

# MINIFLEX<sup>®</sup> 5-BFN II

Hold down款式的坚固设计, 高温环境(125°C), 低背(高度 1.0 mm), 0.5 mm 间距, 水平插拔, 后锁式

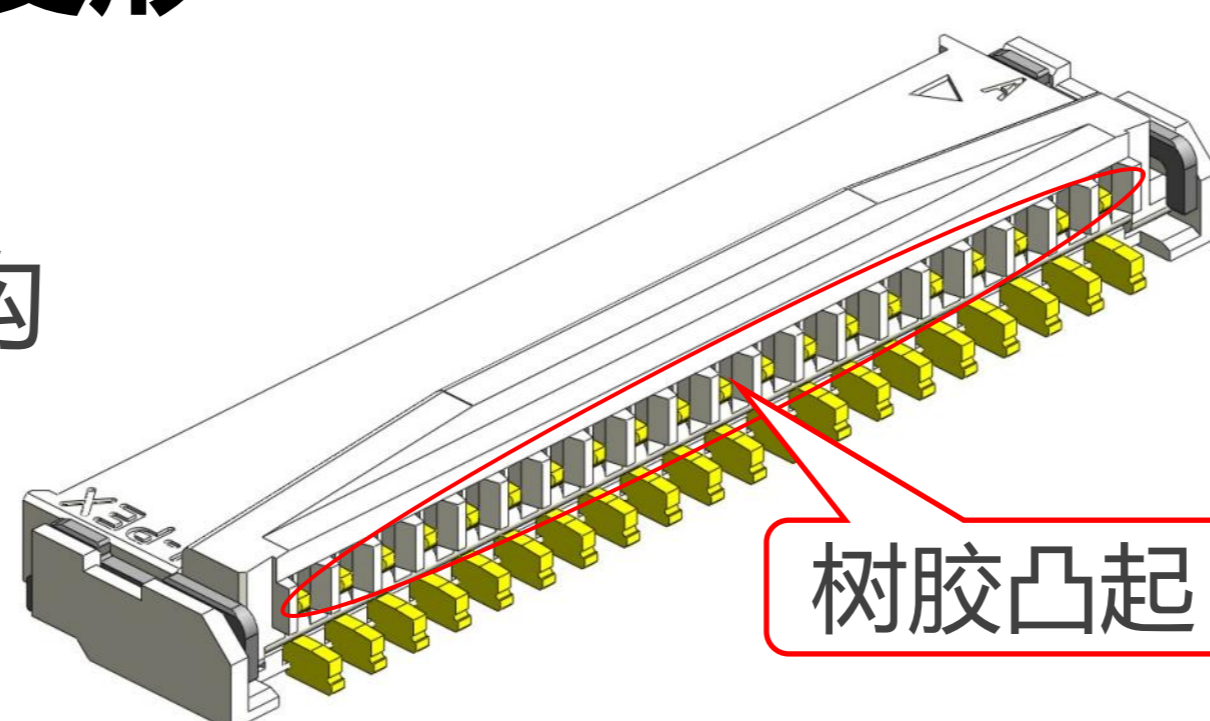
Product Specifications:		Short Actuator	Long Actuator	Applicable FPC/FFC:	
Board Pitch		0.5 mm		FPC/FFC Contact Pitch	0.5
Wiping Length		1 mm		FPC/FFC Contact Point	Top and Bottom
Size	Height	1.0 +/- 0.1 mm		FPC/FFC Thickness	0.3 +/- 0.03 mm
	Width	1.7 + (0.5 x pin count) mm			
	Depth	Open: 3 mm	Close: 4.0 mm		
Pin Counts	Range	4 to 30	32 to 60		
	Available	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	32, 34, 40, 50, 54		

\*如您需要了解未列出或不在范围内的Pin数, 请咨询我们。

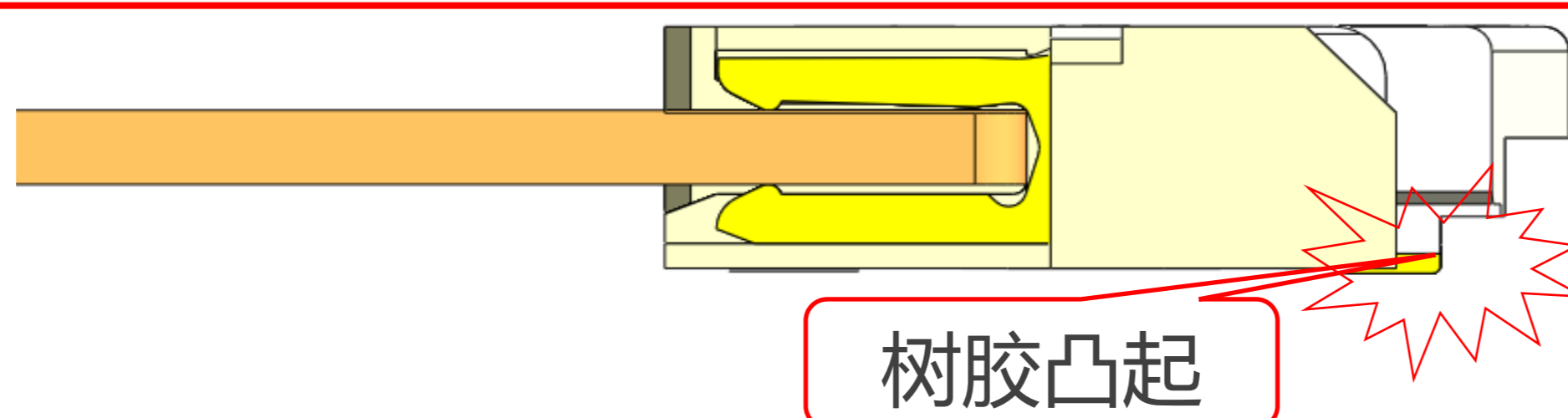


## 独特的结构, 防止端子变形

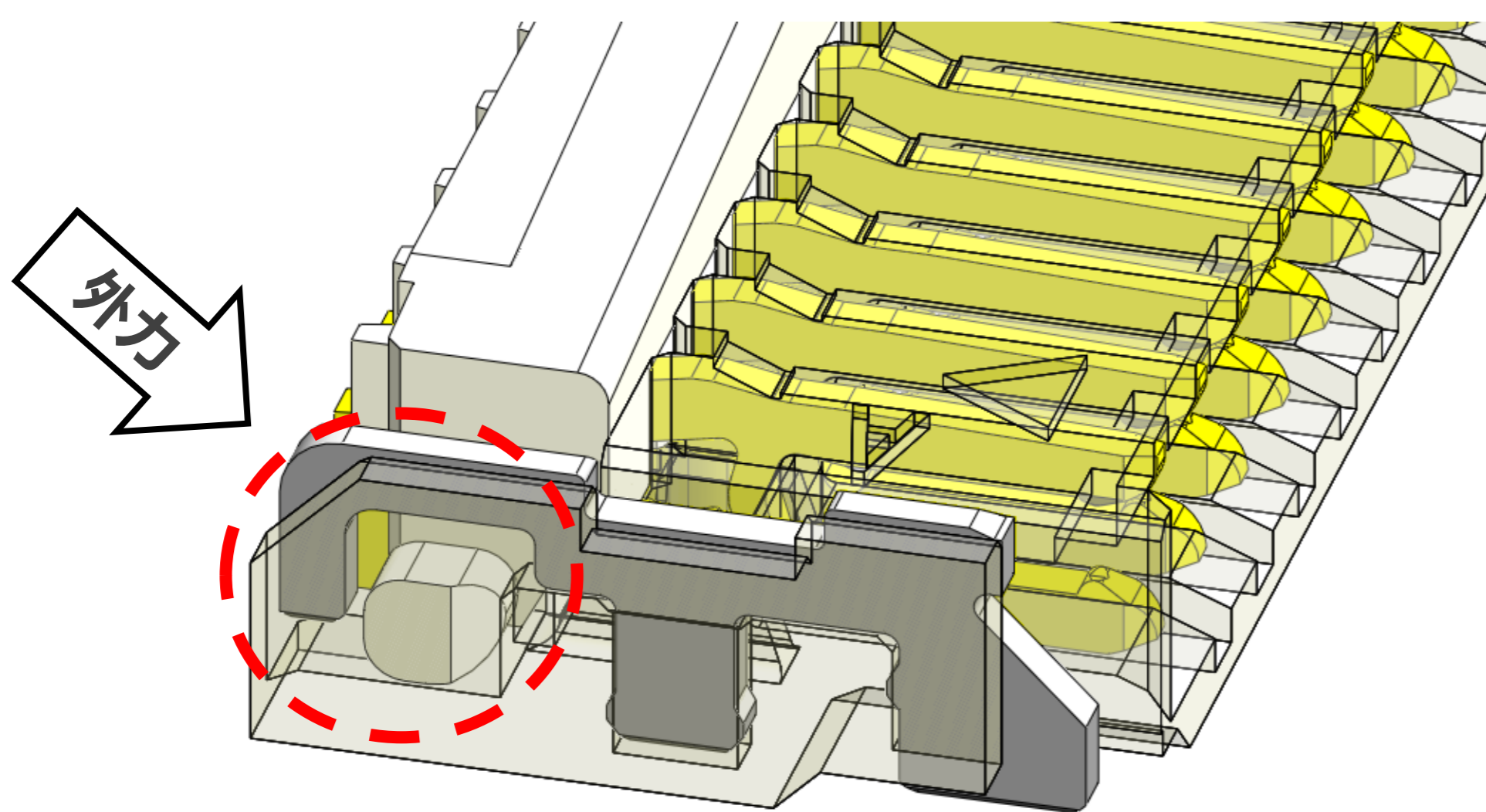
端子后部变形防止结构



当打开钢琴盖时, 树脂凸起能够防止手指甲触碰到端子, 避免端子后部变形的发生



## 独有的钢琴盖补强构造, 防止连接器脱落



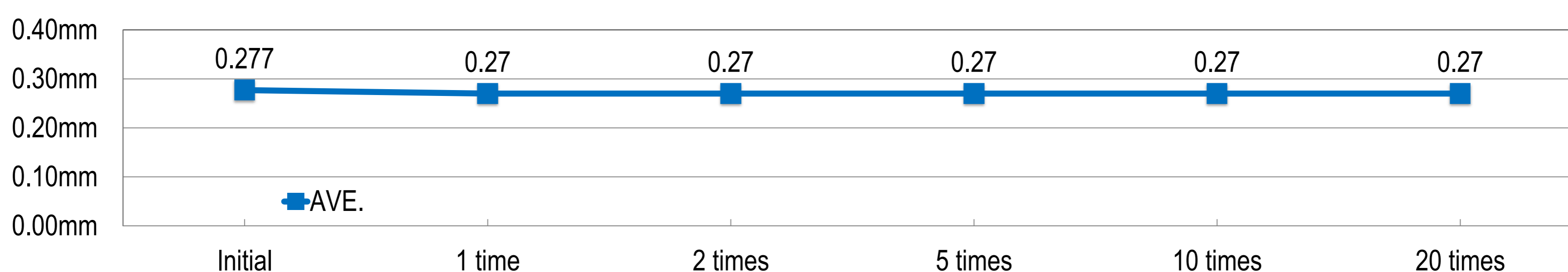
在特定位置, 即使施加100N的外力, 钢琴盖也安然无恙

\*连接器树脂壳体先行被破坏  
\*外力施加位置和方向: 后侧30°

## 在没有插入 FPC 的情况下闭合钢琴盖, 连接器仍可使用

在贴片制程完成后, 即使未插入FPC情况下将钢琴盖进行空压, 连接器的功能并不会有任何影响

■ 连接器性能依然可靠 (接点间距变化图, 在连接器空压情况下实测22Pin得出的数据)



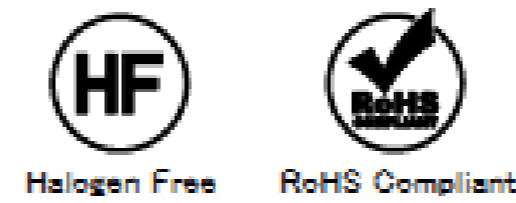
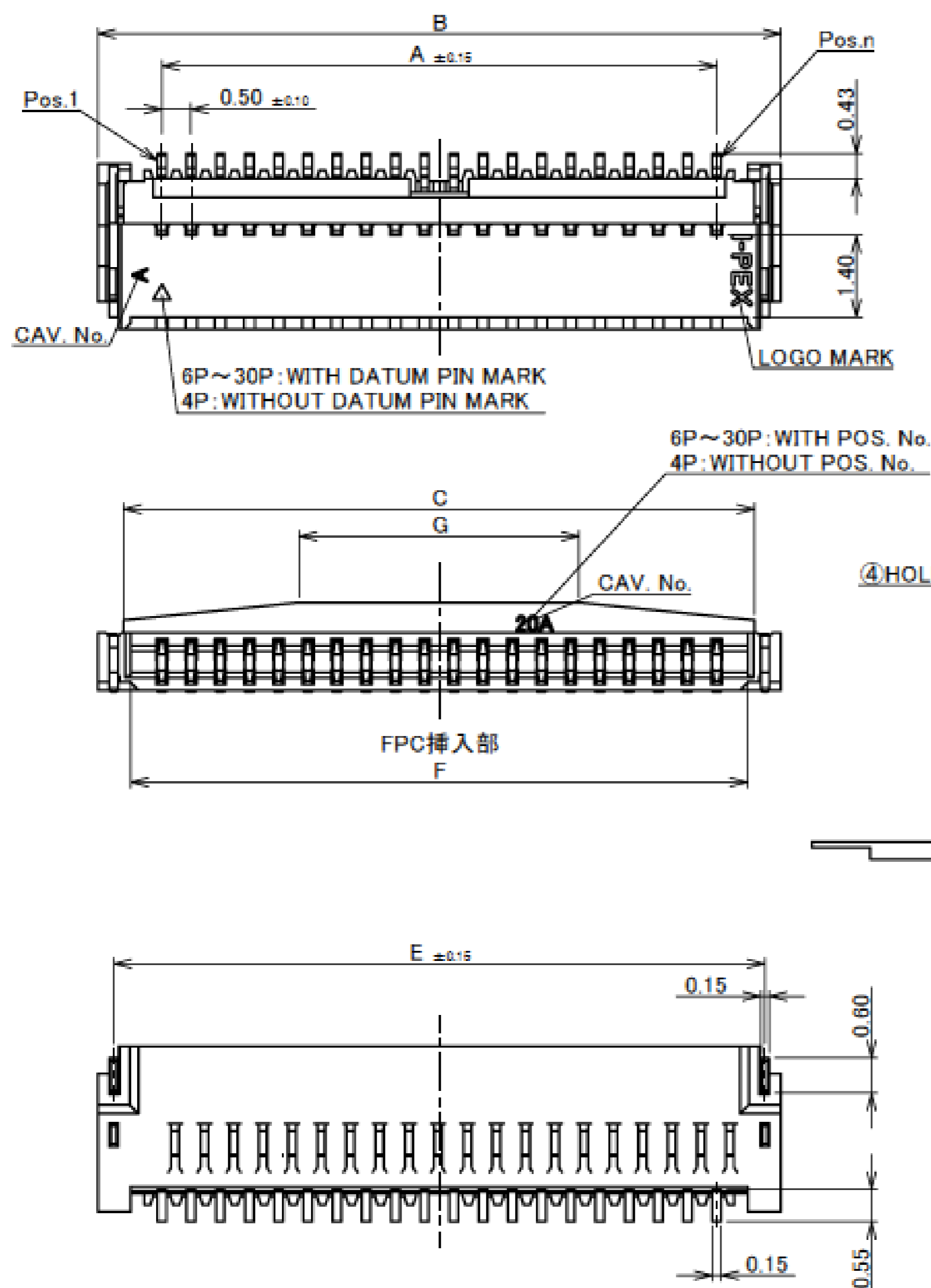
■ FPC插入力会有所上升

■ FPC保持力并不会下降

# 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

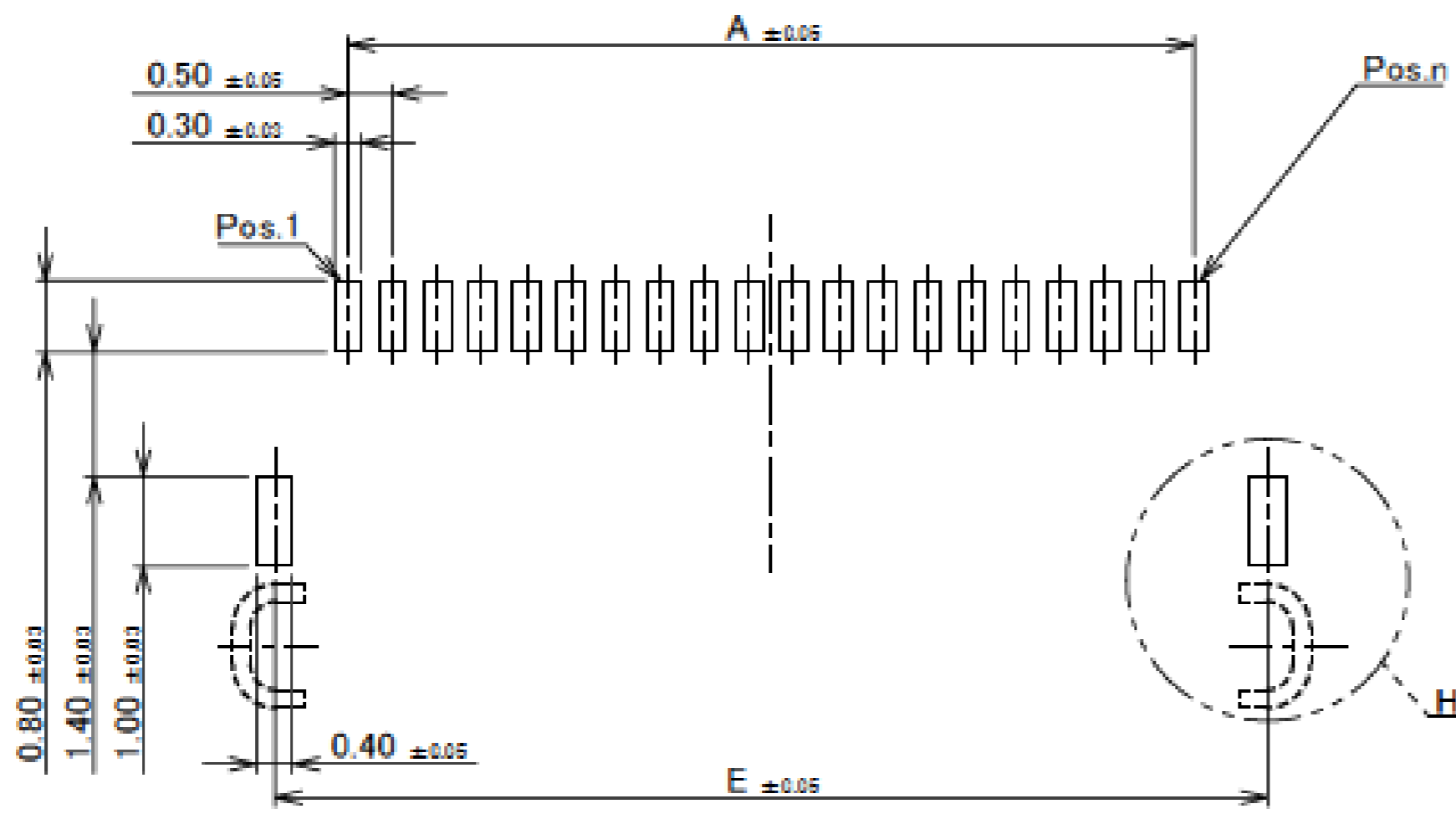
4	PHOSPHOR BRONZE	HOLD DOWN	Sn 2~6 μm MIN.OVER Ni 1.00 μm MIN.
3	PHOSPHOR BRONZE	CONTACT	CONTACT AREA : Au 0.1 μm MIN. OVER Ni 1.0 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.0 μm MIN.
2	LCP	ACTUATOR	UL94V-0, BEIGE
1	LCP	HOUSING	UL94V-0, BEIGE
NO.	MATERIAL	DISCRIPTION	FINISH , REMARKS

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

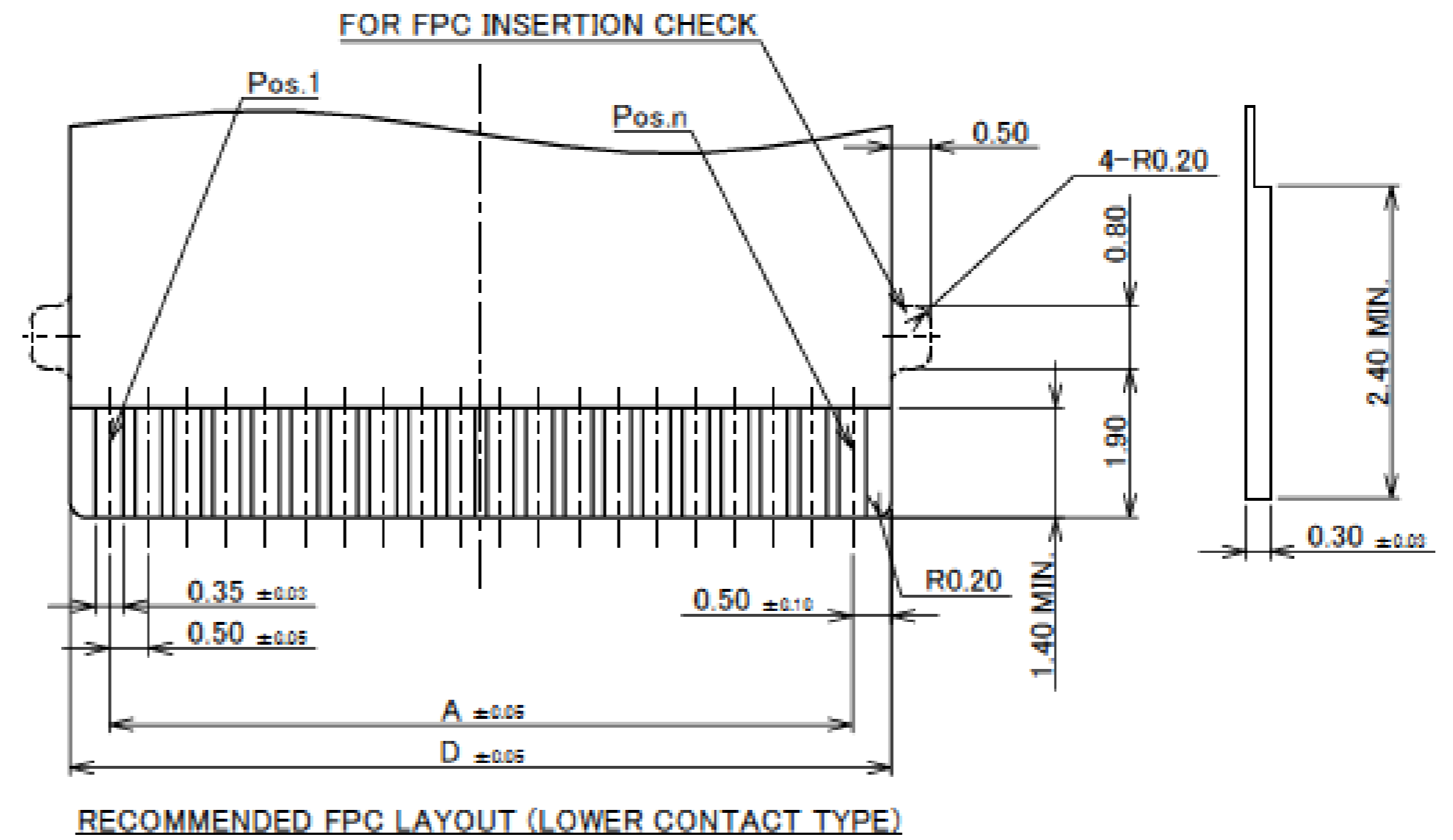
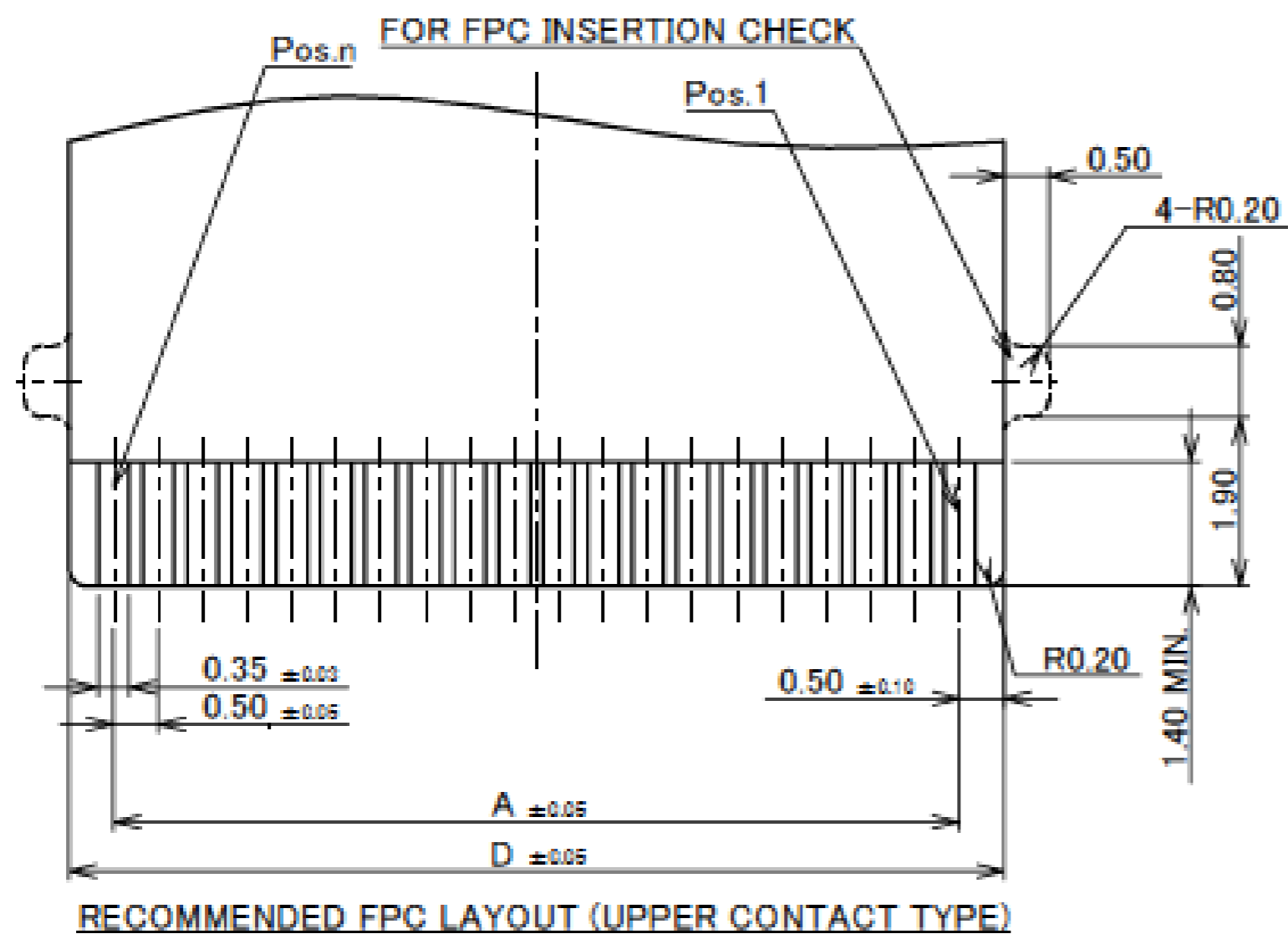
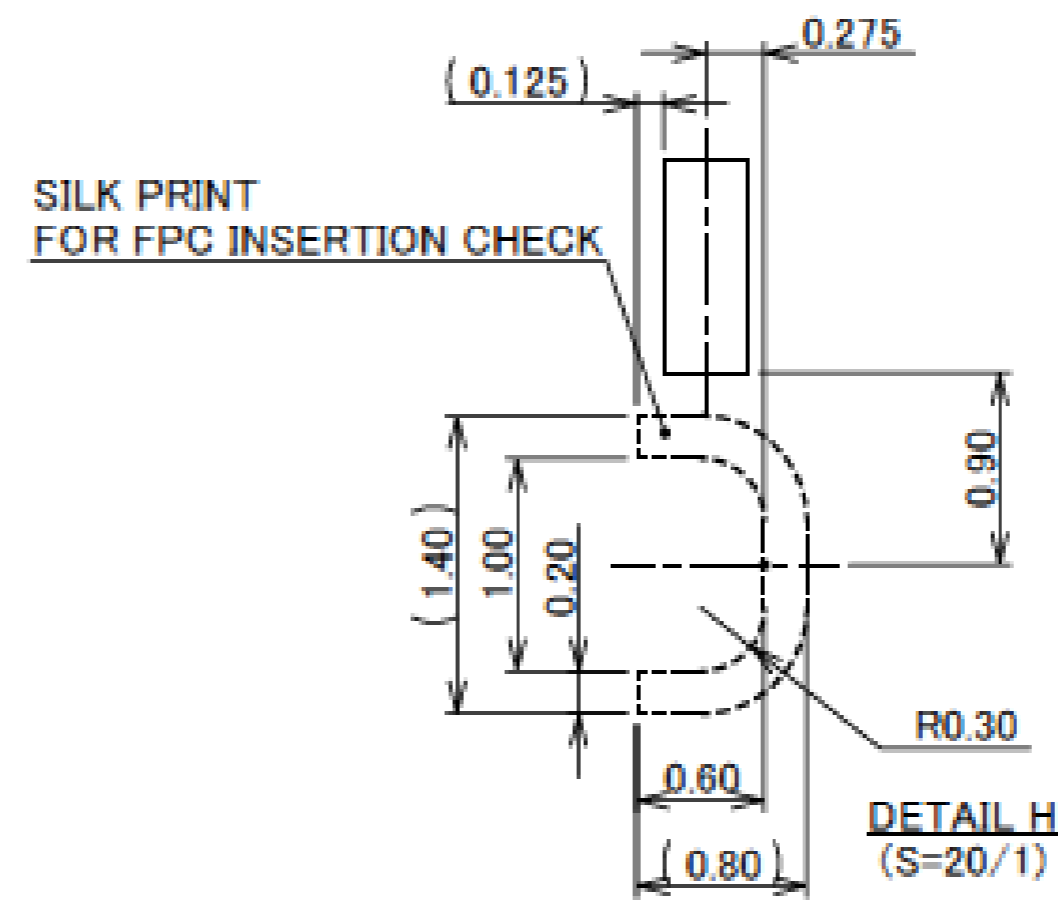
NOTES  
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

# Connector Assembly

PART No.	POS.	A	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

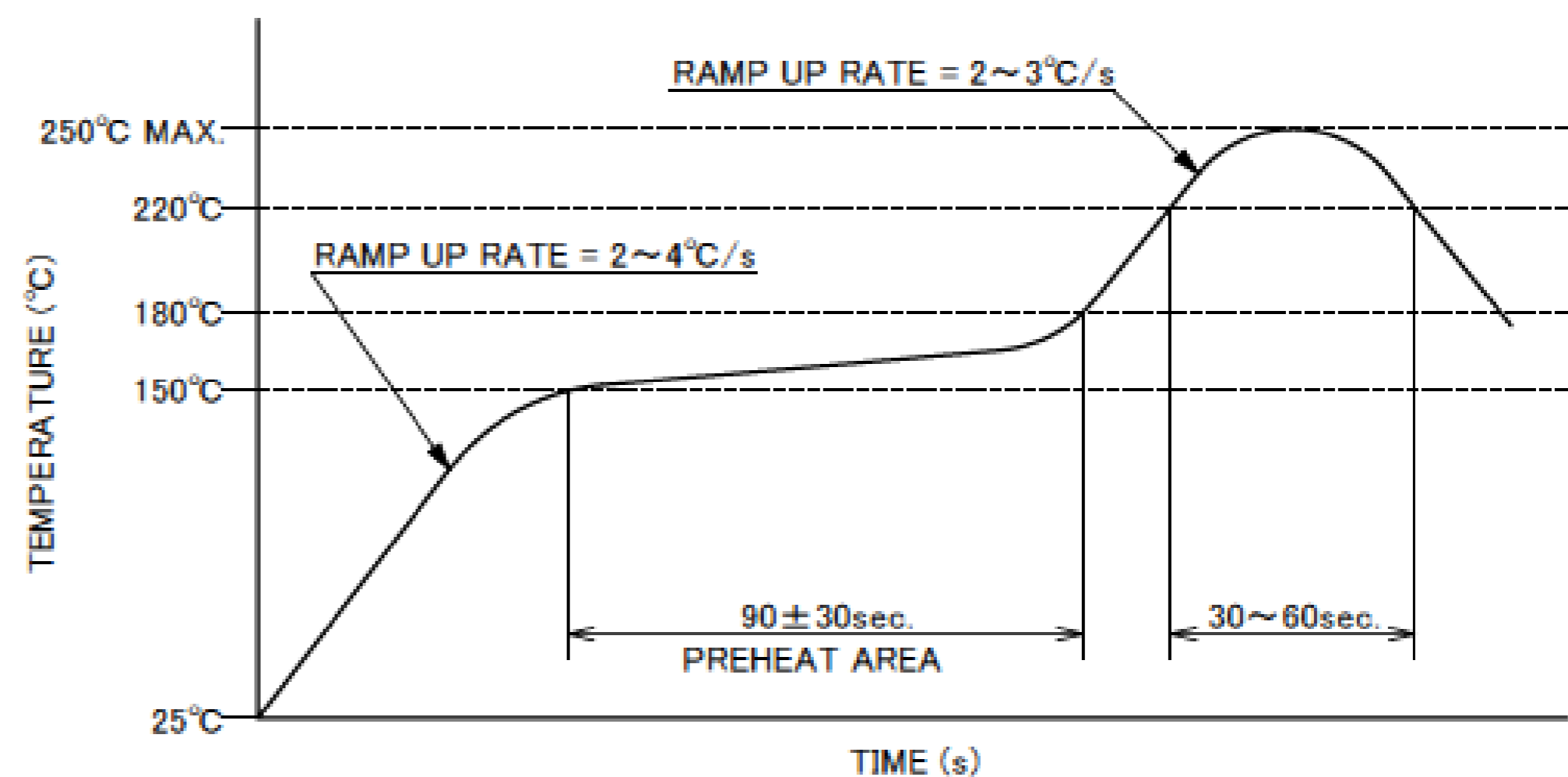


RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT  
METAL MASK THICKNESS : t=0.12mm



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

Rev.9



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

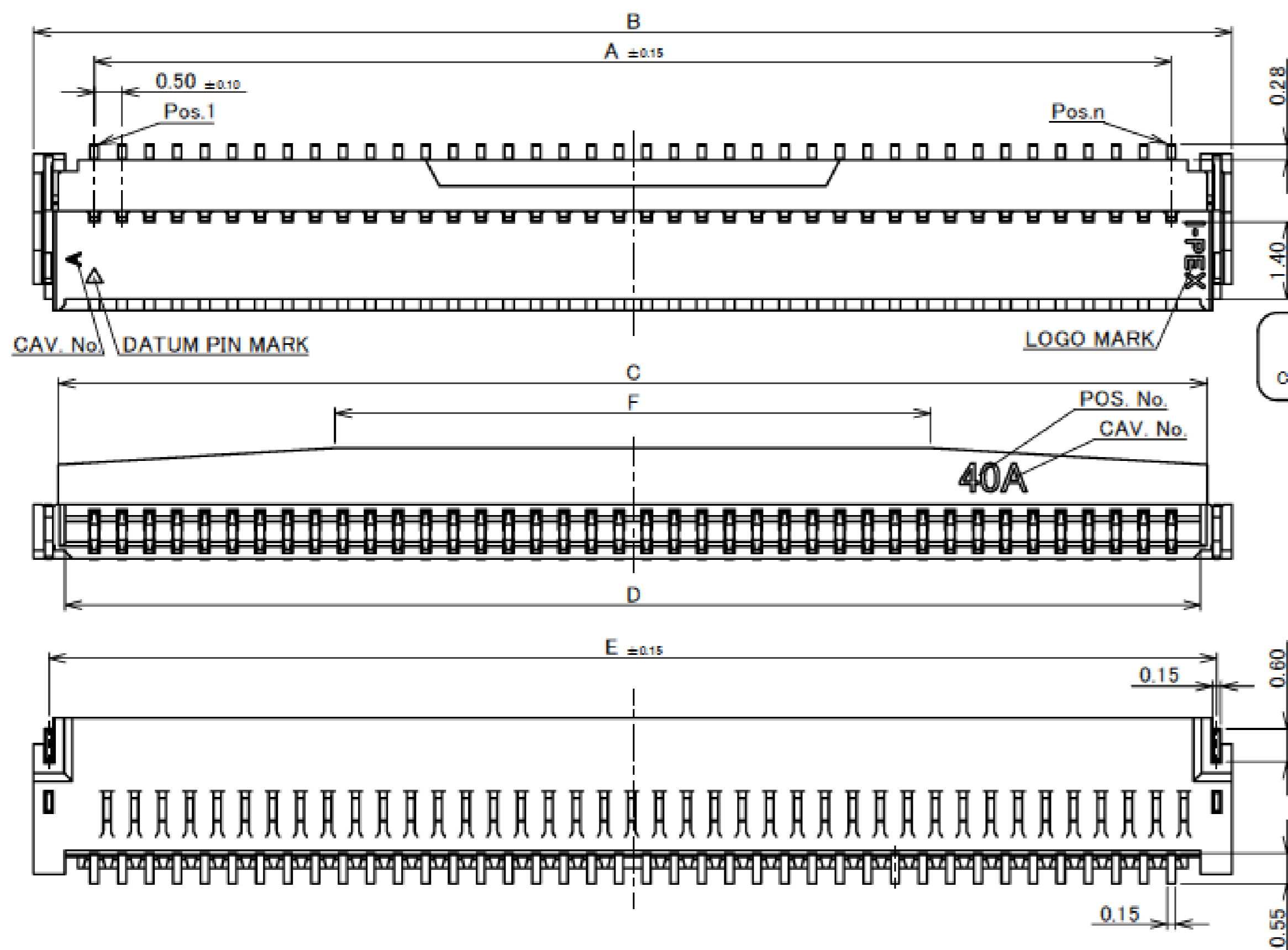
# Connector Assembly

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 : $\surd$ 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) $\times$ n MAX.
ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES)	INITIAL / 20TH CYCLES : 0.05N(5gf) $\times$ n MIN.
FPC RETENTION FORCE (INITIAL / AFTER TEST)	INITIAL / AFTER TEST : 0.15N(15gf) $\times$ 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

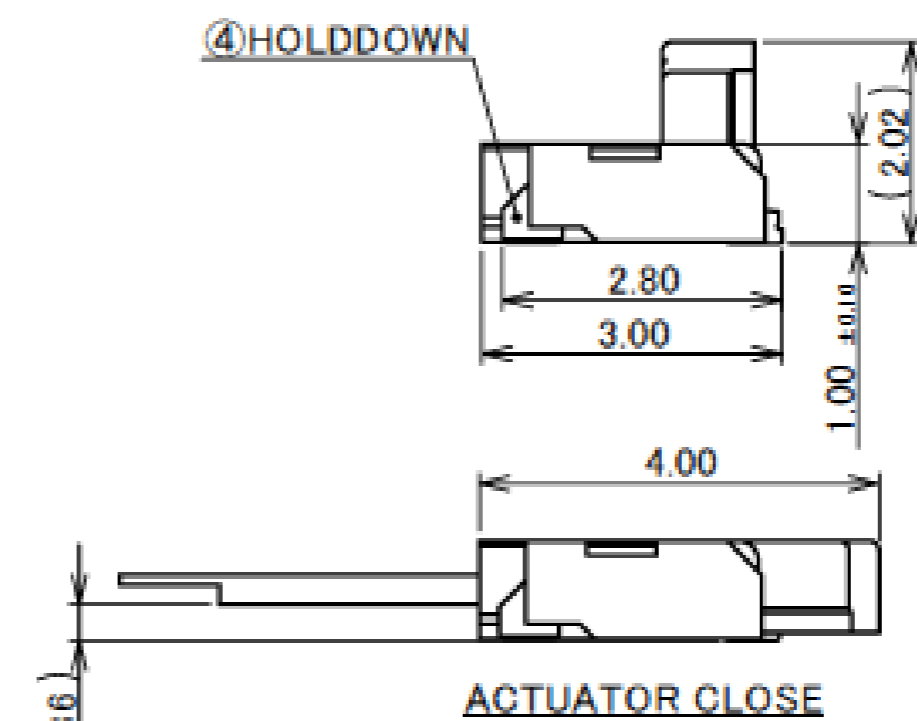
Rev.9

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

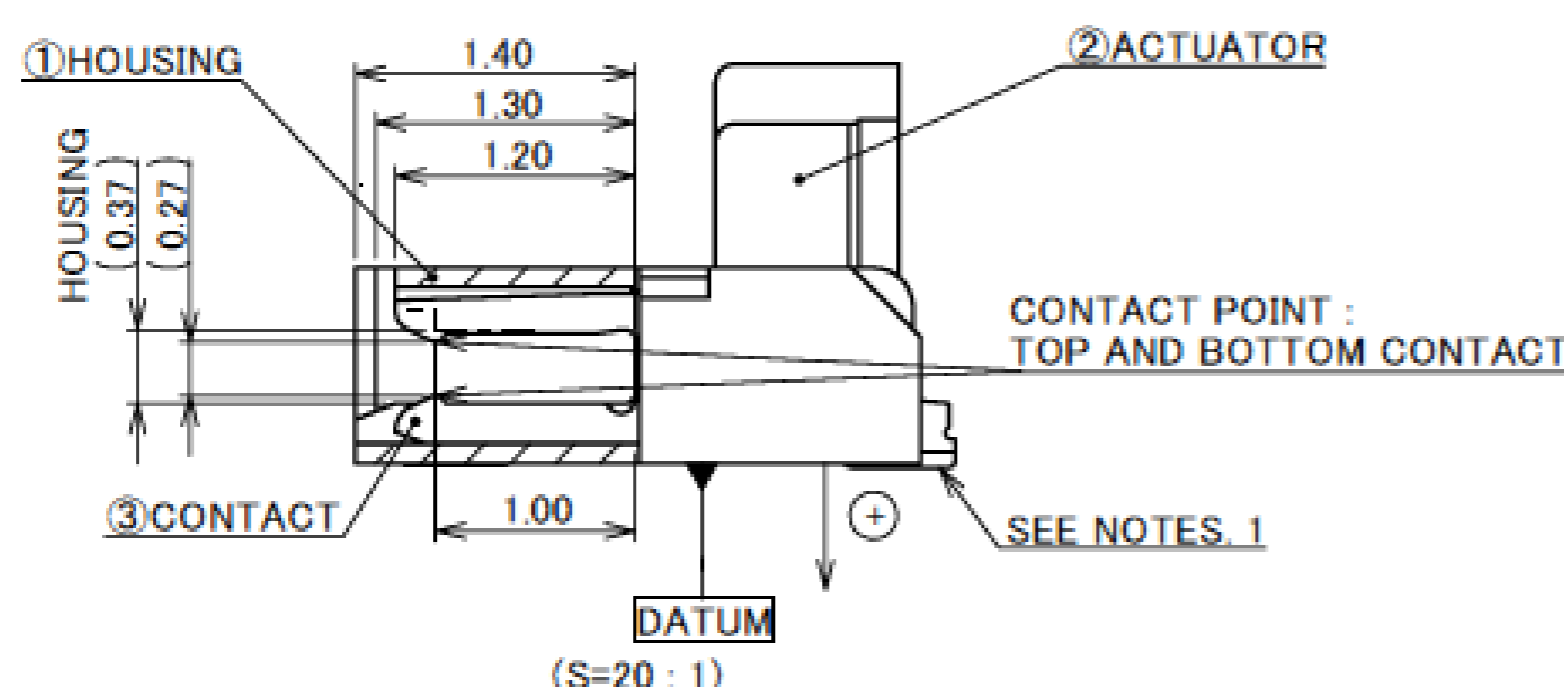


PART No.	POS.	A	B	C	D	E	F
20586-032E-01	32	15.50	17.70	16.80	16.56	17.15	10.80
20586-034E-01	34	16.50	18.70	17.80	17.56	18.15	11.80
◆20586-036E-01	36	17.50	19.70	18.80	18.56	19.15	8.80
20586-040E-01	40	19.50	21.70	20.80	20.56	21.15	10.80
◆20586-044E-01	44	21.50	23.70	22.80	22.56	23.15	12.80
◆20586-048E-01	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.



HF Halogen Free RoHS Compliant

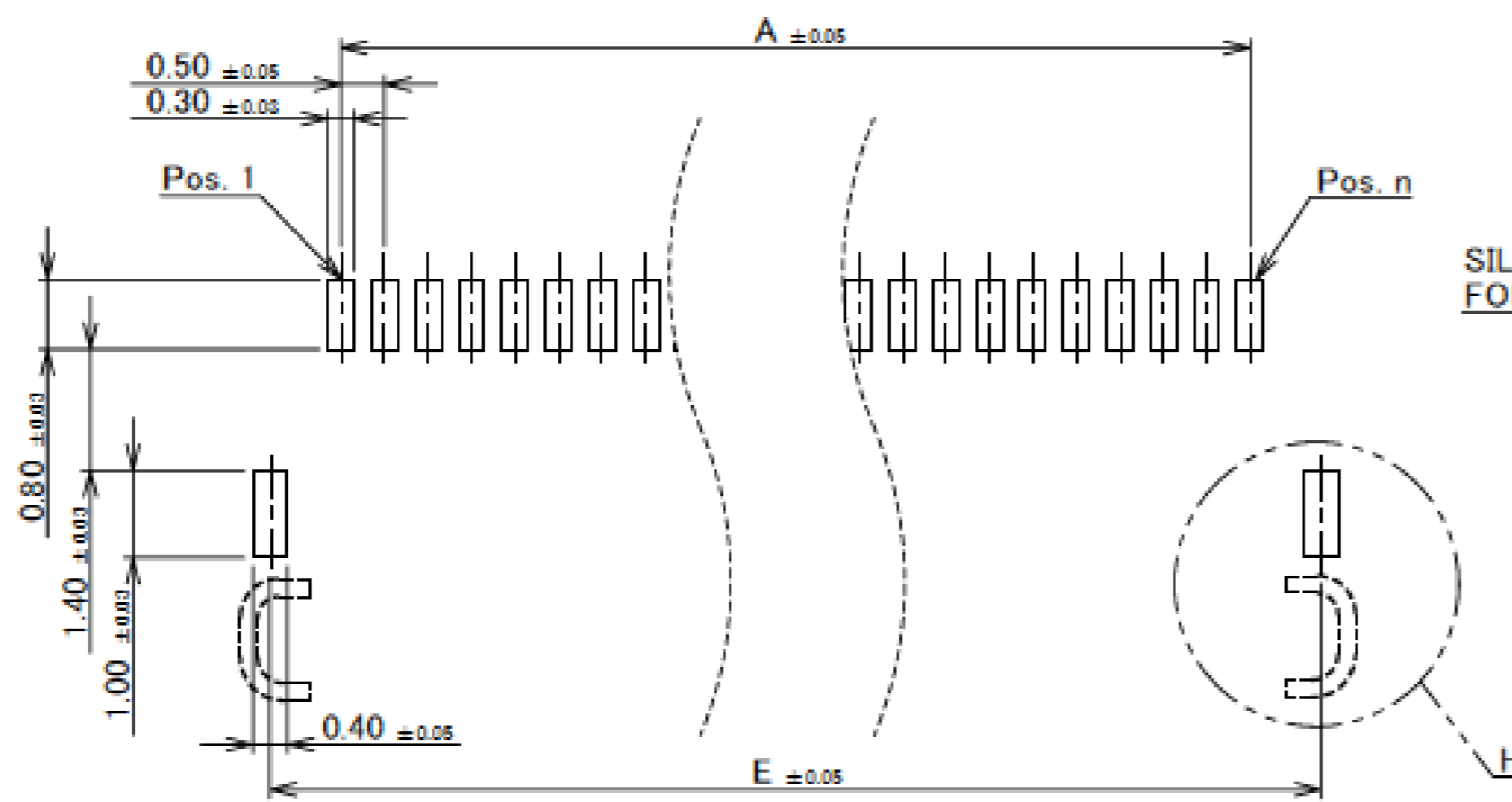


NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
4	HOLD DOWN	PHOSPHOR BRONZE	Sn 2~6 $\mu$ m MIN.OVER Ni 1.00 $\mu$ m MIN.
3	CONTACT	PHOSPHOR BRONZE	CONTACT AREA : Au 0.1 $\mu$ m MIN. OVER Ni 1.0 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN. OVER Ni 1.0 $\mu$ m MIN.
2	ACTUATOR	LCP	UL94V-0, BEIGE
1	HOUSING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

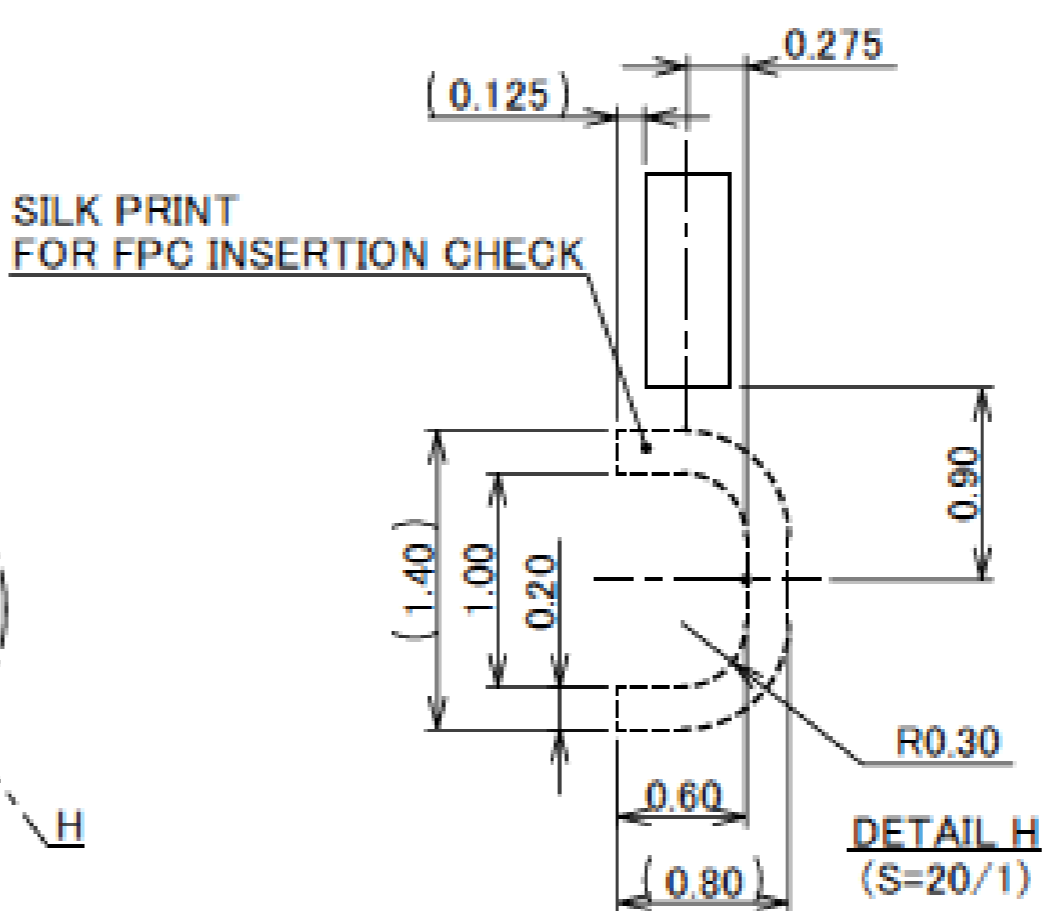
NOTES  
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

Rev.10

# Connector Assembly

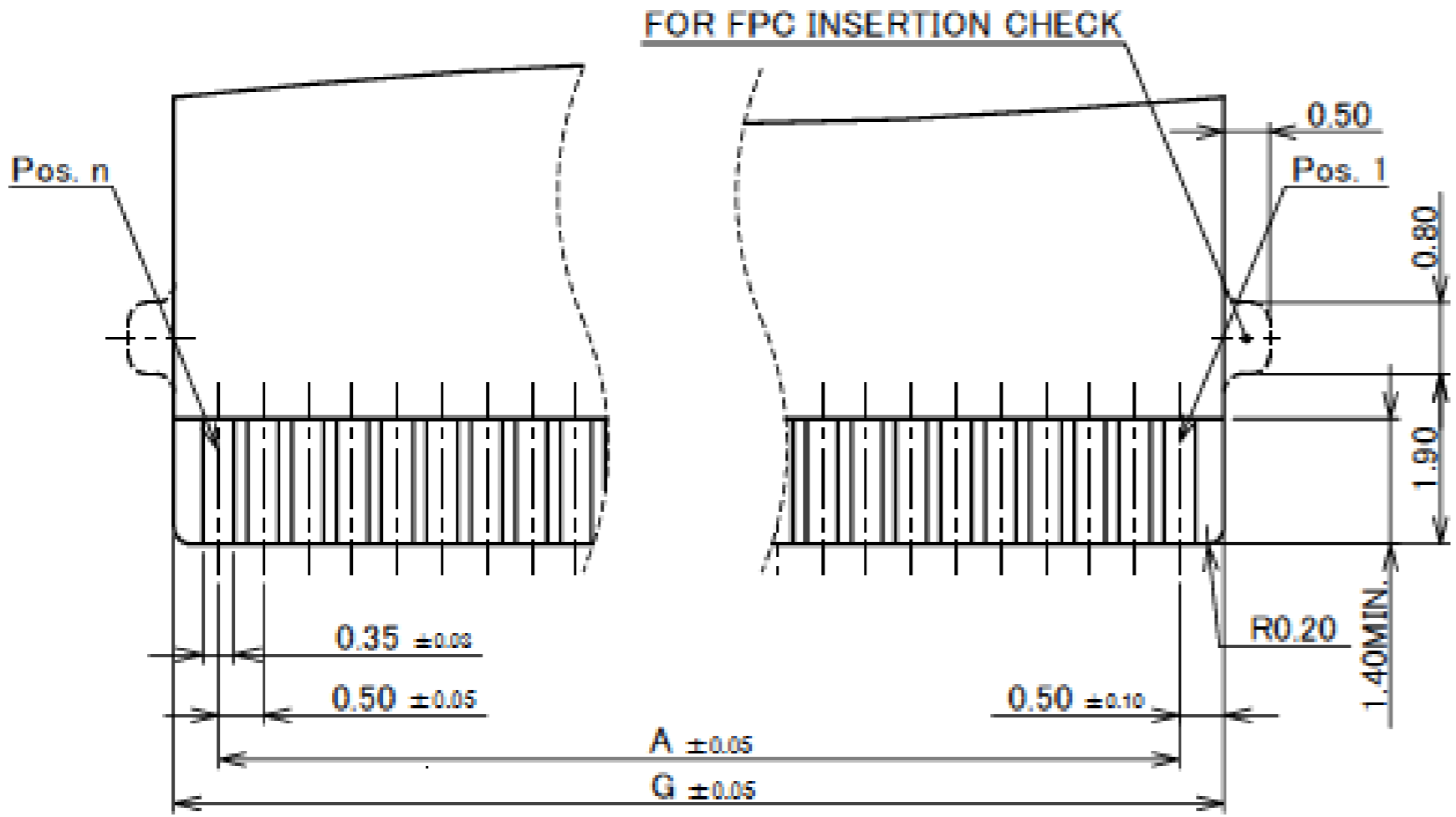


RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT  
METAL MASK THICKNESS : t=0.12mm

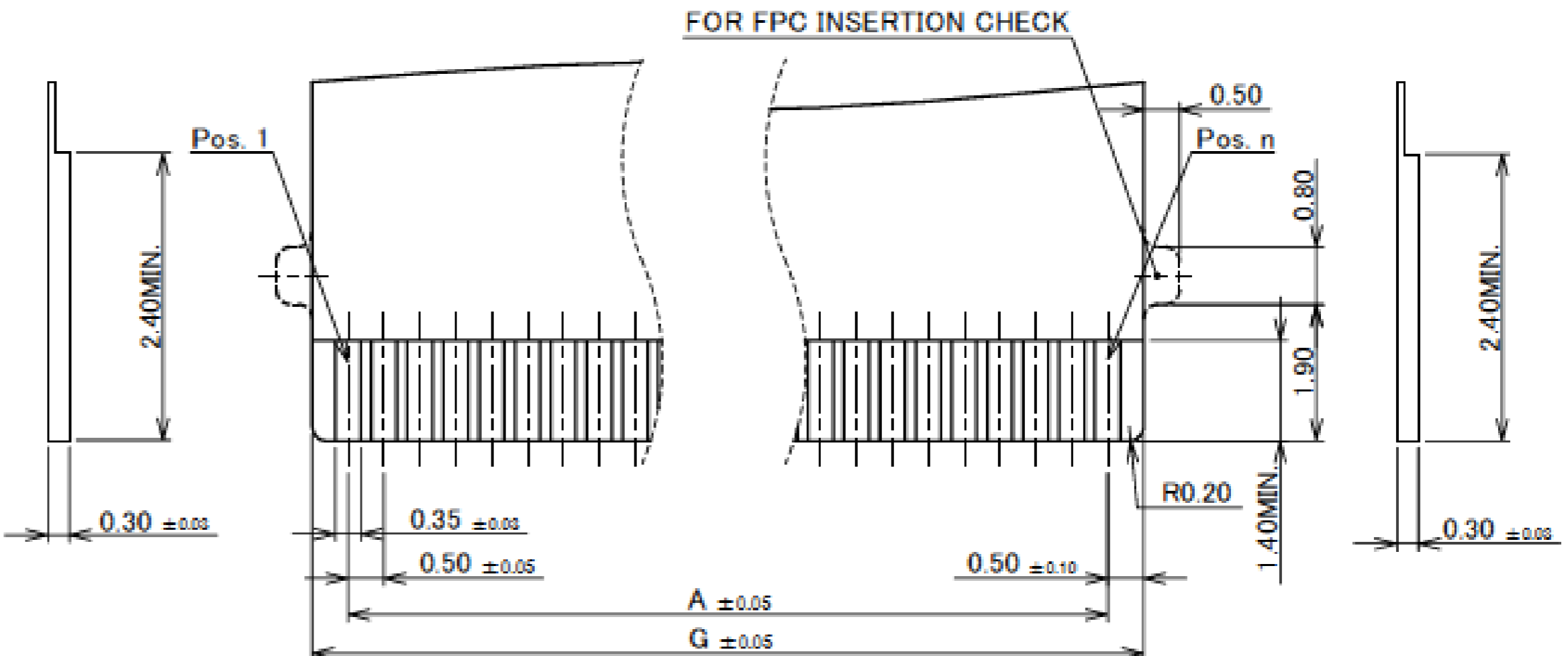


PART No.	POS.	A	E	G
20586-032E-01	32	15.50	17.15	16.50
20586-034E-01	34	16.50	18.15	17.50
◆20586-036E-01	36	17.50	19.15	18.50
20586-040E-01	40	19.50	21.15	20.50
◆20586-044E-01	44	21.50	23.15	22.50
◆20586-048E-01	48	23.50	25.15	24.50
20586-050E-01	50	24.50	26.15	25.50
20586-054E-01	54	26.50	28.15	27.50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

◆ MARK MEANS NOT AVAILABLE



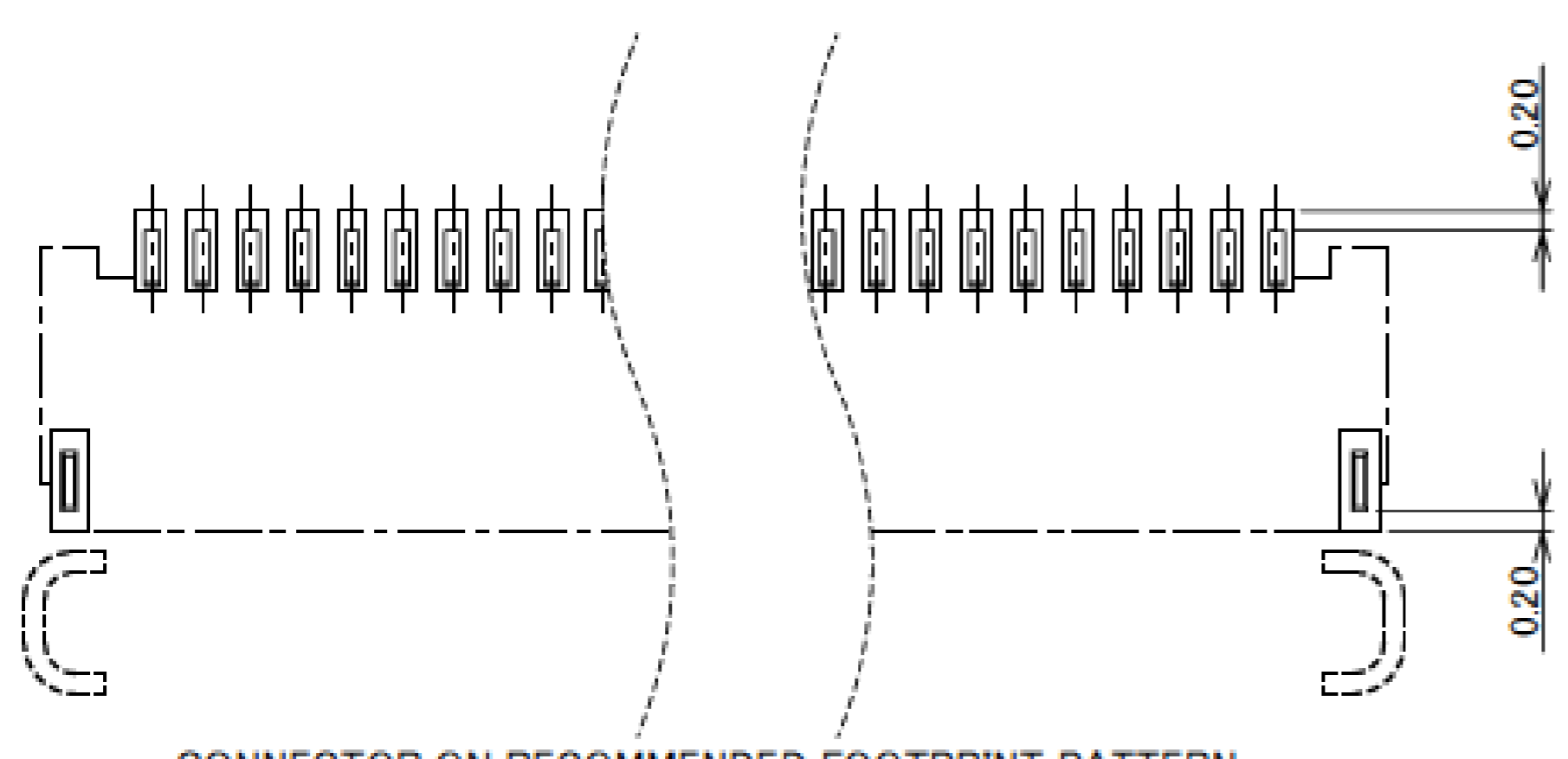
RECOMMENDED FPC LAYOUT (TOP CONTACT TYPE)



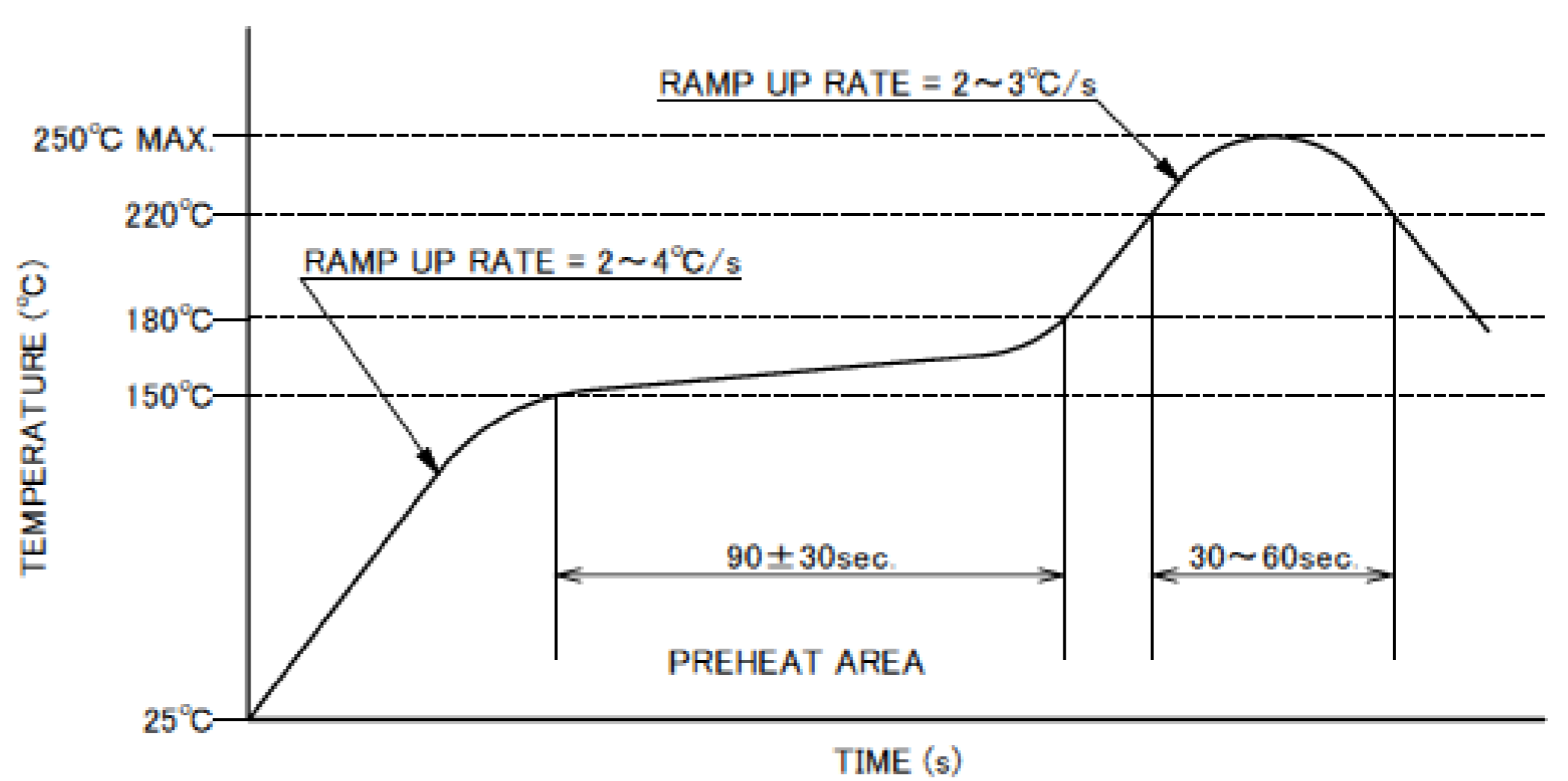
RECOMMENDED FPC LAYOUT (BOTTOM CONTACT TYPE)

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

Rev.10



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

# 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 : $\surd$ 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***

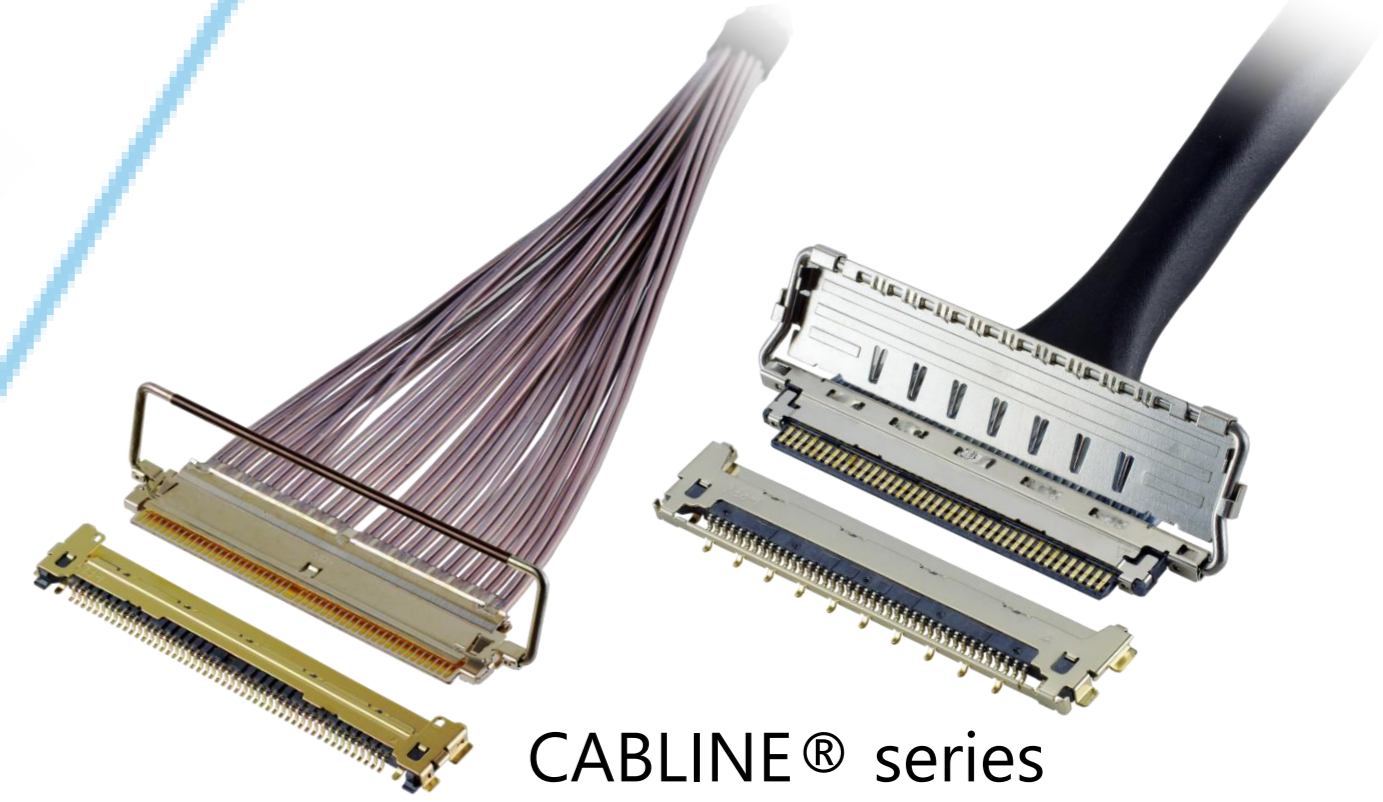
※ "n" IS THE NUMBER OF PIN

Rev.10

# Custom Connectors Available

## RF Connectors

MHF® series



CABLINE® series

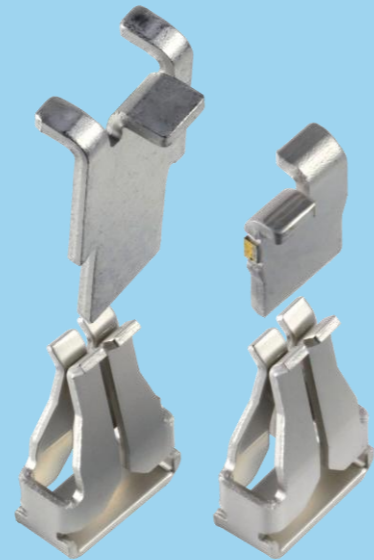
## Micro-Coaxial/Twinaxial Connectors



## Wire-to-Board Connectors/Terminals

AP series

ISH® series



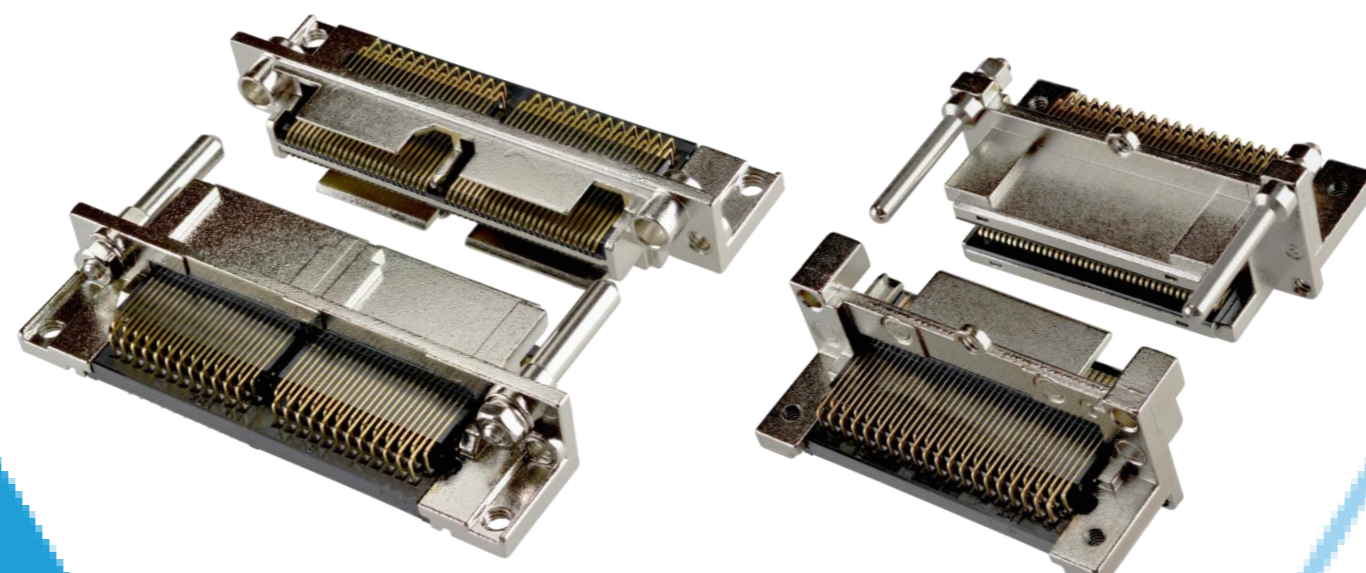
NOVASTACK® series



## Board-to-Board Connectors

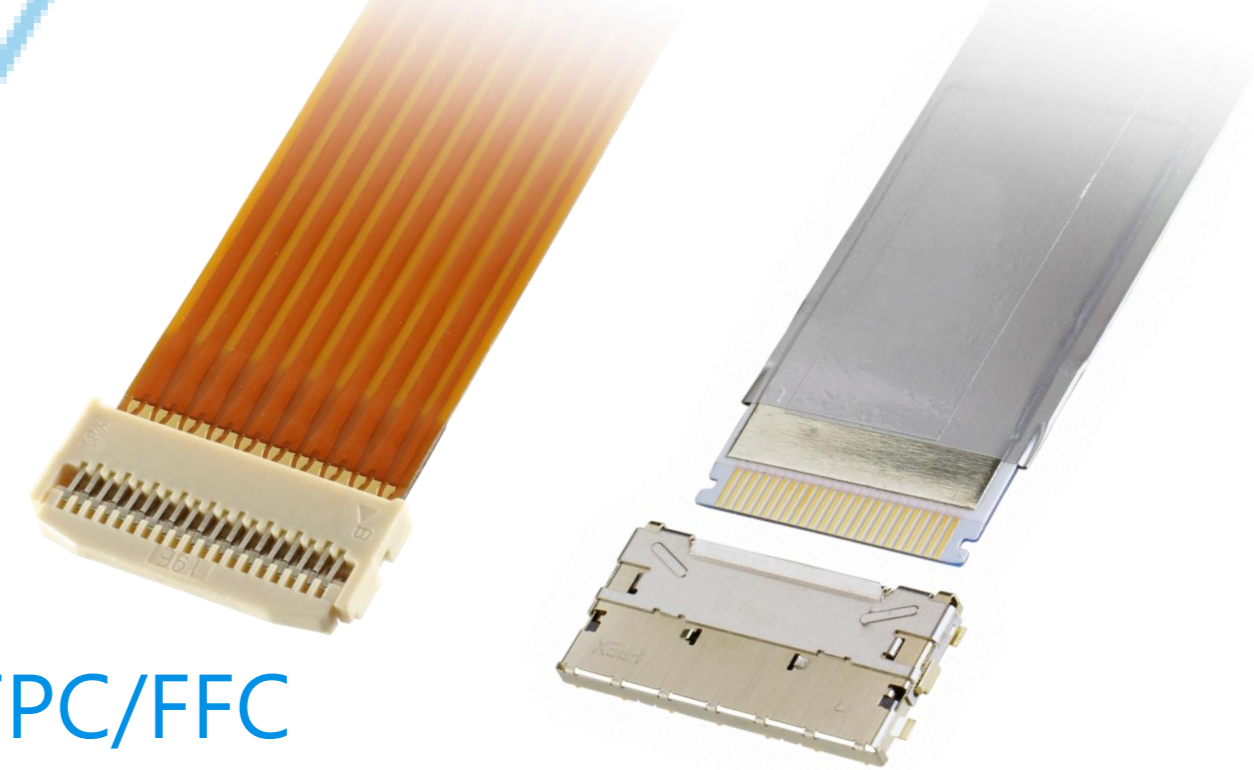


## I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



## FPC/FFC Connectors



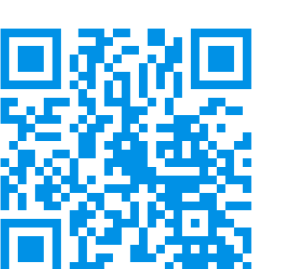
Inquiry



I-PEX, MHF, CABLINE, NOVASTACK, ISH, IARPB, MINIFLEX, EVAFLEX, MINIDOCK, i-Fit 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](http://www.i-pex.com)



# I-PEX

© I-PEX Inc. 2025  
All rights reserved