

MINIFLEX® 5-BFN II

보강판에 의한 견고성, 고온 대응(125°C), 저배 (높이 = 1.0 mm), 0.5 mm Pitch, 수평 결합, 백플립

Product Specifications:		Short Actuator	Long Actuator
Board Pitch (mm)		0.5	
Wiping Length (mm)		1	
Size (mm)	Height	1.0 +/- 0.1	
	Width	Formula: $1.7 + (0.5 * ?p)$	
	Depth	Open: 3 Close: 3.5	
Pin counts	Range	4-30 (even)	32-60 (even)
	Available	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	32, 34, 40, 50, 54

Applicable FPC/FFC:

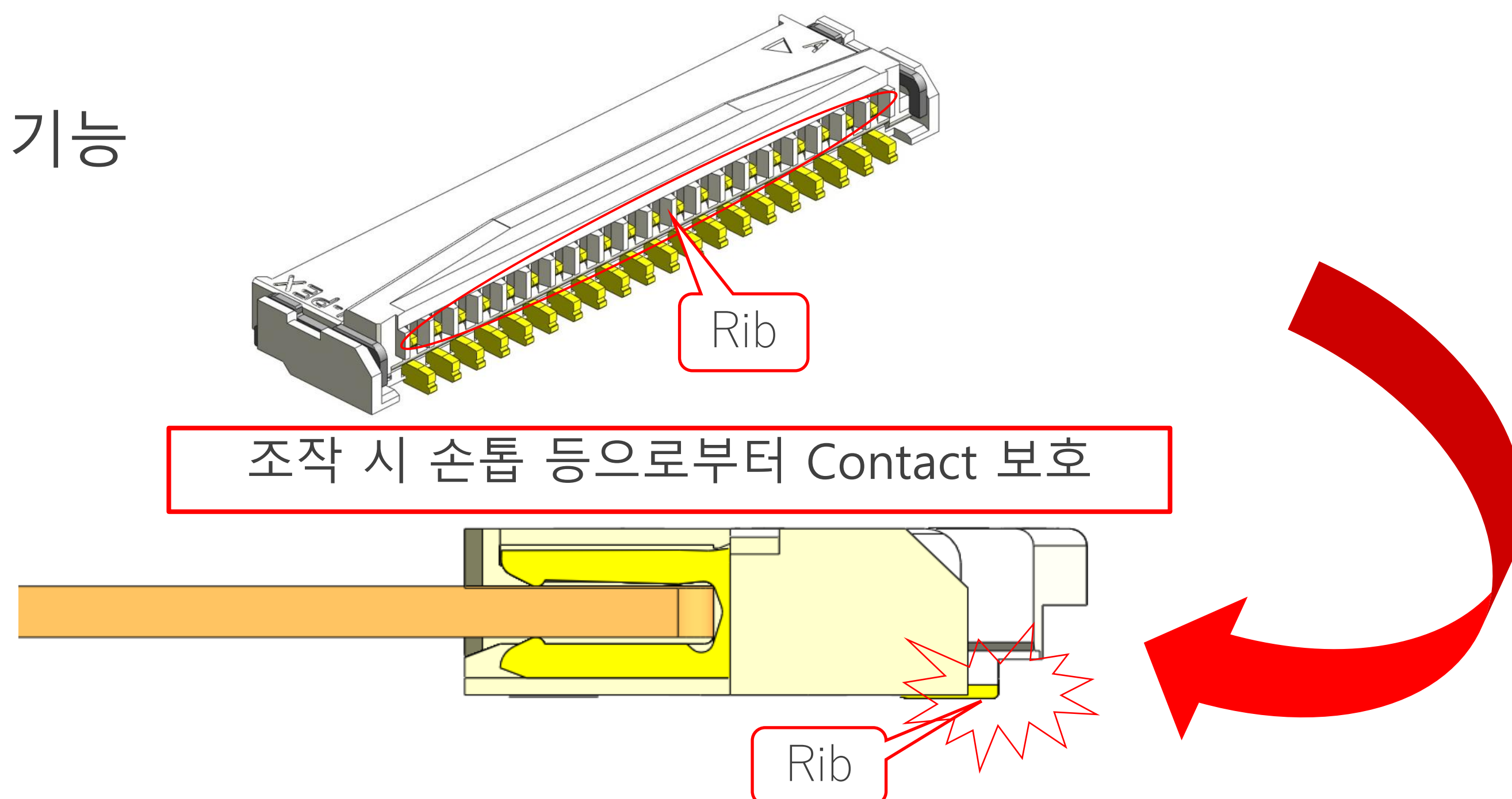
FPC/FFC Contact Pitch	0.5
FPC/FFC Contact Point	Top and Bottom
FPC/FFC Thickness (mm)	0.3 +/- 0.05

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

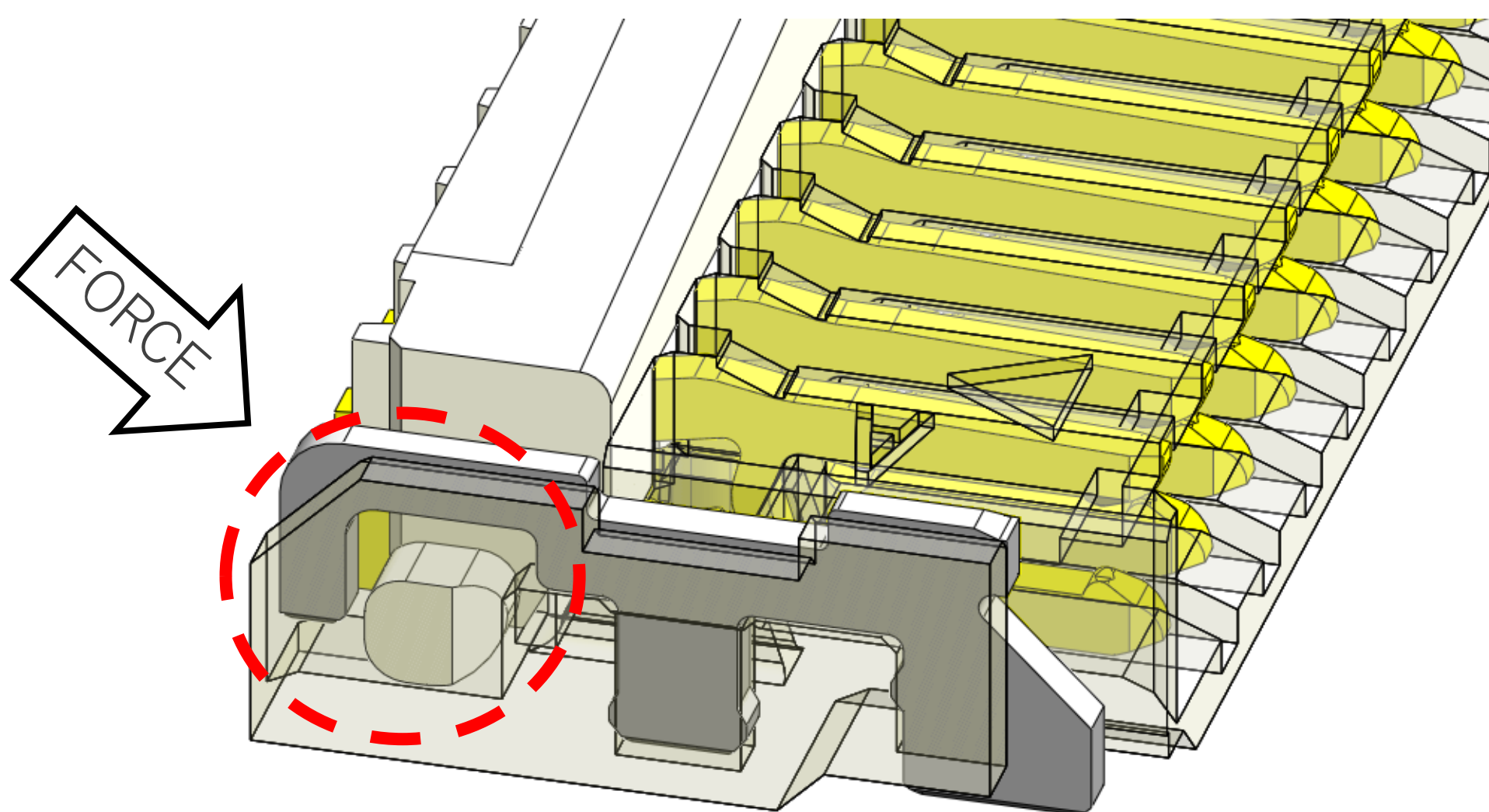


▶ 액추에이터 조작 시의 단자 변형 방지 기능

Contact 변형 방지 기능



▶ 독자적인 보강판 형상을 통해 액추에이터의 탈락을 방지



100 N 의 힘으로도 Actuator의 탈락이 없음

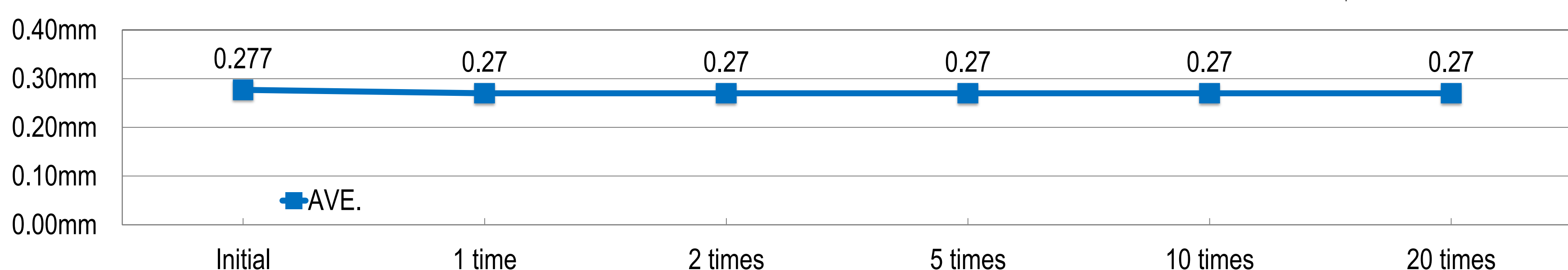
*먼저, Housing의 파손이 발생

*Actuator가 빠지기 쉬운 30도로 기울어진 상태에서 힘의Vektor를 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)



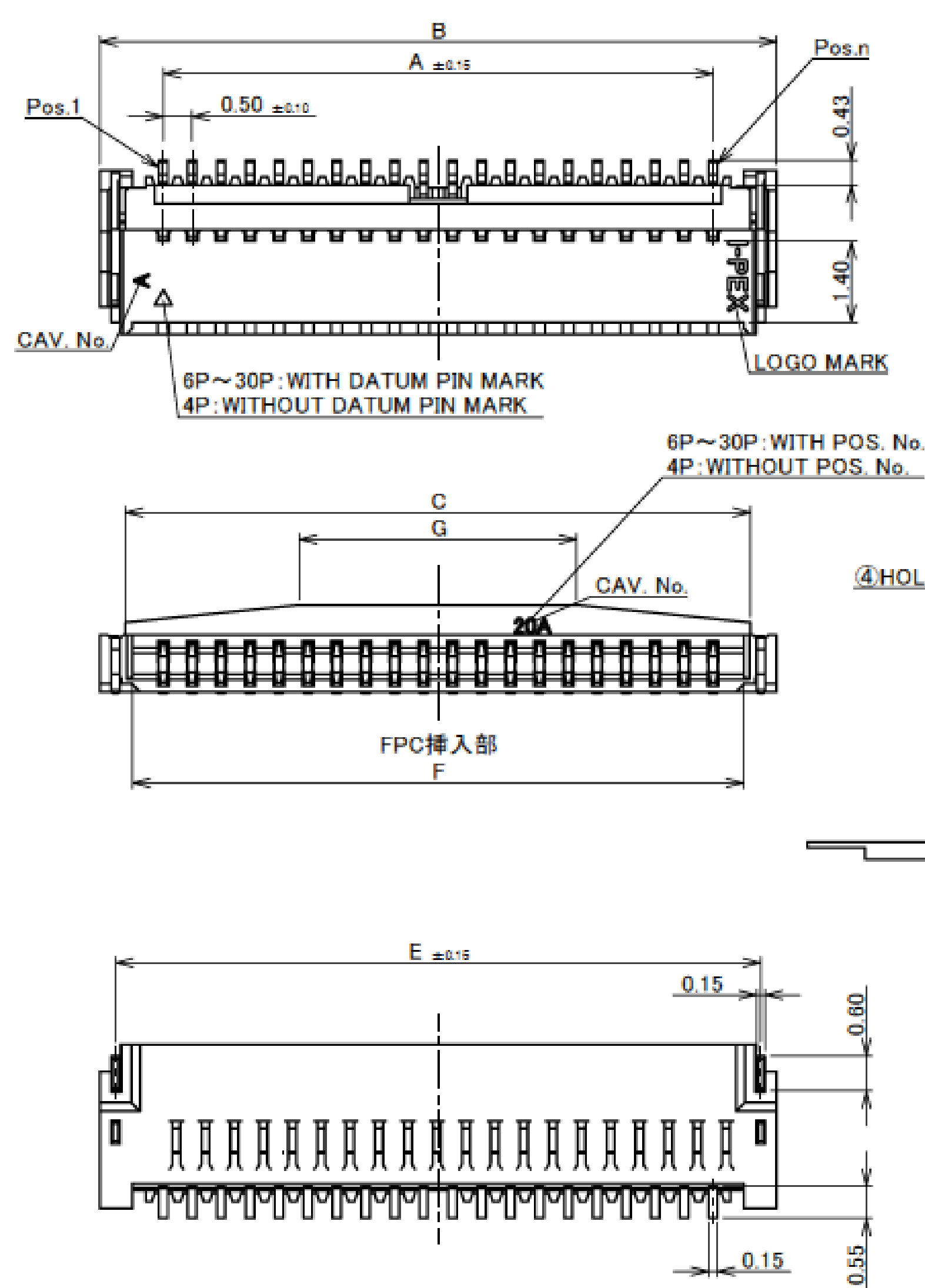
■ FPC삽입력은 상승하게 됩니다

■ FPC Lock강도에 있어서는 큰 변화가 없습니다

Component Parts Details

Connector Assembly

Recommended P/N 20542-0**E-01



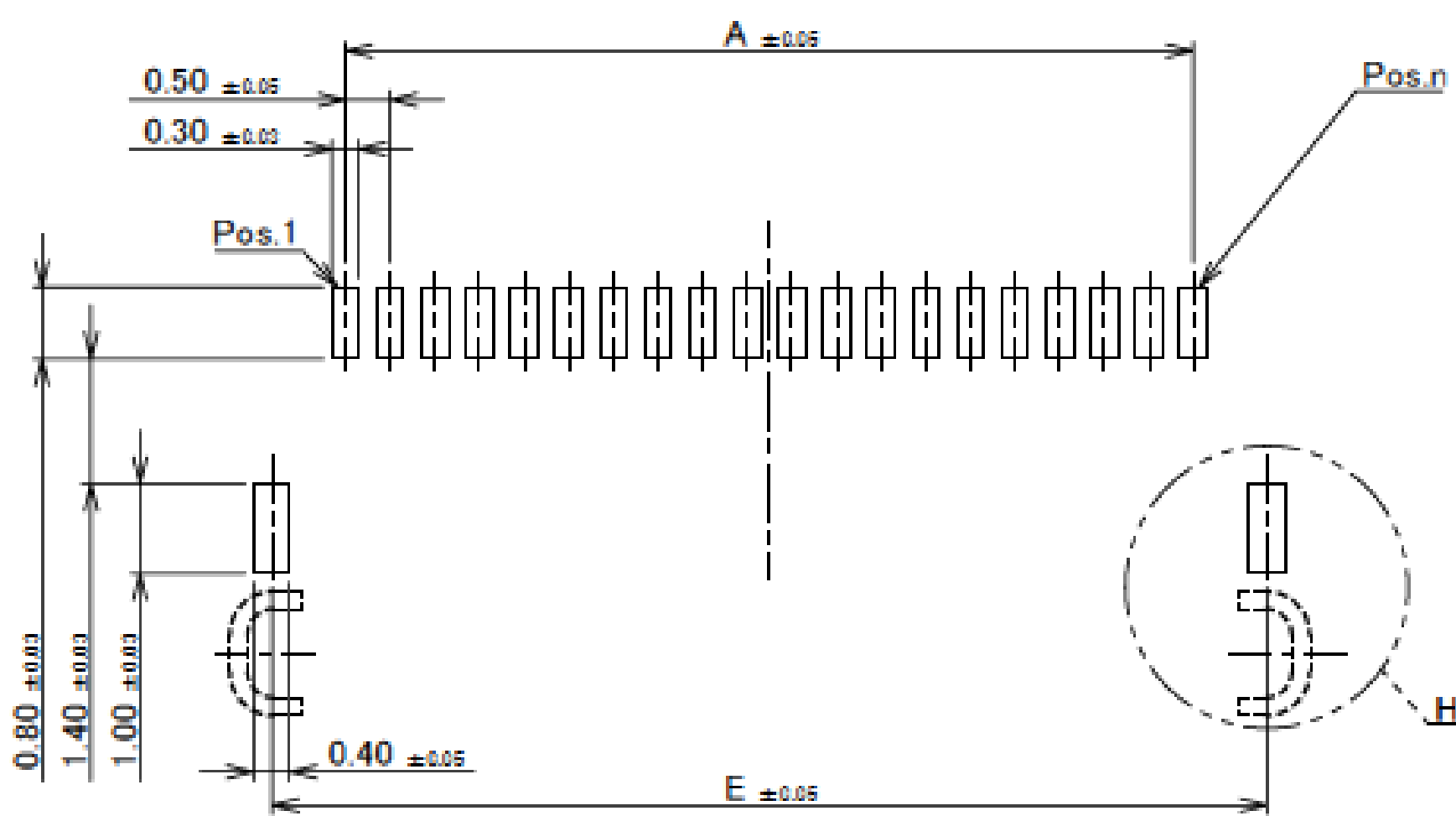
PART No.	POS.	A	B	C	D	E	F	G
20542-004E-01	4	1.50	3.70	2.80	2.50	3.15	2.56	1.80
20542-006E-01	6	2.50	4.70	3.80	3.50	4.15	3.56	2.80
20542-008E-01	8	3.50	5.70	4.80	4.50	5.15	4.56	3.80
20542-010E-01	10	4.50	6.70	5.80	5.50	6.15	5.56	4.80
20542-012E-01	12	5.50	7.70	6.80	6.50	7.15	6.56	5.80
20542-014E-01	14	6.50	8.70	7.80	7.50	8.15	7.56	6.80
20542-016E-01	16	7.50	9.70	8.80	8.50	9.15	8.56	7.80
20542-018E-01	18	8.50	10.70	9.80	9.50	10.15	9.56	8.80
20542-020E-01	20	9.50	11.70	10.80	10.50	11.15	10.56	9.80
20542-022E-01	22	10.50	12.70	11.80	11.50	12.15	11.56	10.80
20542-024E-01	24	11.50	13.70	12.80	12.50	13.15	12.56	11.80
20542-026E-01	26	12.50	14.70	13.80	13.50	14.15	13.56	12.80
20542-028E-01	28	13.50	15.70	14.80	14.50	15.15	14.56	13.80
20542-030E-01	30	14.50	16.70	15.80	15.50	16.15	15.56	14.80

4	PHOSPHOR BRONZE	HOLD DOWN	Sn 2~6 μm MIN.OVER Ni 1.00 μm MIN.
3	PHOSPHOR BRONZE	CONTACT	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN.
2	LCP	ACTUATOR	SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
1	LCP	HOUSING	UL94V-0, BEIGE
NO.	MATERIAL	DISCRIPTION	FINISH , REMARKS

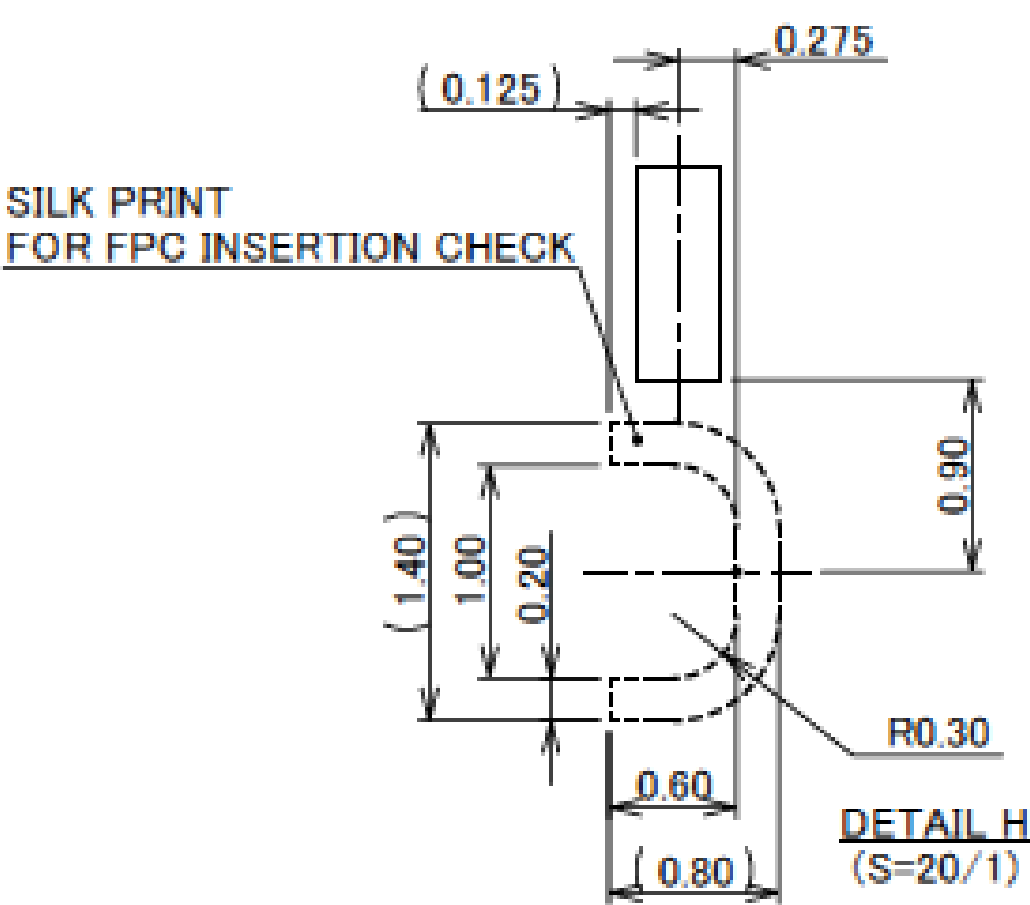
CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

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

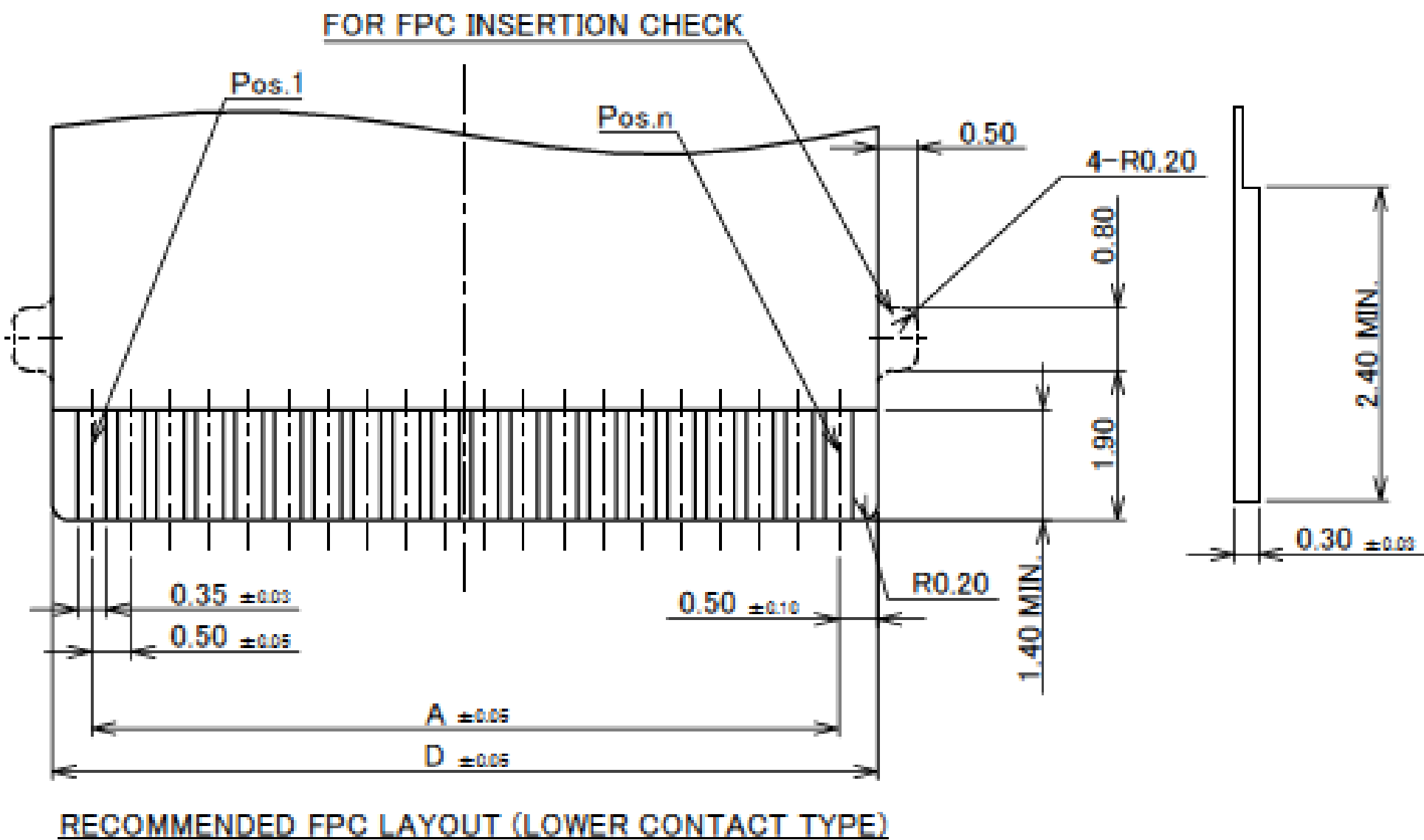
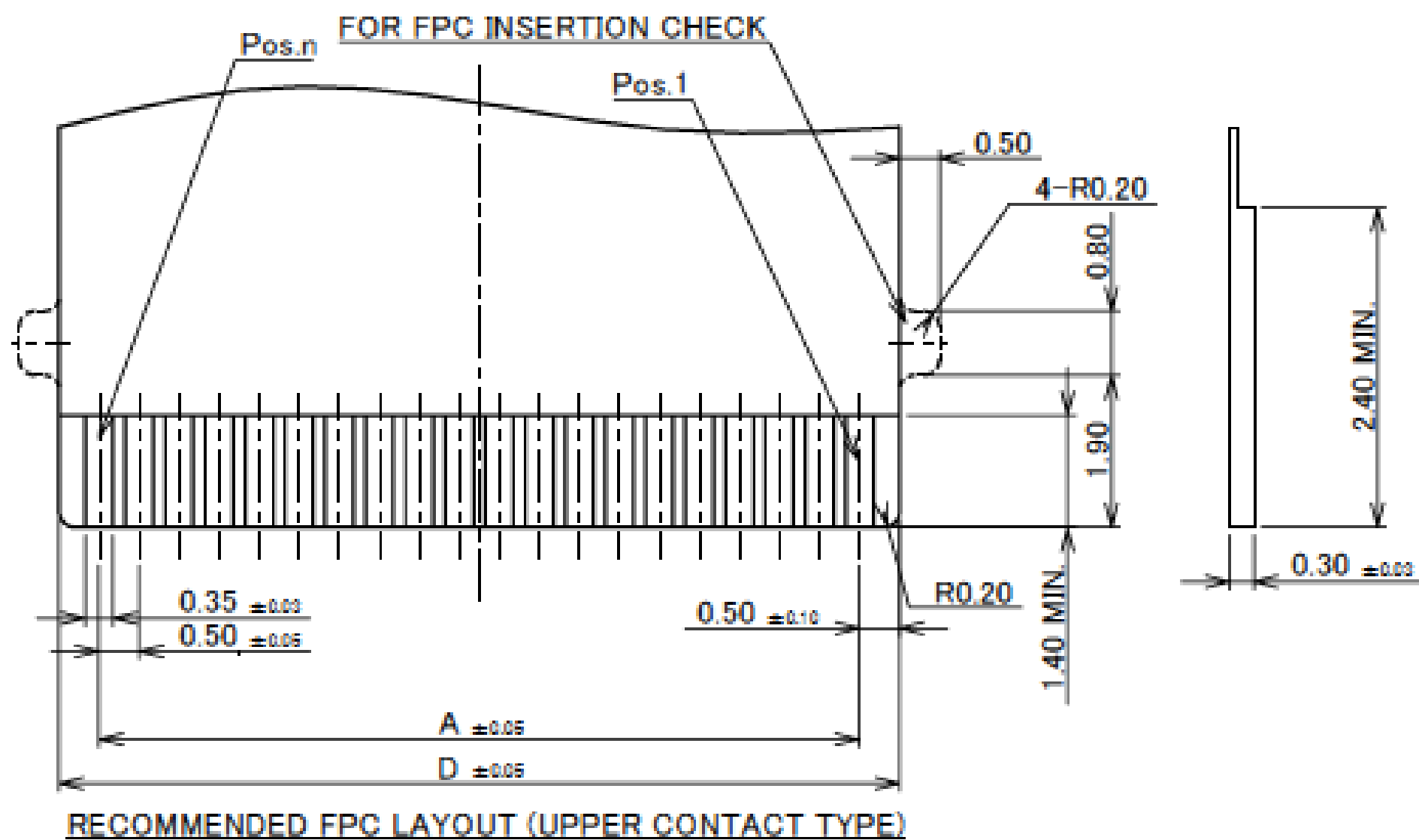
Connector Assembly



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

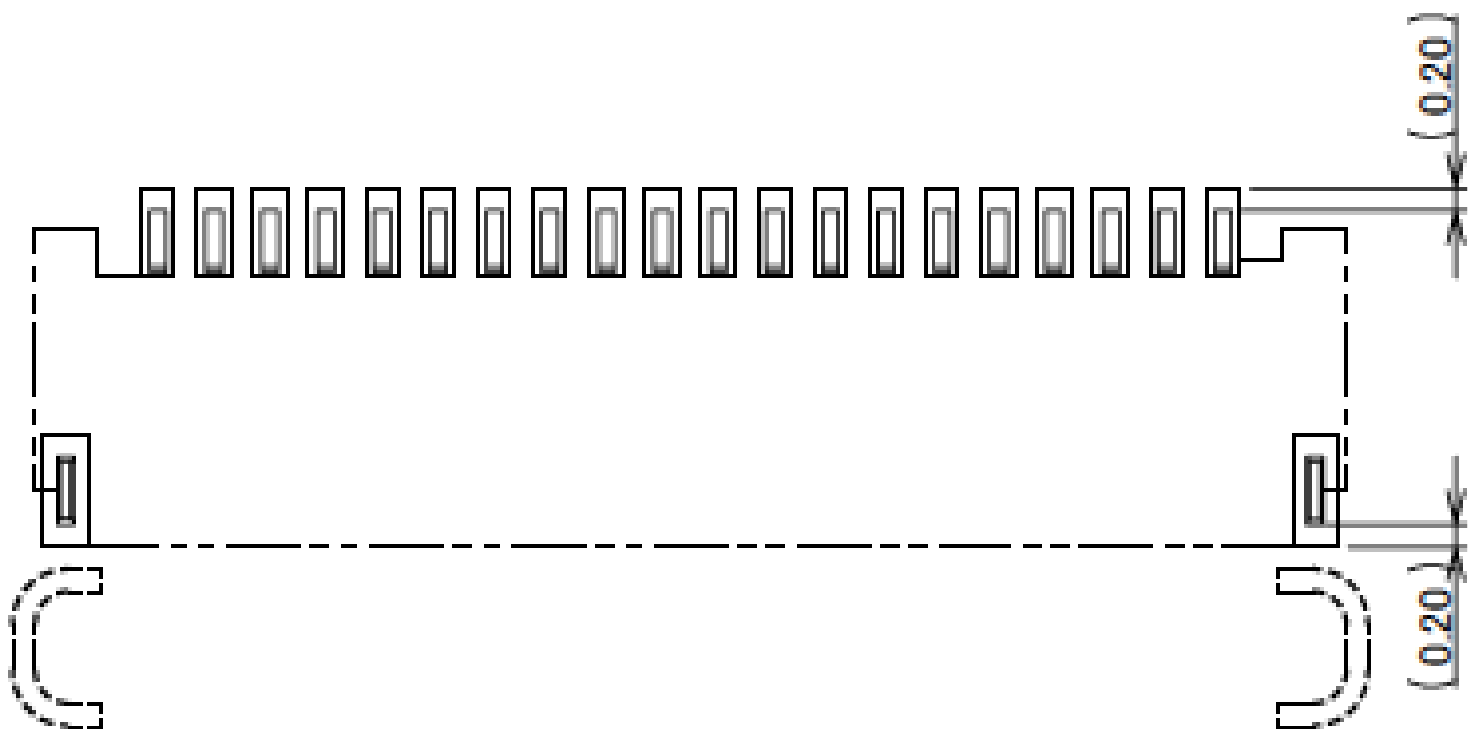


PART No.	POS.	A	D	E
20542-004E-01	4	1.50	2.50	3.15
20542-006E-01	6	2.50	3.50	4.15
20542-008E-01	8	3.50	4.50	5.15
20542-010E-01	10	4.50	5.50	6.15
20542-012E-01	12	5.50	6.50	7.15
20542-014E-01	14	6.50	7.50	8.15
20542-016E-01	16	7.50	8.50	9.15
20542-018E-01	18	8.50	9.50	10.15
20542-020E-01	20	9.50	10.50	11.15
20542-022E-01	22	10.50	11.50	12.15
20542-024E-01	24	11.50	12.50	13.15
20542-026E-01	26	12.50	13.50	14.15
20542-028E-01	28	13.50	14.50	15.15
20542-030E-01	30	14.50	15.50	16.15

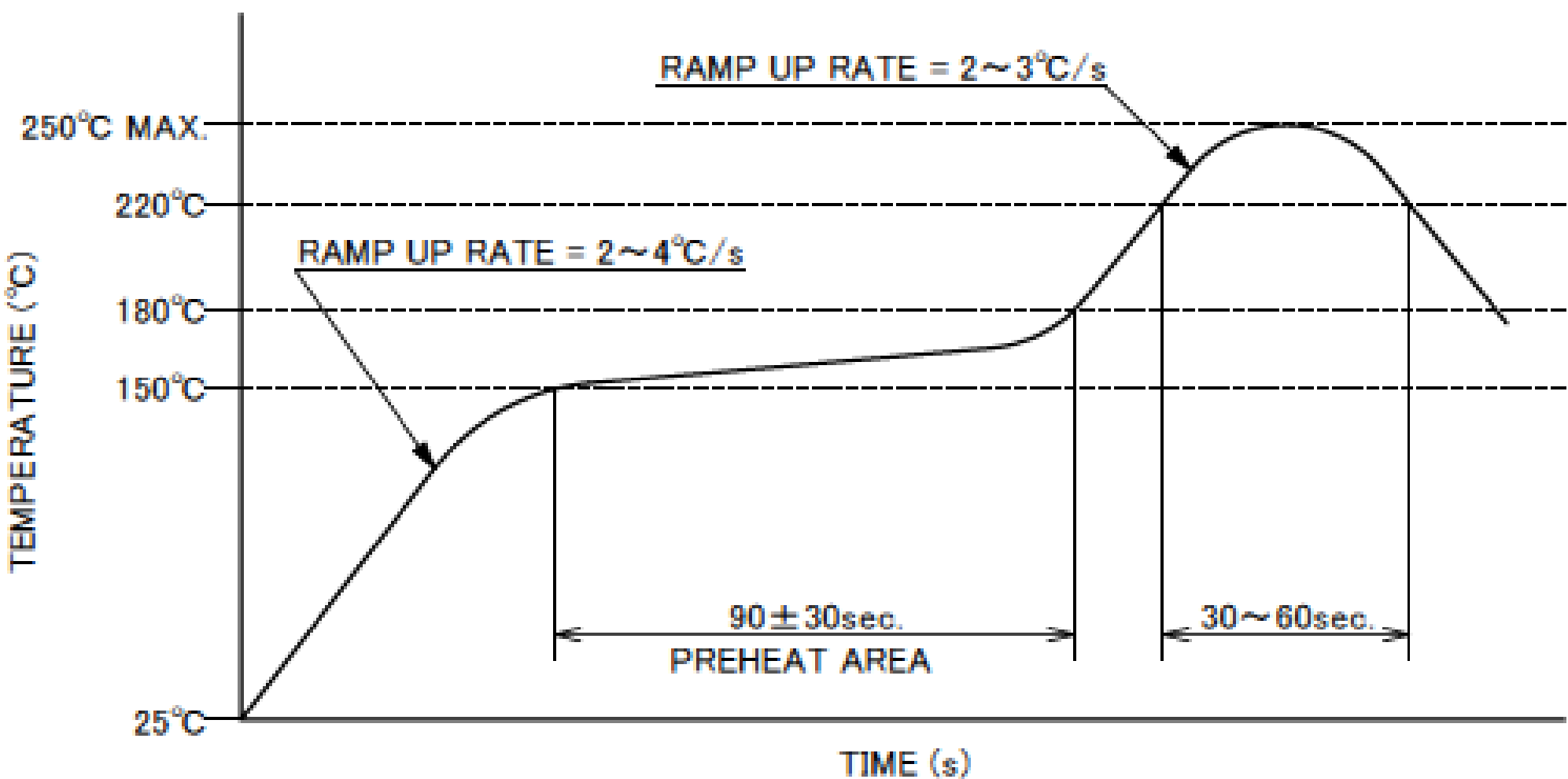


NOTES
2.MATERIAL
COVER FILM : PI
CONDUCTOR : COPPER(RARE)
BASE FILM : PI
STIFFENER : PI
ADHESIVE : THERMOSETTING ADHESIVE
3.FINISH
Au OVER Ni PLATING.

Rev.9



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.9

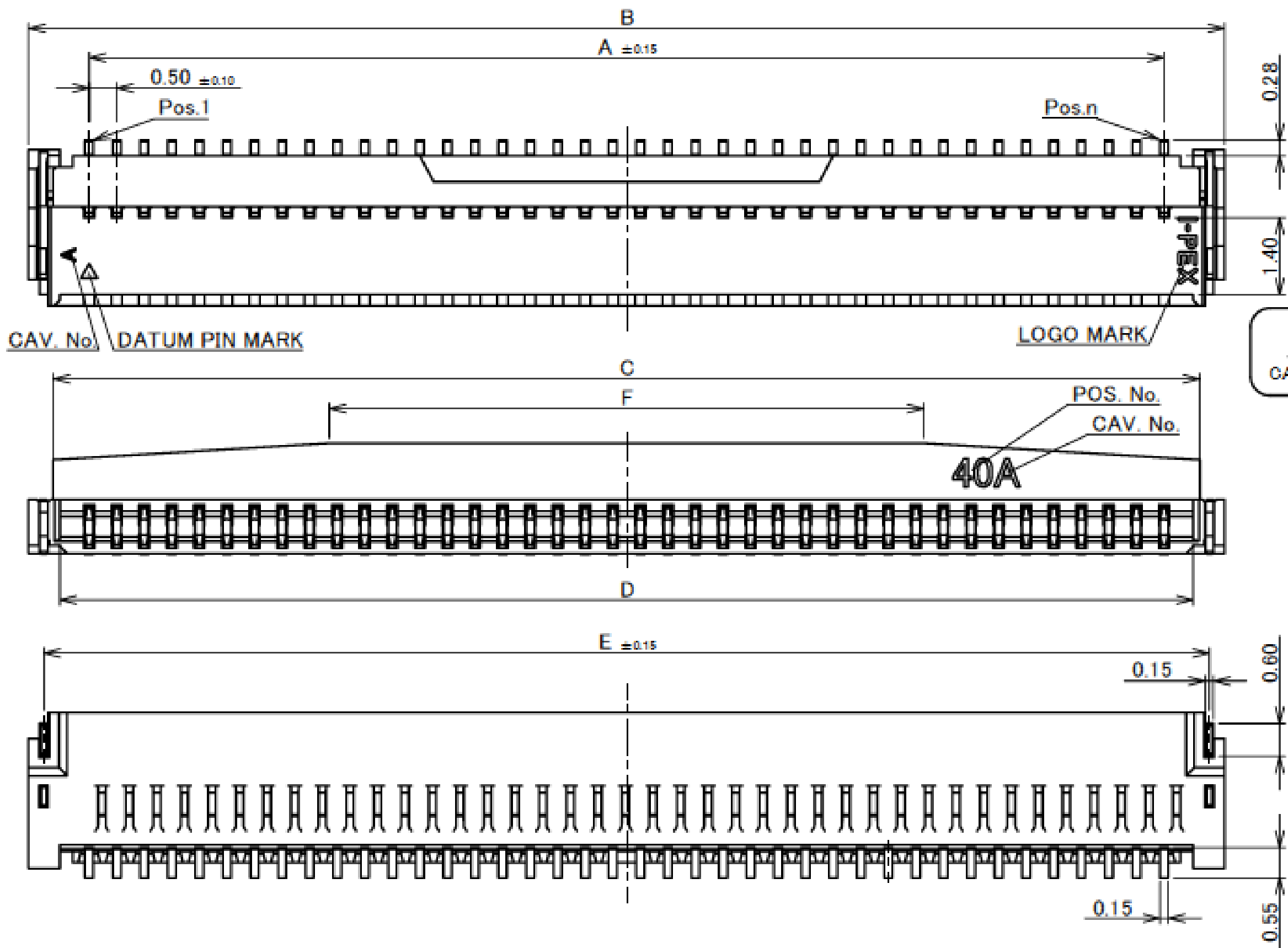
Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT PIN)
RATING AMPERAGE	0.5A DC (PER CONTACT PIN) 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 : 120mohm 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) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : 0.05N(5gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL / AFTER TEST : 0.15N(15gf) × n MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-1619
TEST REPORT	TR-12124
PACKING STANDARD	300-963
INSTRUCTION MANUAL	HIM-12019
APPEARANCE CRITERIA No.	QLS-A***

※ “n” IS THE NUMBER OF PIN

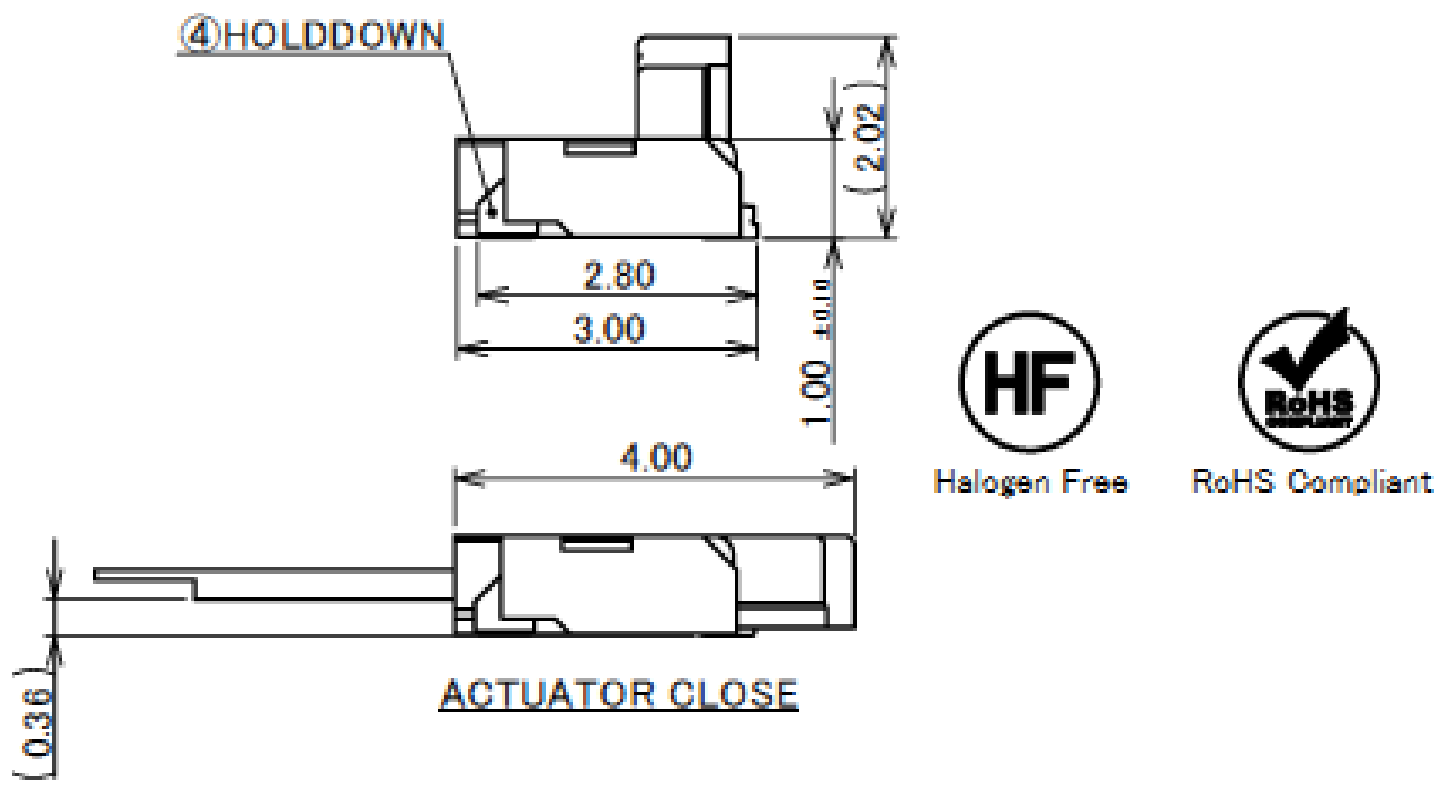
Rev.9

Recommended P/N 20586-0**E-01



PART No.	POS.	A	B	C	D	E	F
20586-032E-01	32	15.50	17.70	16.80	16.56	17.15	10.80
20586-034E-01	34	16.50	18.70	17.80	17.56	18.15	11.80
◆20586-036E-01	36	17.50	19.70	18.80	18.56	19.15	8.80
20586-040E-01	40	19.50	21.70	20.80	20.56	21.15	10.80
◆20586-044E-01	44	21.50	23.70	22.80	22.56	23.15	12.80
◆20586-048E-01	48	23.50	25.70	24.80	24.56	25.15	9.80
20586-050E-01	50	24.50	26.70	25.80	25.56	26.15	10.80
20586-054E-01	54	26.50	28.70	27.80	27.56	28.15	12.80
◆20586-060E-01	60	29.50	31.70	30.80	30.56	31.15	15.80

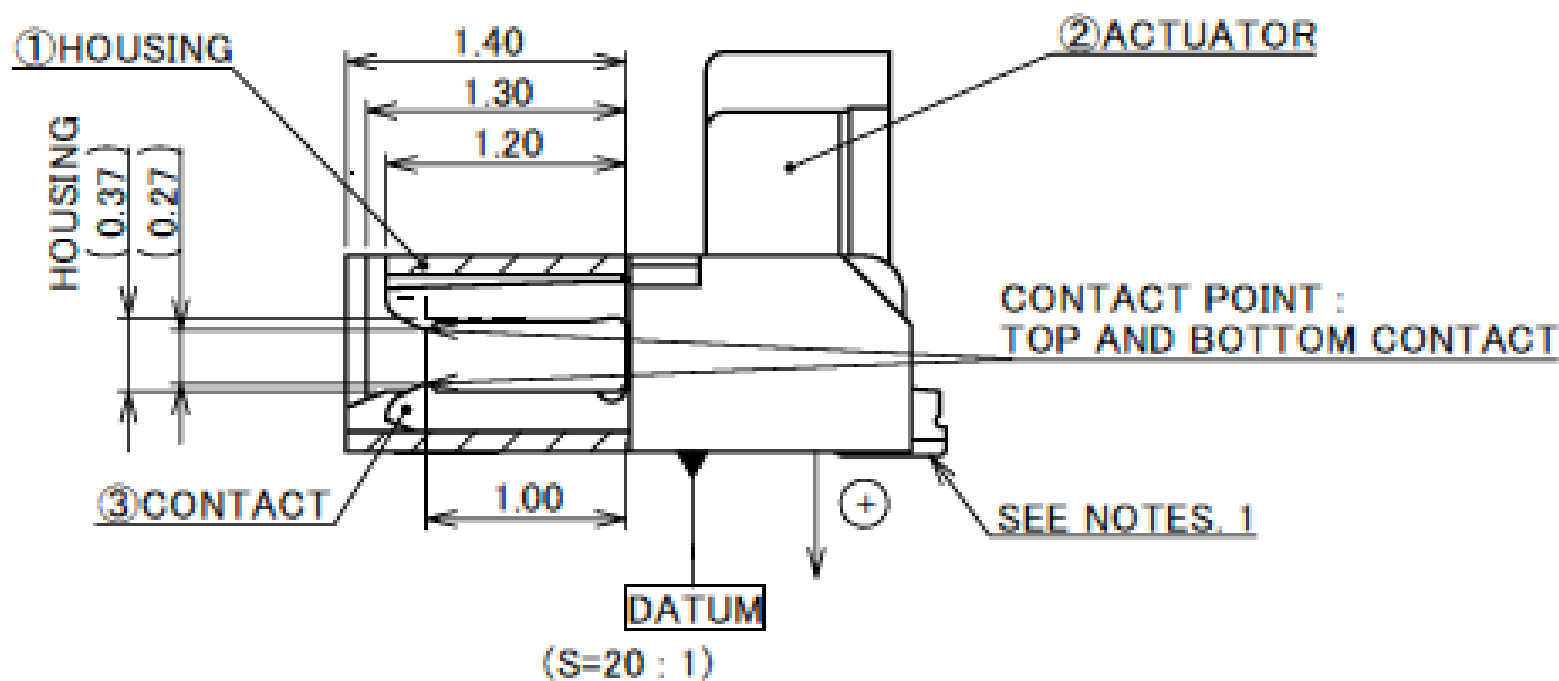
CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.



Halogen Free



RoHS Compliant



4	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 μ m MIN.OVER Ni 1.00 μ m MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 μ m MIN. OVER Ni 1.0 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.0 μ m MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING	LCP	UL94V-0, BEIGE
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

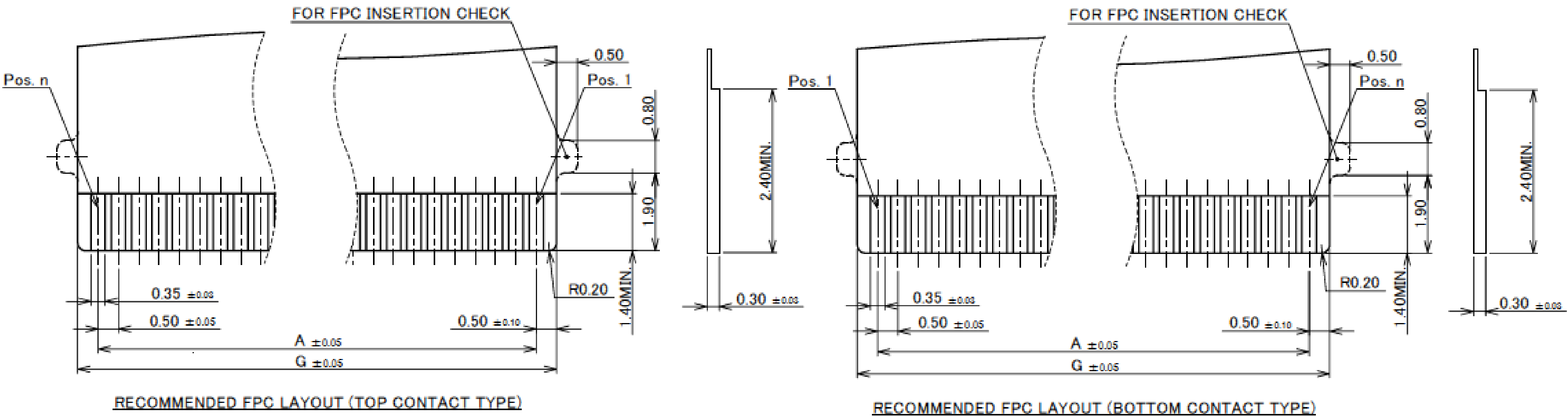
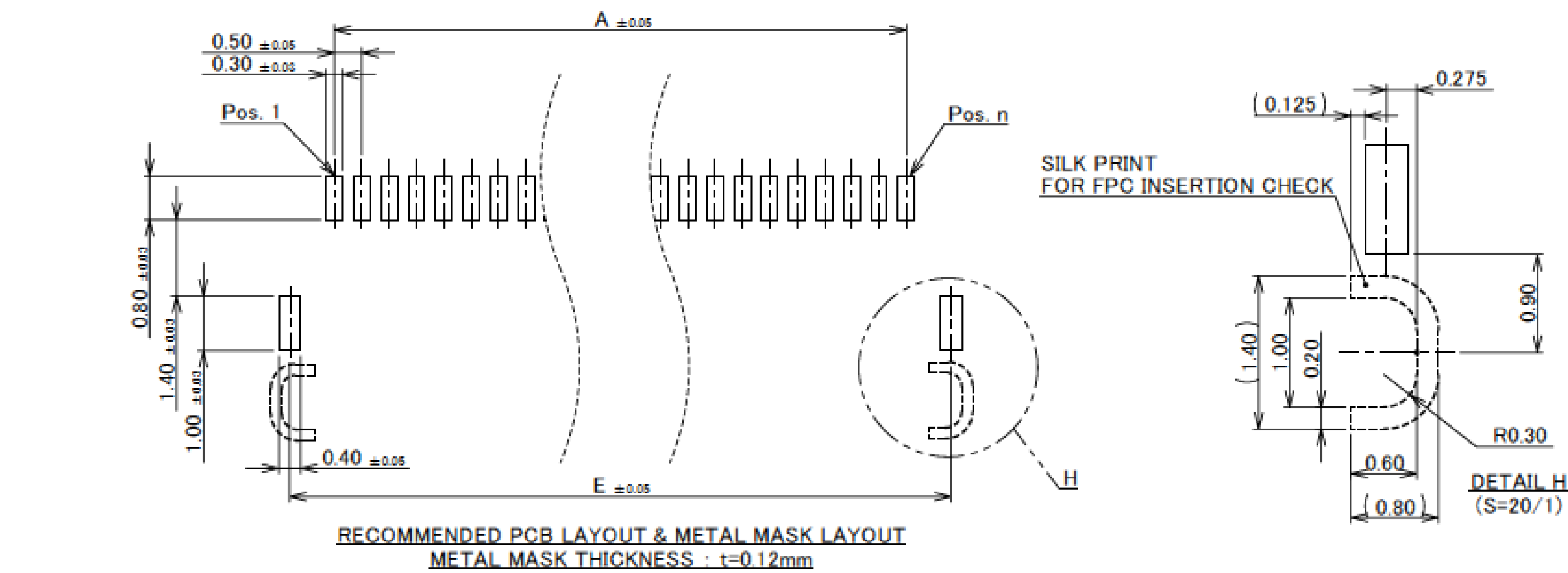
NOTES
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

Rev.10

Connector Assembly

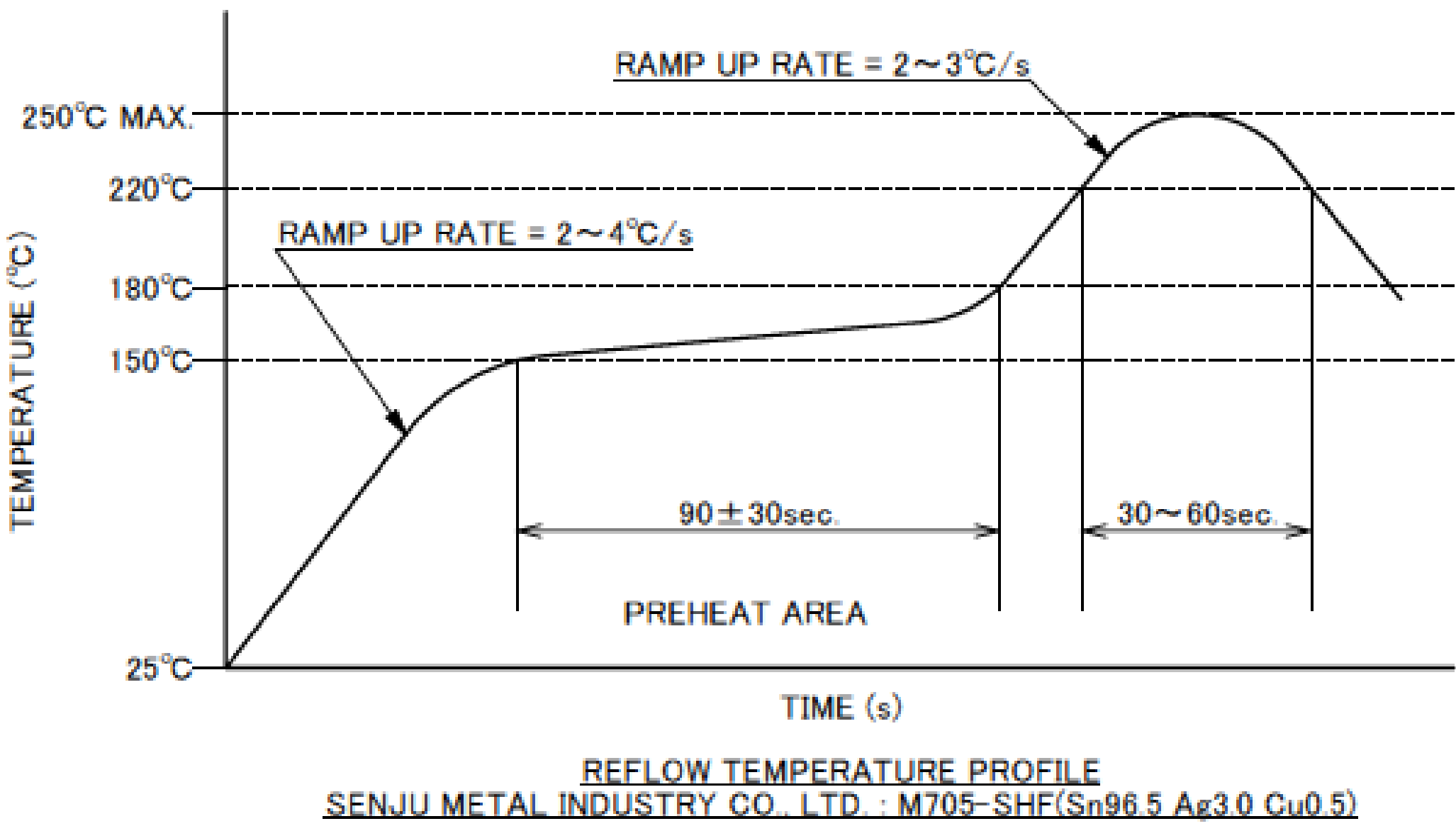
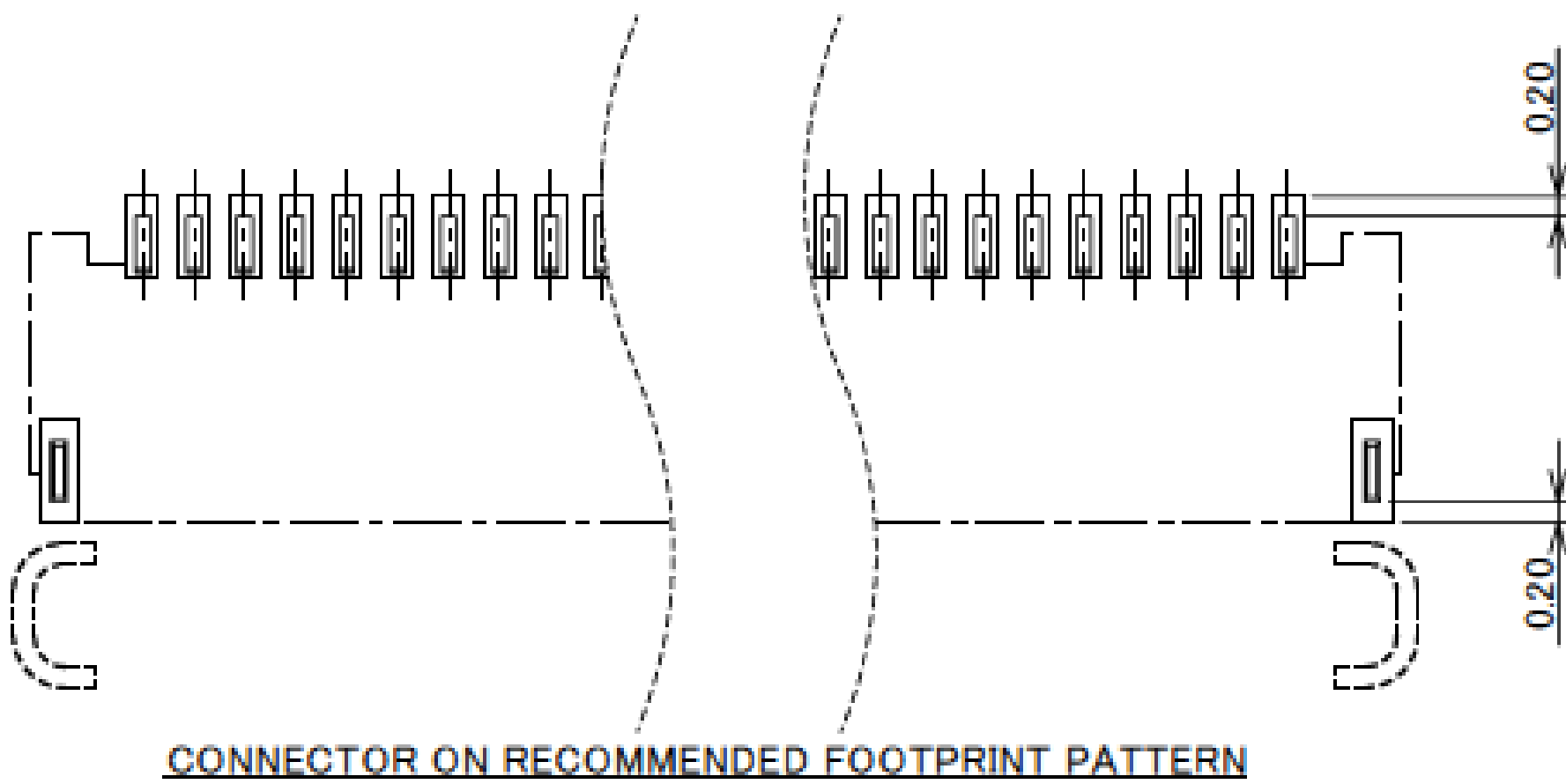
PART No.	POS.	A	E	G
20586-032E-01	32	15.50	17.15	16.50
20586-034E-01	34	16.50	18.15	17.50
◆20586-036E-01	36	17.50	19.15	18.50
20586-040E-01	40	19.50	21.15	20.50
◆20586-044E-01	44	21.50	23.15	22.50
◆20586-048E-01	48	23.50	25.15	24.50
20586-050E-01	50	24.50	26.15	25.50
20586-054E-01	54	26.50	28.15	27.50
◆20586-060E-01	60	29.50	31.15	30.50

◆ 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.

Rev.10



Rev.10

Connector Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC (PER CONTACT PIN)
RATING AMPERAGE	0.5A DC (PER CONTACT PIN) 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 : \leq 120mohm MAX.
INSULATION RESISTANCE	100Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC200V 1min
DURABILITY	20TH CYCLES
ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : 0.43N (44gf) × n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : 0.025N (2.5gf) × n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL / AFTER TEST : 0.15N (15gf) × n MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-2056
TEST REPORT	TR-15070
PACKING STANDARD	PST-13064
INSTRUCTION MANUAL	HIM-12019
APPEARANCE CRITERIA No.	QLS-A***

※ “n” IS THE NUMBER OF PIN

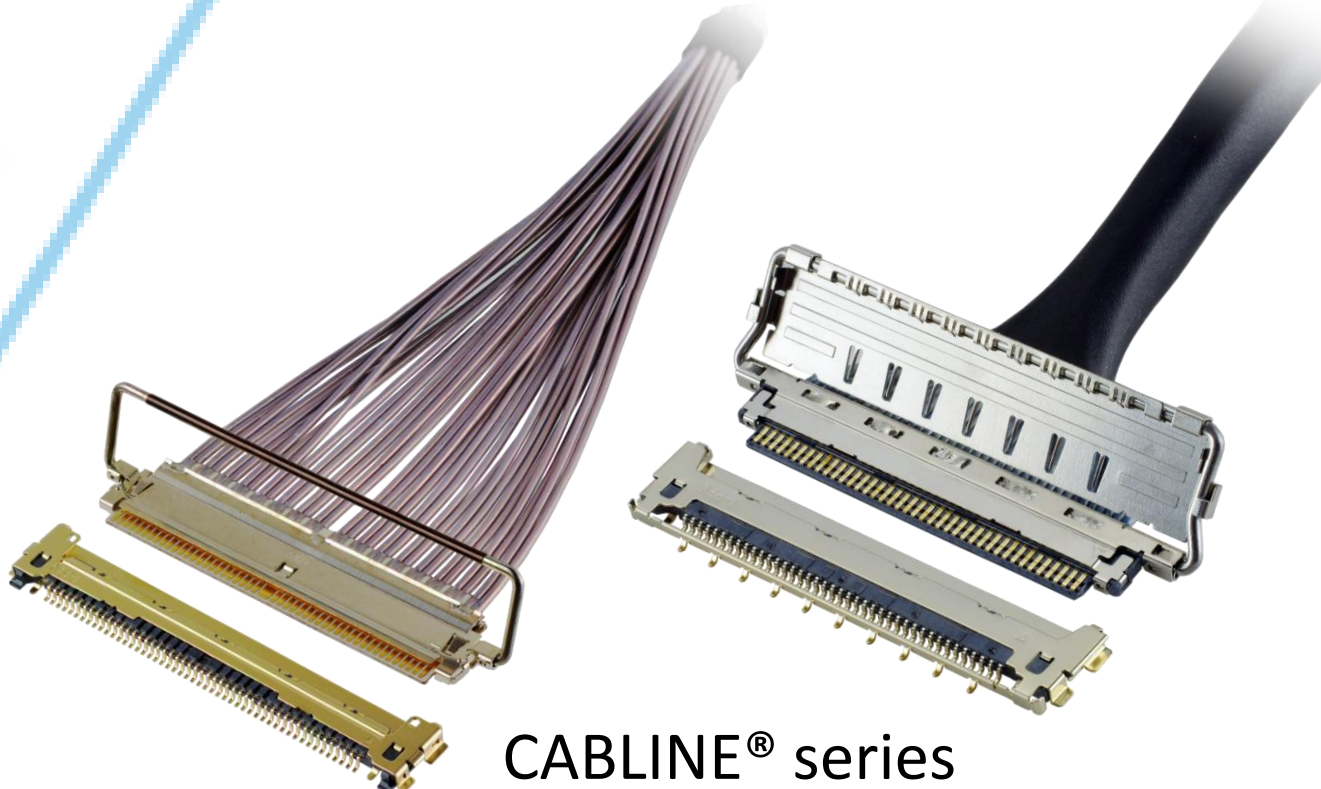
Custom Connectors Available

 RF
Connectors

MHF® series



CABLINE® series

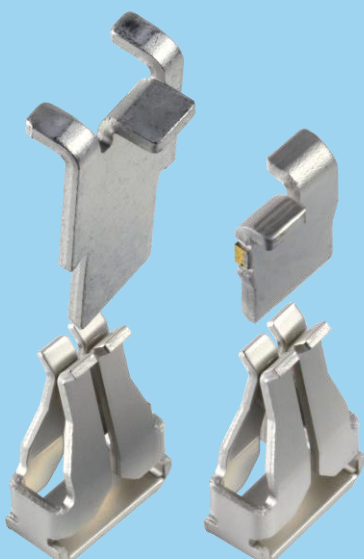


Micro-Coaxial/Twinax
Connectors



Wire-to-Board
Connectors/
Terminals

AP series



ISH® series



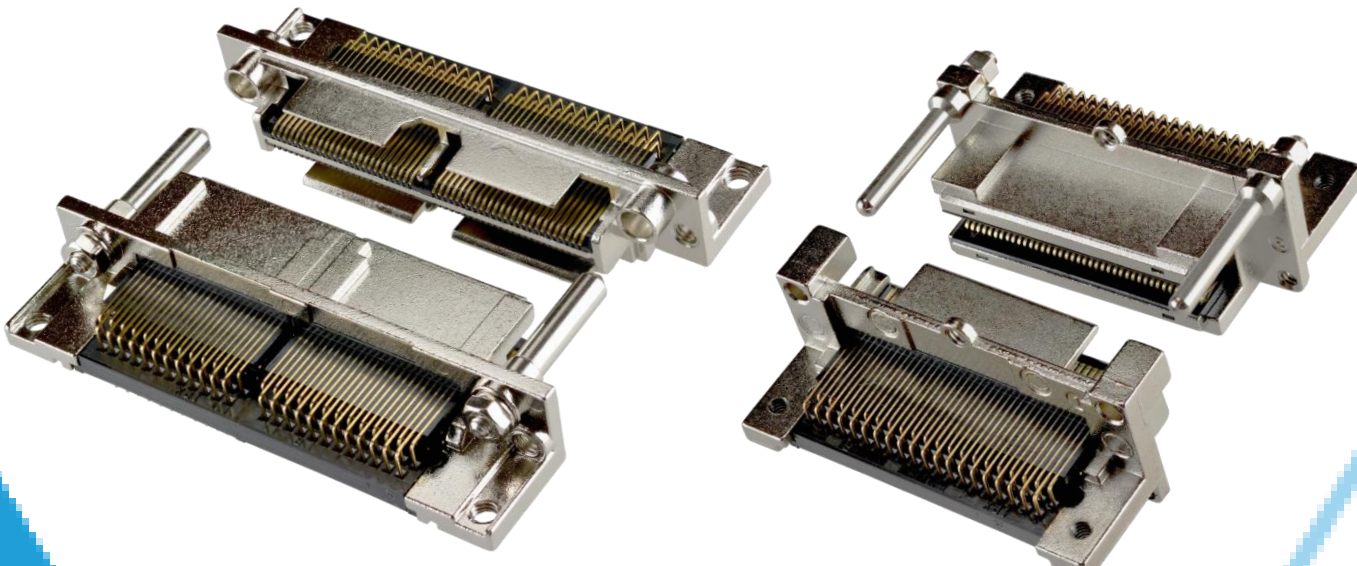
NOVASTACK® series



Board-to-Board
Connectors



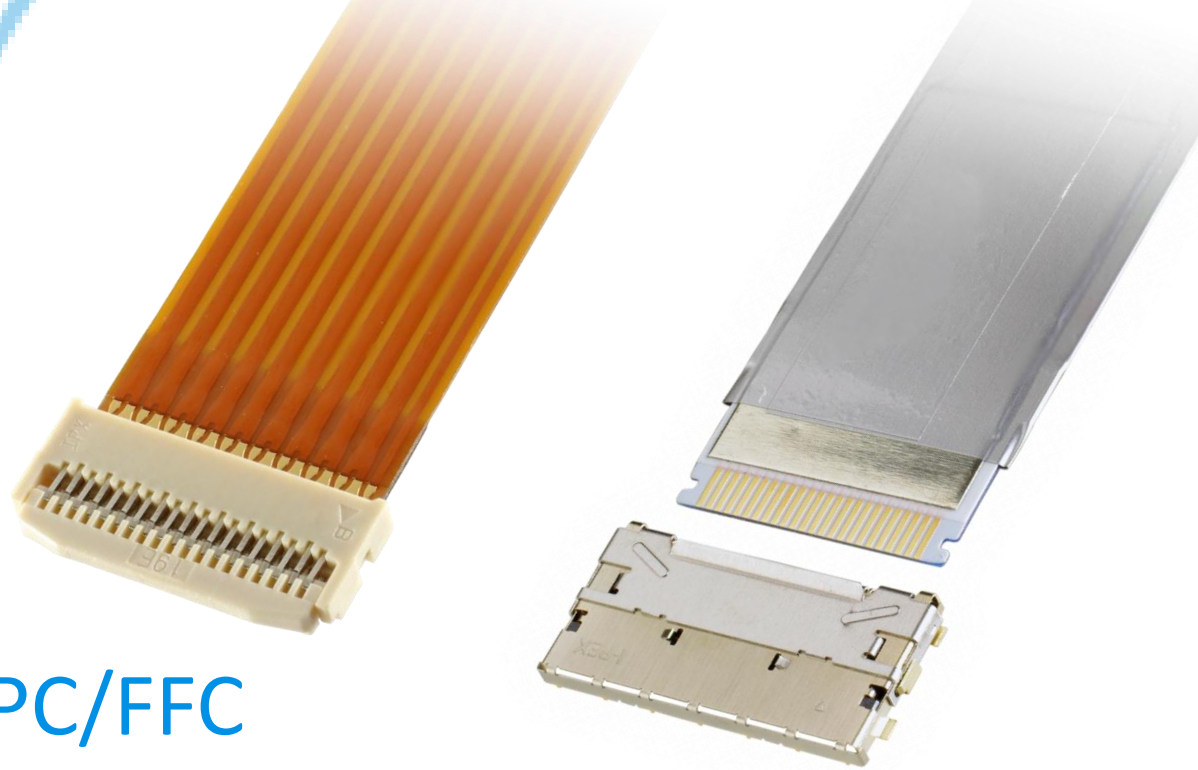
I/O
Connectors



MINIDOCK™ series

MINIFLEX® series

EVAFLEX® series



FPC/FFC
Connectors



Inquiry



I-PEX, MHF, CABLINE, NOVASTACK, ISH, IARPB, MINIFLEX, EVAFLEX, MINIDOCK and ZenShield are registered trademarks of I-PEX Inc. Please note that the contents in the catalog might be changed without prior notification. I-PEX Inc. assumes no responsibility for any inaccuracies or obligation to update information on these documents. Please be sure to read and understand the latest “Precautions for Use” and “Instruction Manual” before you use our products. We shall not be responsible for any defects, damages or troubles in case you use our products without following the precautions for use. Please feel free to contact our sales representatives when you use our products for any applications that require very high reliability and safety, or that relate to human life (ex. nuclear power control, aerospace, transportation, medical equipment, safety equipment etc.).

Contact your sales representative
or more detailed information.

www.i-pex.com



I-PEX

© I-PEX Inc. 2025
All rights reserved