

CABLINE®-VS IIF

フルシールド & メカニカルロック付き、高速伝送対応(32 Gbps/lane)、0.5mmピッチ、水平嵌合タイプFPCプラグコネクタ

Product Specifications:

Mating type		Horizontal
Board Pitch (mm)		0.5
Wiping Length (mm)		0.48
Mated size (mm)	Height	1.2 max. with cover
	Width	Formula: 6.85 + (0.5*?p)
	Depth	7.24
Pin Counts	Range	Up to 60
	Available	30, 40

Applicable FPC

FPC Type	Shielded FPC
FPC Pitch (mm)	0.5
FPC Contact Point	Top
FPC Thickness (mm)	Contact Area: $0.25 + 0.02/-0.03$
	Ground Area: $0.37 + 0.04/-0.06$

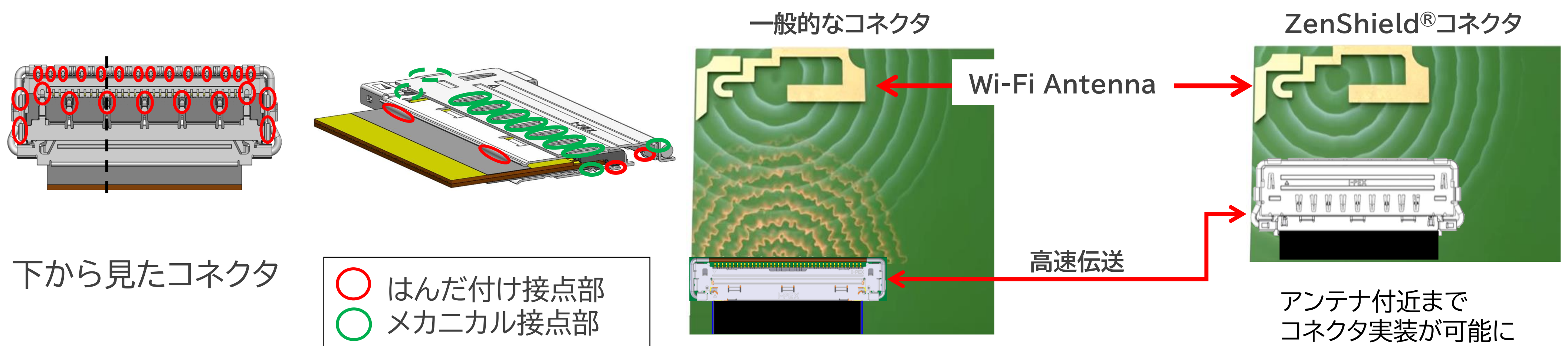
Applicable Standards (Reference Only):

32 Gbps/ Lane, USB4 Gen4 (40 Gbps/ Lane PAM3)
Display Port UHBR20 (20 Gbps/Lane),

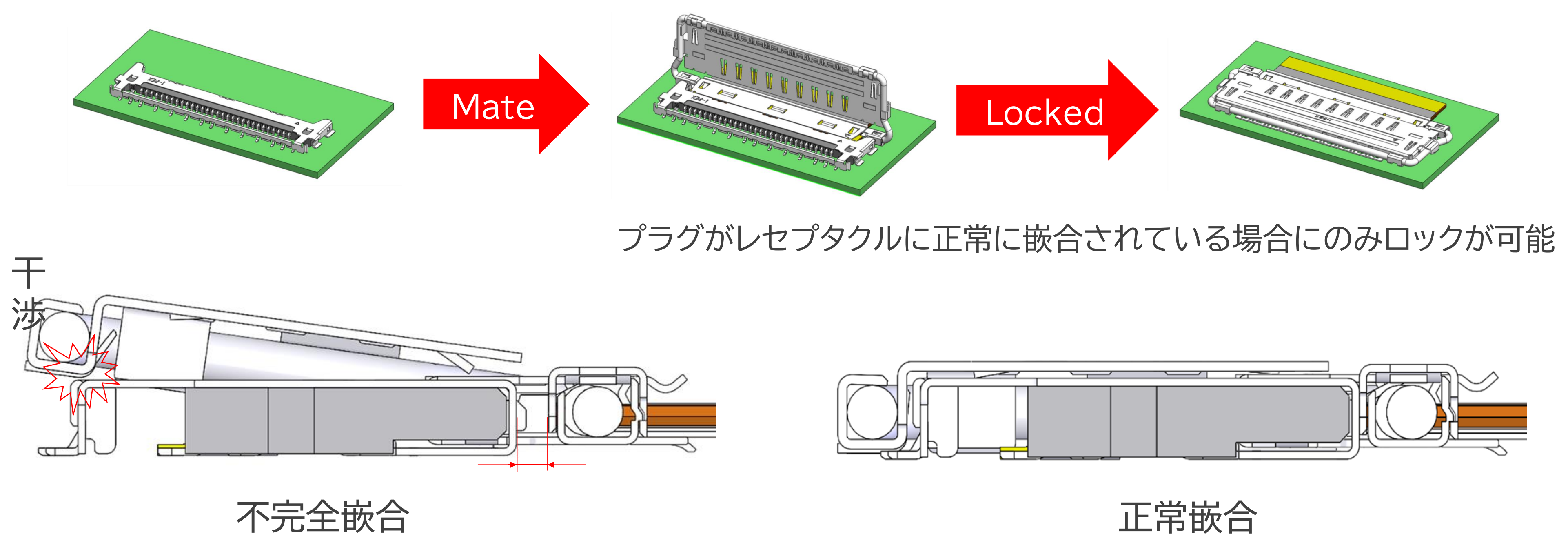
*記載のない極数の対応状況についてはお問い合わせください。



▶ ZenShield®フルシールドと多点グランド構造で、EMCソリューションに最適



▶ 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



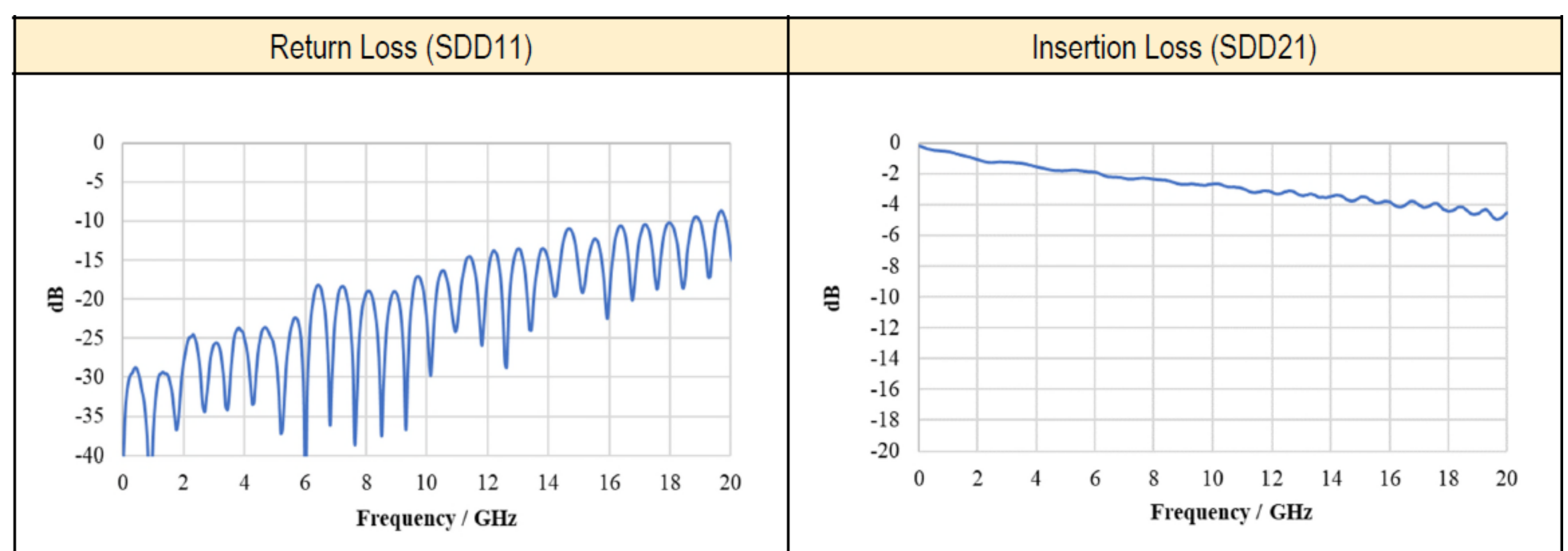
▶ 32Gbps/lane の高速伝送内部接続に最適

Measurement results

Connector: CABLINE-VS IIF 40P

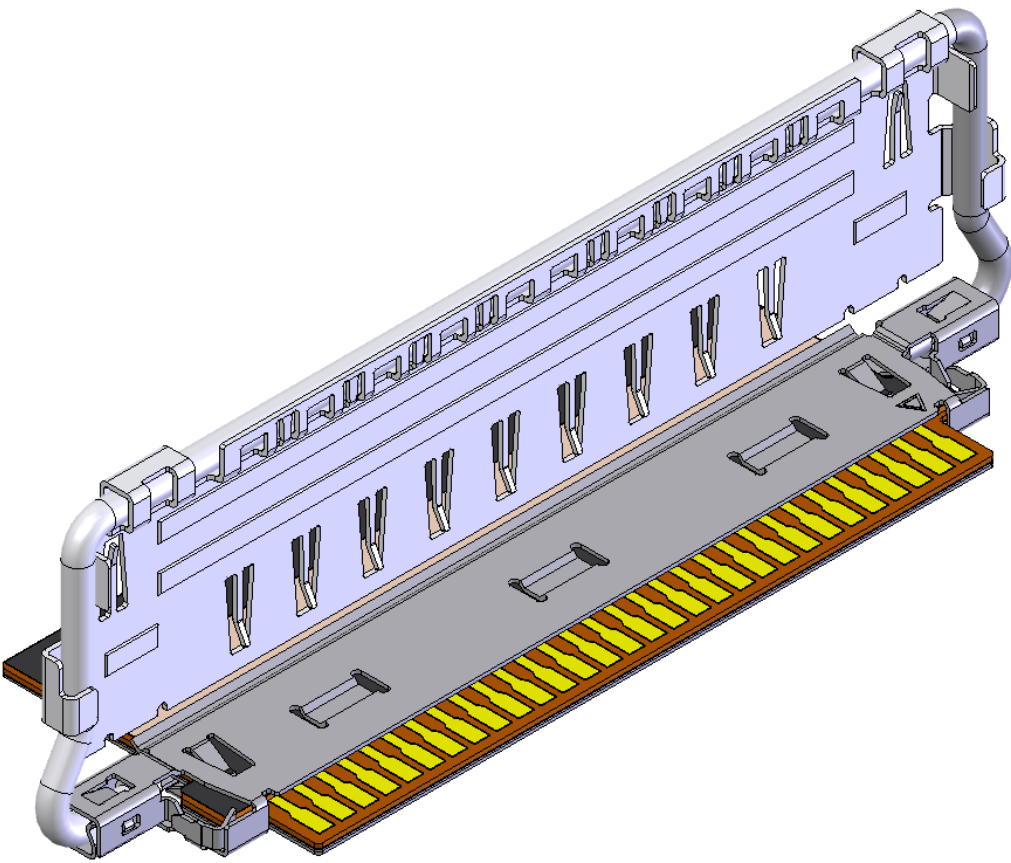
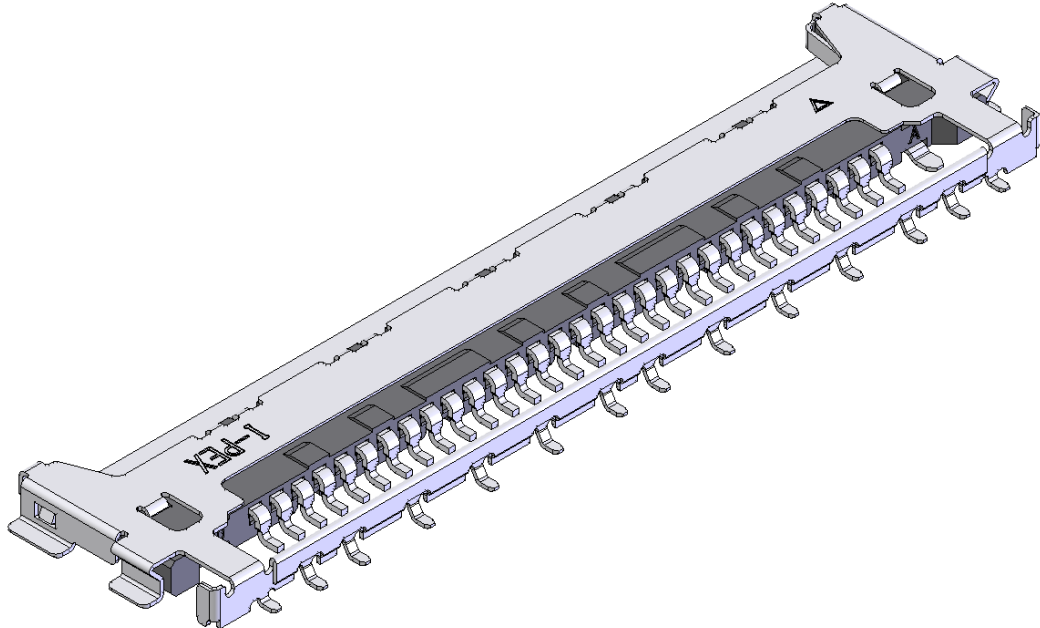
FPC: Shielded FPC,
Differential 85 ohm, Length : 100 mm

Pin Assignment: GSSGSSG



Component Parts Details

Component Parts

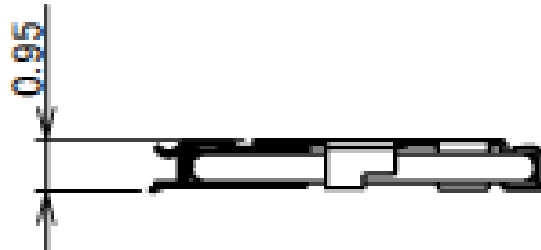
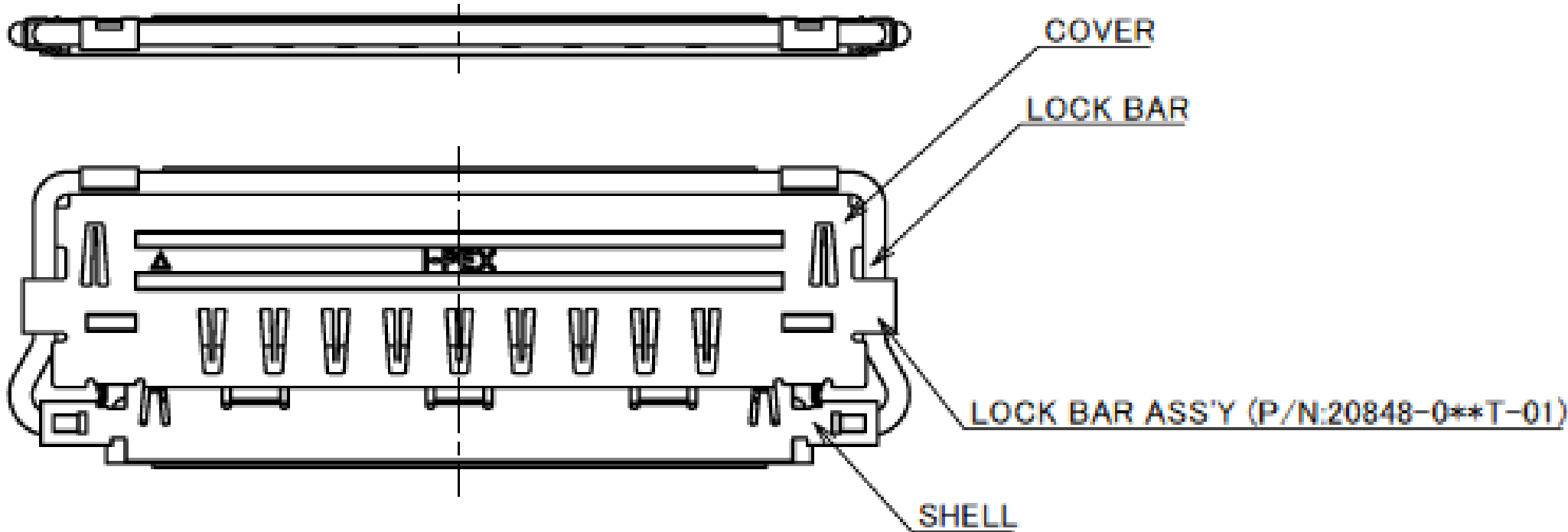
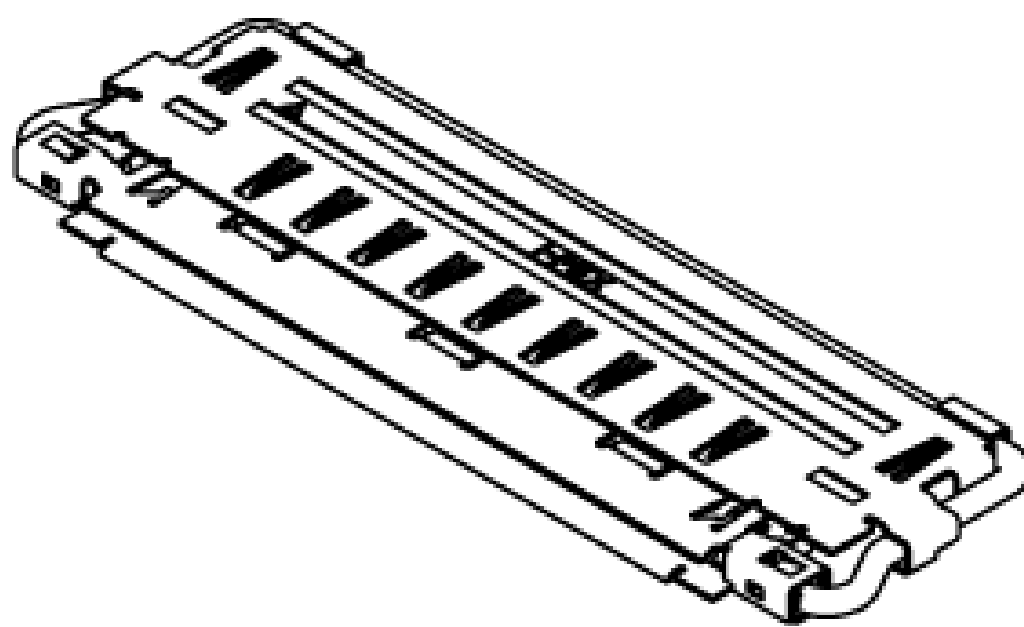
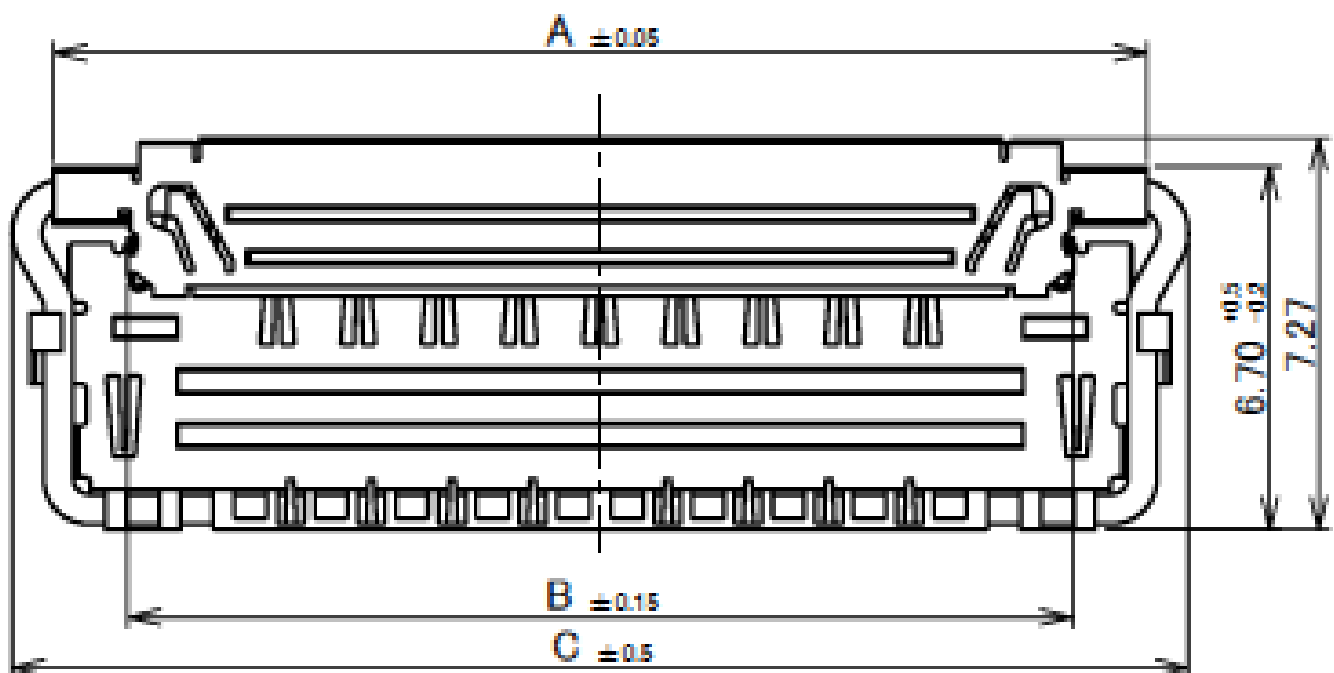
Connector parts
 CABLINE-VS IIF PLUG with FPC
 CABLINE-VS II RECEPTACLE

Shell Assembly

Recommended P/N		20862-0**T-01		
PART No.	Pos.	A	B	C
20862-030T-01	30	20.30	17.56	21.85
20862-040T-01	40	25.30	22.56	26.85



RoHS Compliant



3	COVER	PHOSPHOR BRONZE	Ni 1.00 μ m MIN.
2	LOCK BAR	STAINLESS STEEL	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

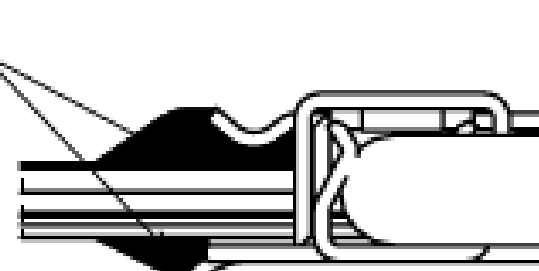
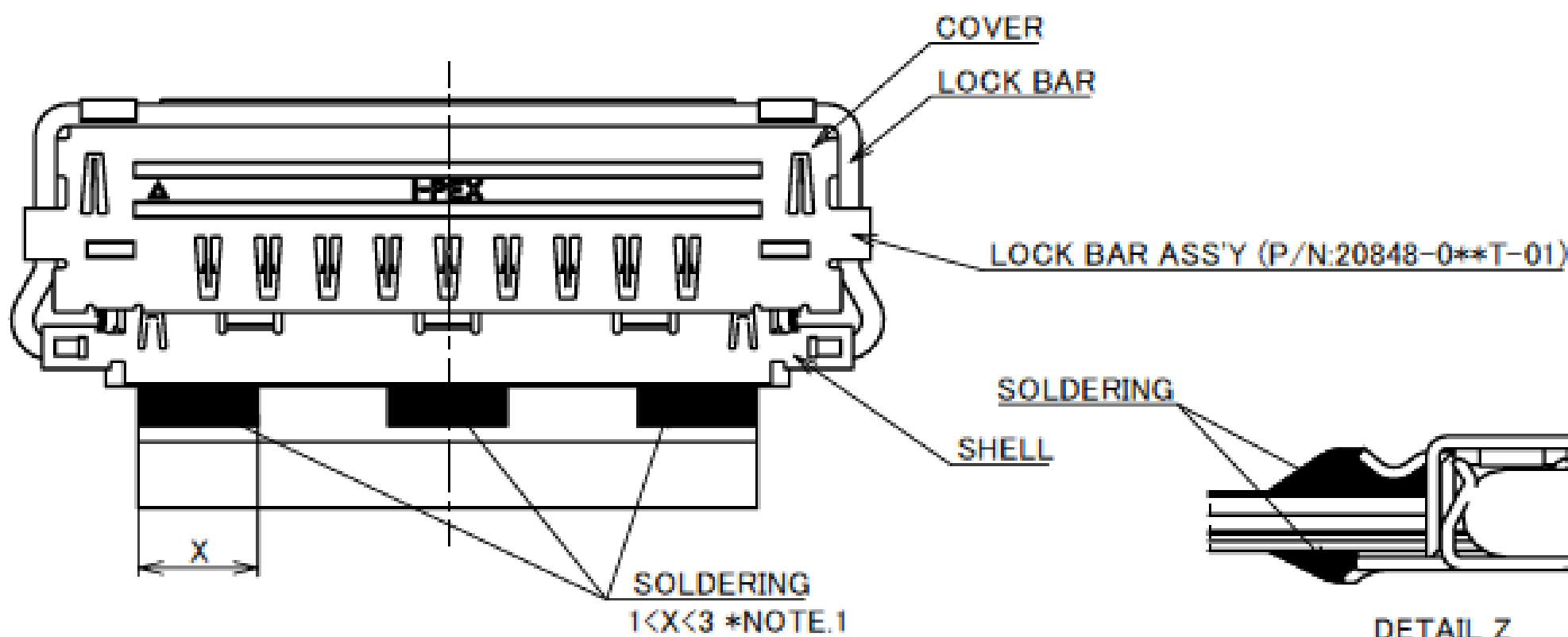
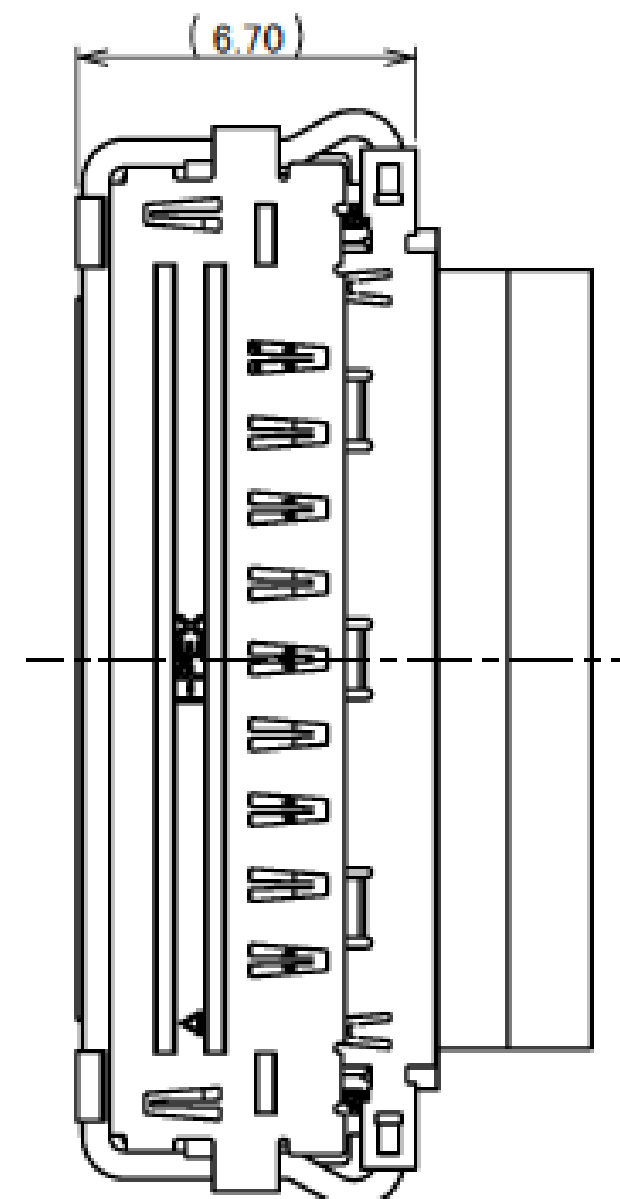
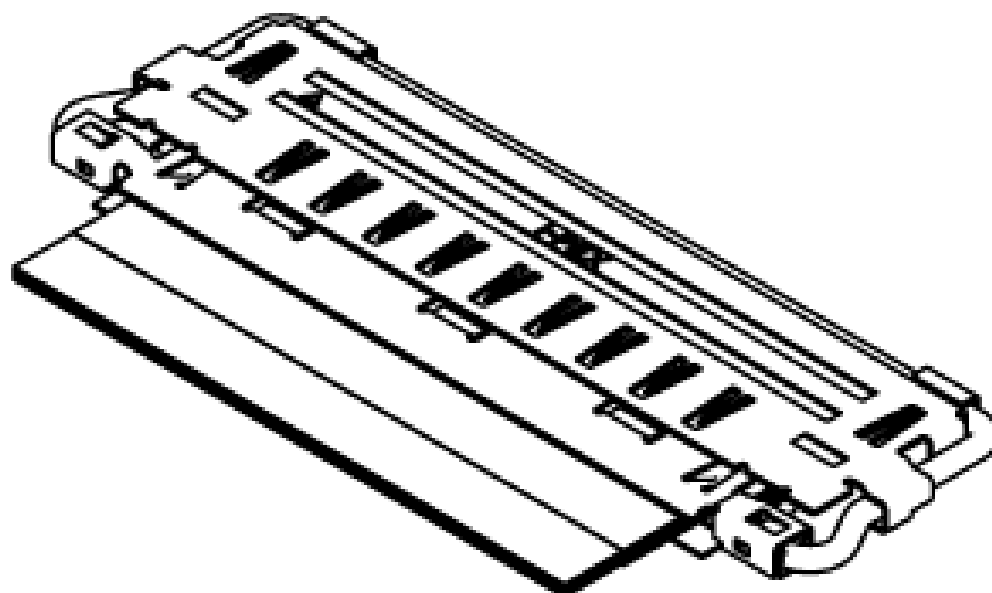
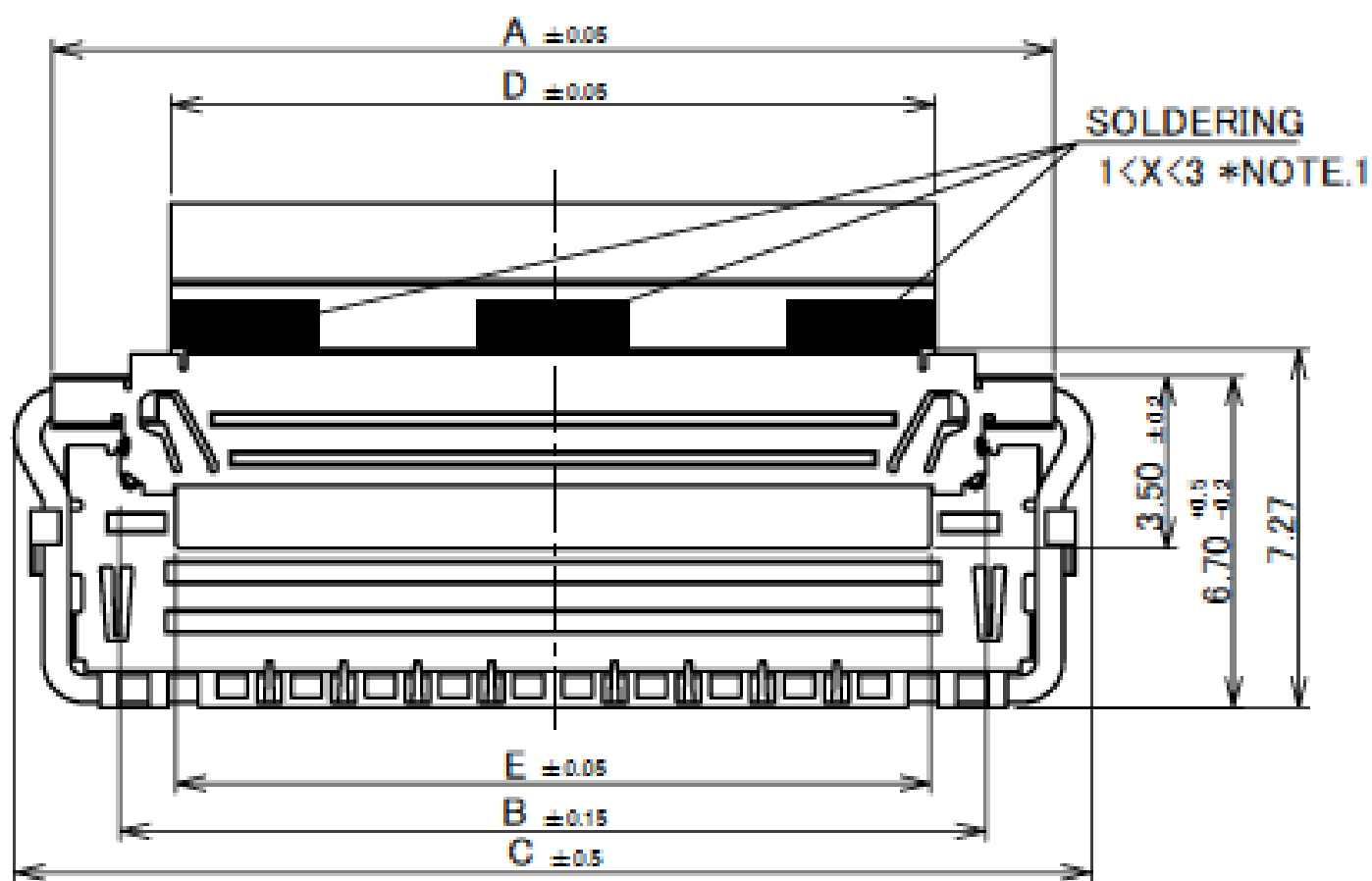
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Recommended P/N		20862-0**T-01				
PART No.	Pos.	A	B	C	D	E
20862-030T-01	30	20.30	17.56	21.85	15.50	15.30
20862-040T-01	40	25.30	22.56	26.85	20.50	20.30

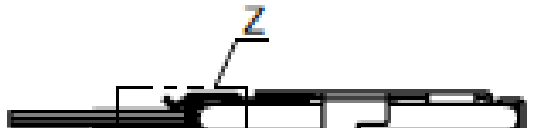
FPC ASS'Y STATE COVER CLOSE



RoHS Compliant



DETAIL Z
(S=20/1)



NOTES.

1. Soldering Area X is recommended dimension.
It does not mater if it might be exceed the recommended dimension.

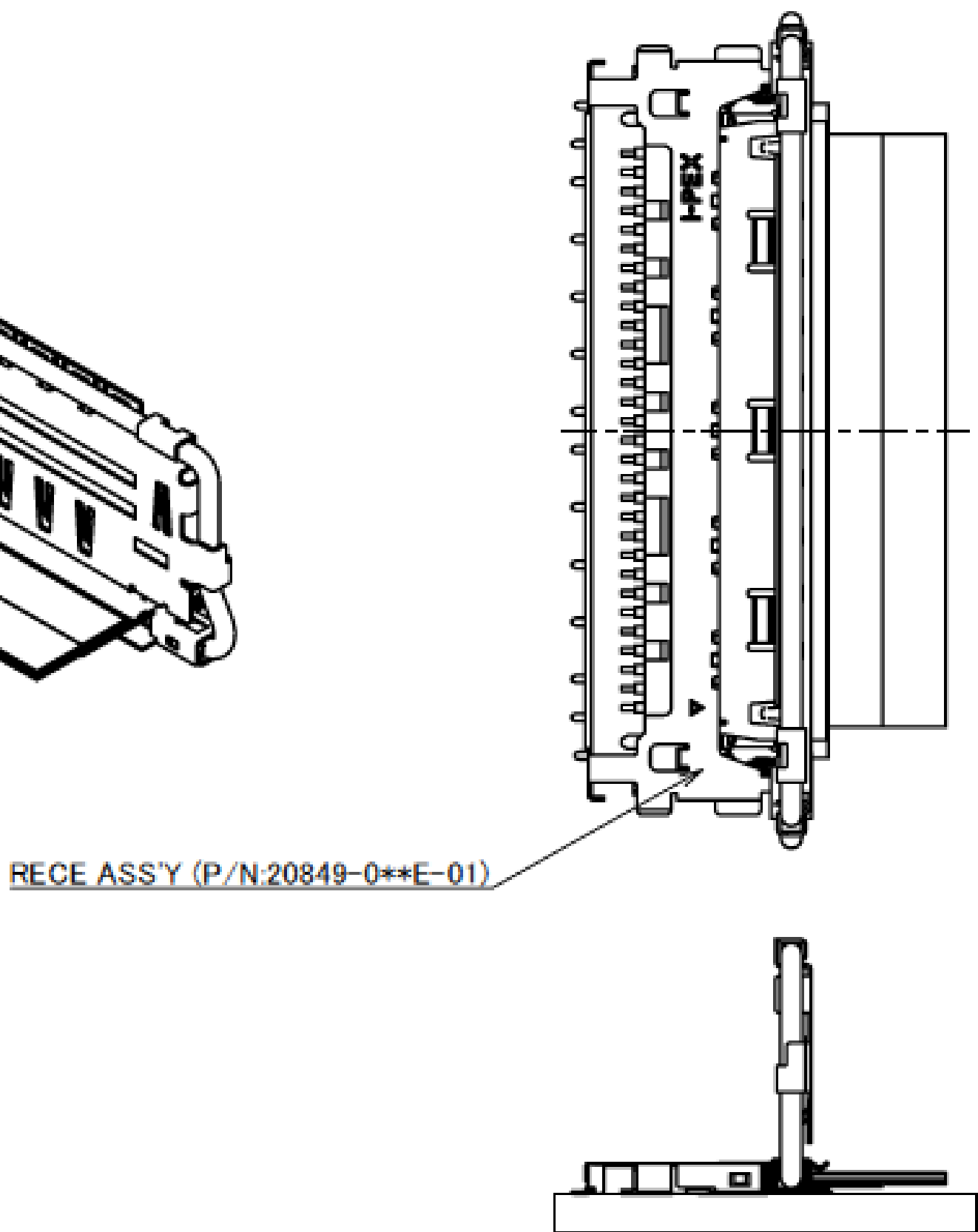
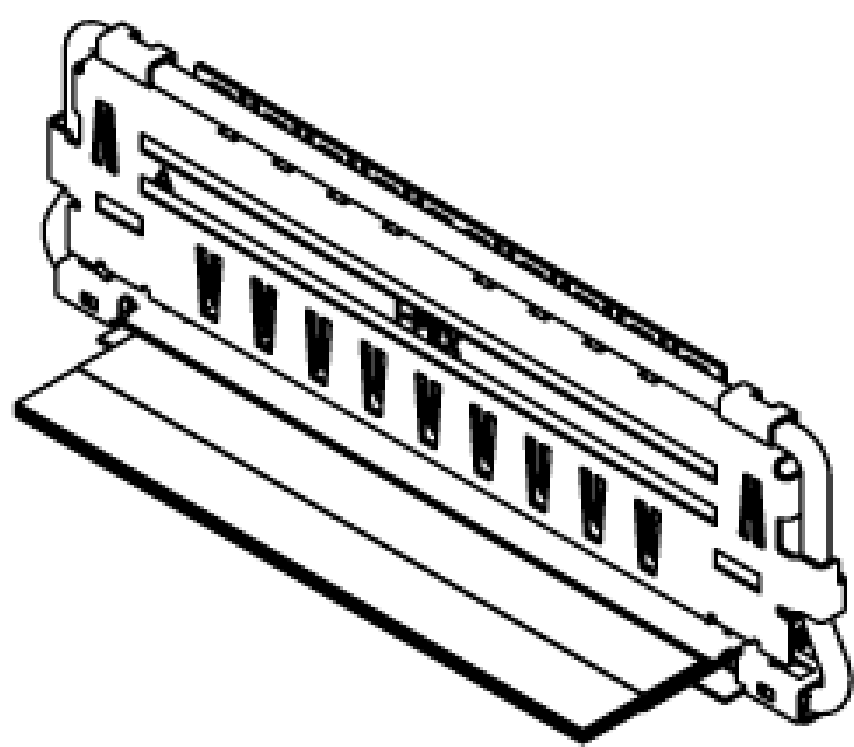
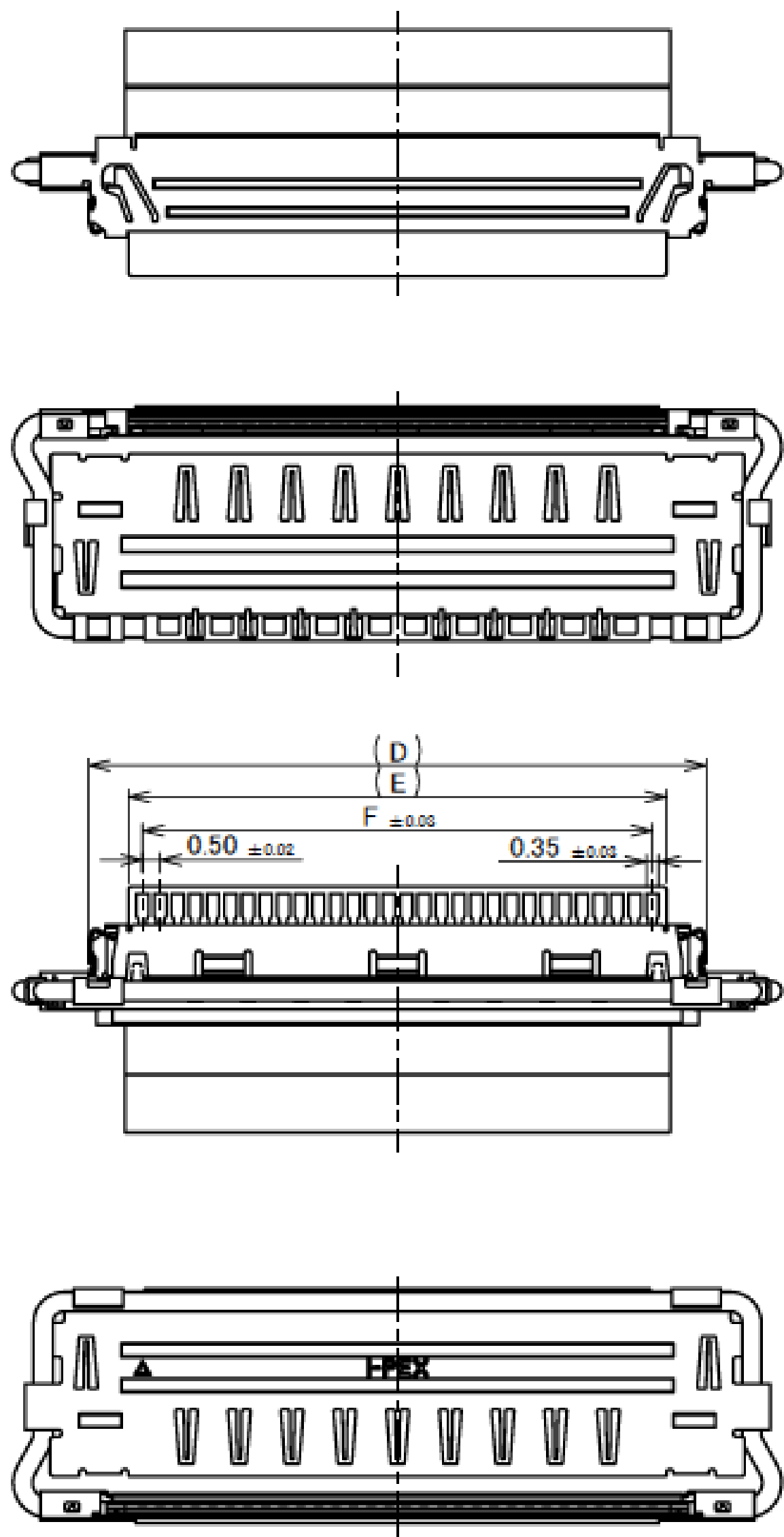
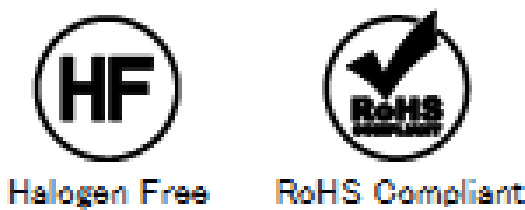
0.95	+0.25
	-0.10

MATING CONDITION

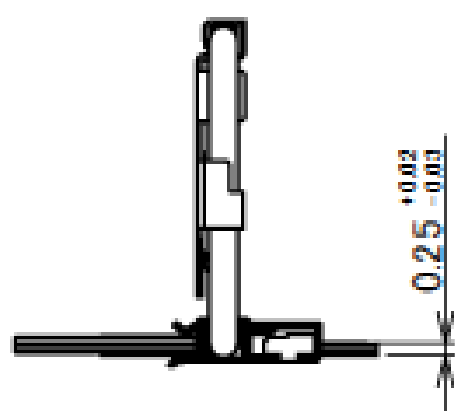
Shell Assembly

Recommended P/N		20862-0**T-01			
PART No.	Pos.	D	E	F	
20862-030T-01	30	17.56	15.30	14.50	
20862-040T-01	40	22.56	20.30	19.50	

FPC ASS'Y STATE COVER OPEN

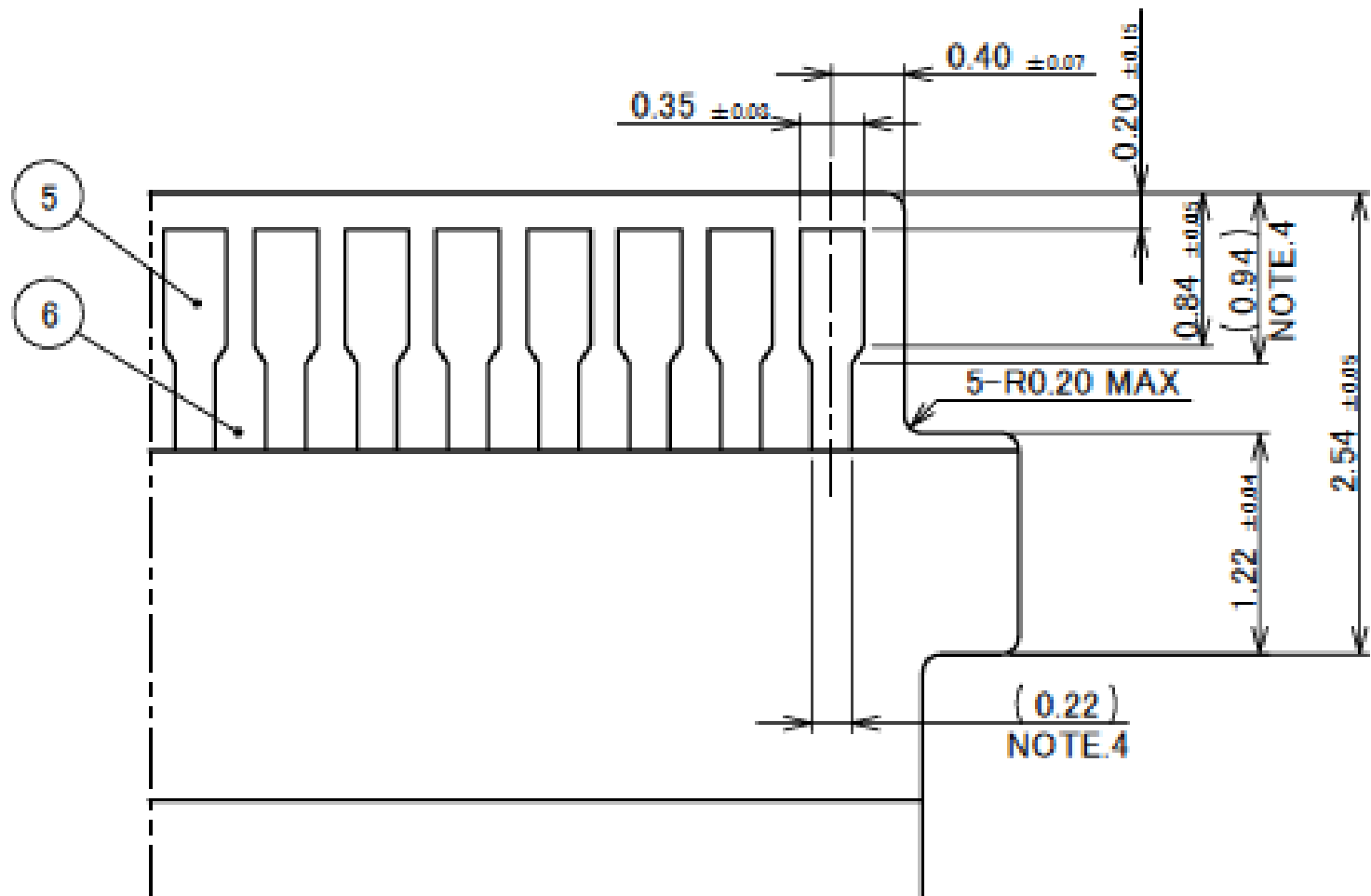
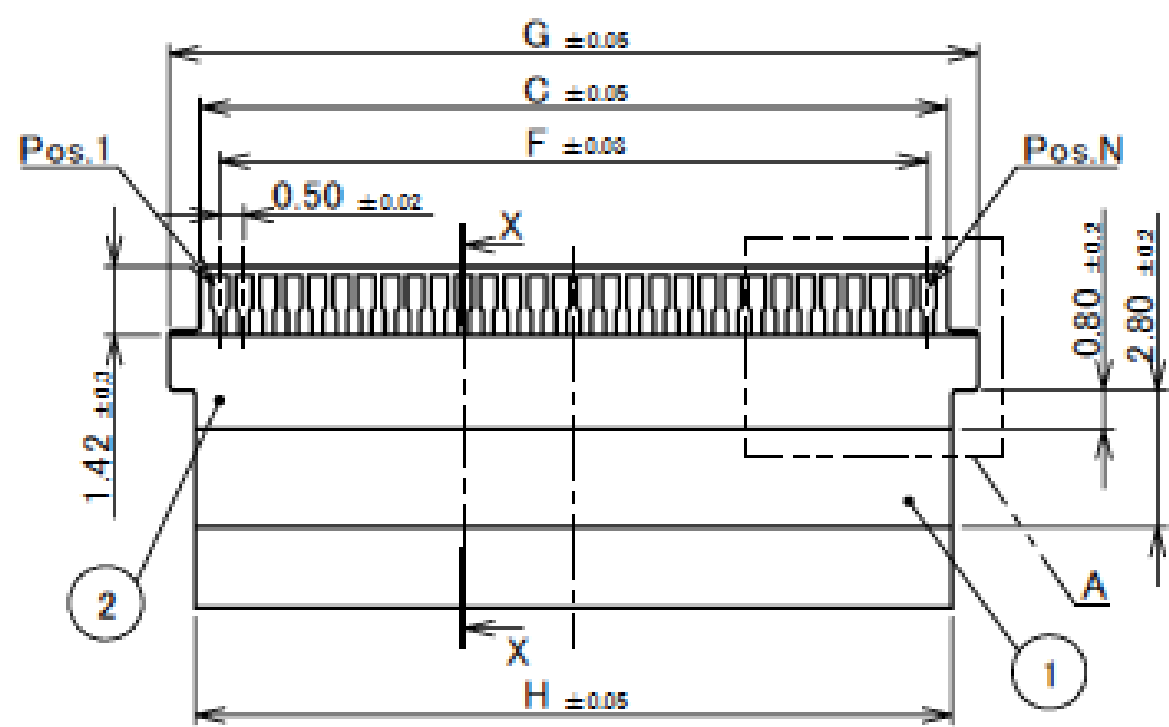


MATING CONDITION



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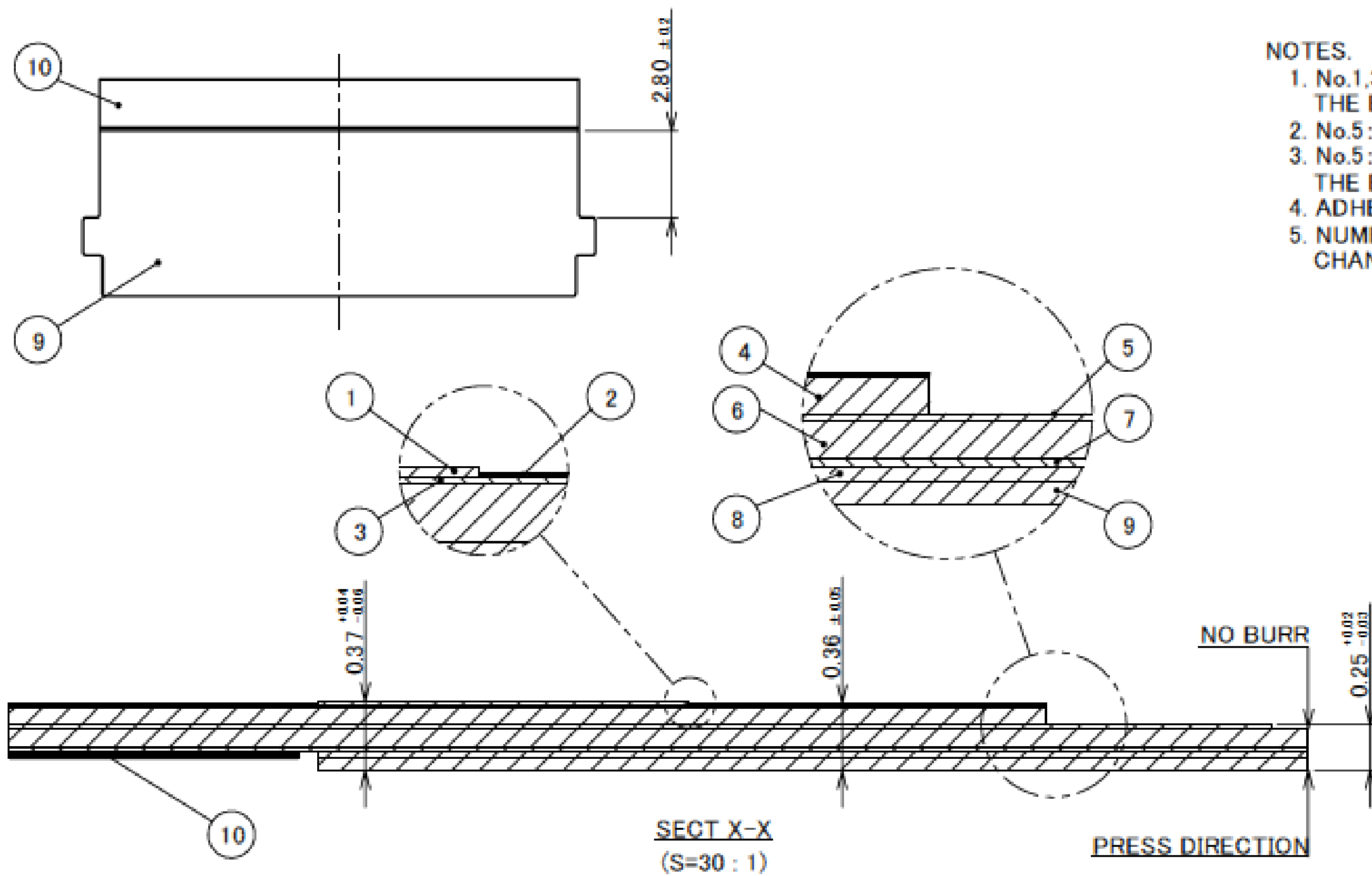
PART No.	Pos.	C	F	G	H
20862-030T-01	30	15.30	14.50	16.56	15.50
20862-040T-01	40	20.30	19.50	21.56	20.50



DETAIL A
(S=20/1)

- NOTES.
- No.1,3,7,9: CONDUCTOR(GROUND) ARE CARRYING OUT THE ELECTRICAL CONNECTION.
 - No.5: SIGNAL Pos. AND No.1,3,7,9: CONDUCTOR(GROUND) ARE NOT CONTACTING.
 - No.5: GROUND Pos. AND No.1,3,7,9: CONDUCTOR(GROUND) ARE CARRYING OUT THE ELECTRICAL CONNECTION.
 - ADHESIVE SHOULD USE THERMOSETTING.
 - NUMBERS WITHIN PARENTHESES ARE ARBITRARY DIMENSIONS. CHANGE DIMENSIONS IN ACCORDANCE WITH CHARACTERISTIC IMPEDANCE VALUE.

1	CONDUCTOR(GROUND)	Cu	Ni , Au
2	INSULATOR	-	-
3	CONDUCTOR(GROUND)	Cu	-
4	INSULATOR	-	-
5	CONDUCTOR(SIGNAL,GROUND)	Cu	Ni , Au
6	INSULATOR	-	-
7	CONDUCTOR(GROUND)	Cu	-
8	CONDUCTIVE ADHESIVE	-	-
9	REINFORCING TAPE & CONDUCTOR(GROUND)	SUS	Ni
10	INSULATOR	-	-
No.	DESCRIPTION	MATERIAL	PLATING



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Shell Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(−40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : $\triangle$ 40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : $\triangle$ 40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	30P : 13.50N MAX. 40P : 18.00N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 1.44N MIN. 40P : 1.92N MIN.
PRODUCT SPECIFICATION	PRS-2430
TEST REPORT	TR-17086
PACKING STANDARD	PST-17134
INSTRUCTION MANUAL	HIM-17039
ASSEMBLY MANUAL	ASM-17010
APPEARANCE CRITERIA No.	QLS-A***

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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.

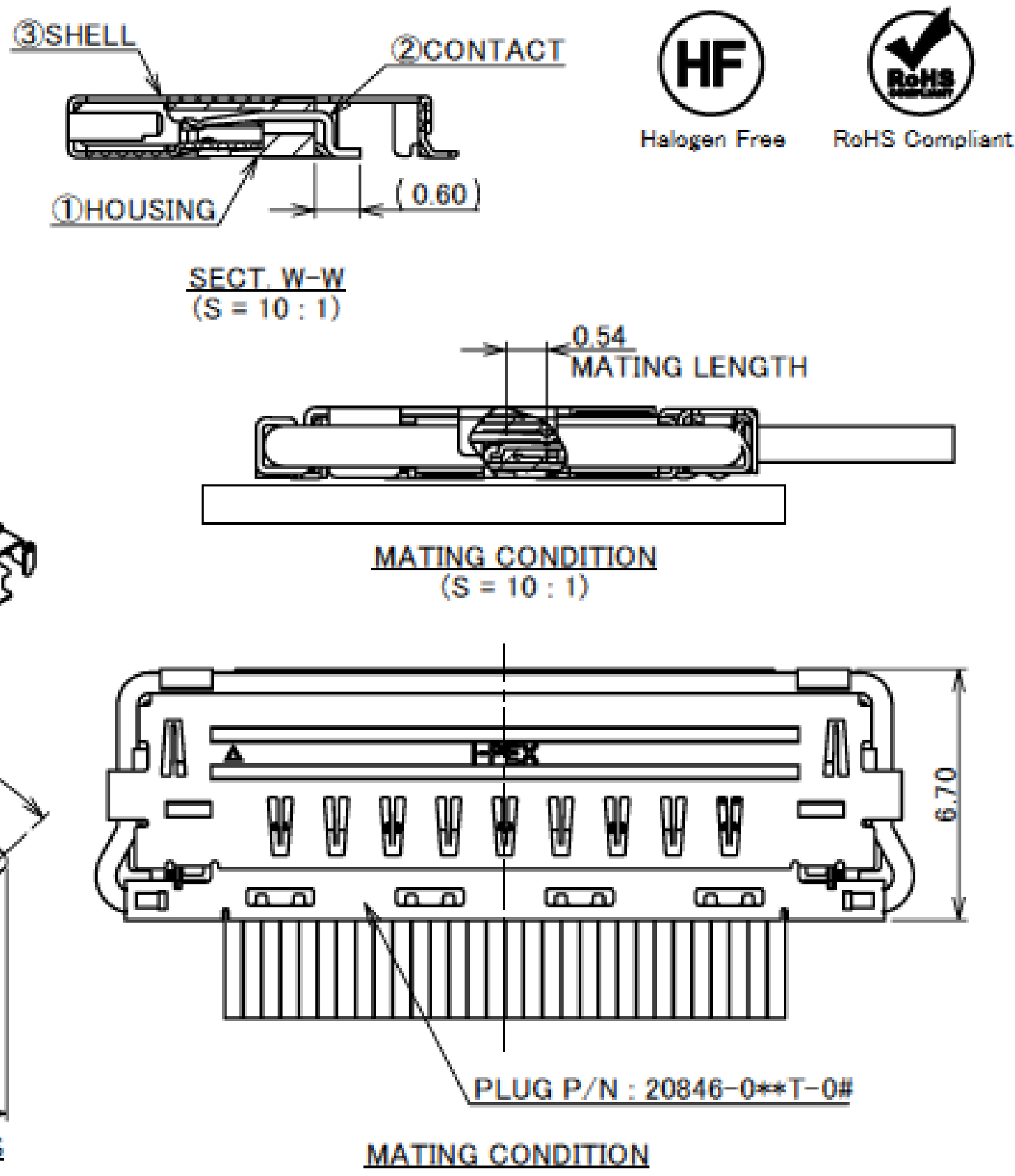
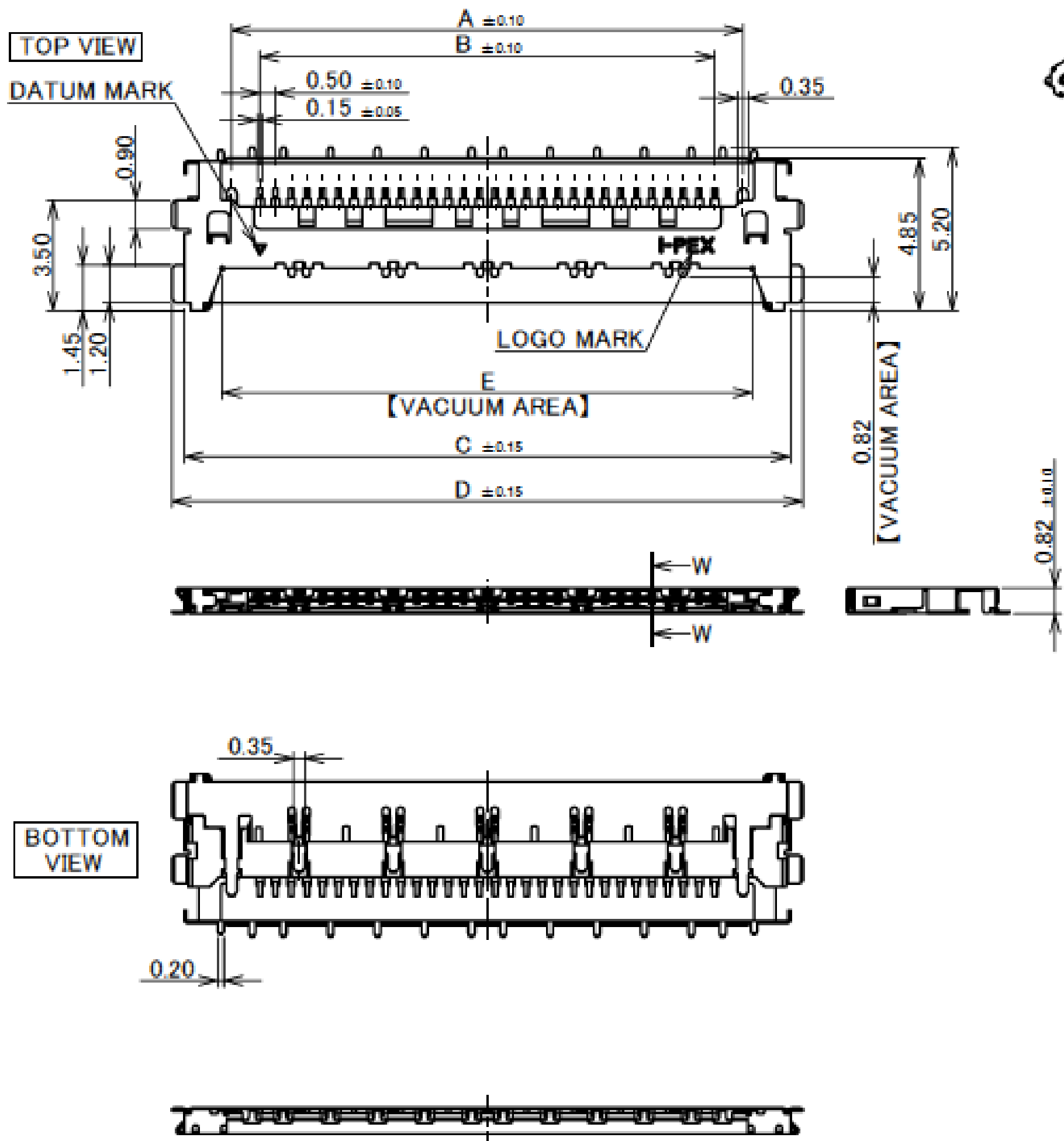


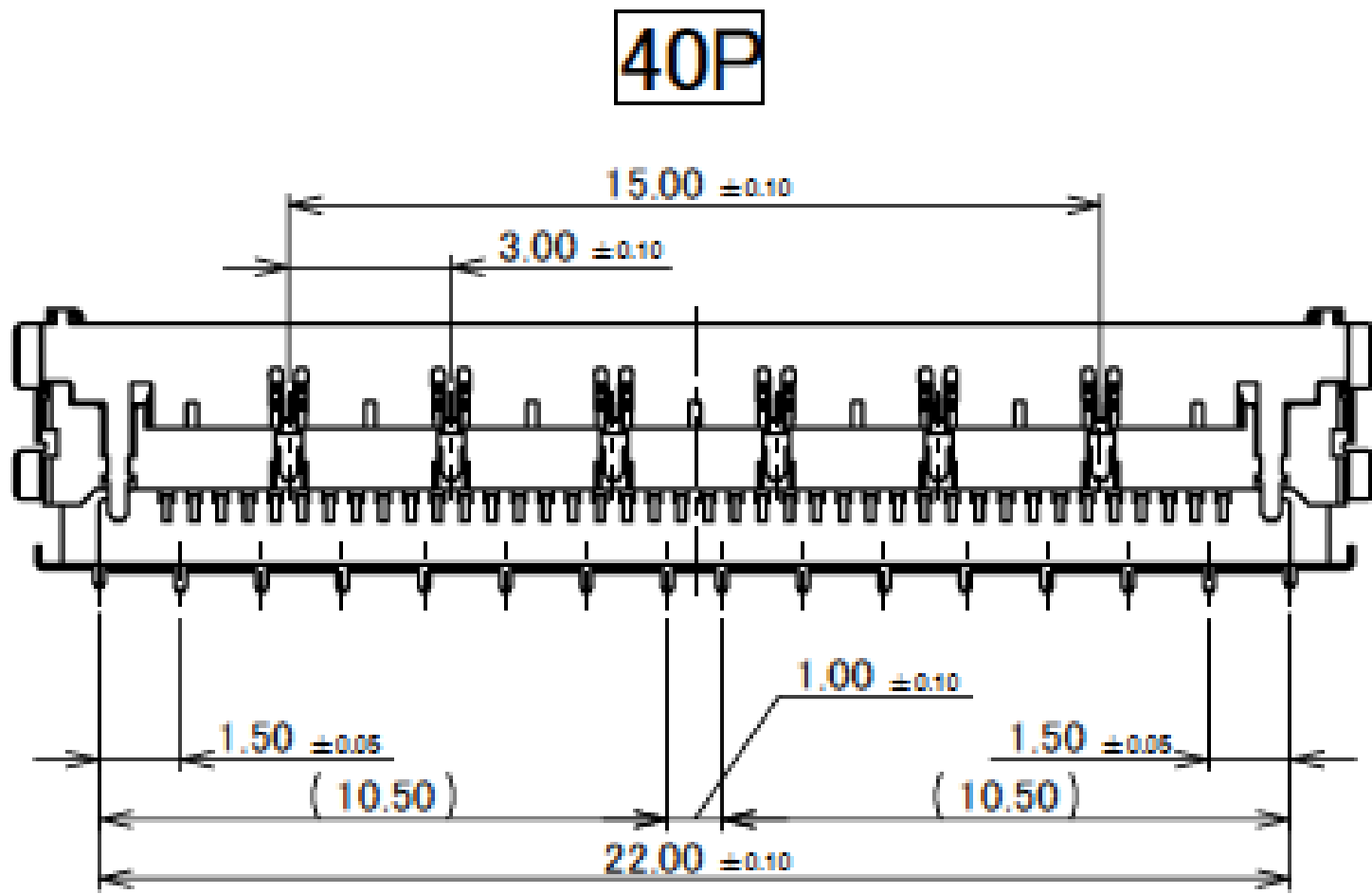
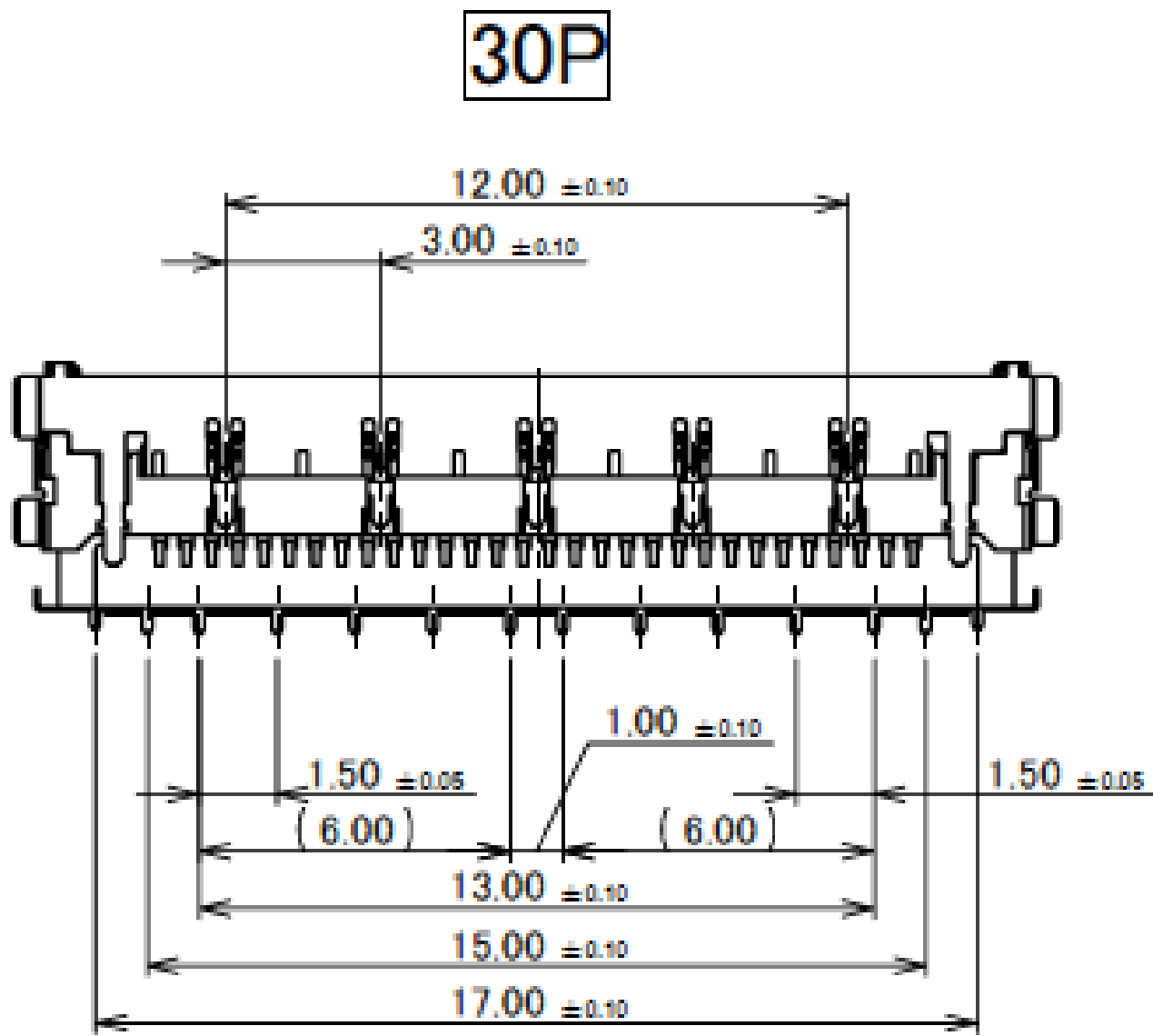
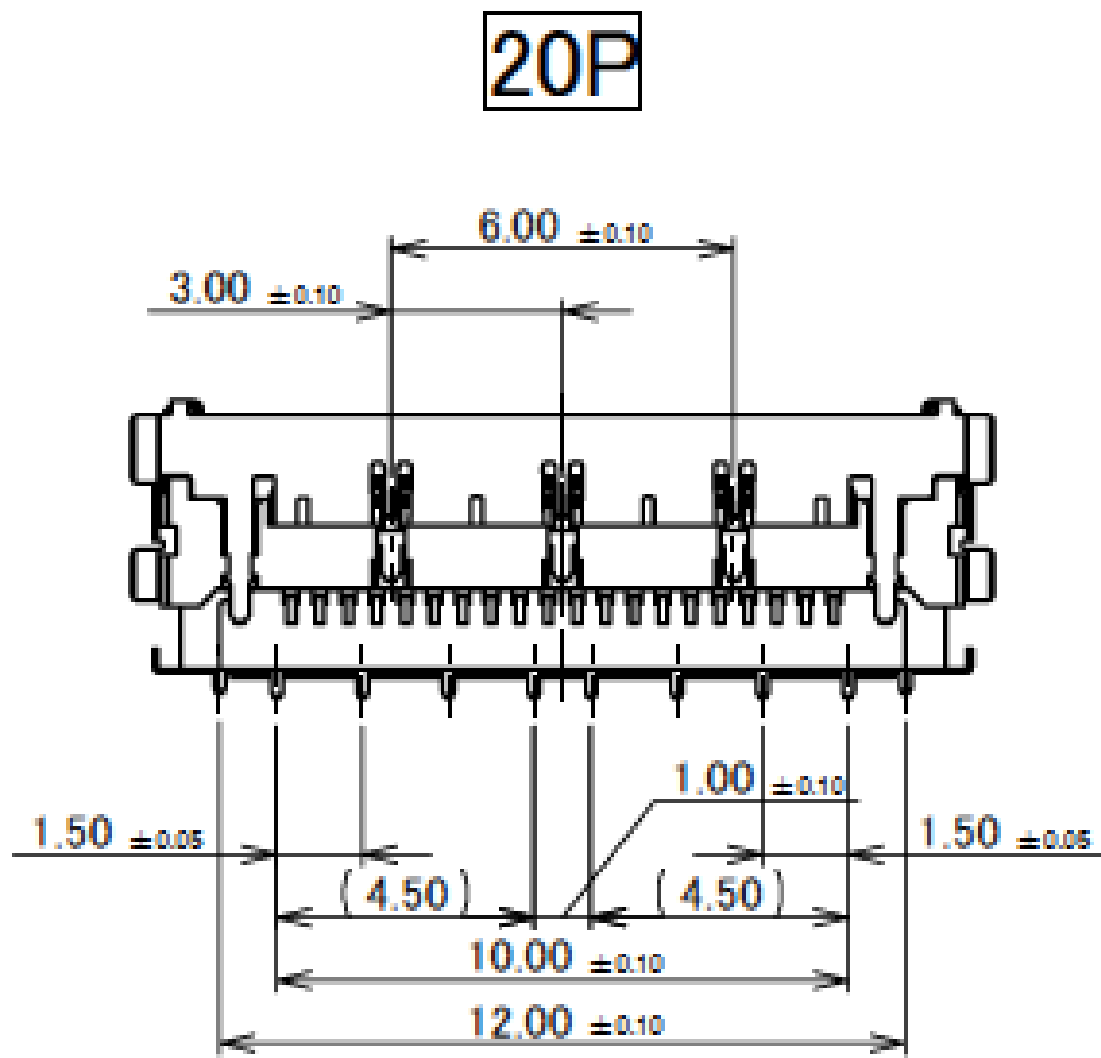
TABLE 1		
PART NO.	CONTACT FINISH	SHELL FINISH
20849-0**E-01	CONTACT & SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	ALL OVER Ni 1.00 μ m MIN.
20849-0**E-02	CONTACT AREA : Au 0.38 μ m MIN. OVER Ni 1.27 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.00 μ m MIN.	SOLDERING AREA : Au 0.02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

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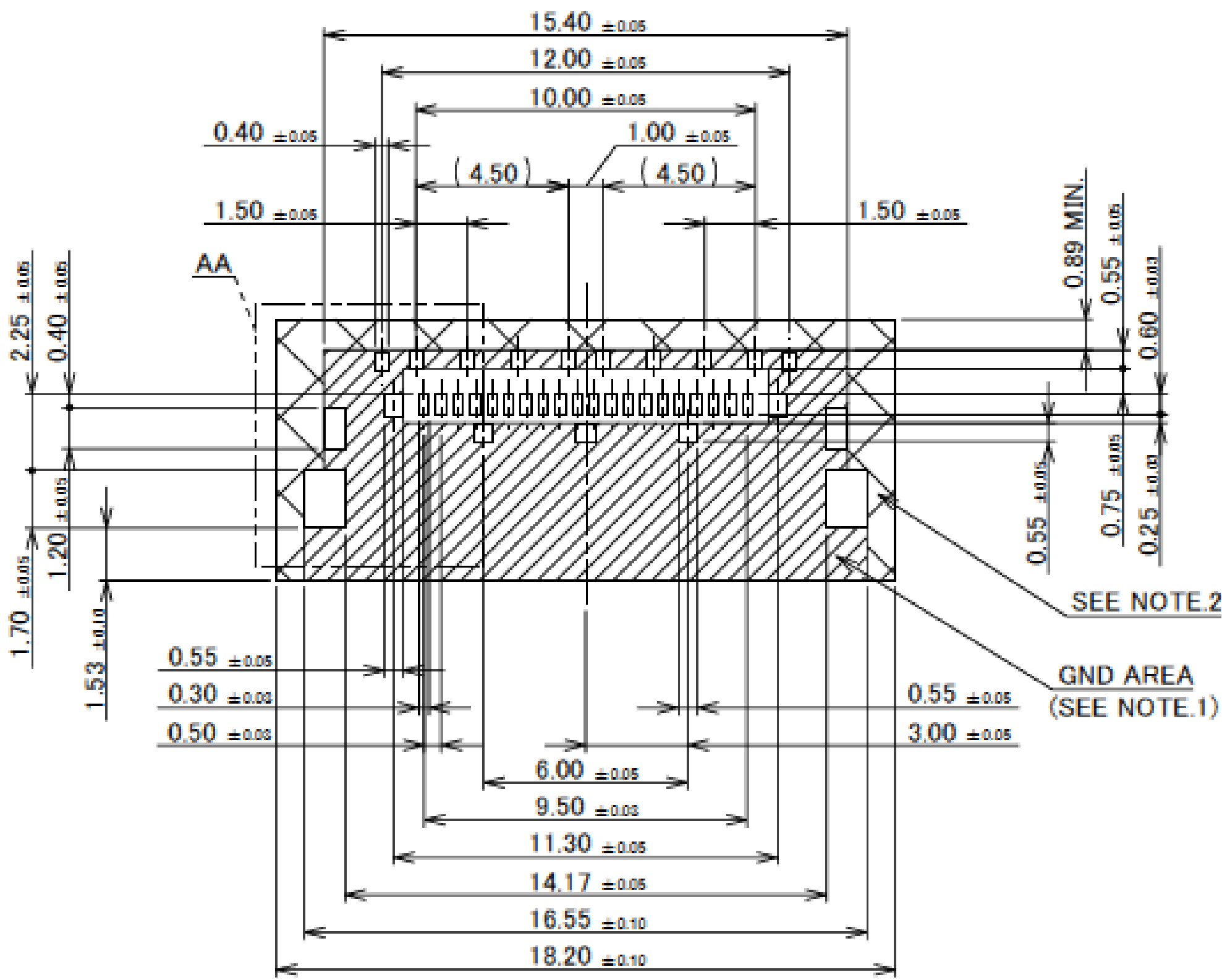
Receptacle Assembly

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

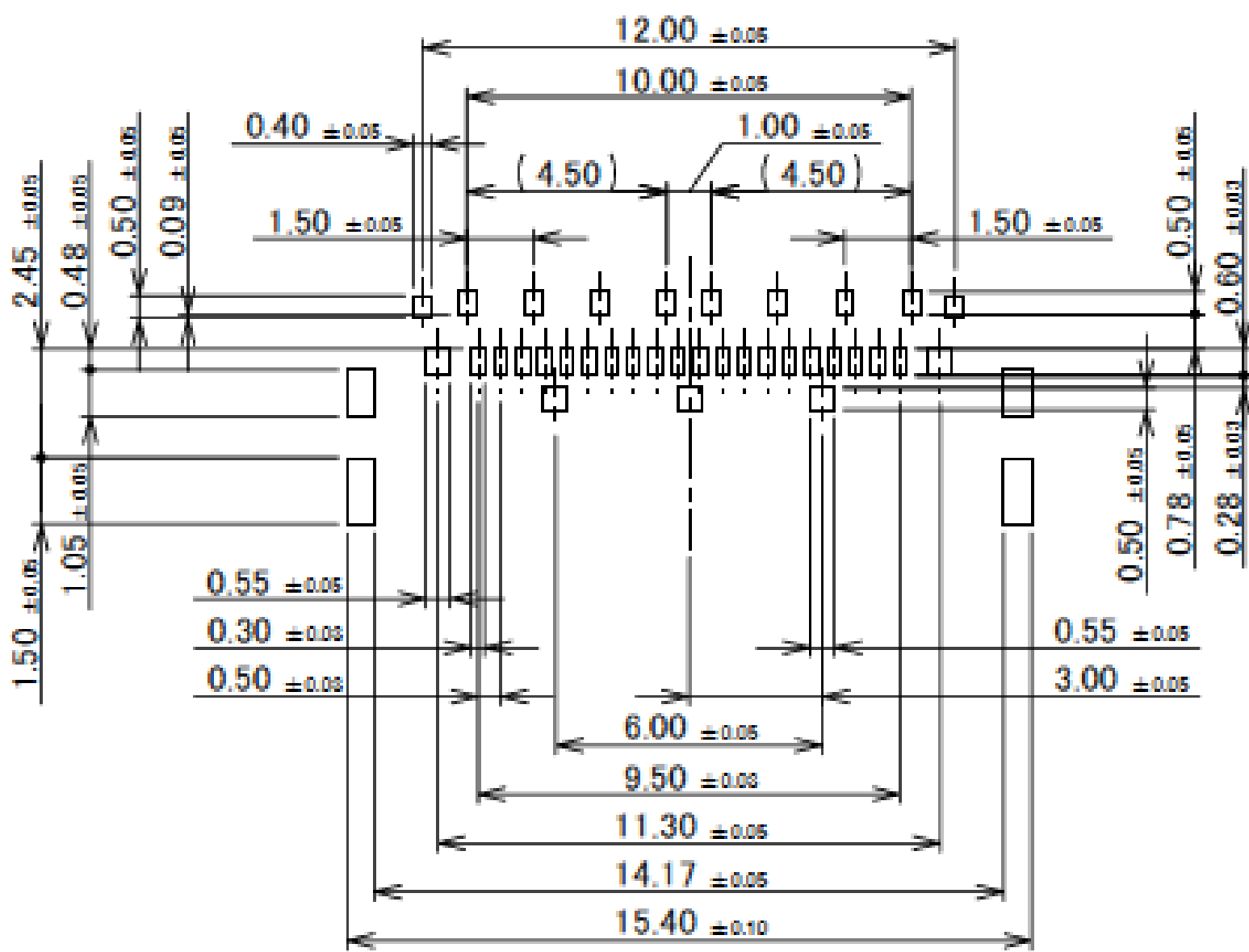
BOTTOM VIEW



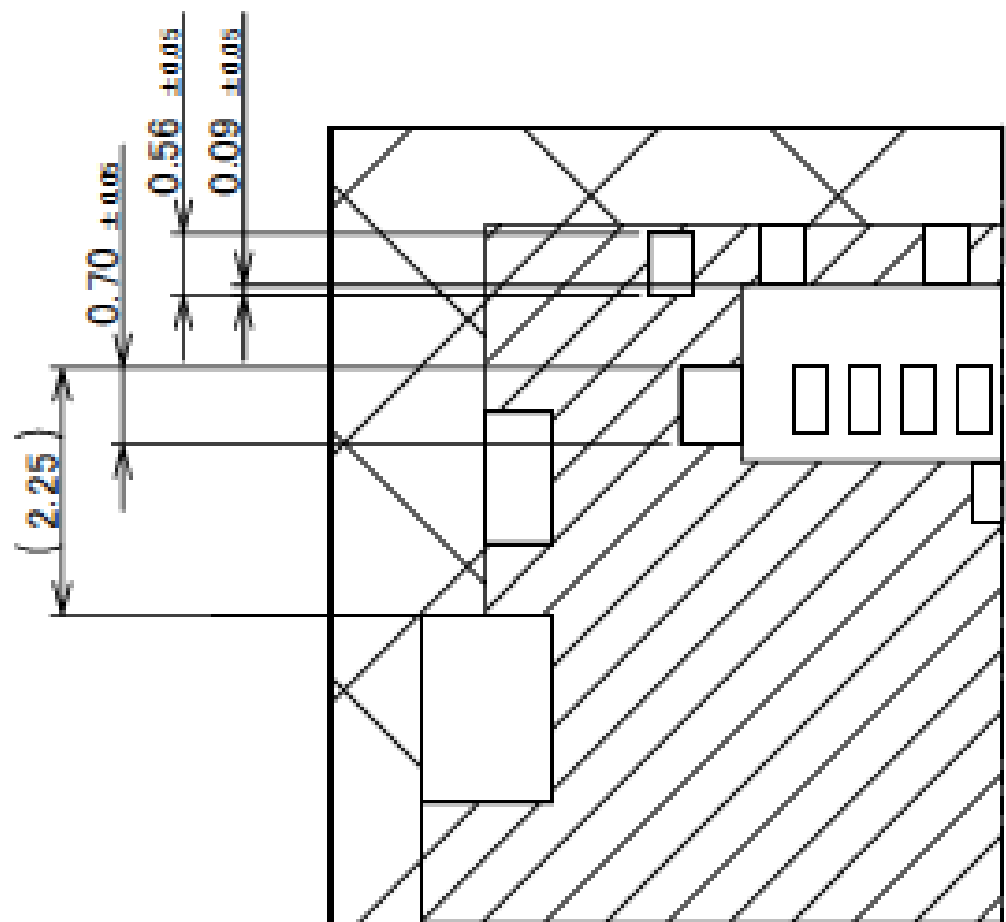
Rev.14



20P RECOMMENDED FOOTPRINT PATTERN LAYOUT



20P RECOMMENDED METAL MASK LAYOUT
METAL MASK THICKNESS : t=0.12mm

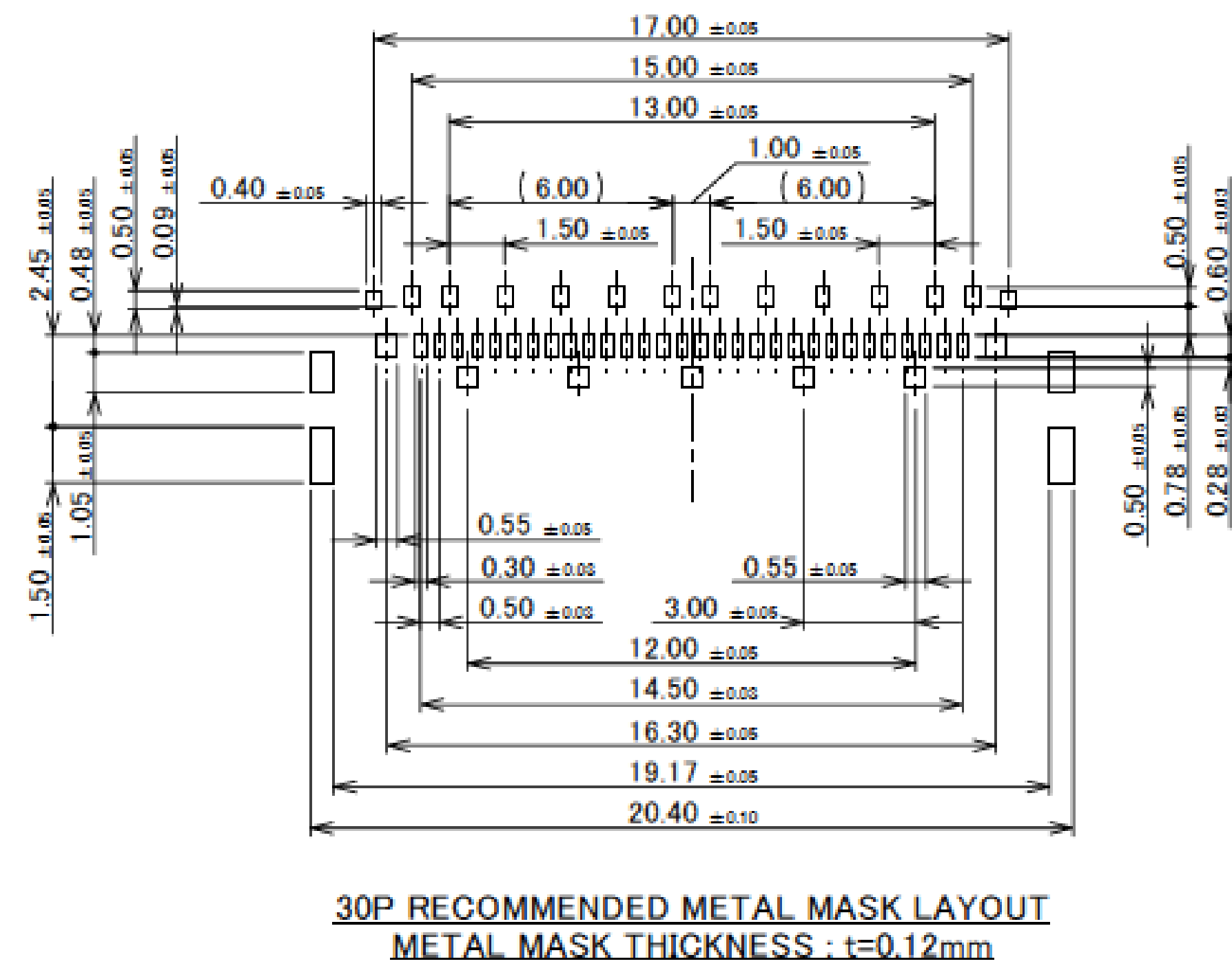
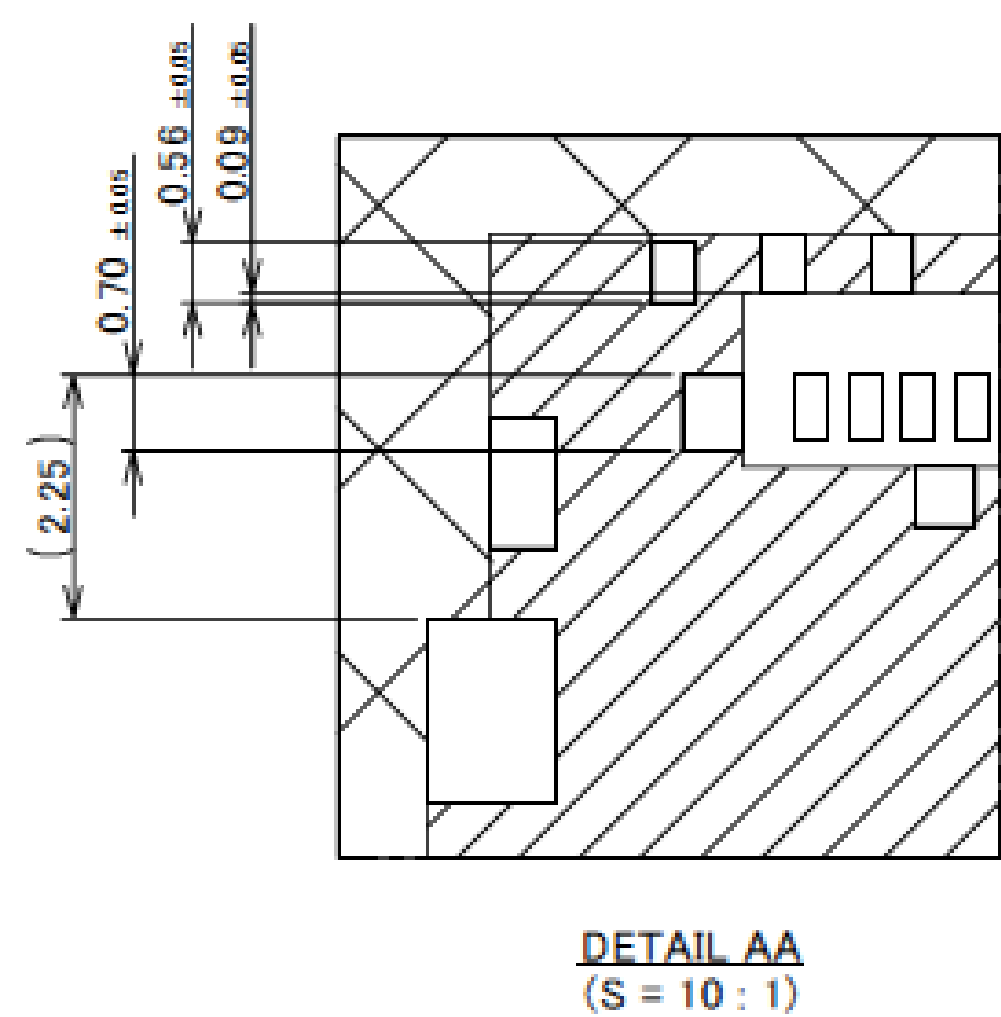
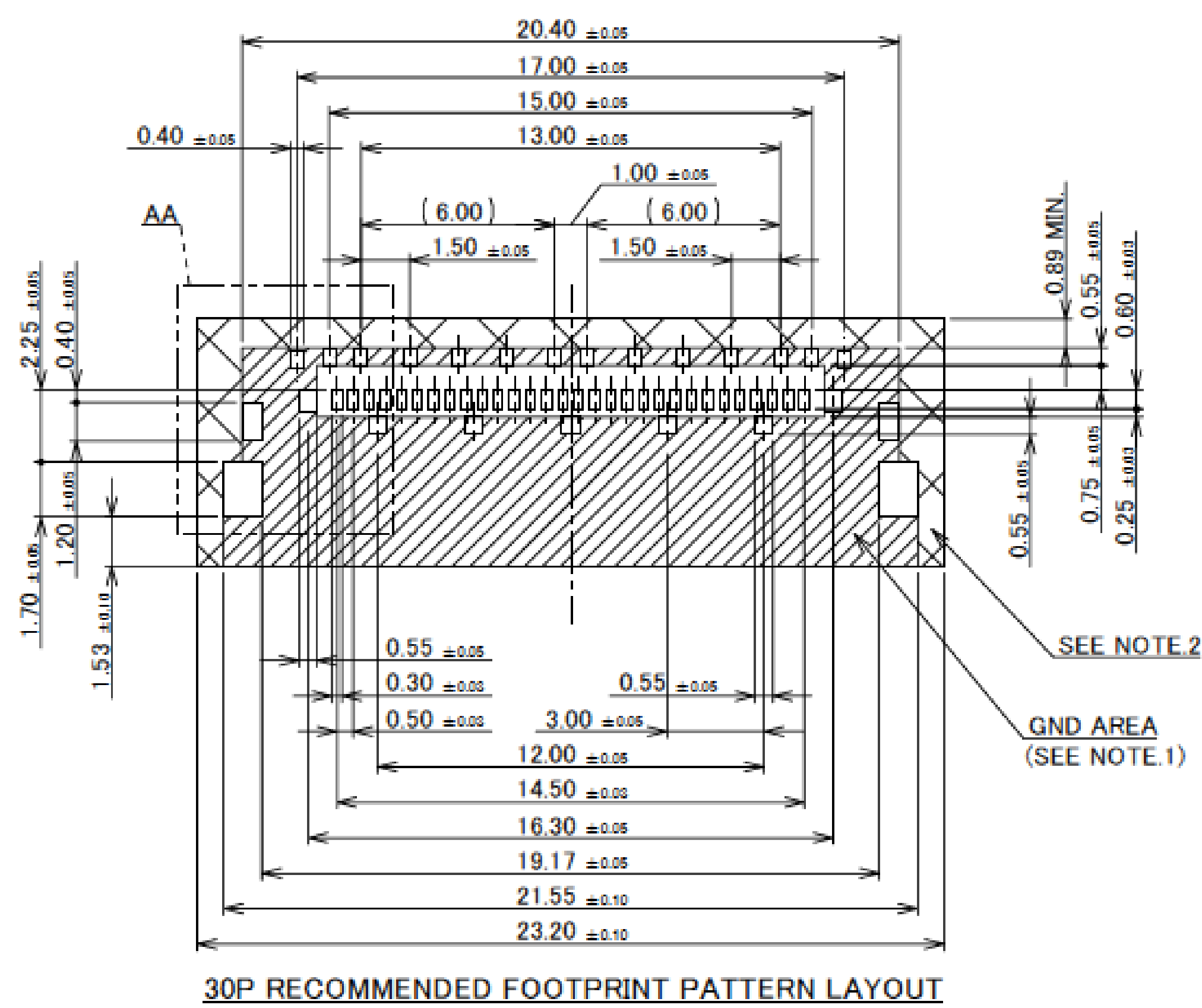


DETAIL AA
(S = 10 : 1)

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

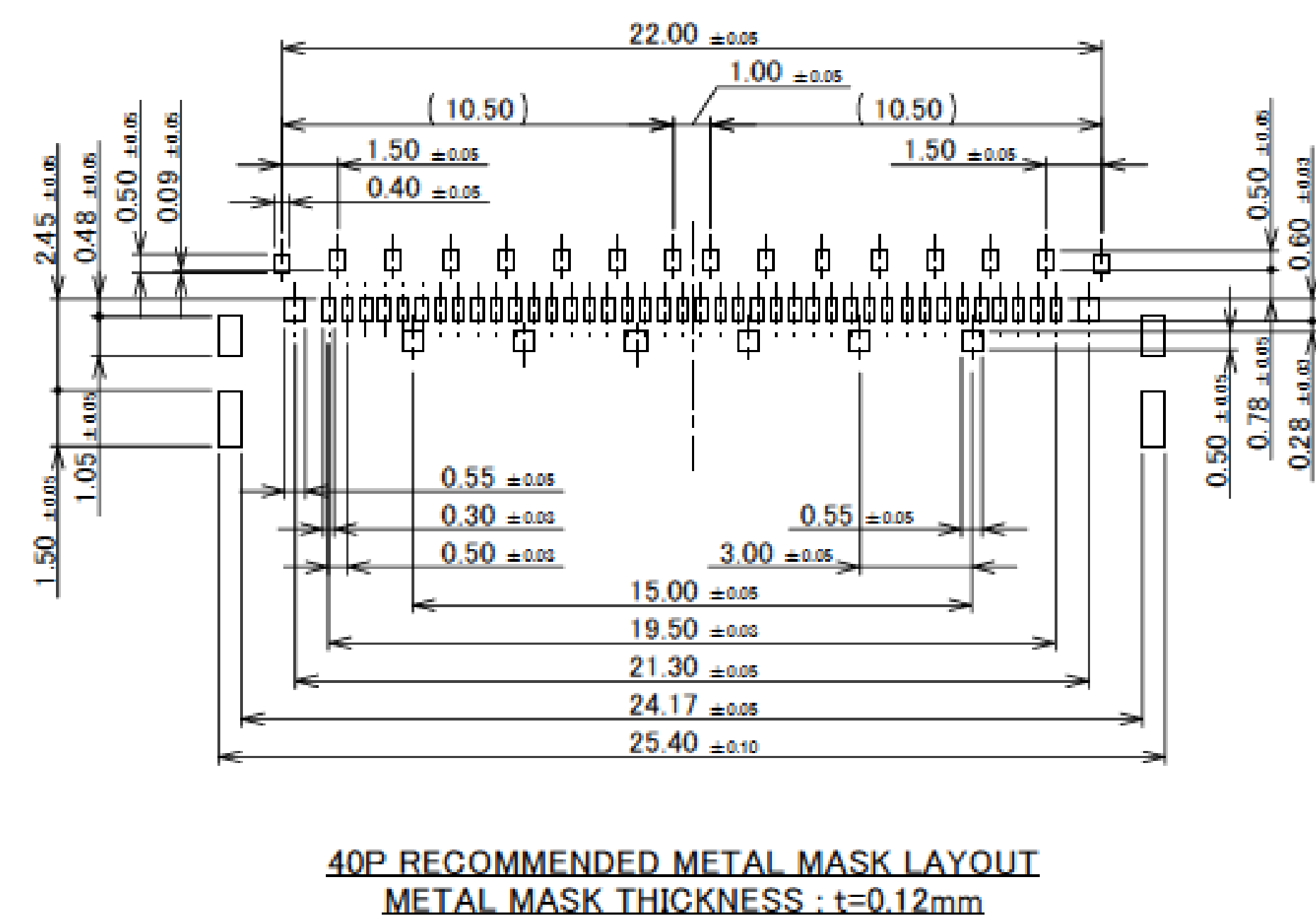
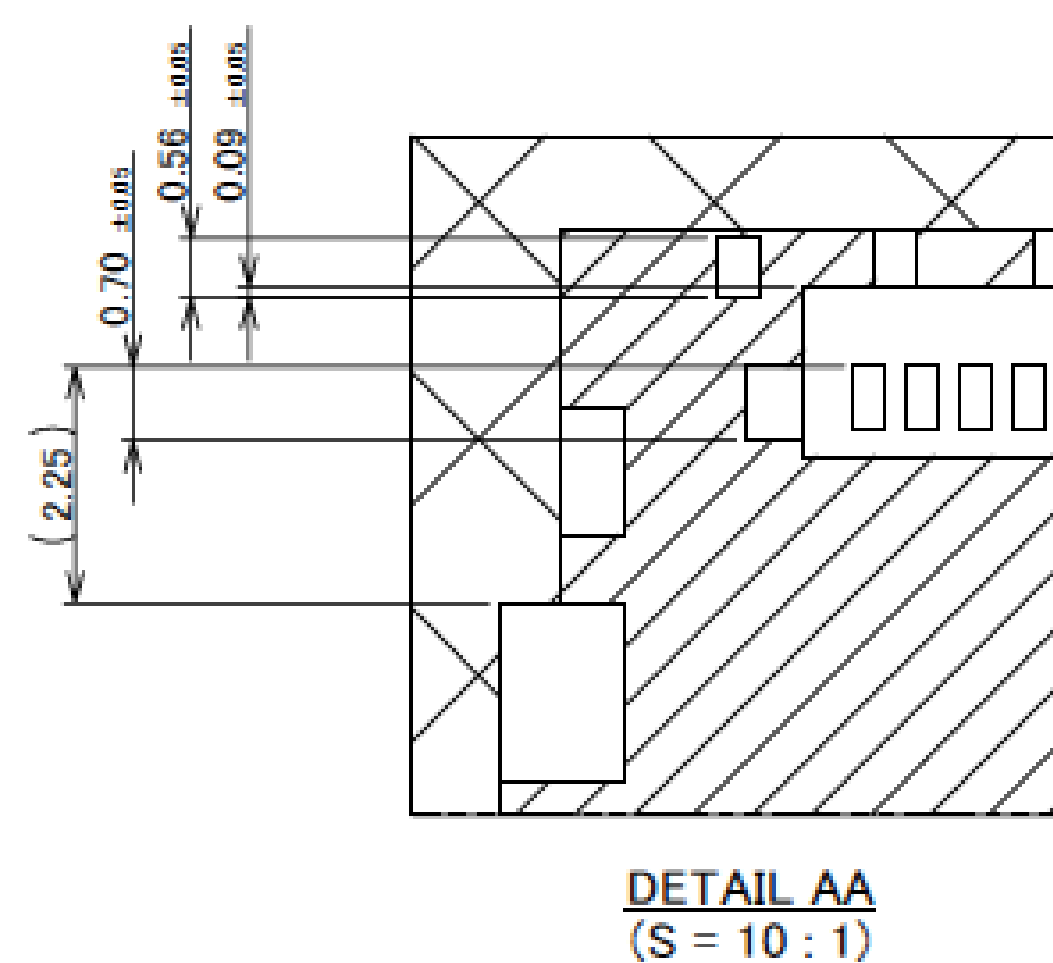
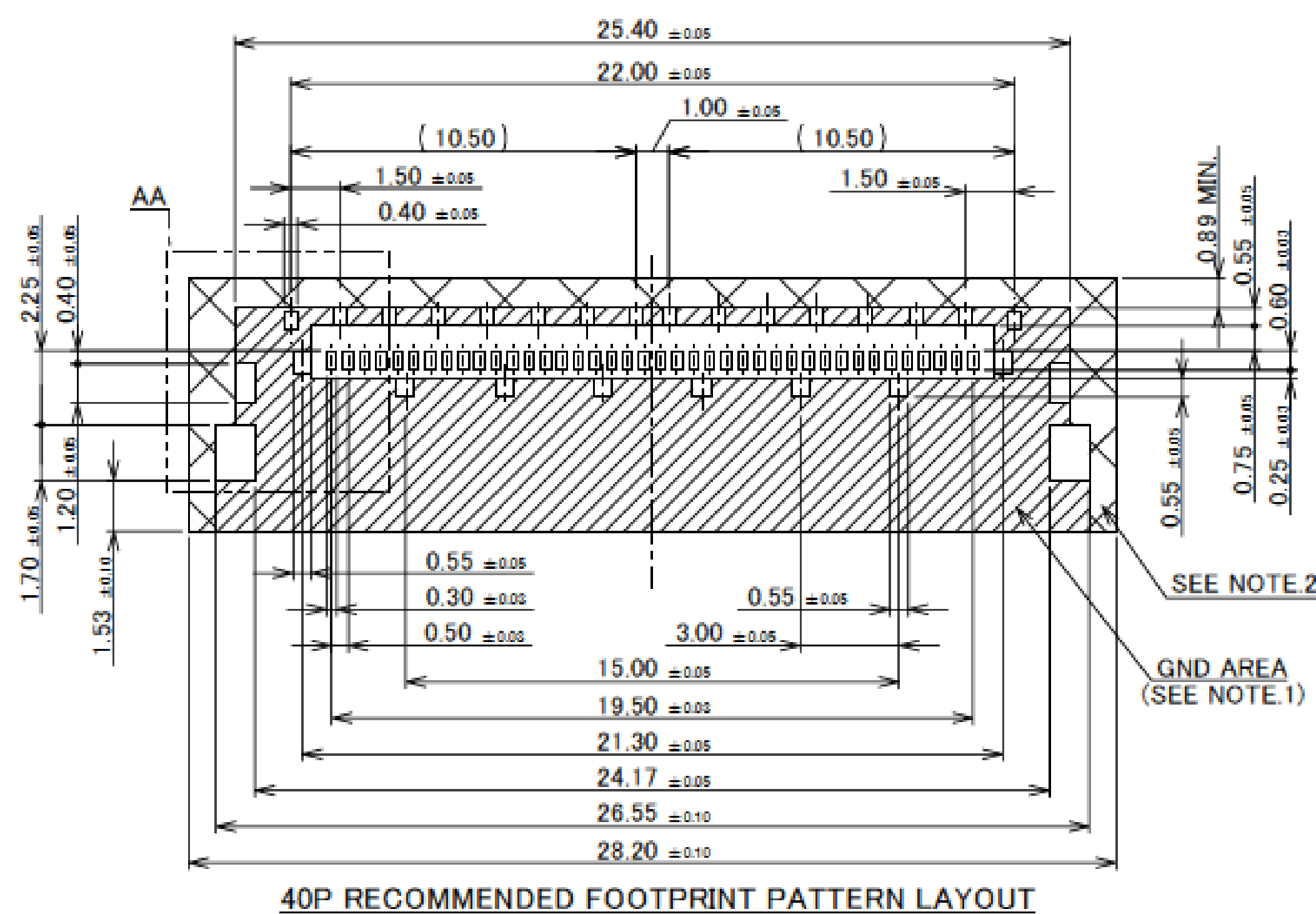
Rev.14

Receptacle Assembly



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

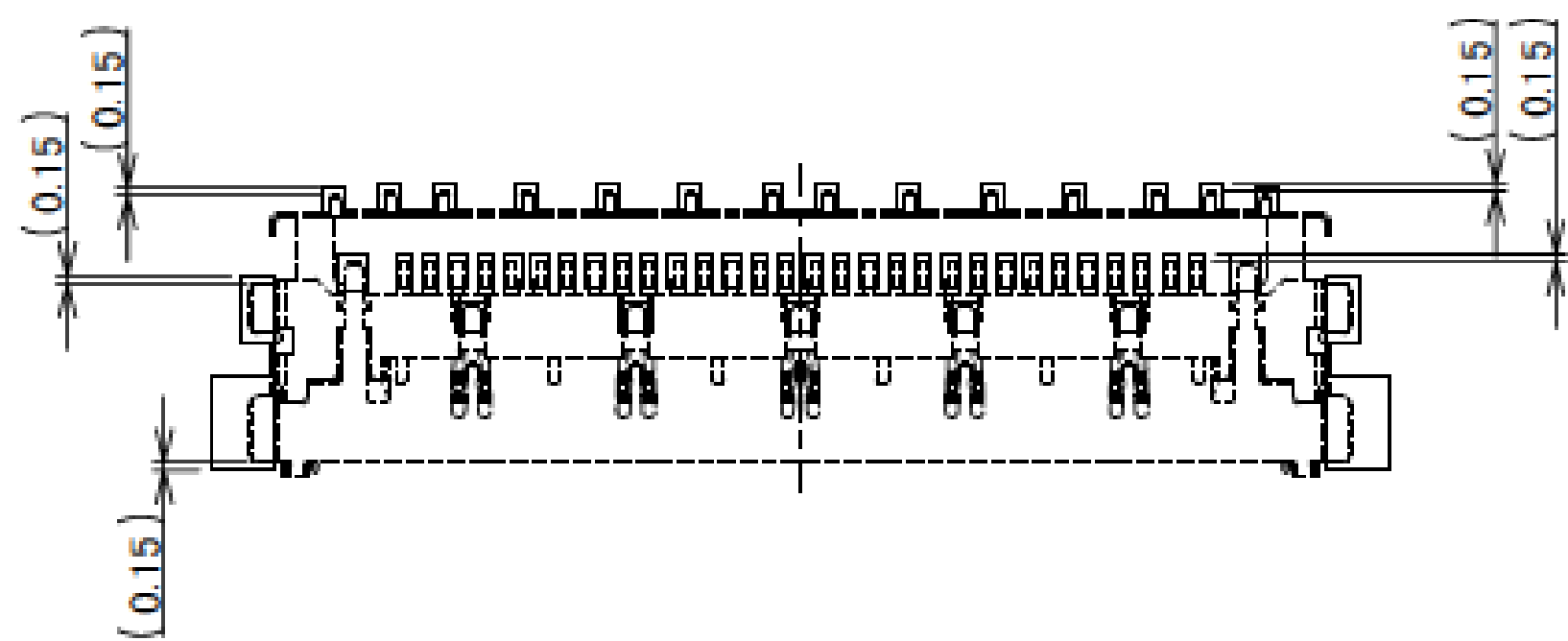
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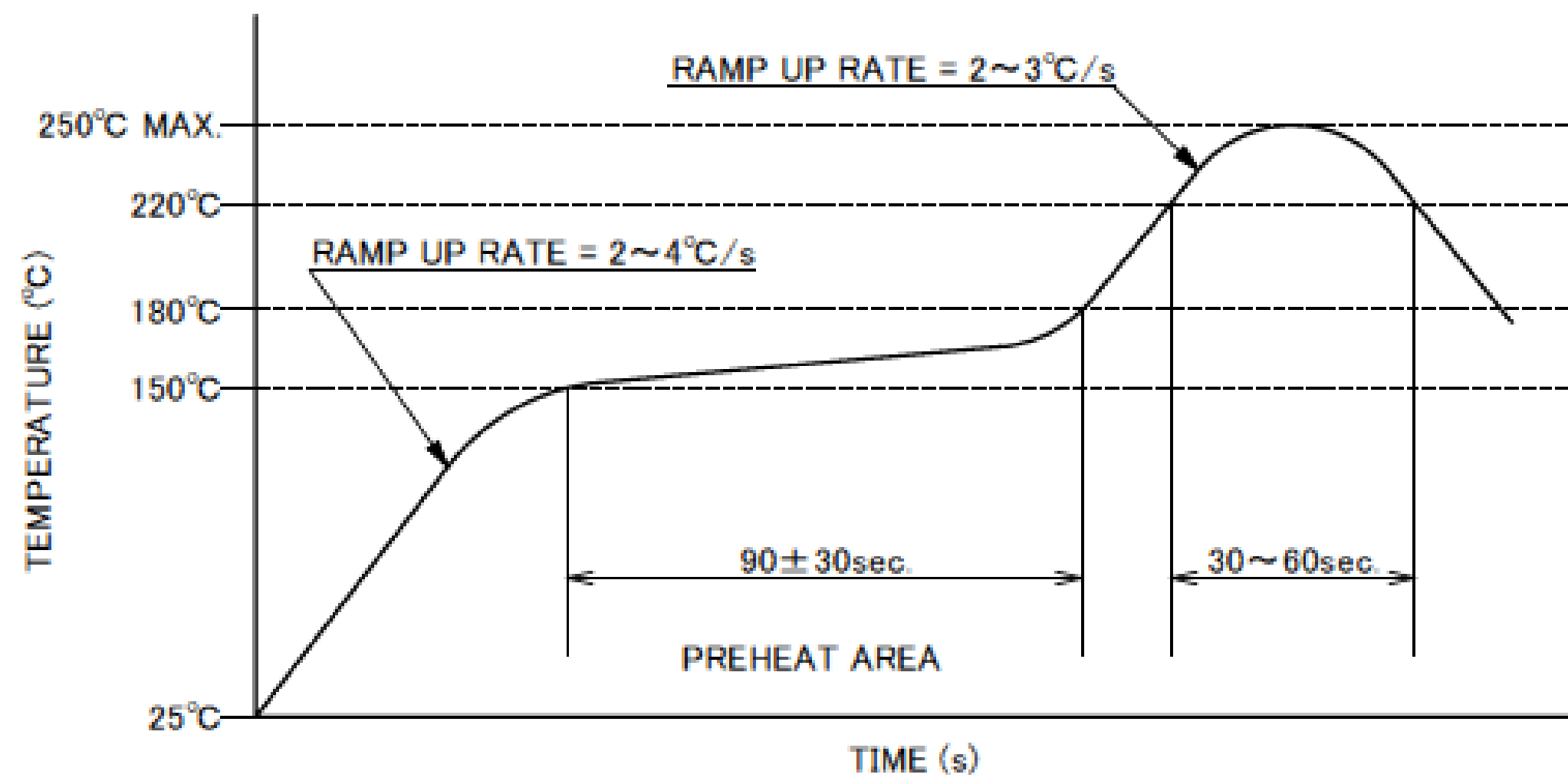
NOTES.
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

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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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FOR CABLINE-VS II PLUG CABLE ASSEMBLY (DWG NO. 20846)

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) ※THIS IS THE RATED VOLTAGE OF THE CONNECTOR. PLEASE NOTE THAT THE RATED VOLTAGE MAY VARY IN THE HARNESS DEPENDING ON THE CABLES USED.
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 PIN/UP TO 9 CONTACTS 1.0A AC/DC [AWG#32] FOR POWER PER CONTACT PIN/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.
CONTACT RESISTANCE	INITIAL : 140mohm MAX.(AWG#32) / AFTER TEST : ≦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 : ≦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.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2398
TEST REPORT	TR-17060 (20849-0**E-01) / TR-18048 (20849-0**E-02)
PACKING STANDARD	PST-17079
INSTRUCTION MANUAL	HIM-17015
ASSEMBLY MANUAL	ASM-17005
APPEARANCE CRITERIA No.	QLS-A***

Rev.14

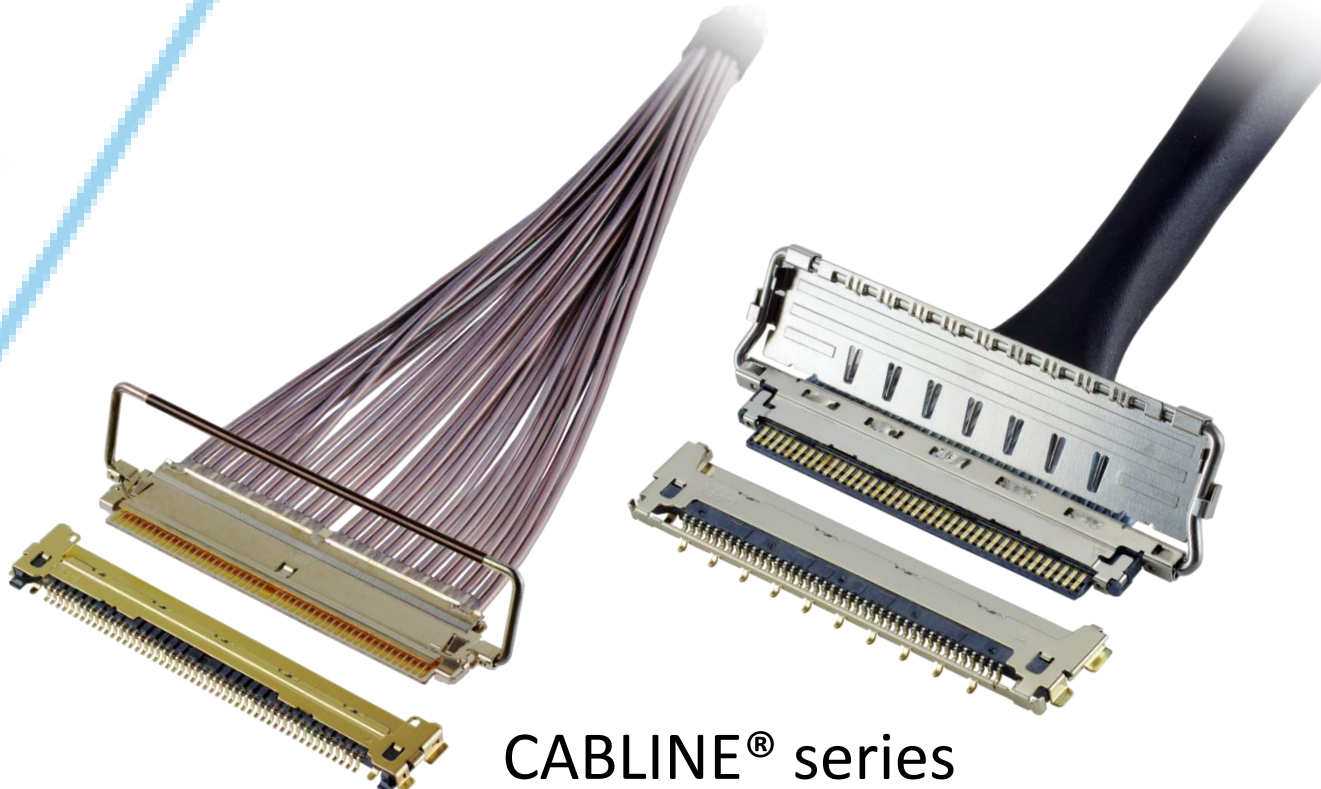
Custom Connectors Available

 RF
Connectors

MHF® series



CABLINE® series



Micro-Coaxial/Twinax
Connectors



Wire-to-Board
Connectors/
Terminals

AP series



ISH® series



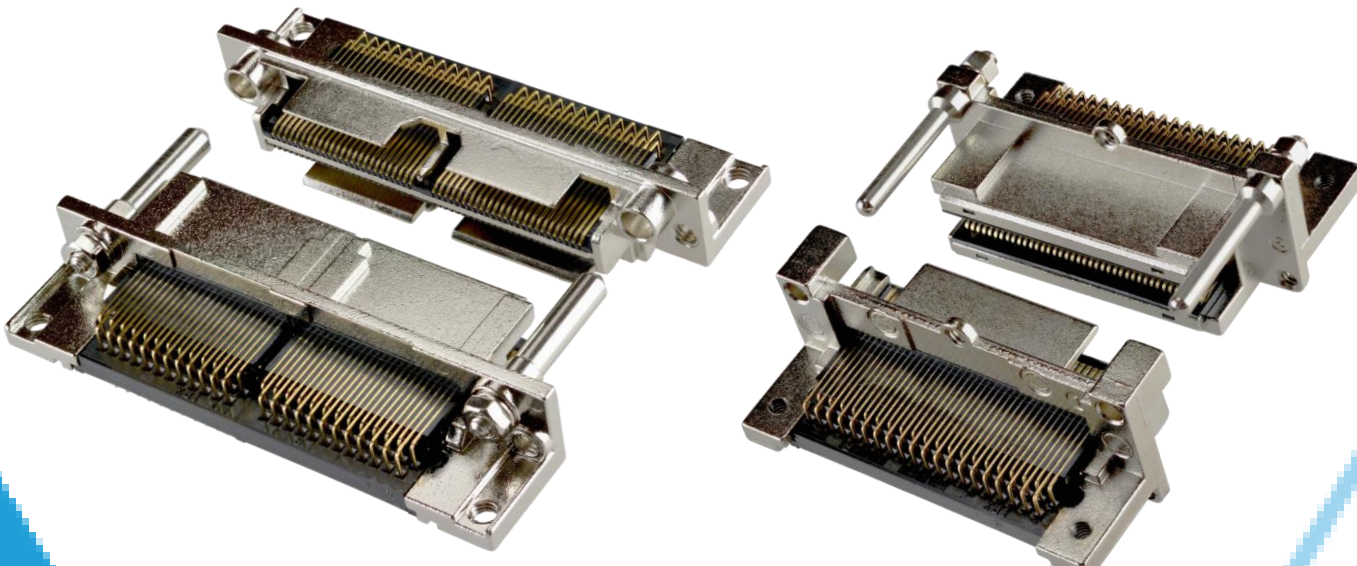
NOVASTACK® series



Board-to-Board
Connectors



I/O
Connectors



MINIDOCK™ series

MINIFLEX® series

EVAFLEX® series



FPC/FFC
Connectors



Inquiry



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