

CABLINE®-VS IIF

Full Shield & Mechanical Lock로 완전 차폐, 고속 데이터 전송(32Gbps/Lane)에 적합, 0.5mm Pitch, 수평 결합형 FPC PLUG Connector



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

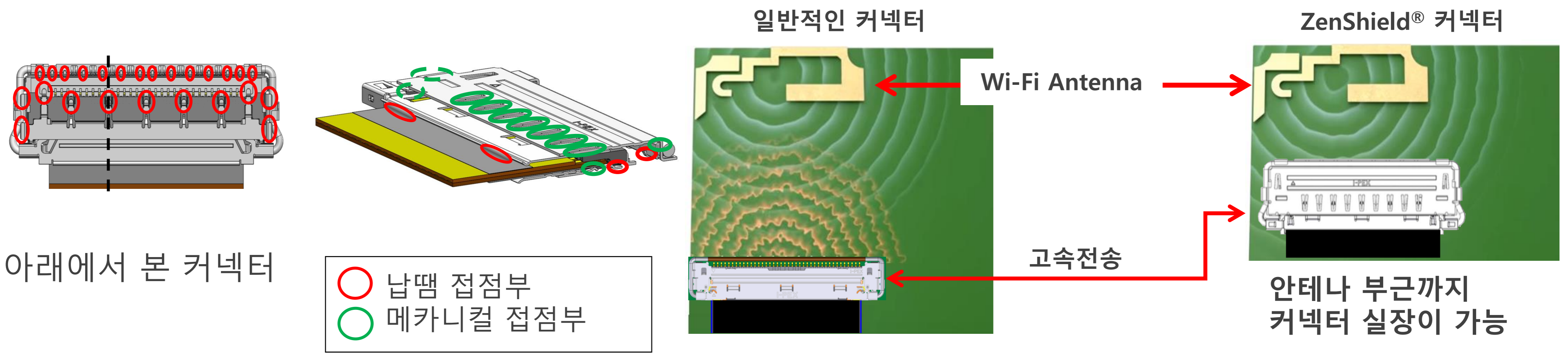
FPC Type	Shielded FPC
FPC Pitch (mm)	0.5
FPC Contact Point	Top
FPC Thickness (mm)	Contact Area: 0.25 +0.02/-0.03
	Ground Area: 0.37 +0.04/-0.06

Applicable Standards (Reference Only):

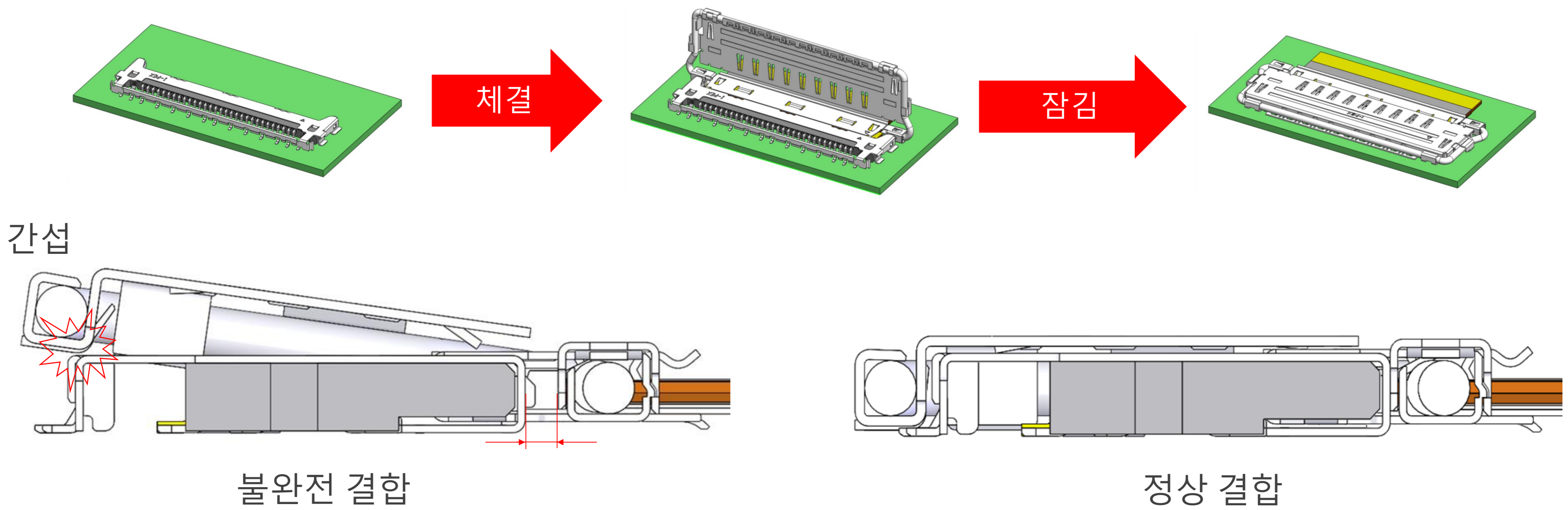
32 Gbps/ Lane, USB4 Gen4 (40 Gbps/ Lane PAM3)
Display Port UHBR20 (20 Gbps/Lane),

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

▶ ZenShield® Full Shield Multi Point Ground가 있는 EMC 솔루션에 이상적입니다.



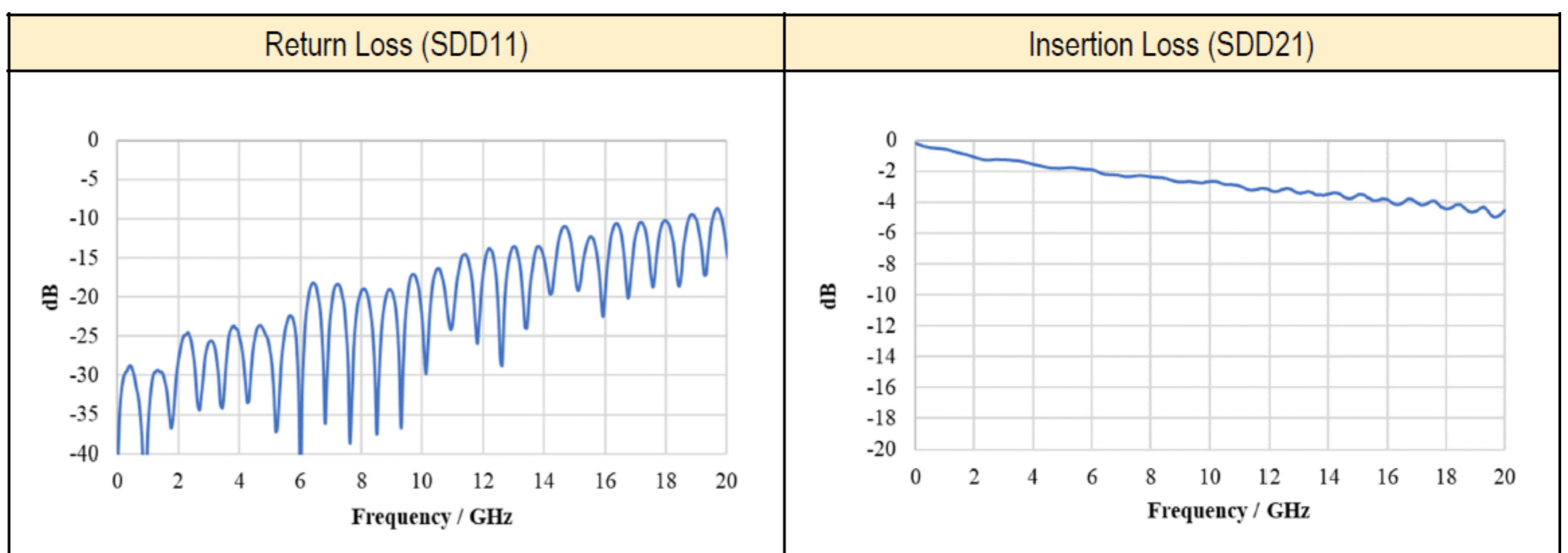
▶ Mechanical Lock Bar를 통한 불완전 결합 방지와 PLUG 빠짐 방지



▶ 32Gbps/레인 애플리케이션에 이상적인 고속 데이터 전송

Measurement results

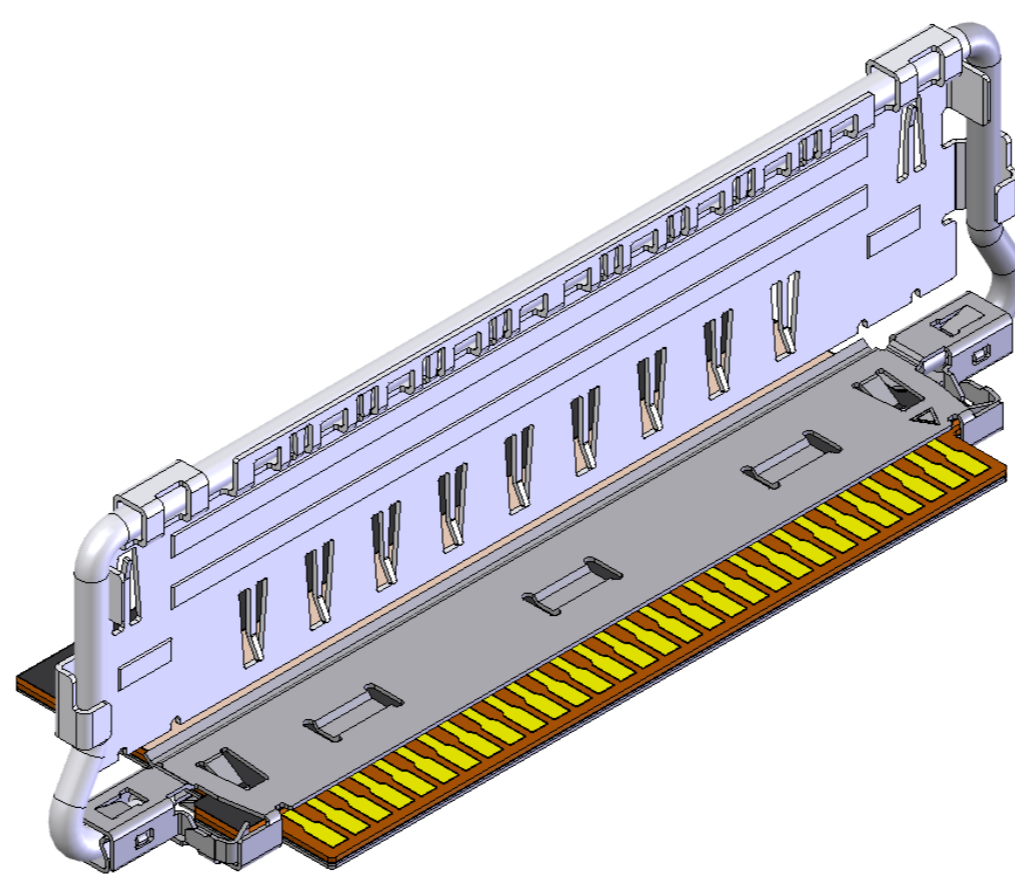
Connector: CABLINE-VS IIF 40P
FPC: Shielded FPC,
Differential 85 ohm, Length : 100 mm
Pin Assignment: GSSGSSG



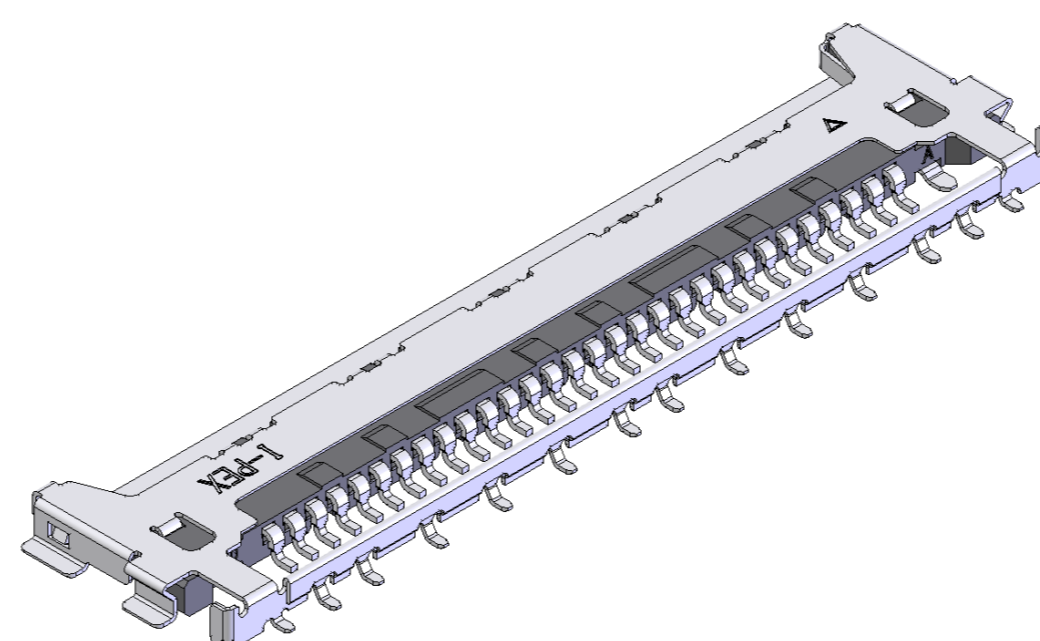
Component Parts Details

Component Parts

Connector parts



CABLINE-VS IIF PLUG with FPC



CABLINE-VS II RECEPTACLE

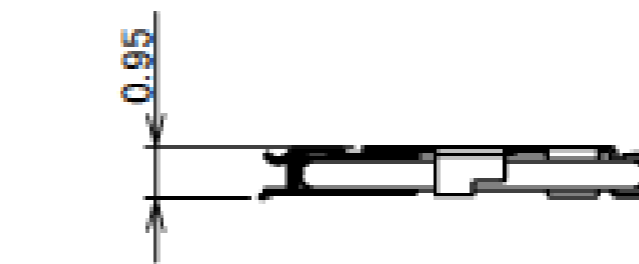
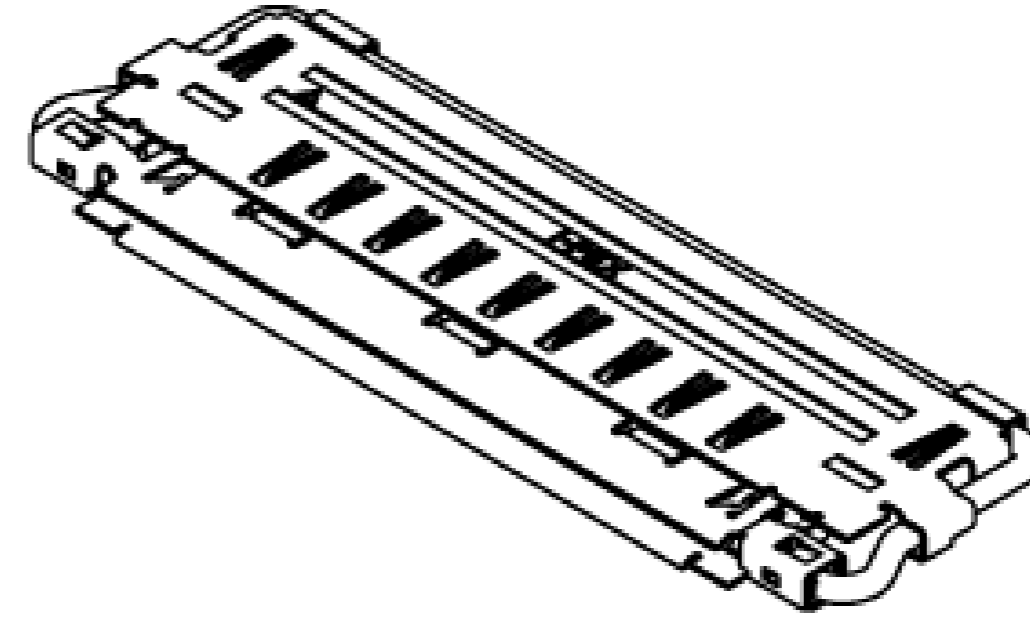
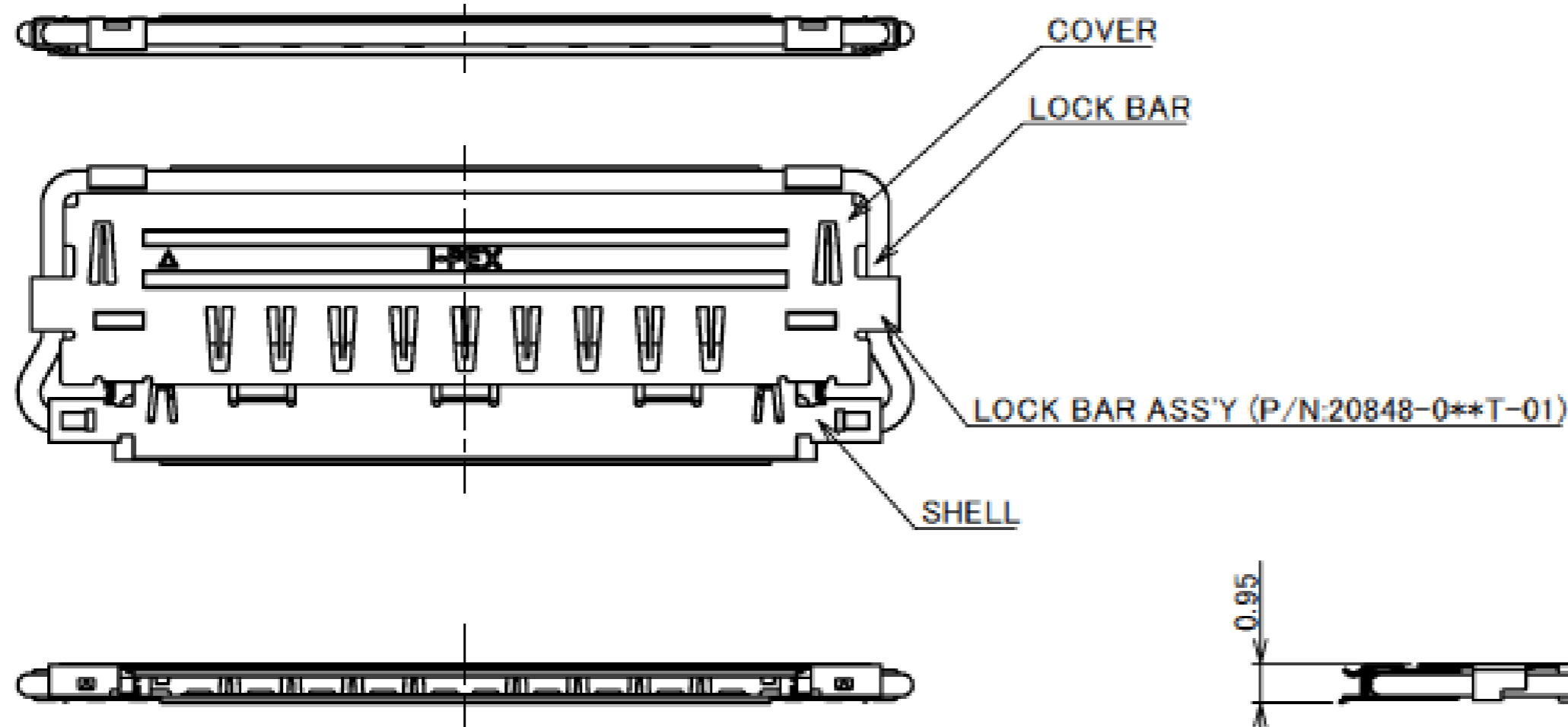
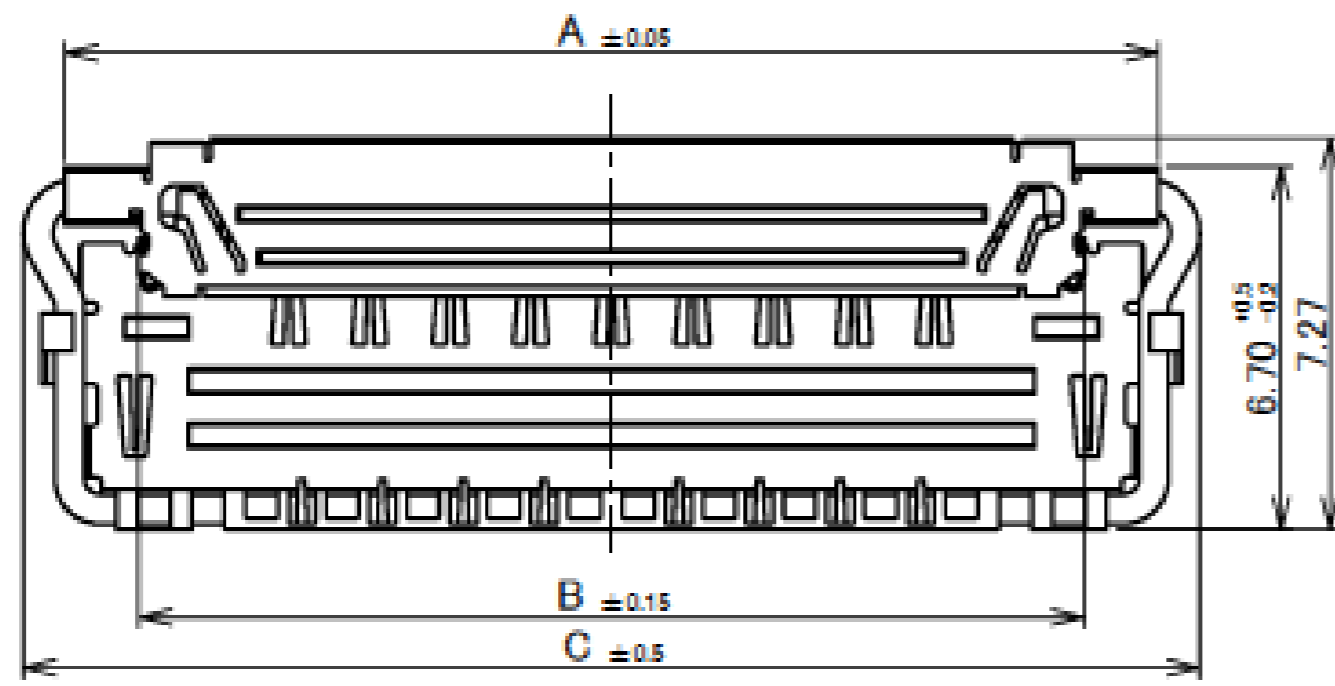
Shell Assembly

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



Halogen Free

RoHS Compliant



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

Rev.9

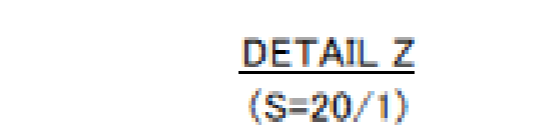
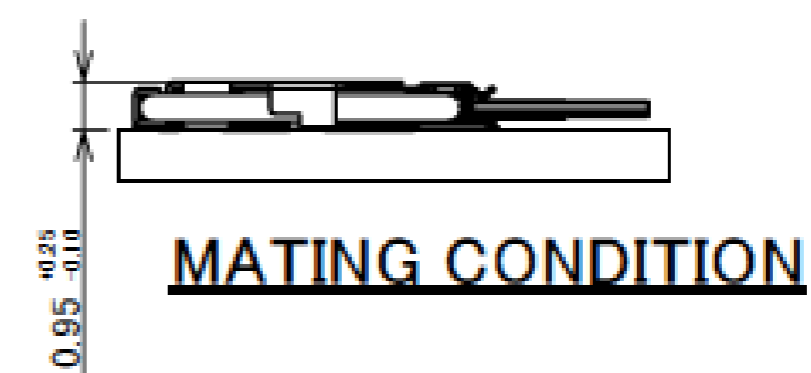
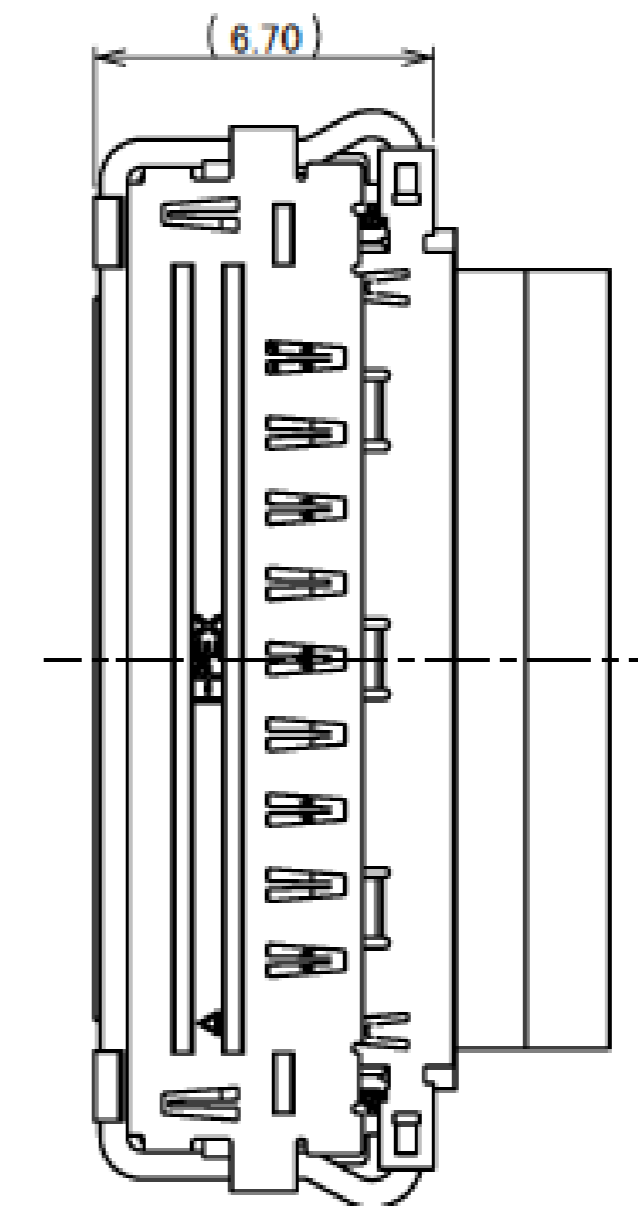
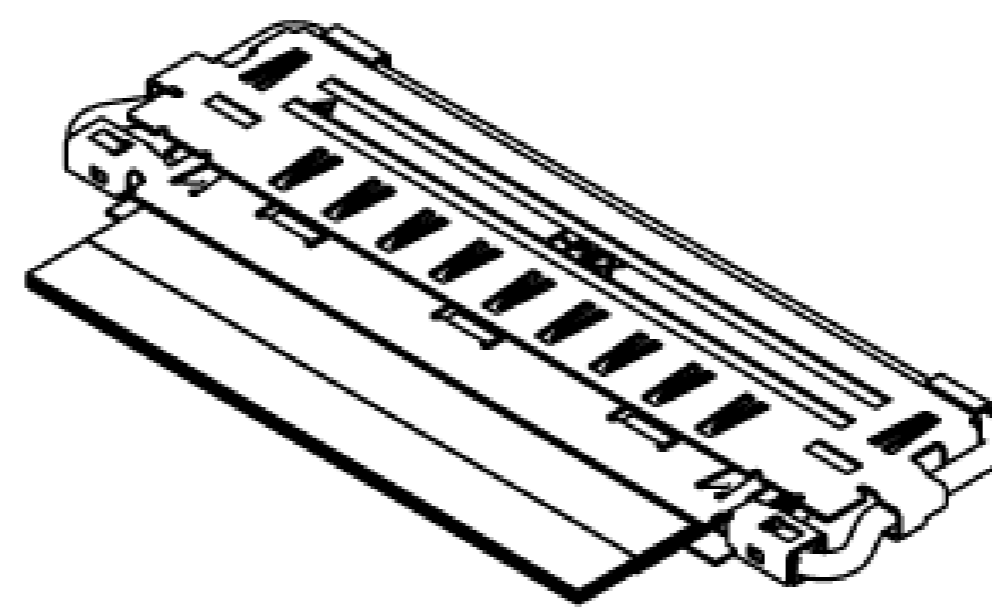
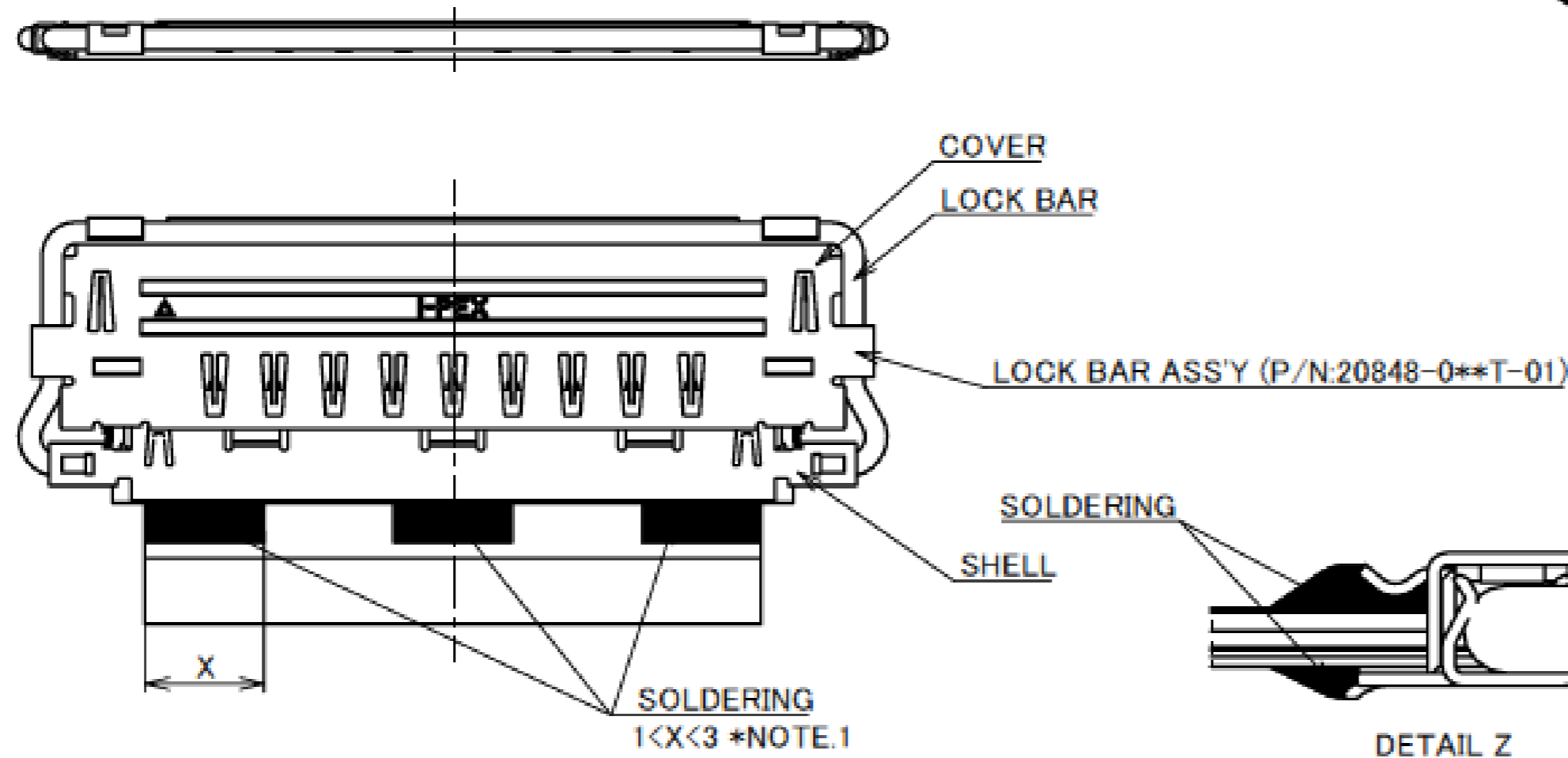
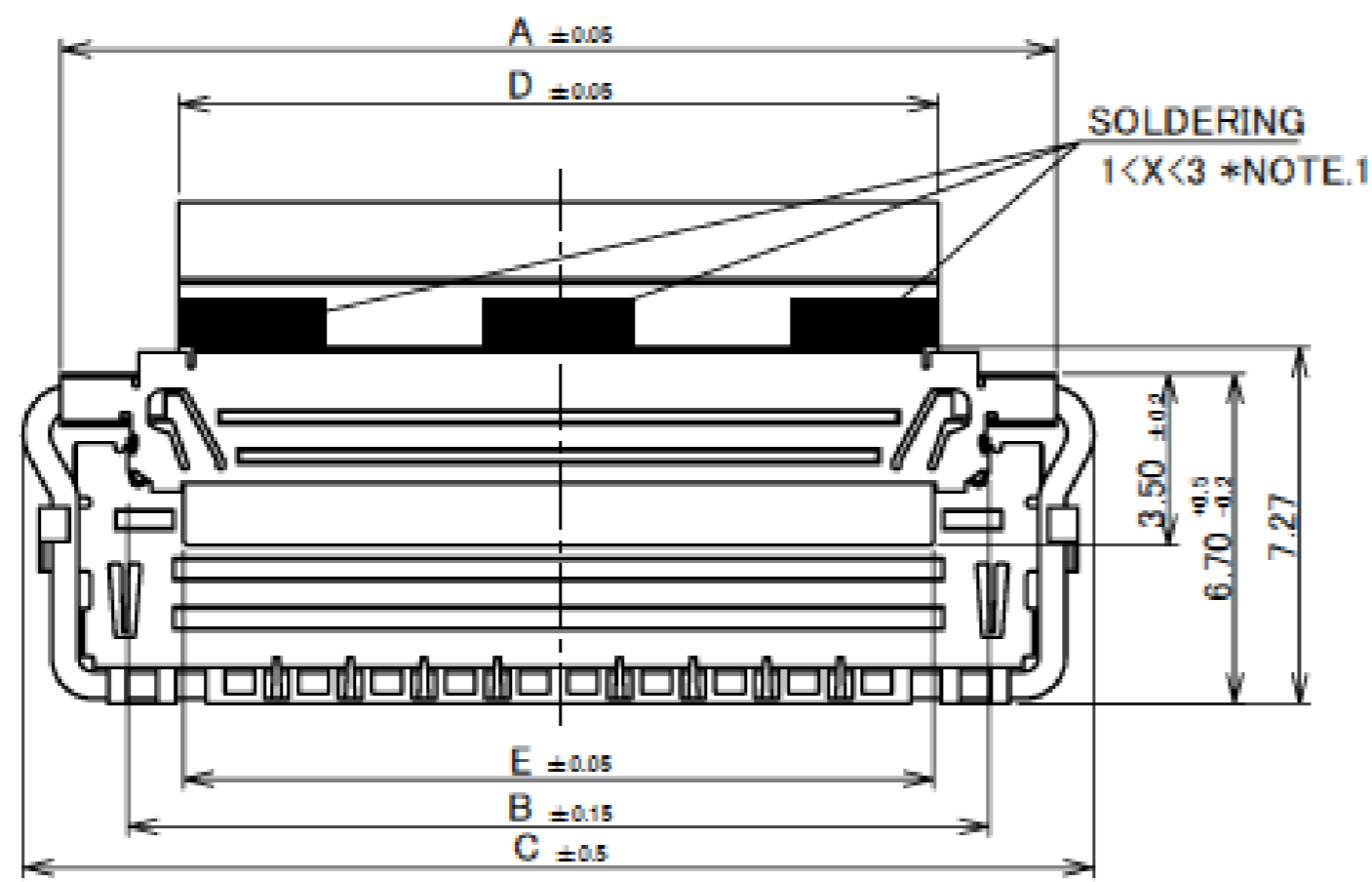
Recommended P/N		20862-0**T-01				
PART No.	Pos.	A	B	C	D	E
20862-030T-01	30	20.30	17.56	21.85	15.50	15.30
20862-040T-01	40	25.30	22.56	26.85	20.50	20.30

FPC ASS'Y STATE COVER CLOSE



Halogen Free

RoHS Compliant



NOTES.

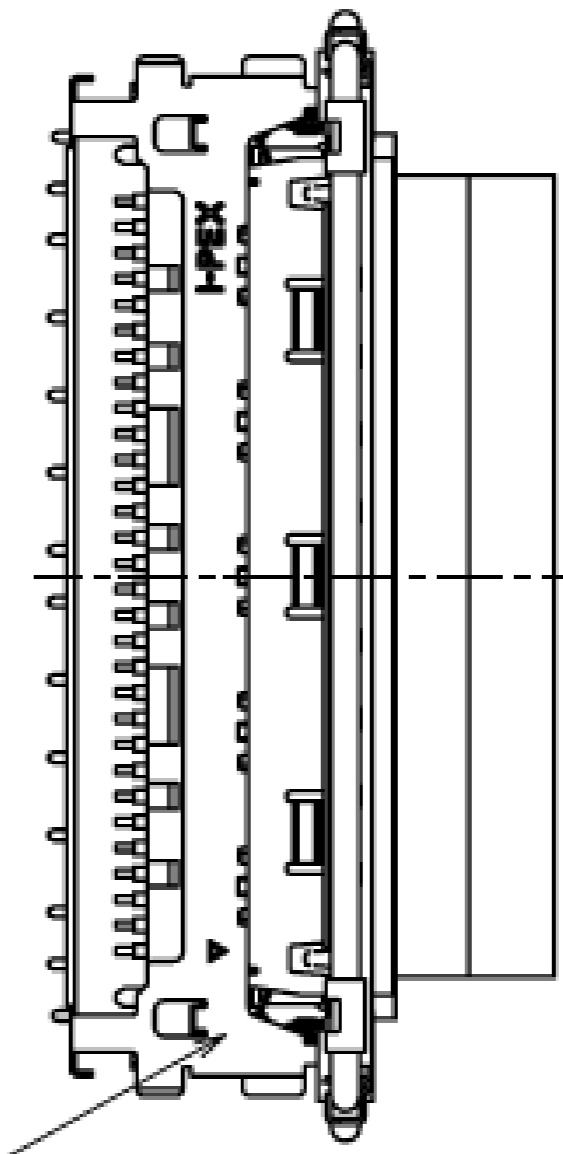
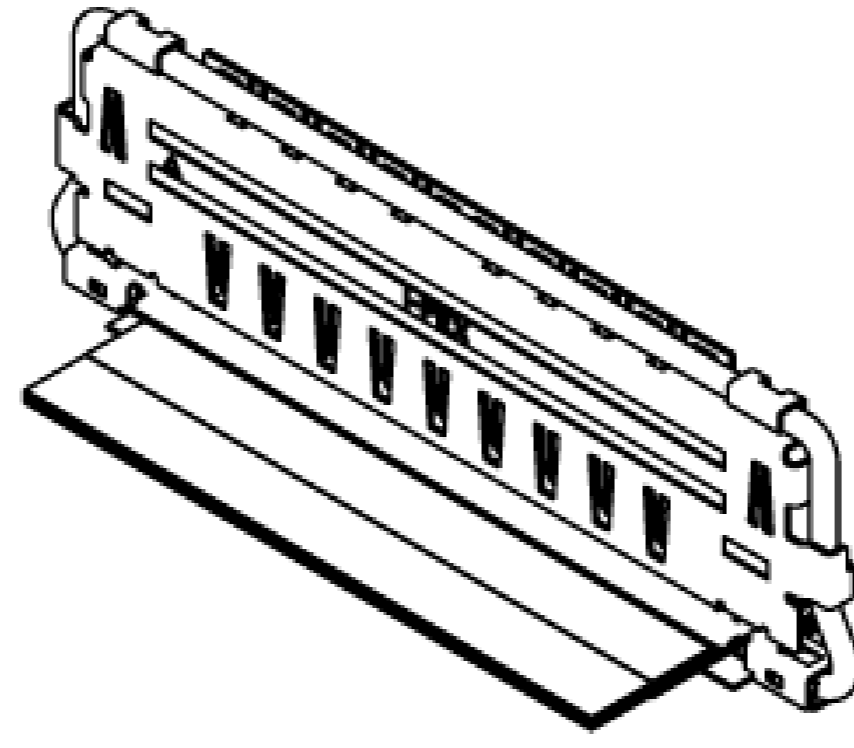
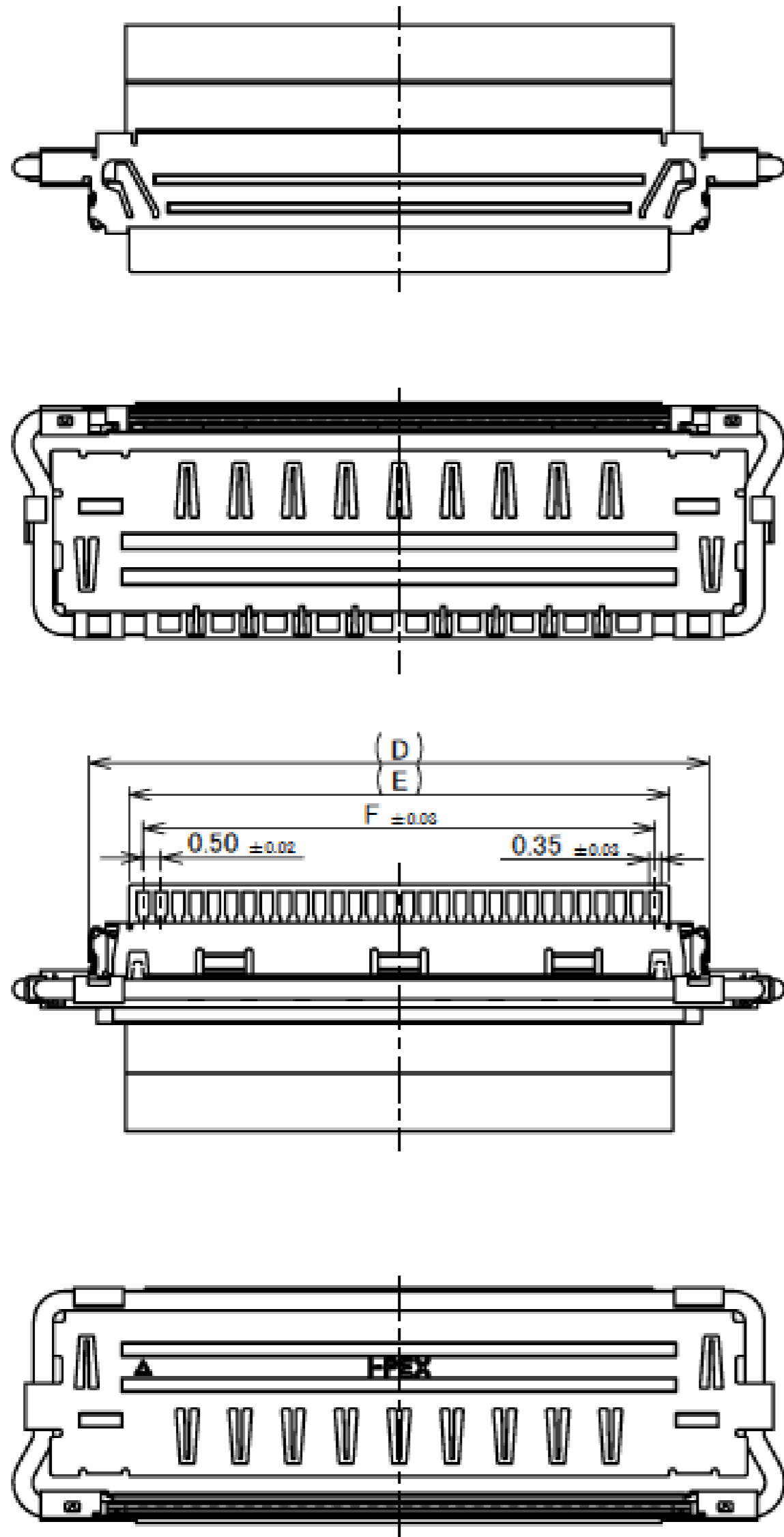
- Soldering Area X is recommended dimension. It does not matter if it might be exceed the recommended dimension.

Rev.9

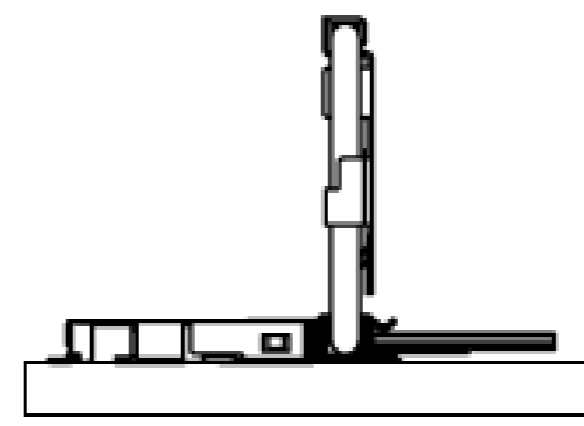
Shell Assembly

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

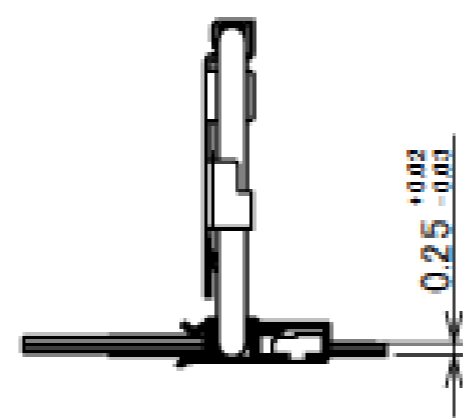
FPC ASS'Y STATE COVER OPEN



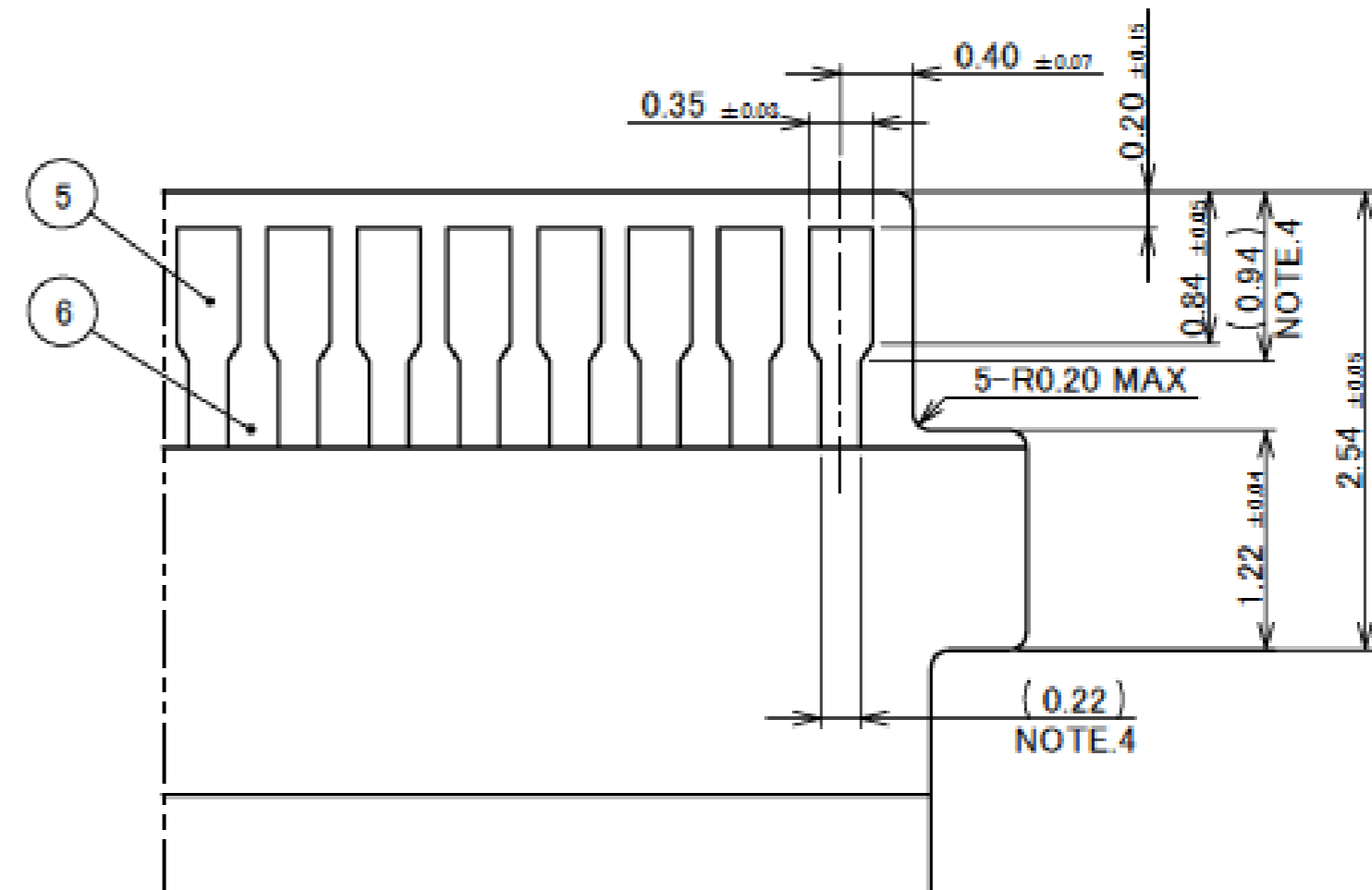
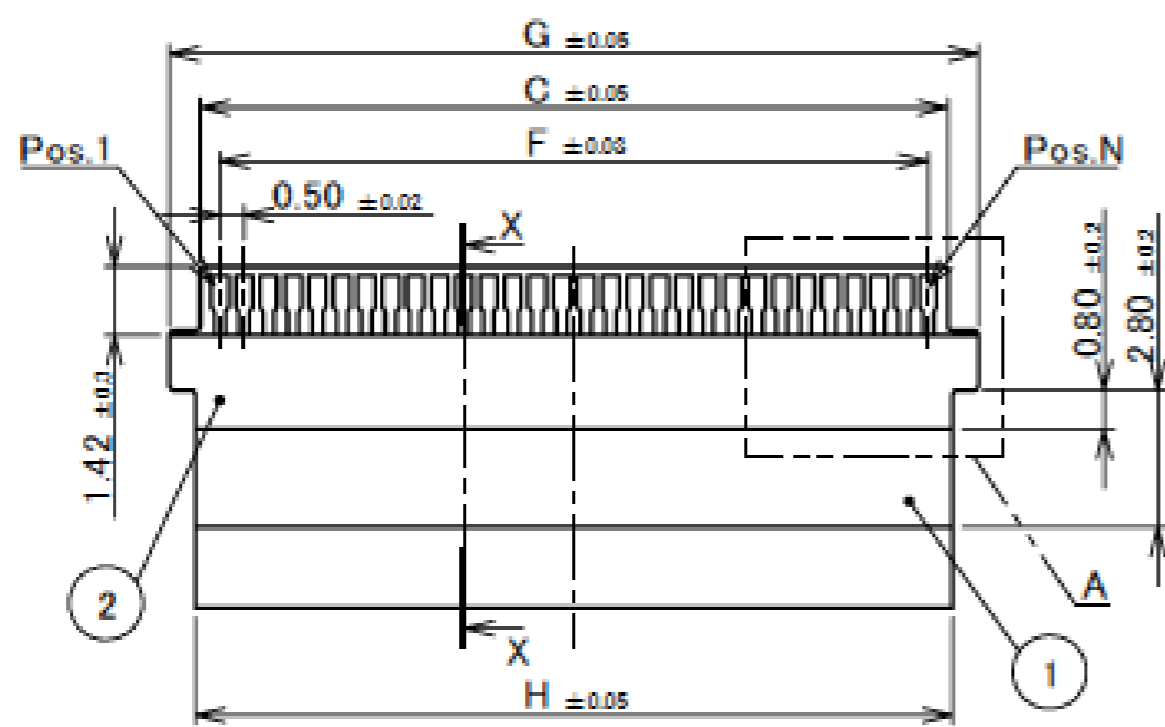
RECE ASS'Y (P/N 20849-0**E-01)



MATING CONDITION



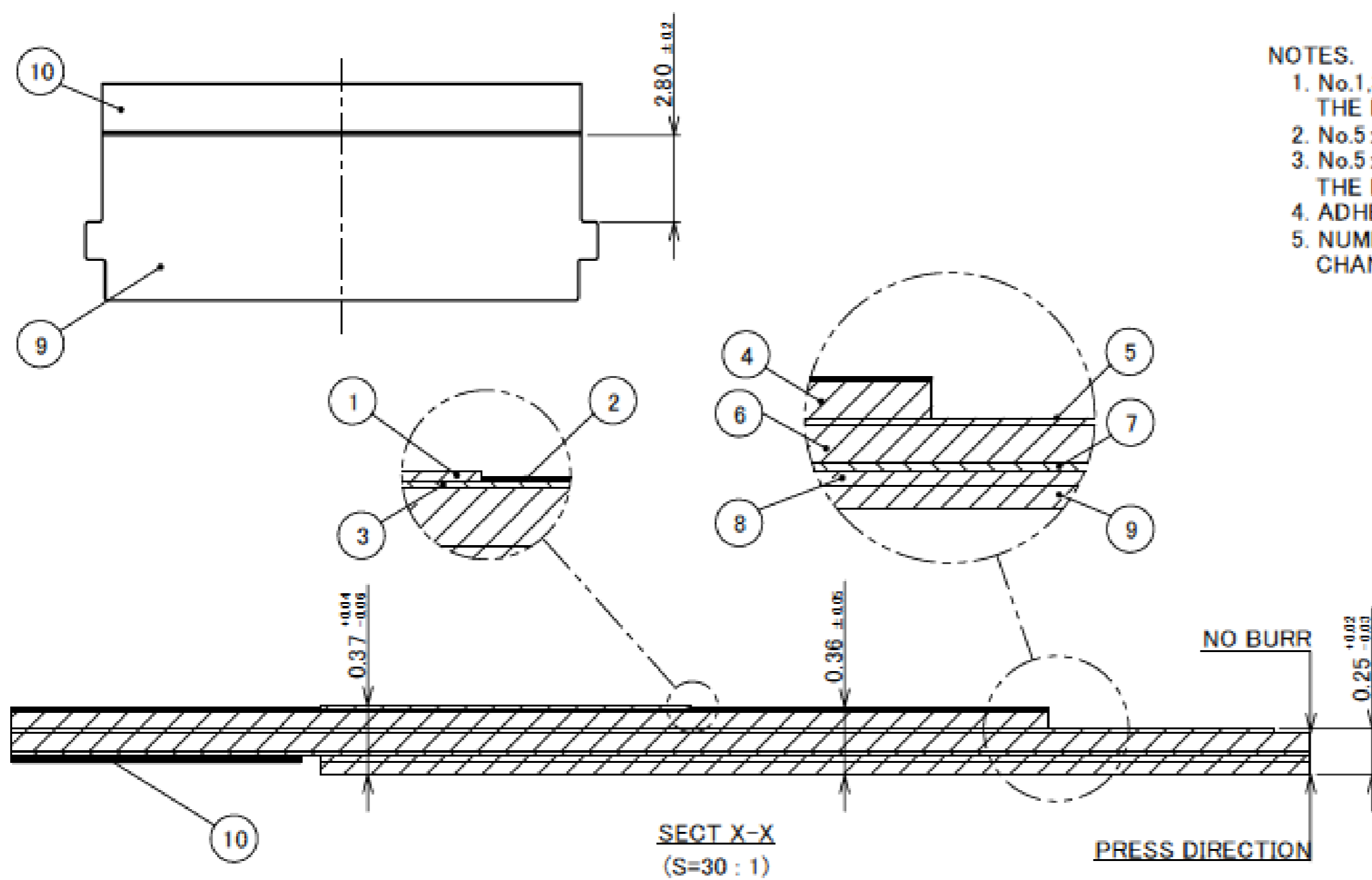
PART No.	Pos.	C	F	G	H
20862-030T-01	30	15.30	14.50	16.56	15.50
20862-040T-01	40	20.30	19.50	21.56	20.50



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.

No.	DESCRIPTION	MATERIAL	PLATING
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	-	-



Rev.9

Rev.9

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 : Δ 40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : Δ 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***

Rev.9

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.

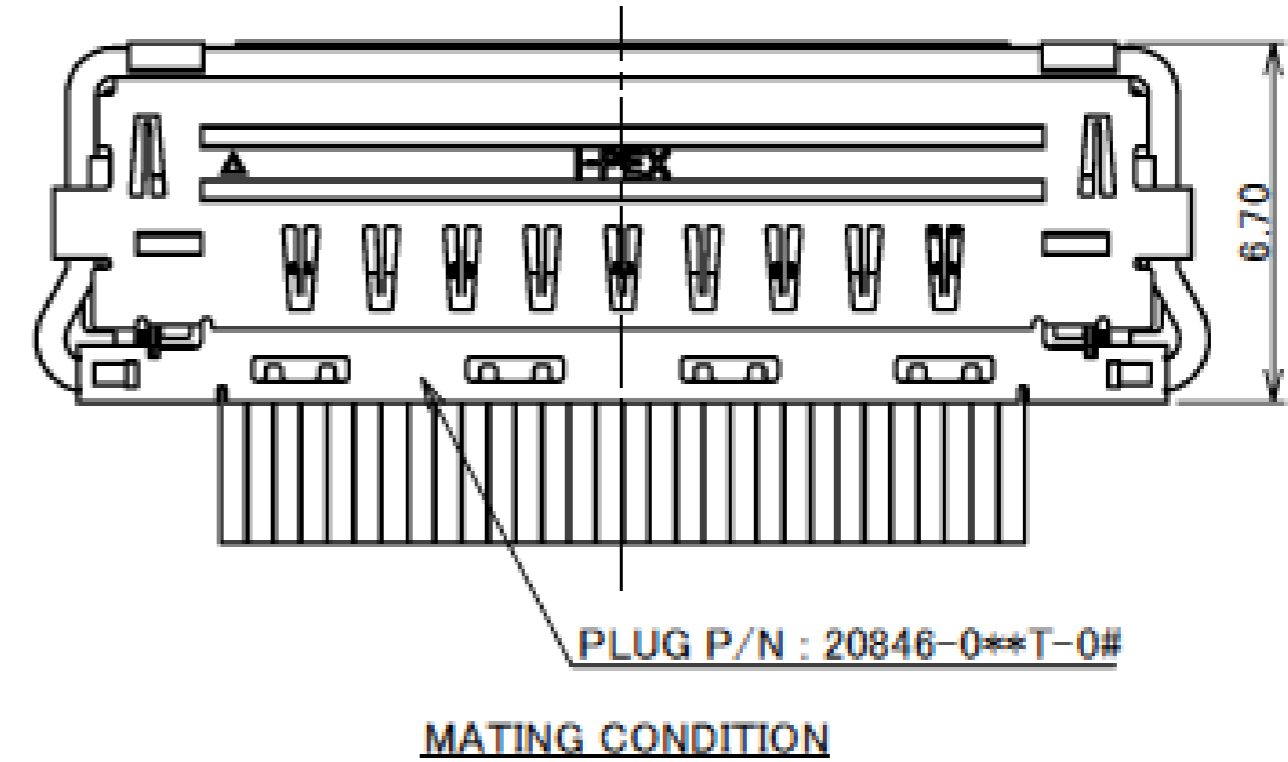
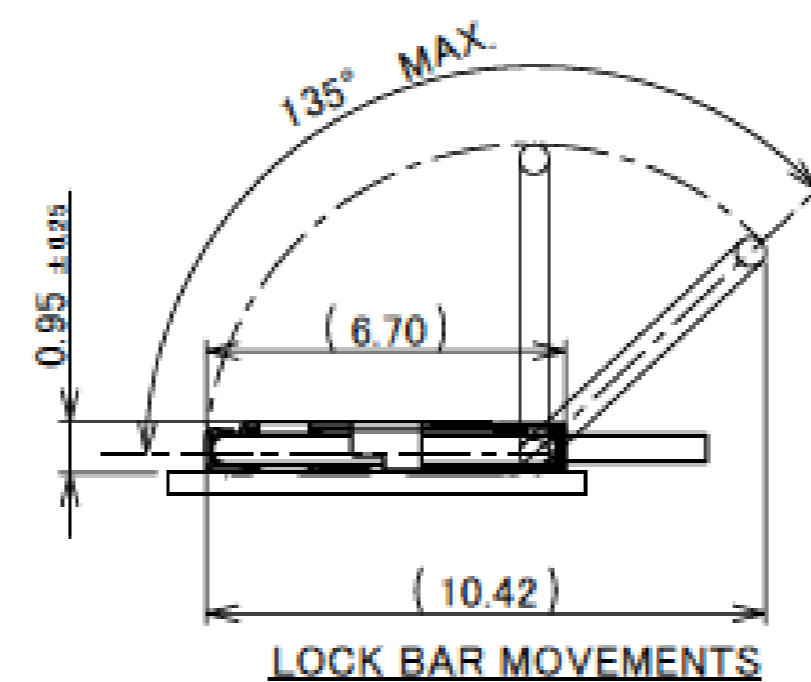
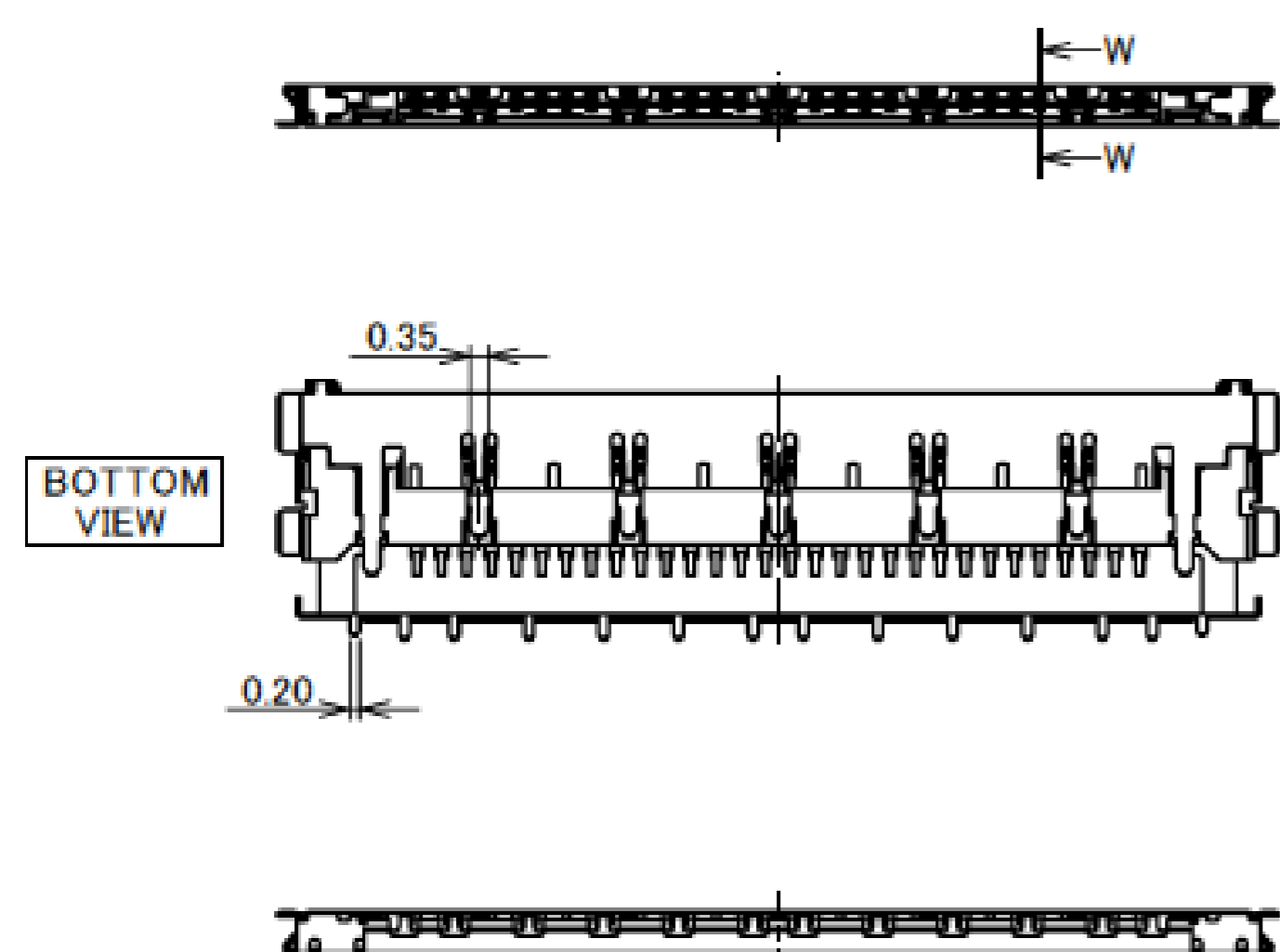
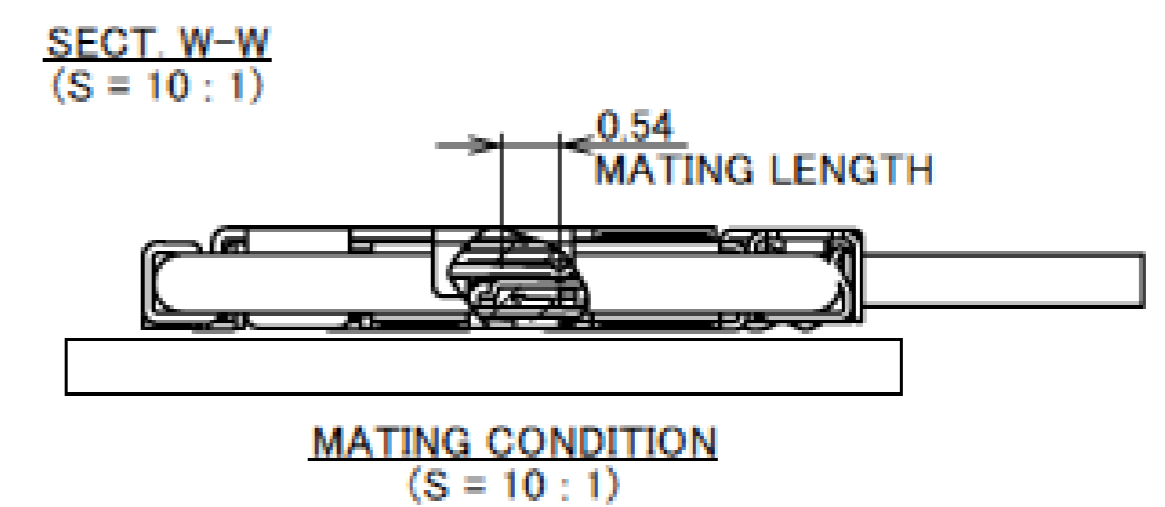
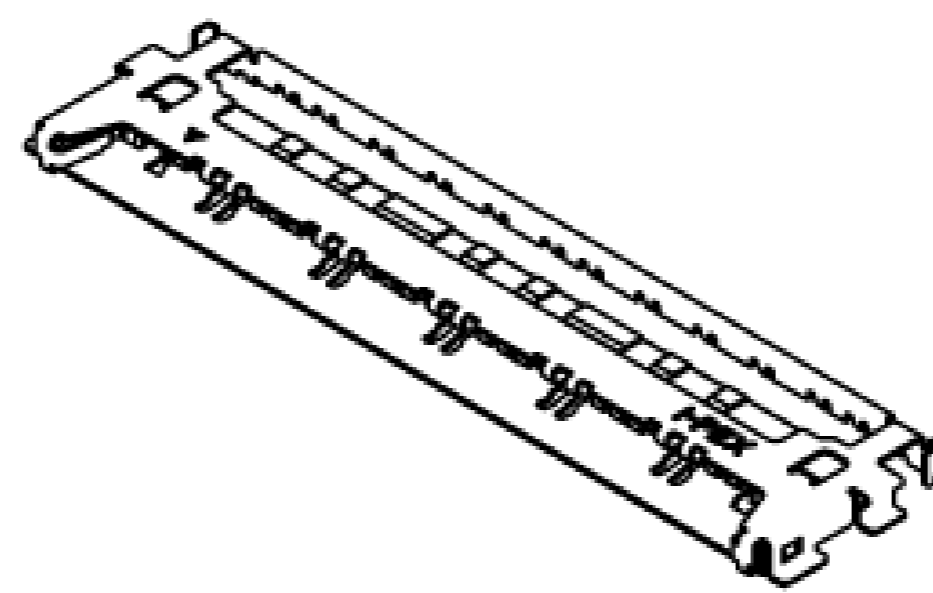
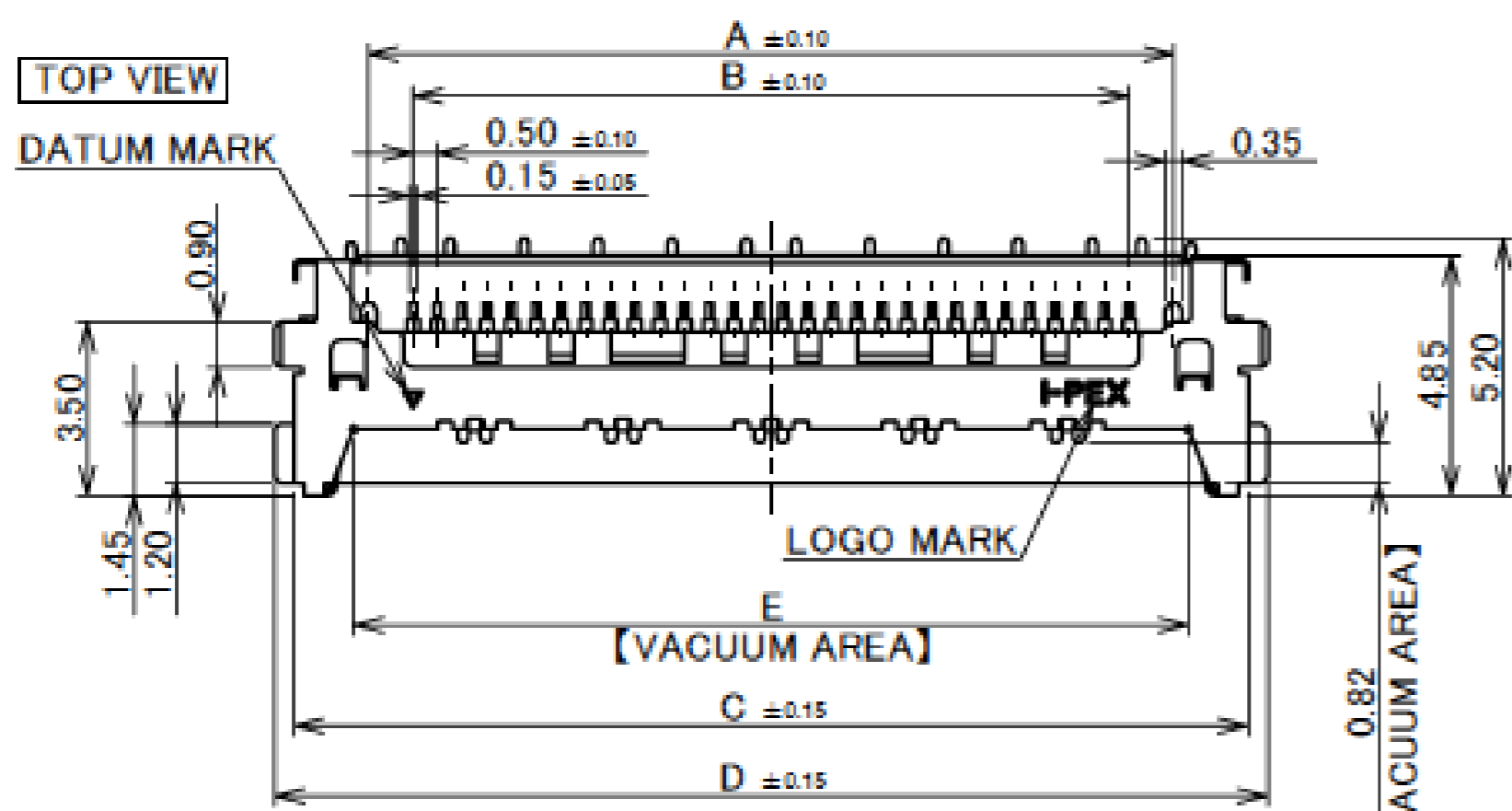
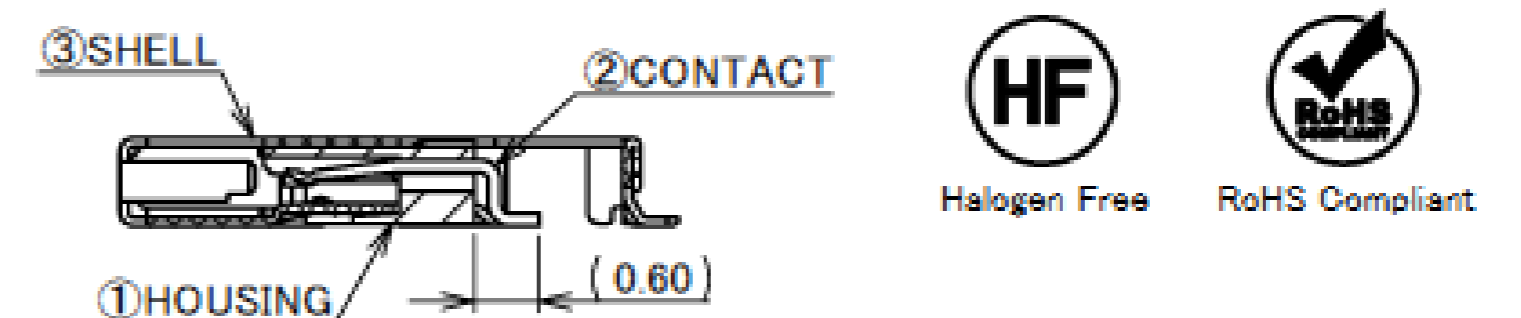


TABLE 1

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.

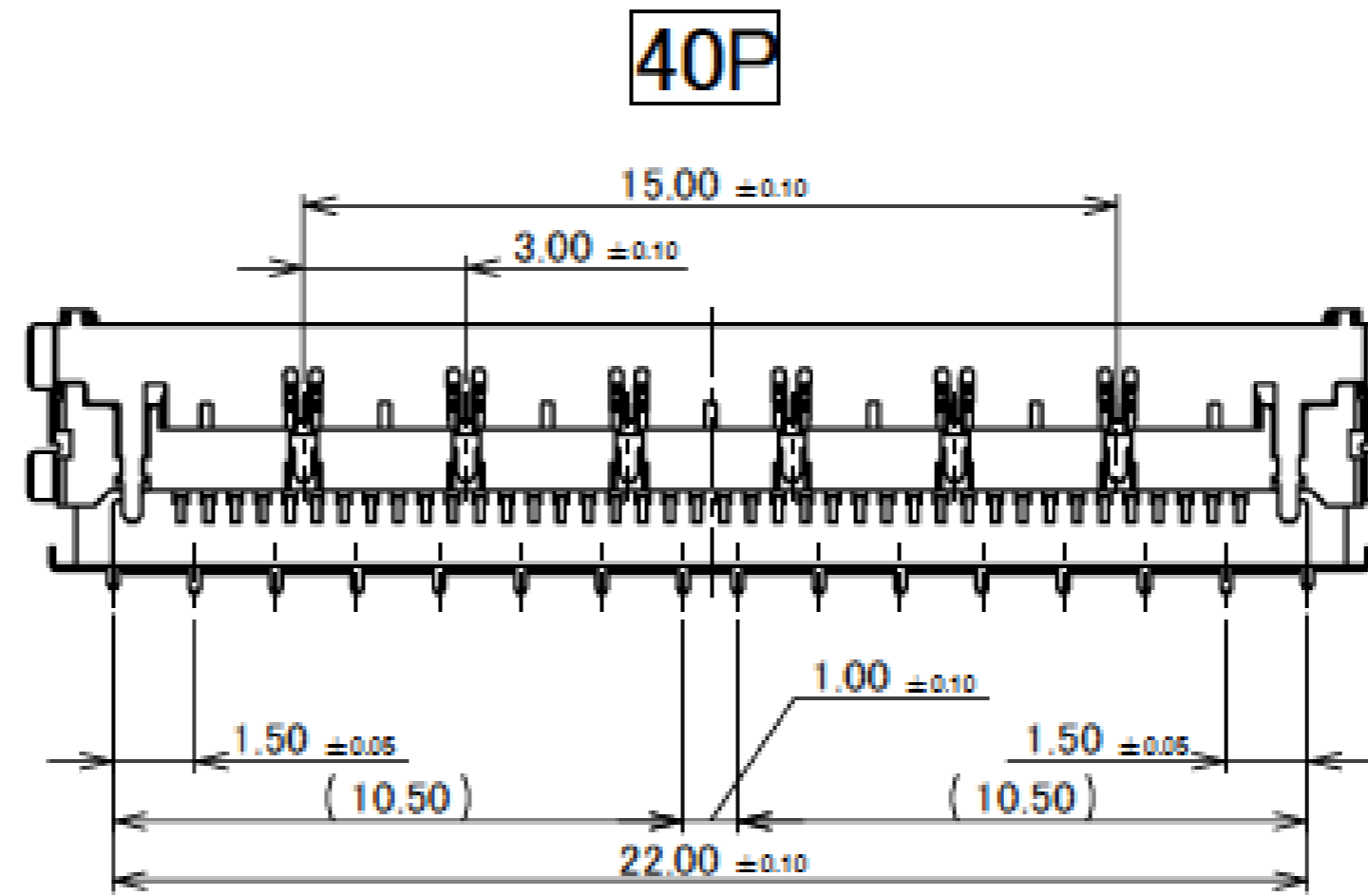
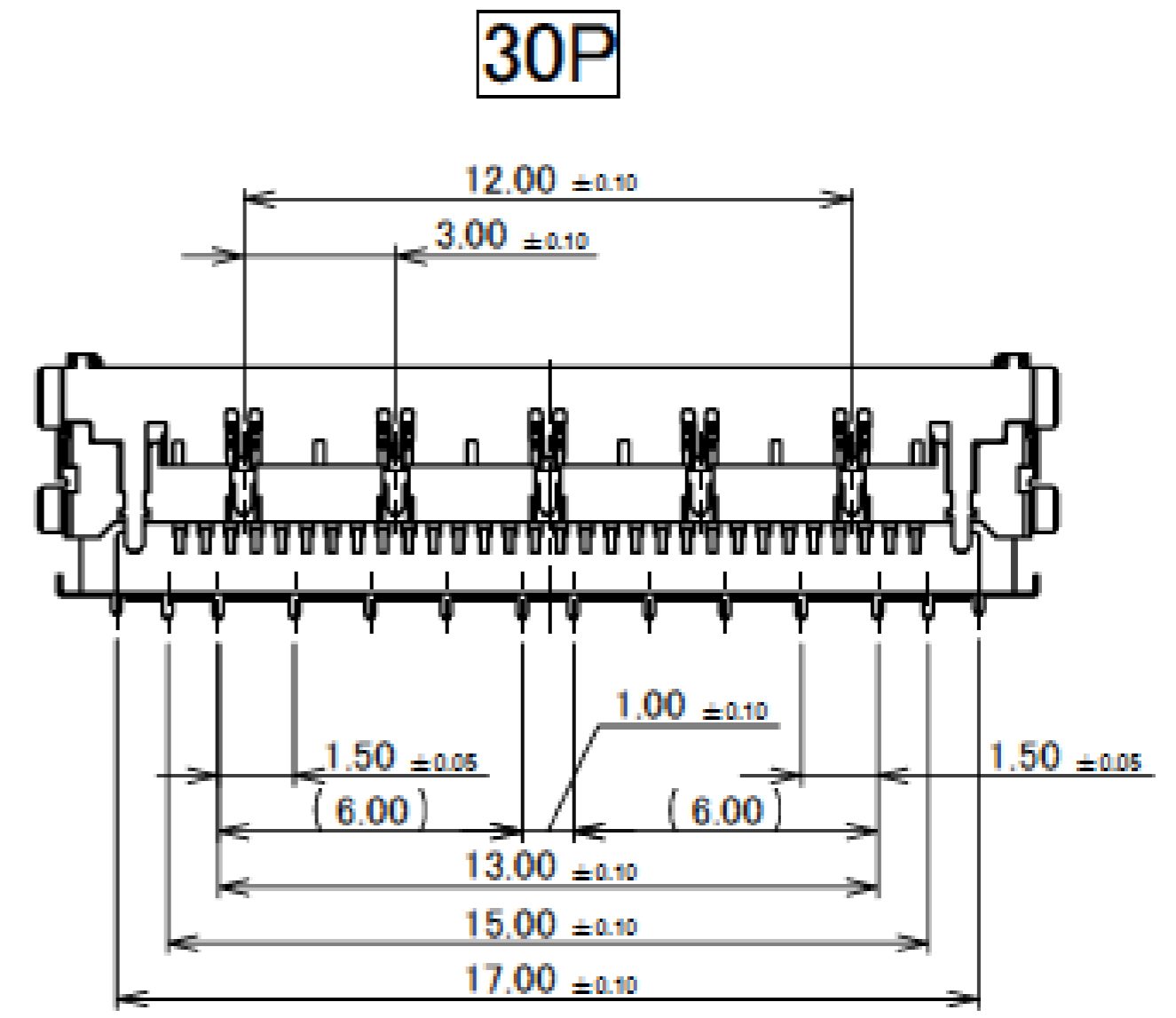
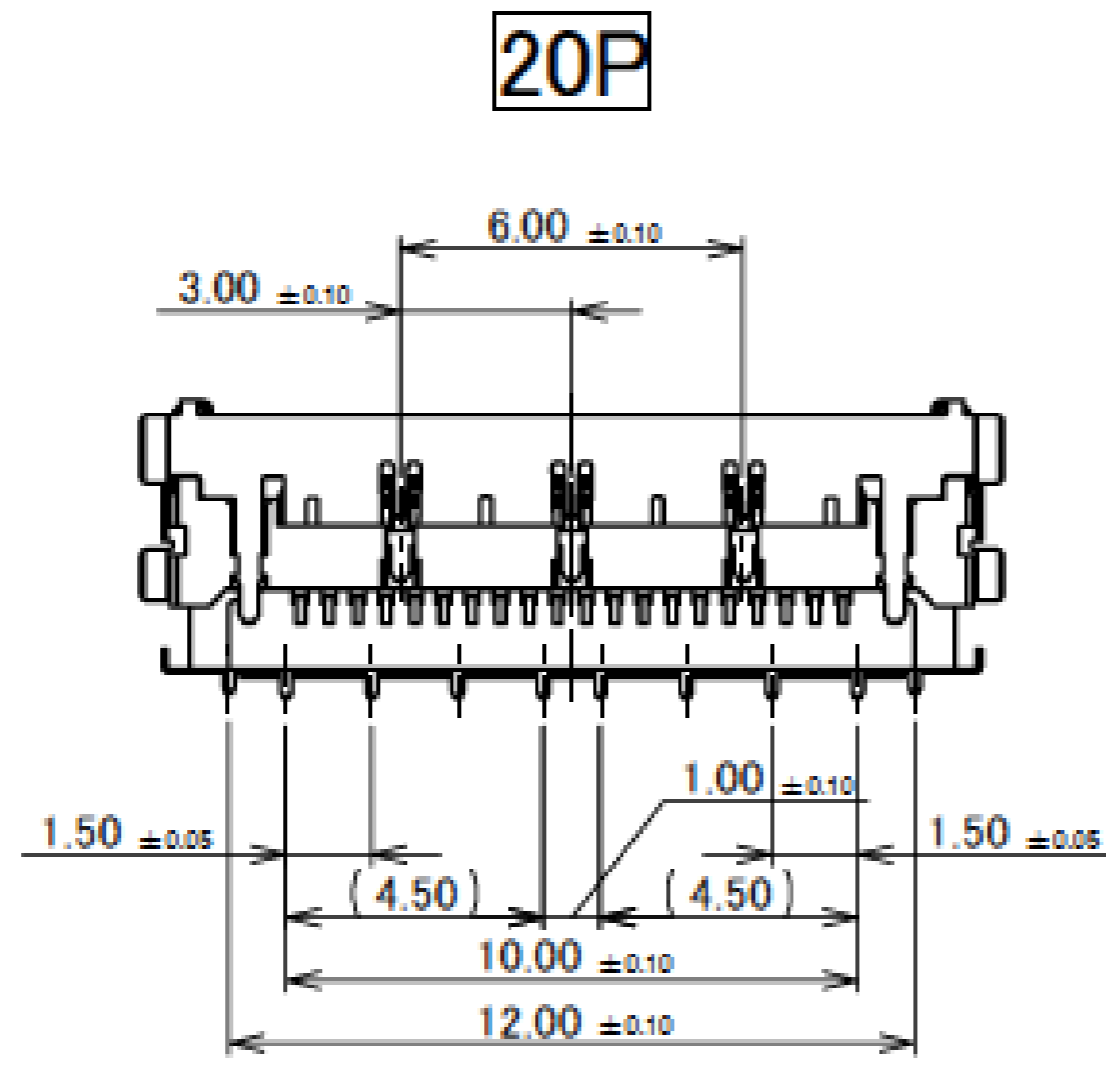
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	SEE TABLE 1
2	CONTACT	PHOSPHOR BRONZE	SEE TABLE 1
1	HOUSING	LCP	UL94V-0. BLACK

Rev.14

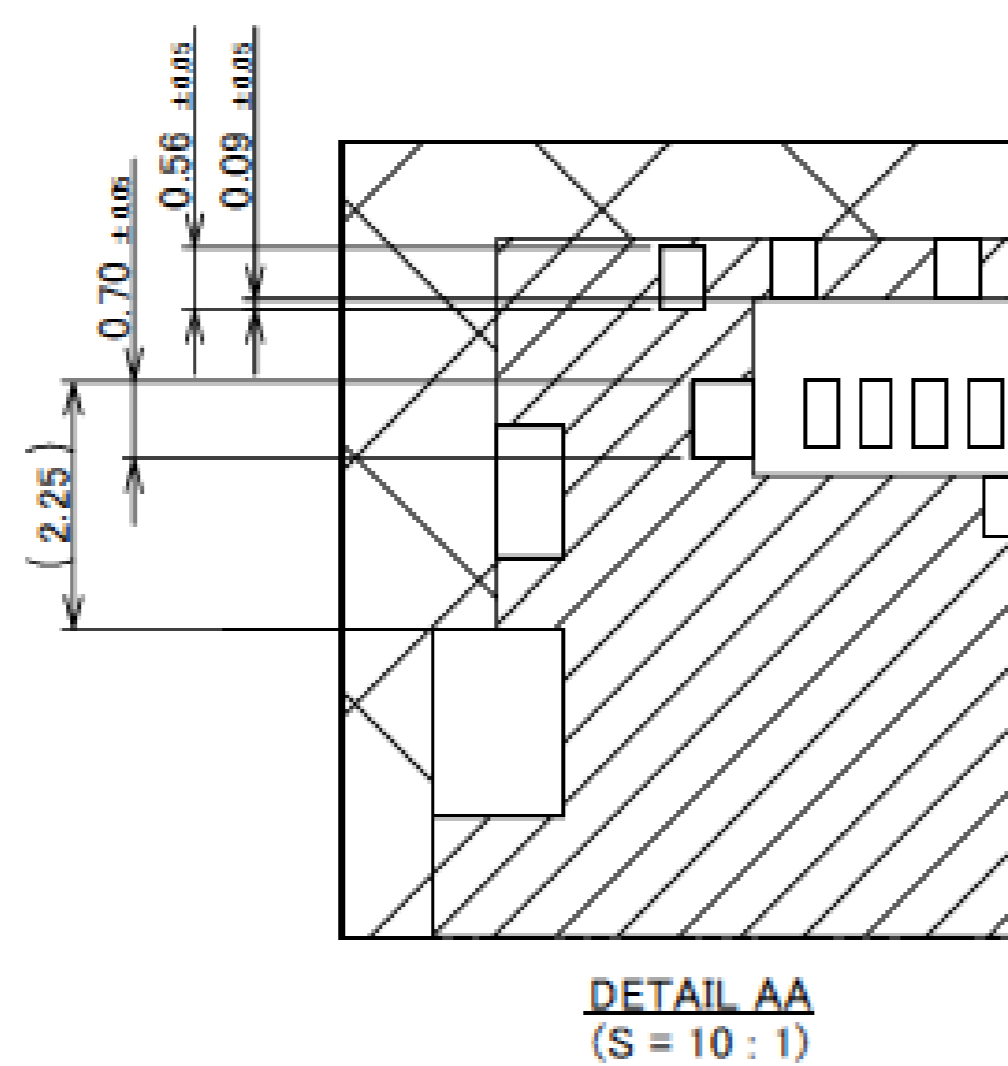
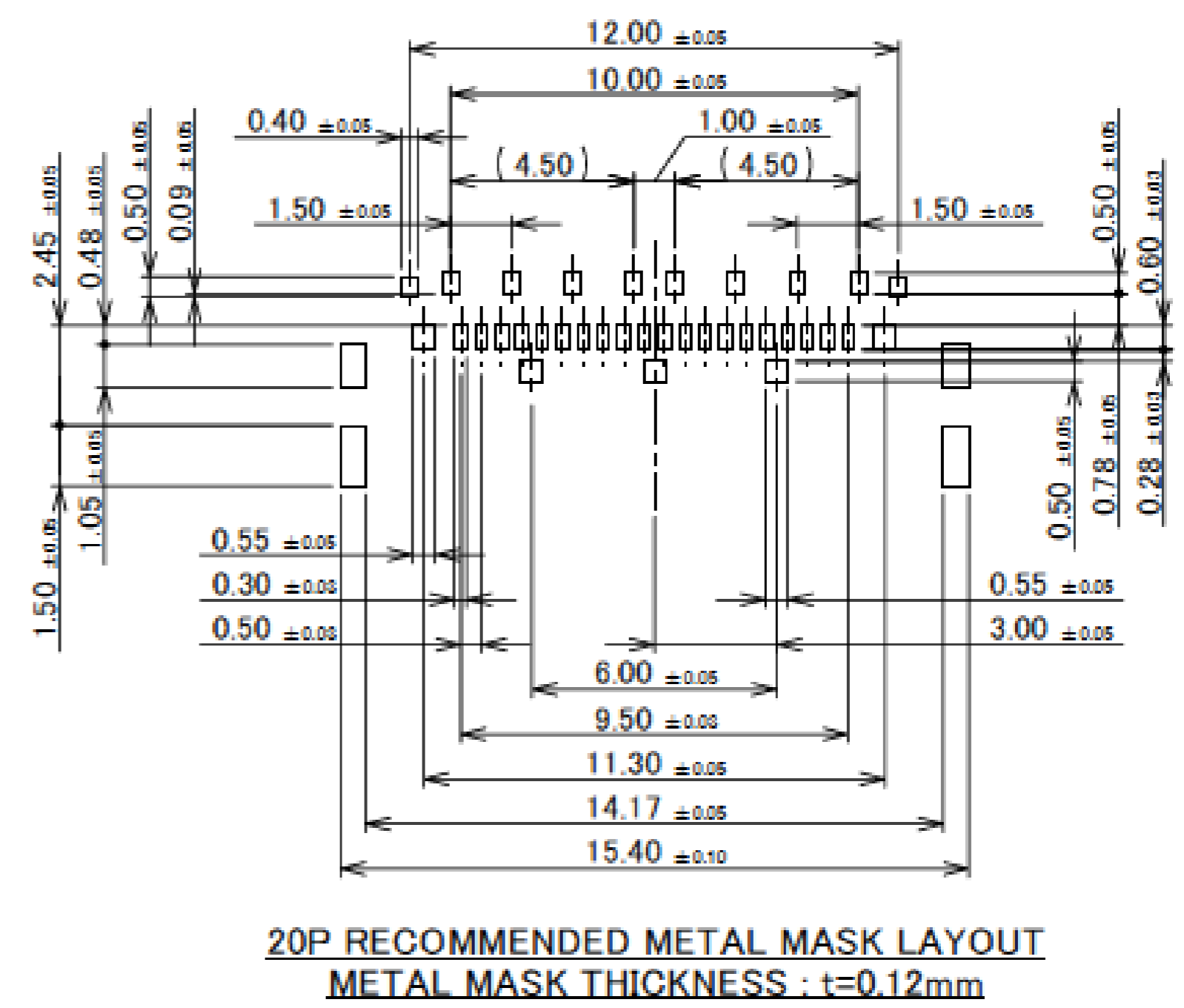
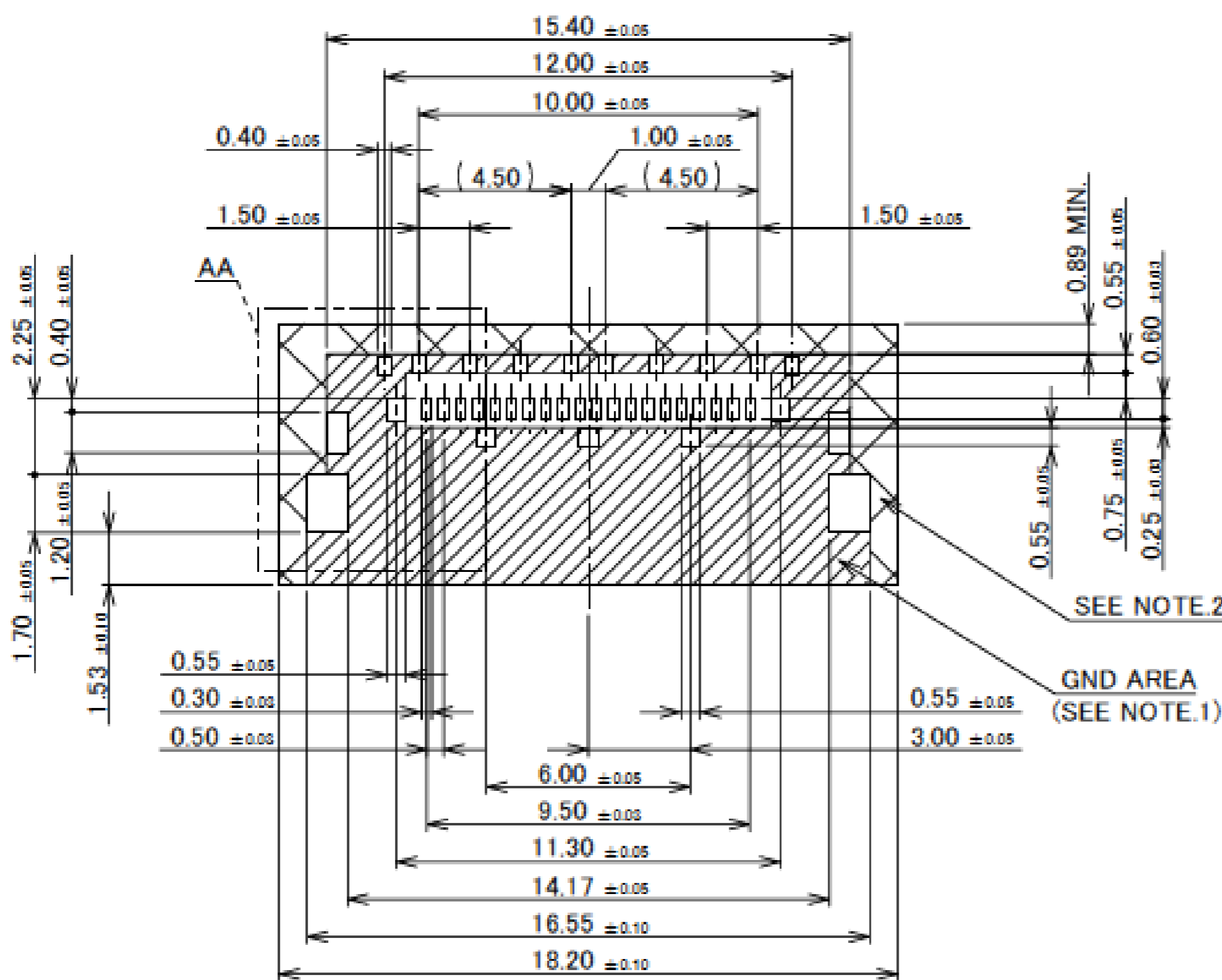
Receptacle Assembly

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

BOTTOM VIEW



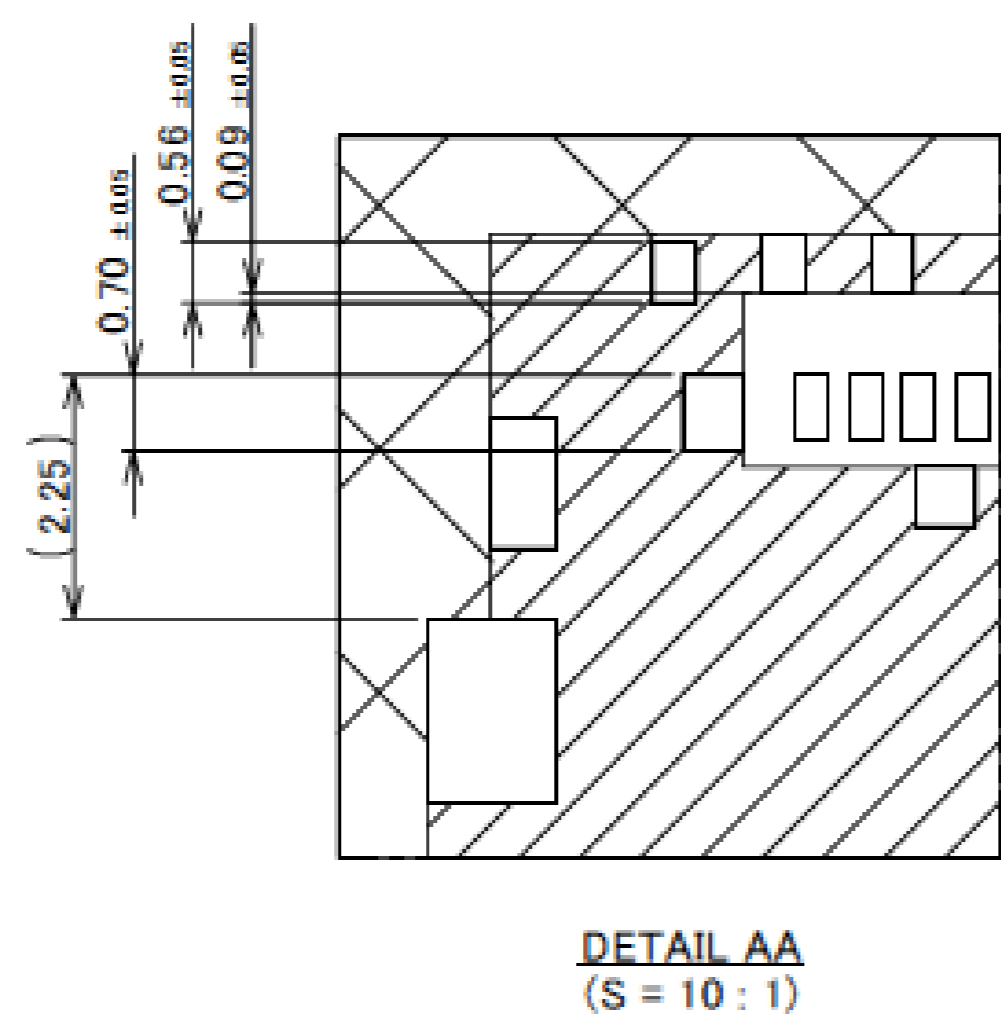
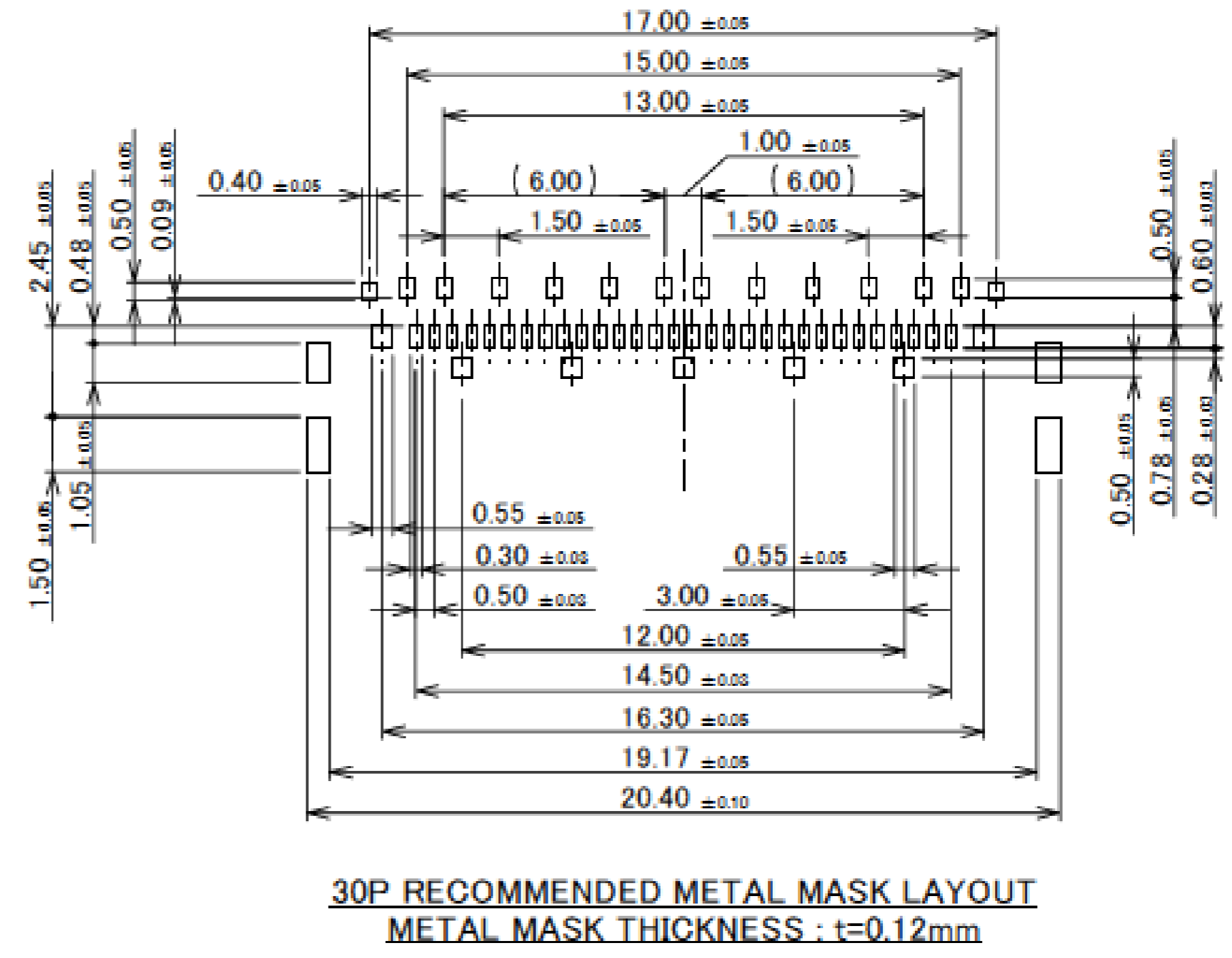
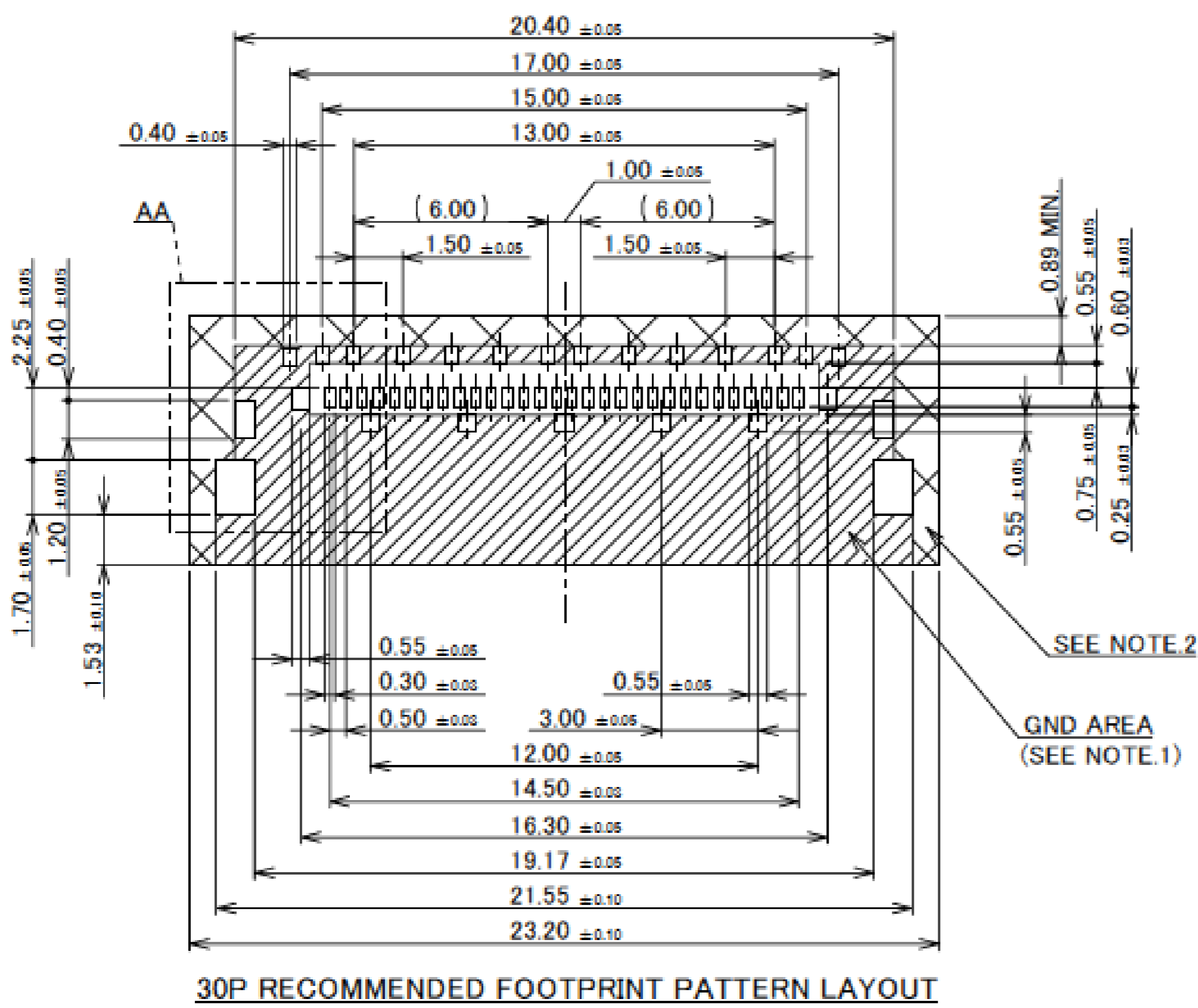
Rev.14



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

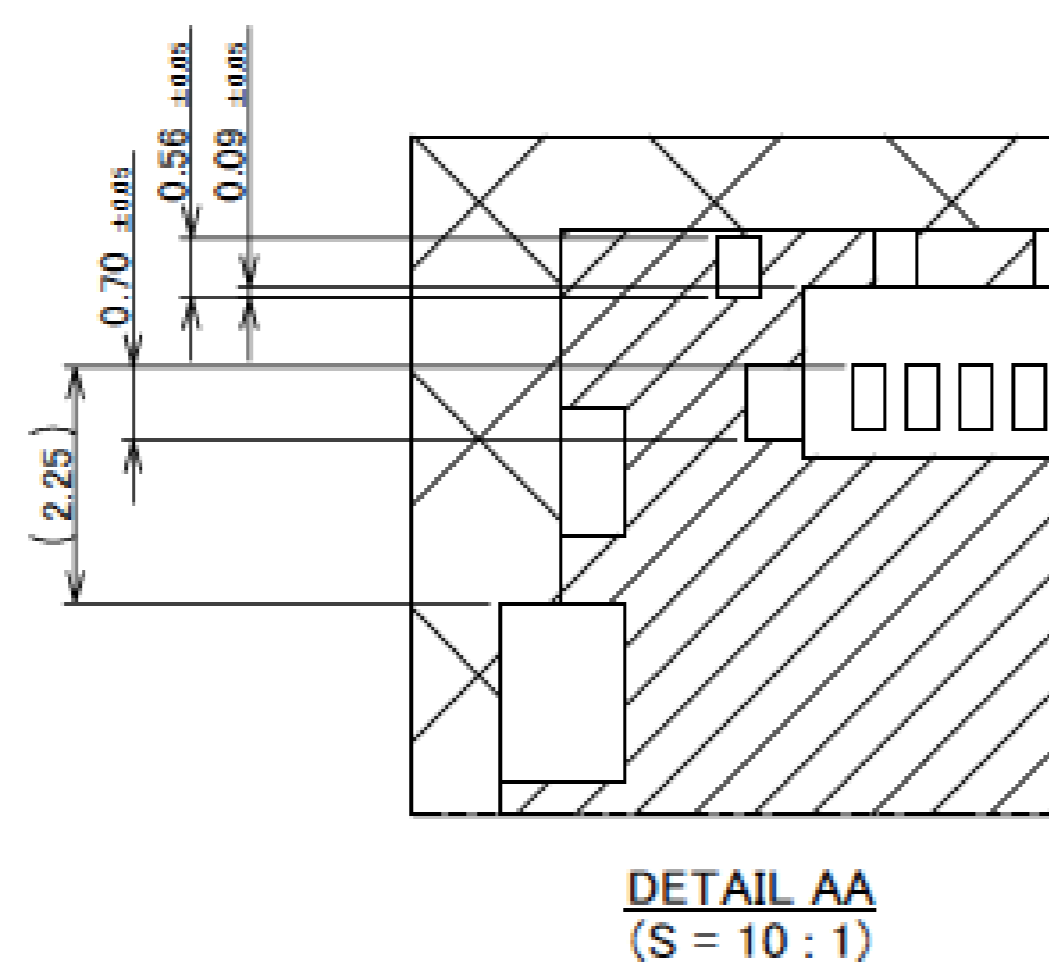
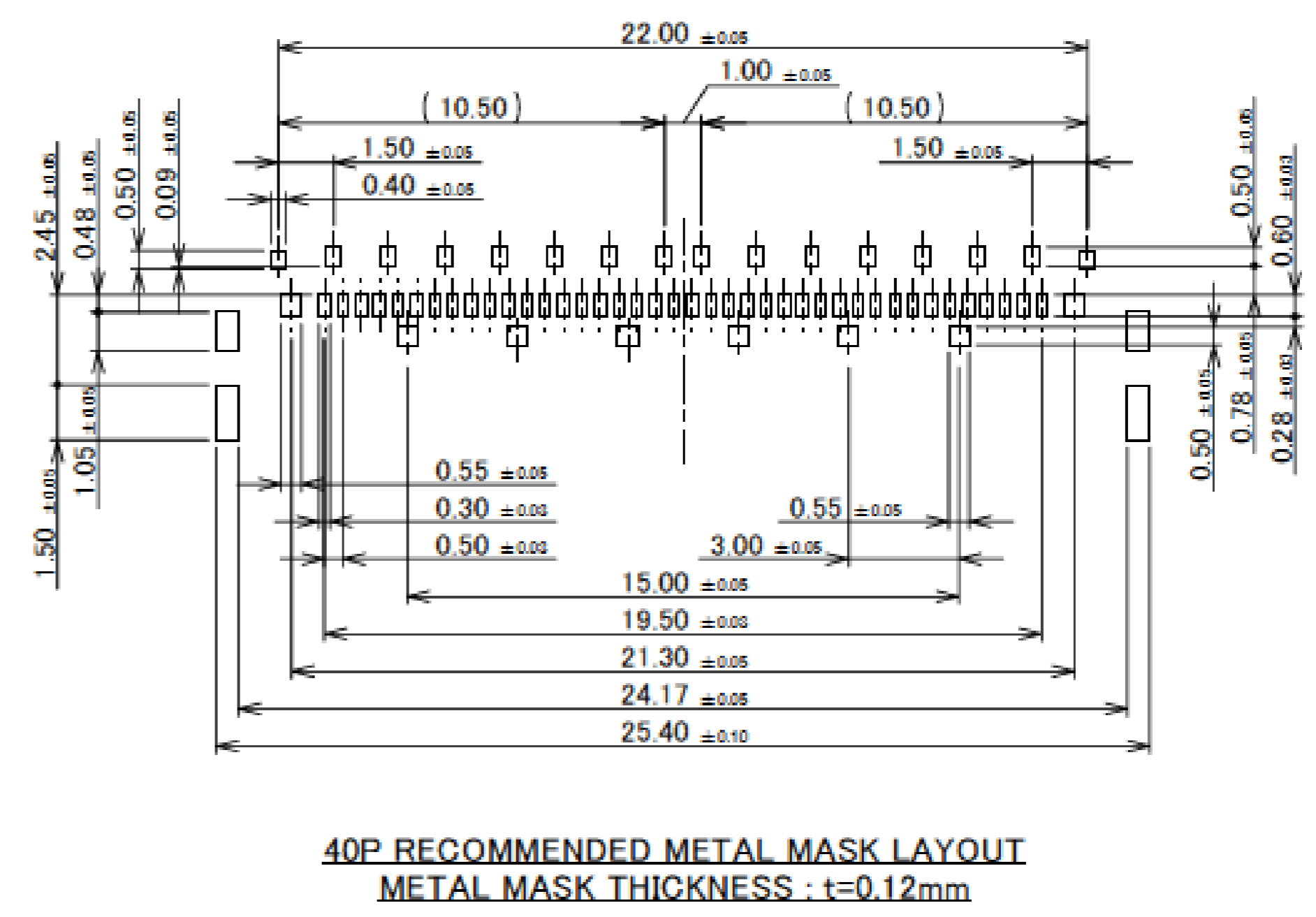
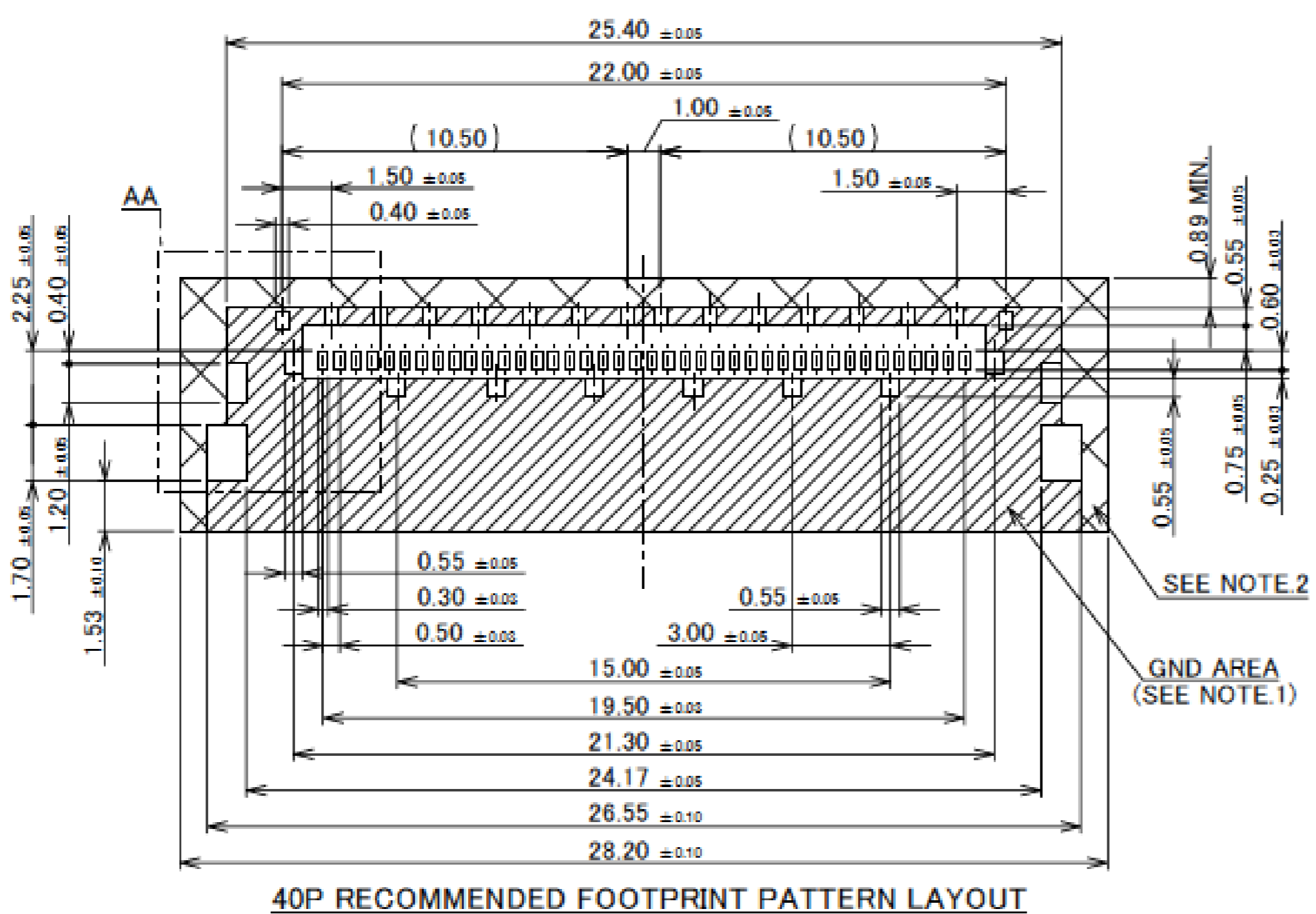
Rev.14

Receptacle Assembly



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

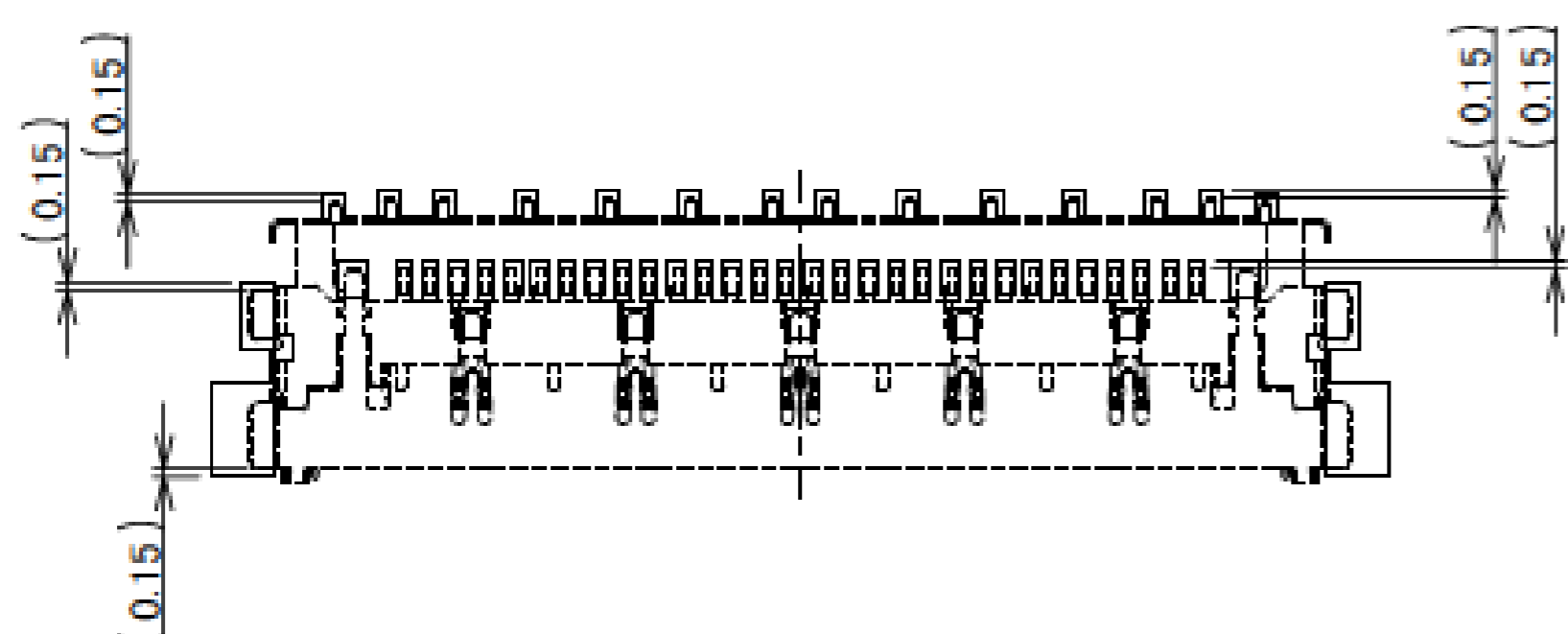
Rev.14



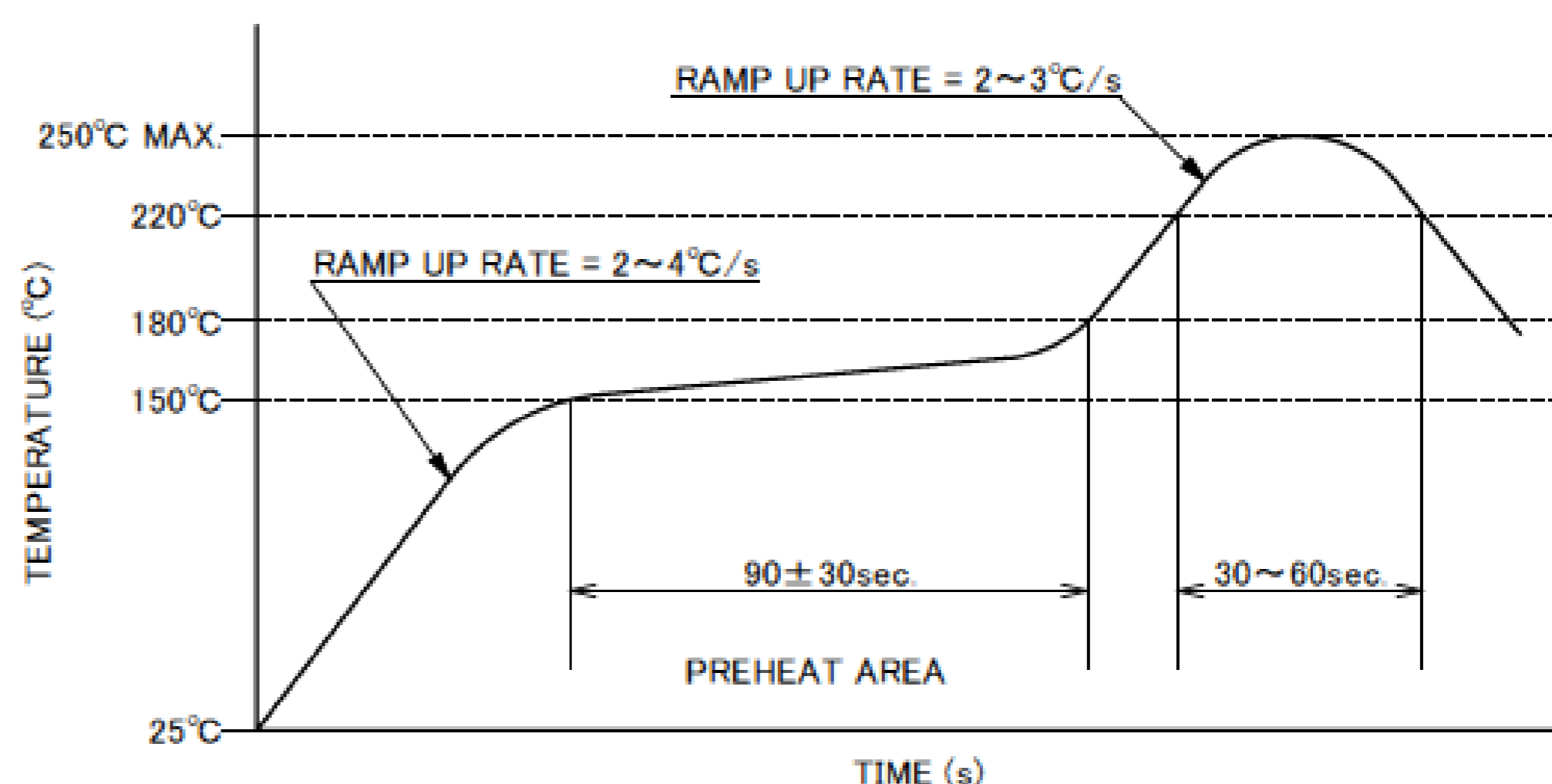
NOTES:
1. SOLDER RESIST MUST BE APPLIED TO THIS AREA.
2. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.

Rev.14

Receptacle Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.14

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 : \triangleleft40mohm 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 : \triangleleft140mohm 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



CABLINA® series



Micro-Coaxial/Twinax Connectors



Wire-to-Board Connectors/Terminals

AP series



ISH® series



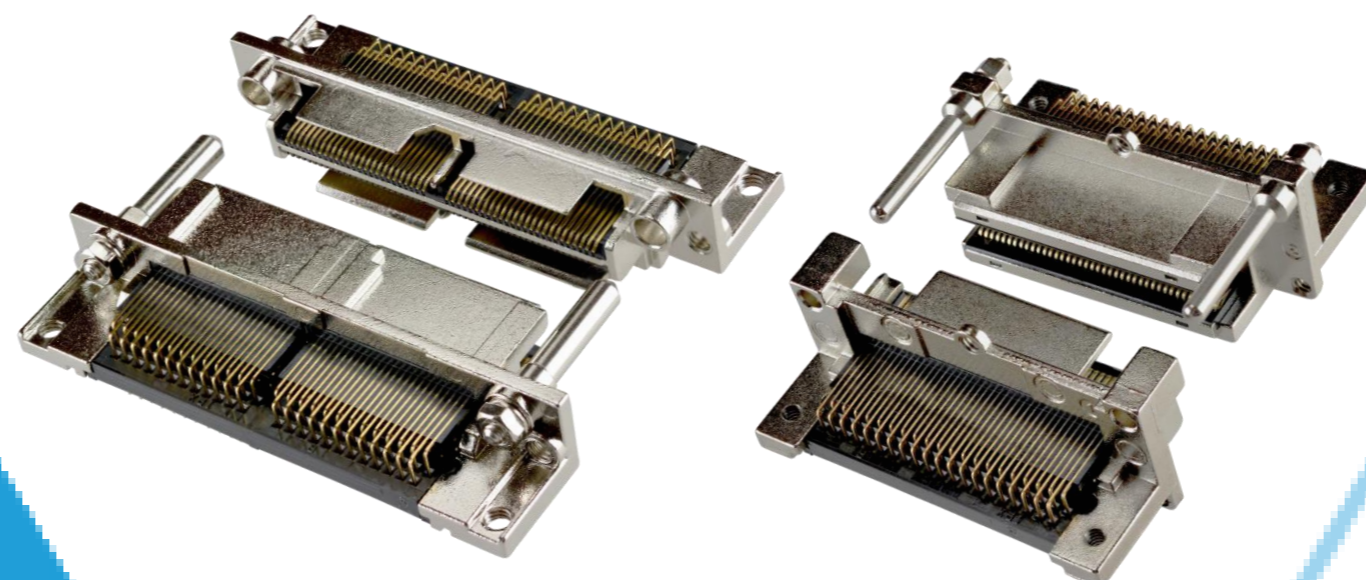
NOVASTACK® series



Board-to-Board Connectors



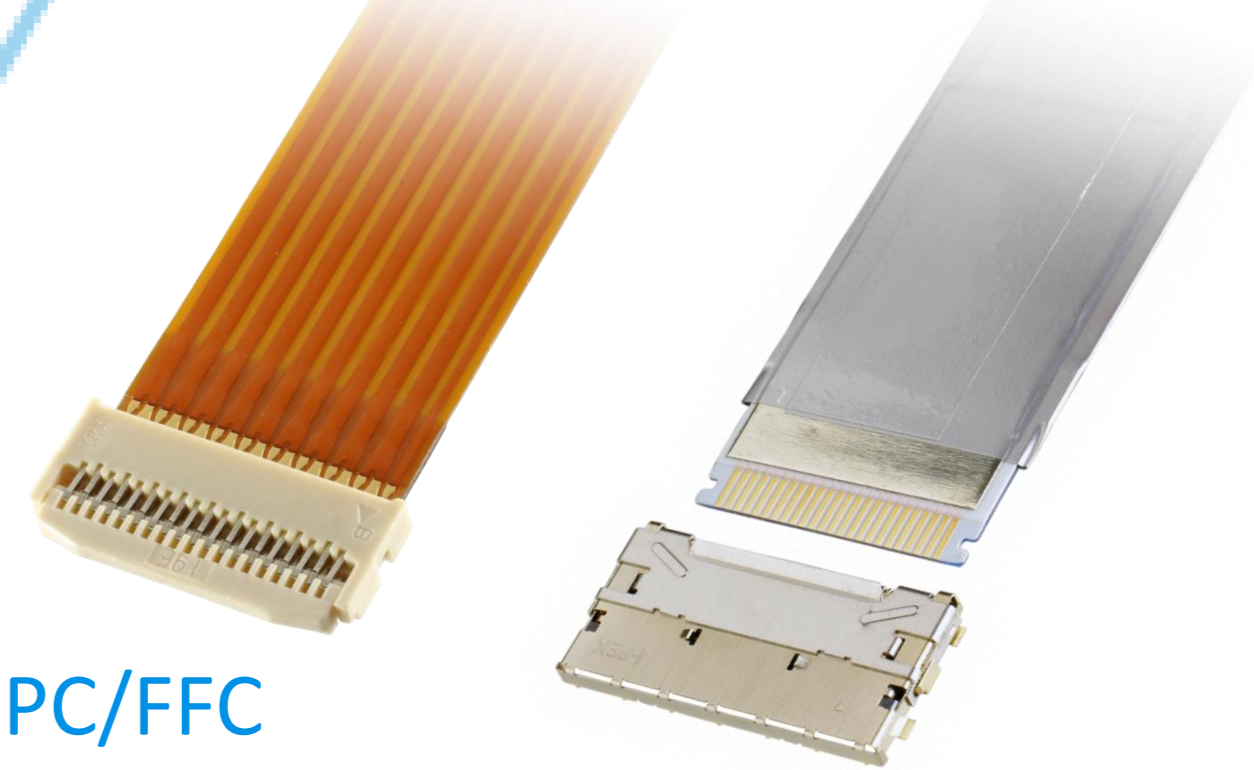
I/O Connectors



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