	10.80	9.60
20599-033E-01	33P	9.00	9.60	10.80	11.40	10.20
20599-035E-01	35P	9.60	10.20	11.40	12.00	10.80
20599-037E-01	37P	10.20	10.80	12.00	12.60	11.40

NOTES
 2. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

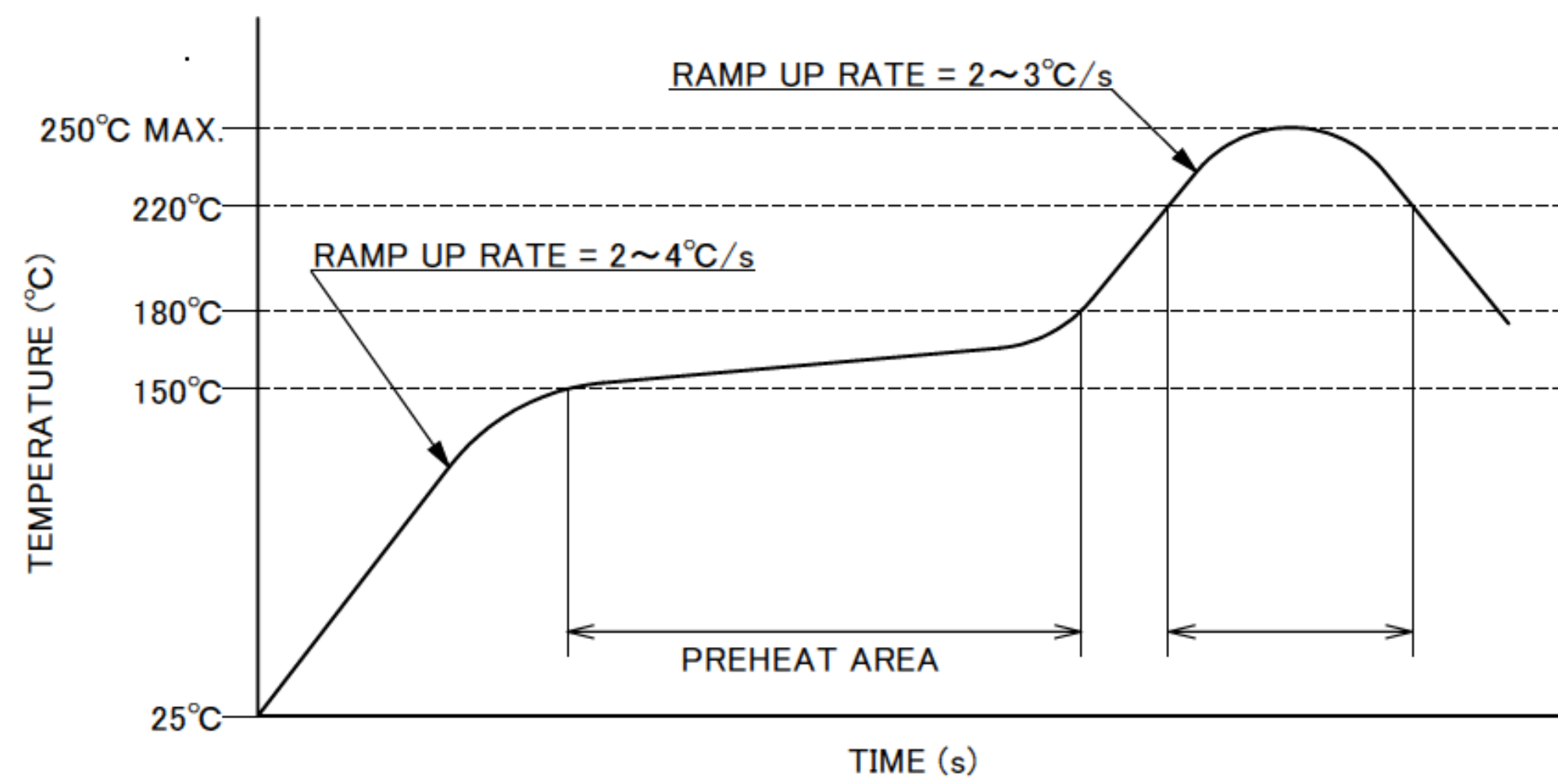


RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
 METAL MASK THICKNESS : $t=0.12\text{mm}$

Rev.13



CONNECTOR ON RECOMMENDED PCB LAYOUT

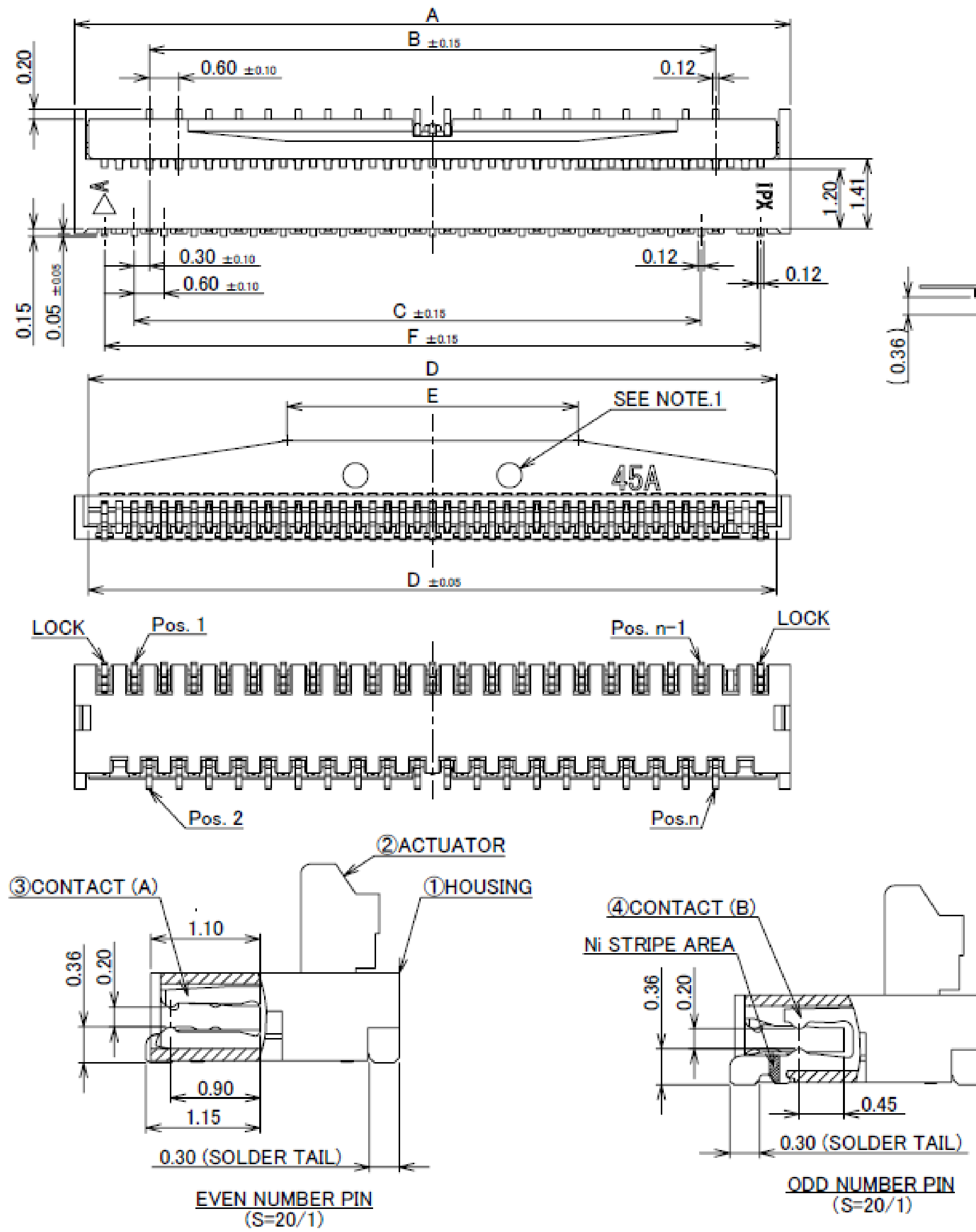


REFLOW TEMPERATURE PROFILE
 SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Rev.13

Connector Assembly

EVEN NUMBER POS.

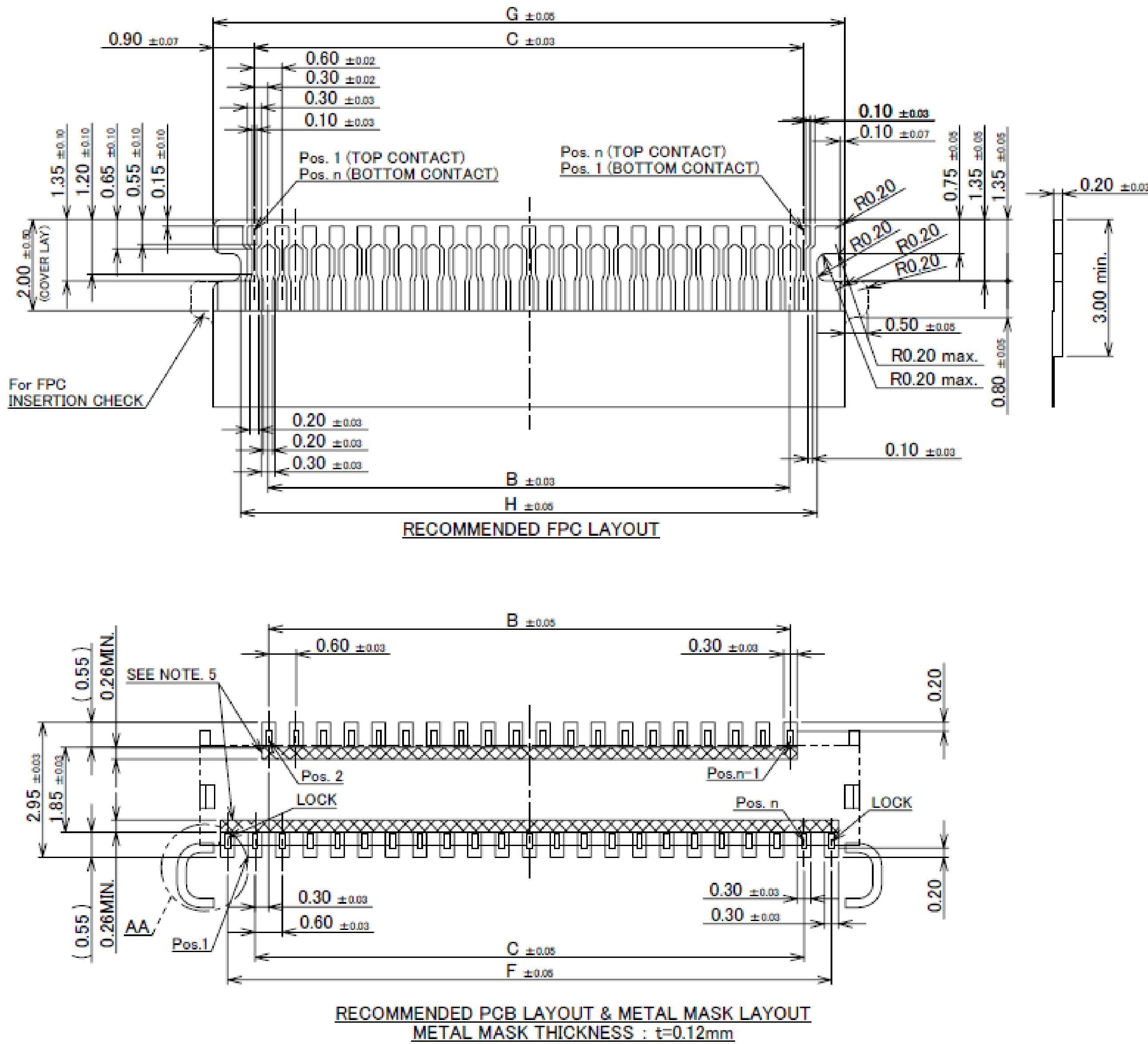


PART NO.	Pos.	A	B	C	D	E	F
◆ 20584-030E-01	30P	11.40	8.40	8.40	10.85	6.85	10.20
◆ 20584-034E-01	34P	12.60	9.60	9.60	12.05	8.05	11.40
◆ 20584-038E-01	38P	13.80	10.80	10.80	13.25	5.25	12.60
◆ 20584-040E-01	40P	14.40	11.40	11.40	13.85	5.85	13.20
◆ 20584-050E-01	50P	17.40	14.40	14.40	16.85	8.85	16.20
◆ 20584-056E-01	56P	19.20	16.20	16.20	18.65	10.65	18.00

◆ MARK MEANS NOT AVAILABLE.

Rev.17

ODD NUMBER POS.



PART NO.	Pos.	B	C	F	G	H
◆ 20584-029E-01	29P	7.80	8.40	9.60	10.20	9.00
◆ 20584-031E-01	31P	8.40	9.00	10.20	10.80	9.60
◆ 20584-035E-01	35P	9.60	10.20	11.40	12.00	10.80
◆ 20584-037E-01	37P	10.20	10.80	12.00	12.60	11.40
◆ 20584-039E-01	39P	10.80	11.40	12.60	13.20	12.00
◆ 20584-041E-01	41P	11.40	12.00	13.20	13.80	12.60
◆ 20584-045E-01	45P	12.60	13.20	14.40	15.00	13.80
◆ 20584-047E-01	47P	13.20	13.80	15.00	15.60	14.40
◆ 20584-051E-01	51P	14.40	15.00	16.20	16.80	15.60
◆ 20584-053E-01	53P	15.00	15.60	16.80	17.40	16.20
◆ 20584-057E-01	57P	16.20	16.80	18.00	18.60	17.40
◆ 20584-061E-01	61P	17.40	18.00	19.20	19.80	18.60
◆ 20584-063E-01	63P	18.00	18.60	19.80	20.40	19.20
◆ 20584-071E-01	71P	20.40	21.00	22.20	22.80	21.60

◆ MARK MEANS NOT AVAILABLE.

NOTES

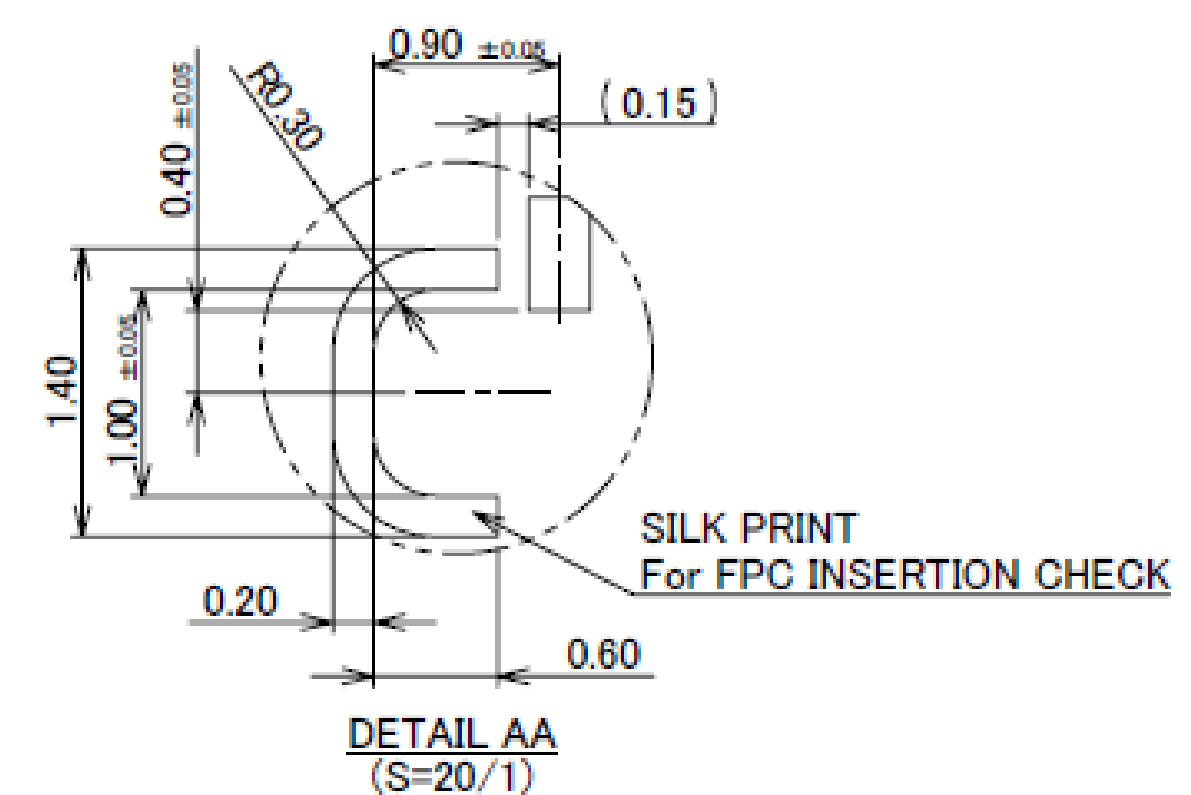
3. MATERIAL

- COVER FILM : PI
- CONDUCTOR : COPPER(RARE)
- BASE FILM : PI
- STIFFENER : PI
- ADHESIVE : THERMOSETTING ADHESIVE

4. FINISH

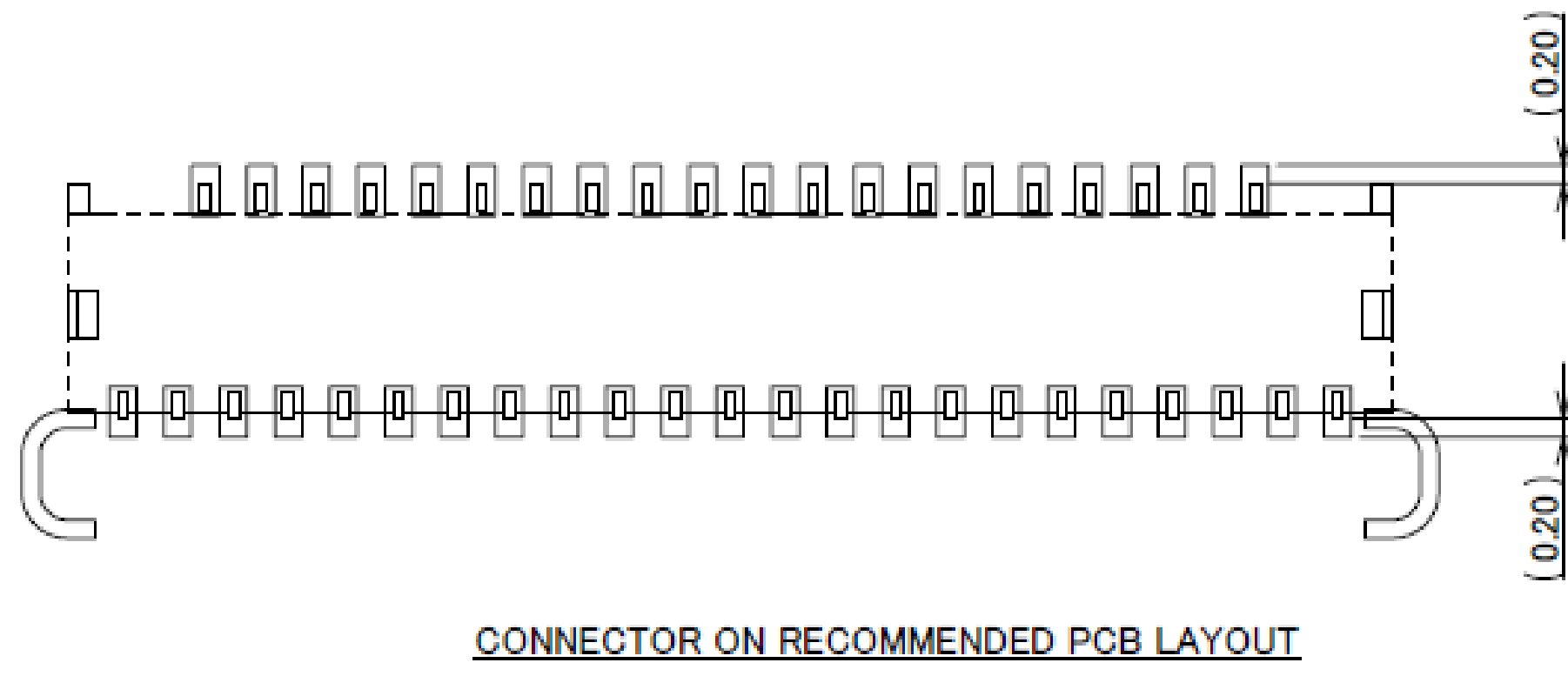
- Au OVER Ni UNDER PLATING.

5. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.

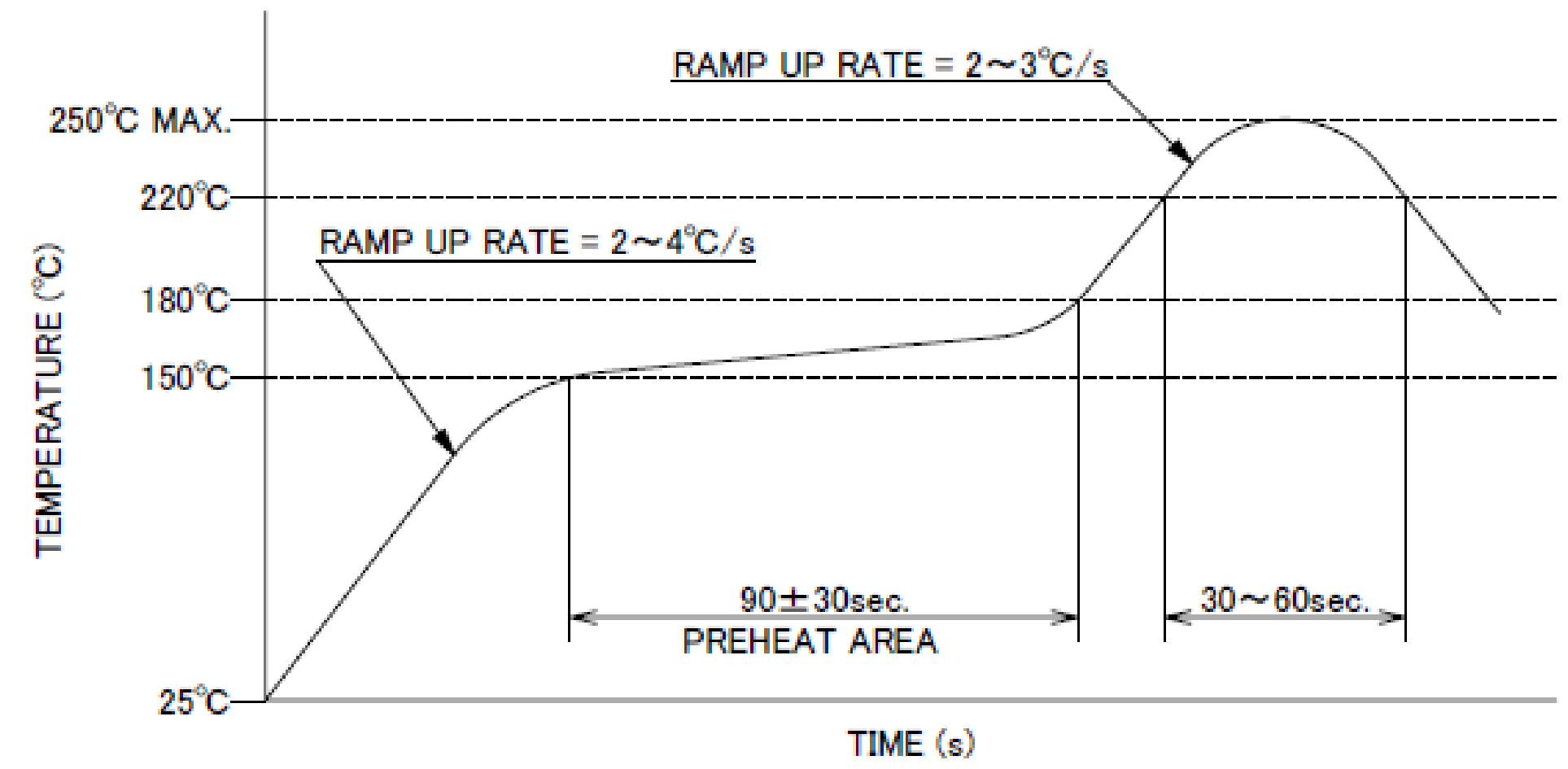


Rev.17

Connector Assembly



CONNECTOR ON RECOMMENDED PCB LAYOUT



REFLOW TEMPERATURE PROFILE
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

Rev.17

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233~358K (-40°C~+85°C)
OPERATING HUMIDITY	20~80%RH (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \triangleleft 40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.21N (21gf) \times (n + 2) MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.014N (1.4gf) \times (n + 2) MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) \times n + 1.0N MIN. / AFTER TEST: 0.10N (10gf) \times n + 1.0N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1789
TEST REPORT	TR-13022
PACKING STANDARD	PST-13013
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***


※ "n" IS THE NUMBER OF PIN

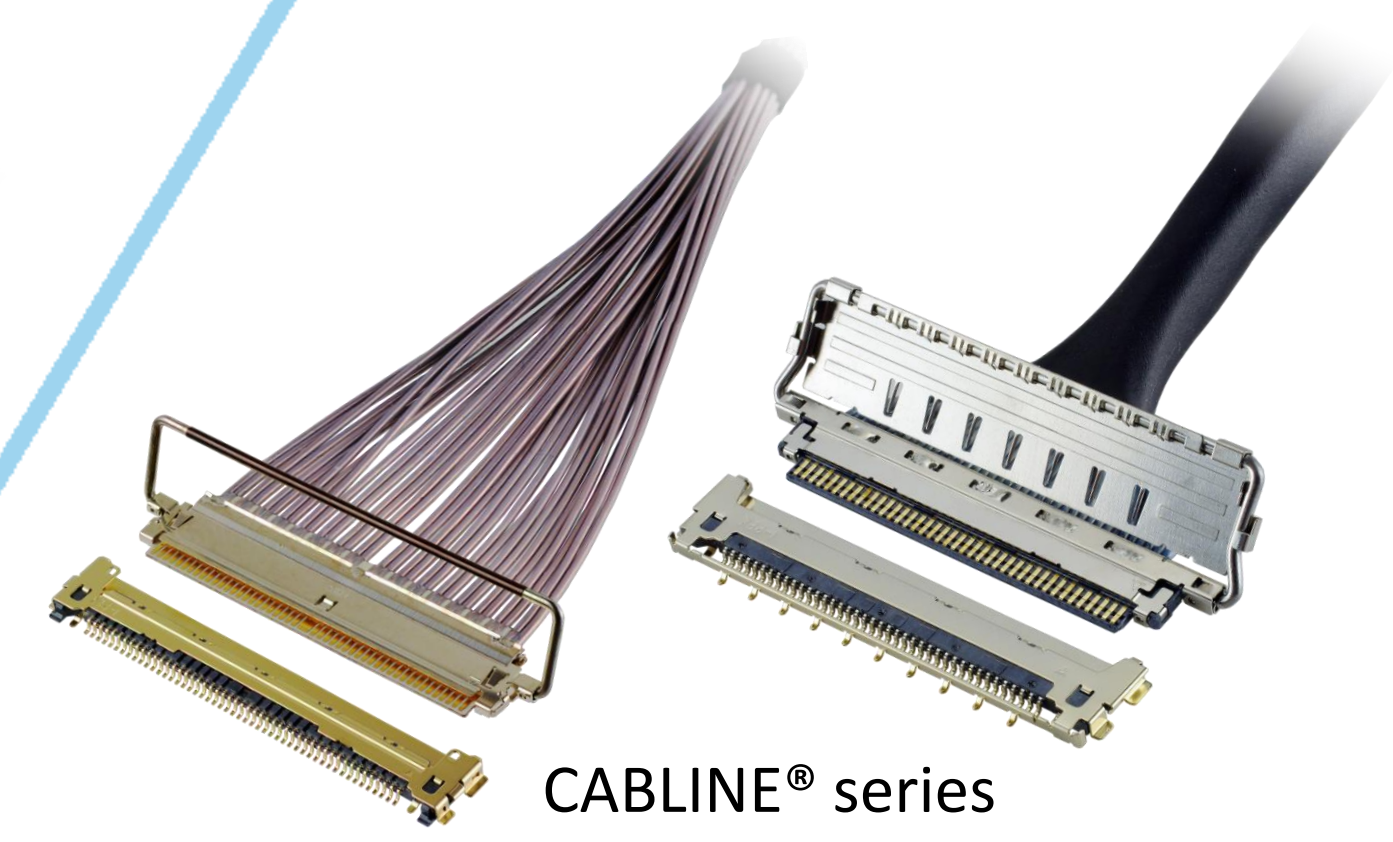
Custom Connectors Available

 RF Connector

MHF® series



 CABLINE® series
Micro-coaxial/Twinax/
Discrete Wire Connector



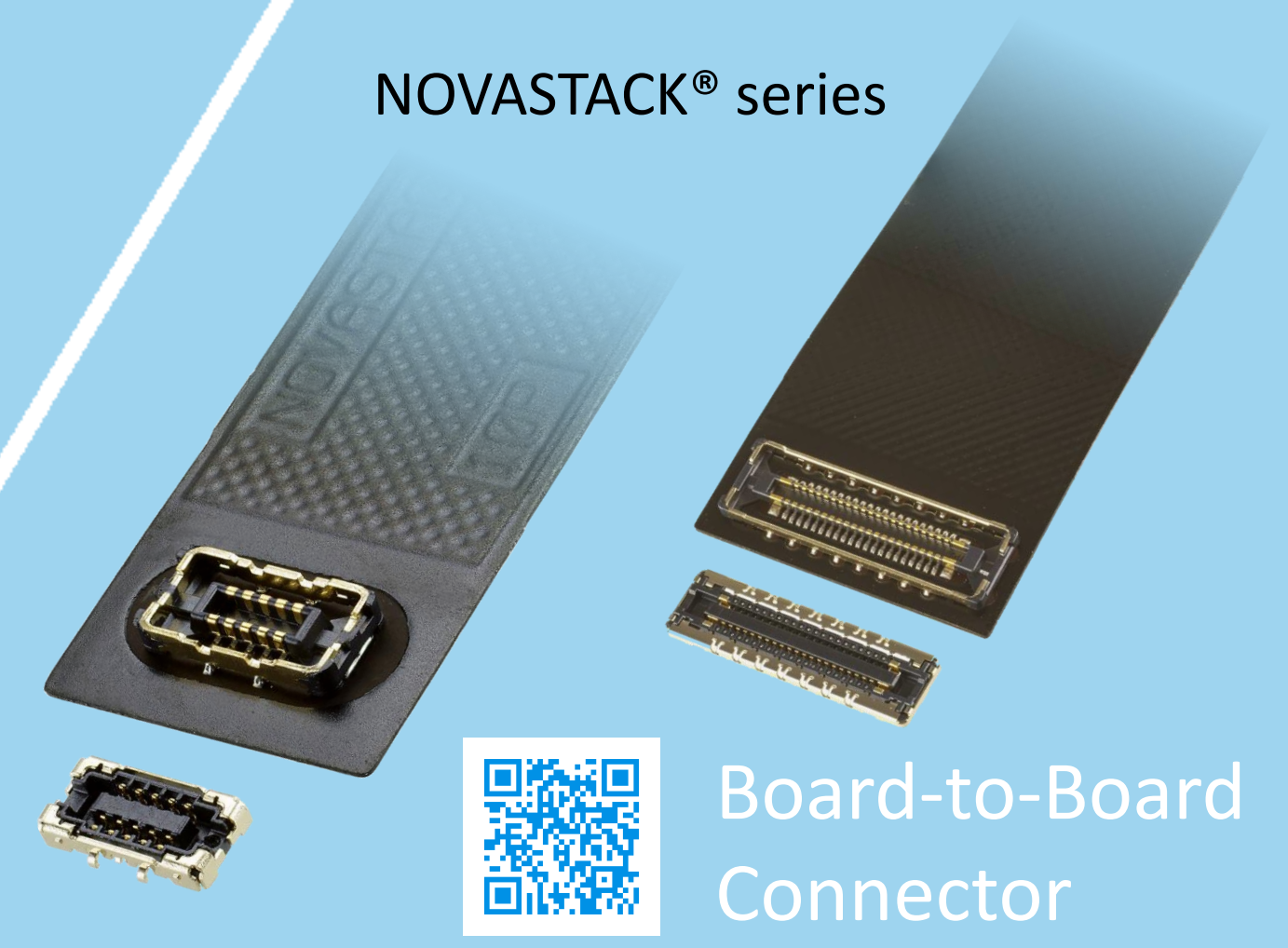
 Optical Module

LIGHTPASS® series



NOVASTACK® series

 Board-to-Board Connector



 Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series

 FPC FFC Connector

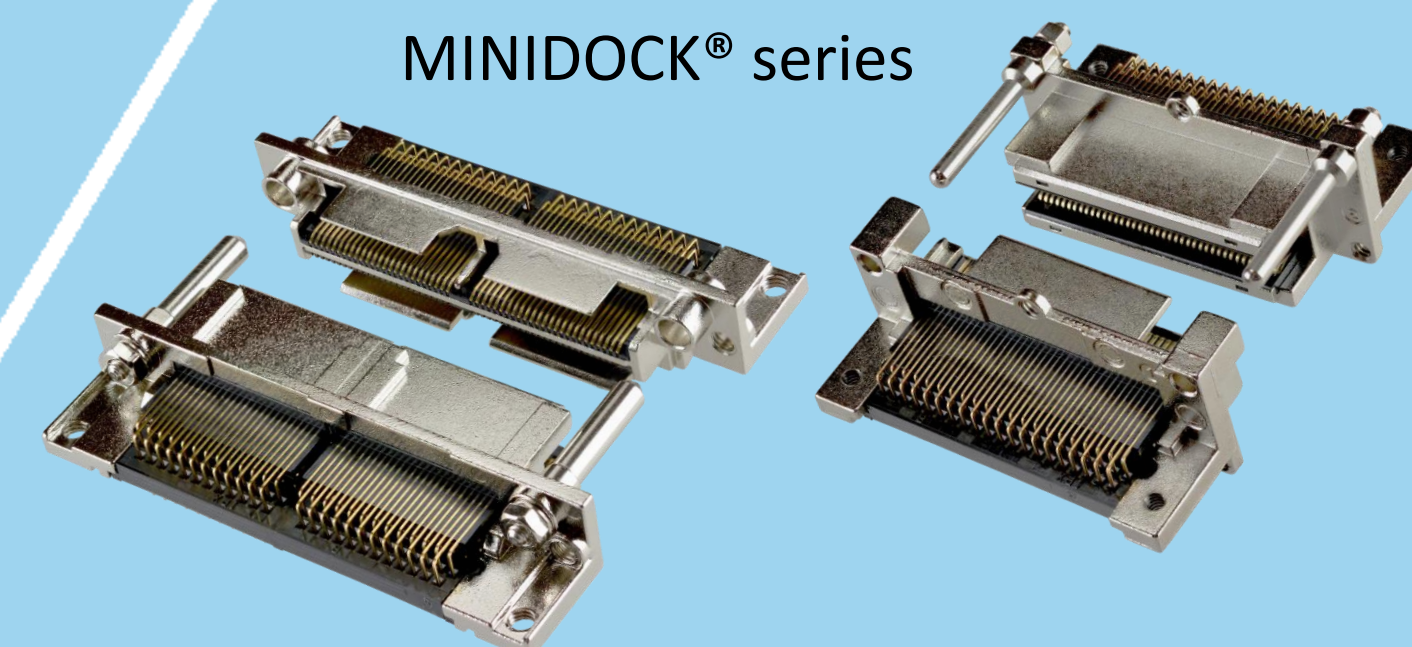


Inquiry



MINIDOCK® series

 I/O Connector



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