

MINIFLEX® 5-BFN II LK

Mechanical lock, robust design with hold-down feature, low profile (height = 1.0 mm), 0.5 mm pitch, horizontal, backflip



Product Specifications:

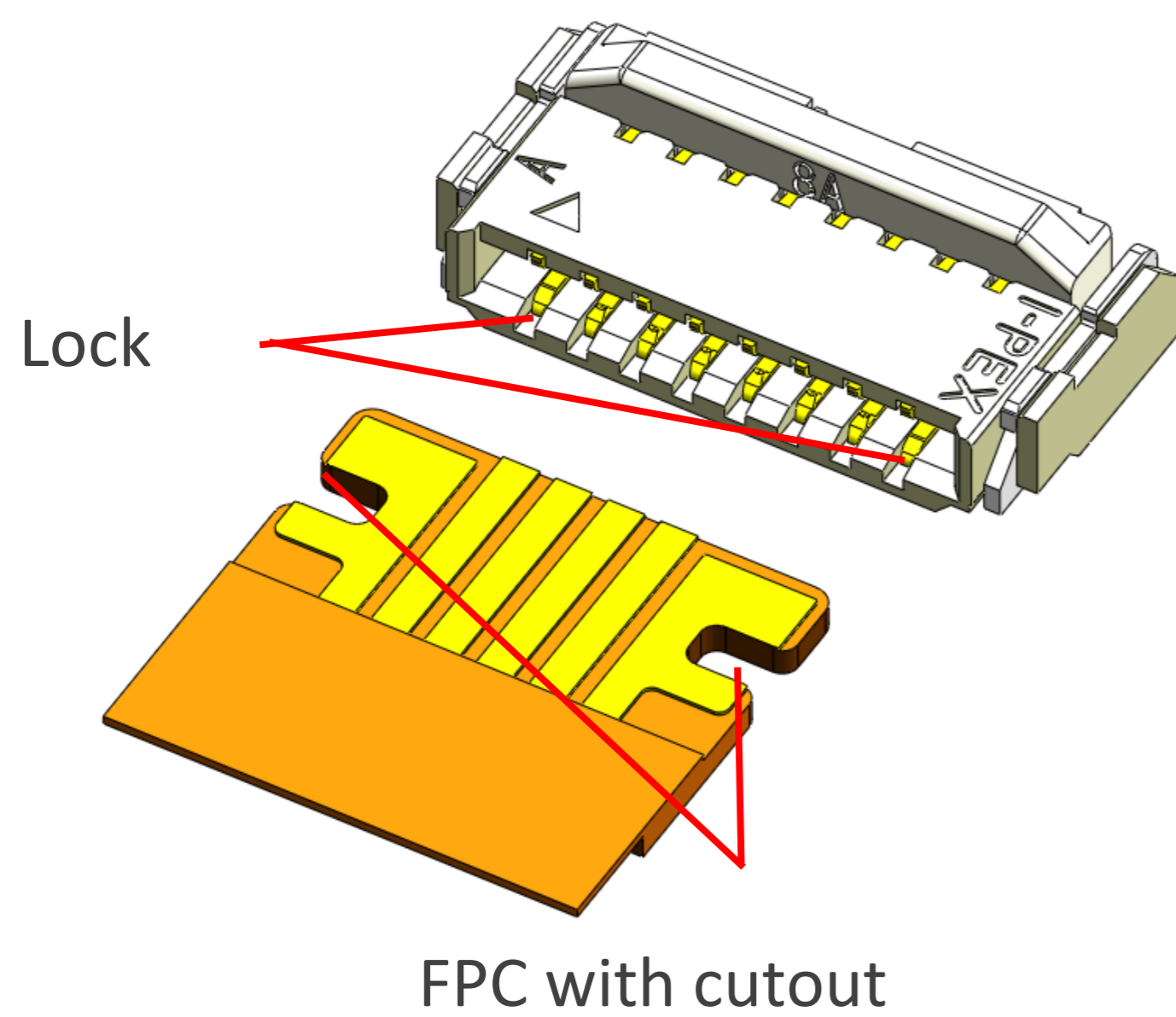
Board Pitch (mm)	0.5	
Wiping Length (mm)	Contact A:	
	Contact B:	
Size (mm)	Height	1.0 +/- 0.1
	Width	Formula: 2.7+(0.5*?p)
	Depth	Open:
Close:		3.5
Pin counts	Range	4-28 (even)
	Available	4,6,8,10,12,14,16,18,20,24

Applicable FPC/FFC:

FPC/FFC Contact Pitch	0.5
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.3 +/- 0.05

* Please inquire for pin counts not listed or outside of the pin count range.

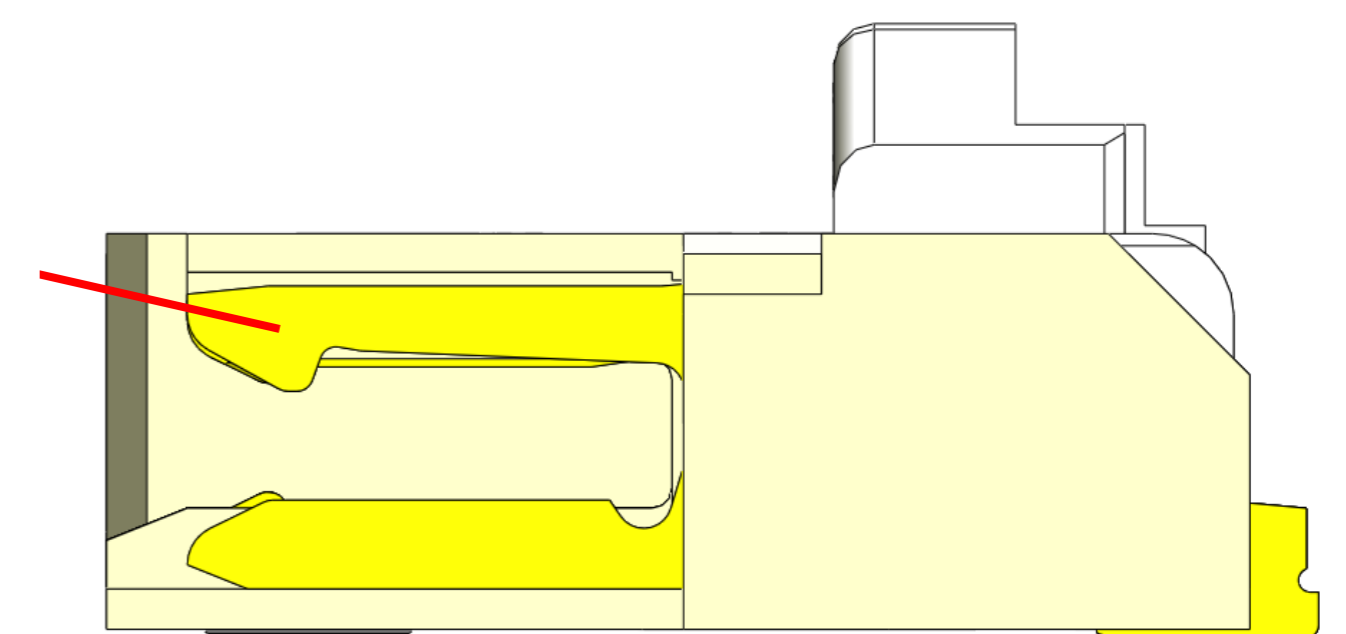
▶ High FPC retention force with additional mechanical lock



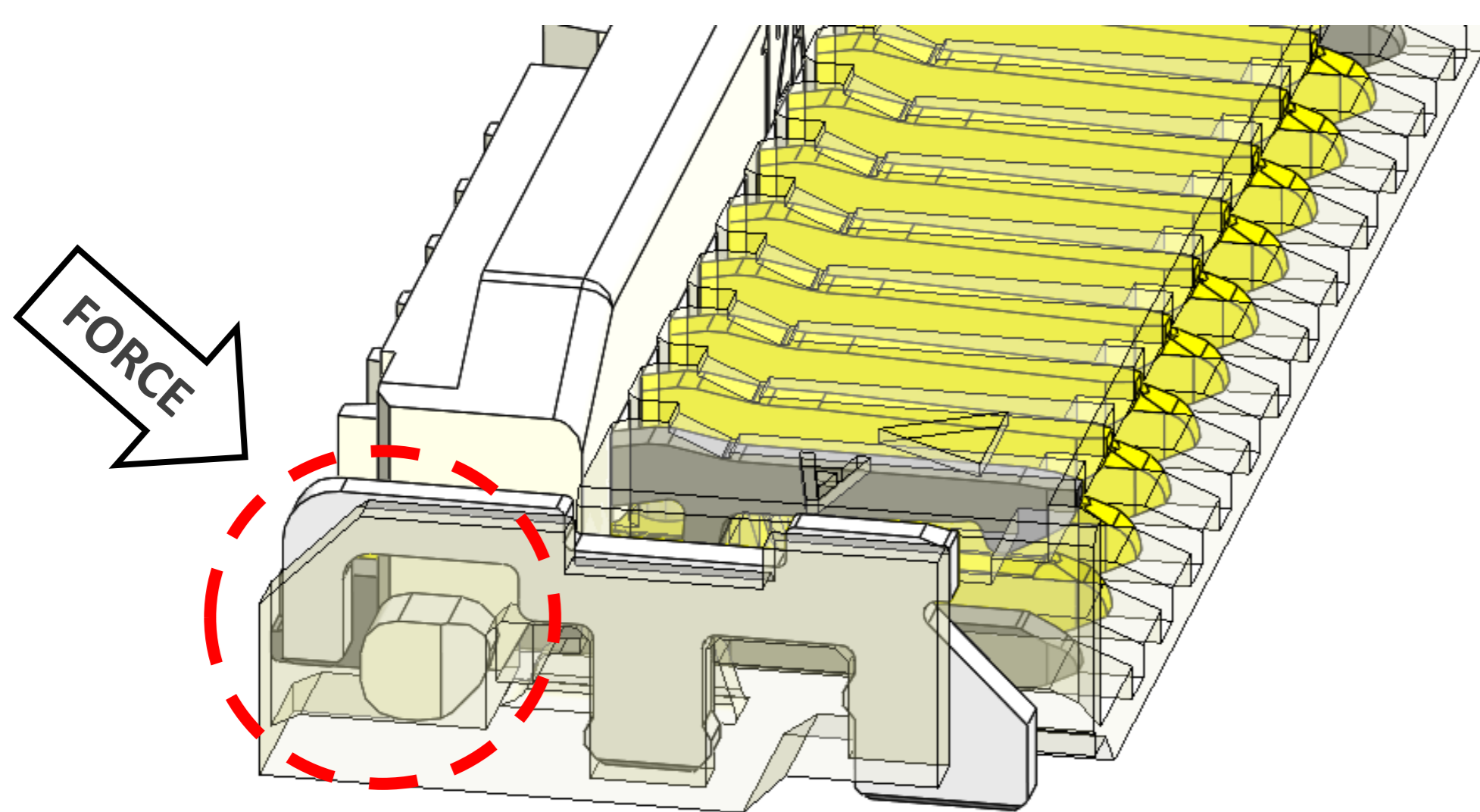
FPC retention force comparison (6 p)

MF5-BFN II LK	MF5-BFN II
10.59 N	4.17 N

FPC LOCK mechanism maintains high FPC retention force



▶ Unique actuator holder design prevents actuator drop-off



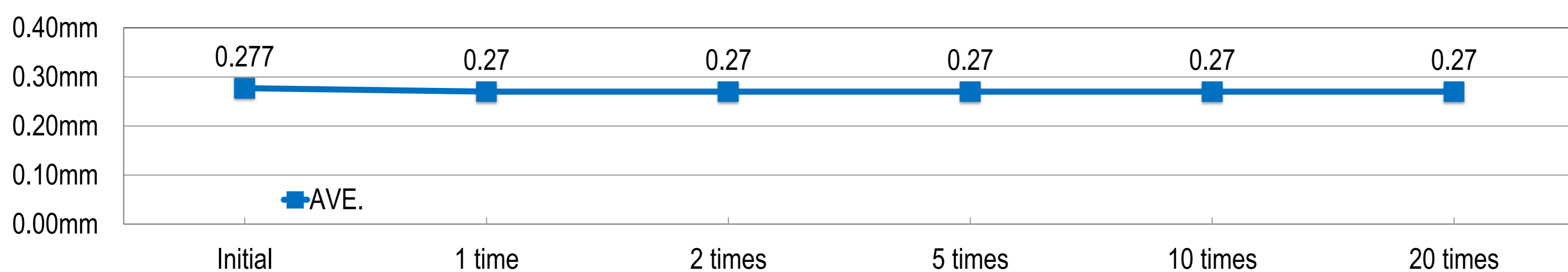
Actuator will not fall-off even at **100 N** force

- *Housing destruction occurs first
- *Force applied from 30 degrees backwards

▶ Usability for closing actuator without FPC

The connector will still function even if the actuator is accidentally closed without the FPC being inserted after the SMT process

- Connector will still function reliably (contact gap graph 22 pins before and after operating actuator without FPC inserted)



- Insertion force of connector goes up
- Retention force of connector does not change significantly

MINIFLEX® 5-BFN II LK

メカニカルロック、ホールダウンによる堅牢性、低背（高さ = 1.0 mm）、0.5 mmピッチ、水平嵌合、バックフリップ

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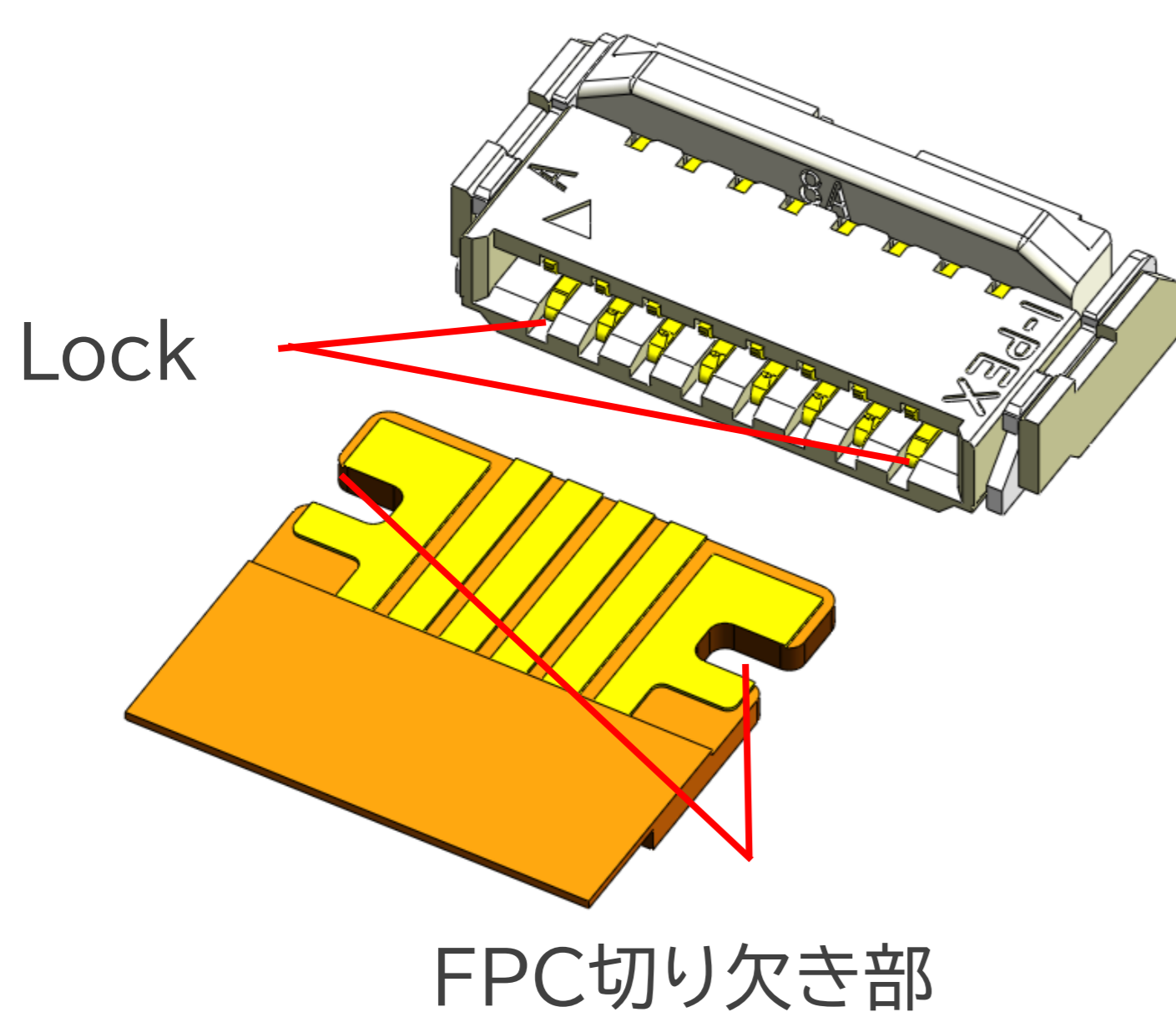
*記載のない極数の対応状況についてはお問い合わせください。

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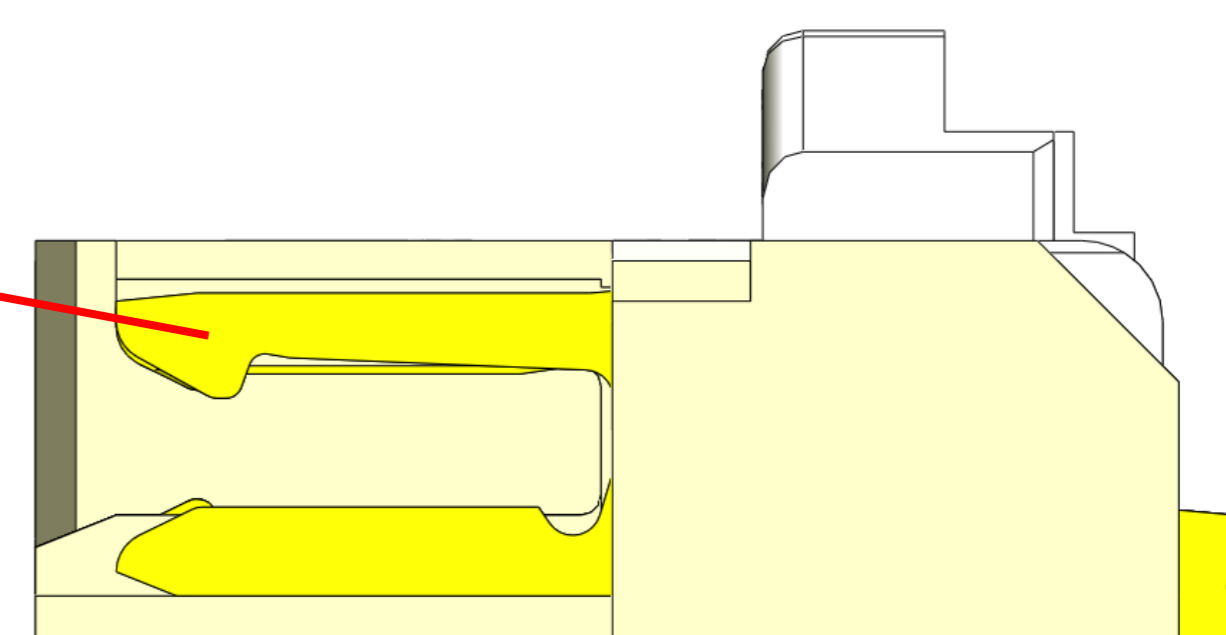
▶ メカニカルロックによる高FPC保持力



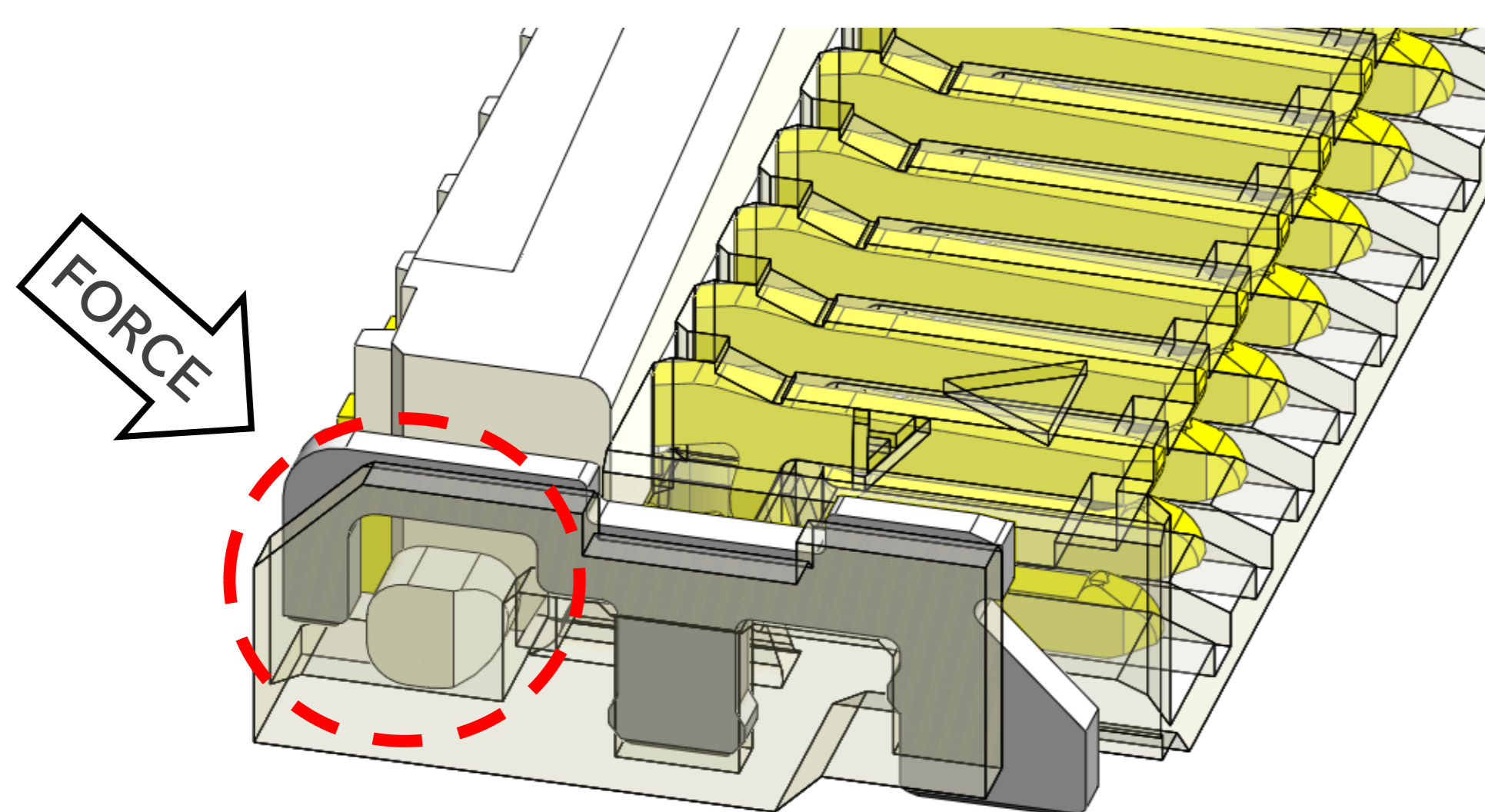
FPC 保持力比較 (6 p)

MFX5-BFN II LK	MFX5-BFN II
10.59 N	4.17 N

FPCロックメカニズムによる
高FPC保持力



▶ 独自のホルダー形状によりアクチュエータの脱落を防止



100 N の力でもアクチュエータは脱落なし

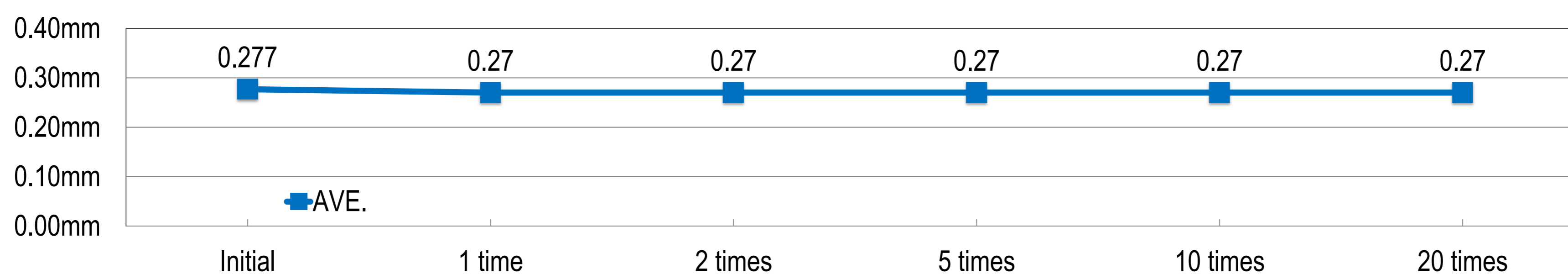
*先にハウジング破壊が発生

*力のベクトルはアクチュエータが最も外れやすいと言われる
後ろ斜め上30度から測定

▶ FPC未挿入状態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® 5-BFN II LK 26 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

MINIFLEX® 5-BFN II LK

기계식 Lock 기능, 보강판에 의한 견고성,
저배 (높이 = 1.0 mm), 0.5 mm Pitch, 수평 결합, 백플립



Product Specifications:

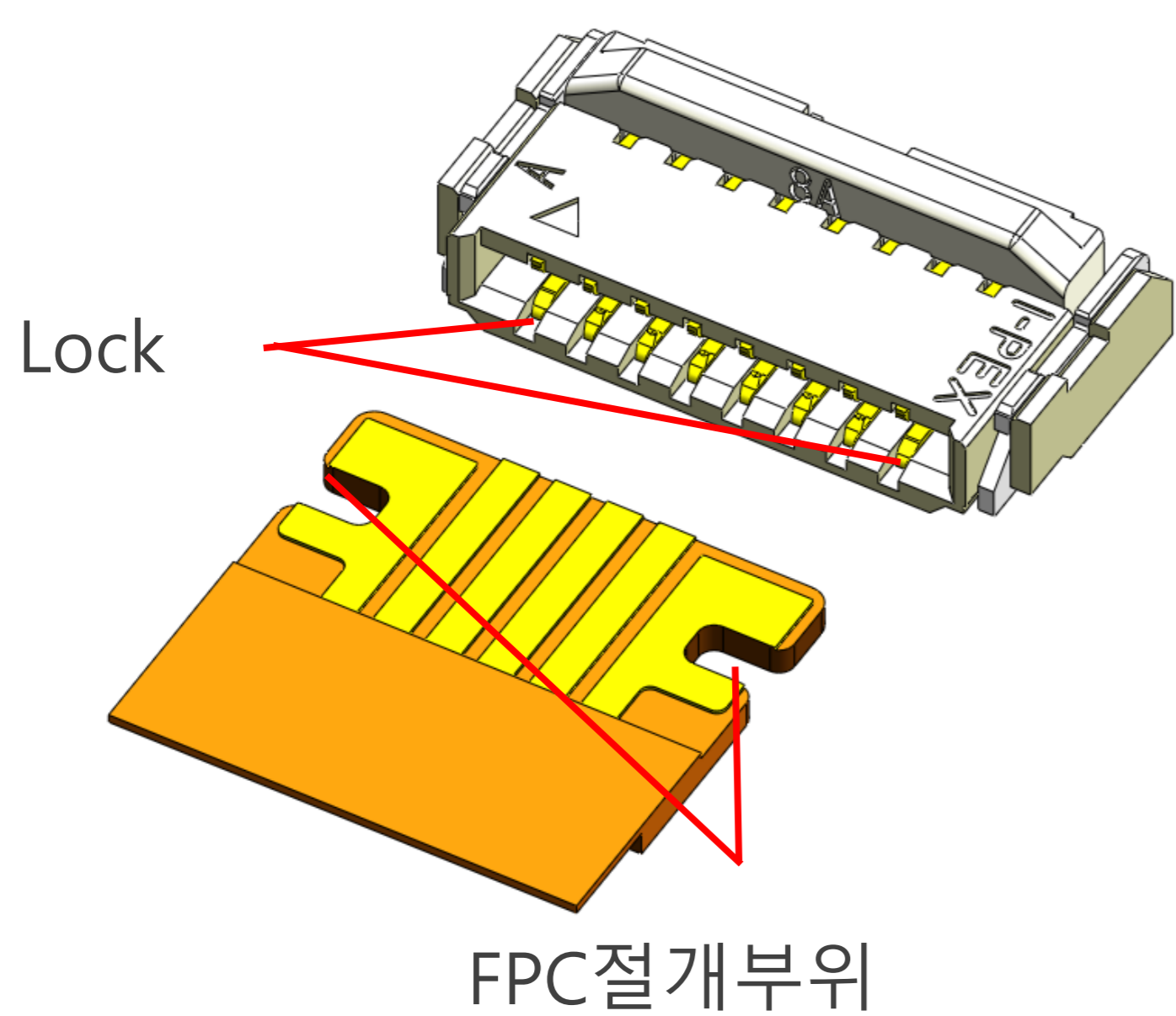
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FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.3 +/- 0.05

*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.

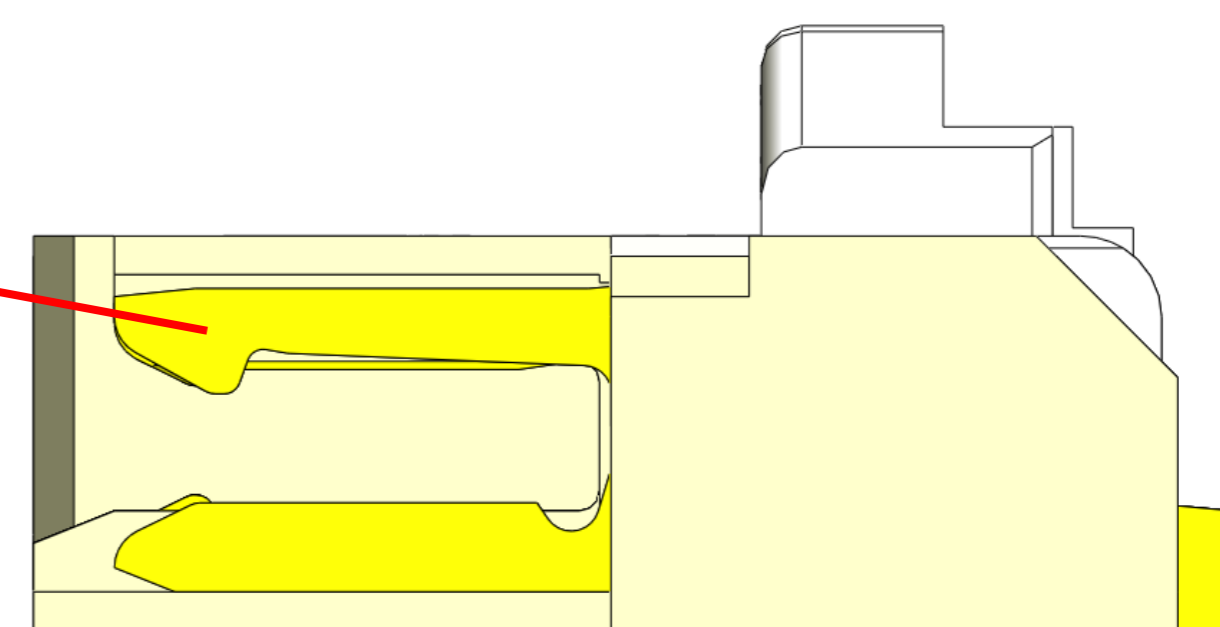
▶ 기계식 Lock 기능에 의한 높은 FPC 유지력



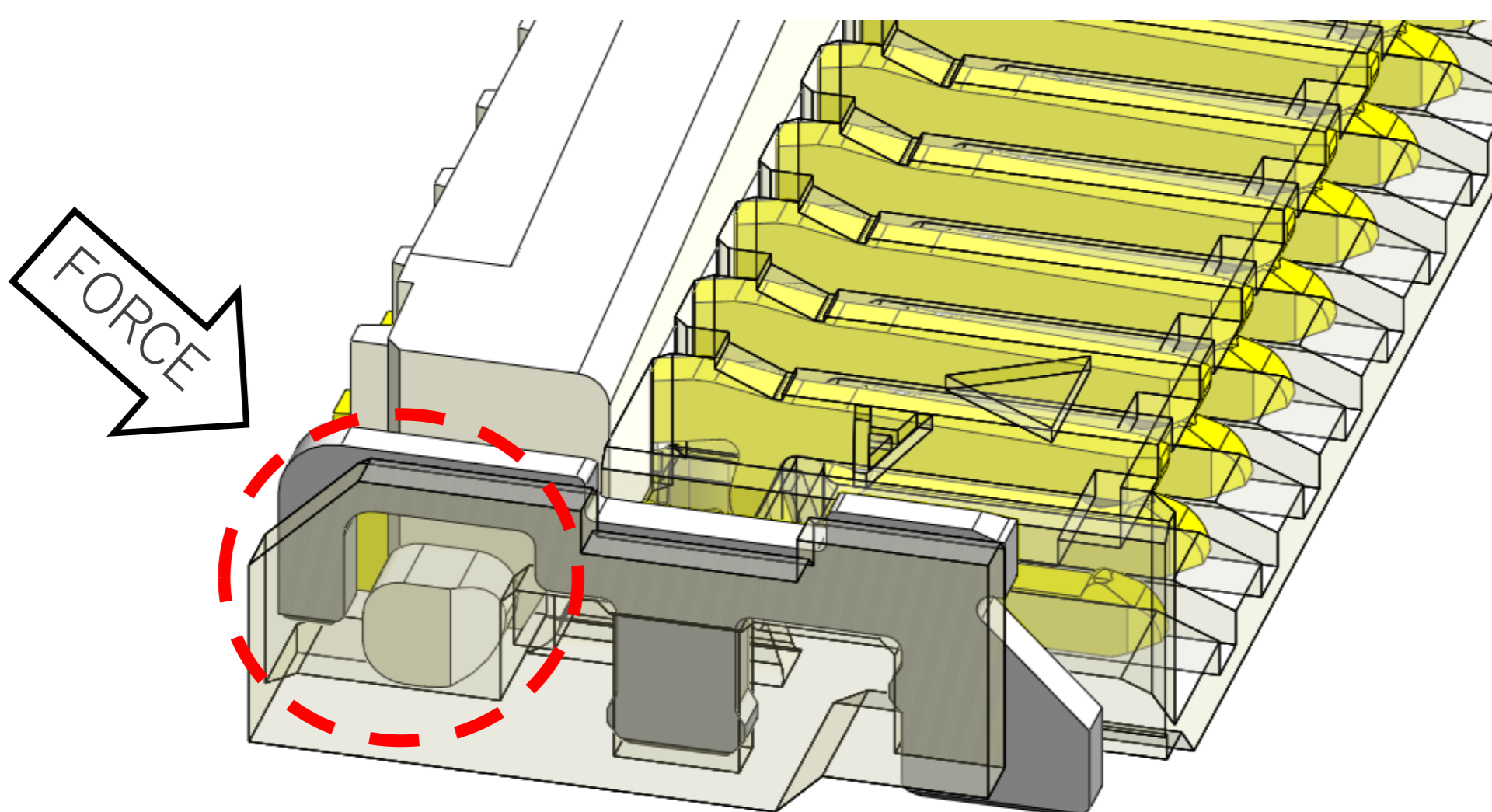
FPC Lock 강도비교 (6 p)

MF5-BFN II LK	MF5-BFN II
10.59 N	4.17 N

FPC Lock 메커니즘에 따른 높은 Lock강도



▶ 독자적인 보강판 형상을 통해 액추에이터의 탈락을 방지



100 N 의 힘으로도 Actuator의 탈락이 없음

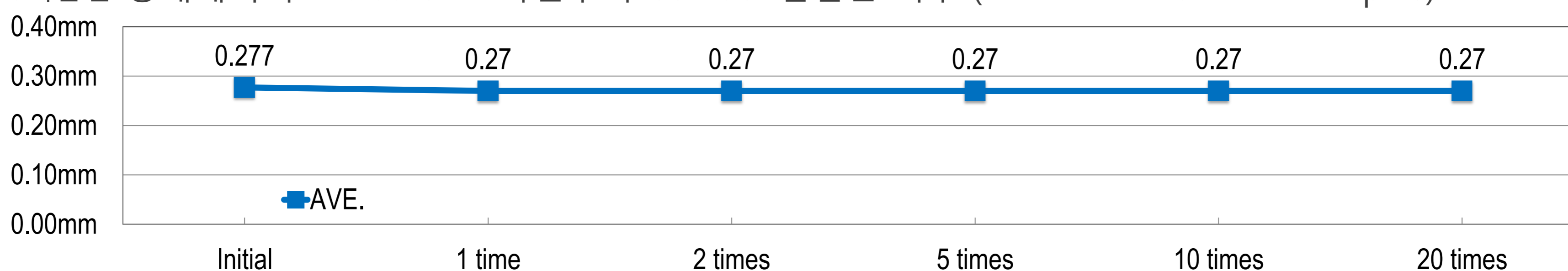
*먼저, Housing의 파손이 발생

*Actuator가 빠지기 쉬운 30도로 기울어진 상태에서 힘의 Vektor를 측정

▶ FPC 미삽입 상태에서도 액추에이터 닫기 조작 가능(단자 변형 최소화)

SMT Process후에 FPC가 삽입되지 않은 상태에서 Actuator조작을 하게 된 경우에도 Contact는 정상적으로 기능합니다

■ FPC미삽입 상태에서의 Actuator 조작전후의 Contact 접점간 치수 (MINIFLEX® 5-BFN II 22 pins)



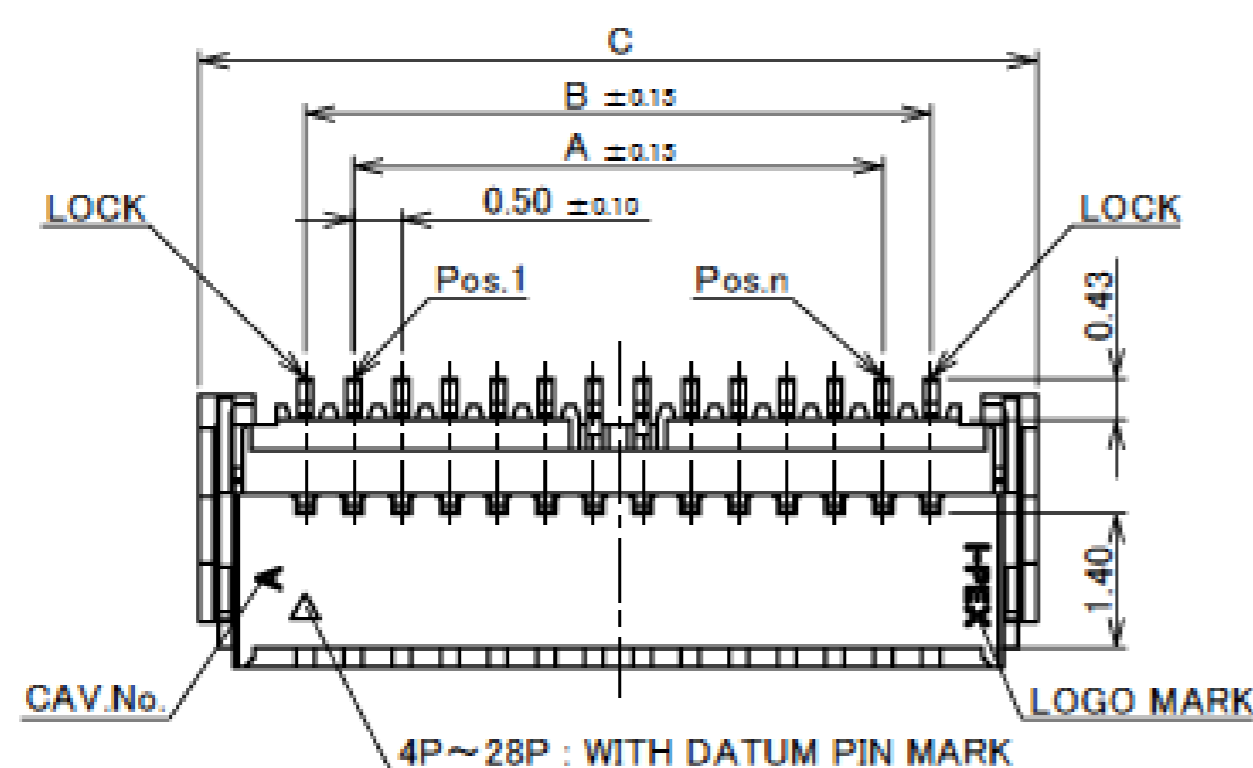
■ FPC삽입력은 상승하게 됩니다

■ FPC Lock강도에 있어서는 큰 변화가 없습니다

Component Parts Details

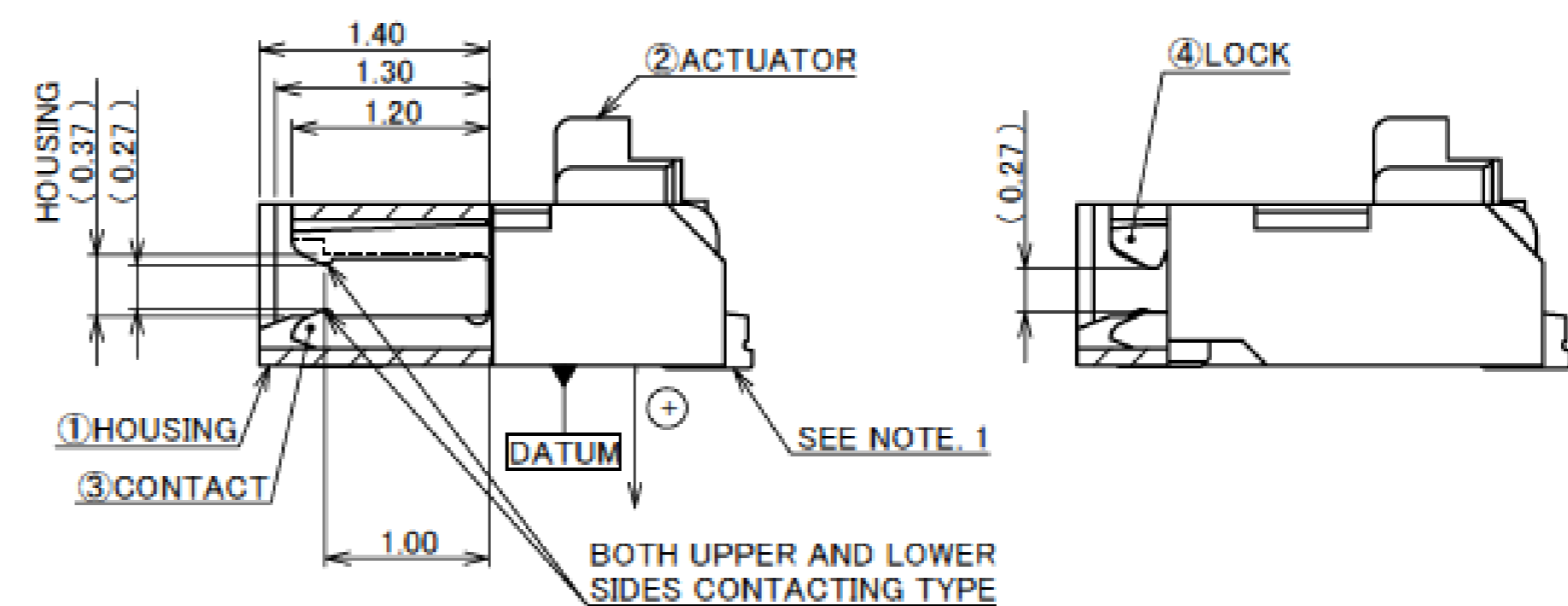
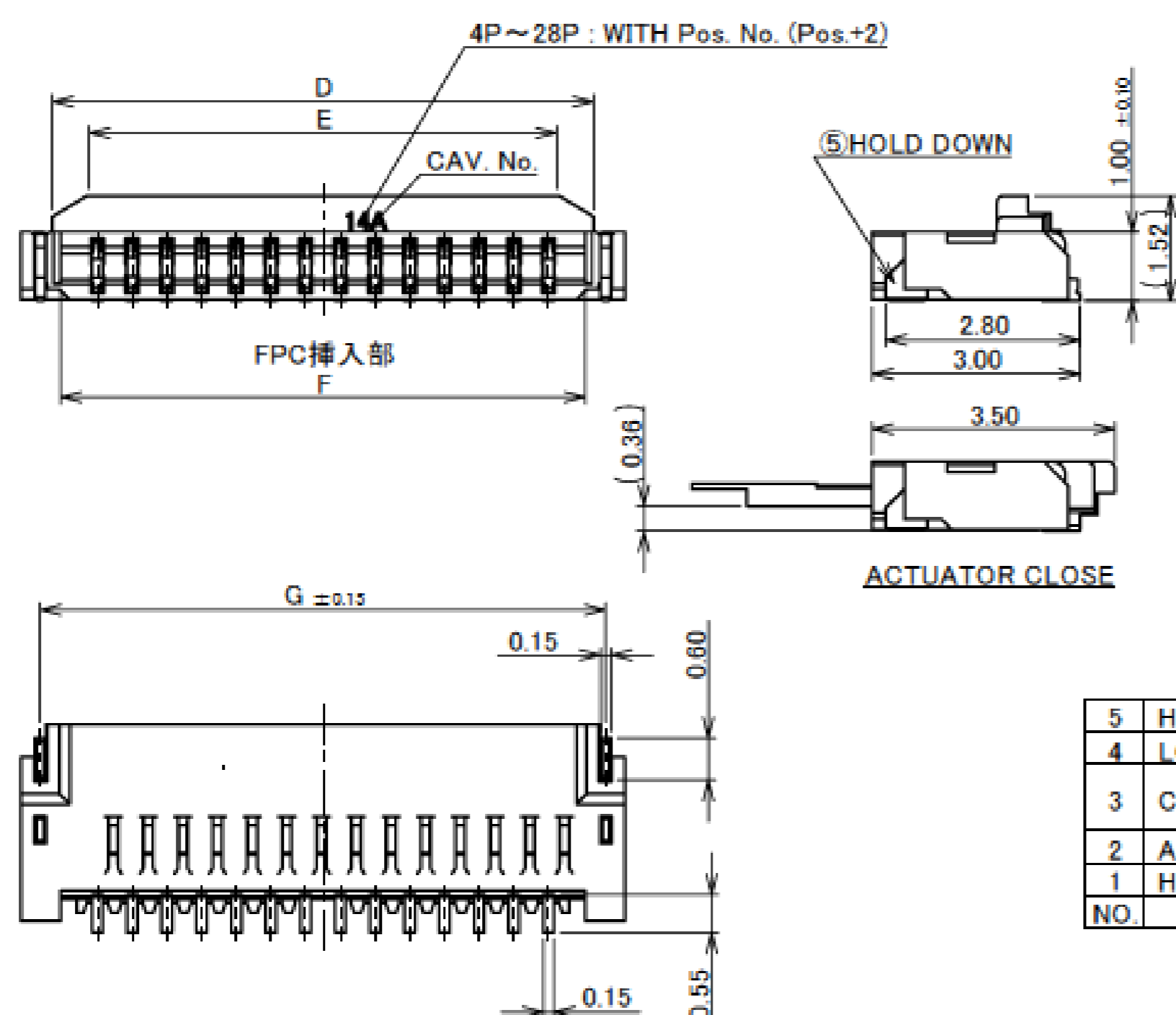
Connector Assembly

Recommended P/N 20600-0**E-01



PART No.	POS.	A	B	C	D	E	F	G
20600-004E-01	4	1.50	2.50	4.70	3.80	2.80	3.56	4.15
20600-006E-01	6	2.50	3.50	5.70	4.80	3.80	4.56	5.15
20600-008E-01	8	3.50	4.50	6.70	5.80	4.80	5.56	6.15
20600-010E-01	10	4.50	5.50	7.70	6.80	5.80	6.56	7.15
20600-012E-01	12	5.50	6.50	8.70	7.80	6.80	7.56	8.15
20600-014E-01	14	6.50	7.50	9.70	8.80	7.80	8.56	9.15
20600-016E-01	16	7.50	8.50	10.70	9.80	8.80	9.56	10.15
20600-018E-01	18	8.50	9.50	11.70	10.80	9.80	10.56	11.15
20600-020E-01	20	9.50	10.50	12.70	11.80	10.80	11.56	12.15
◆20600-022E-01	22	10.50	11.50	13.70	12.80	11.80	12.56	13.15
20600-024E-01	24	11.50	12.50	14.70	13.80	12.80	13.56	14.15
◆20600-026E-01	26	12.50	13.50	15.70	14.80	13.80	14.56	15.15
◆20600-028E-01	28	13.50	14.50	16.70	15.80	14.80	15.56	16.15

◆MARK MEANS NOT AVAILABLE.

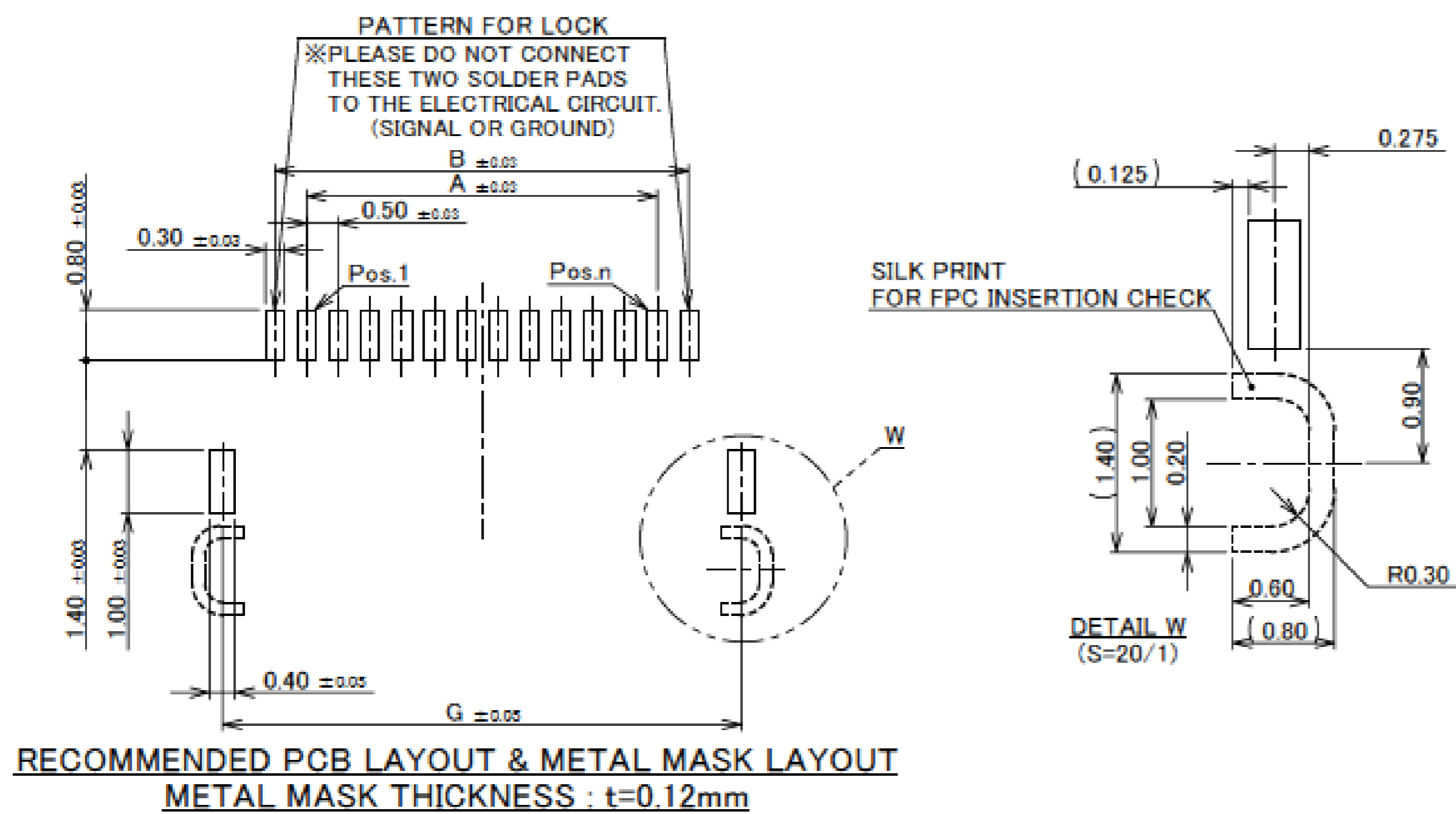


5	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 μm MIN.OVER Ni 1.0 μm MIN.
4	LOCK	PHOSPHOR BRONZE	Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

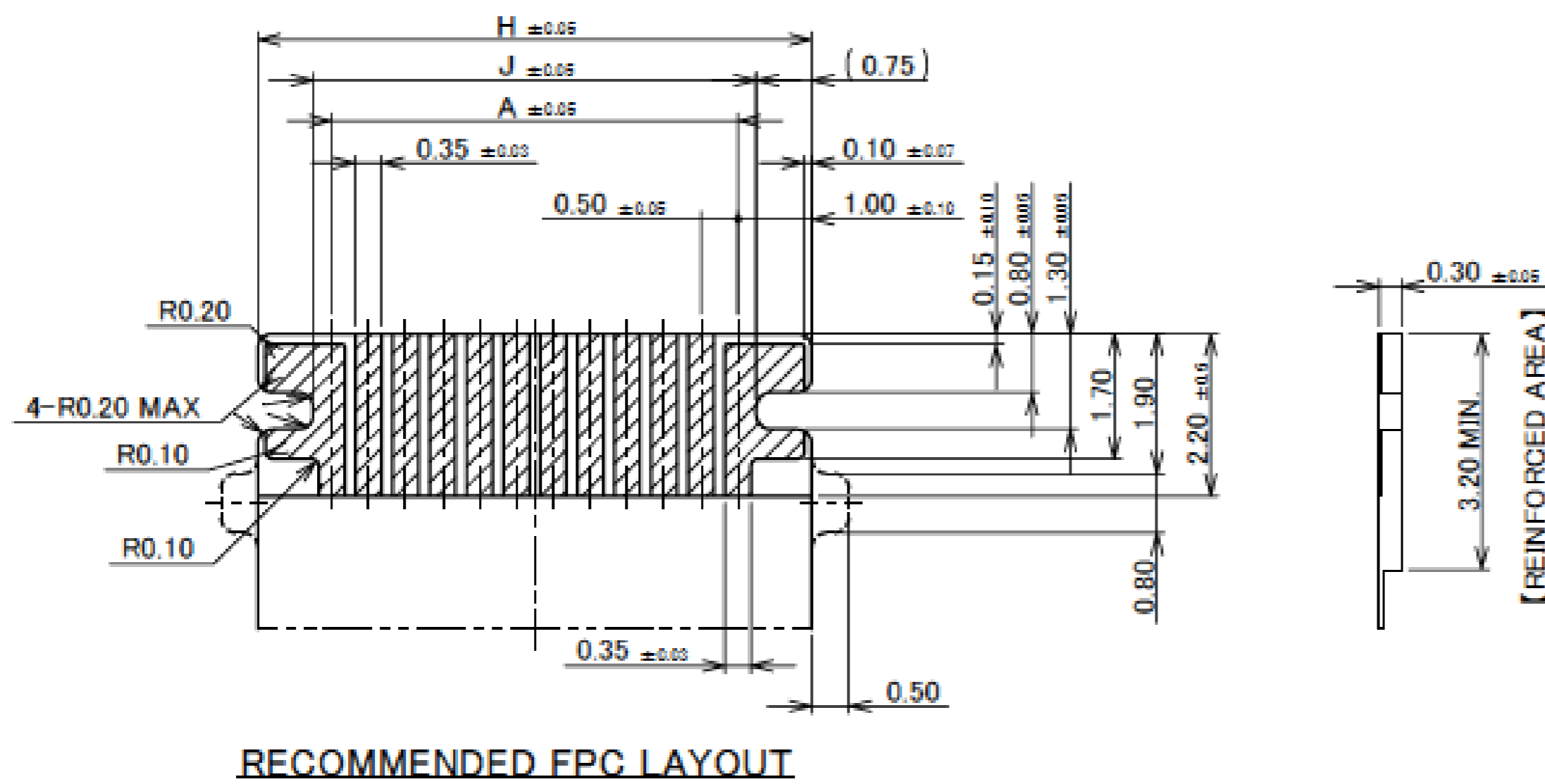
NOTES
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

Connector Assembly

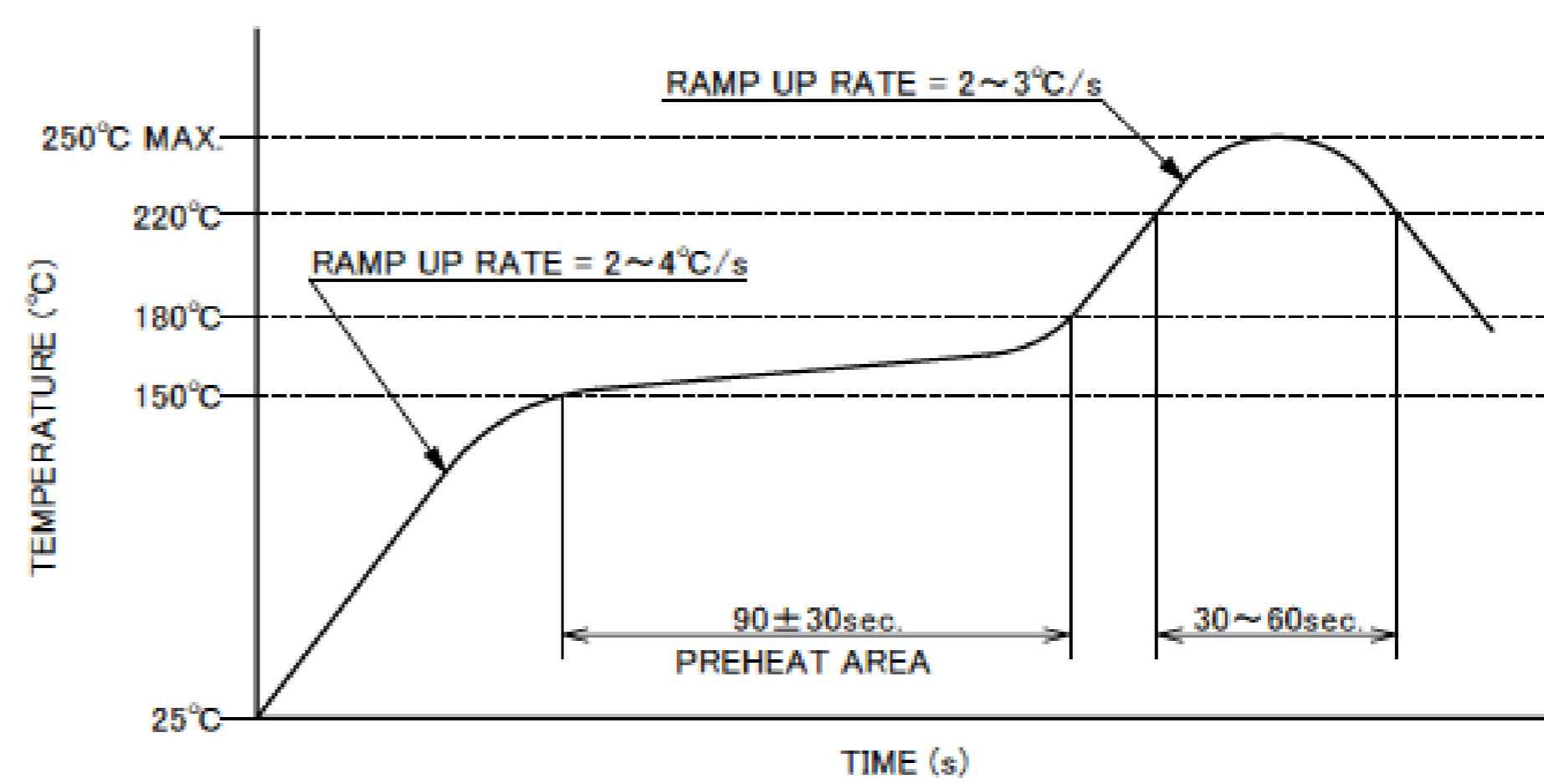
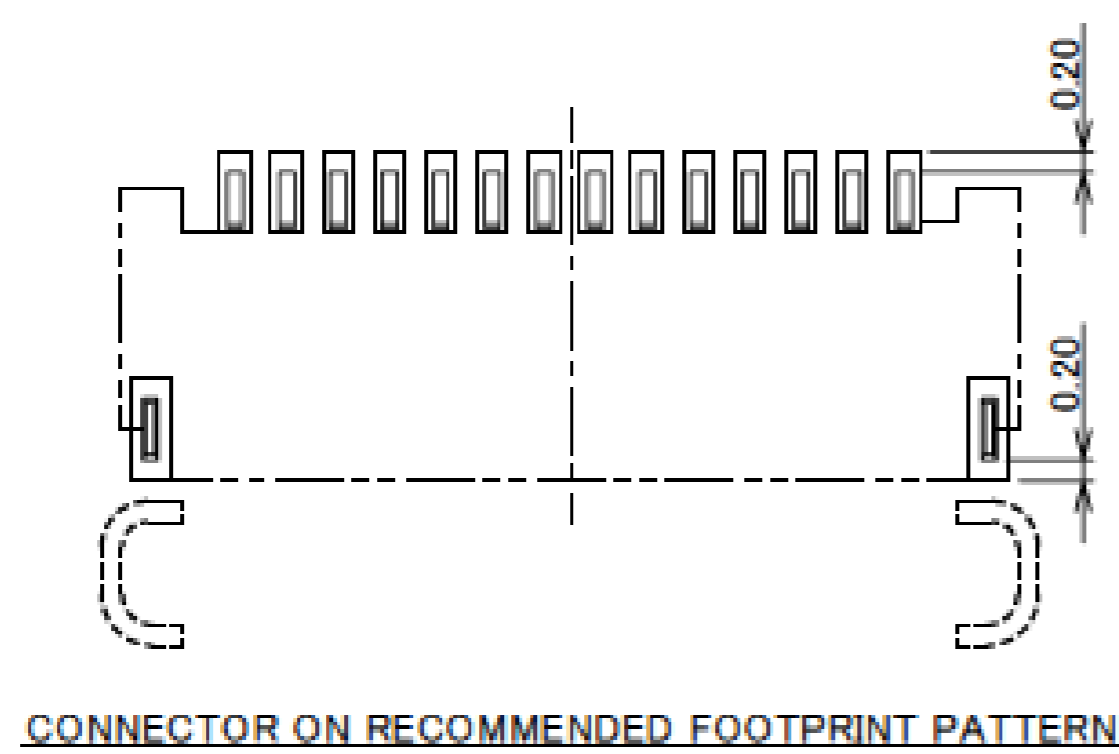


PART No.	POS.	A	B	G	H	J
20600-004E-01	4	1.50	2.50	4.15	3.50	2.00
20600-006E-01	6	2.50	3.50	5.15	4.50	3.00
20600-008E-01	8	3.50	4.50	6.15	5.50	4.00
20600-010E-01	10	4.50	5.50	7.15	6.50	5.00
20600-012E-01	12	5.50	6.50	8.15	7.50	6.00
20600-014E-01	14	6.50	7.50	9.15	8.50	7.00
20600-016E-01	16	7.50	8.50	10.15	9.50	8.00
20600-018E-01	18	8.50	9.50	11.15	10.50	9.00
20600-020E-01	20	9.50	10.50	12.15	11.50	10.00
◆20600-022E-01	22	10.50	11.50	13.15	12.50	11.00
◆20600-024E-01	24	11.50	12.50	14.15	13.50	12.00
◆20600-026E-01	26	12.50	13.50	15.15	14.50	13.00
◆20600-028E-01	28	13.50	14.50	16.15	15.50	14.00

◆ MARK MEANS NOT AVAILABLE.



- NOTES
2.MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE : THERMOSETTING ADHESIVE
3.FINISH
Au OVER Ni PLATING.



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

Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT)
RATING AMPERAGE	0.5A DC (PER CONTACT) 7.0A DC (PER CONNECTOR)
OPERATING TEMPERATURE	233~398K(-40°C~125°C)
OPERATING HUMIDITY	80% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 40mohm MAX. / AFTER TEST : \triangleleft 20mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.6N(61gf) \times (n + 2)$ MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL/ 20TH CYCLES : $0.05N(5gf) \times (n + 2)$ MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL : $0.15N(15gf) \times n + 2.0N$ MIN. / AFTER TEST : $0.15N(15gf) \times n + 1.0N$ MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1841
TEST REPORT	TR-14132
PACKING STANDARD	PST-13031
INSTRUCTION MANUAL	HIM-12019
APPEARANCE CRITERIA No.	QLS-A***

※ "n" IS THE NUMBER OF PIN

Custom Connectors Available

RF Connector

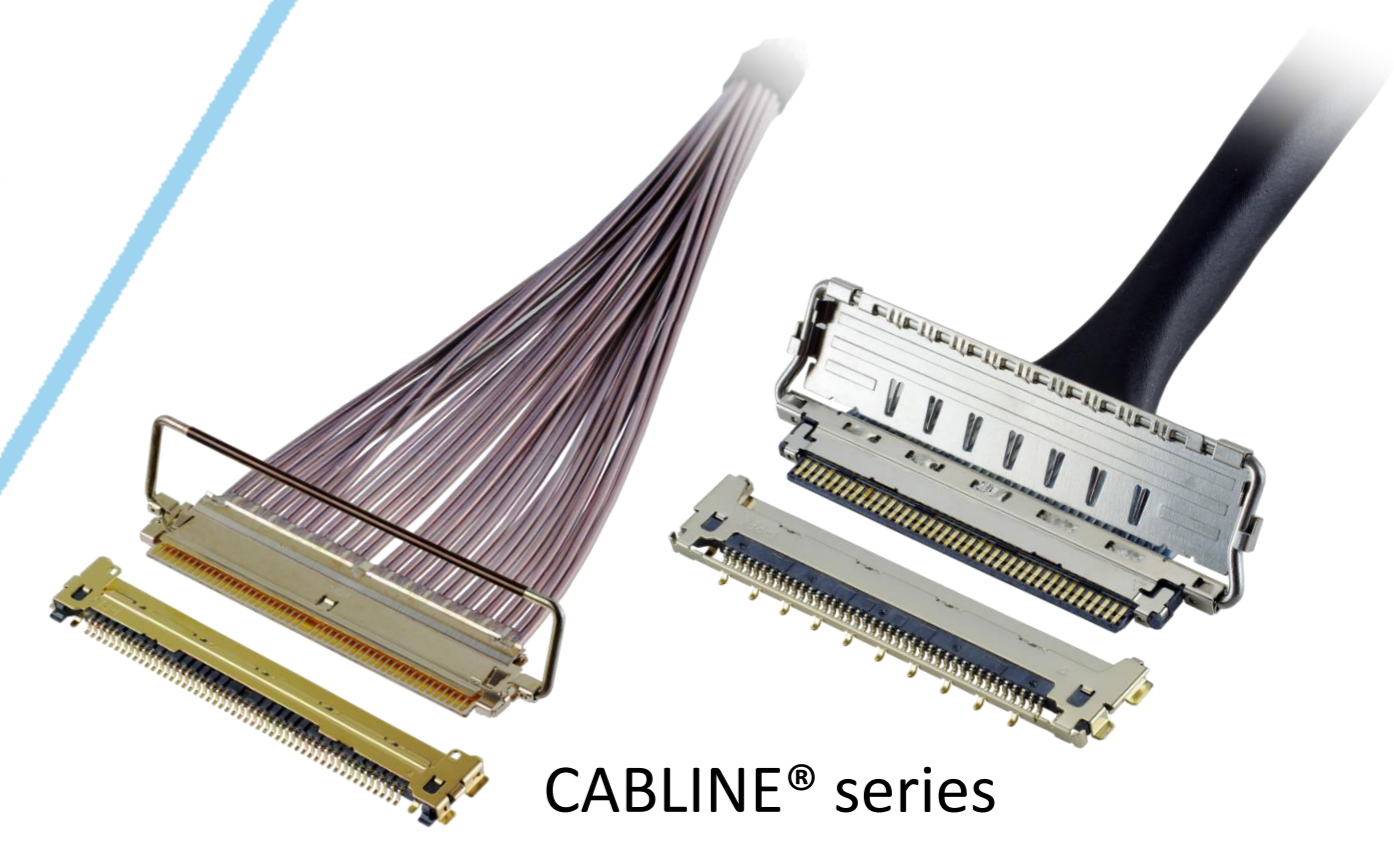
MHF® series



Micro-coaxial/Twinax/Discrete Wire Connector



CABLINÉ® series



Optical Module



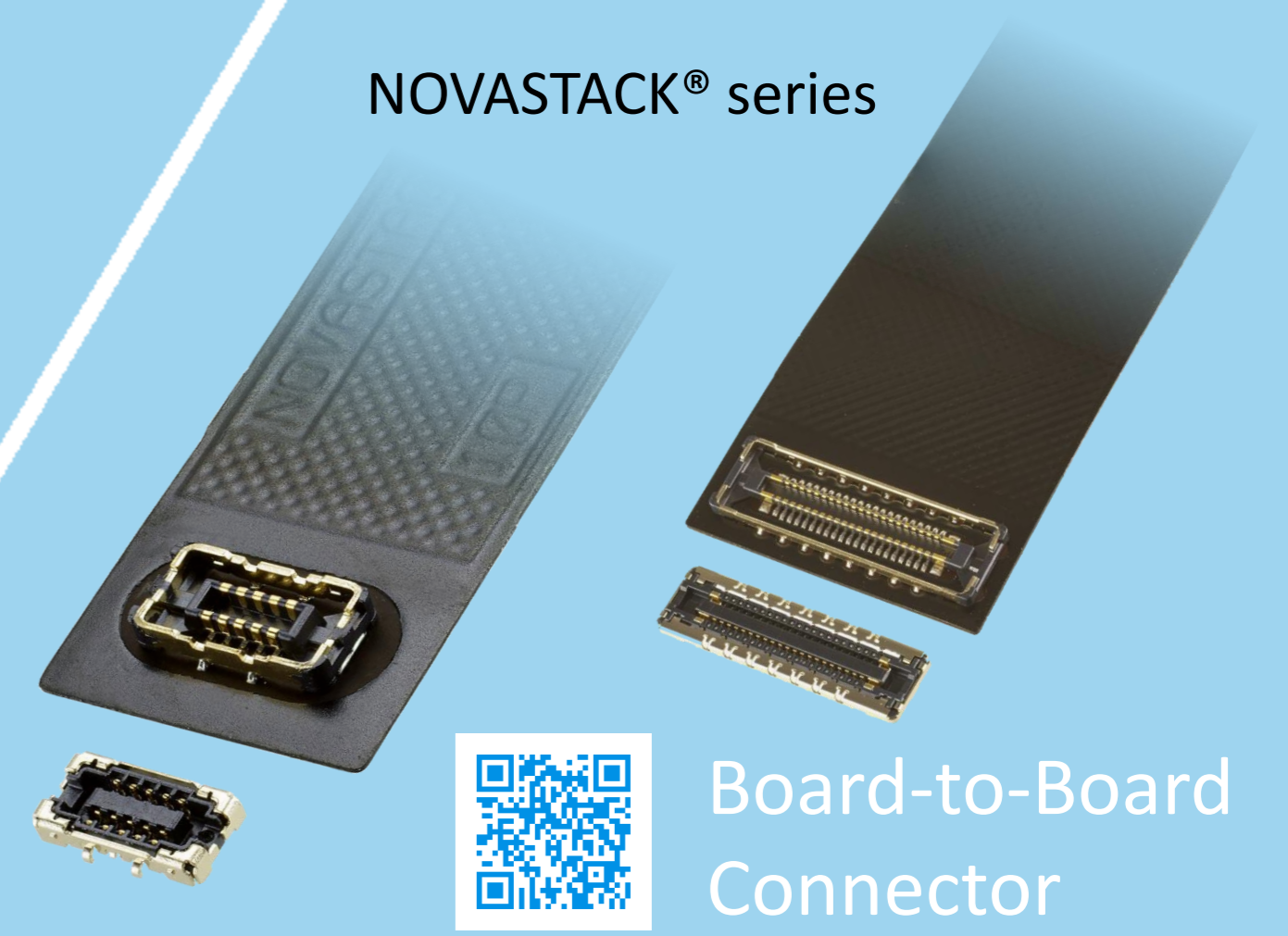
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/Terminal



AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



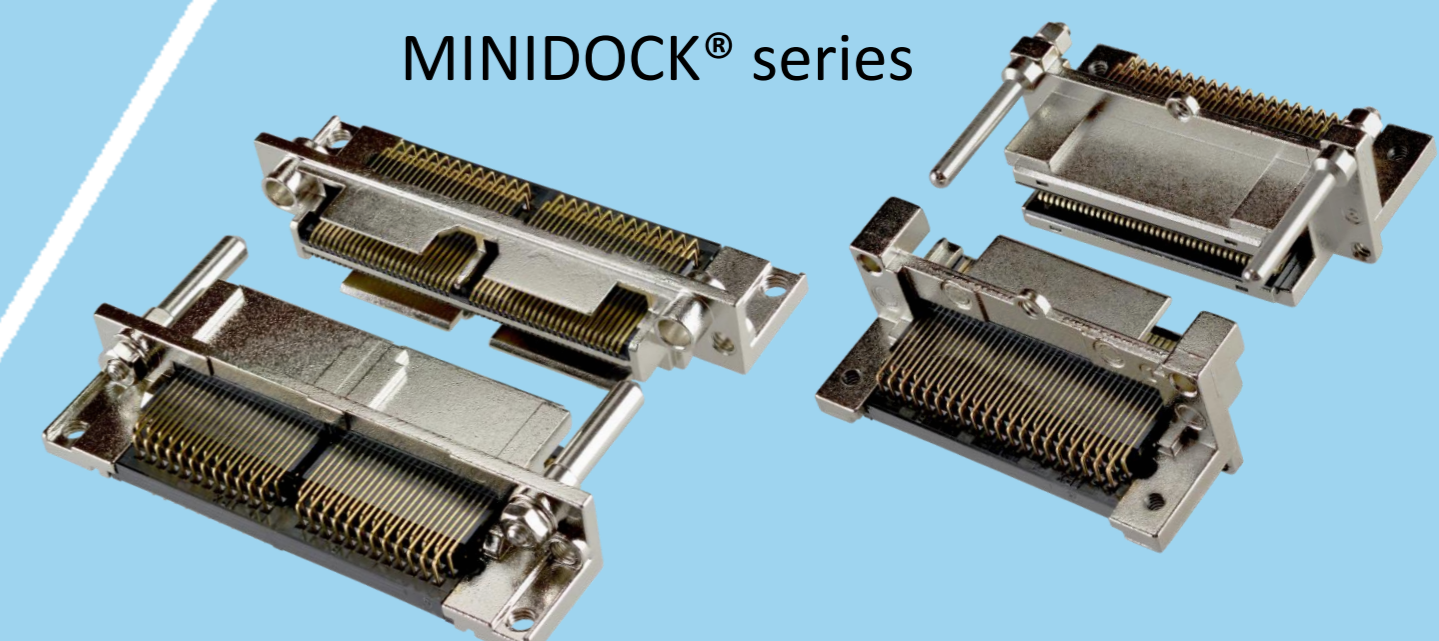
Inquiry



MINIDOCK® series



I/O Connector



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