

# NOVASTACK® 35-HDP 12

全屏蔽型, 1.2 mm配合高度, 0.35 mm間距, 具備電源接點, 支援每通道最高 40 Gbps的板對板連接器

## Product Specifications:

Board Pitch		0.35 mm
Wiping Length		Signal contact : 0.19 mm Power contact : 0.27 mm
Mated Size	Height	1.2 +/- 0.05 mm
	Width	4.86 + (0.35 x pin count / 2) mm
	Depth	3.7 mm
Current Rating	Signal	0.3 A/pin
	Power	4.5 A/pin x 4
Pin Counts	Range	10 to 80 (signal) + 4 (power)
	Available	22 + 4, 56 + 4, 62 + 4

## Applicable Standards (Reference Only):

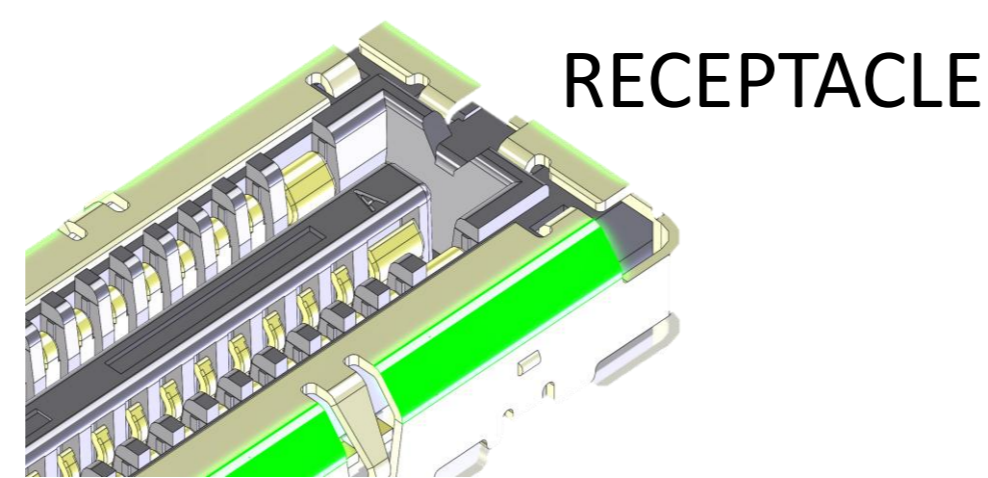
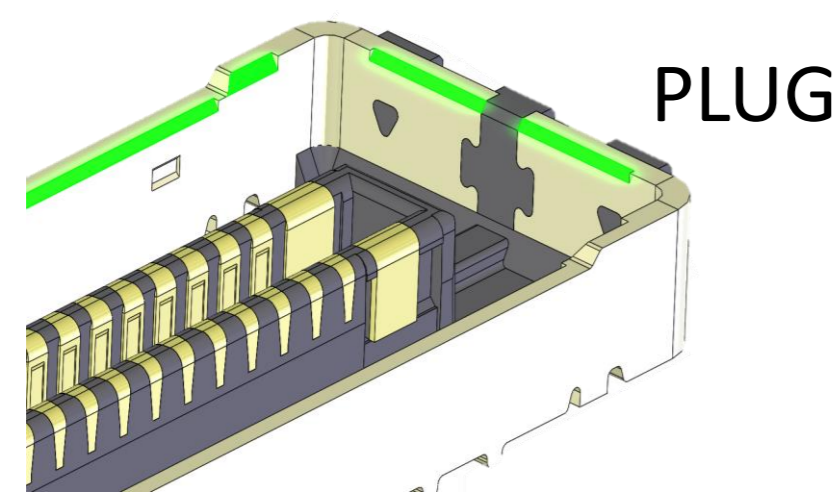
USB4 (20 Gbps/lane), USB 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps), eDP HBR 2 (5.4 Gbps), eDP (2.7 Gbps), HDMI 2.0 (6 Gbps), V-By-One HS 1.4 (4 Gbps), MiPi standards

\* 如需了解未列出或不在範圍內的pin 數, 請聯繫我們。

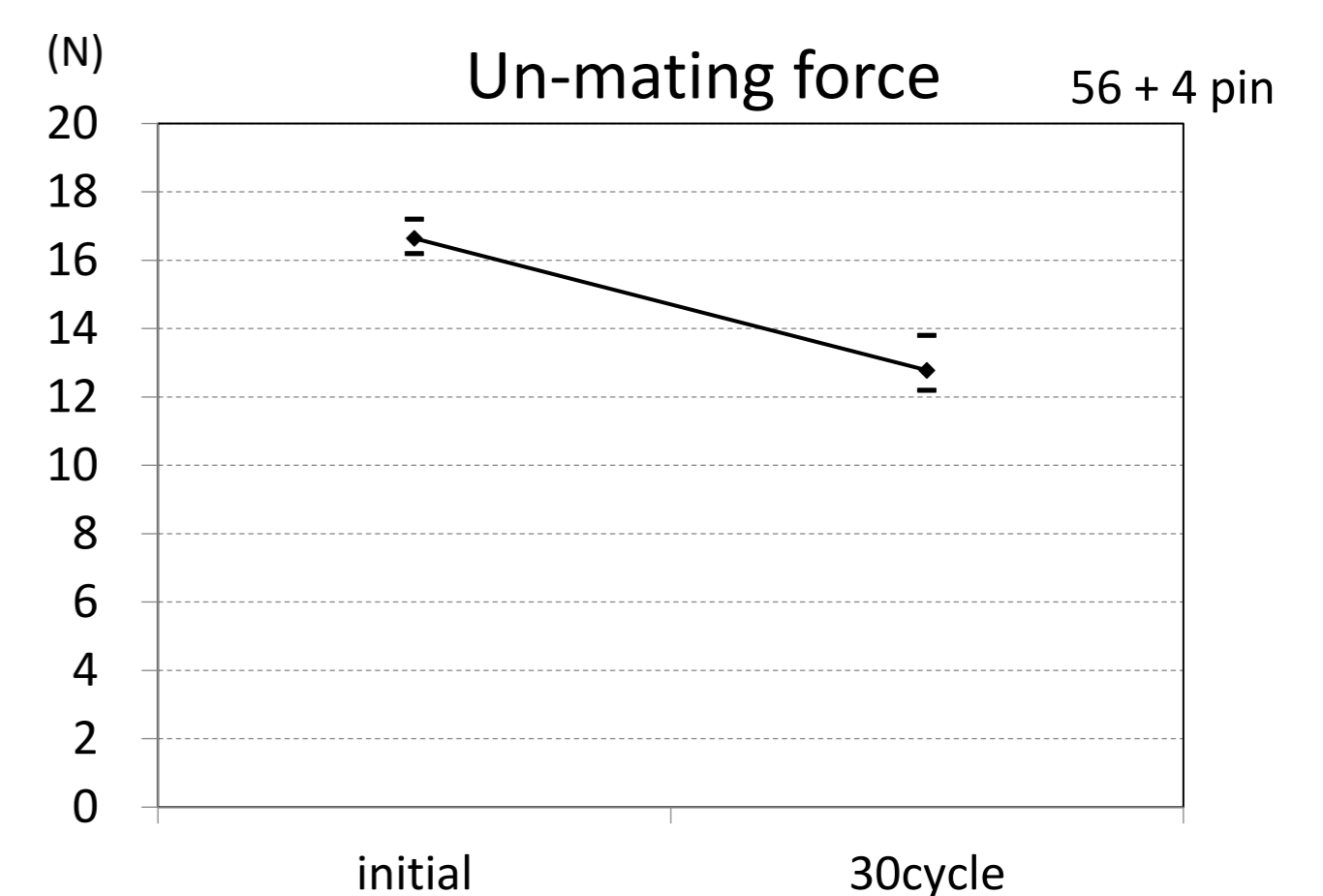


## ▶ 1.2 mm 堆疊高度設計, 提供優異的對插操作性與連接可靠性

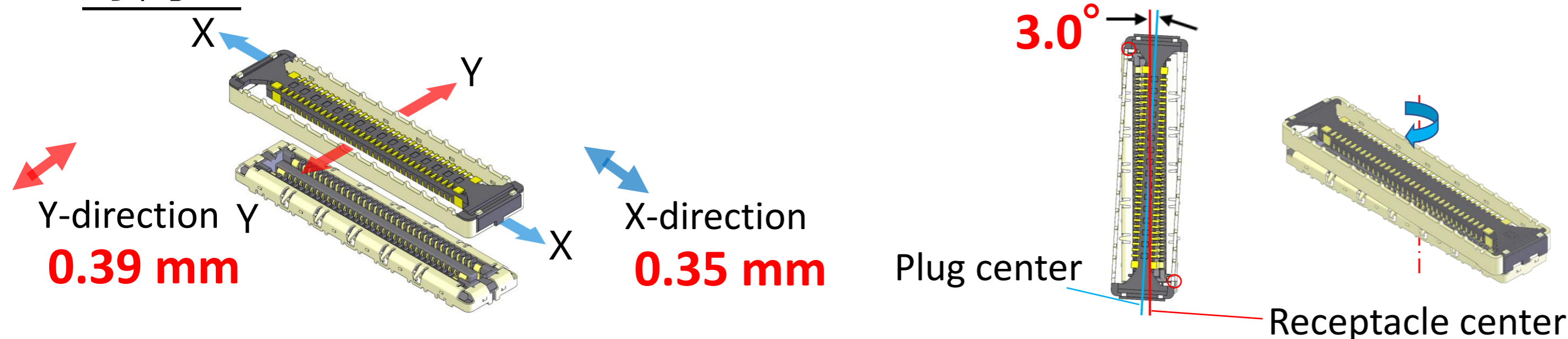
### 對插導向



### 嵌合保持力



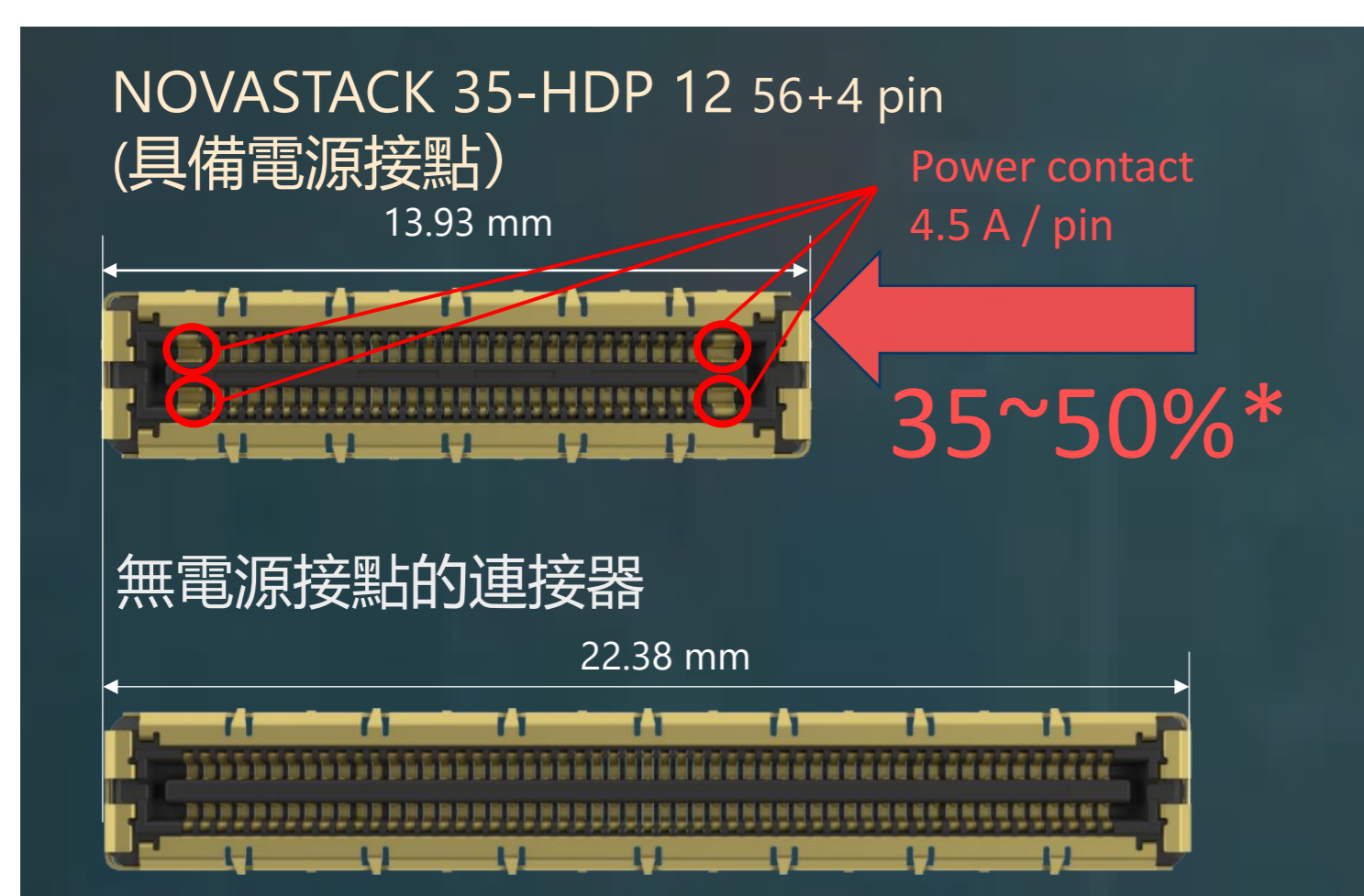
### 導向量



## ▶ 藉由電源接點與 ZenShield® 屏蔽技術, 實現適用於高密度安裝的緊湊型連接器設計

透過使用電源接點, 可節省 PCB 空間\*

藉助 ZenShield®, 連接器可配置於高頻設備與天線附近

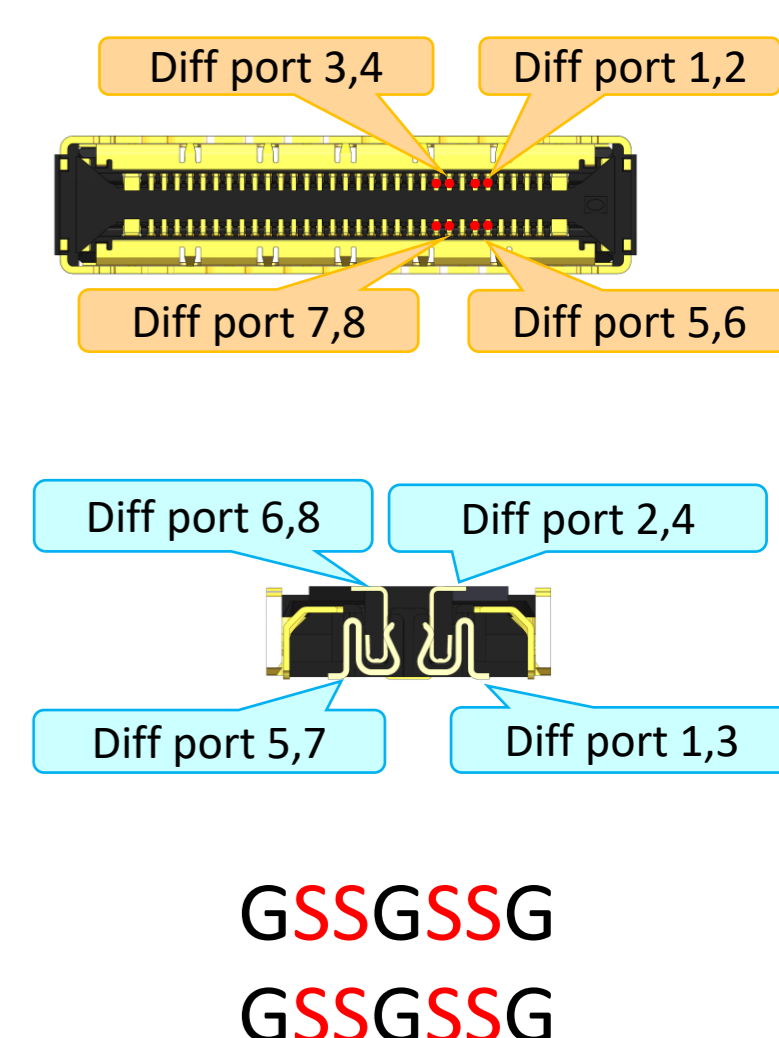
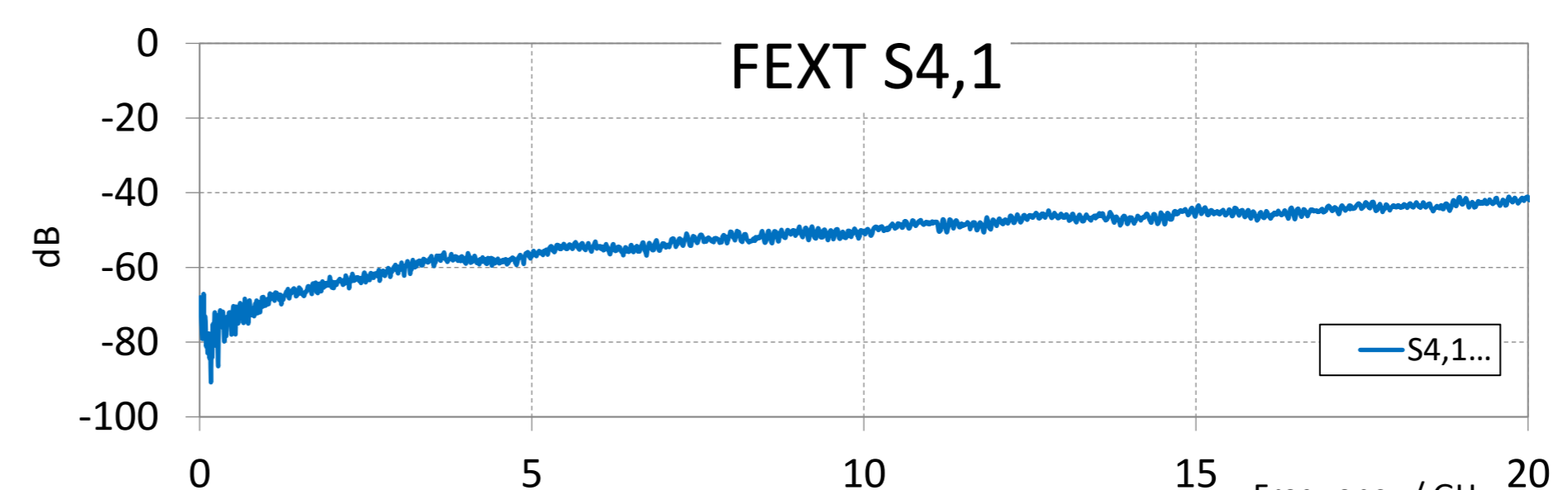
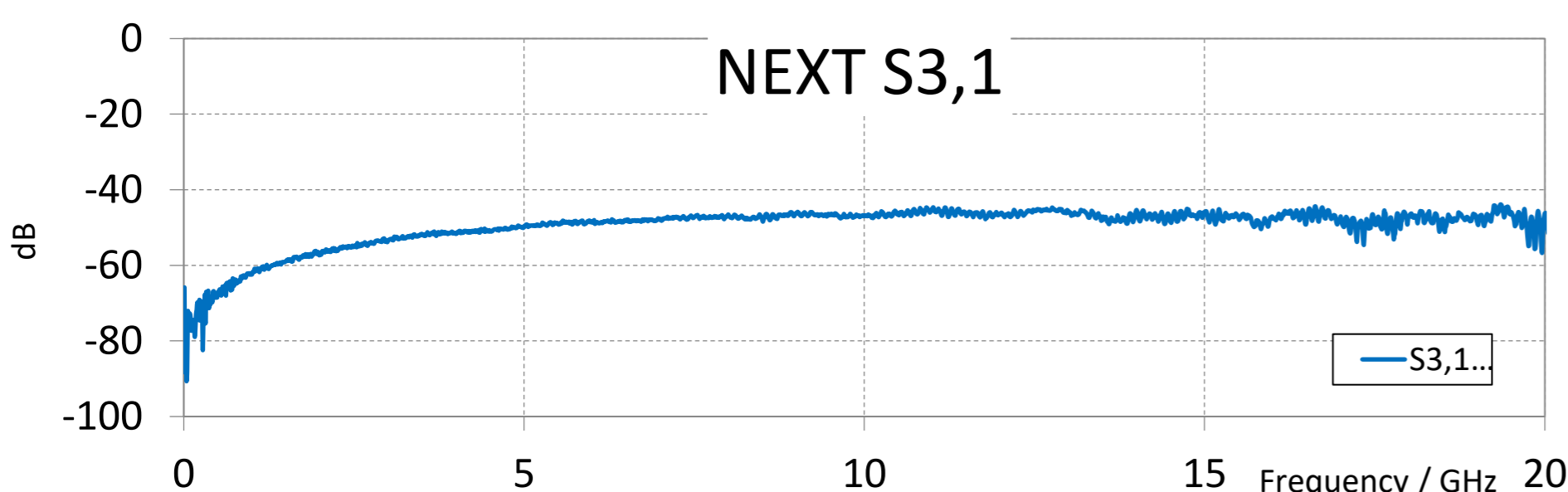
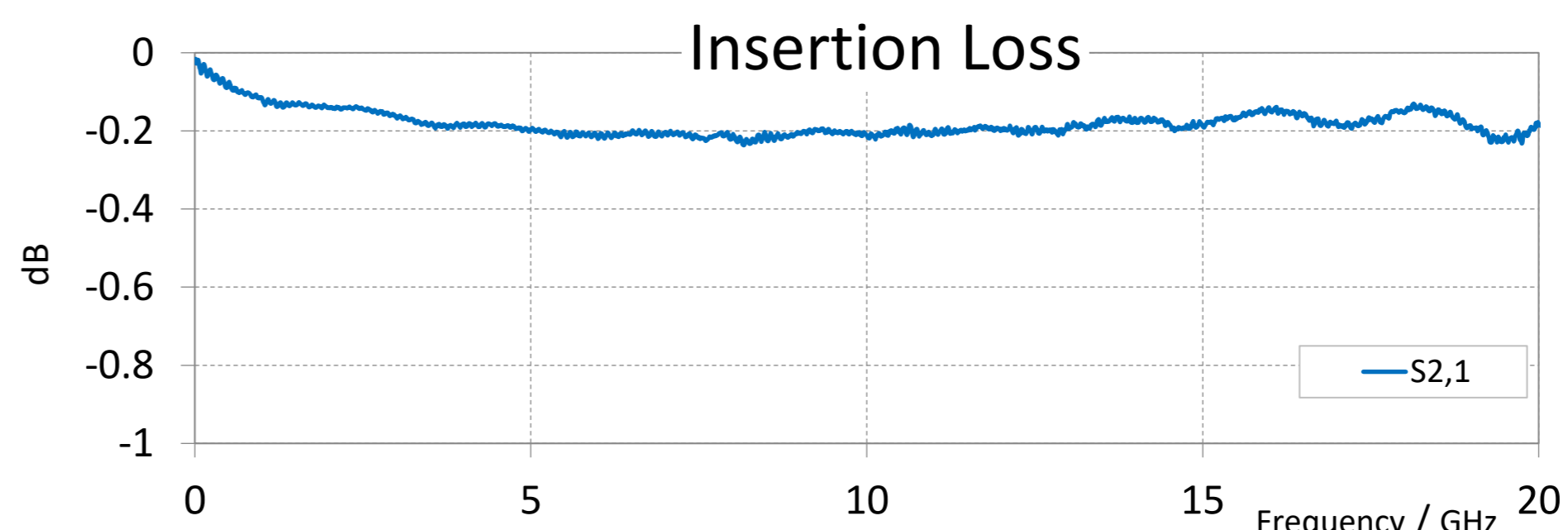
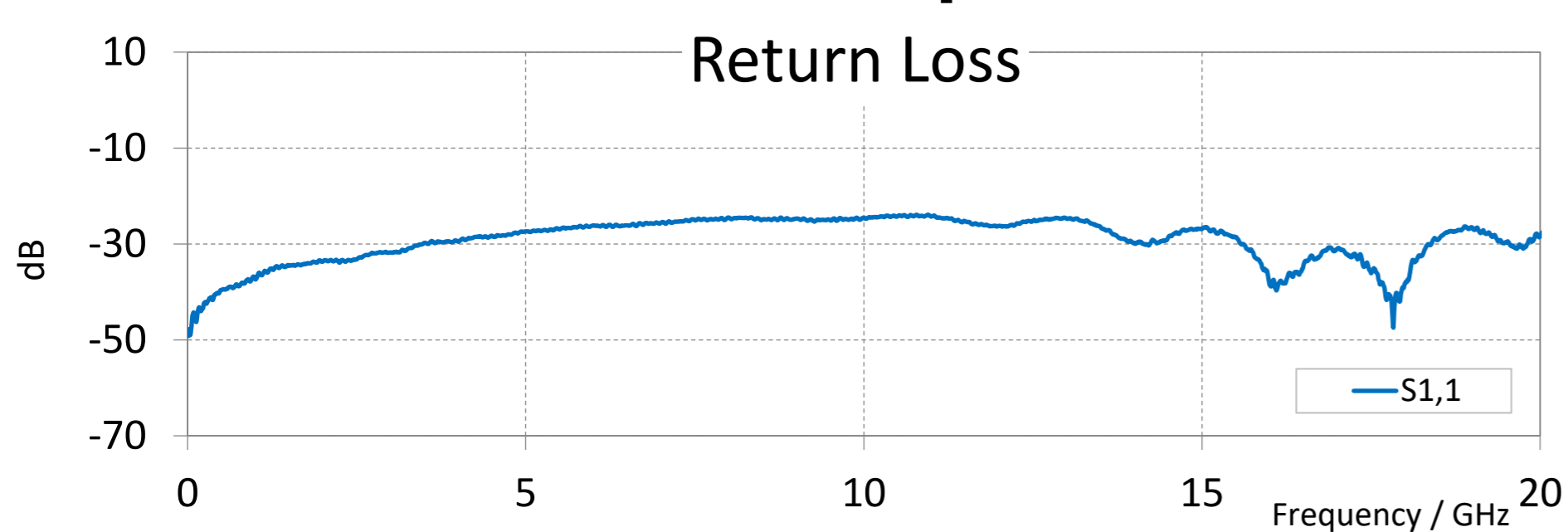


在假設 8A x 2 電源傳輸條件下的連接器尺寸比較

\*縮小比率會因極數 (位數) 數量的不同而有所變化



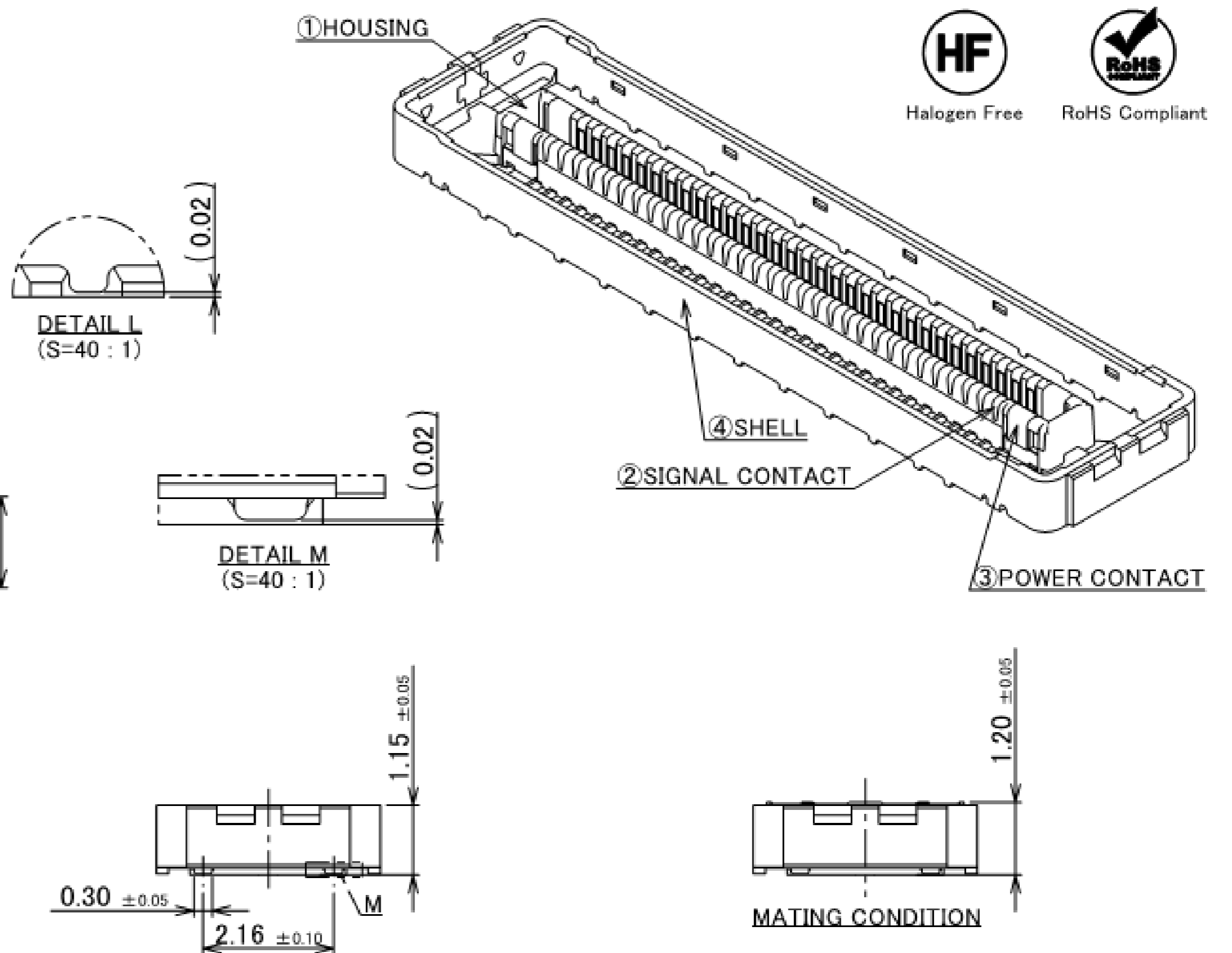
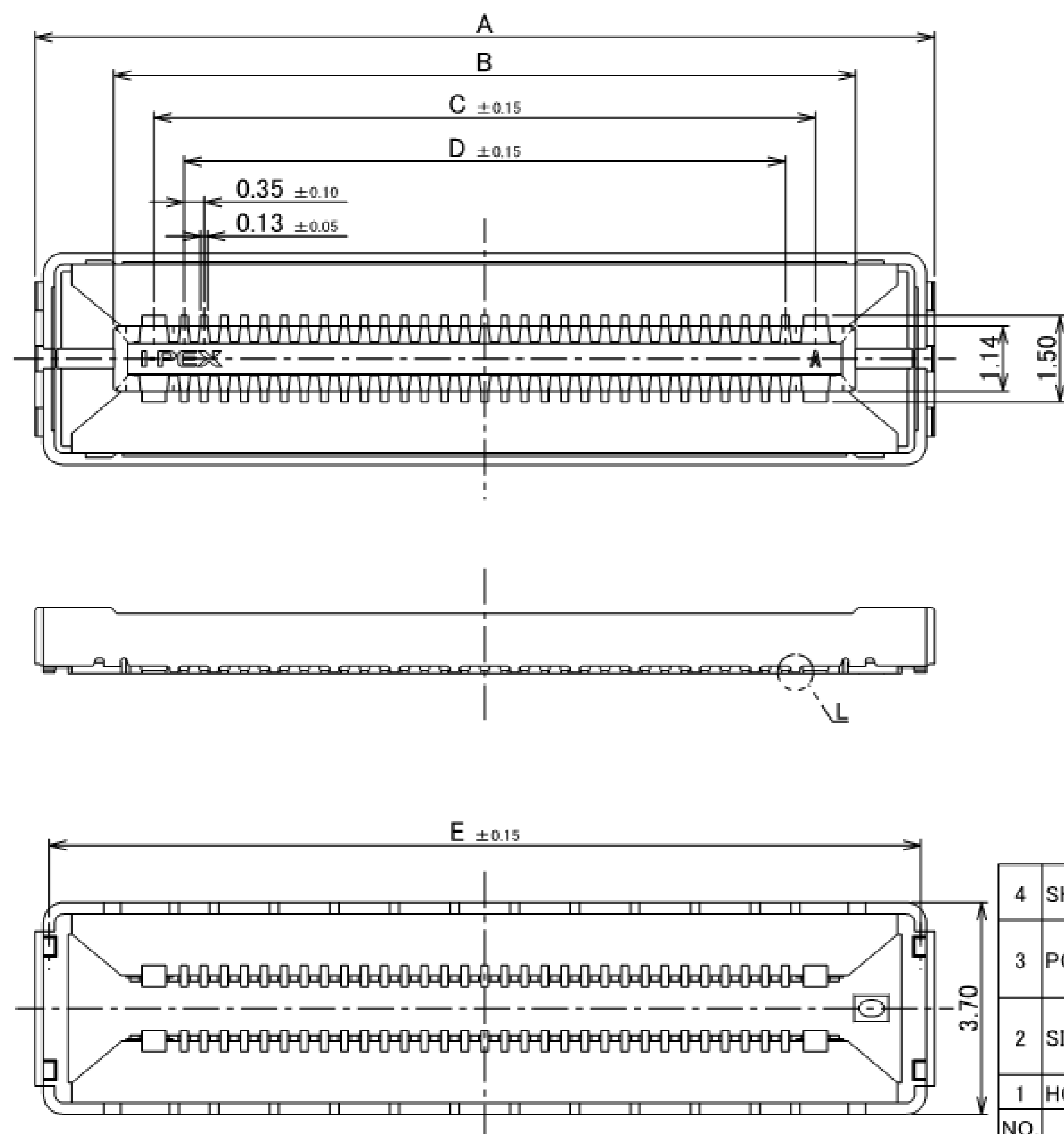
## ▶ 支援每通道 40 Gbps 的高速訊號傳輸效能



# Component Parts Detail

## Plug Assembly

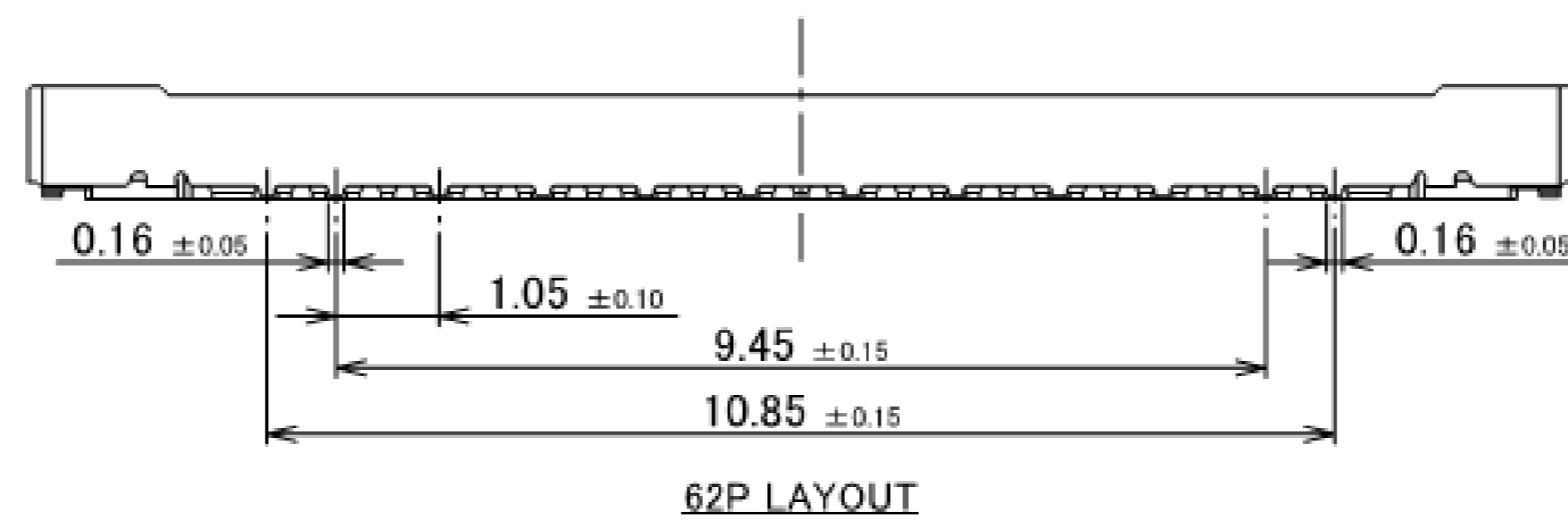
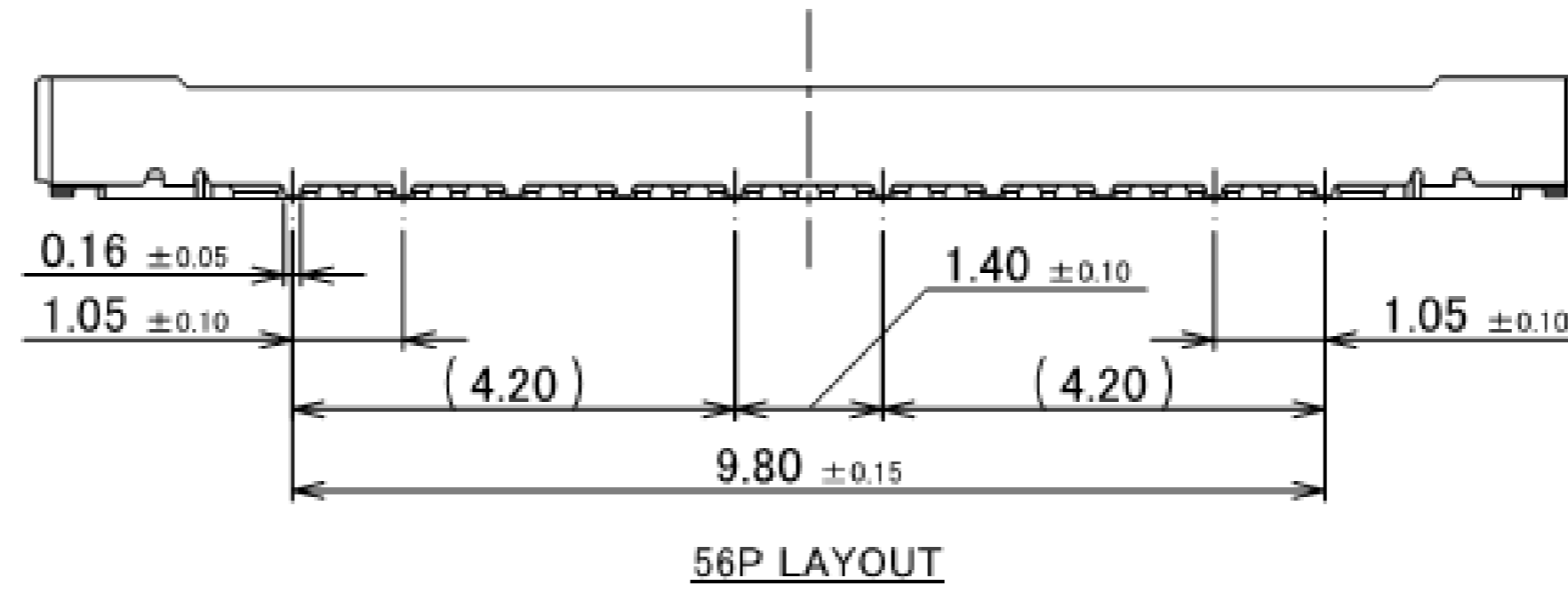
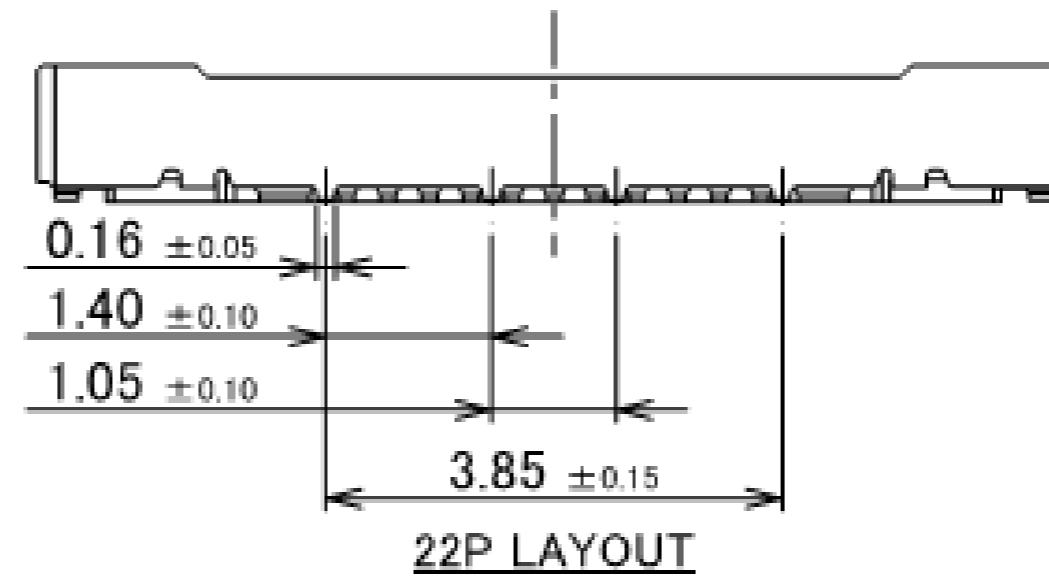
RECOMMENDED PART No.		21150-0**E-01					
PART No.	SIGNAL POS.	POWER POS.	A	B	C	D	E
21150-022E-01	22P	4P	8.71	5.96	4.55	3.50	8.22
21150-056E-01	56P	4P	14.66	11.91	10.50	9.45	14.17
21150-062E-01	62P	4P	15.71	12.96	11.55	10.50	15.22



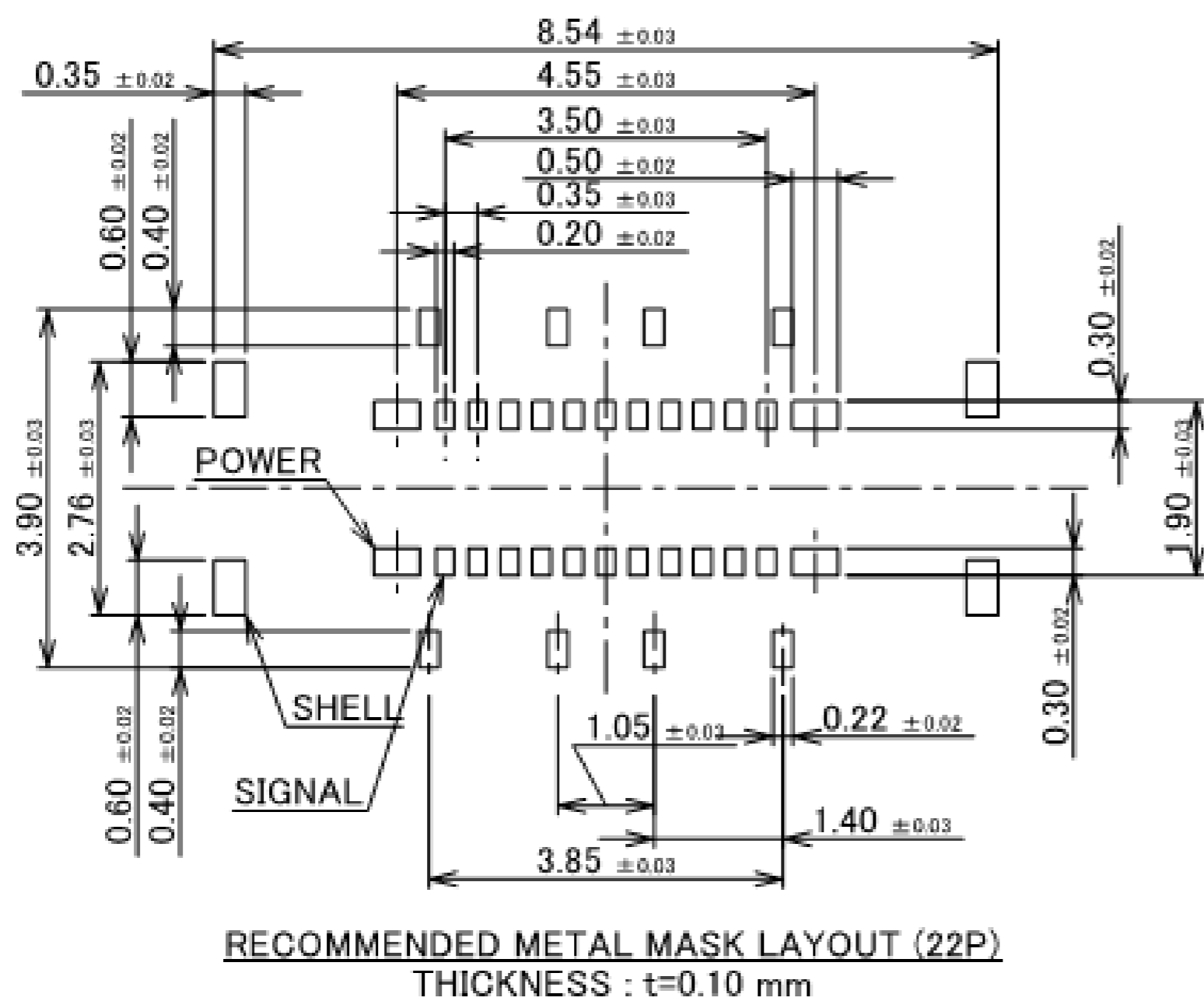
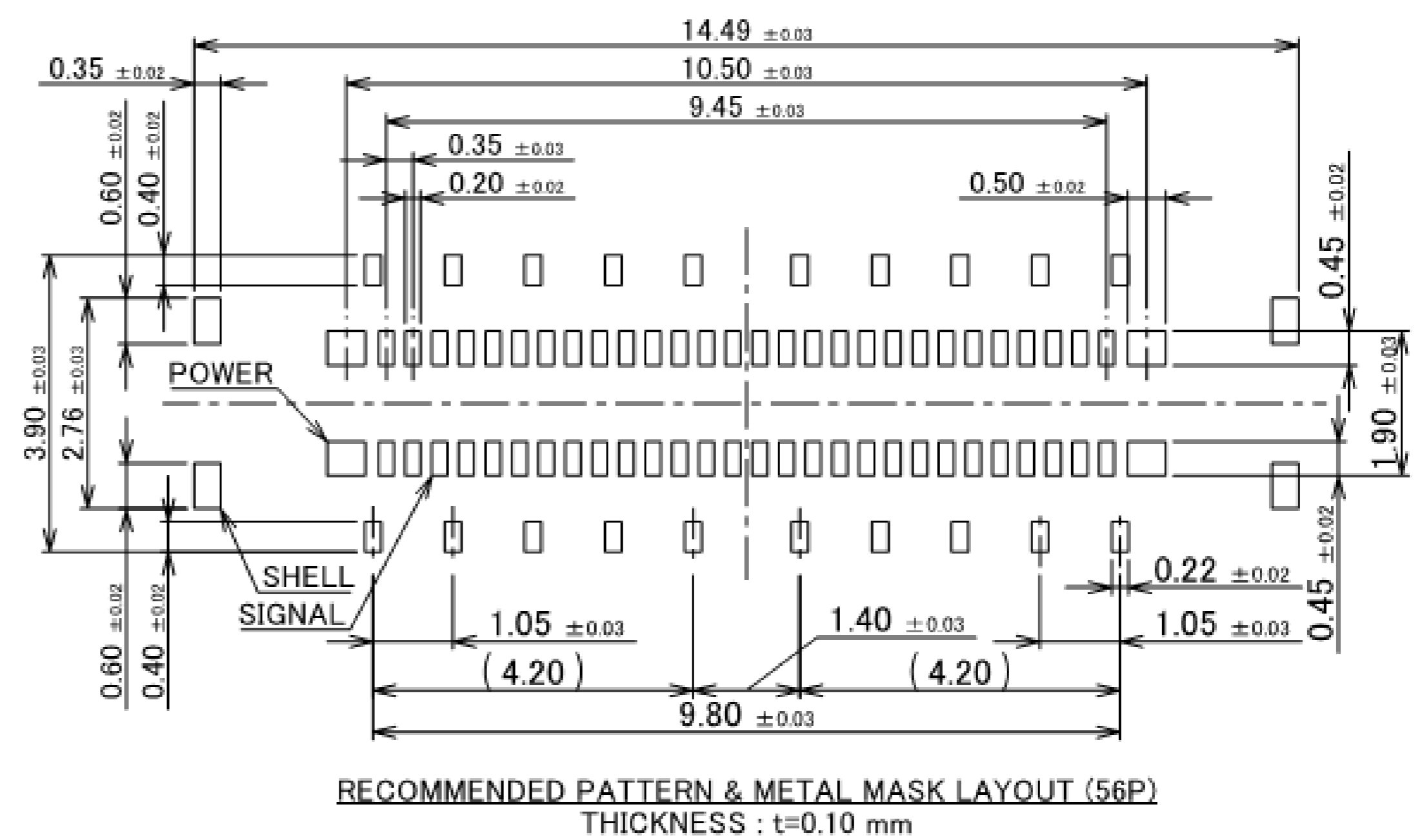
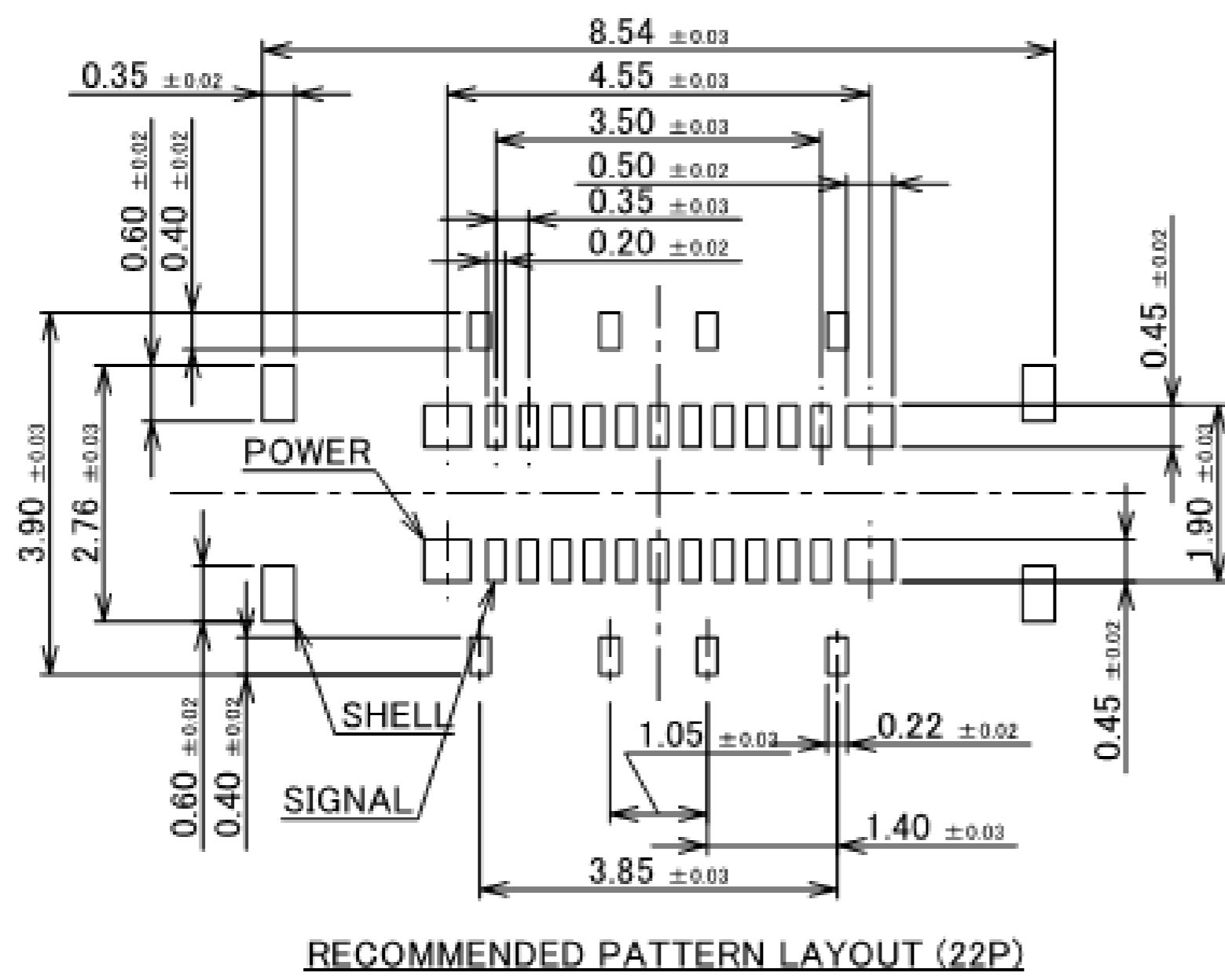
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	SHELL	CORSON ALLOY	ALL OVER Ni 1.27 μm MIN. Au 0.01 μm MIN. 0.025 μm MAX.
3	POWER CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μm MIN. CONTACT PART Au 0.05 μm MIN. SOLDERING PART Au 0.02 μm MIN.
2	SIGNAL CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 μm MIN. CONTACT PART Au 0.05 μm MIN. SOLDERING PART Au 0.02 μm MIN.
1	HOUSING	LCP	UL94V-0, BLACK (PFAS FREE)

# Plug Assembly

PART No.	SIGNAL POS.	POWER POS.
21150-022E-01	22P	4P
21150-056E-01	56P	4P
21150-062E-01	62P	4P



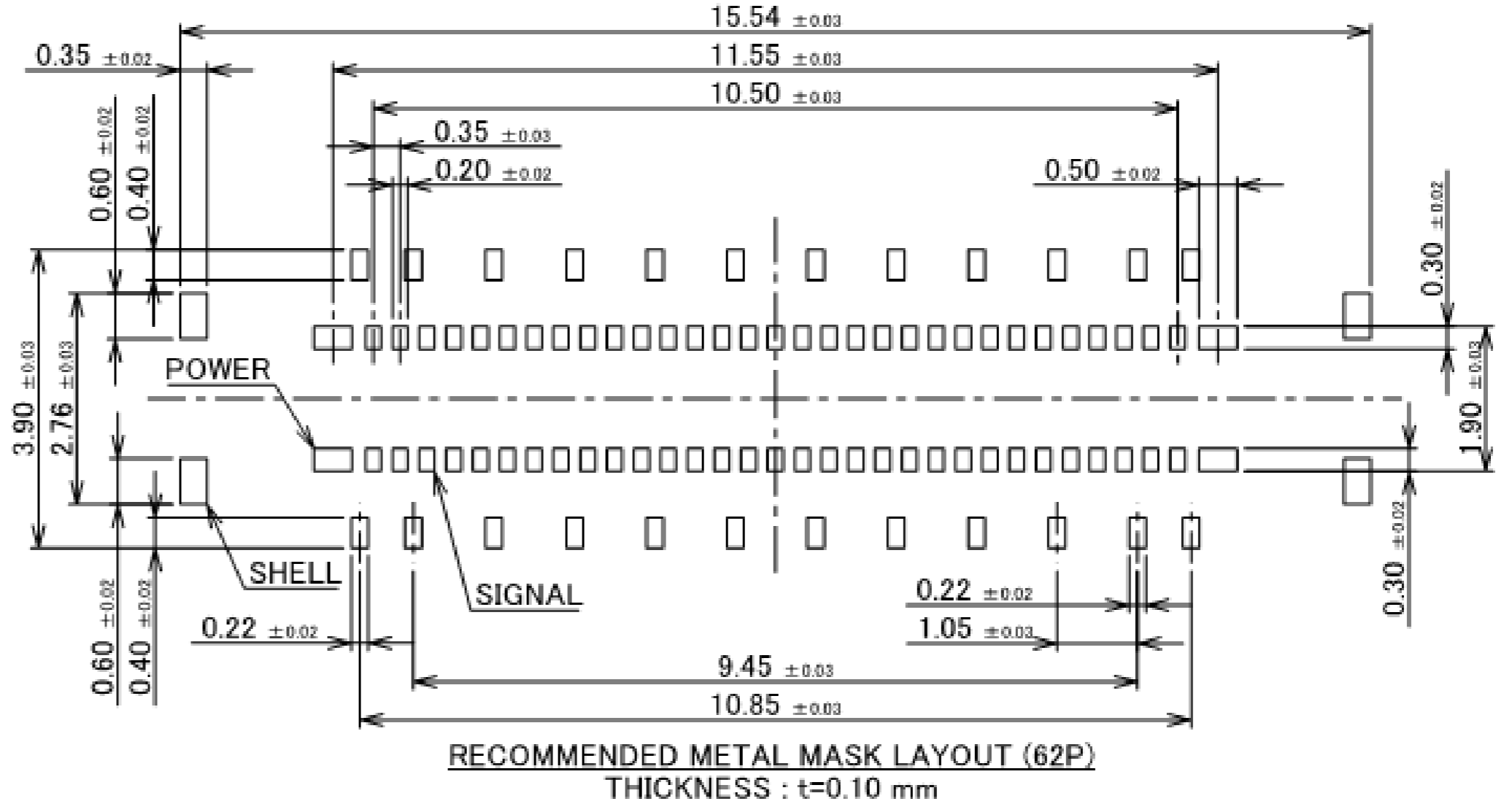
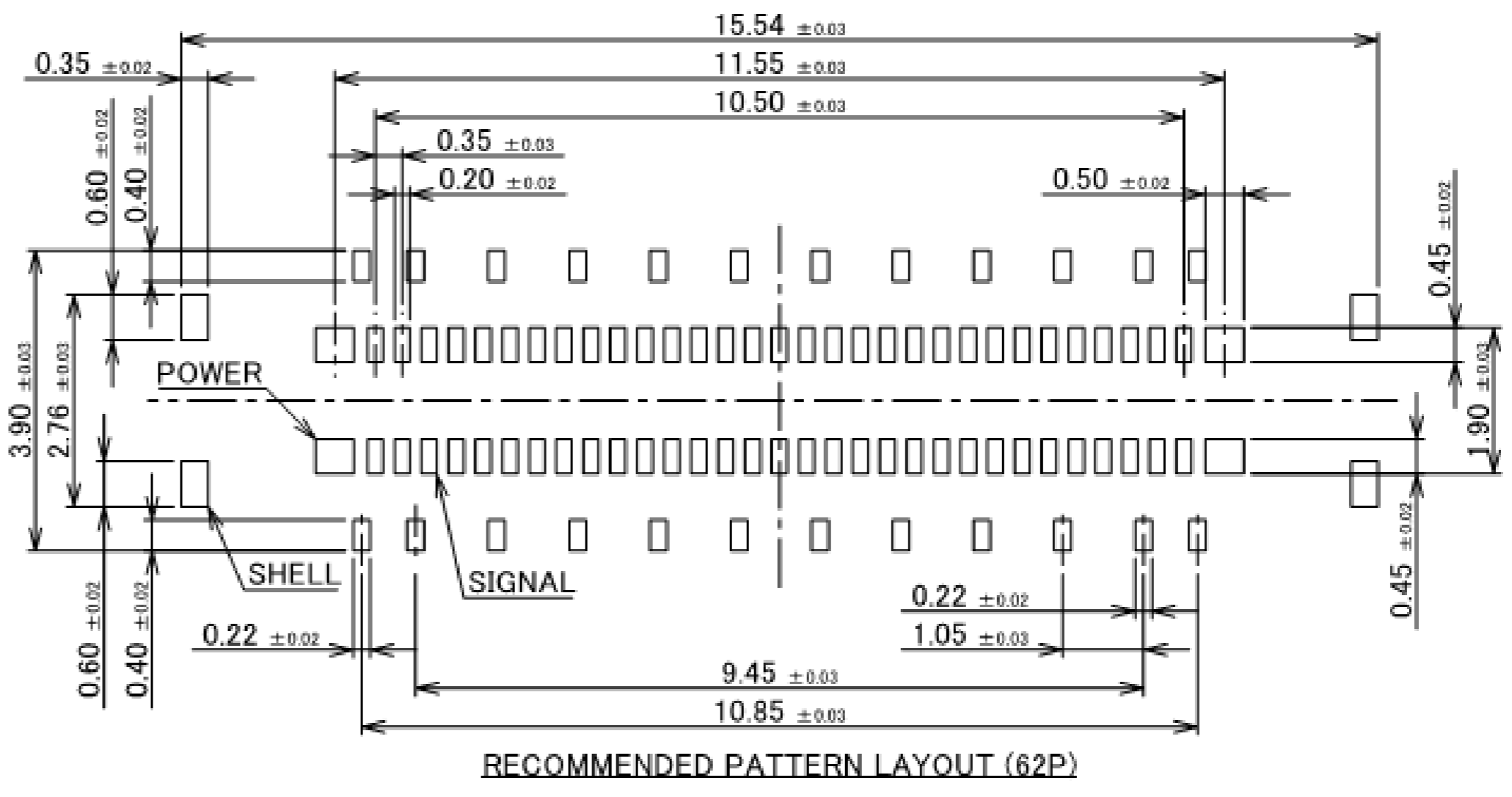
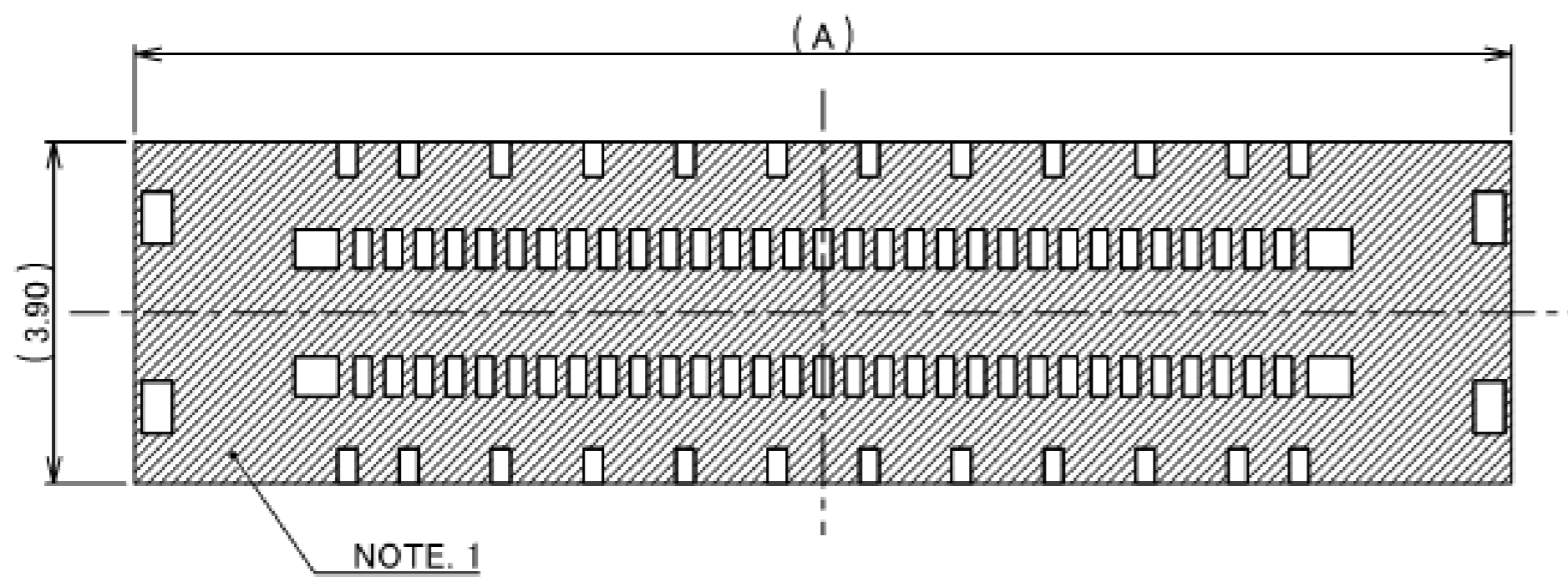
Rev.0



Rev.0

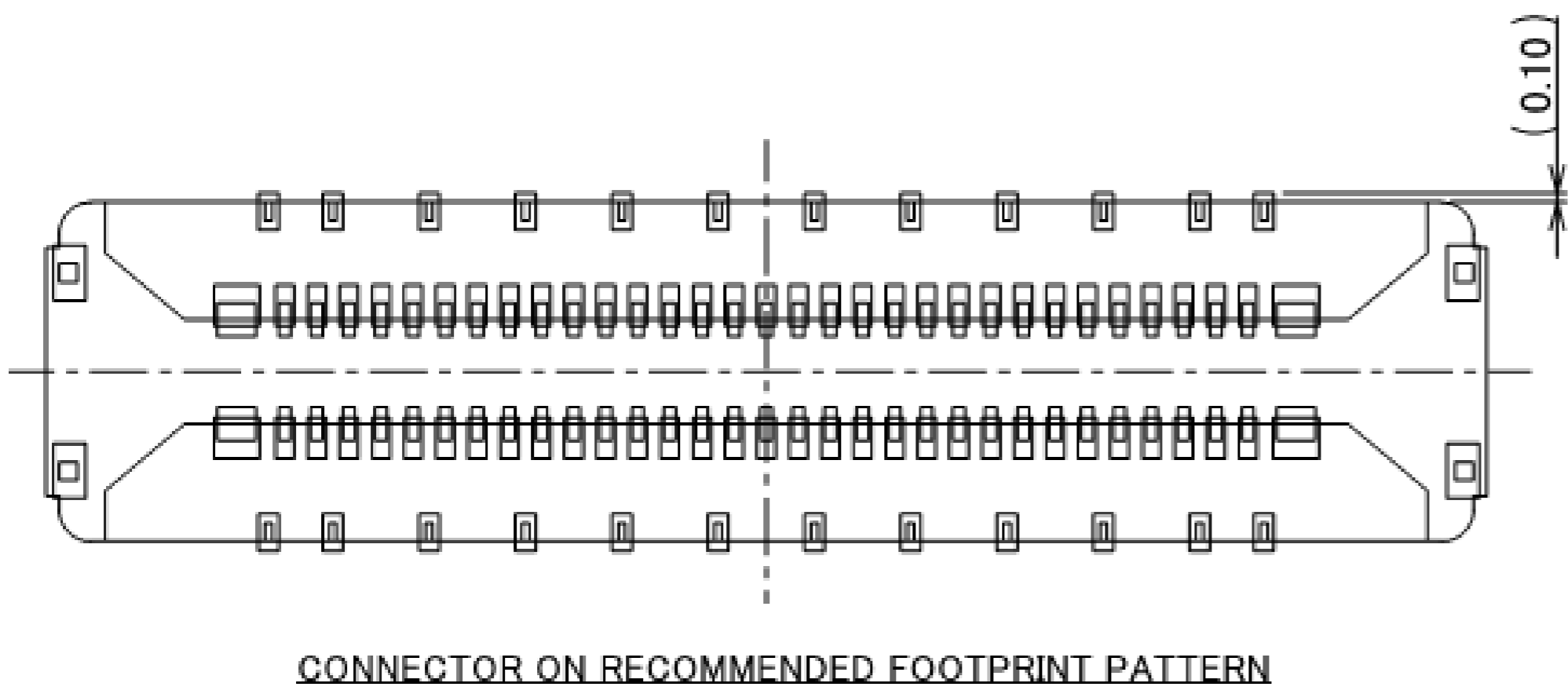
# Plug Assembly

PART No.	SIGNAL POS.	POWER POS.	A
21150-022E-01	22P	4P	8.74
21150-056E-01	56P	4P	14.69
21150-062E-01	62P	4P	15.74

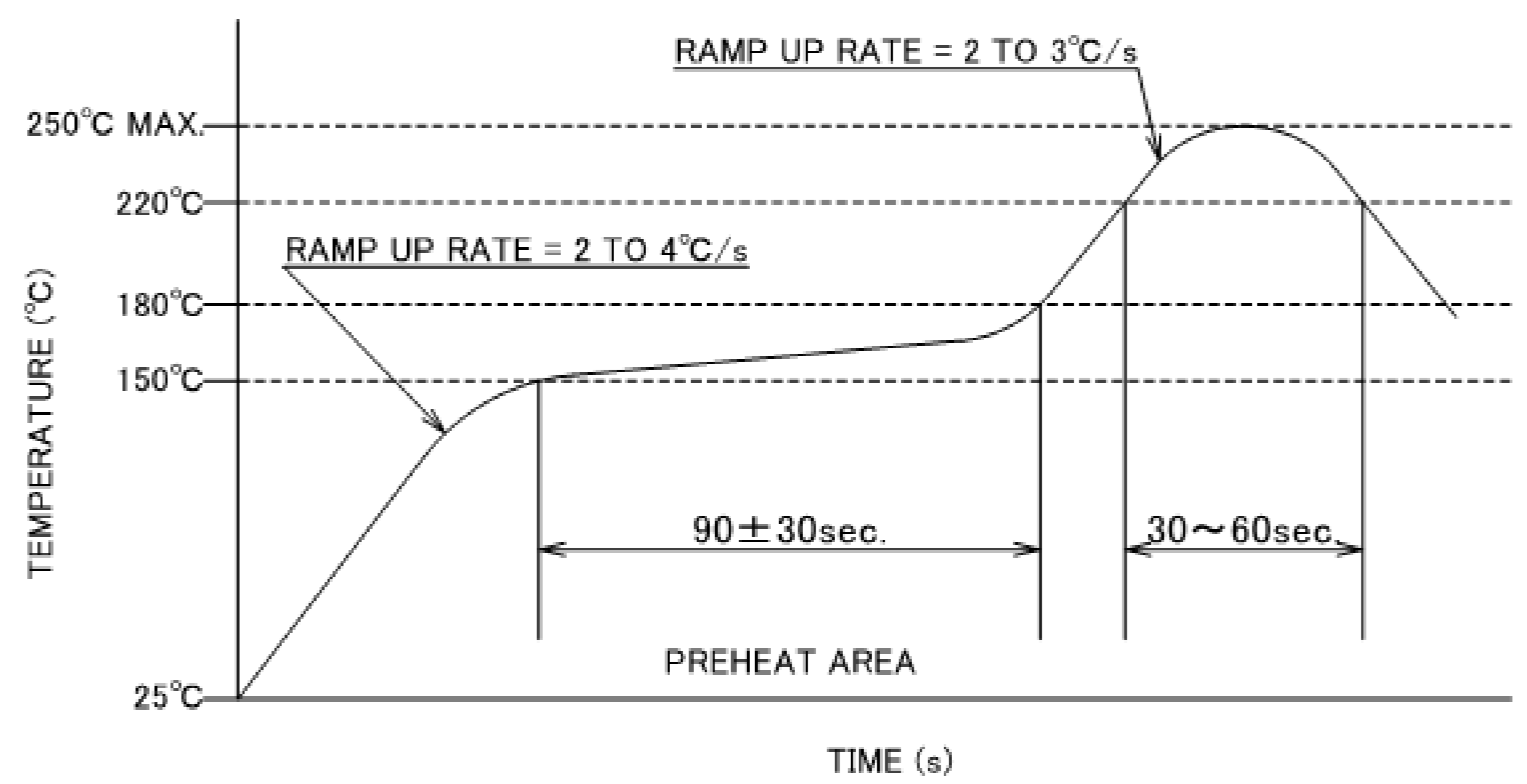


NOTES.  
1. THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Rev.0



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

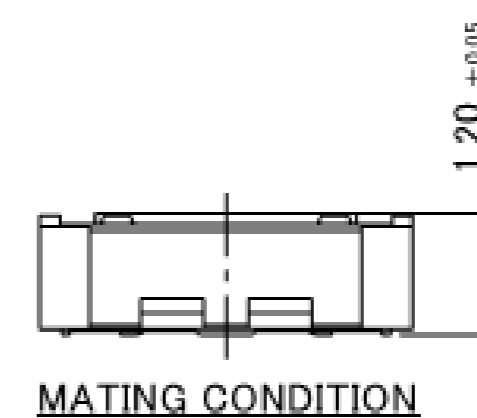
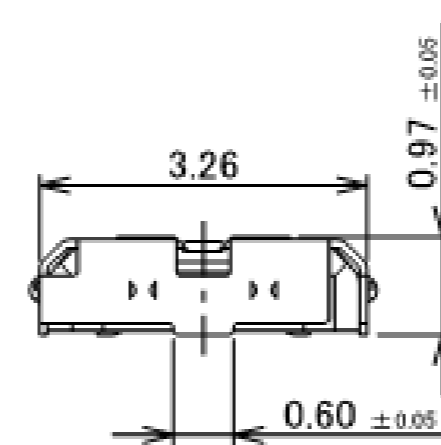
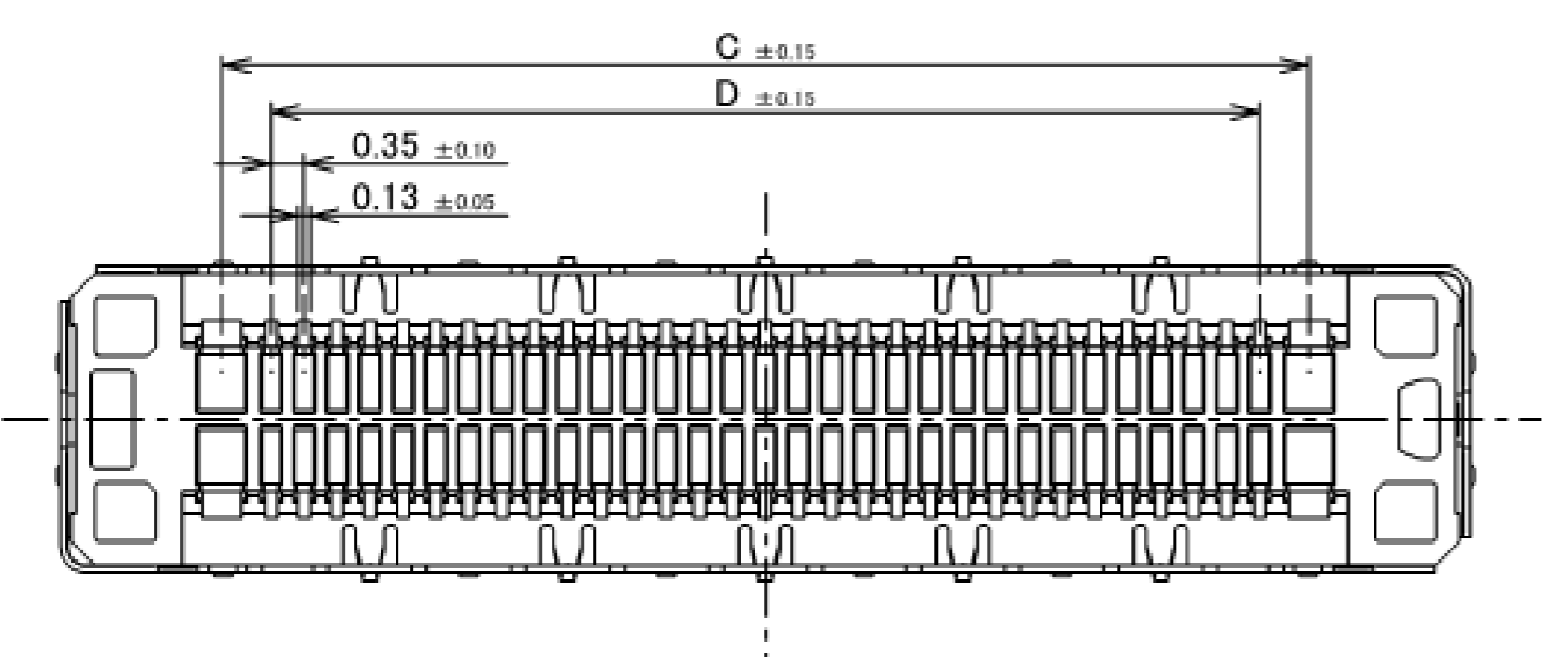
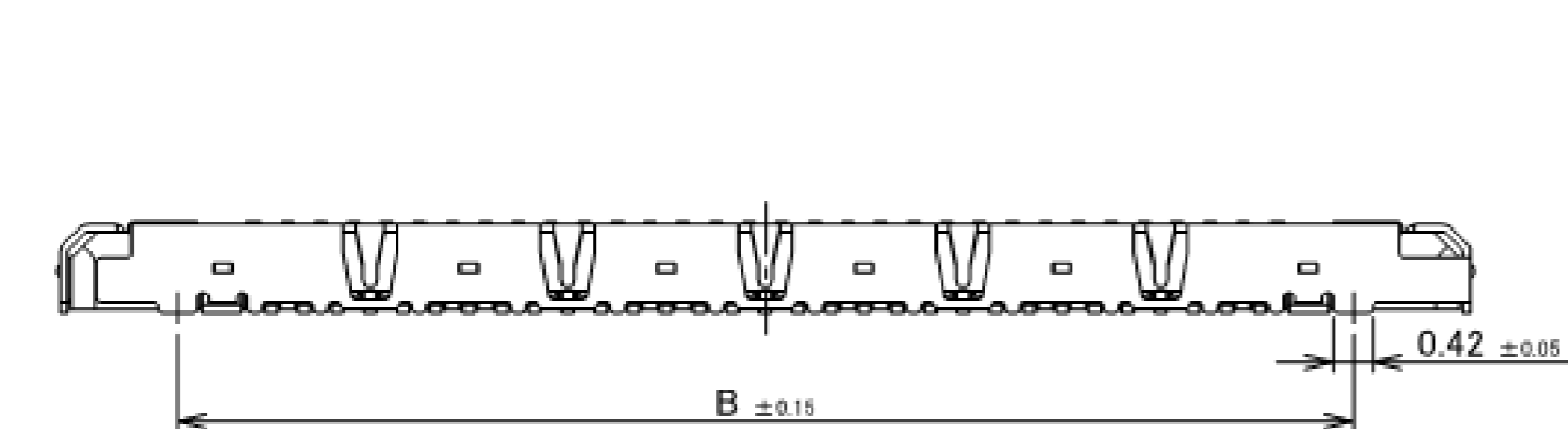
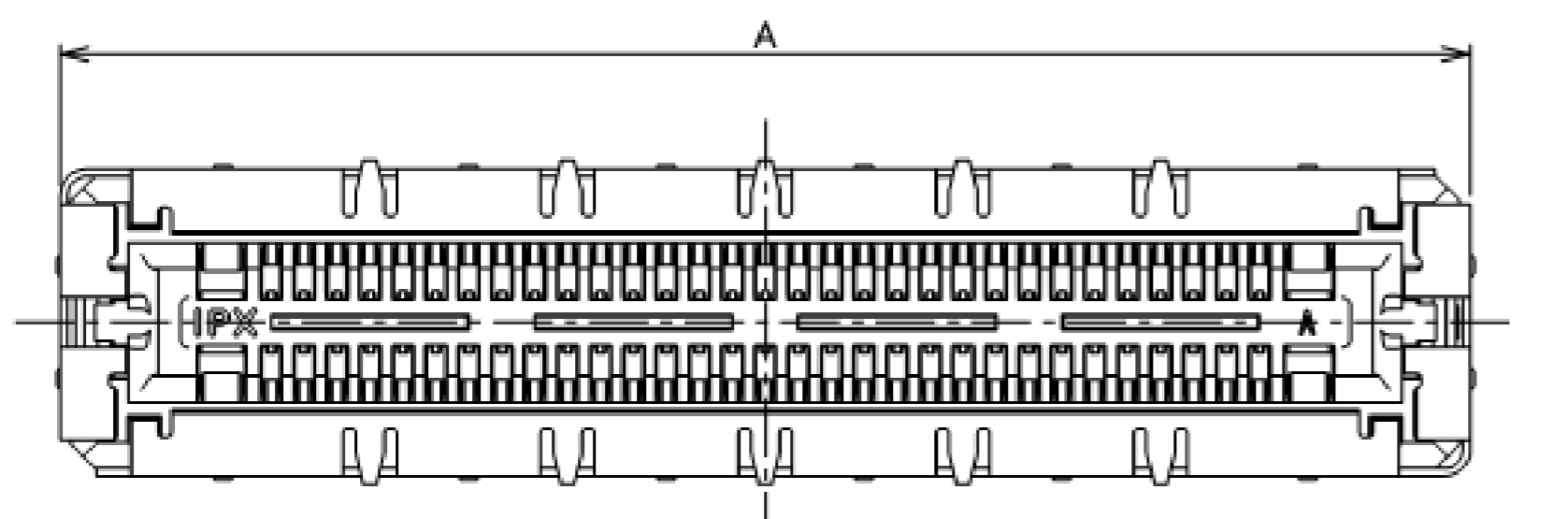
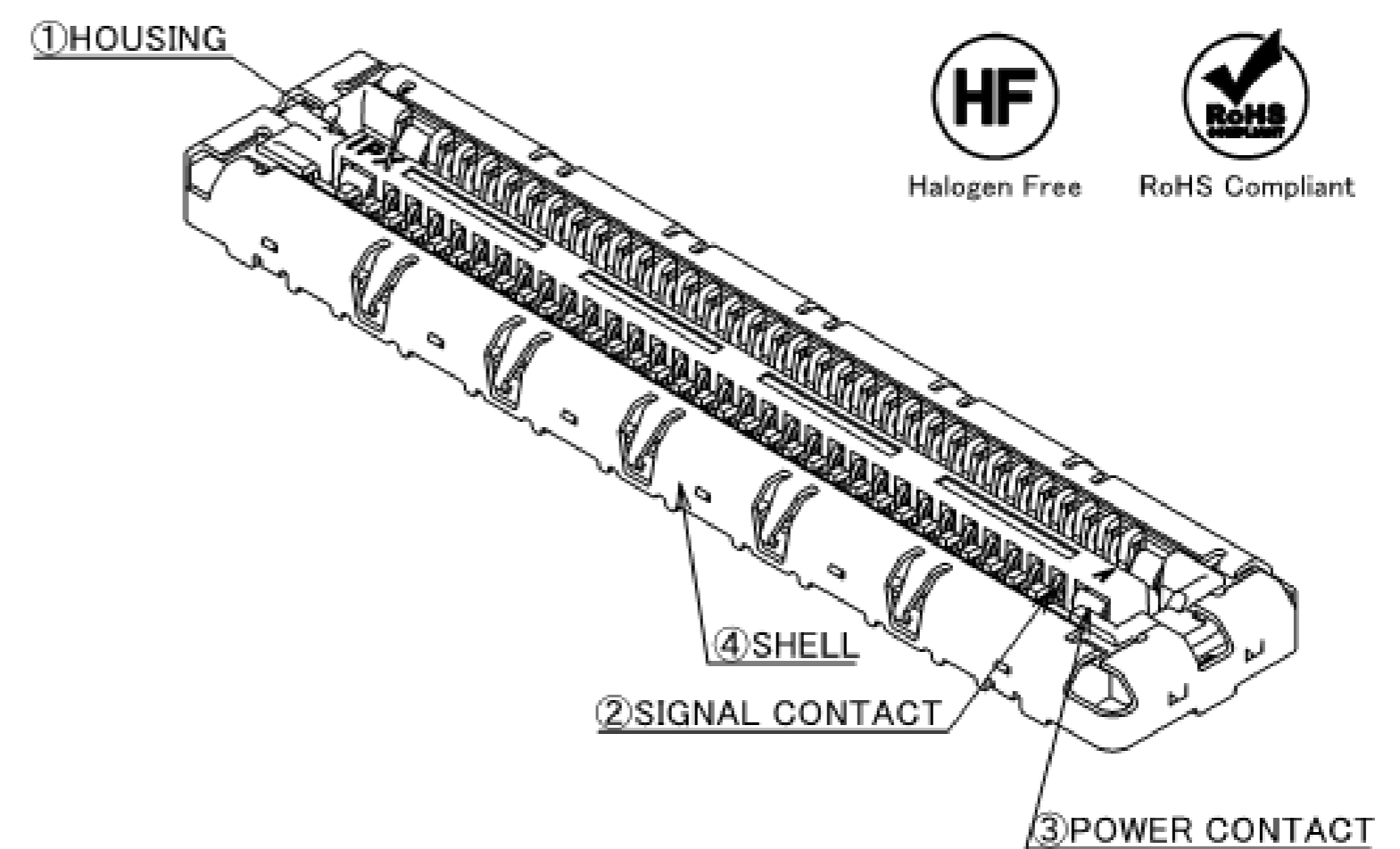
# Plug Assembly

ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	21151-0**E-01
RATED VOLTAGE	60V AC (PER CONTACT PIN)
RATED AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)/ 12.0A AC/DC(TOTAL)
RATED AMPERAGE (FOR POWER CONTACT)	4.5A AC/DC (PER CONTACT PIN)/ 18.0A AC/DC(TOTAL)
OPERATING TEMPERATURE	233 TO 358K(-40°C TO +85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : $\Delta$ 40mohm MAX.
CONTACT RESISTANCE (FOR POWER CONTACT)	INITIAL : 10mohm MAX. / AFTER TEST : $\Delta$ 10mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : $\Delta$ 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	22P: 32.0 N MAX. 56P: 60.0 N MAX. 62P: 70.0 N MAX.
UNMATING FORCE (AFTER TEST)	22P: 3.2 N MIN. 56P: 6.0 N MIN. 62P: 7.0 N MIN.
COPLANARITY	CONTACT AND POWER CONTACT: 0.08 MAX. SHELL: 0.105 MAX.
PRODUCT SPECIFICATION	PRS-3005
TEST REPORT	TR-26015
PACKING STANDARD	PST-26017
INSTRUCTION MANUAL	HIM-26010
APPEARANCE CRITERIA No.	QLS-A***

Rev.0

# Receptacle Assembly

RECOMMENDED PART No.		21151-0**E-01				
PART No.	SIGNAL POS.	POWER POS.	A	B	C	D
21151-022E-01	22P	4P	7.98	5.49	4.55	3.50
21151-056E-01	56P	4P	13.93	11.44	10.50	9.45
21151-062E-01	62P	4P	14.98	12.49	11.55	10.50

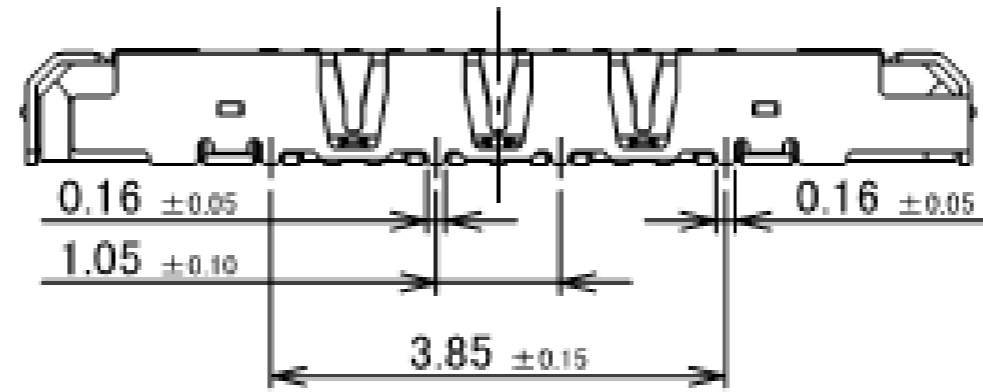


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
4	SHELL	CORSON ALLOY	ALL OVER Ni 1.27 $\mu$ m MIN. Au 0.01 $\mu$ m MIN. 0.025 $\mu$ m MAX.
3	POWER CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 $\mu$ m MIN. CONTACT PART Au 0.05 $\mu$ m MIN. SOLDERING PART Au 0.02 $\mu$ m MIN.
2	SIGNAL CONTACT	CORSON ALLOY	ALL OVER Ni 1.27 $\mu$ m MIN. CONTACT PART Au 0.05 $\mu$ m MIN. SOLDERING PART Au 0.02 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK (PFAS FREE)

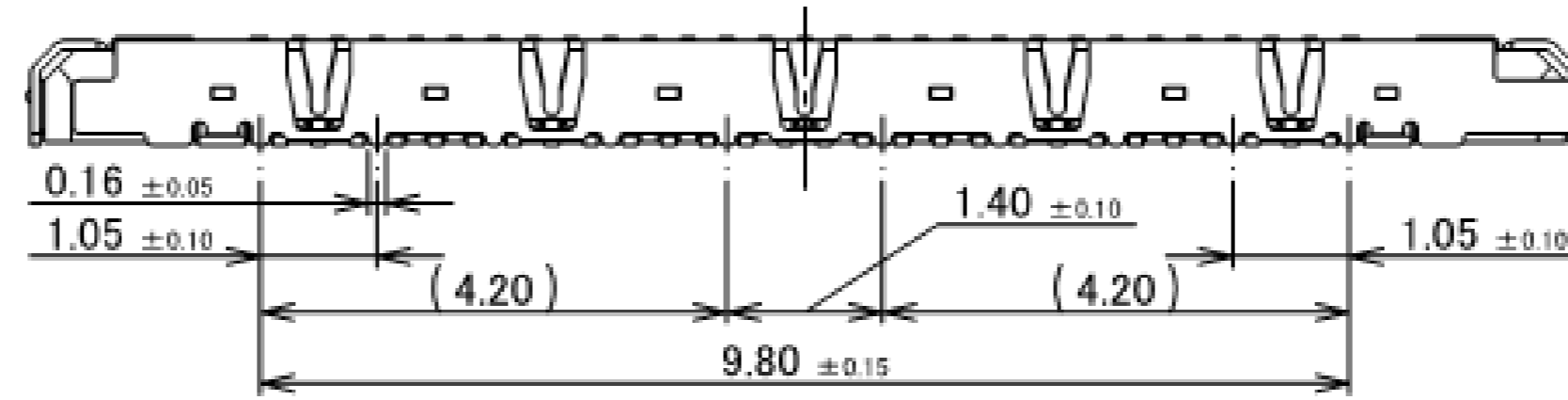
Rev.0

# Receptacle Assembly

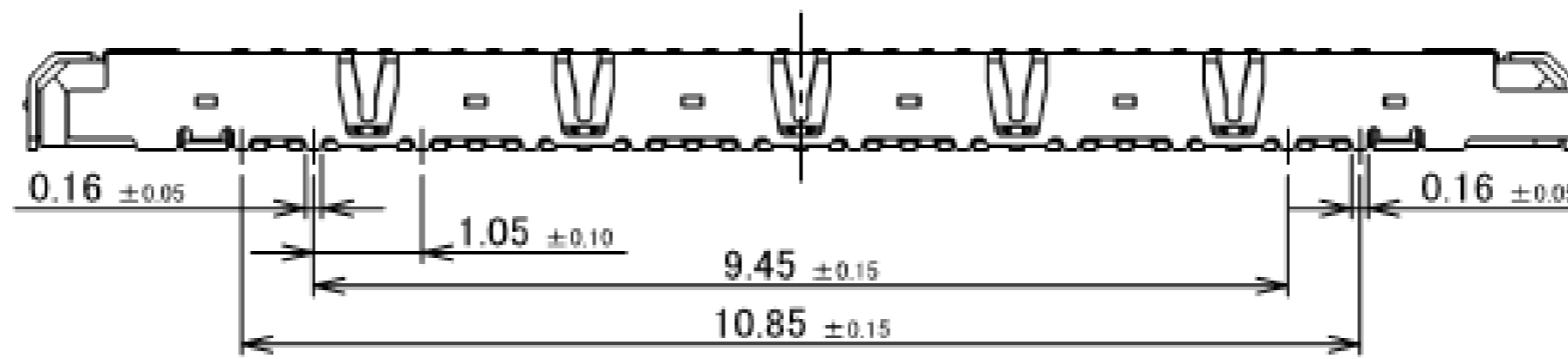
PART No.	SIGNAL POS.	POWER POS.
21151-022E-01	22P	4P
21151-056E-01	56P	4P
21151-062E-01	62P	4P



22P LAYOUT

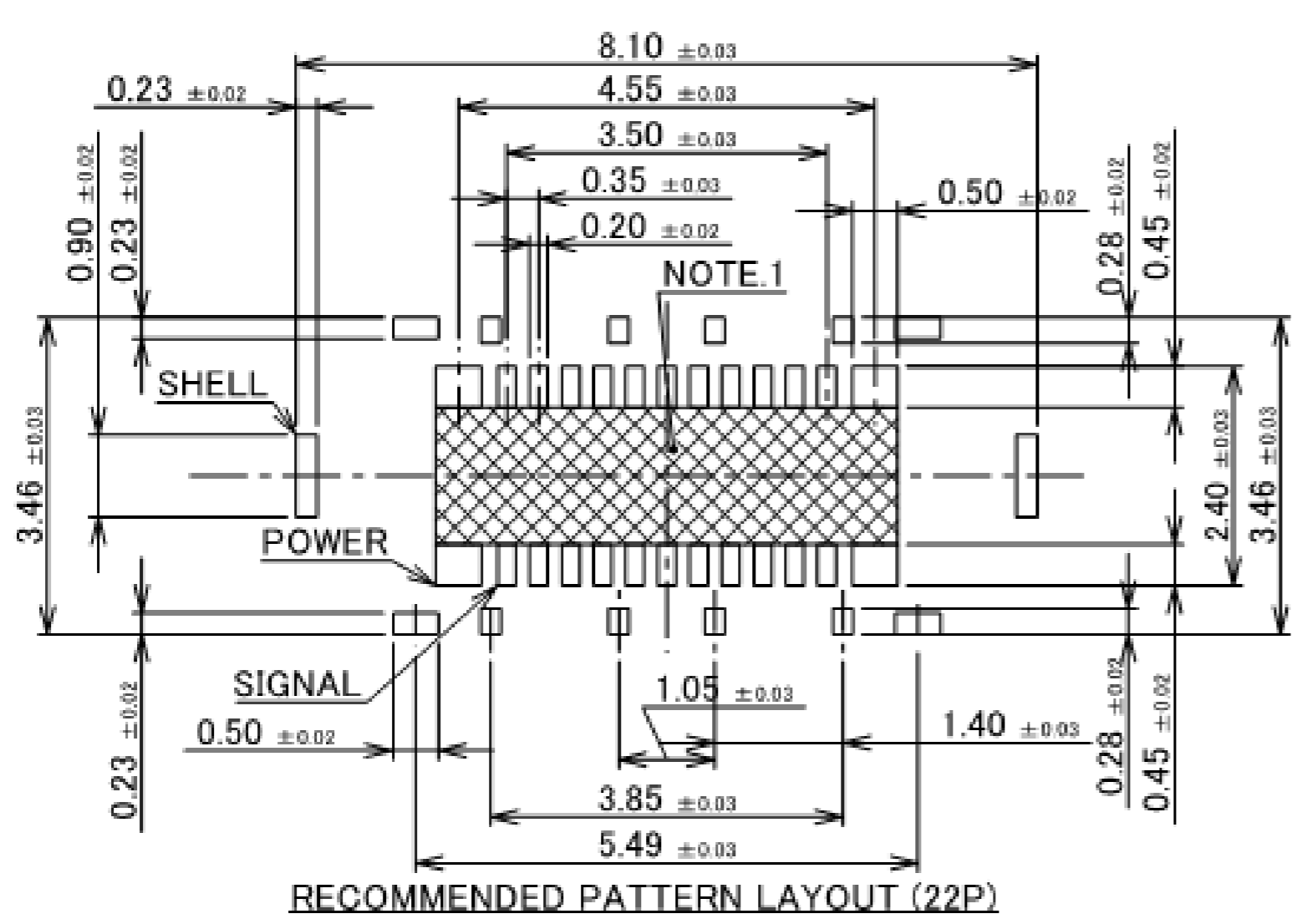


56P LAYOUT

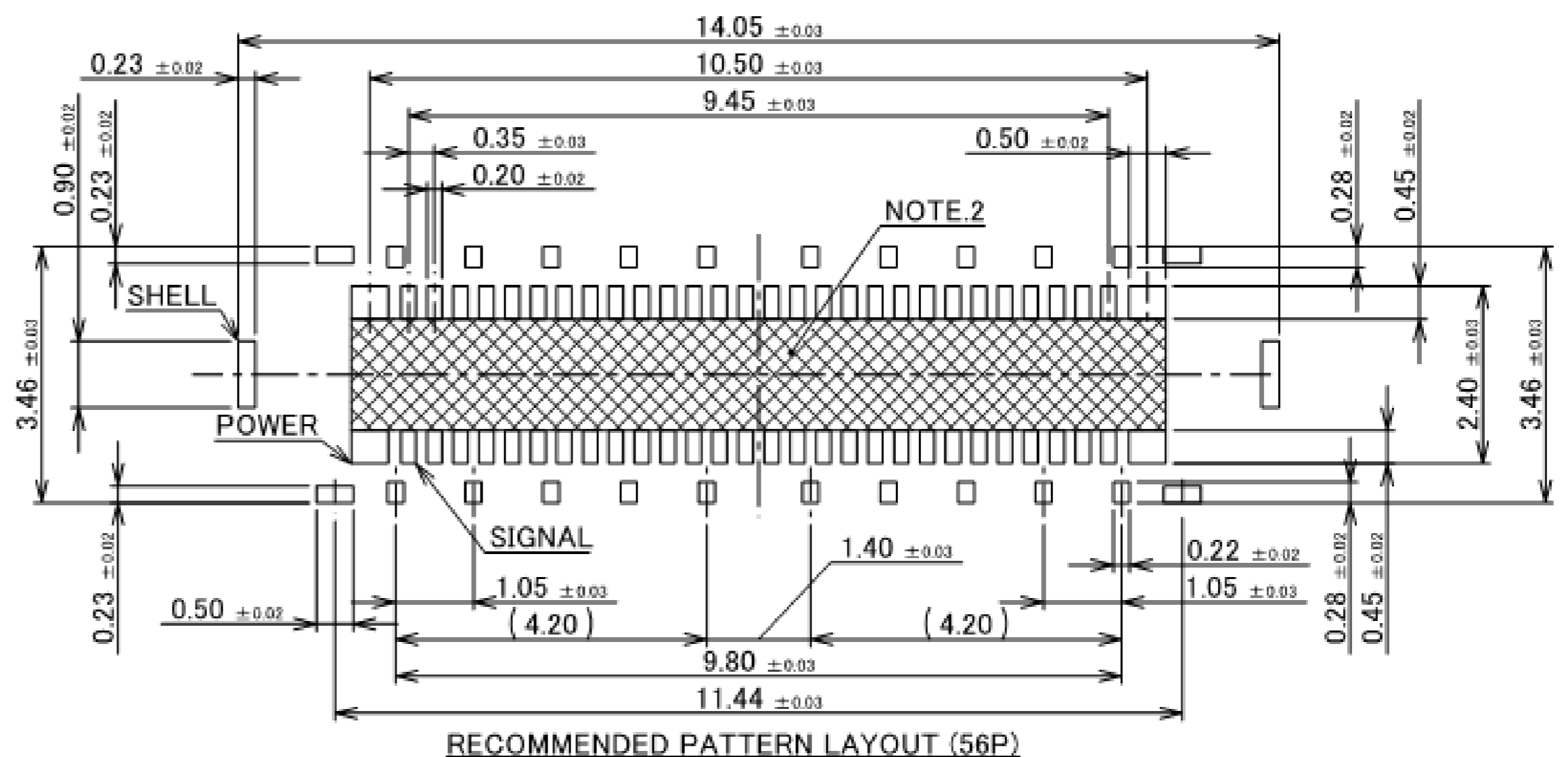


62P LAYOUT

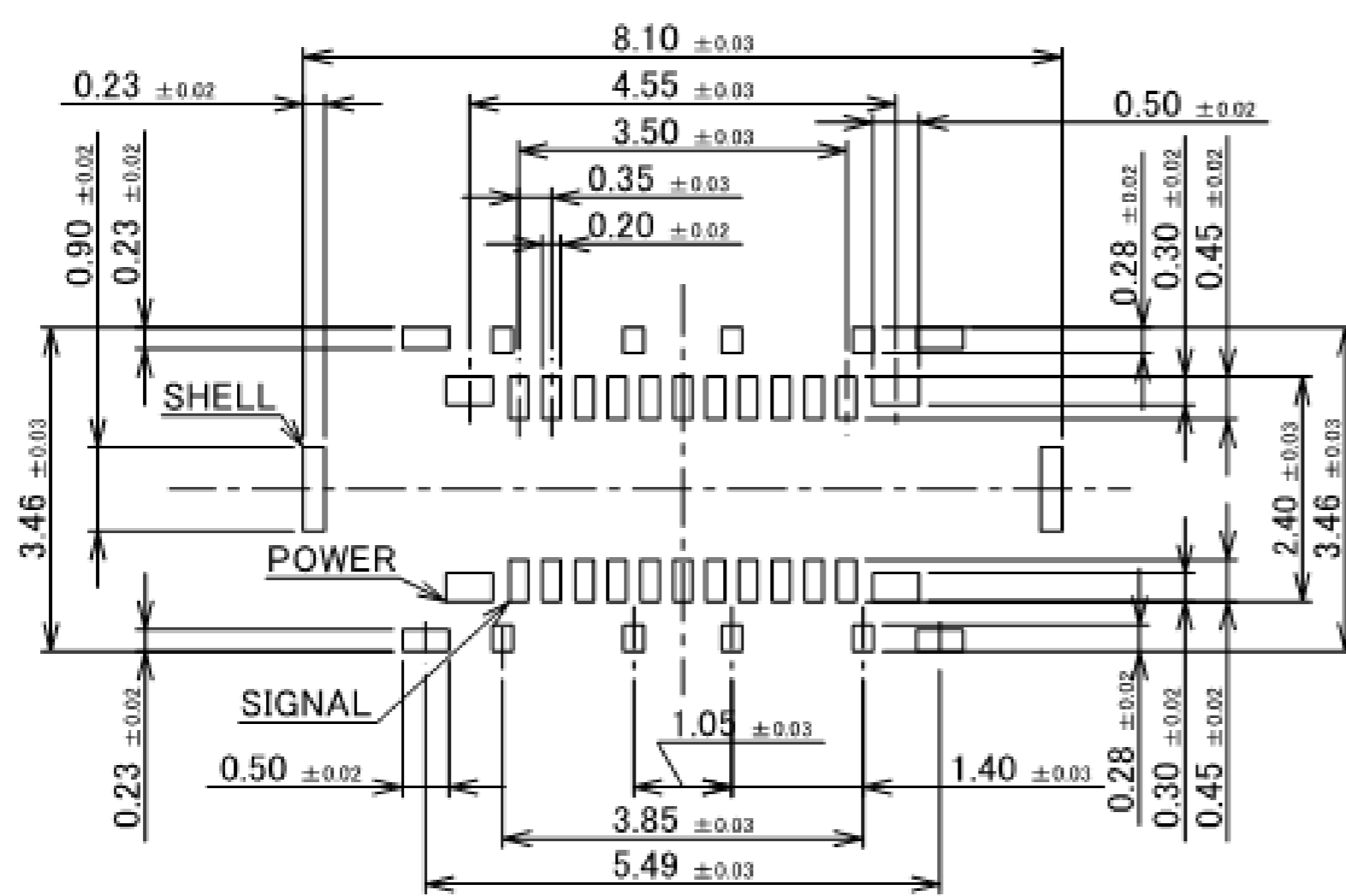
Rev.0



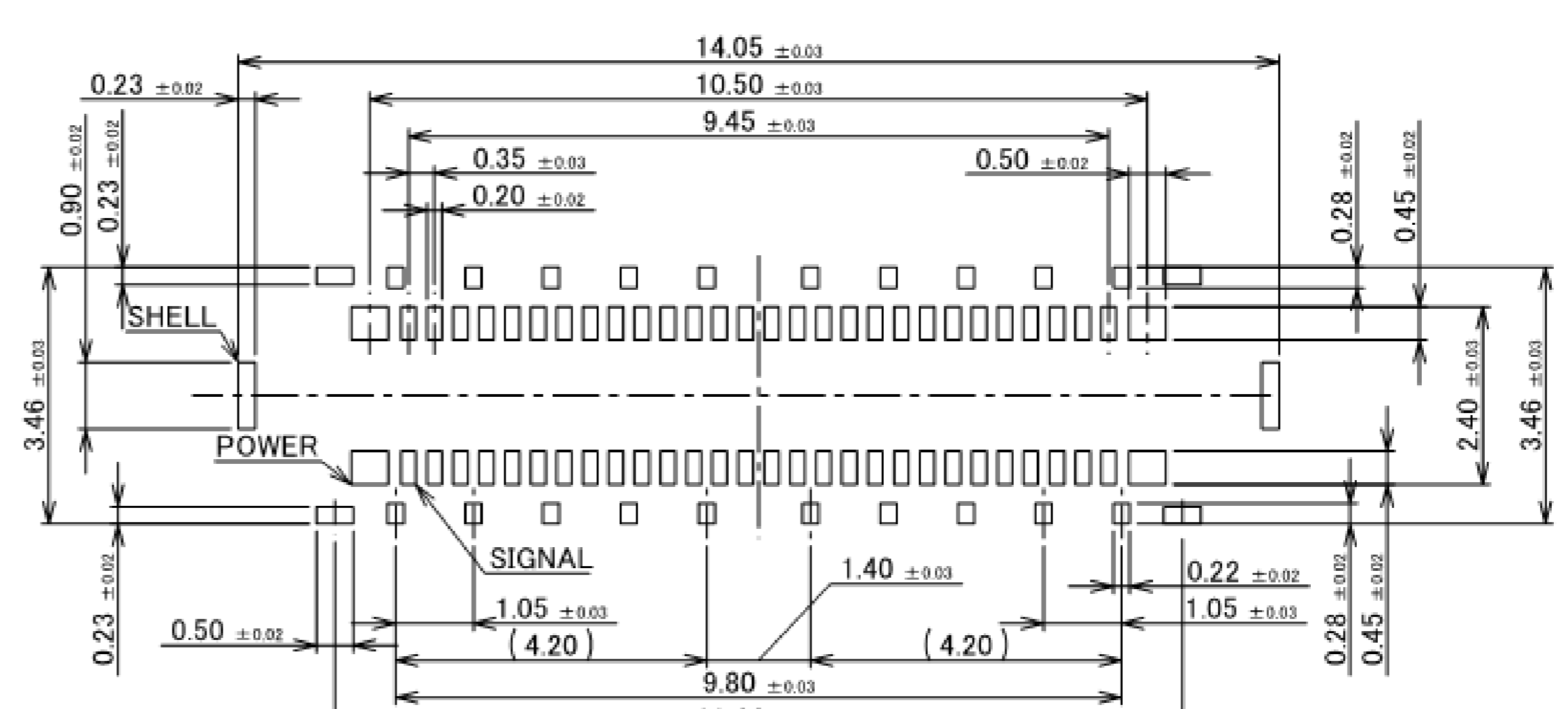
RECOMMENDED PATTERN LAYOUT (22P)



RECOMMENDED PATTERN LAYOUT (56P)



RECOMMENDED METAL MASK LAYOUT (22P)  
THICKNESS : t=0.10mm



RECOMMENDED METAL MASK LAYOUT (56P)  
THICKNESS : t=0.10mm

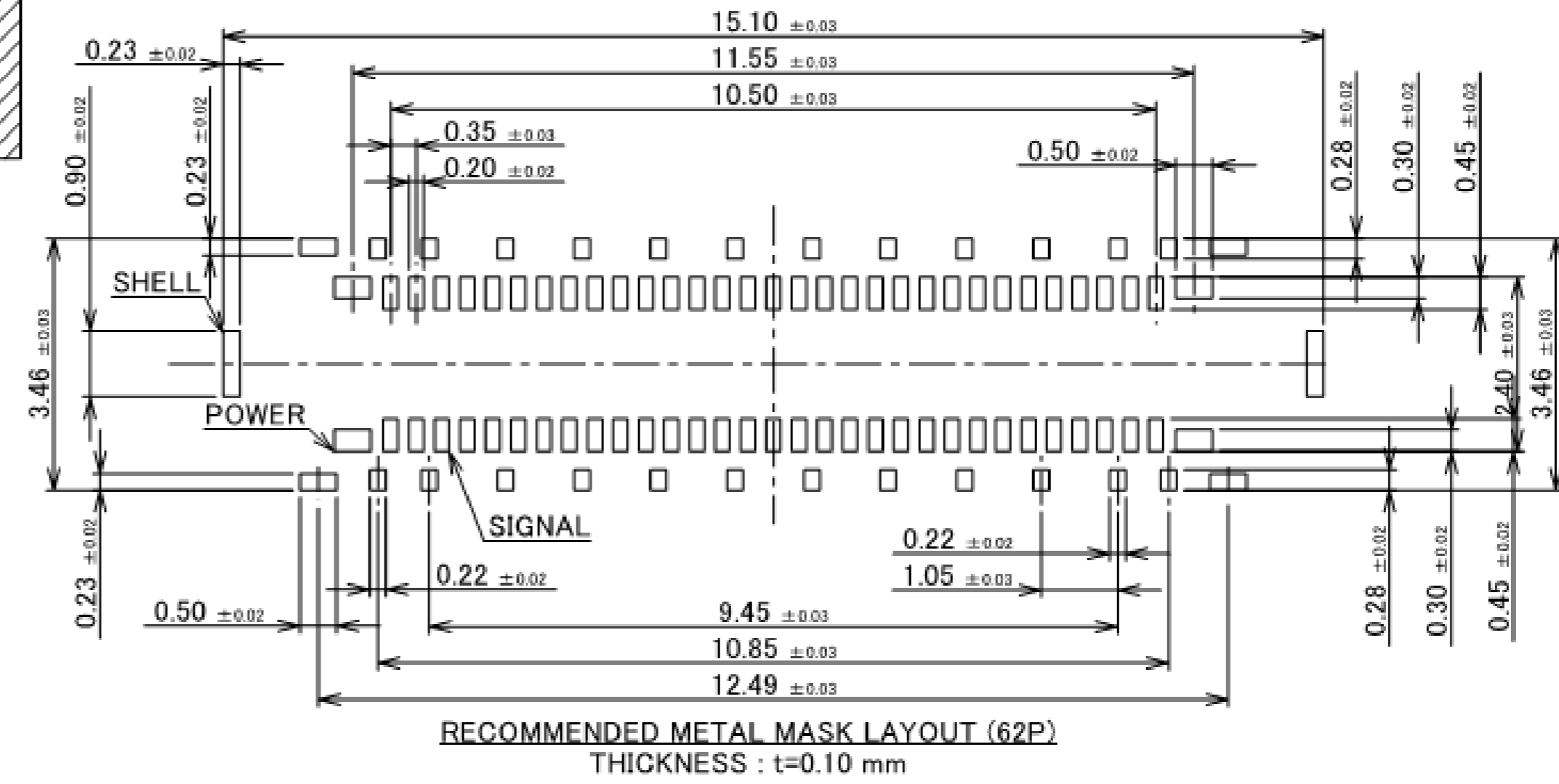
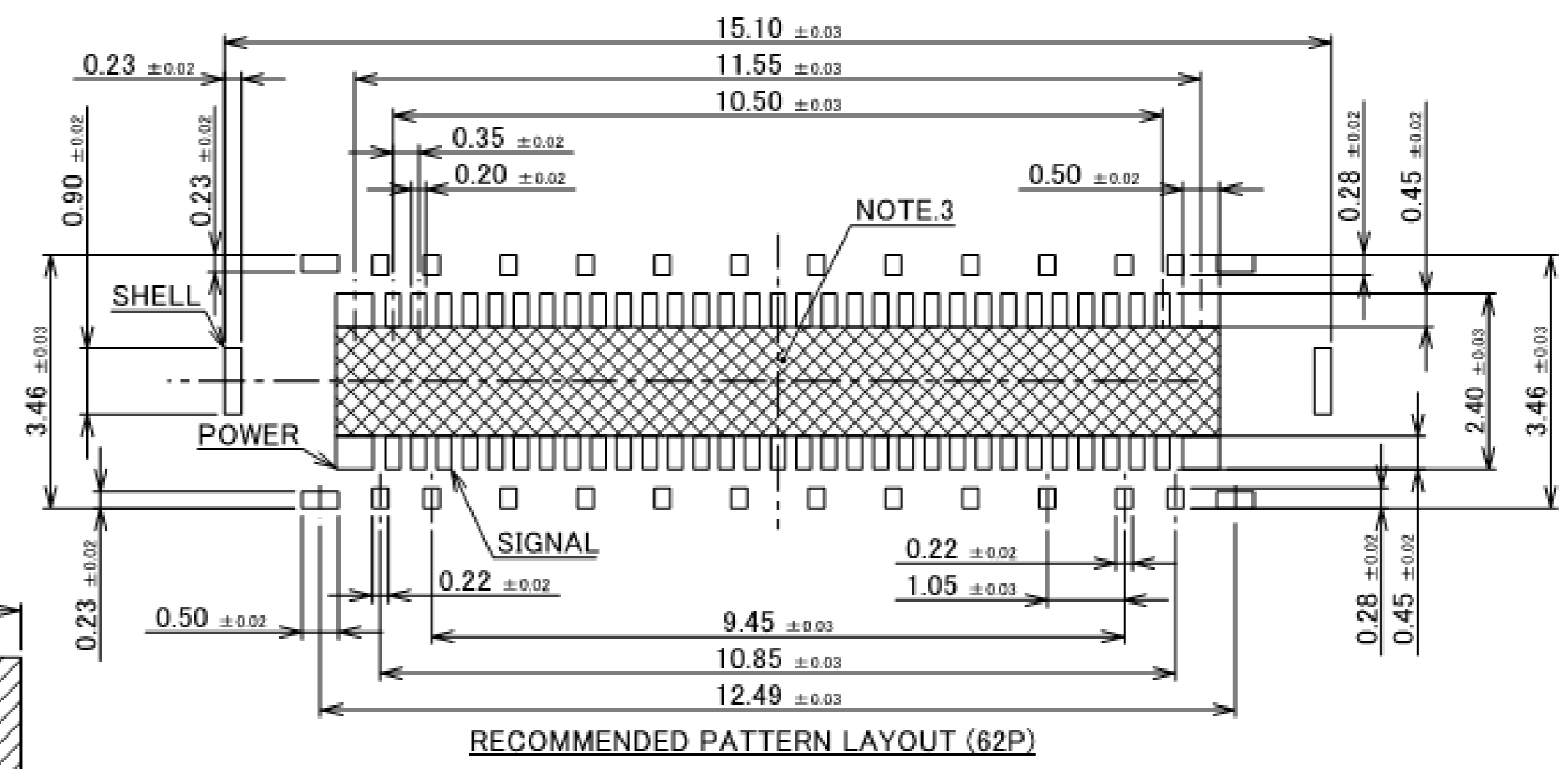
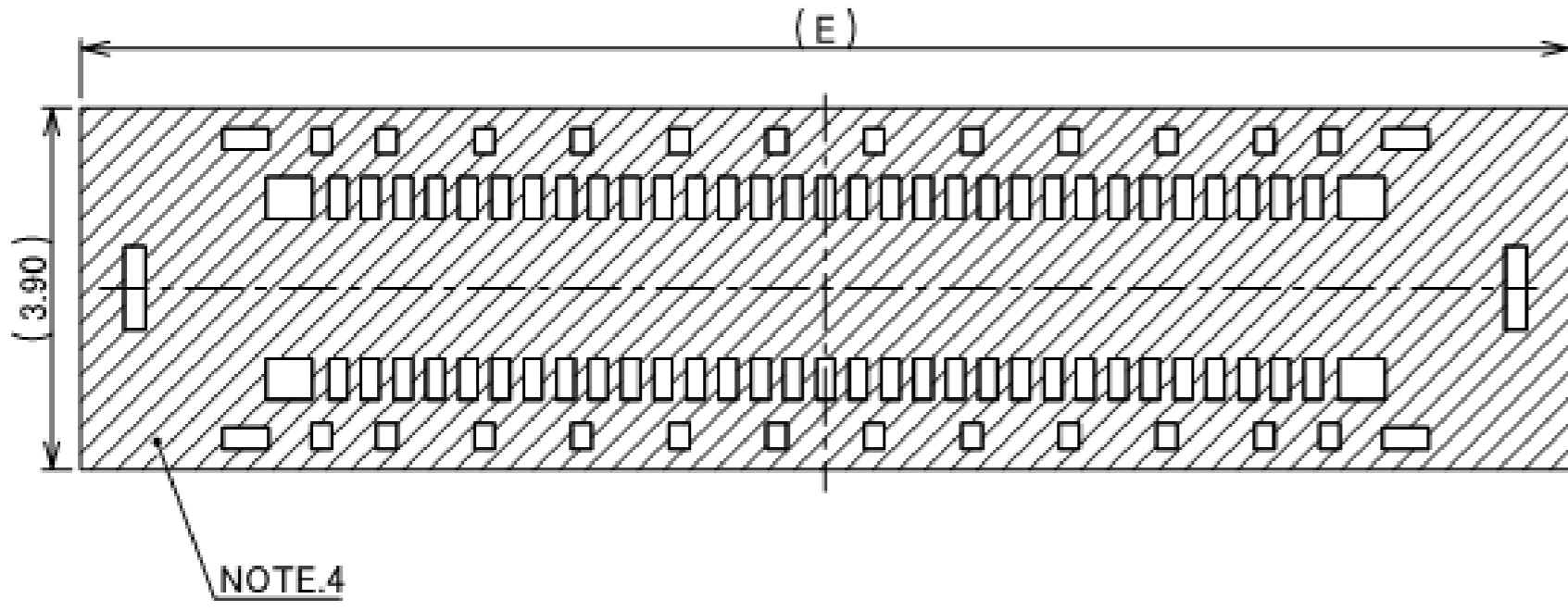
NOTES.

1. SOLDER RESIST SHALL BE COATED IN CASE OF RUNNING TRACES ON THIS FOOT PRINT PATTERNPROHIBITION AREA.

Rev.0

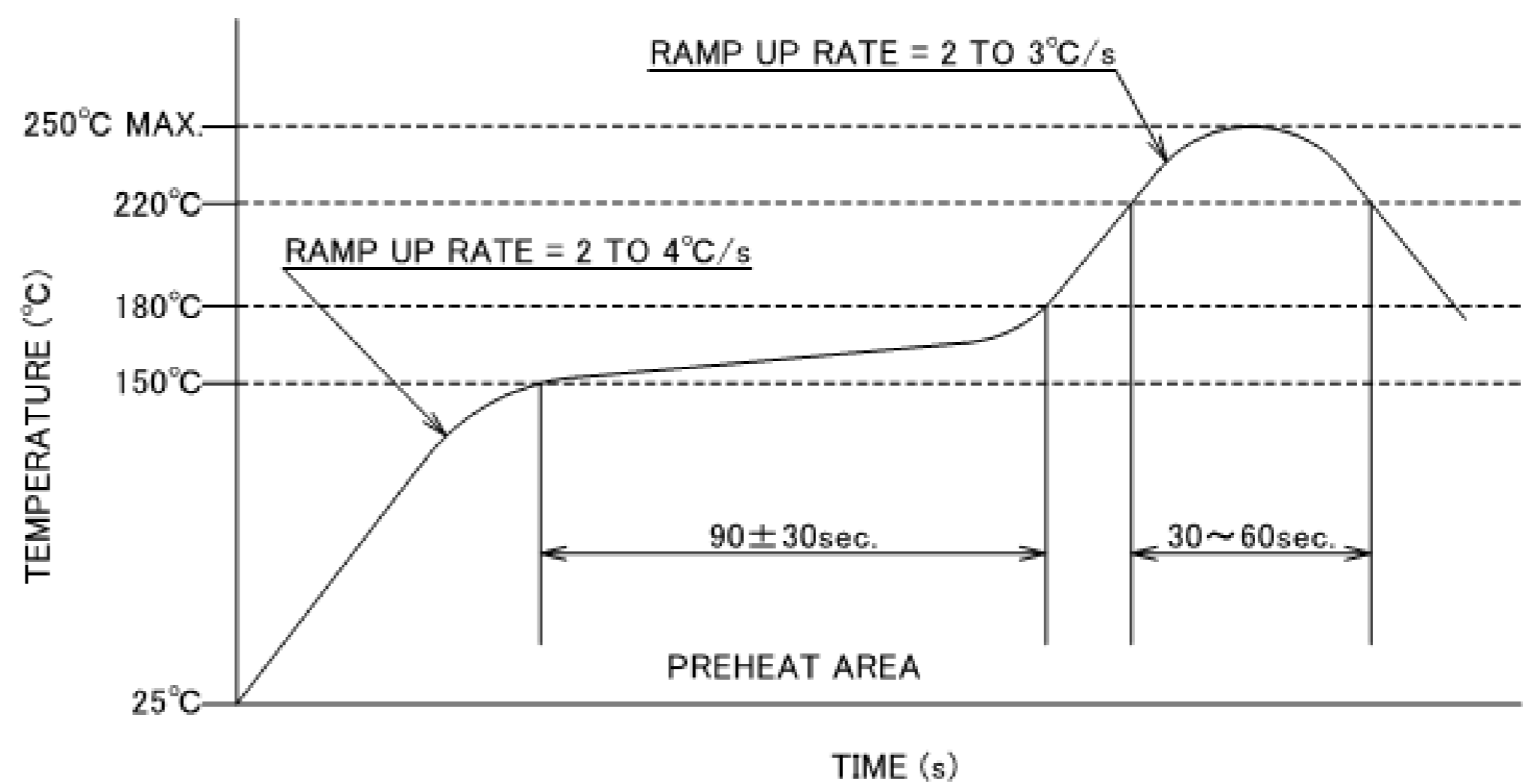
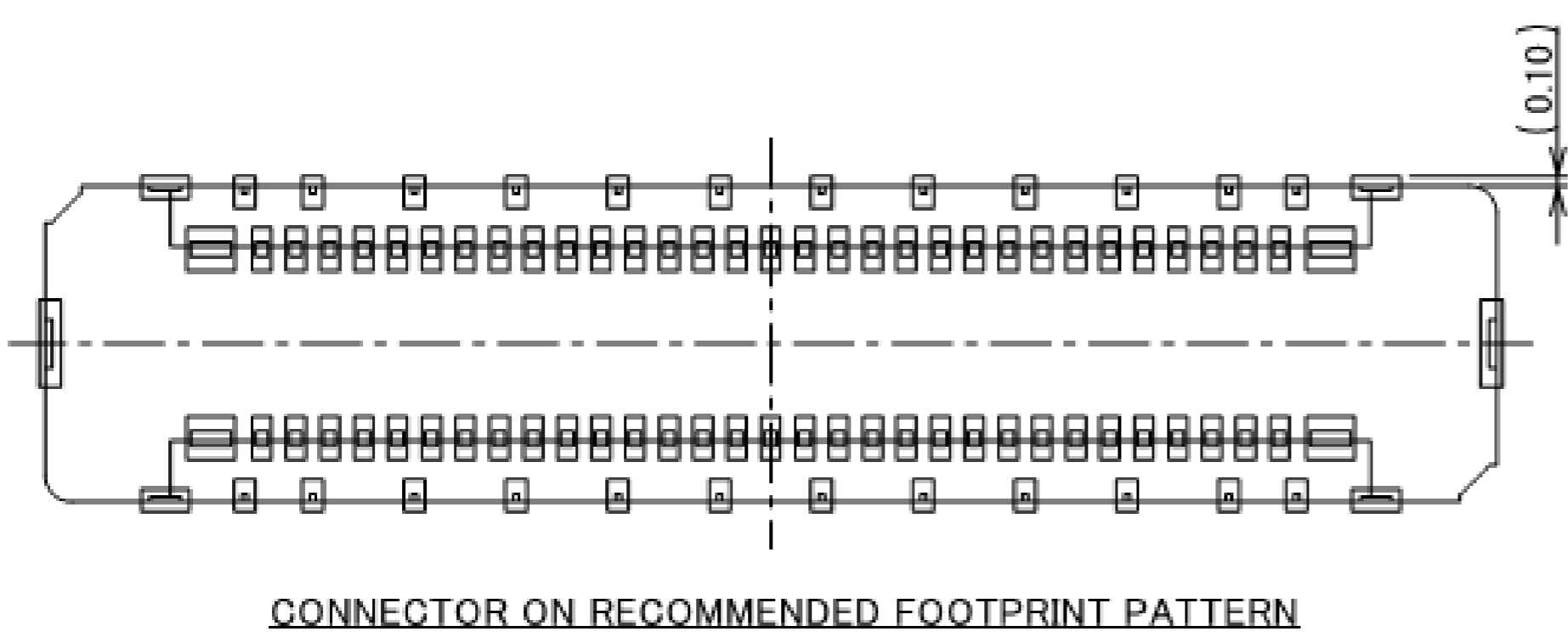
# Receptacle Assembly

PART No.	SIGNAL POS.	POWER POS.	E
21151-022E-01	22P	4P	9.04
21151-056E-01	56P	4P	14.99
21151-062E-01	62P	4P	16.04



- NOTES.
- SOLDER RESIST SHALL BE COATED IN CASE OF RUNNING TRACES ON THIS FOOT PRINT PATTERN PROHIBITION AREA.
  - THIS AREA CANNOT MOUNT ANOTHER COMPONENTS.

Rev.0



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

## Receptacle Assembly

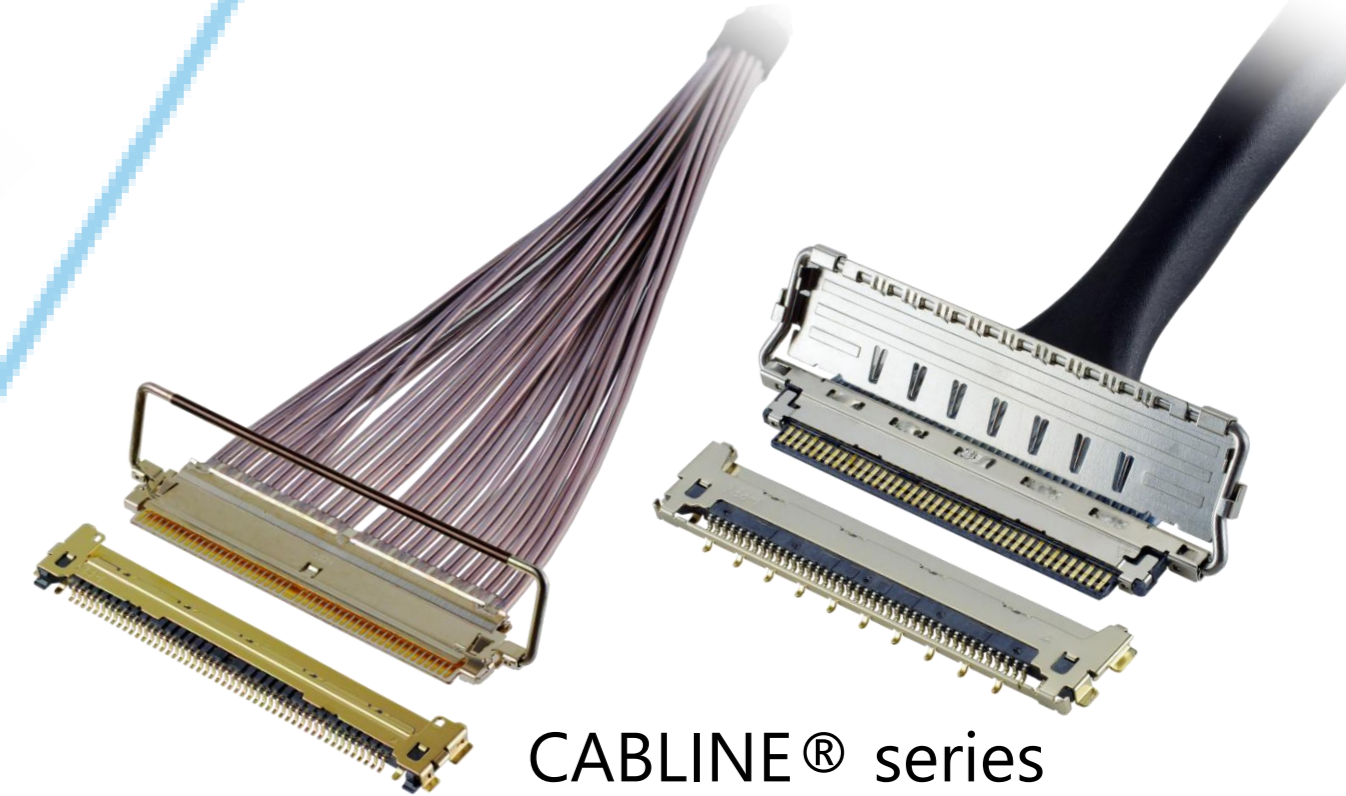
ITEMS	SPECIFICATION
APPLICABLE CONNECTOR PART No.	21150-0**E-01
RATED VOLTAGE	60V AC (PER CONTACT PIN)
RATED AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)/ 12.0A AC/DC(TOTAL)
RATED AMPERAGE (FOR POWER CONTACT)	4.5A AC/DC (PER CONTACT PIN)/ 18.0A AC/DC(TOTAL)
OPERATING TEMPERATURE	233 TO 358K(-40°C TO +85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 40mohm MAX. / AFTER TEST : $\triangle$ 40mohm MAX.
CONTACT RESISTANCE (FOR POWER CONTACT)	INITIAL : 10mohm MAX. / AFTER TEST : $\triangle$ 10mohm MAX.
CONTACT RESISTANCE (FOR GROUND)	INITIAL : 20mohm MAX. / AFTER TEST : $\triangle$ 20mohm MAX.
INSULATION RESISTANCE	INITIAL : 1,000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL)	22P: 32.0 N MAX. 56P: 60.0 N MAX. 62P: 70.0 N MAX.
UNMATING FORCE (AFTER TEST)	22P: 3.2 N MIN. 56P: 6.0 N MIN. 62P: 7.0 N MIN.
COPLANARITY	0.08 MAX.
PRODUCT SPECIFICATION	PRS-3005
TEST REPORT	TR-26015
PACKING STANDARD	PST-26018
INSTRUCTION MANUAL	HIM-26010
APPEARANCE CRITERIA No.	QLS-A***

Rev.0

# Custom Connectors Available

## RF Connectors

MHF® series

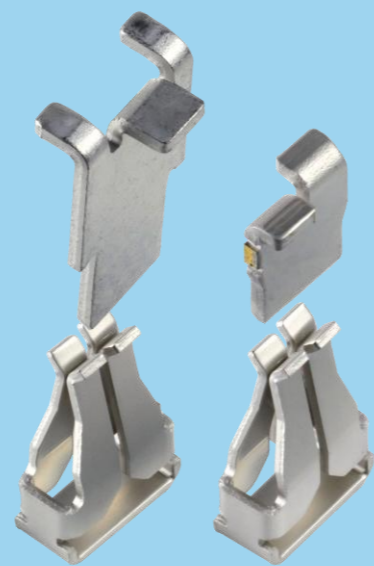


## Micro-Coaxial/Twinaxial Connectors



## Wire-to-Board Connectors/Terminals

AP series



ISH® series



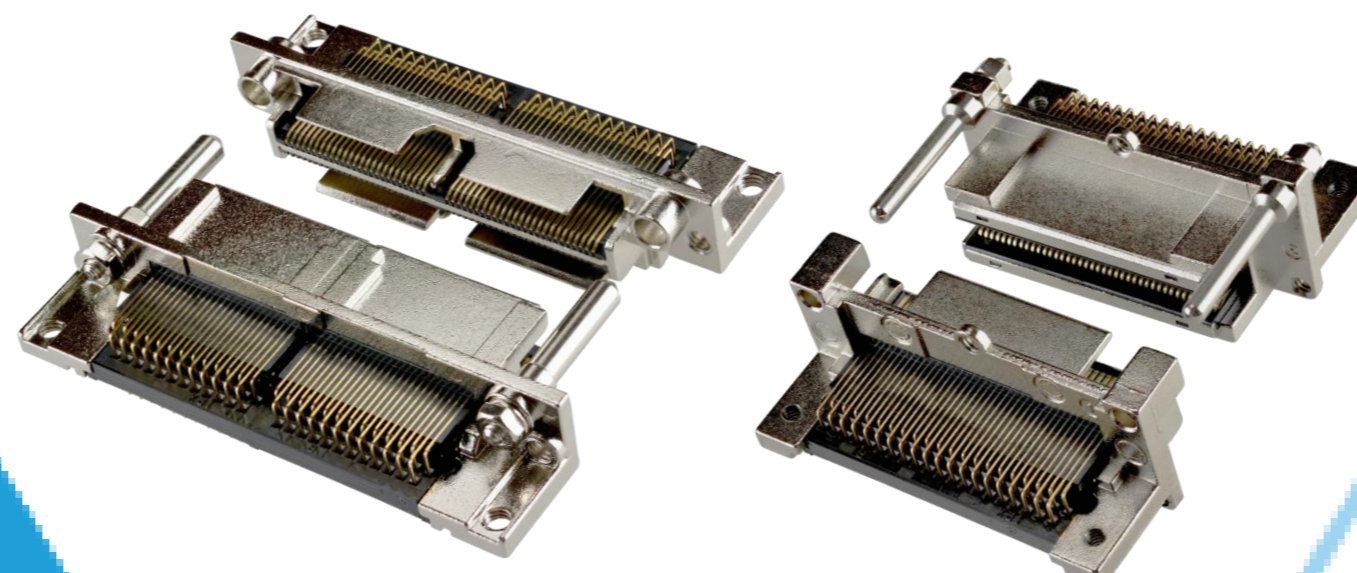
NOVASTACK® series



## Board-to-Board Connectors



## I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



## FPC/FFC Connectors



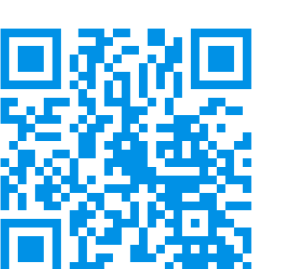
Inquiry



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. 2026  
All rights reserved