

# CABLIN<sup>®</sup>-VS II

フルシールド&メカニカルロック付き、高速伝送対応(20Gbps/lane)、0.5mmピッチ、水平嵌合タイプ細線同軸コネクタ

## Product Specifications:

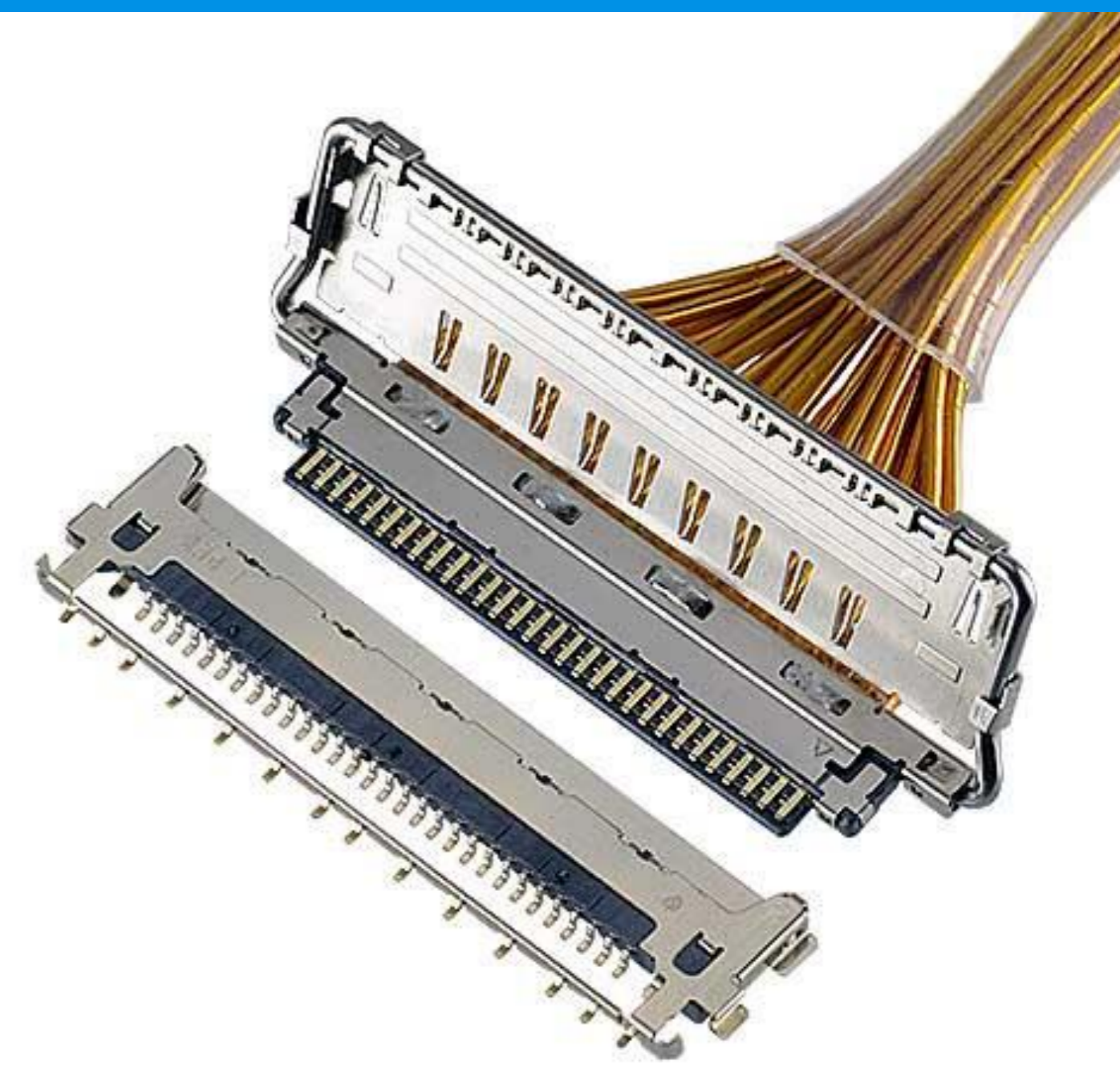
Mating type	Horizontal	
Board Pitch (mm)	0.5	
Wiping Length (mm)	0.54	
Mated size (mm)	Height	1.2 max. with cover
	Width	Formula: $6.85 + (0.5 * p)$
	Depth	6.70
Pin Counts	Range	Up to 55
	Available	20, 30, 40

## Applicable Cable Size:

Maximum O.D. (mm)	0.5
Micro-Coaxial for Signal (AWG)	45 ohm: #36 or smaller 50 ohm: #38 or smaller
Twinax (AWG)	#40
Discrete (AWG)	#32 or smaller

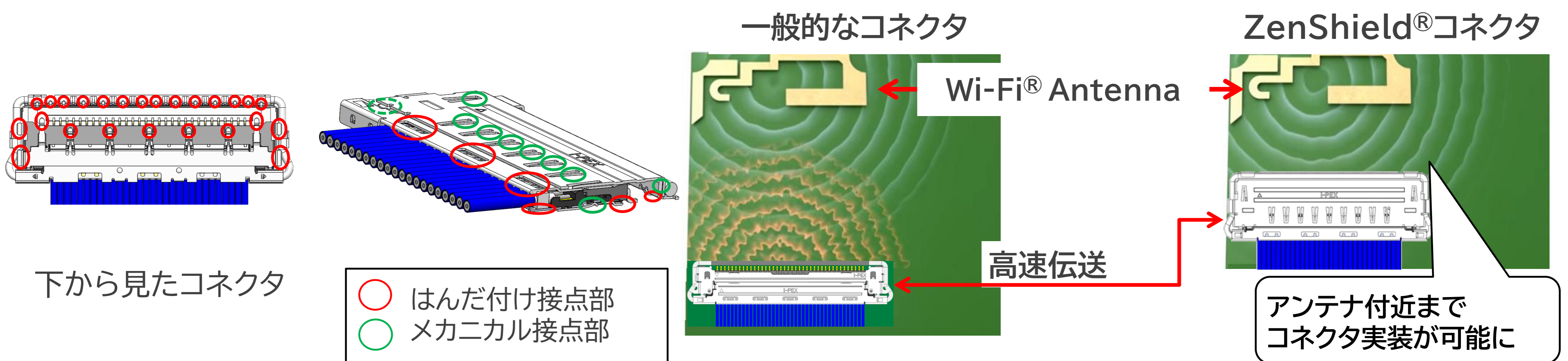
## Applicable Standards (Reference Only):

USB4 Gen3/Thunderbolt 4(20 Gbps/lane), PCIe Gen 4 (16 GT/s), USB 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps)

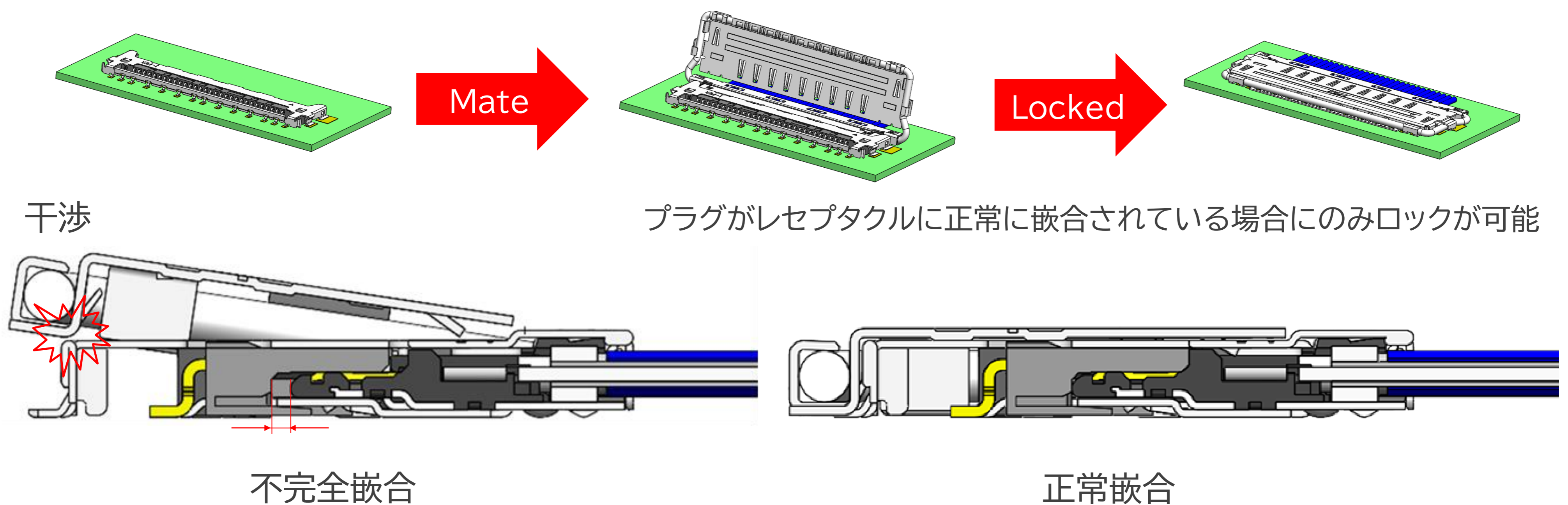


\*記載のない極数の対応状況についてはお問い合わせください。

## ▶ ZenShield<sup>®</sup> フルシールドと多点グラウンド構造でEMI対策強化



## ▶ メカニカルロックバーによる半嵌合防止とプラグ抜け防止

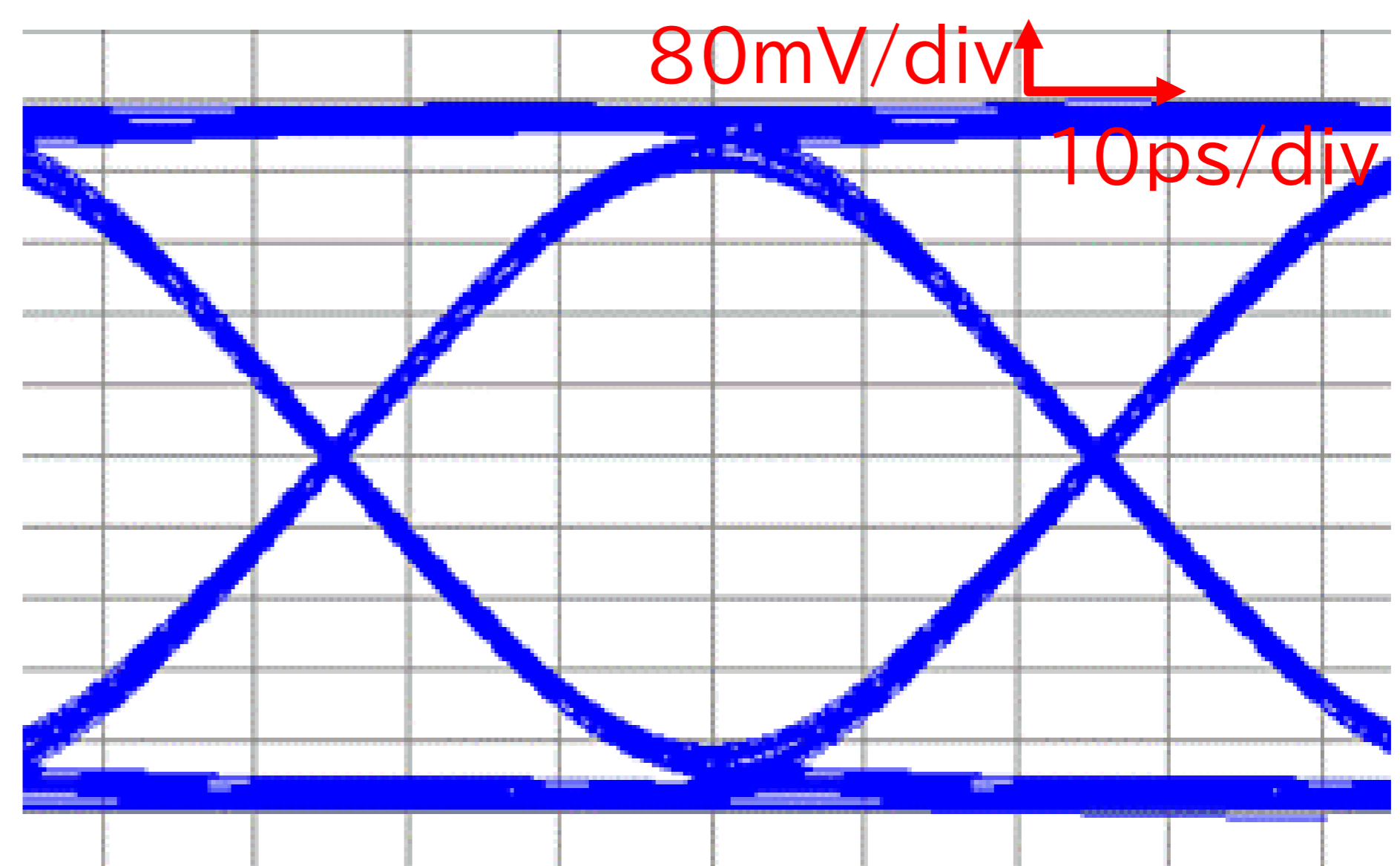


## ▶ USB4 Gen3/Thunderbolt 4(20Gbps/lane) の高速伝送内部接続に最適

USB4 Gen3/Thunderbolt 4(20Gbps/lane)

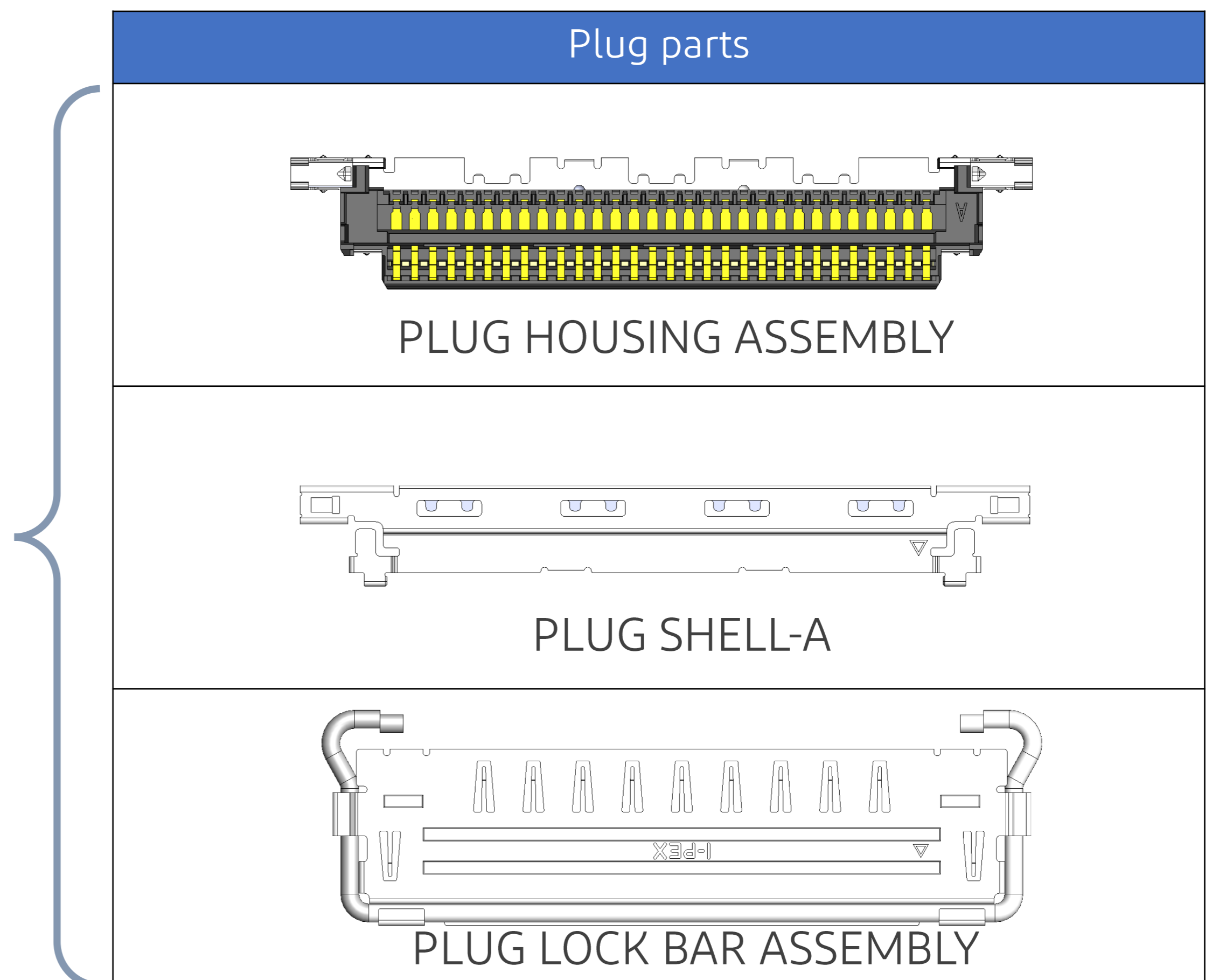
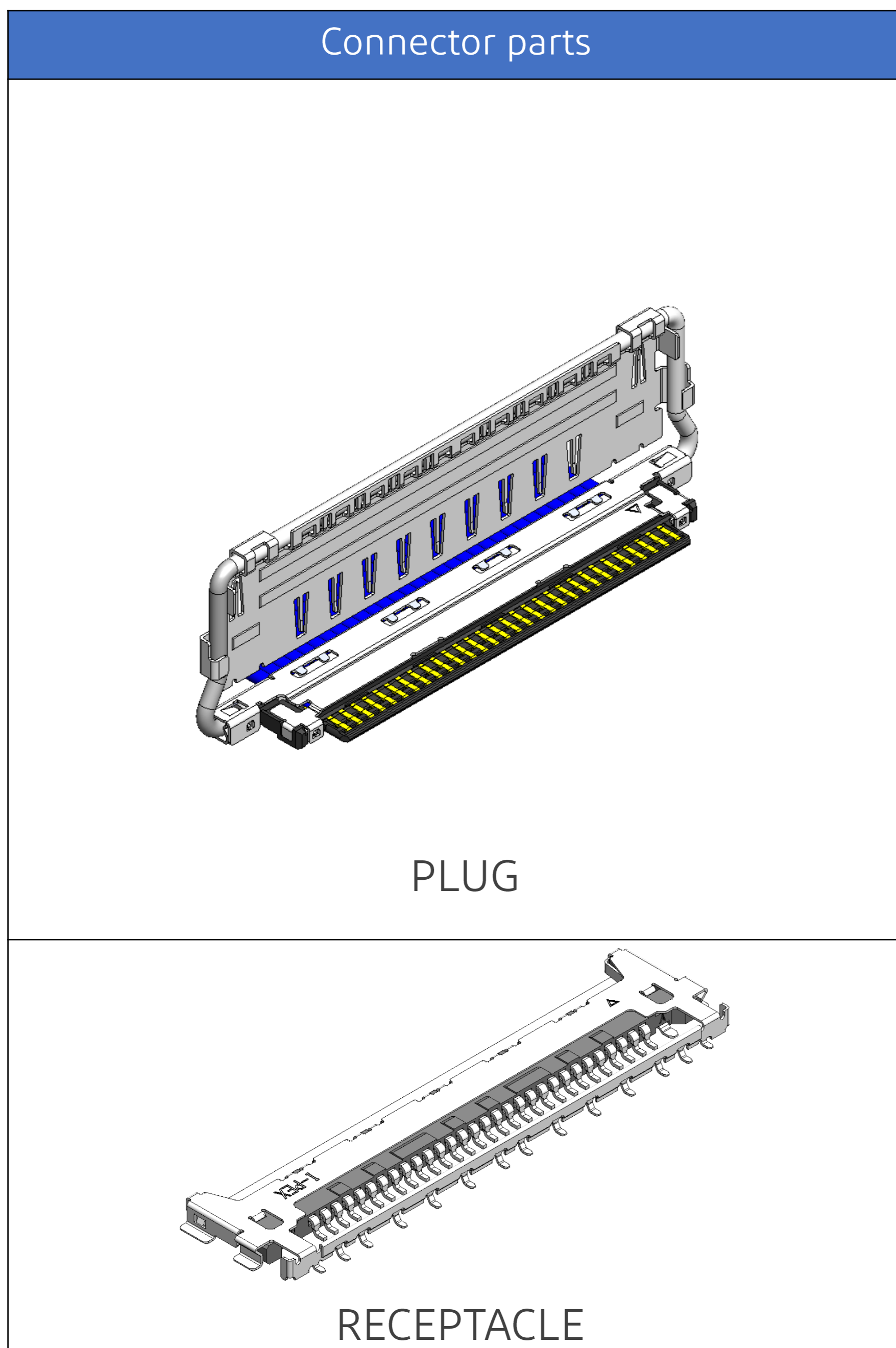
Eye pattern (Differential)  
Bit rate : 20Gbps  
Rise time : 30ps (10-90%)  
Input voltage : 800mVp-p

\*試験データの詳細はI-PEX Connectorsにお問い合わせください



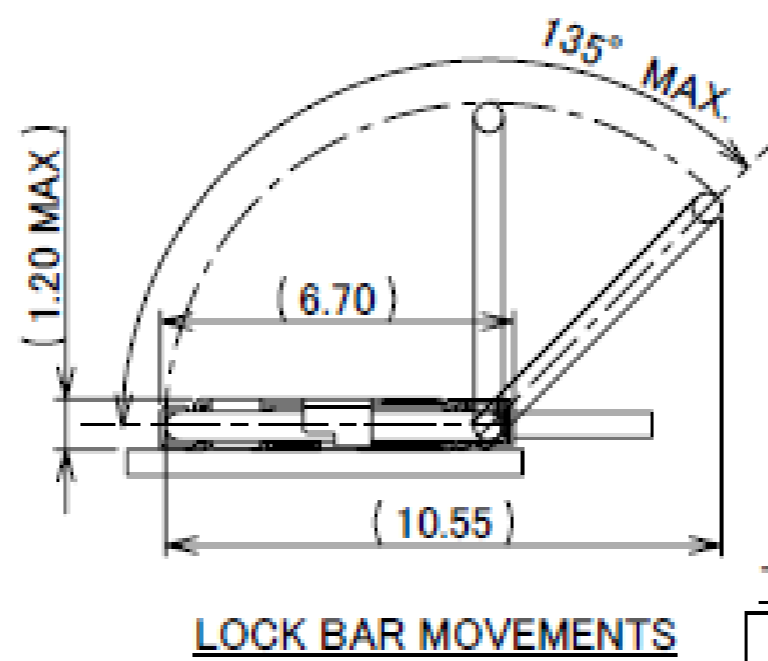
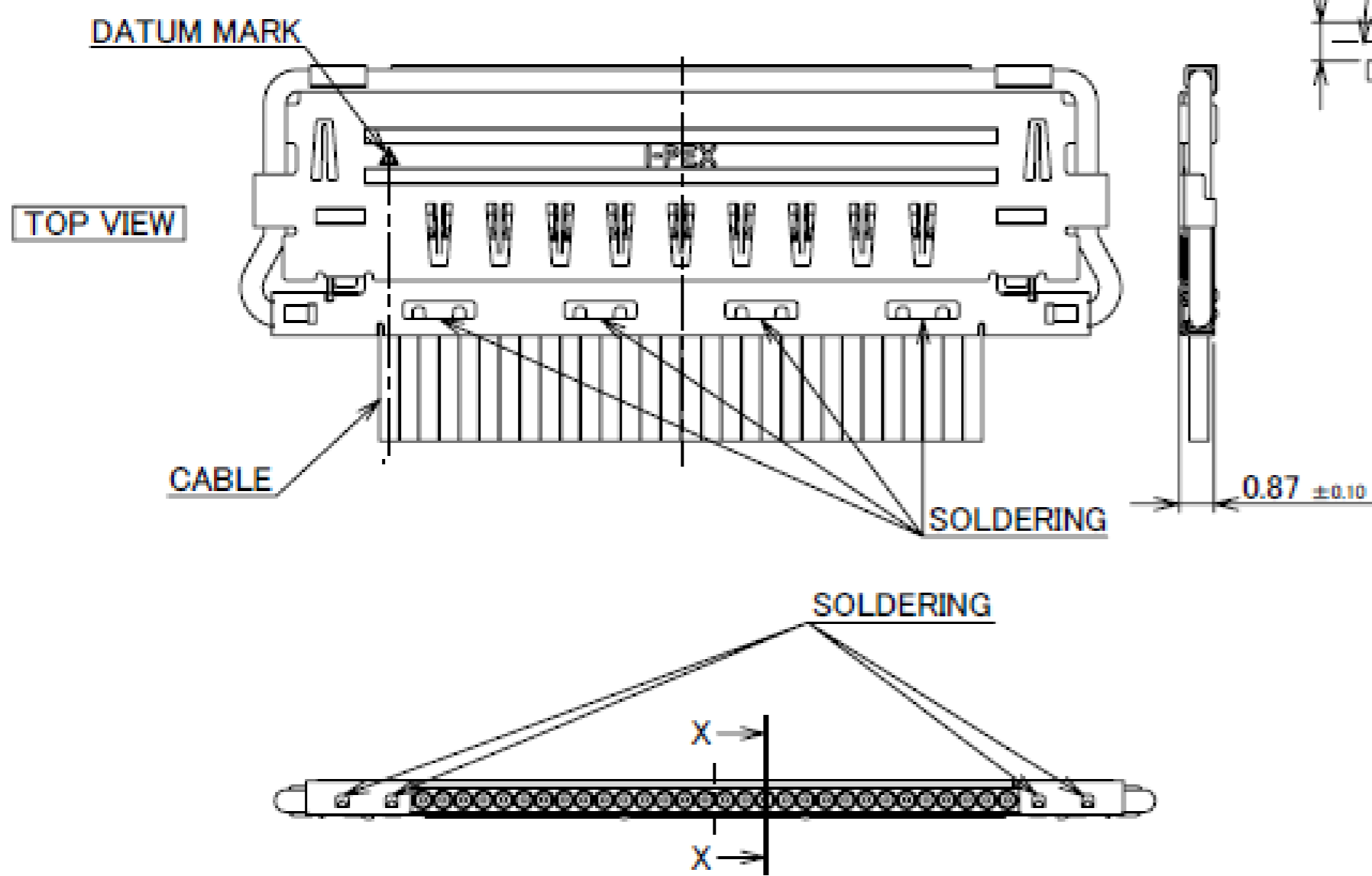
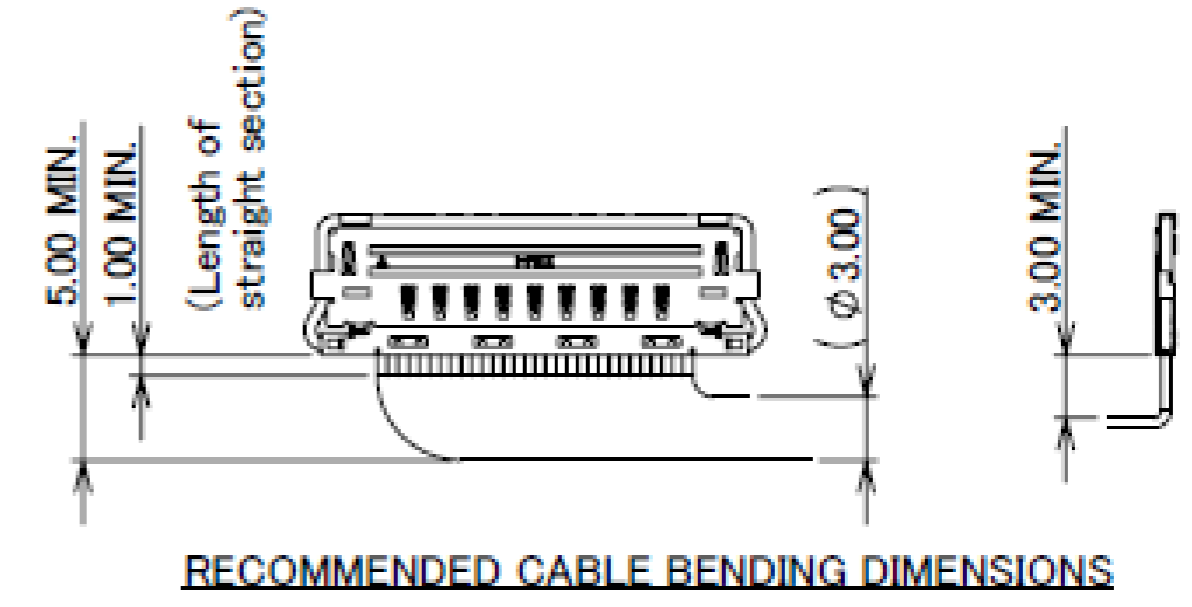
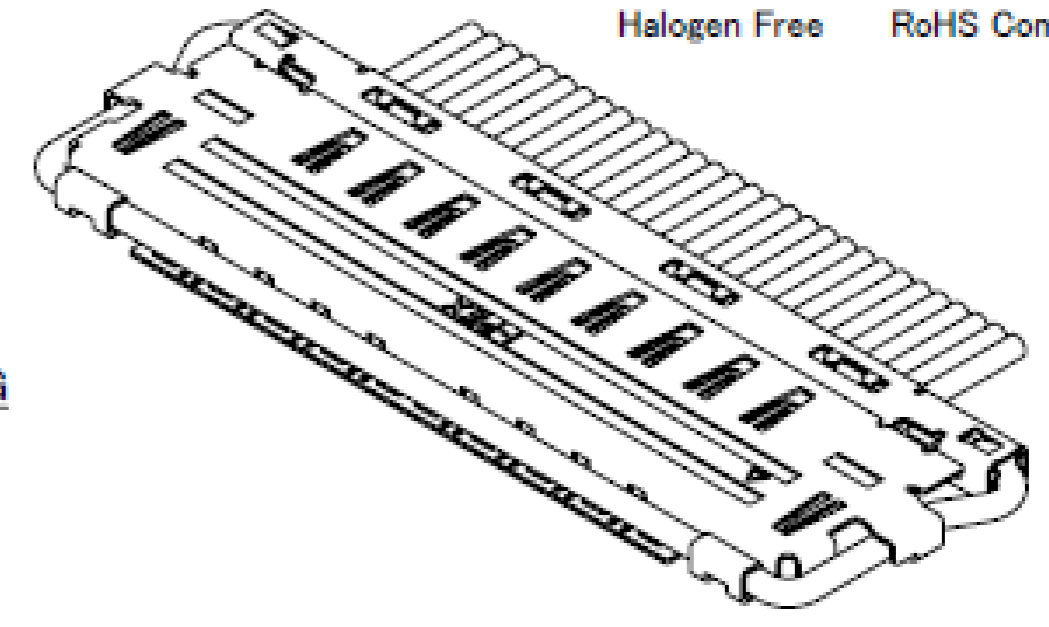
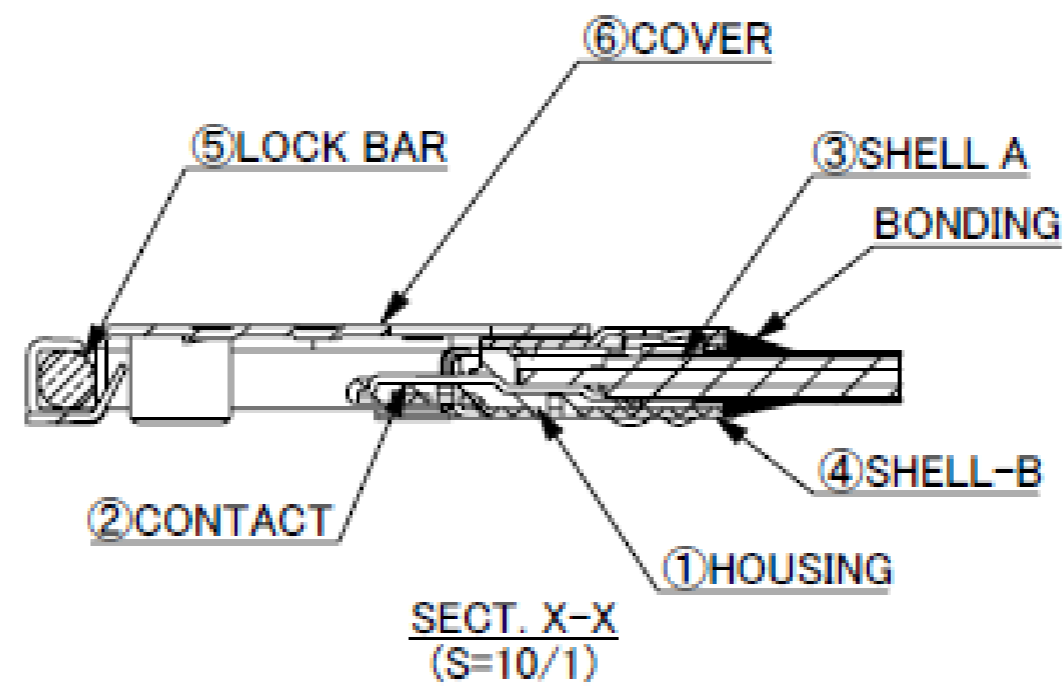
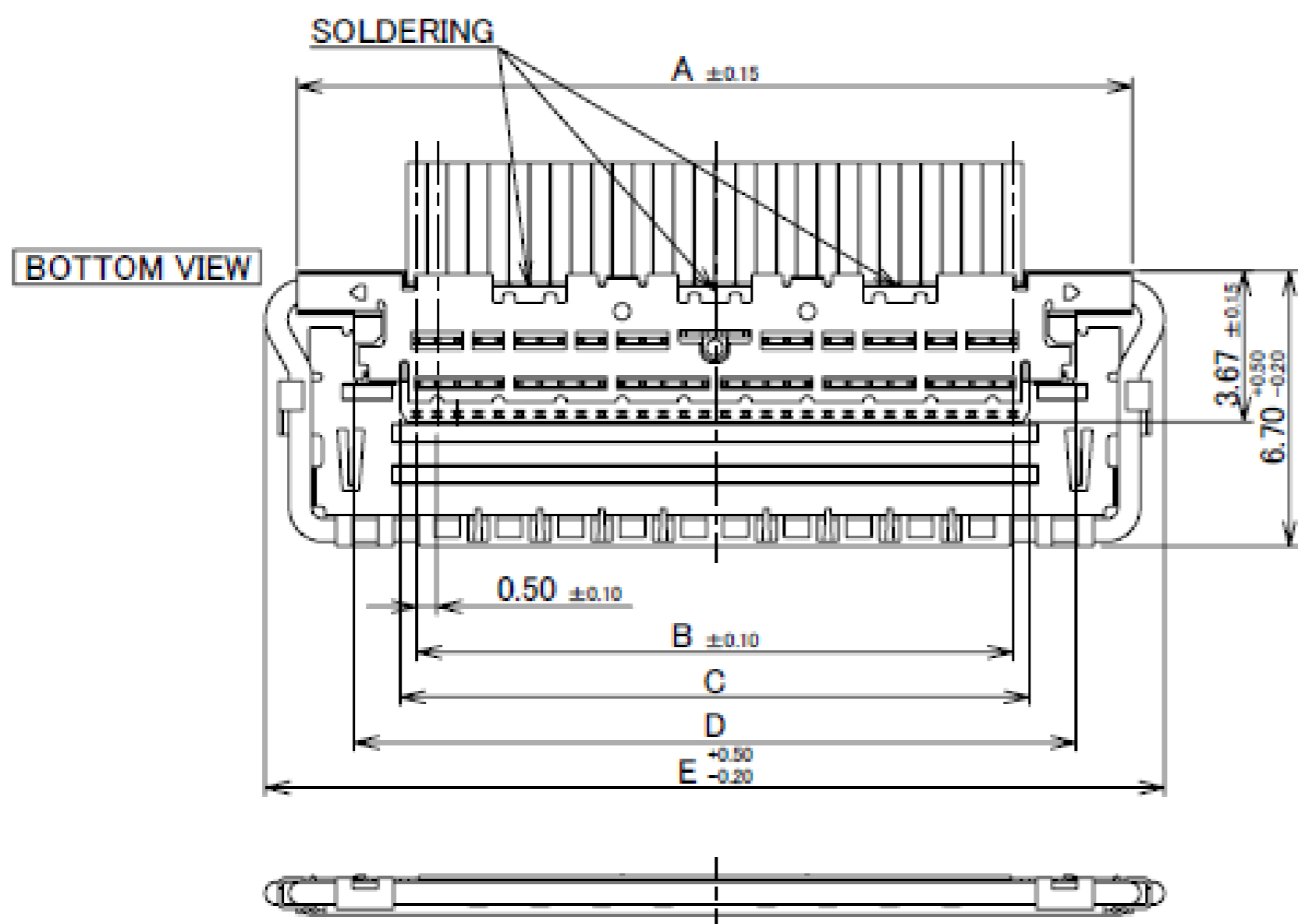
# Component Parts Details

## Component Parts



# Plug for Cable Assembly

Recommended P/N		20846-0**T-01				
PART NO.	Pos.	A	B	C	D	E
20846-020T-0#	20	15.30	9.50	10.30	12.56	16.85
20846-030T-0#	30	20.30	14.50	15.30	17.56	21.85
20846-040T-0#	40	25.40	19.50	20.30	22.56	26.85

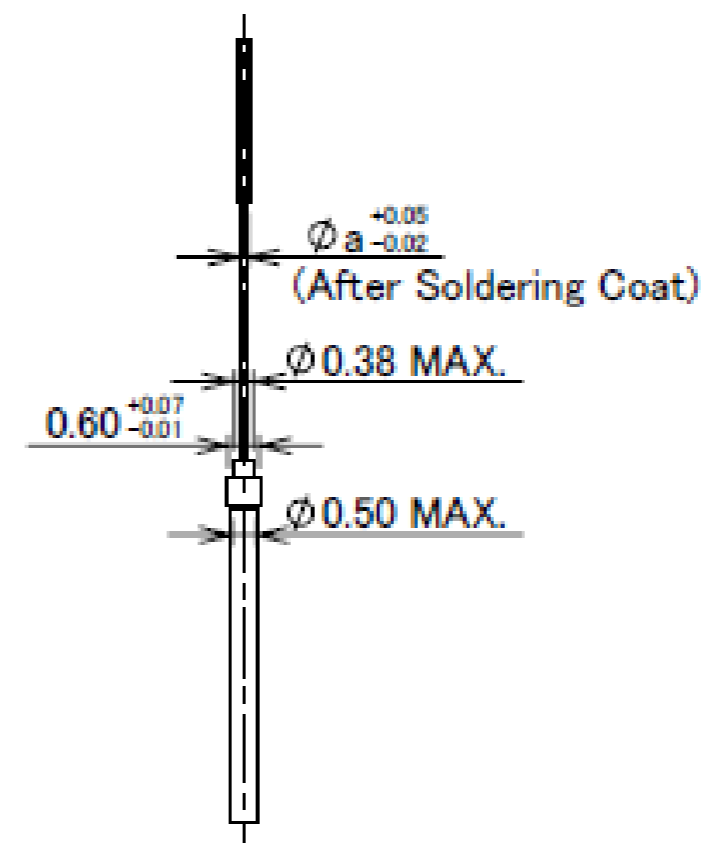
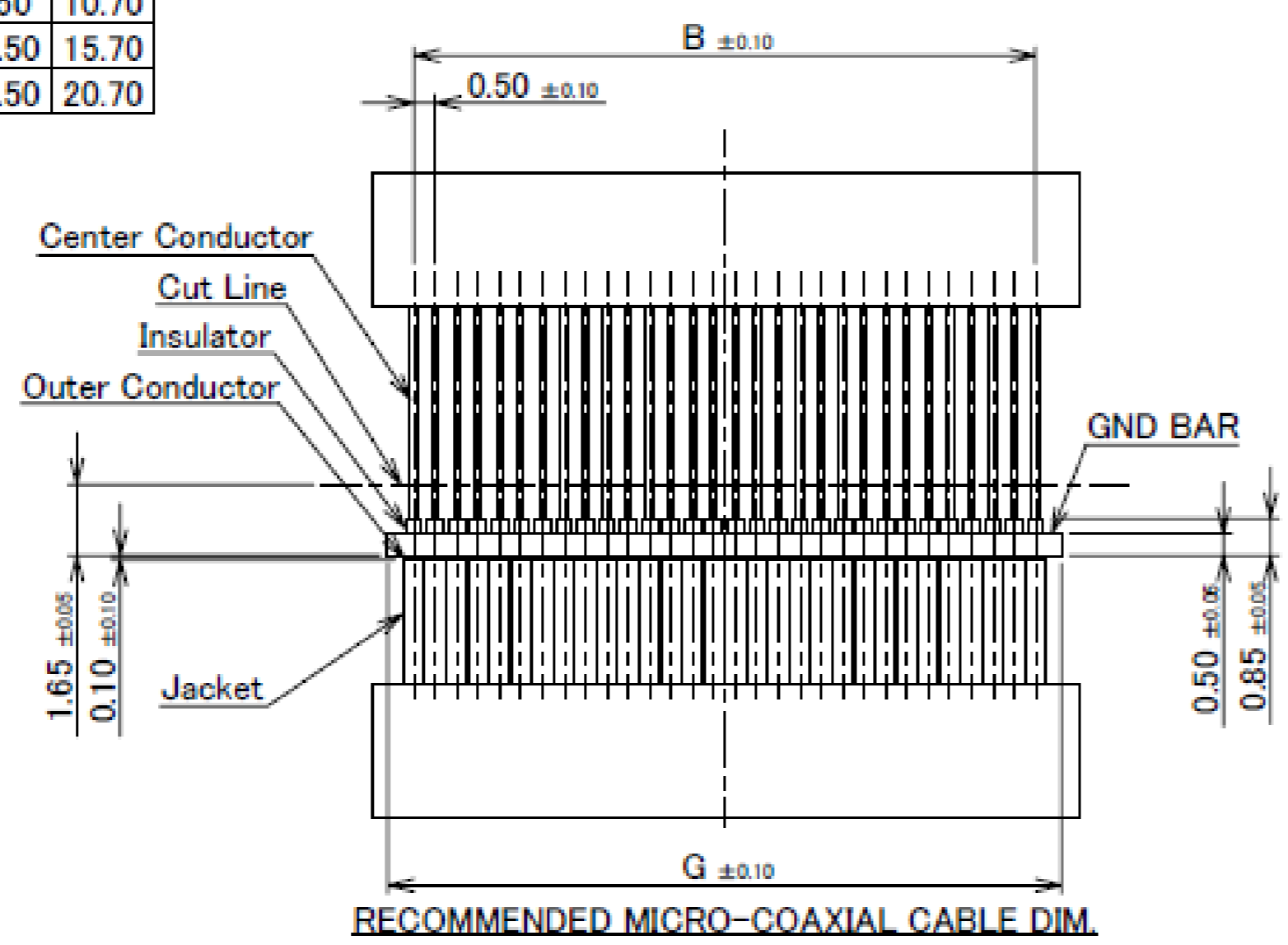


PART NO.	CONTACT FINISH
20846-0**T-01	CONTACT & SOLDERING AREA : Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
20846-0**T-02	CONTACT AREA : Au 0.38 $\mu$ m MIN. OVER Ni 1.27 $\mu$ m MIN. SOLDERING AREA : Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.

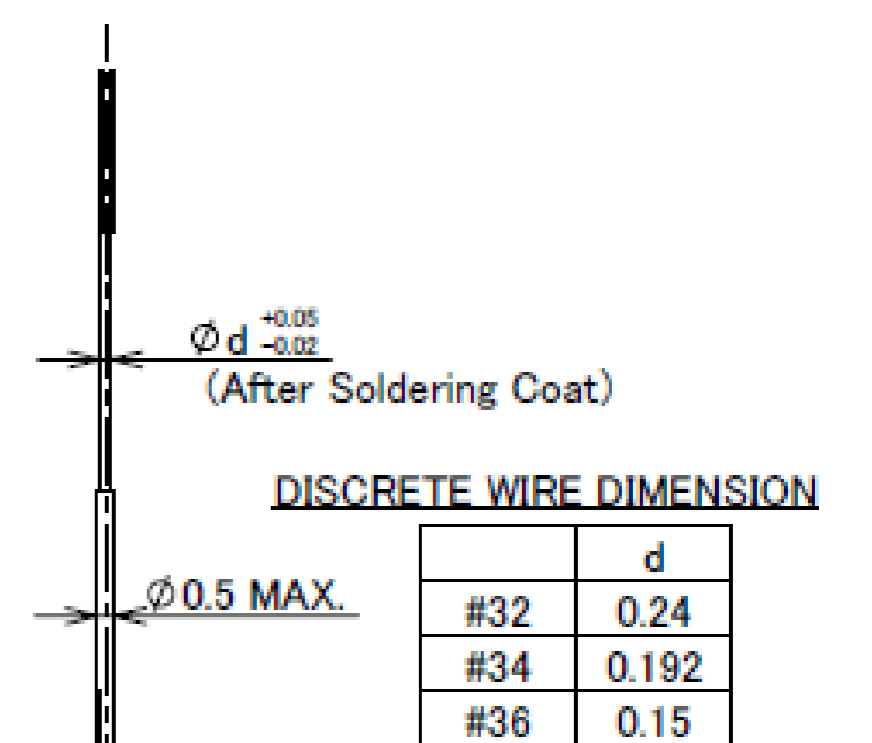
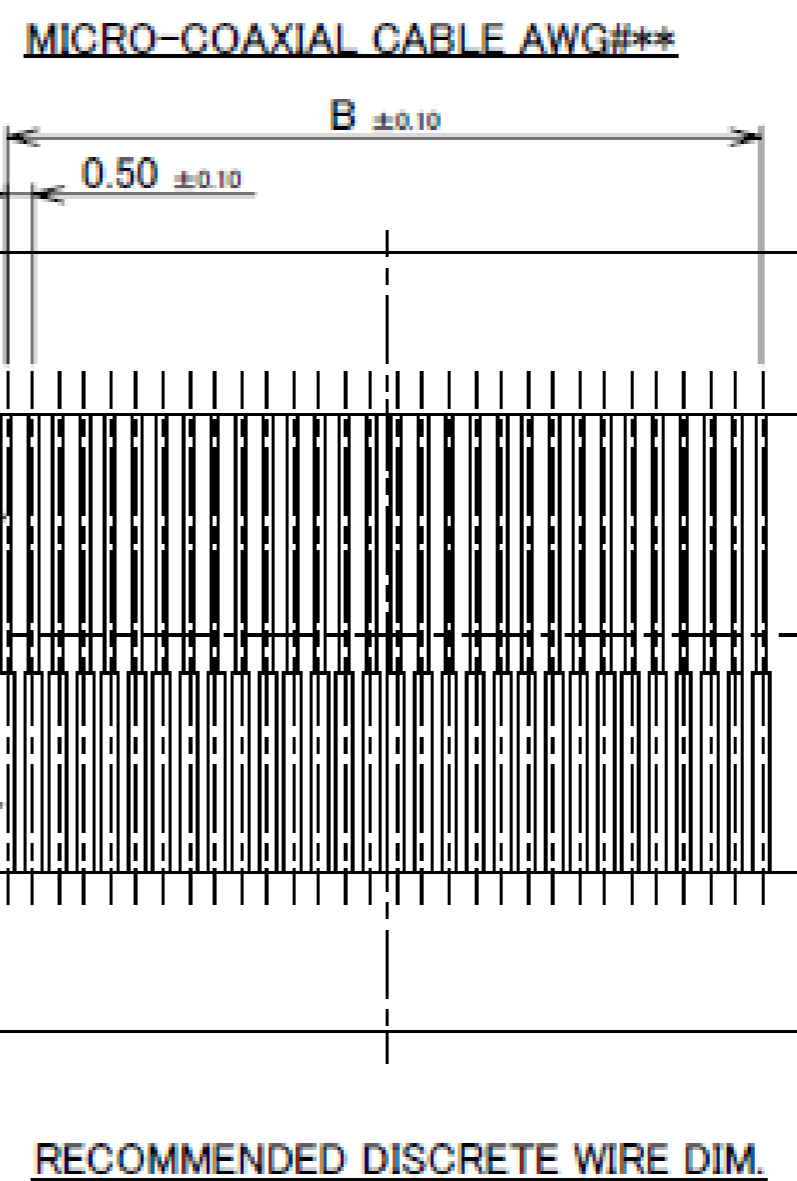
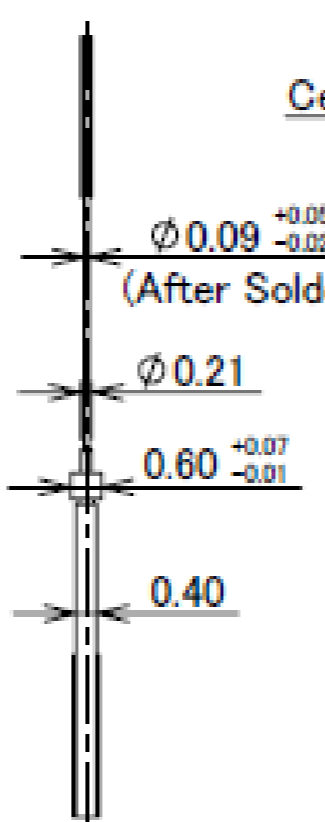
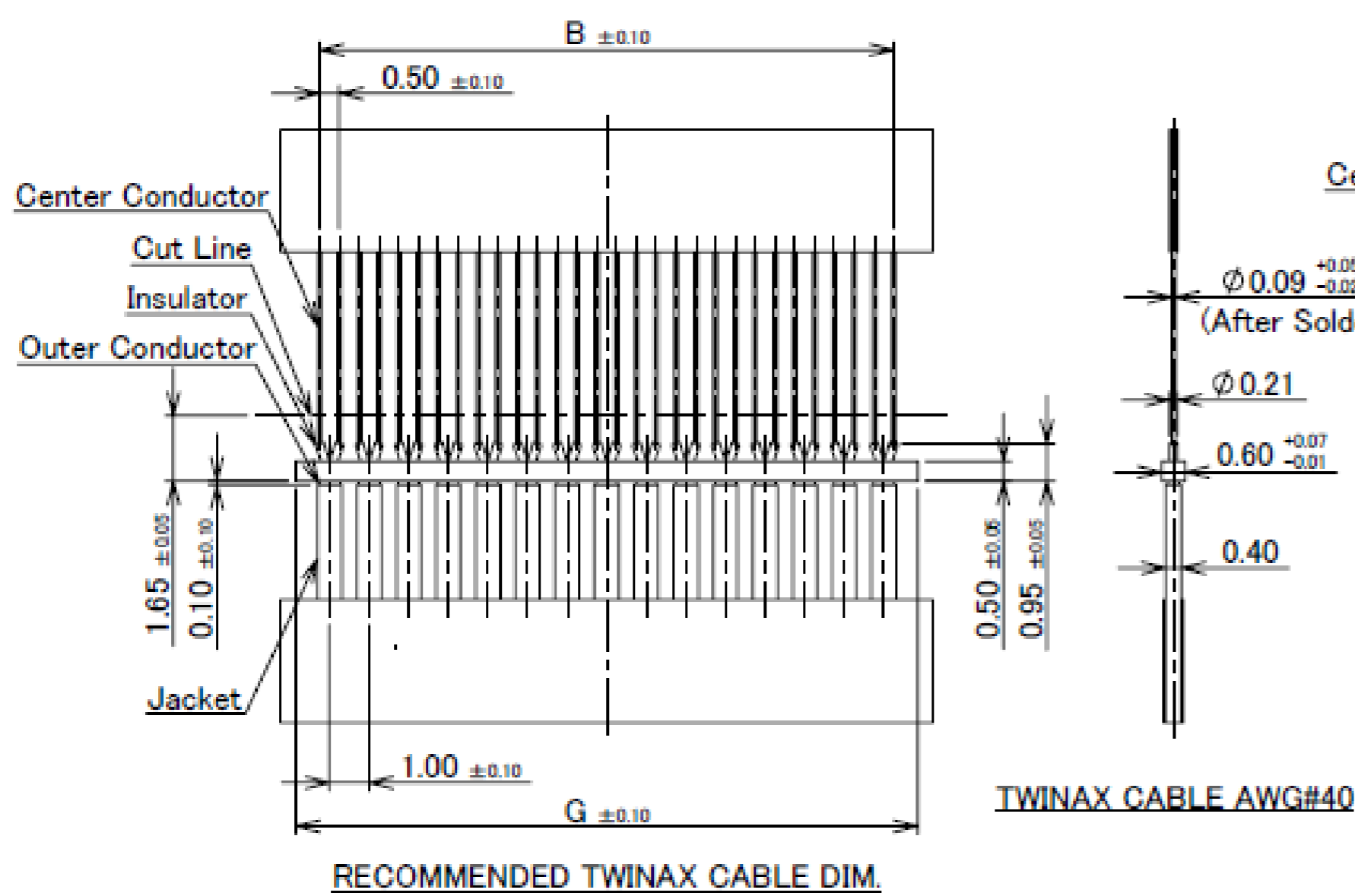
NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
6	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 $\mu$ m MIN.
5	LOCK BAR	SUS	-
4	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
3	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK

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PART NO.	Pos.	B	G
20846-020T-0#	20	9.50	10.70
20846-030T-0#	30	14.50	15.70
20846-040T-0#	40	19.50	20.70



AWG#	a
#36	0.15
#38	0.12
#40	0.09
#42	0.075
#44	0.063



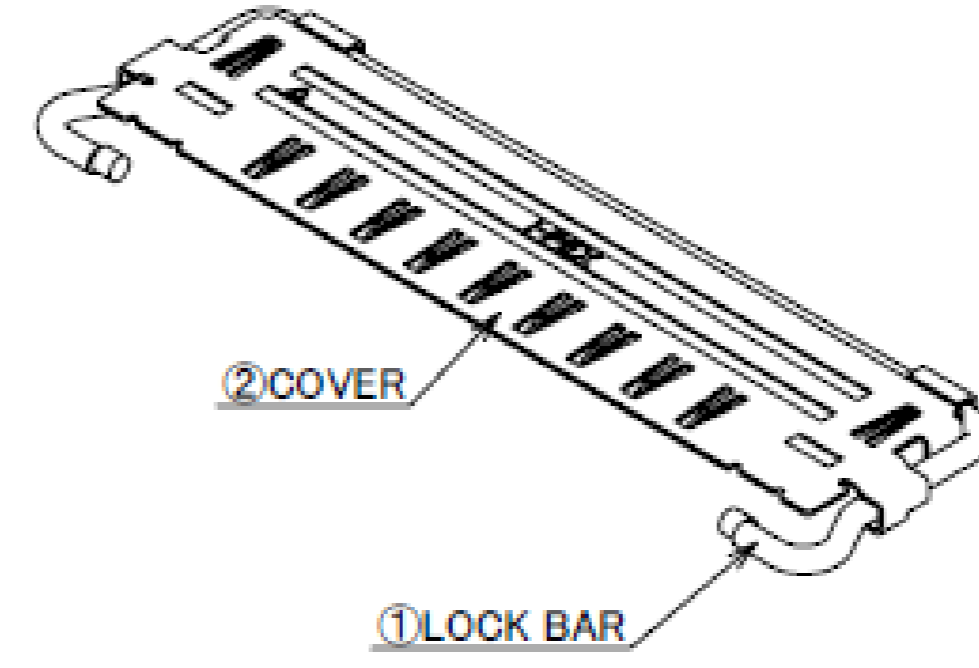
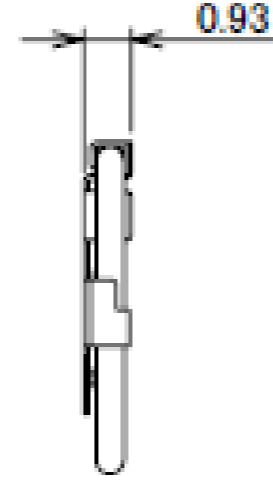
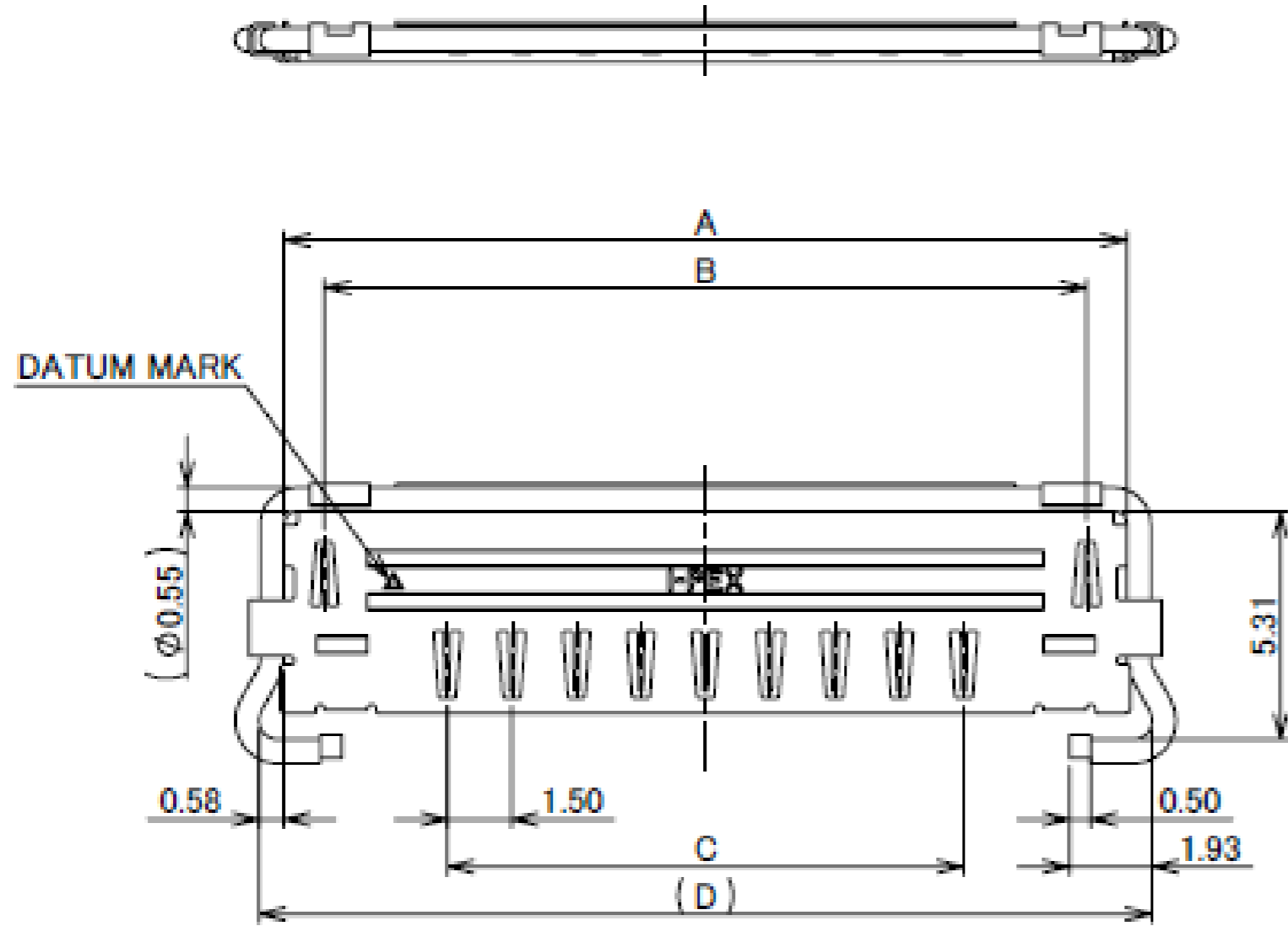
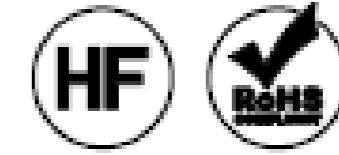
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# Plug Lock Bar Assembly

Recommended P/N		20848-0**T-01				
PART NO.	Pos.	A	B	C	D	E
20848-020T-01	20	14.59	12.70	7.50	15.75	7.00
20848-030T-01	30	19.59	17.70	12.00	20.75	12.00
20848-040T-01	40	24.59	22.70	18.00	25.75	17.00

20848-0\*\*T-01  
POS.



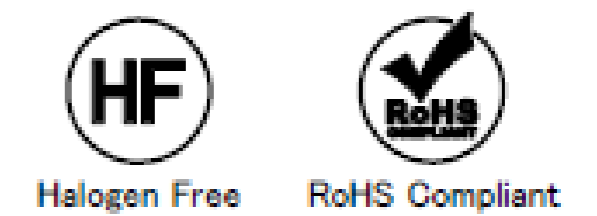
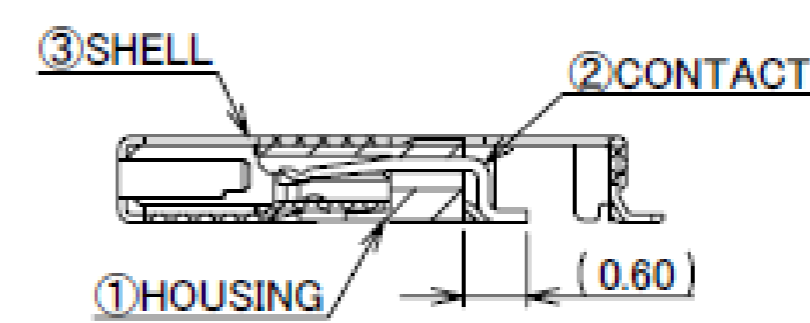
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
2	COVER	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN.
1	LOCK BAR	SUS φ0.55	-

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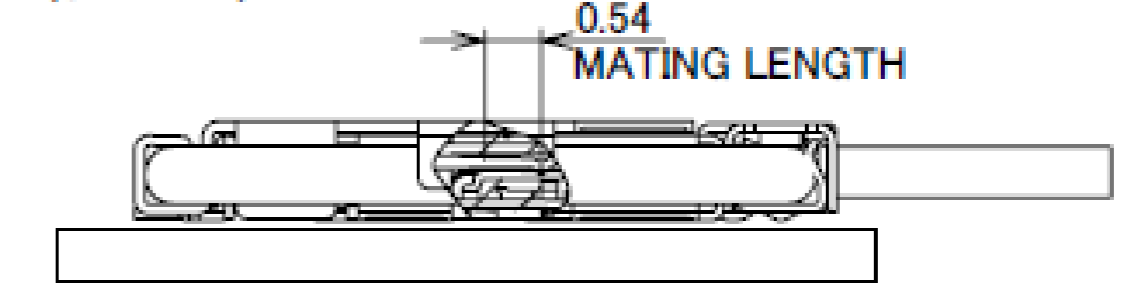
# Receptacle Assembly

Recommended P/N		20849-0**E-01				
PART NO.	Pos.	A	B	C	D	E
20849-020E-0#	20	11.30	9.50	14.33	15.10	11.91
20849-030E-0#	30	16.30	14.50	19.33	20.10	16.91
20849-040E-0#	40	21.30	19.50	24.33	25.10	21.91

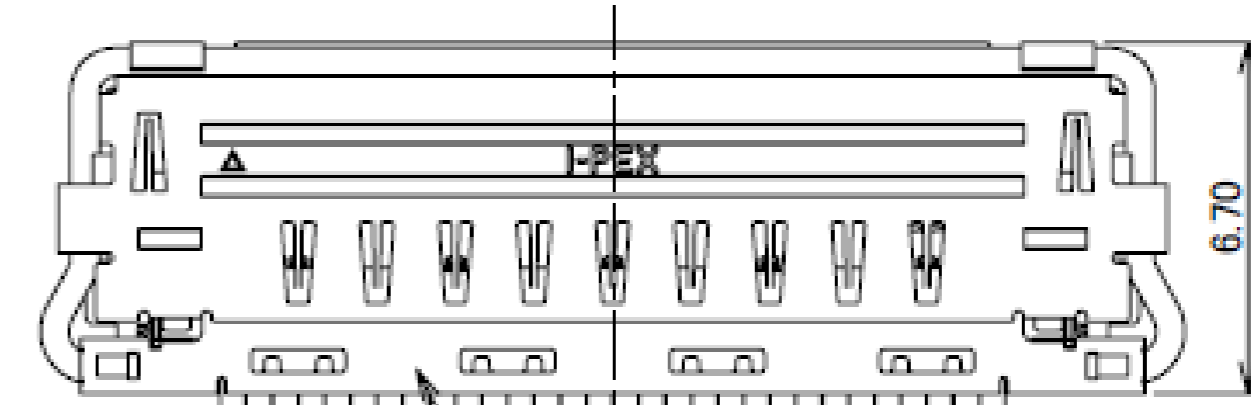
P/N : 20849-0\*\*E-0#  
SEE TABLE 1  
POS.



SECT. W-W  
(S = 10 : 1)



MATING CONDITION  
(S = 10 : 1)



MATING CONDITION

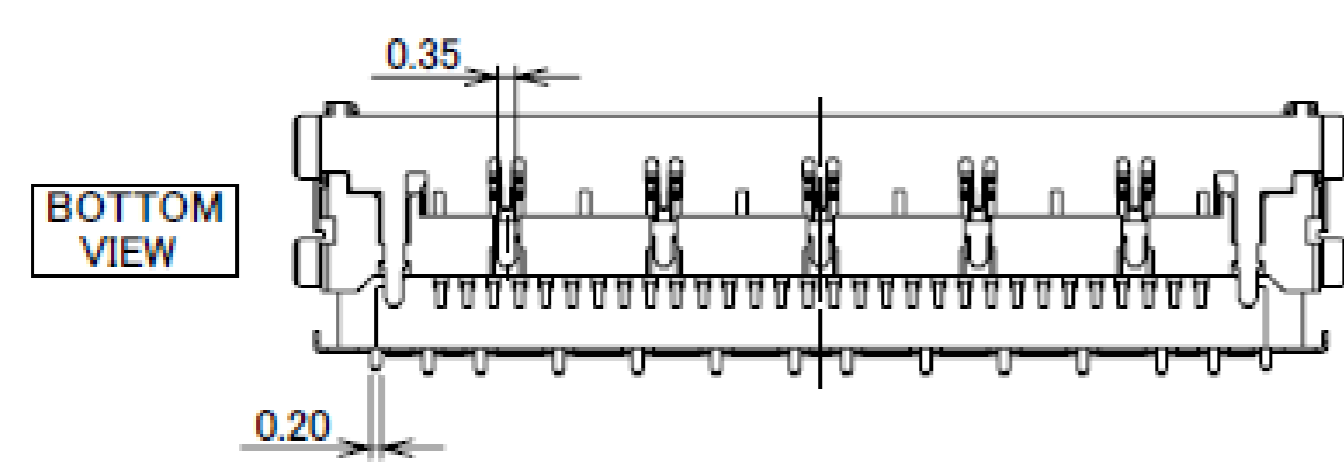
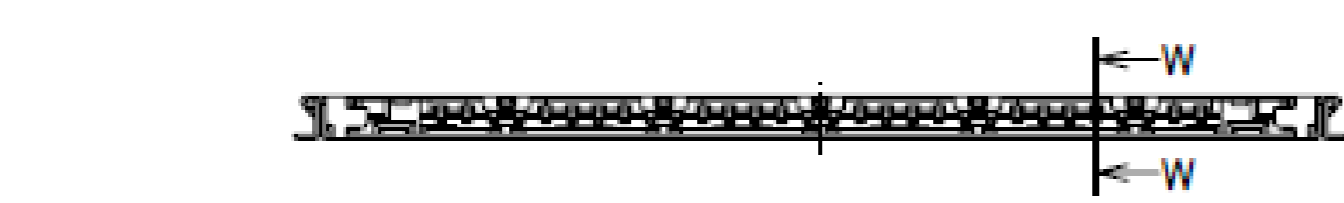
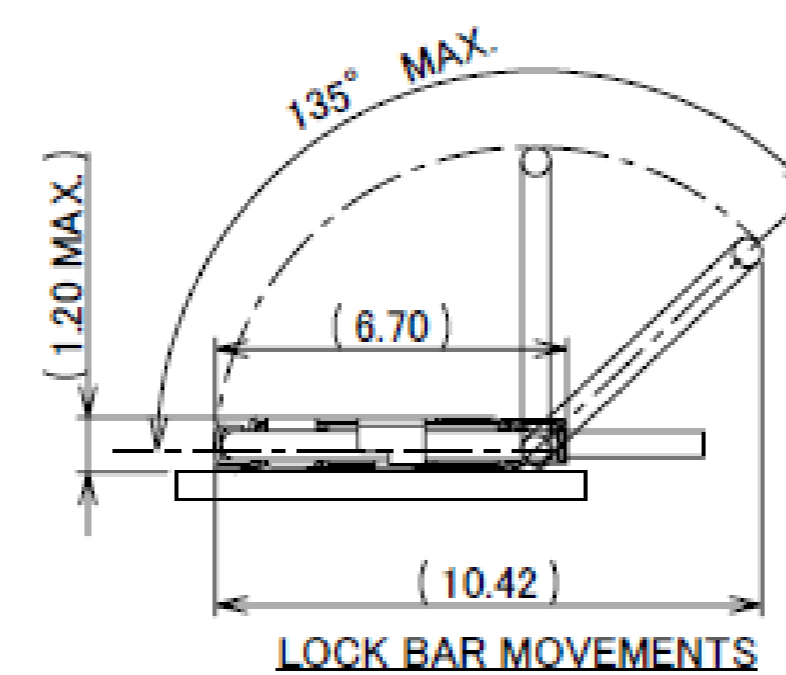
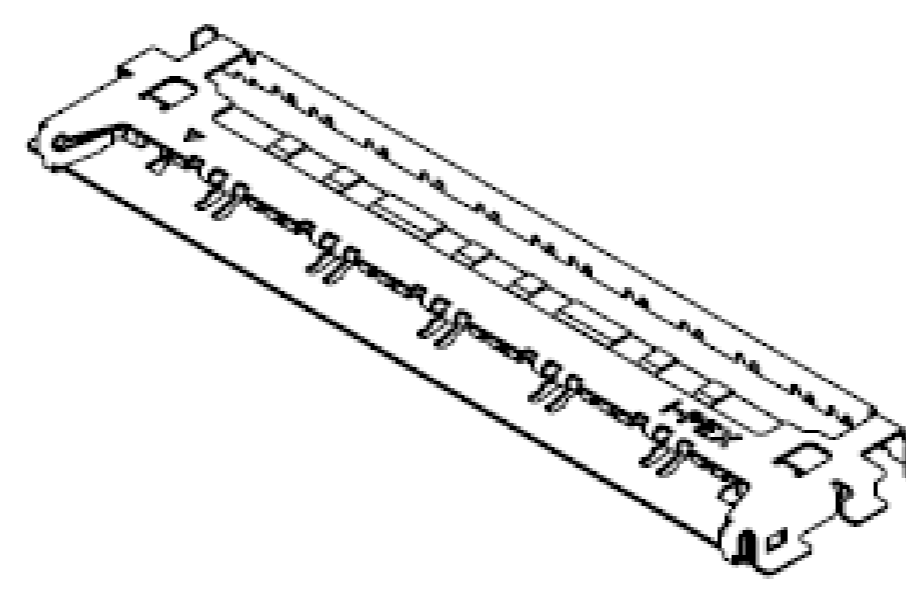
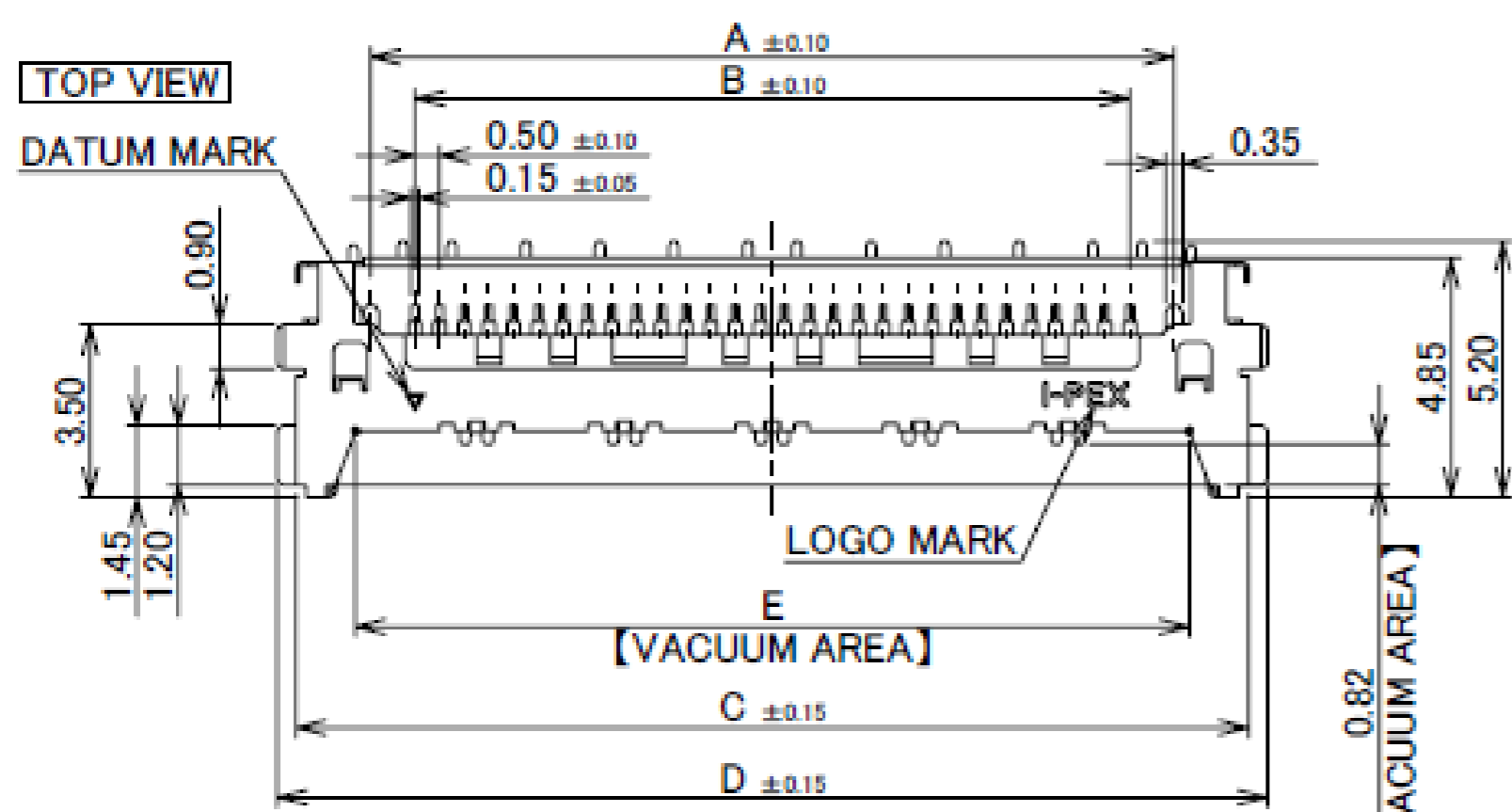


TABLE.1

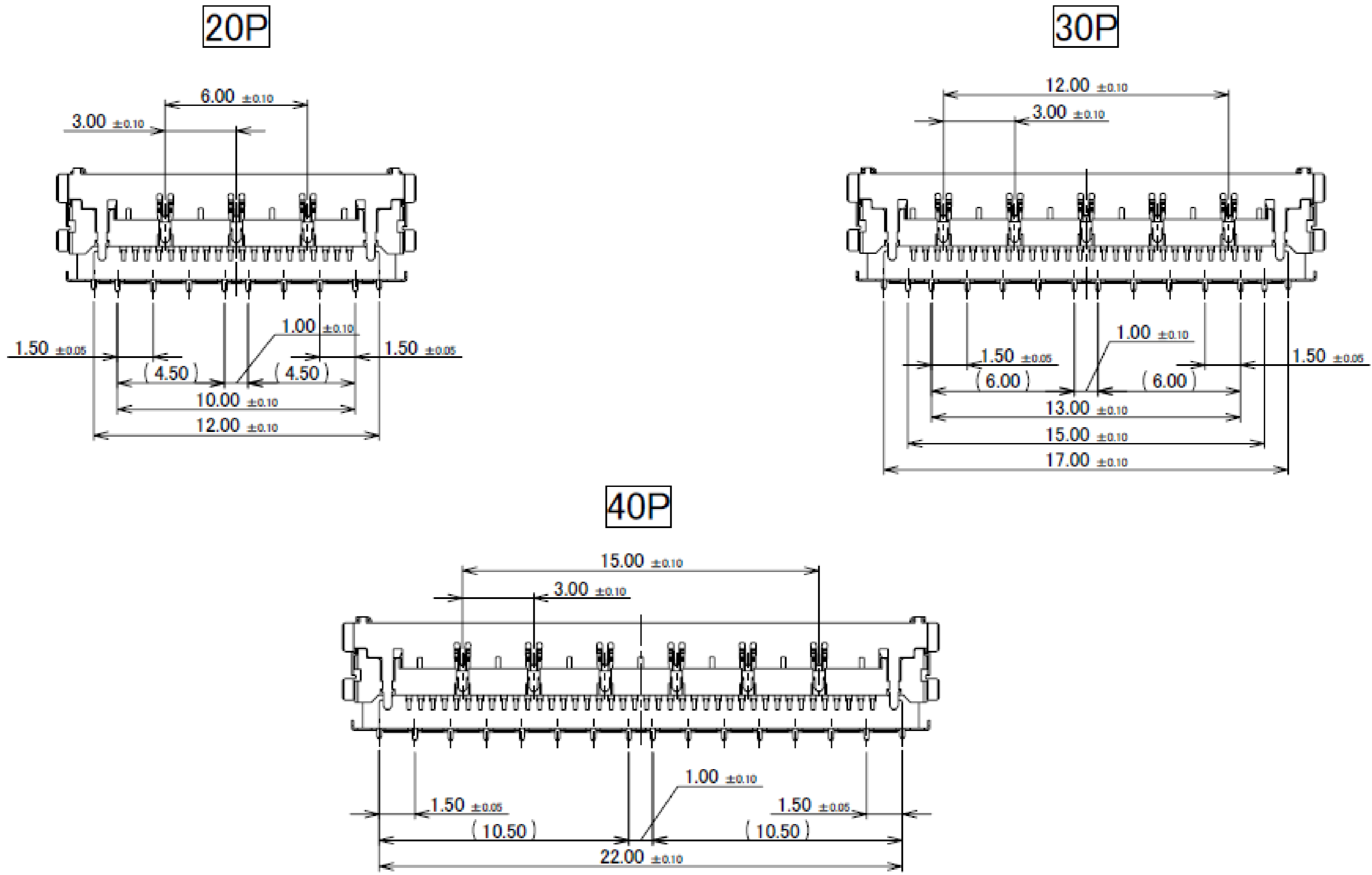
PART NO.	CONTACT FINISH	SHELL FINISH	
20849-0**E-01	CONTACT & SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.	ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.02 μm MIN.	
20849-0**E-02	CONTACT AREA : Au 0.38 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN.		
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	SEE TABLE 1
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0, BLACK

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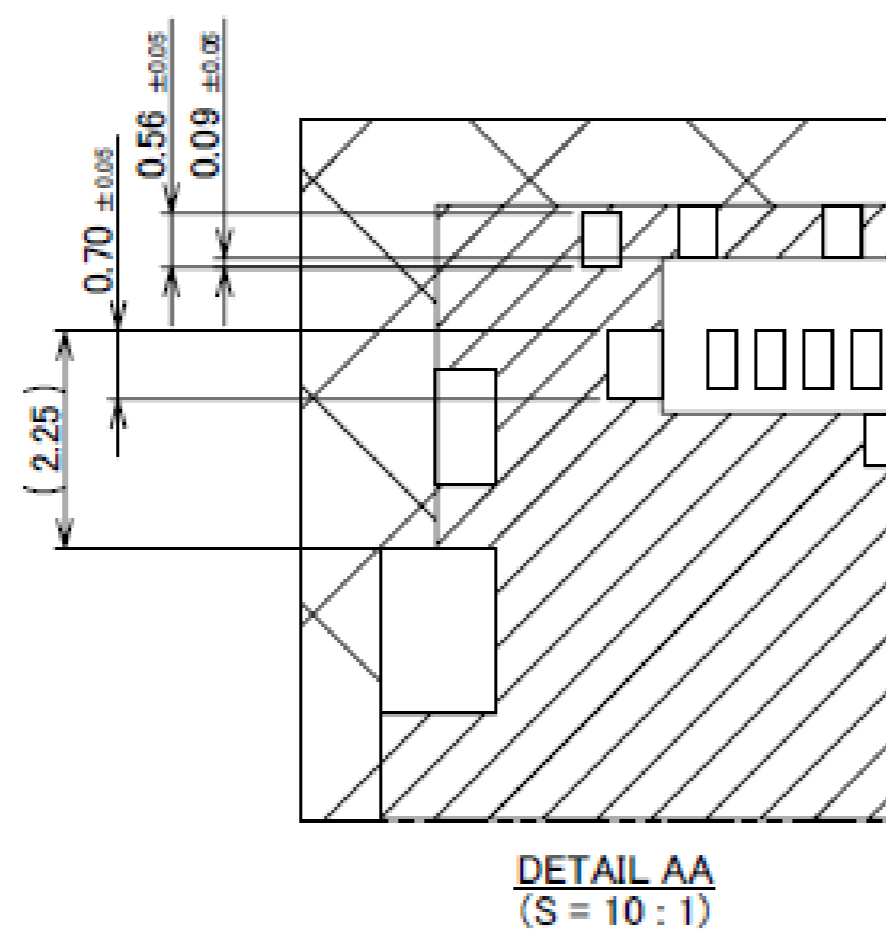
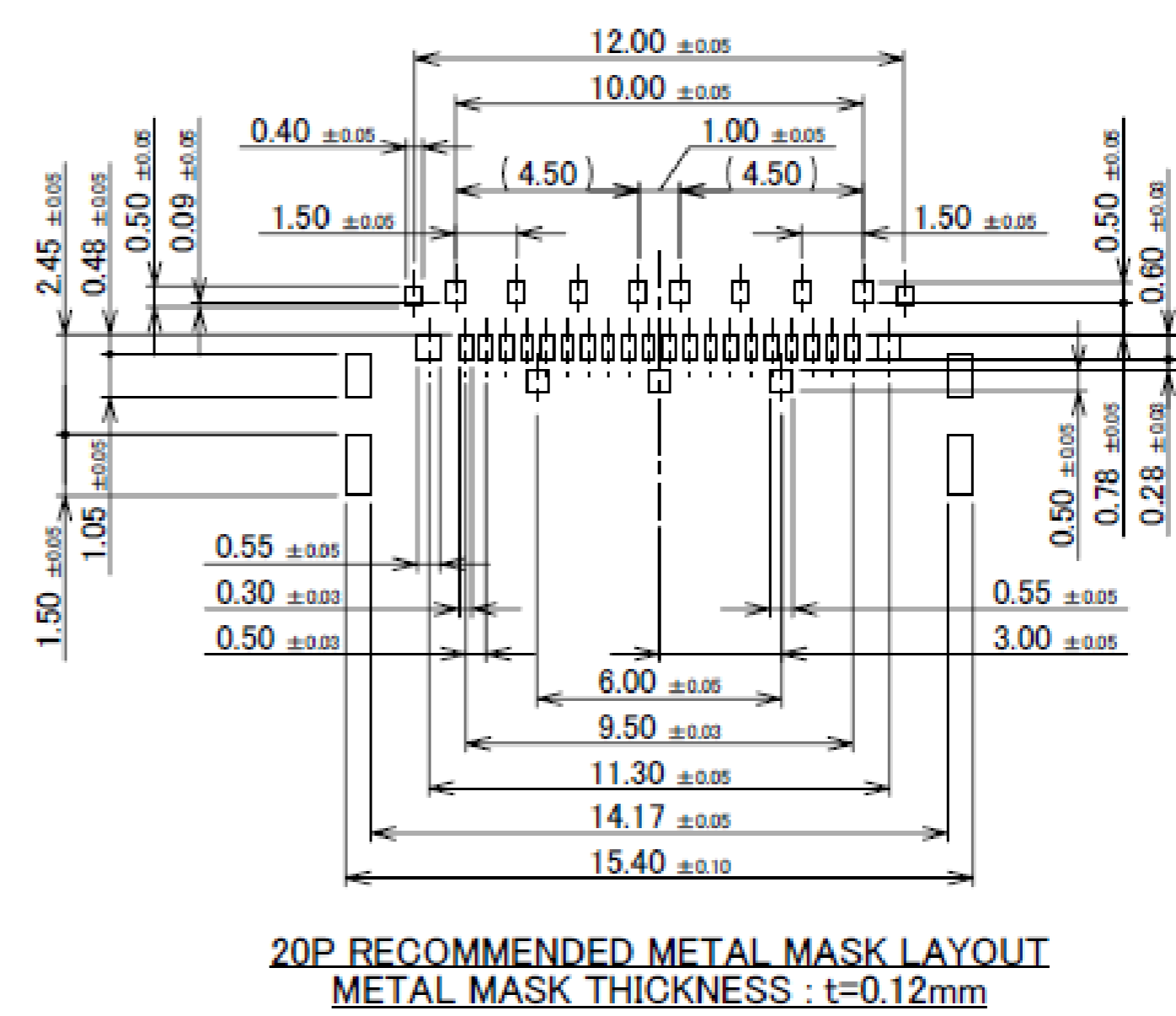
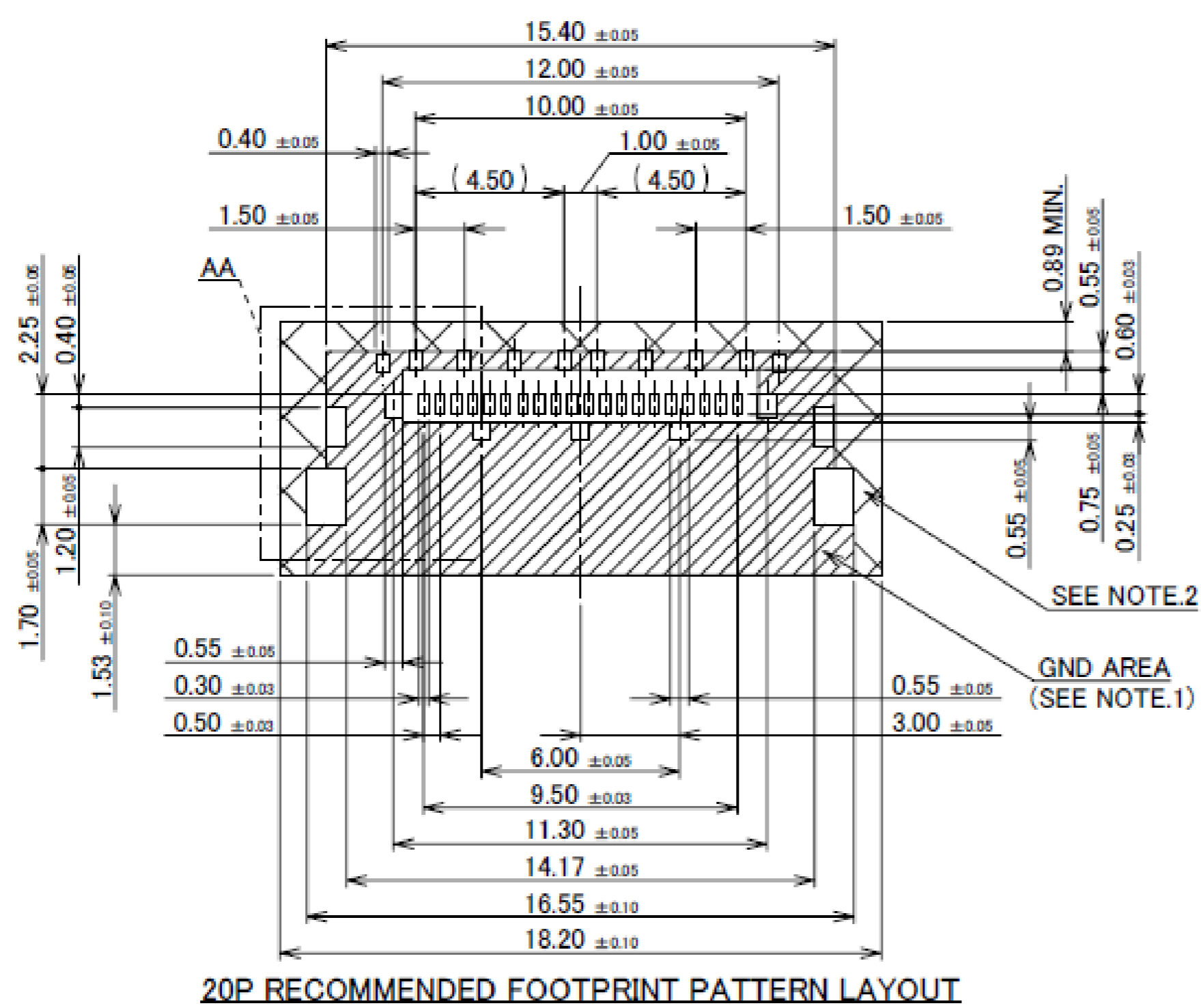
# Receptacle Assembly

PART NO.	Pos.
20849-020E-0#	20
20849-030E-0#	30
20849-040E-0#	40

## BOTTOM VIEW



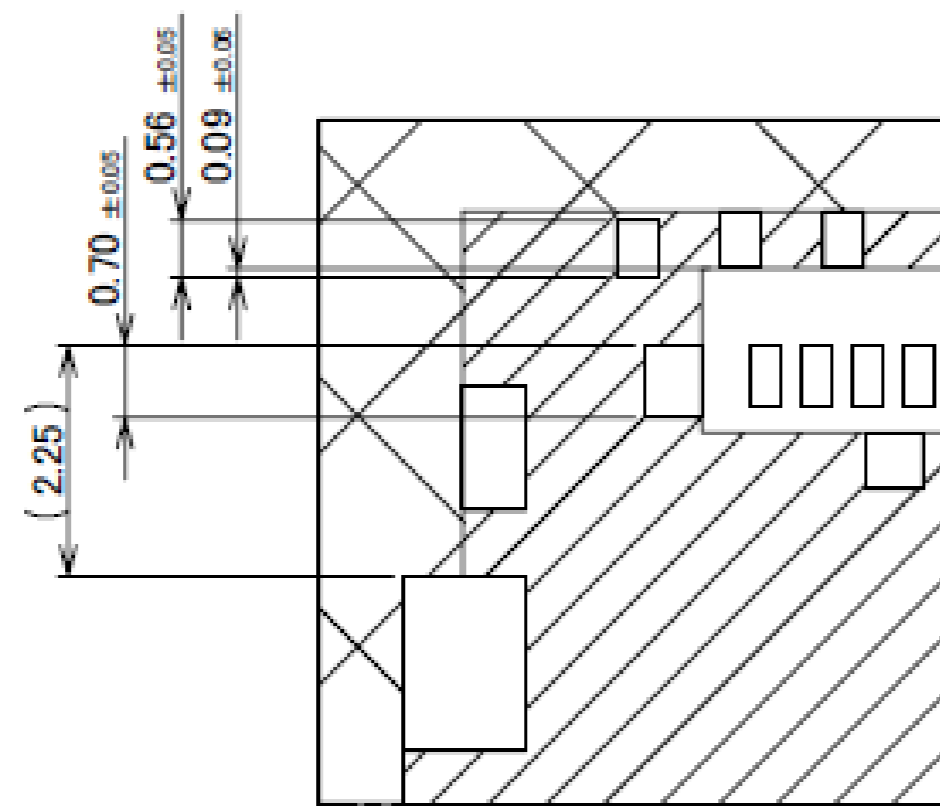
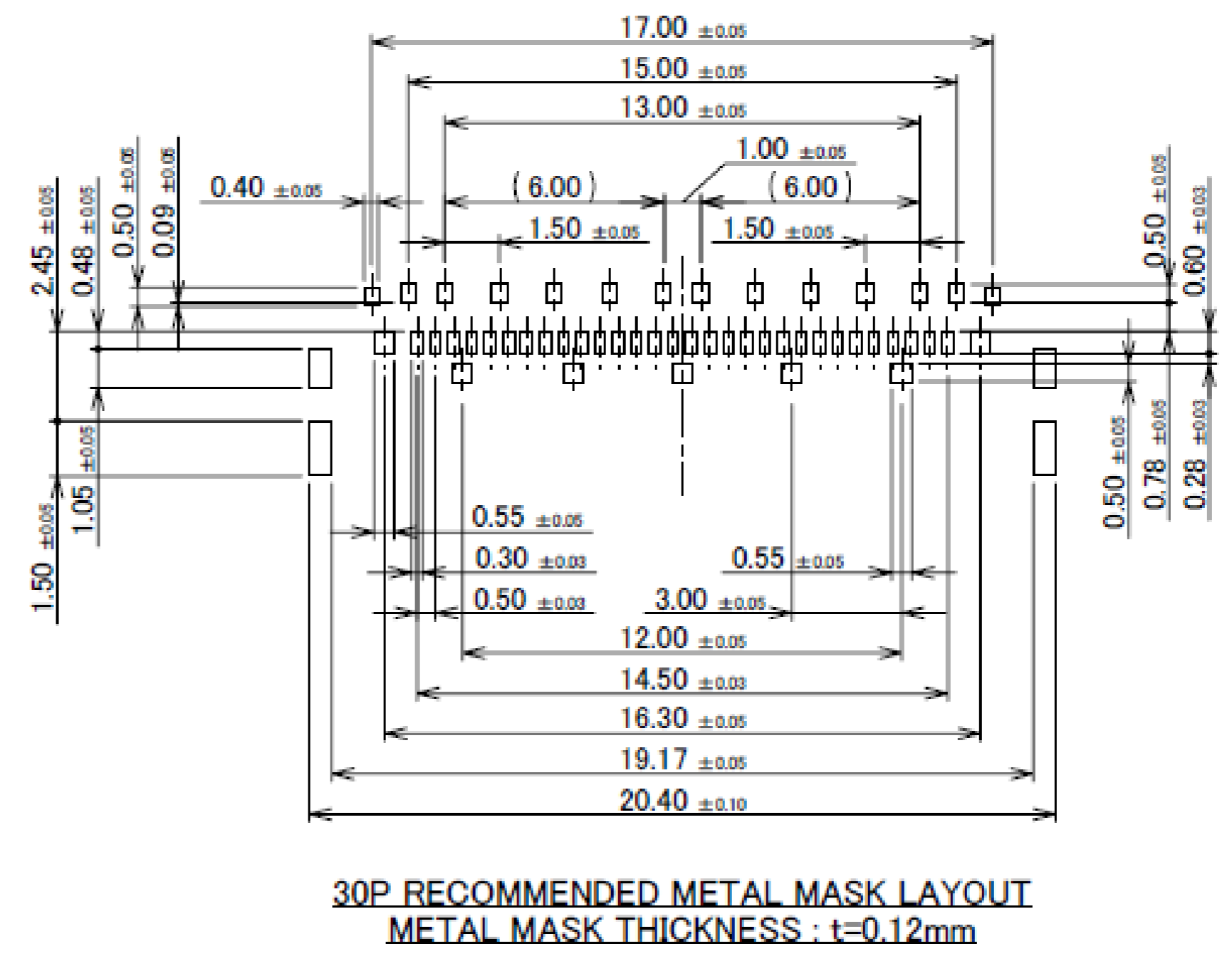
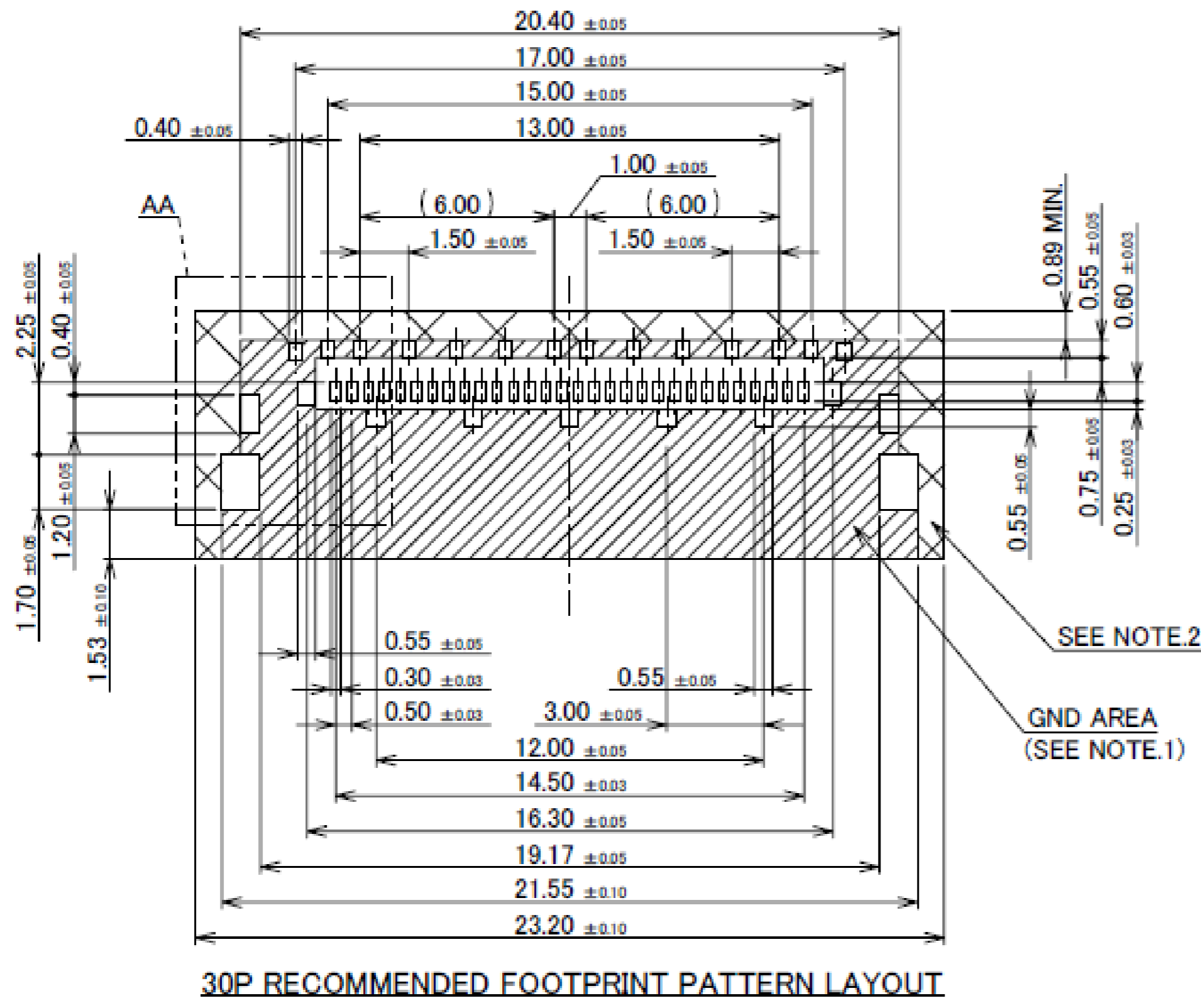
Rev.10



- NOTES.
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.
  2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

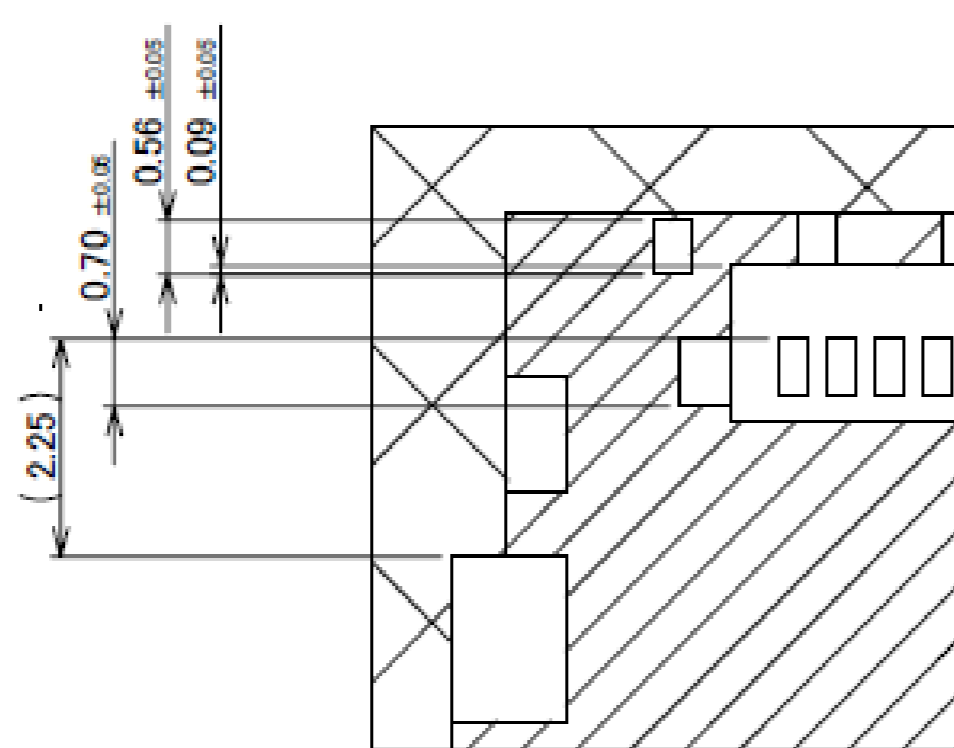
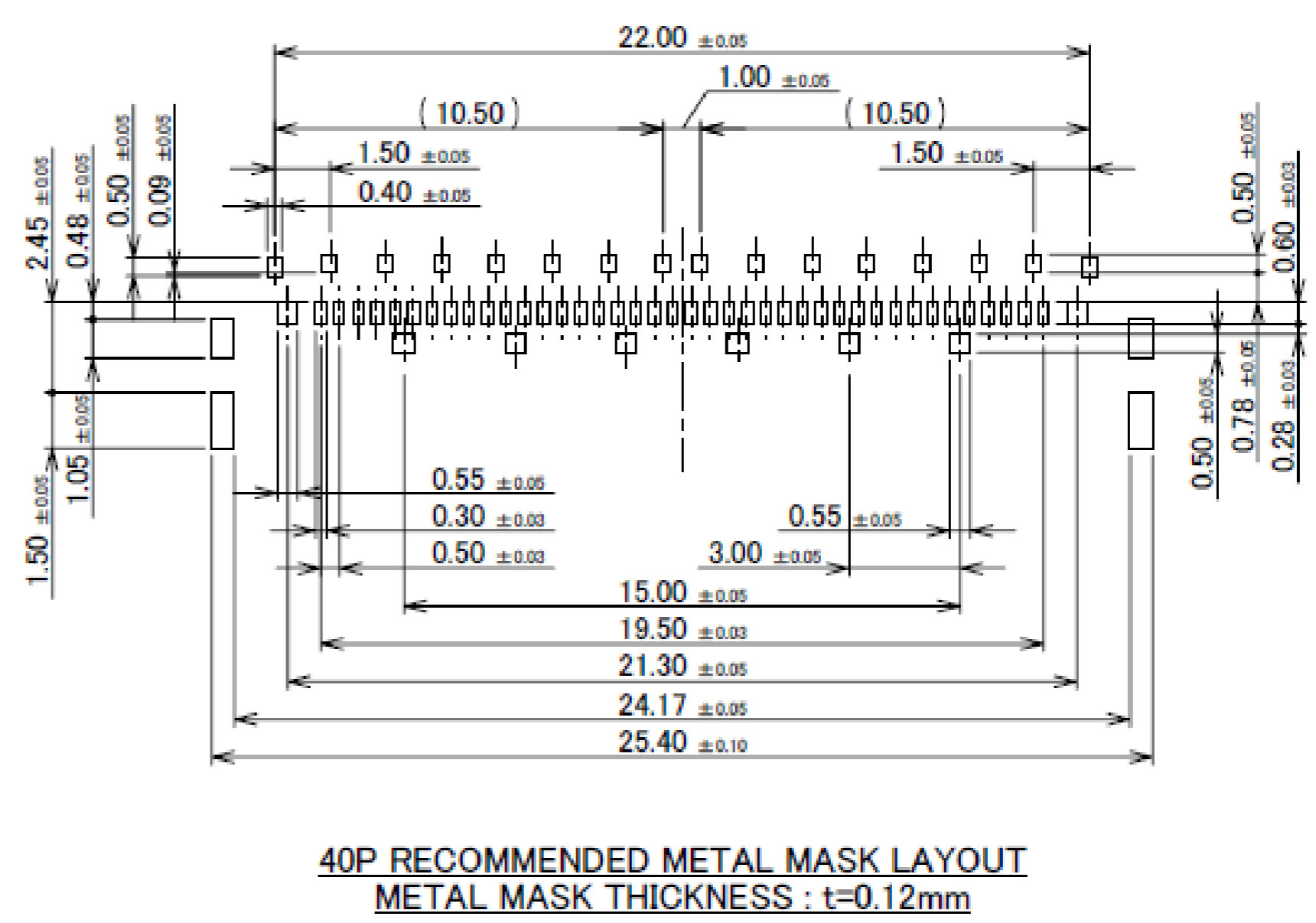
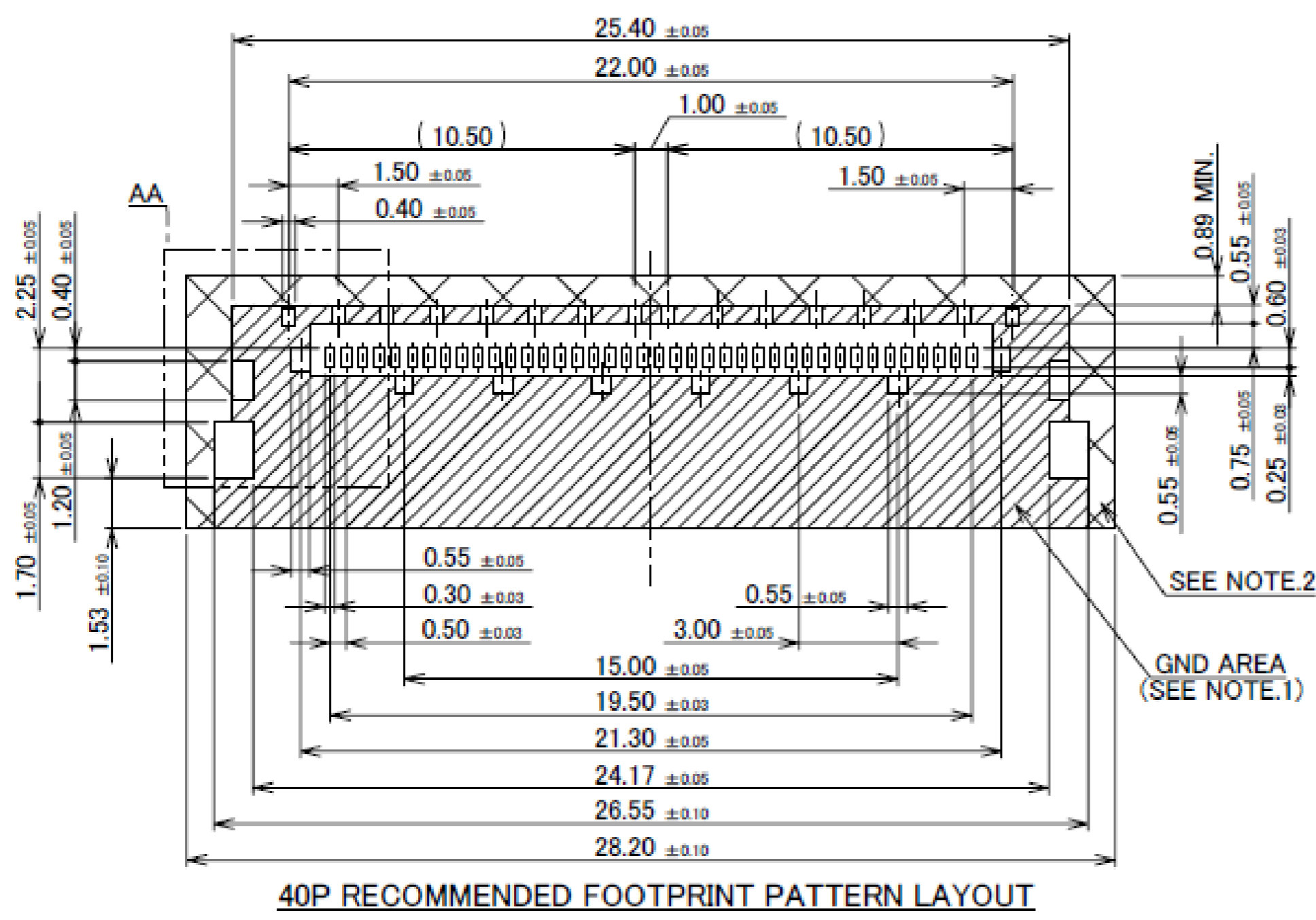
Rev.10

# Receptacle Assembly



- NOTES.  
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.  
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

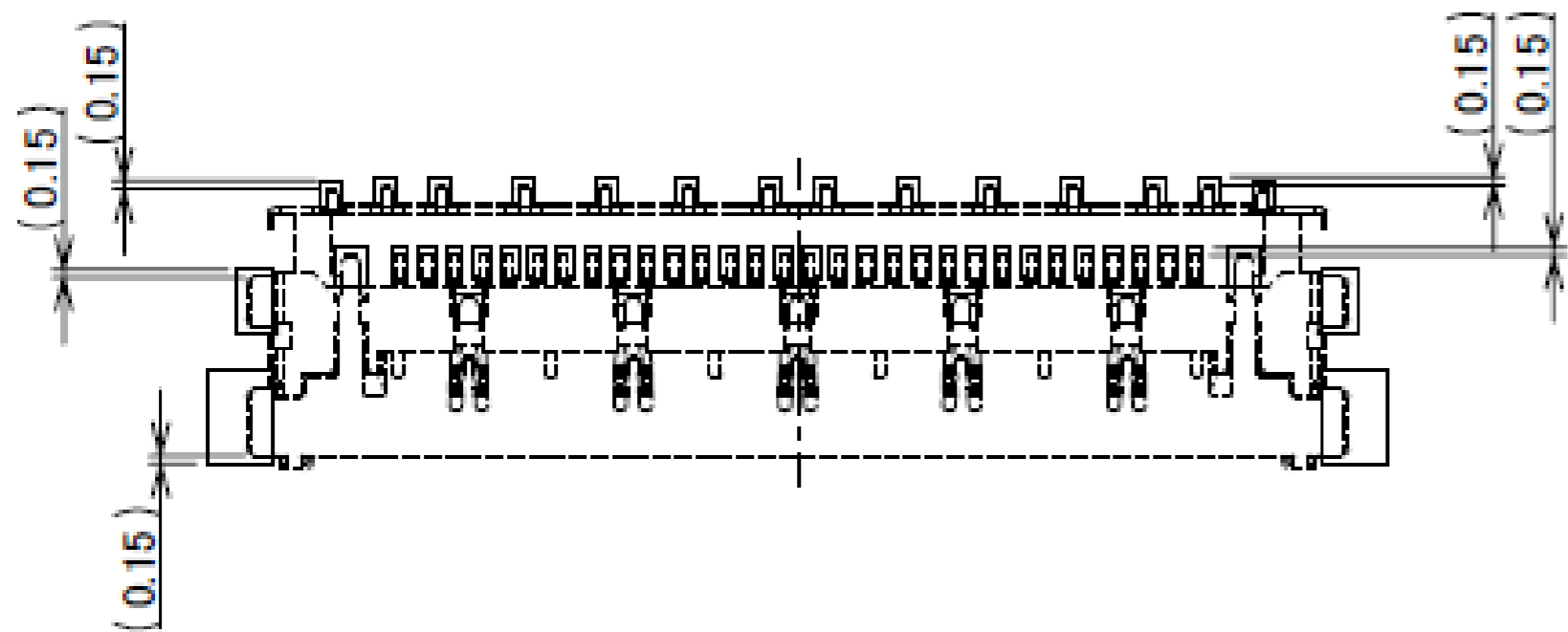
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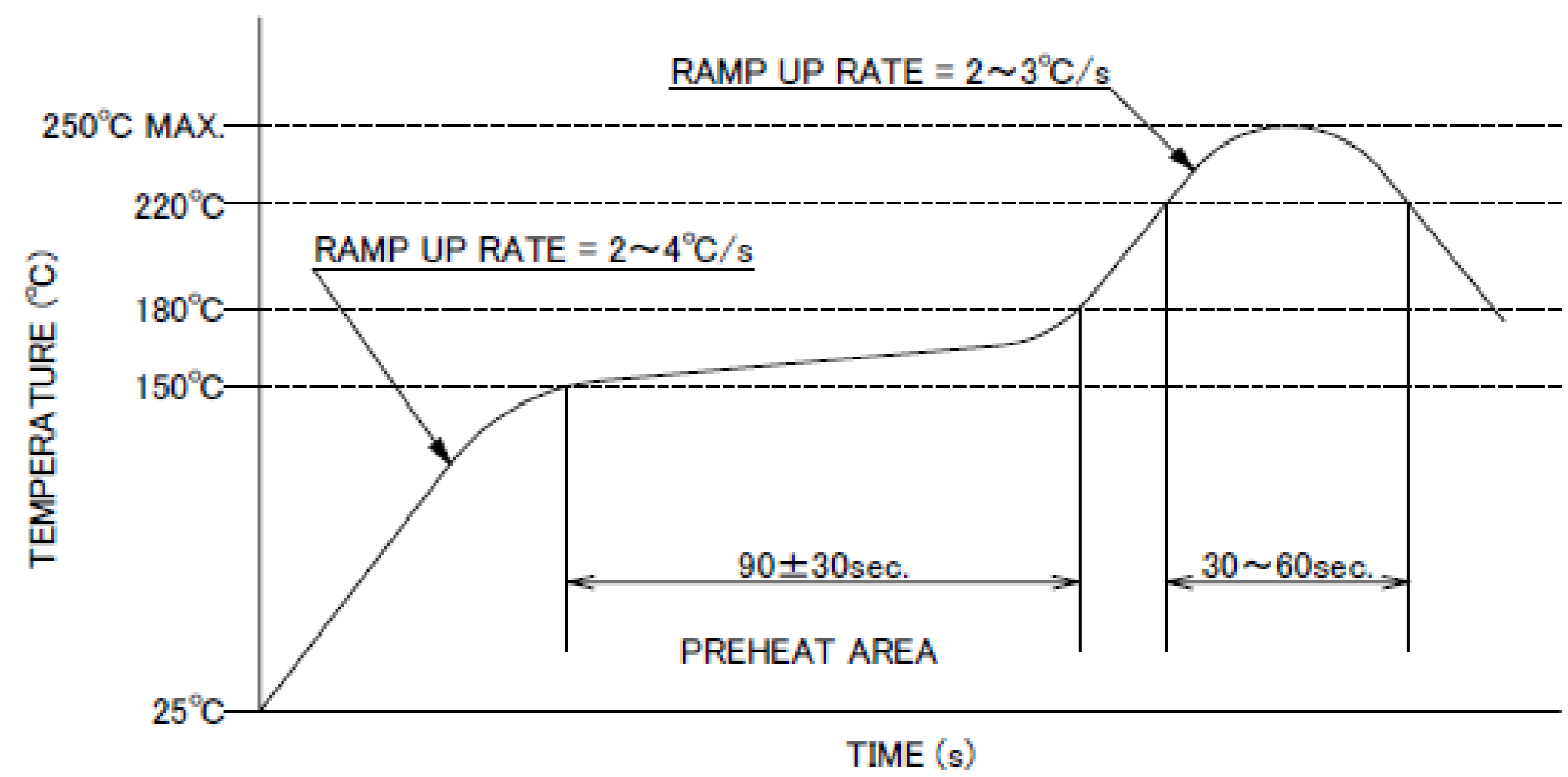
- NOTES.  
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.  
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

Rev.10

# Receptacle Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

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ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG# 36 , 34 , 32 TWINAX CABLE : AWG# 40
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 40 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT PIN/UP TO 40 CONTACTS 0.5A AC/DC [AWG#38] PER CONTACT PIN/UP TO 23 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT PIN/UP TO 10 CONTACTS 1.0A AC/DC [AWG#34] FOR POWER PER CONTACT/UP TO 9 CONTACTS 1.0A AC/DC [AWG#32] FOR POWER PER CONTACT/UP TO 9 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION
OPERATING TEMPERATURE	233~378K(-40°C~+105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG#32) / AFTER TEST : <math>\triangleleft</math>140mohm MAX. 180mohm MAX.(AWG#34) 275mohm MAX.(AWG#36) 360mohm MAX.(AWG#38) 600mohm MAX.(AWG#40) 700mohm MAX.(AWG#42) 1080mohm MAX.(AWG#44)
GROUND SHELL RESISTANCE	INITIAL : 50mohm MAX. / AFTER TEST : <math>\triangleleft</math>140mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 9.70N MAX. 30P : 14.55N MAX. 40P : 19.40N MAX.
UNMATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 2.00N MIN. 30P : 3.00N MIN. 40P : 4.00N MIN.
CABLE RETENTION FORCE	20P : 9.80N MIN. 30P : 14.70N MIN. 40P : 19.60N MIN.
PRODUCT SPECIFICATION	PRS-2398
TEST REPORT	TR-17060 (20846-0**T-01) / TR-18048 (20846-0**T-02)
INSTRUCTION MANUAL	HIM-17015
ASSEMBLY MANUAL	ASM-17005
APPEARANCE CRITERIA No.	QLS-A***

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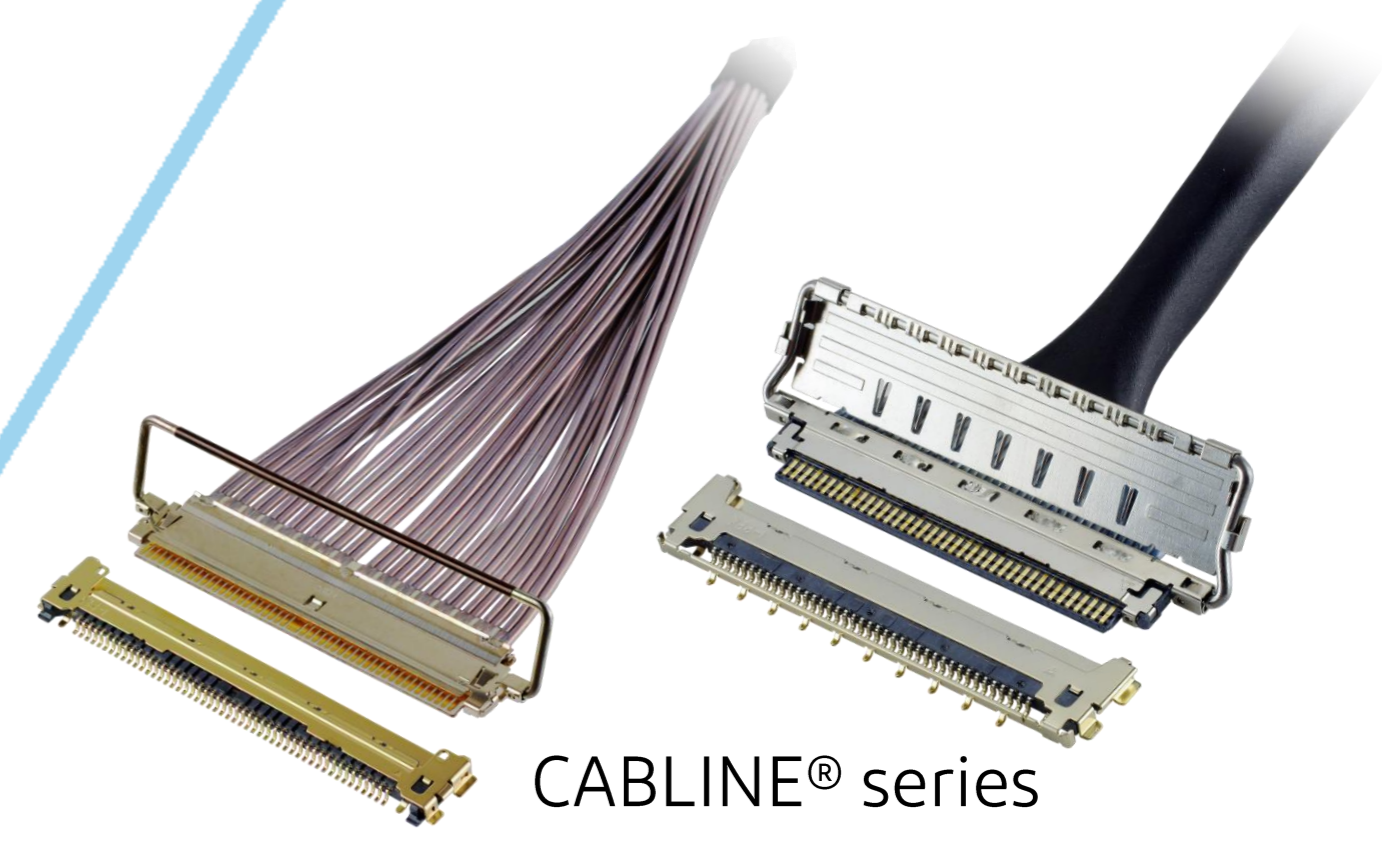
# Custom Connectors Available

## RF Connector

MHF® series



## Micro-coaxial/Twinax/ Discrete Wire Connector



CABLINE® series

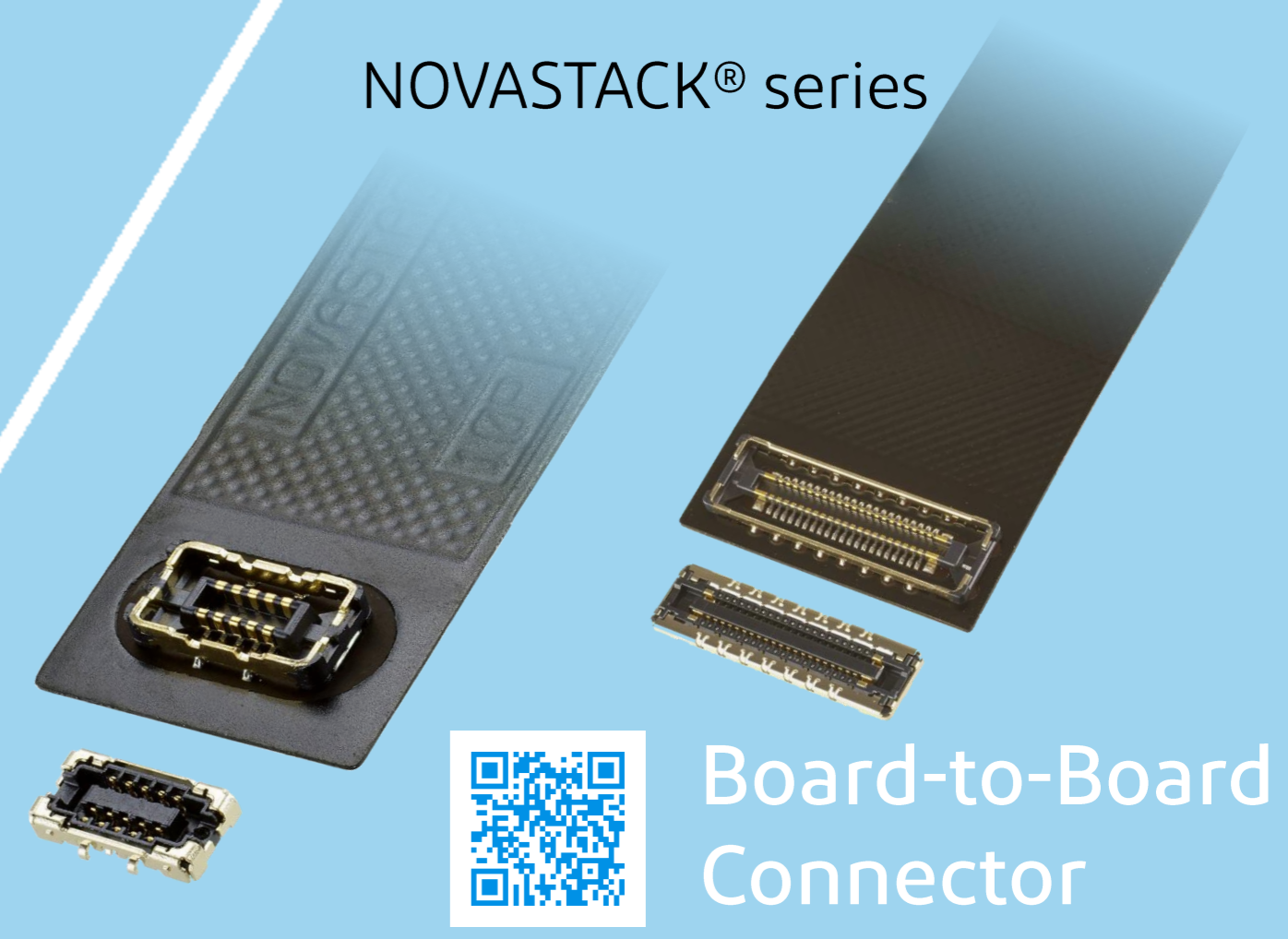


## Optical Module

LIGHTPASS® series



NOVASTACK® series



## Board-to-Board Connector



## Power Connector/ Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



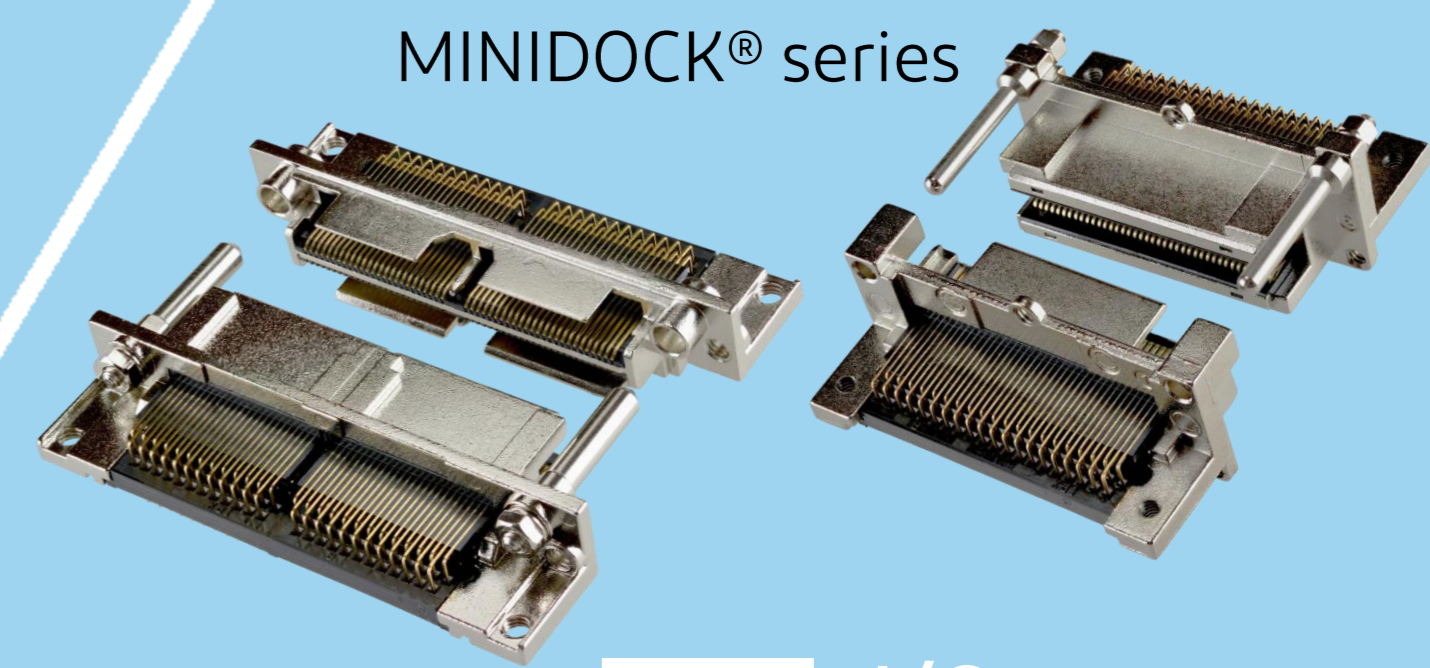
## FPC FFC Connector



## Inquiry



MINIDOCK® series



## I/O Connector

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Contact your sales representative or more detailed information.

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