

MINIFLEX® 3-BFN

低背（高さ = 0.9 mm）、0.3 mmピッチ、水平嵌合、バックフリップ

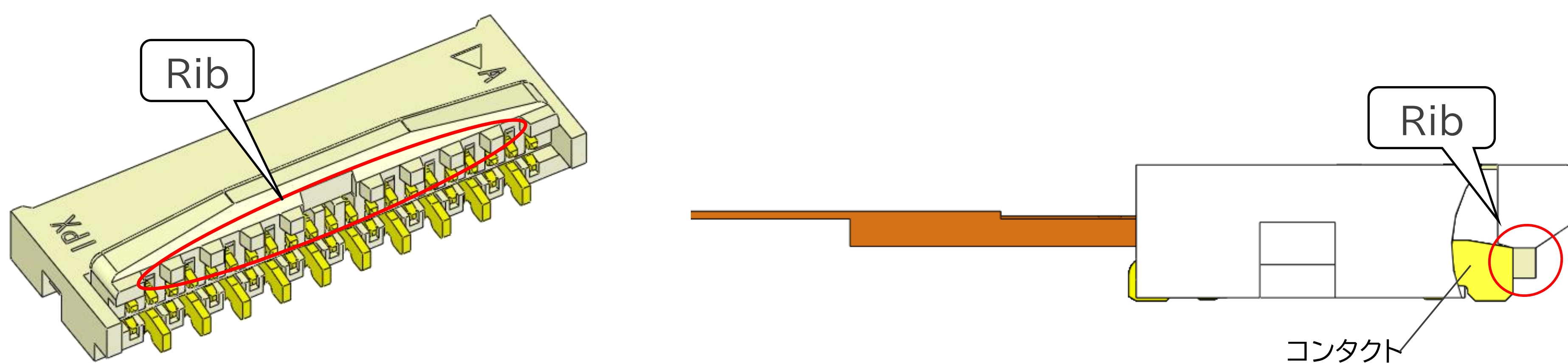
Product Specifications:		Short Actuator	Long Actuator
Board Pitch (mm)		0.3	
Wiping Length (mm)		Contact A: 0.9	
		Contact B: 0.45	
Size (mm)	Height	0.90 mm ± 0.10 mm	
	Width	Formula: 0.9 +(0.3*?P)	
	Depth	Open: 2.55	
Close: 3		Close:3.5	
Pin counts	Range	13-41 (odd)	33-65 (odd)
	Available	13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41	33, 35, 39, 41, 45, 49, 51, 55, 57, 61, 65

Applicable FPC/FFC:

FPC/FFC Contact Pitch	0.3
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.2 +/- 0.03



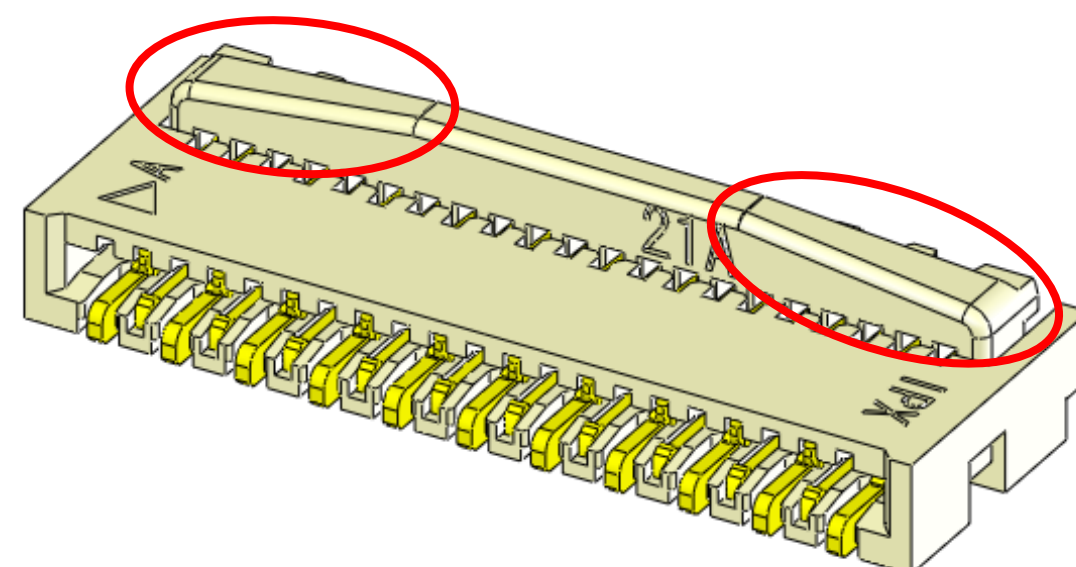
▶ コンタクト変形防止設計



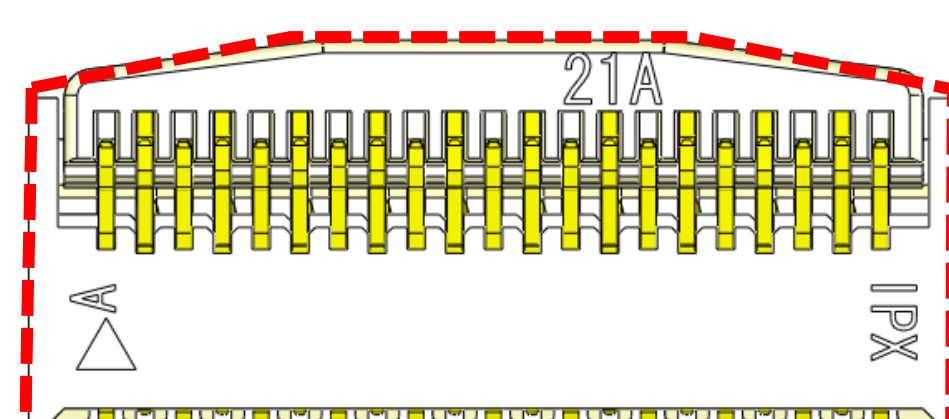
アクチュエータ操作時に引っ掛かりなどからコンタクトを保護するRib構造

▶ 独自のアクチュエータ形状による半ロック防止

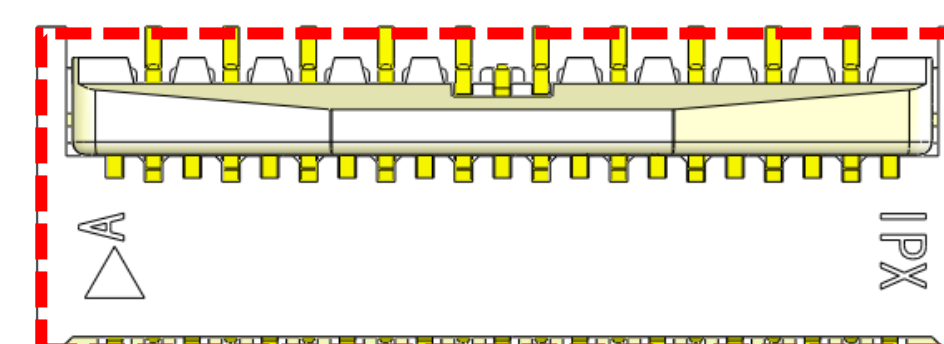
独自のアクチュエータ形状により、端押しによる半ロックを防止



アクチュエータをカーブ形状にすることにより、アクチュエータがロックしているかどうか上からの目視で容易に確認可能



アクチュエータ
ロック状態

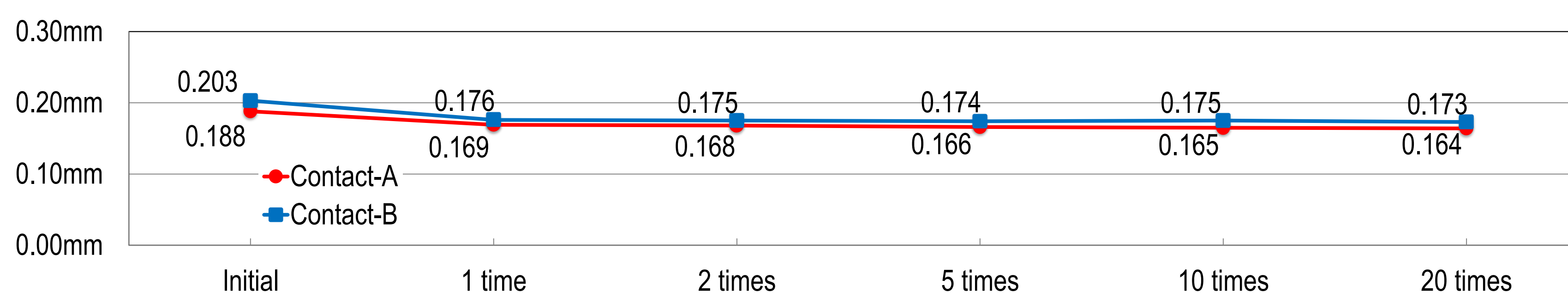


アクチュエータ
解除状態

▶ FPC未挿入状態でのアクチュエータ空閉じ操作

SMTプロセス後に、もしもFPC未挿入状態でアクチュエータを操作してしまった場合でも十分にコネクタとして機能します

- FPC未挿入状態でのアクチュエータ空閉じ操作前後のコンタクト接点間寸法（表図 MINIFLEX® 3-BFN 35 pins）



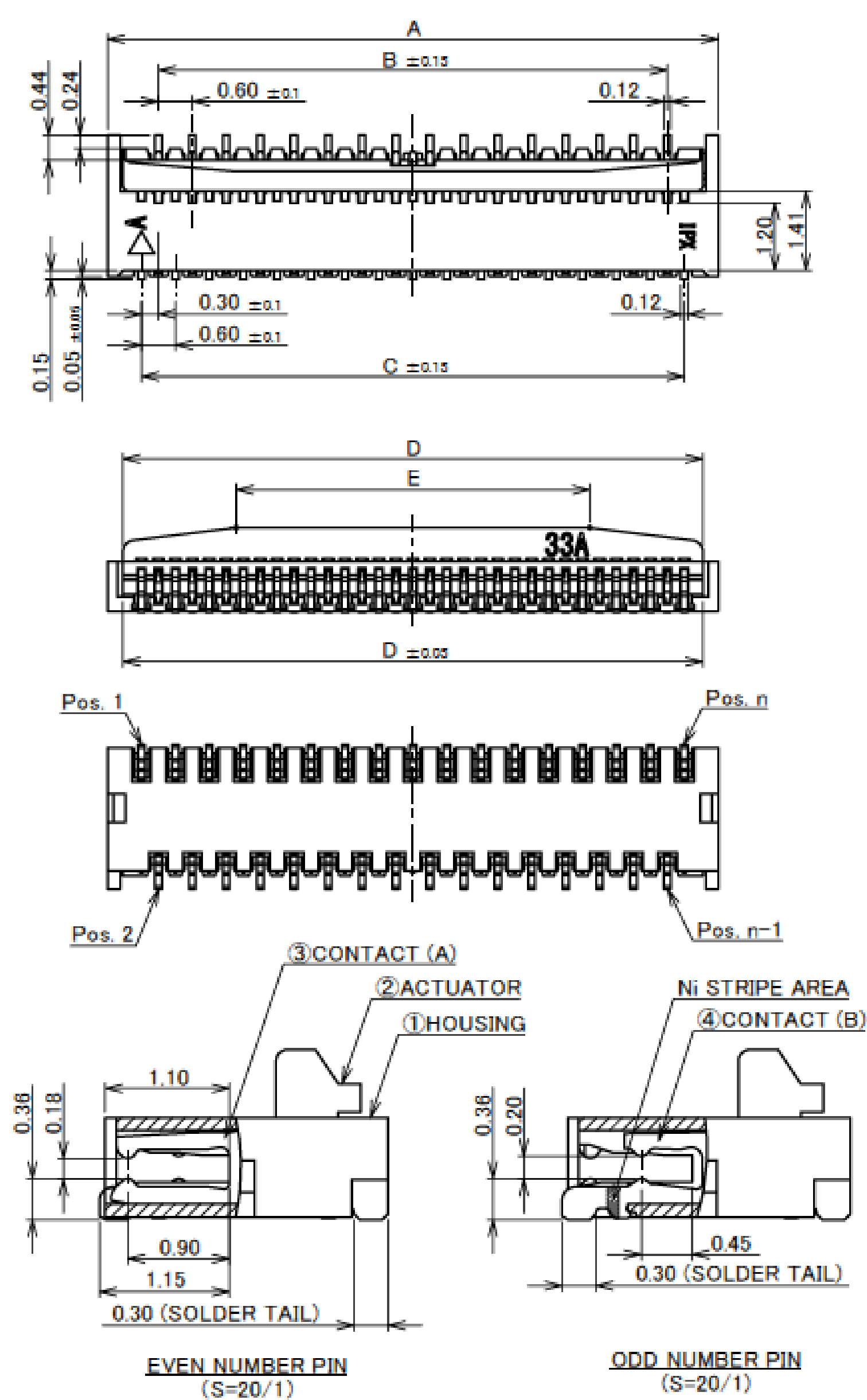
- FPC挿入力は上昇します

- FPC保持力に大きな変化はありません

Component Parts Details

Connector Assembly

Recommended P/N 20527-0**E-01



PART NO.	Pos.	A	B	C	D	E
20527-013E-0#	13P	4.80	3.00	3.60	4.25	2.25
20527-015E-0#	15P	5.40	3.60	4.20	4.85	2.85
20527-017E-0#	17P	6.00	4.20	4.80	5.45	3.45
20527-019E-0#	19P	6.60	4.80	5.40	6.05	4.05
20527-021E-0#	21P	7.20	5.40	6.00	6.65	2.65
20527-023E-0#	23P	7.80	6.00	6.60	7.25	3.25
20527-025E-0#	25P	8.40	6.60	7.20	7.85	3.85
20527-027E-0#	27P	9.00	7.20	7.80	8.45	4.45
20527-029E-0#	29P	9.60	7.80	8.40	9.05	5.05
20527-031E-0#	31P	10.20	8.40	9.00	9.65	5.65
20527-033E-0#	33P	10.80	9.00	9.60	10.25	6.25
20527-035E-0#	35P	11.40	9.60	10.20	10.85	6.85
20527-037E-0#	37P	12.00	10.20	10.80	11.45	7.45
20527-039E-0#	39P	12.60	10.80	11.40	12.05	8.05
20527-041E-0#	41P	13.20	11.40	12.00	12.65	8.65

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

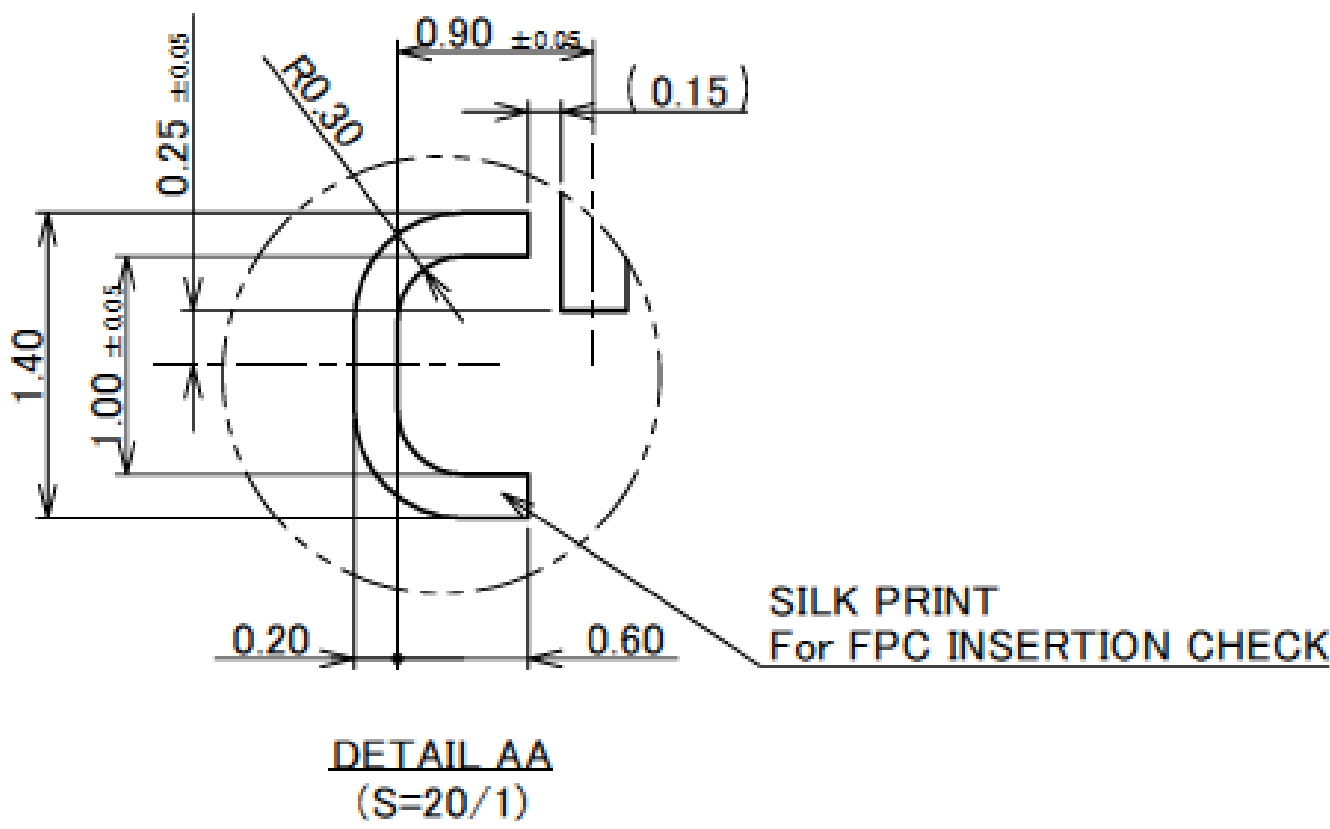
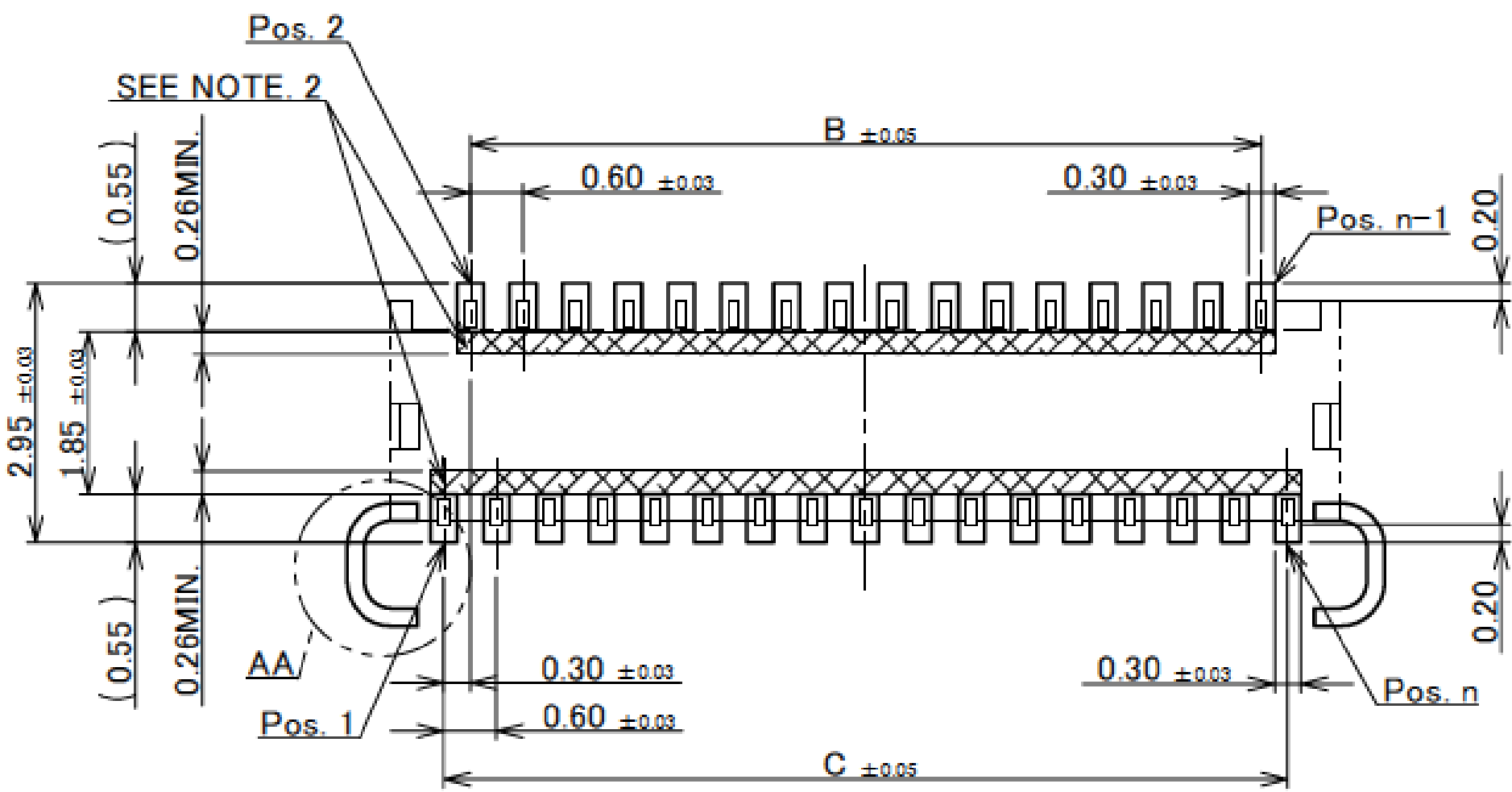
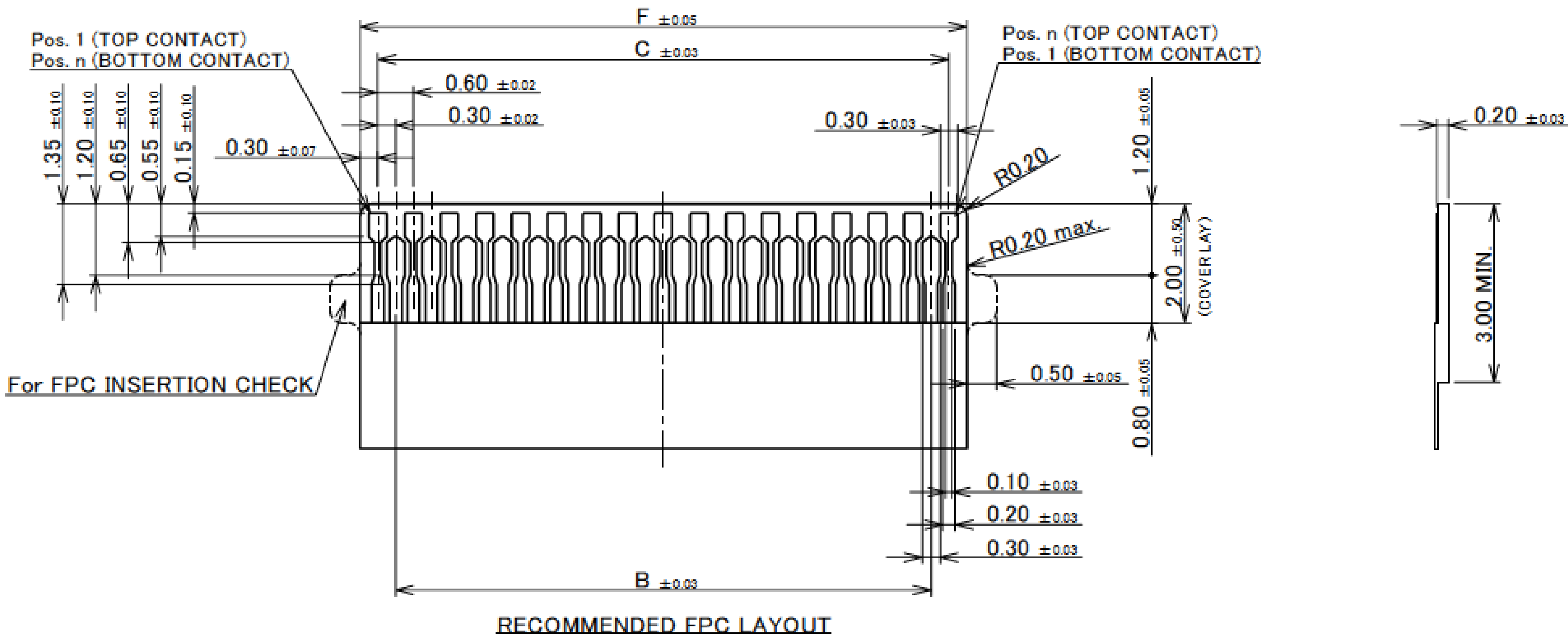
PART NO.	FINISH	
20527-0**E-01	CONTACT AREA : Au 0.10 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	
20527-0**E-02	CONTACT AREA : Au 0.254 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	

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

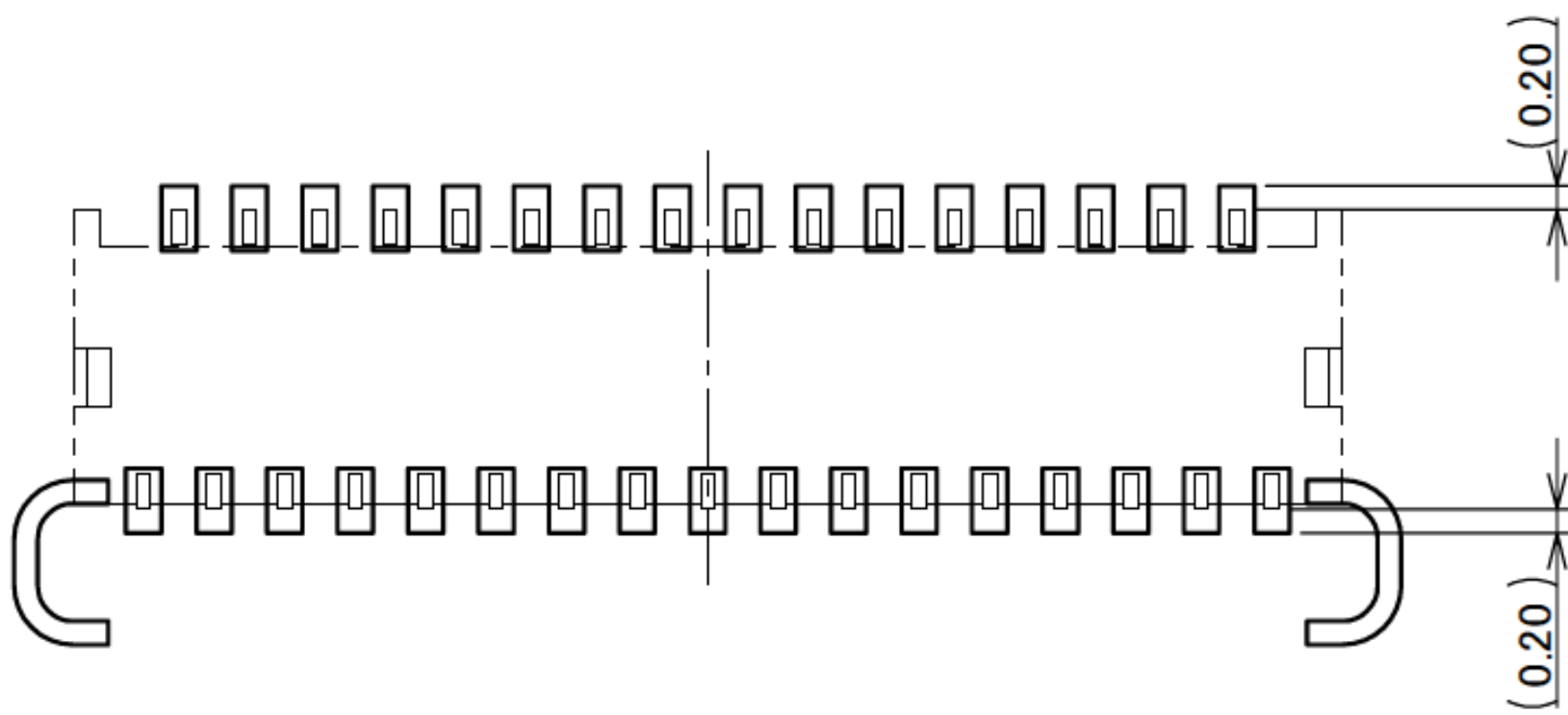
Connector Assembly

PART NO.	Pos.	B	C	F
20527-013E-0#	13P	3.00	3.60	4.20
20527-015E-0#	15P	3.60	4.20	4.80
20527-017E-0#	17P	4.20	4.80	5.40
20527-019E-0#	19P	4.80	5.40	6.00
20527-021E-0#	21P	5.40	6.00	6.60
20527-023E-0#	23P	6.00	6.60	7.20
20527-025E-0#	25P	6.60	7.20	7.80
20527-027E-0#	27P	7.20	7.80	8.40
20527-029E-0#	29P	7.80	8.40	9.00
20527-031E-0#	31P	8.40	9.00	9.60
20527-033E-0#	33P	9.00	9.60	10.20
20527-035E-0#	35P	9.60	10.20	10.80
20527-037E-0#	37P	10.20	10.80	11.40
20527-039E-0#	39P	10.80	11.40	12.00
20527-041E-0#	41P	11.40	12.00	12.60

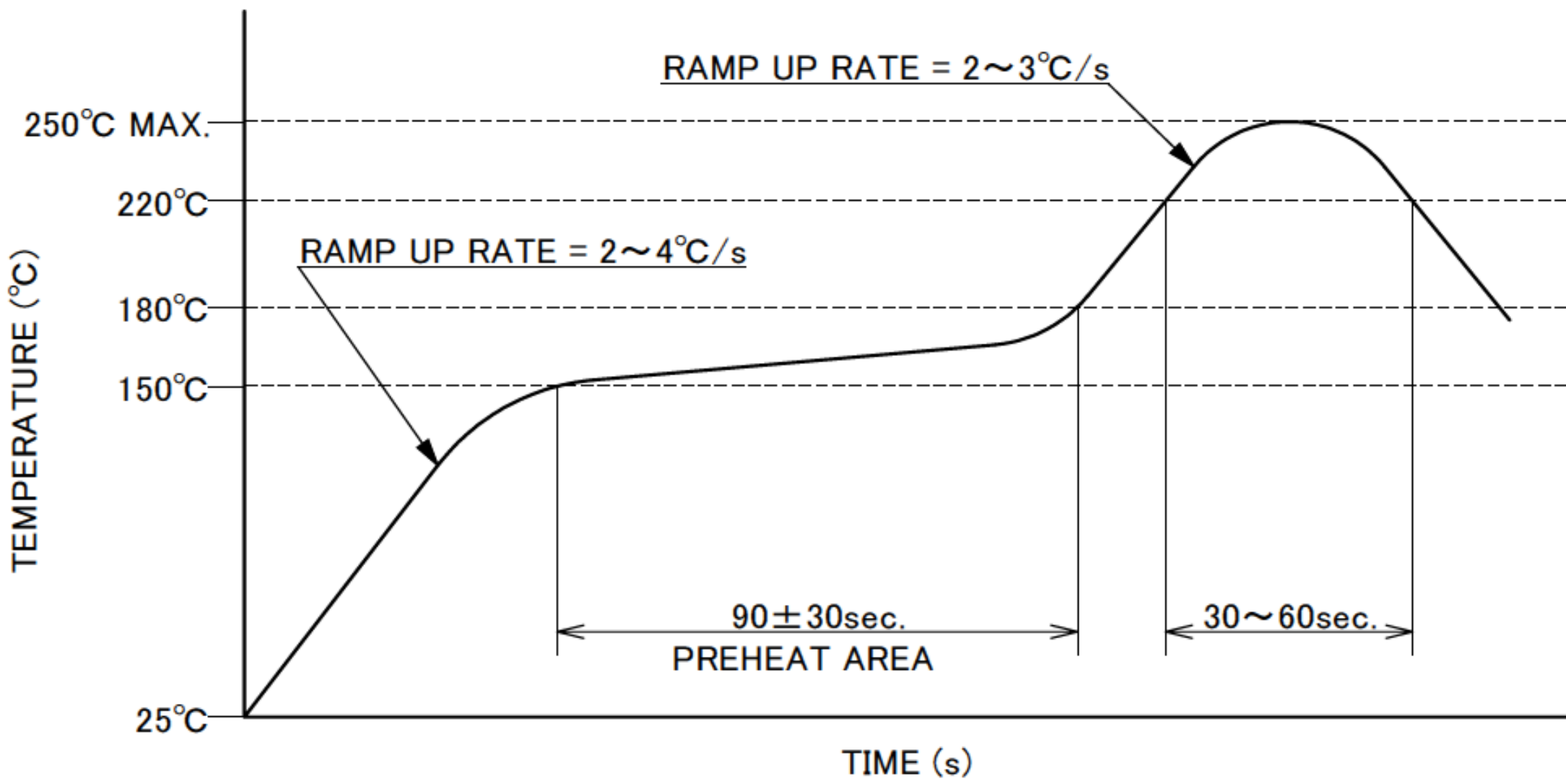
NOTES.
2. SOLDER RESIST SHALL BE APPLIED TO PREVENT SHORT CIRCUITS WHEN PLACING SIGNAL LINES ON GROUND AREA.



RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm



CONNECTOR ON RECOMMENDED PCB LAYOUT



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

Rev.20

Rev.20

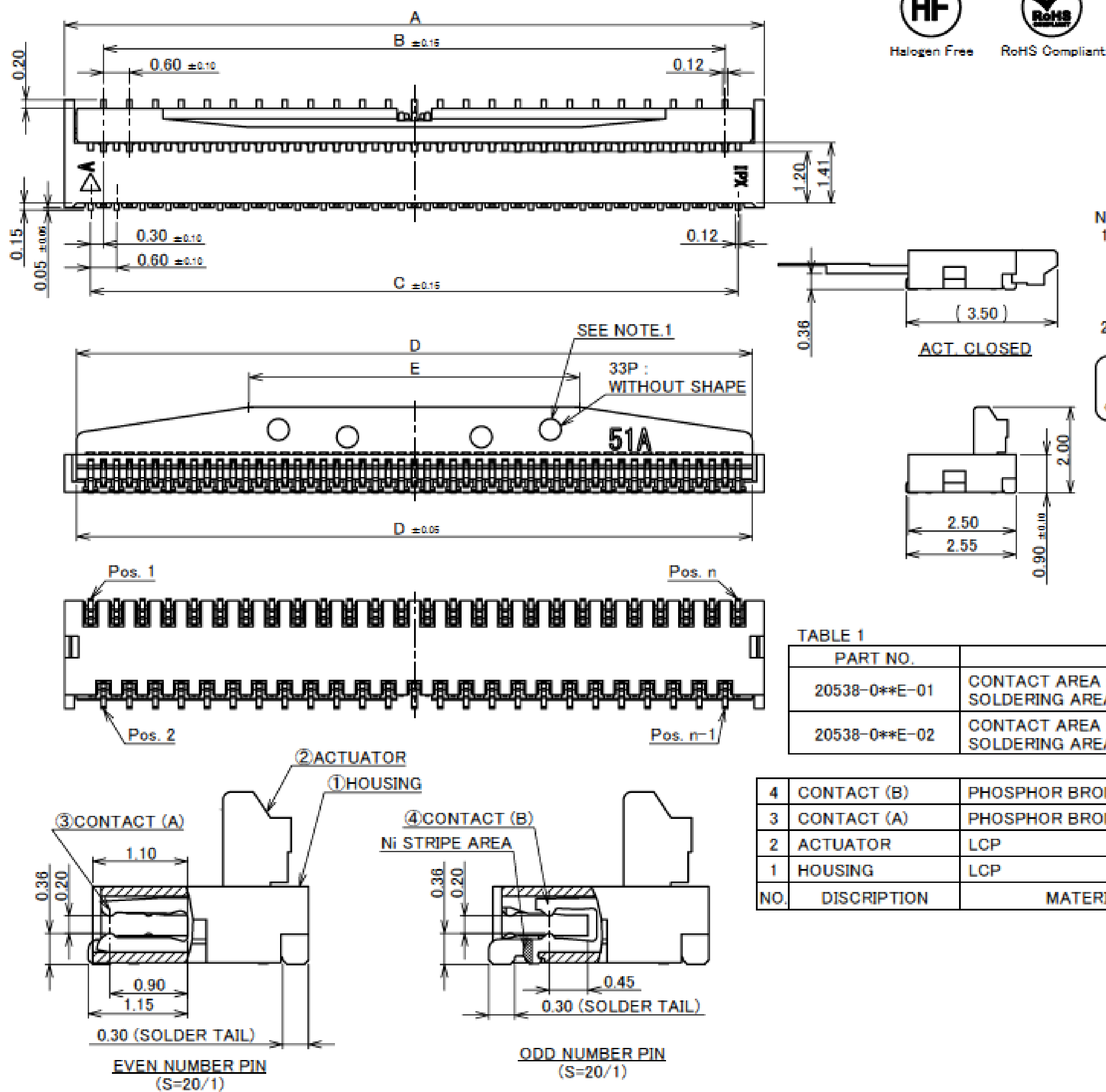
Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233~358K (-40℃~+85℃)
OPERATING HUMIDITY	20~80%RH (NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\triangle$ 40mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	20 CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.31N (31gf) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.02N (2gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) × n MIN. / AFTER TEST: 0.10N (10gf) × n MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1512
TEST REPORT	TR-10011
PACKING STANDARD	300-826
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

Rev.20

Recommended P/N 20538-0**E-01



PART NO.	Pos.	A	B	C	D	E
20538-033E-0#	33P	10.80	9.00	9.60	10.25	6.25
20538-035E-0#	35P	11.40	9.60	10.20	10.85	6.85
20538-039E-0#	39P	12.60	10.80	11.40	12.05	8.05
20538-041E-0#	41P	13.20	11.40	12.00	12.65	4.65
20538-045E-0#	45P	14.40	12.60	13.20	13.85	5.85
20538-049E-0#	49P	15.60	13.80	14.40	15.05	7.05
20538-051E-0#	51P	16.20	14.40	15.00	15.65	7.65
20538-055E-0#	55P	17.40	15.60	16.20	16.85	8.85
20538-057E-0#	57P	18.00	16.20	16.80	17.45	9.45
20538-061E-0#	61P	19.20	17.40	18.00	18.65	10.65
20538-065E-0#	65P	20.40	18.60	19.20	19.85	11.85

NOTES.
1. THIS DENT SHAPE IS PURPOSED FOR GOOD INJECTION QUALITY. THIS DENT SHAPE WILL NOT AFFECT CONNECTR FUNCTION. DENT SHAPE SHOWN ON DRAWING IS JUST FOR REFERENCE. DENT SHAPE AND QUANTITY MIGHT CHABGE FROM DIFFERENT PIN COUNT AND DIFFERENT TOOLING.
2. 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.

PART NO.	FINISH
20538-0**E-01	CONTACT AREA : Au 0.10 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.
20538-0**E-02	CONTACT AREA : Au 0.254 μ m MIN. OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.

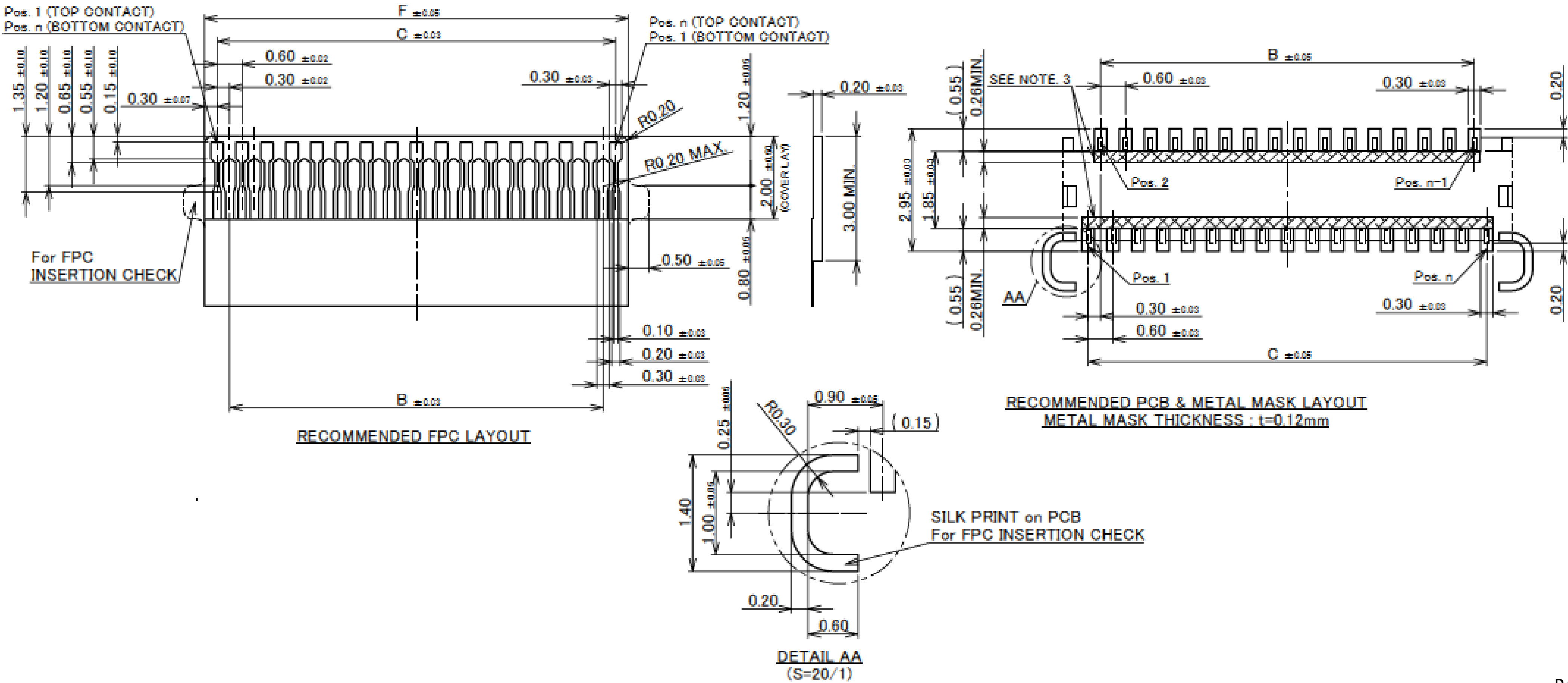
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	CONTACT (B)	PHOSPHOR BRONZE	SEE TABLE 1, WITH Ni STRIPE
3	CONTACT (A)	PHOSPHOR BRONZE	SEE TABLE 1
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE

Rev.18

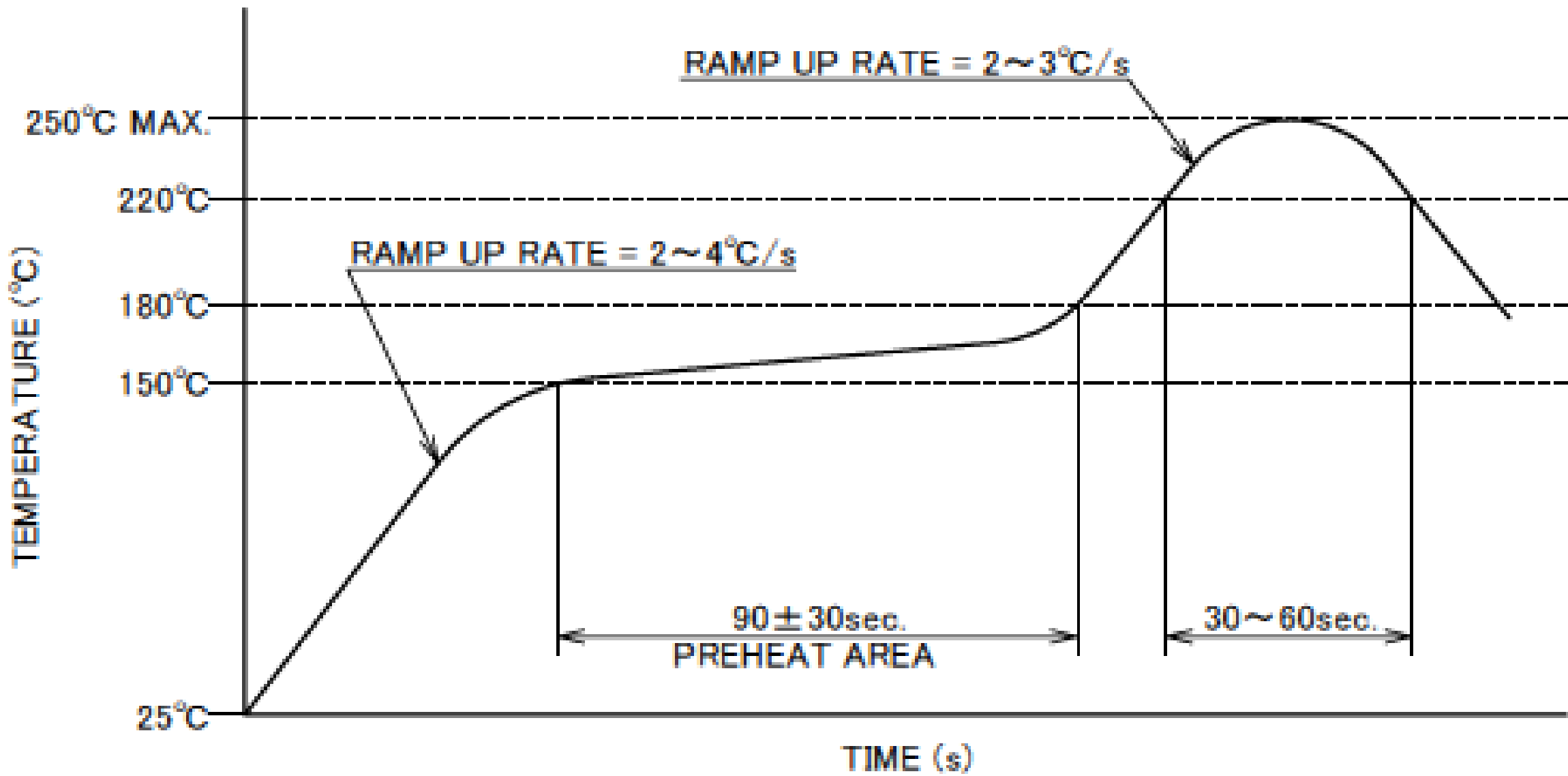
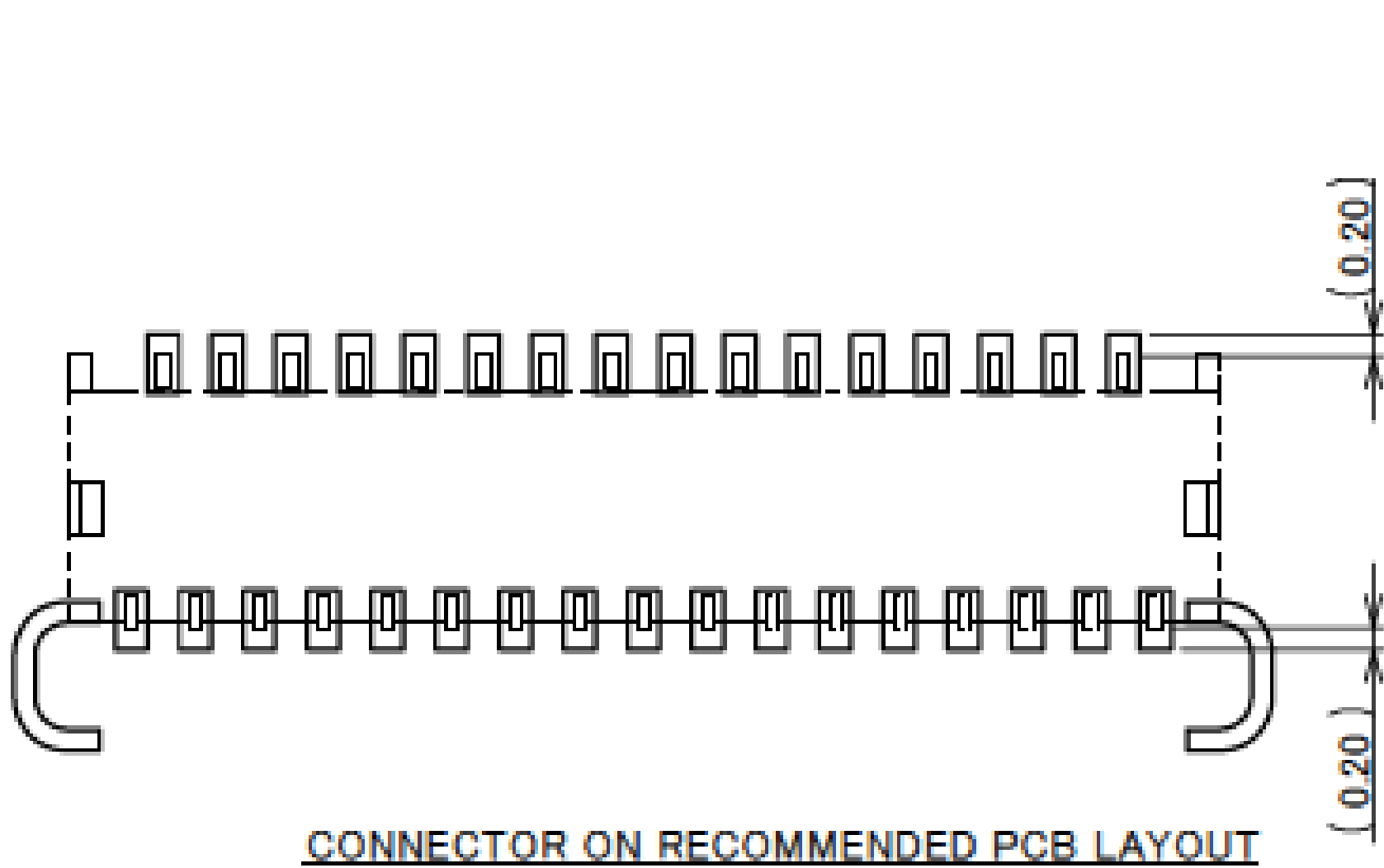
Connector Assembly

PART NO.	Pos.	B	C	F
20538-033E-0#	33P	9.00	9.60	10.20
20538-035E-0#	35P	9.60	10.20	10.80
20538-039E-0#	39P	10.80	11.40	12.00
20538-041E-0#	41P	11.40	12.00	12.60
20538-045E-0#	45P	12.60	13.20	13.80
20538-049E-0#	49P	13.80	14.40	15.00
20538-051E-0#	51P	14.40	15.00	15.60
20538-055E-0#	55P	15.60	16.20	16.80
20538-057E-0#	57P	16.20	16.80	17.40
20538-061E-0#	61P	17.40	18.00	18.60
20538-065E-0#	65P	18.60	19.20	19.80

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



Rev.18



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

Rev.18

Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.3A DC (PER CONTACT)
OPERATING TEMPERATURE	233~358K (-40℃~+85℃)
OPERATING HUMIDITY	20~80%RH
CONTACT RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\triangle$ 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) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20 CYCLES)	INITIAL / 20 CYCLES 0.014N (1.4gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL: 0.13N (13gf) × n MIN. / AFTER TEST: 0.10N (10gf) × n MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-1579
TEST REPORT	TR-12040
PACKING STANDARD	300-920
INSTRUCTION MANUAL	HIM-12007
APPEARANCE CRITERIA No.	QLS-A***

※ “n” IS THE NUMBER OF PIN

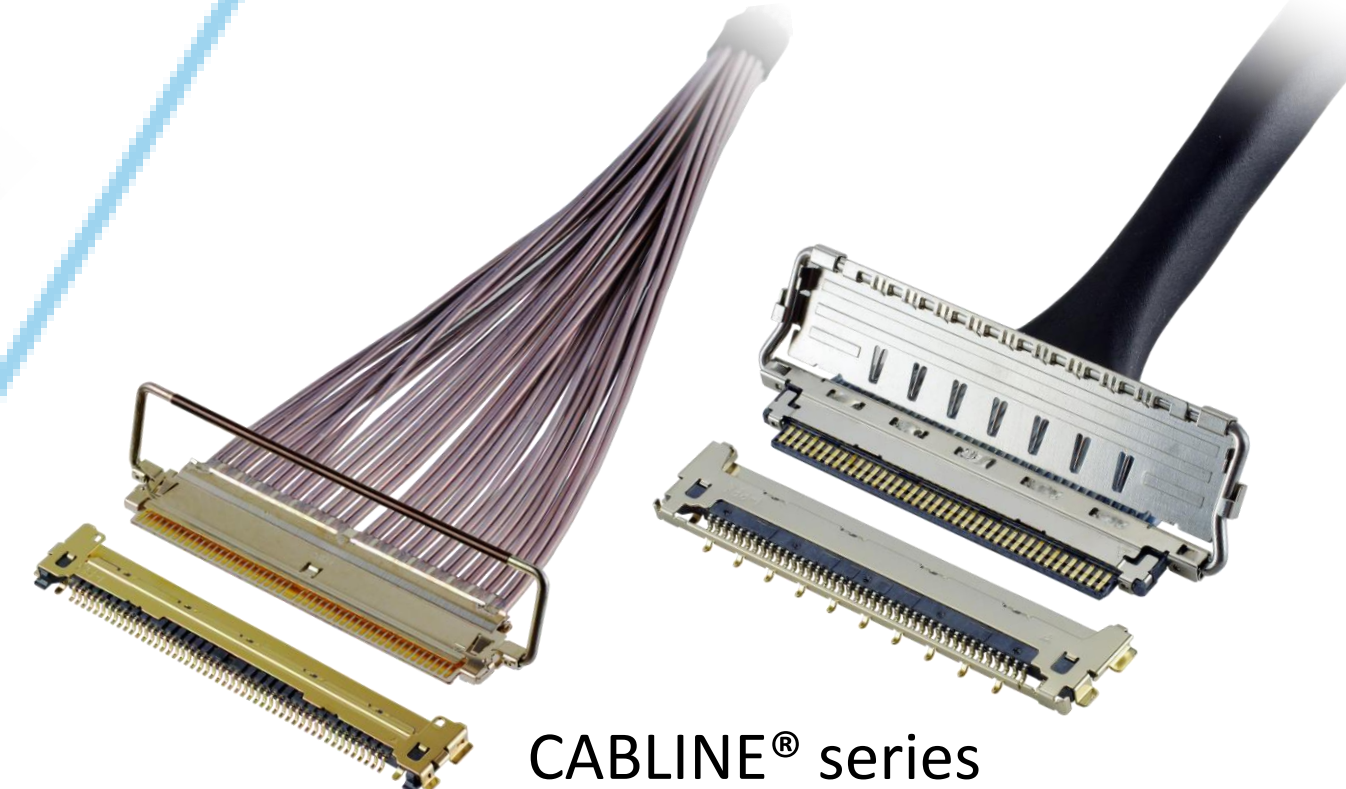
Custom Connectors Available

 RF
Connectors

MHF® series



Micro-coaxial/Twinax
Connectors

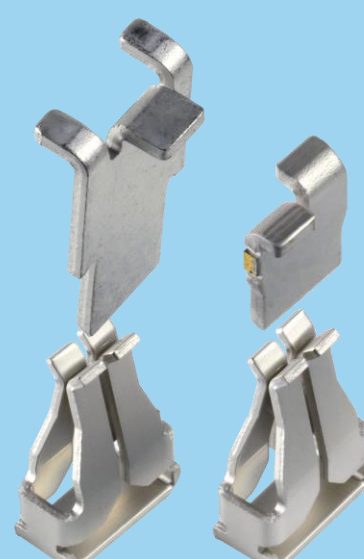


CABLIME® series

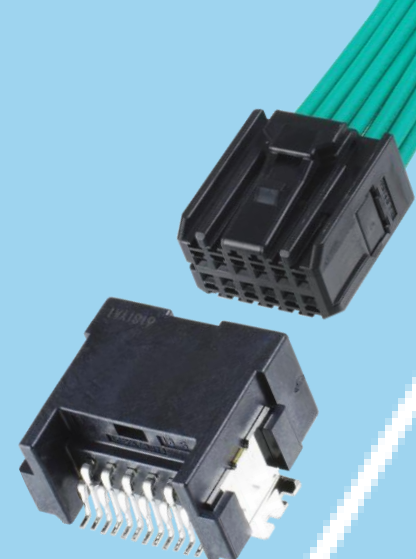


Wire-to-Board
Connectors/
Terminals

AP series



ISH® series



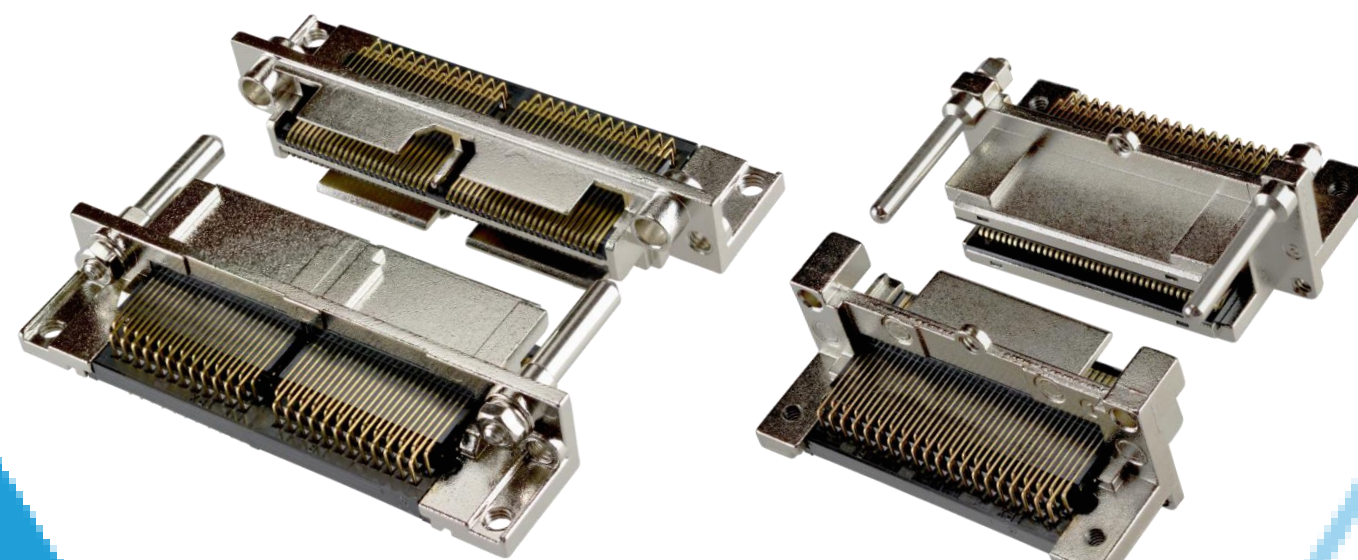
NOVASTACK® series



Board-to-Board
Connectors



I/O
Connectors



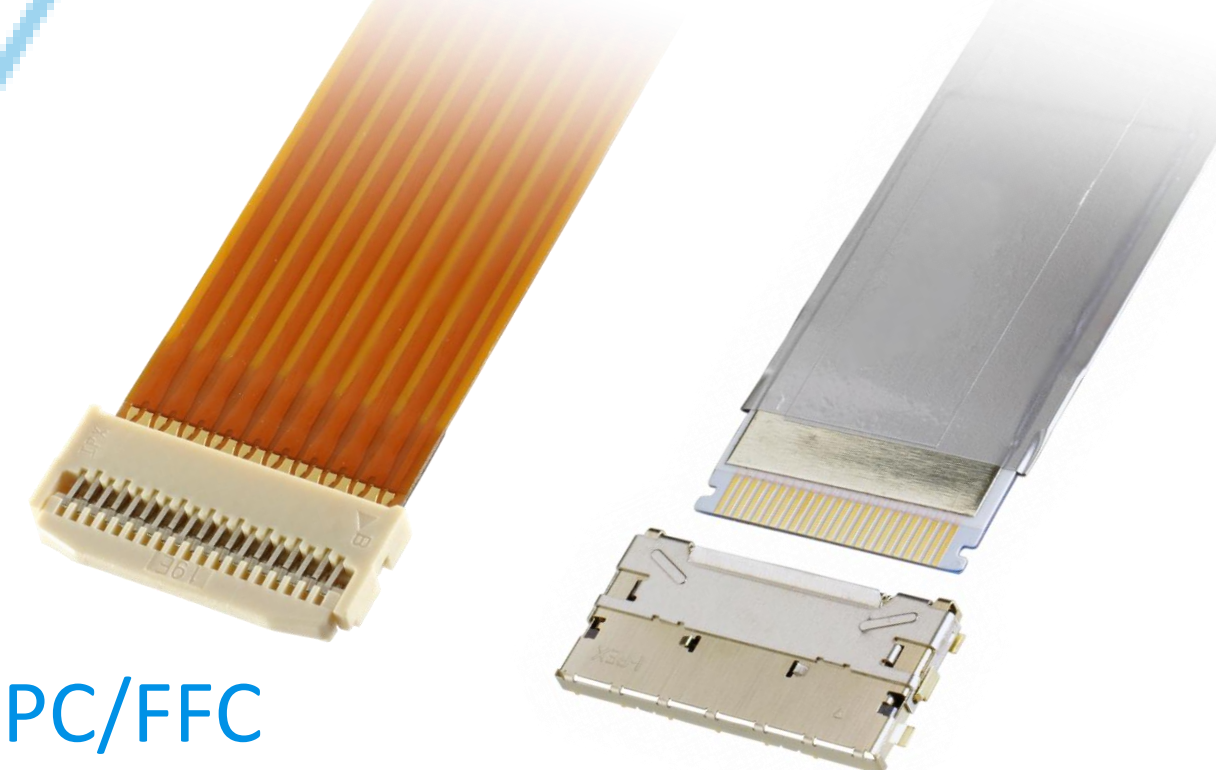
MINIDOCK™ series



FPC/FFC
Connectors

MINIFLEX® series

EVAFLEX® series



Inquiry



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