

# CABLINE®-CA IIF PLUS

Fully-shielded with mechanical lock, suitable for high-data-rate transfer (32 Gbps/lane), 0.4 mm pitch, Horizontal mating type FPC plug connector

## Product Specifications:

Mating type	Horizontal	
Board Pitch (mm)	0.4	
Wiping Length (mm)	0.48	
Mated size (mm)	Height	1.2 max.
	Width	30.95
	Depth	7.24
Pin Counts	Range	60
	Available	60

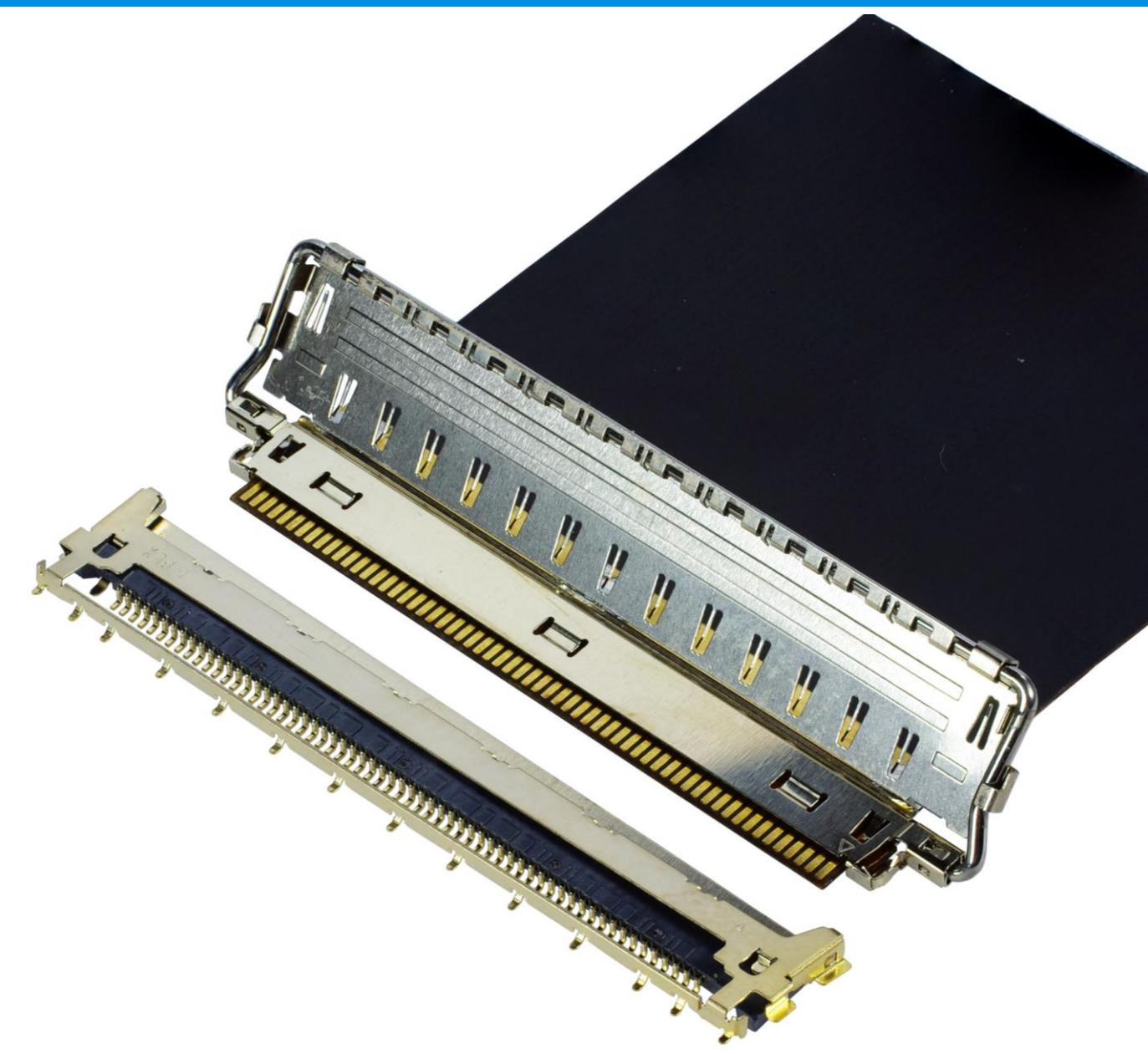
## Applicable FPC

FPC Type	Shielded FPC
FPC Pitch (mm)	0.4
FPC Contact Point	Top
FPC Thickness (mm)	Contact Area: 0.25 +0.02/-0.03
	Ground Area: 0.37 +0.04/-0.06

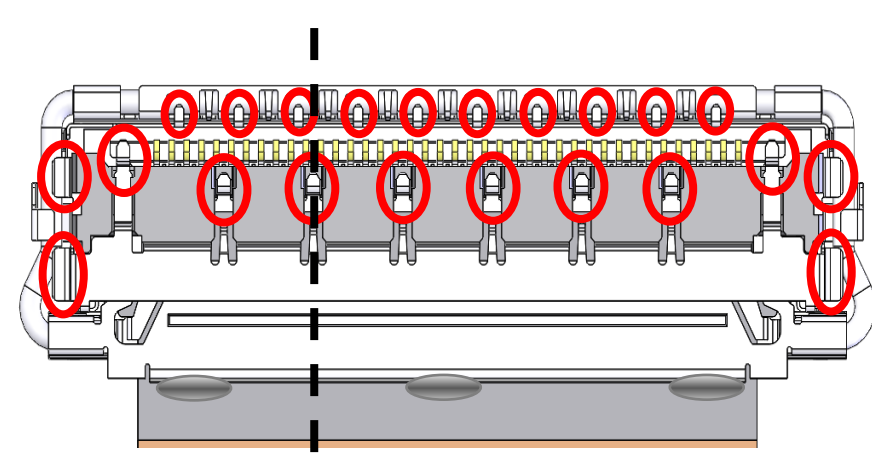
## Applicable Standards (Reference Only):

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

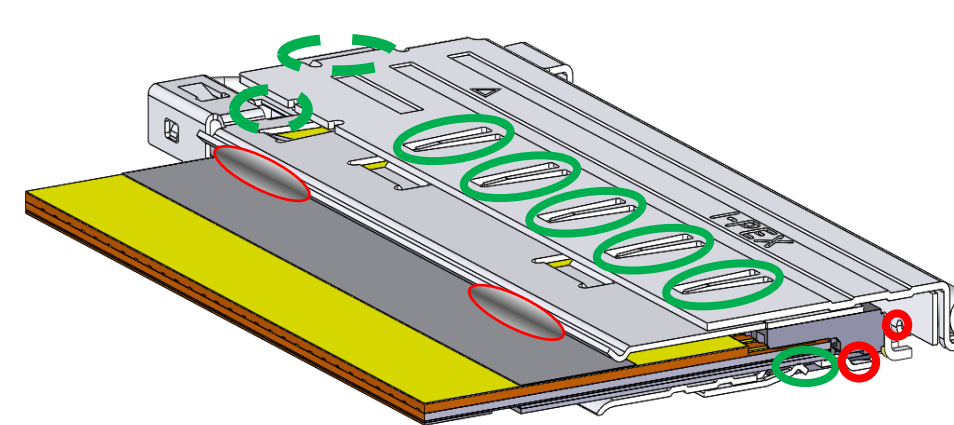
\* Please inquire for pin counts not listed or outside of the pin count range.



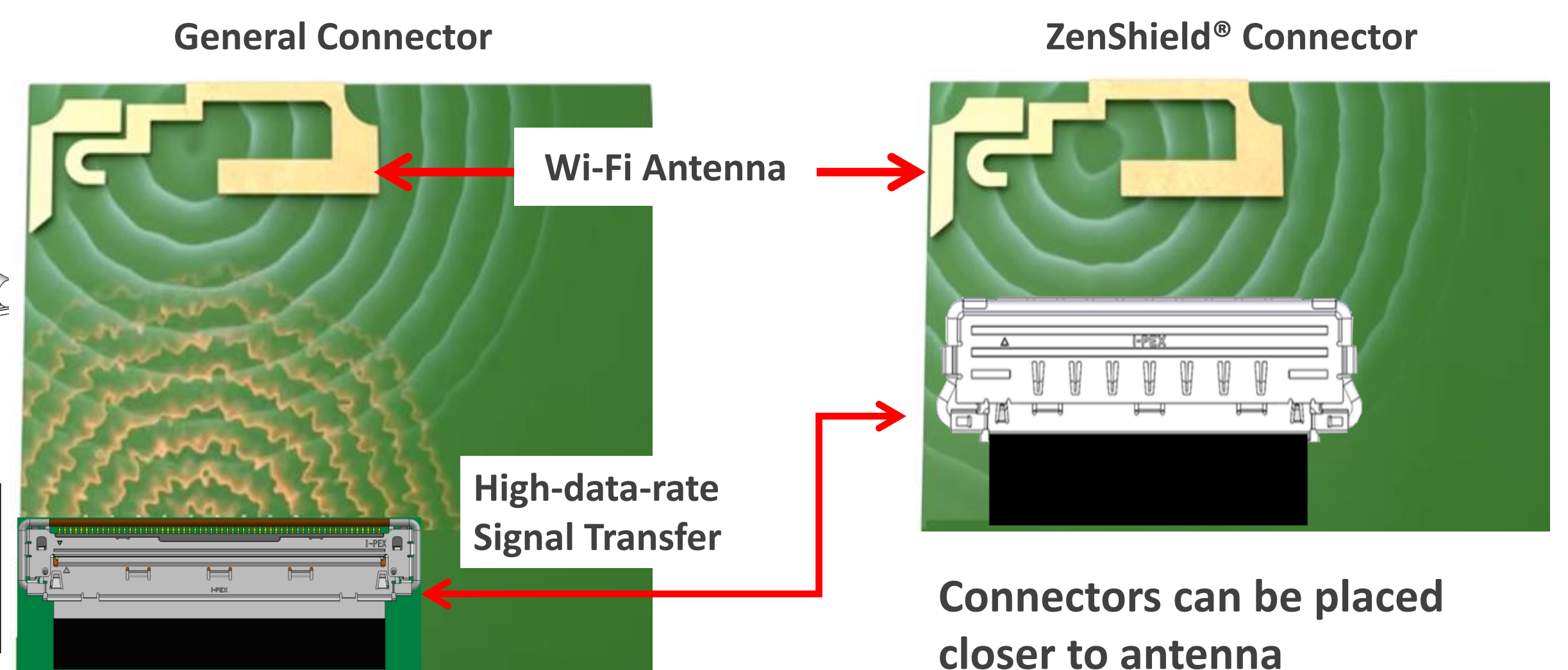
## ► ZenShield® fully-shielded with multi-point grounds is ideal for EMC solutions



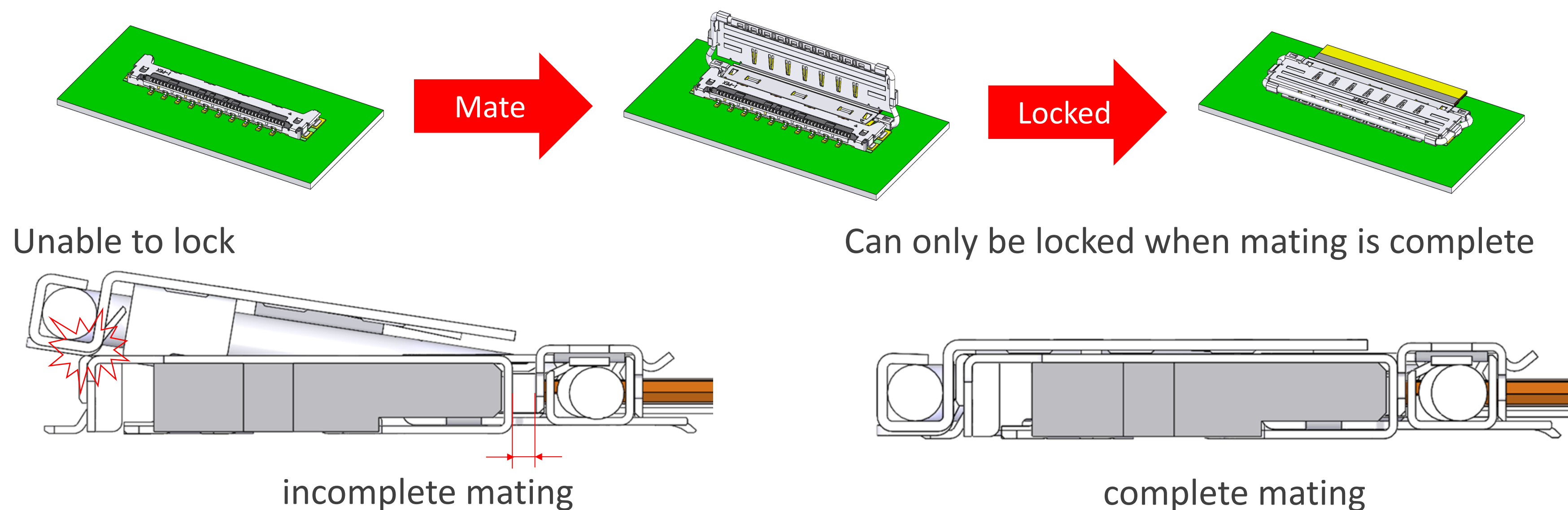
View From Back



○ Soldered contacts  
○ Mechanical contacts



## ► Mechanical locking cover prevents incomplete mating and back-out/unmating



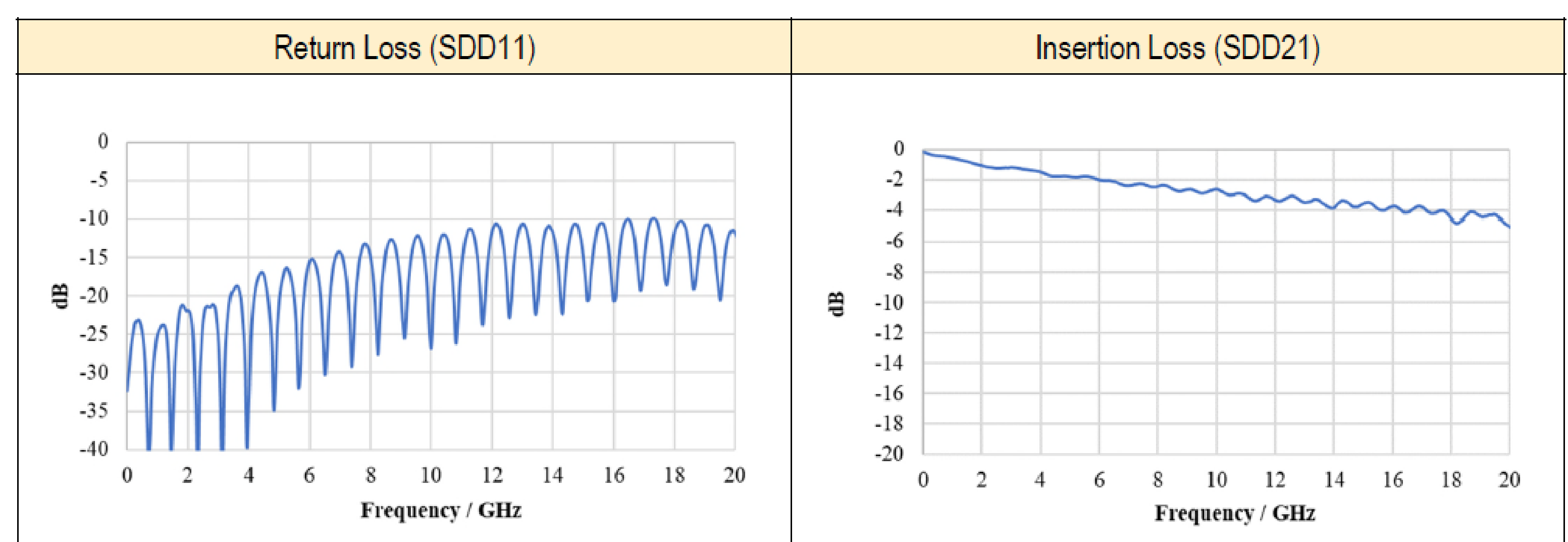
## ► High-data-rate transfer, ideal for 32 Gbps/lane applications

### Measurement results

Connector: CABLINE-CA IIF 40P

FPC: Shielded FPC, Differential 90 ohm  
Length : 100 mm

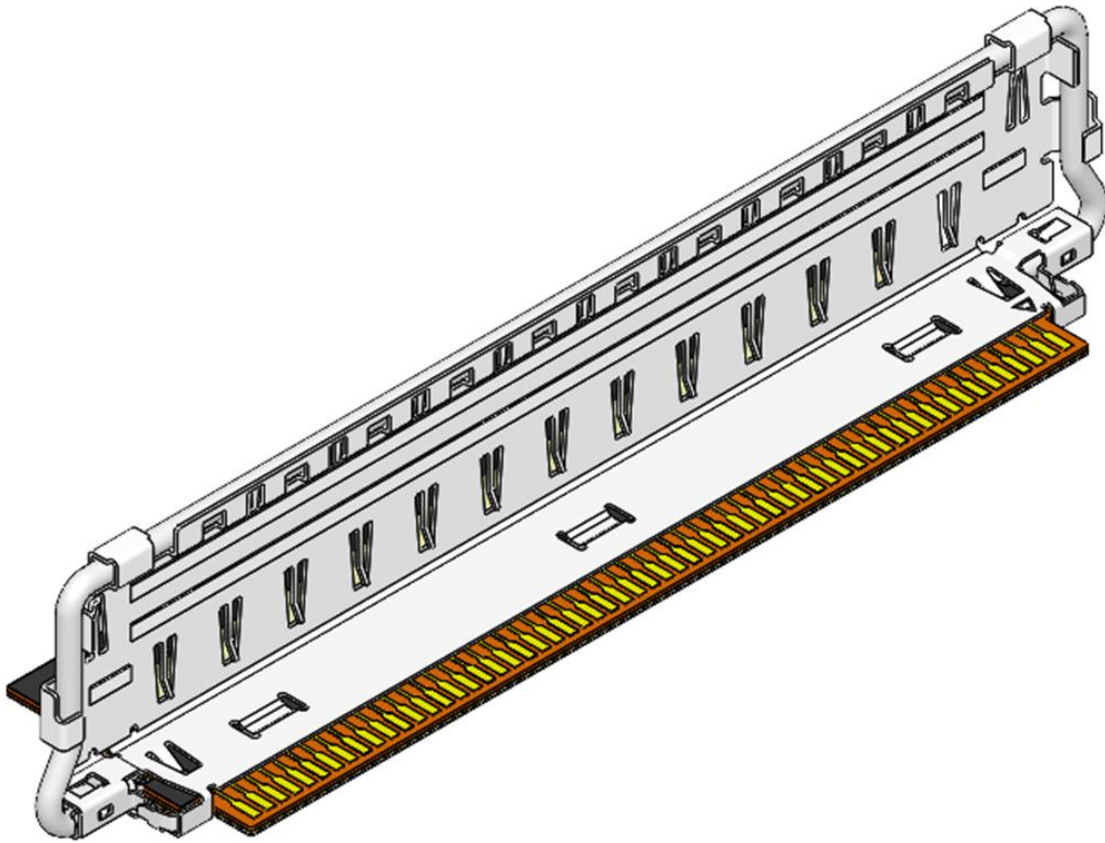
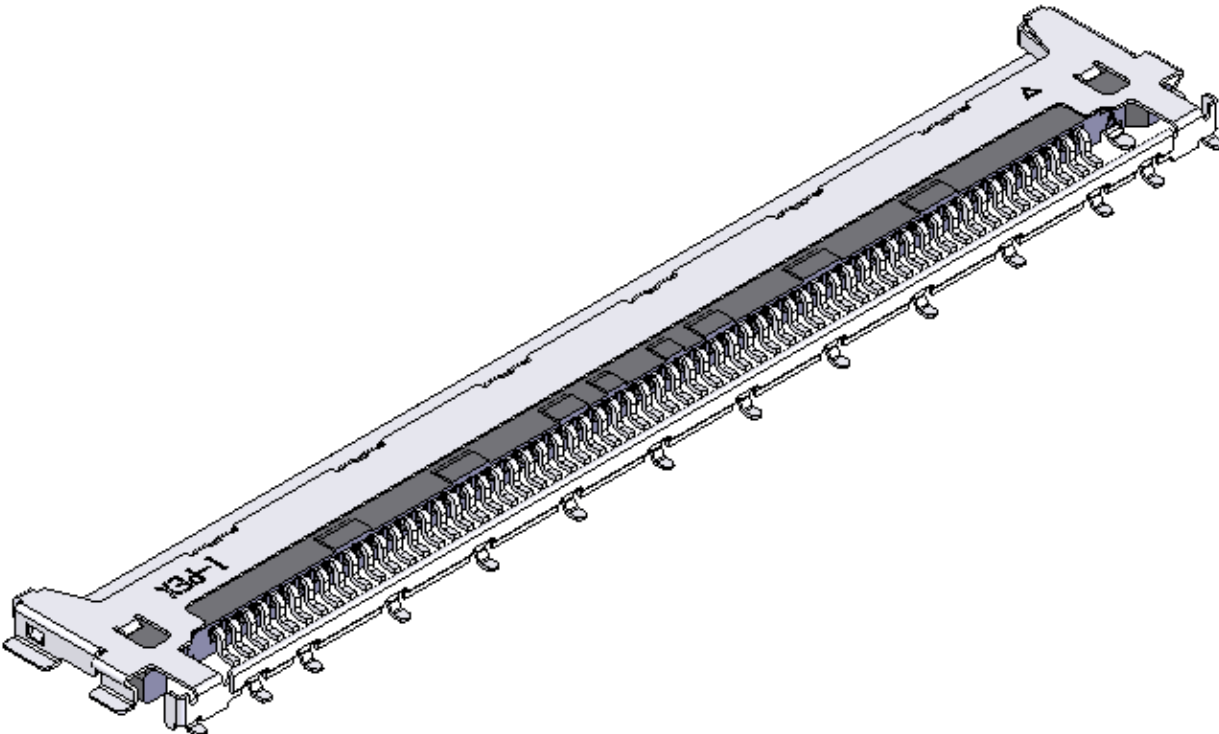
Pin Assignment: GSSGSSG





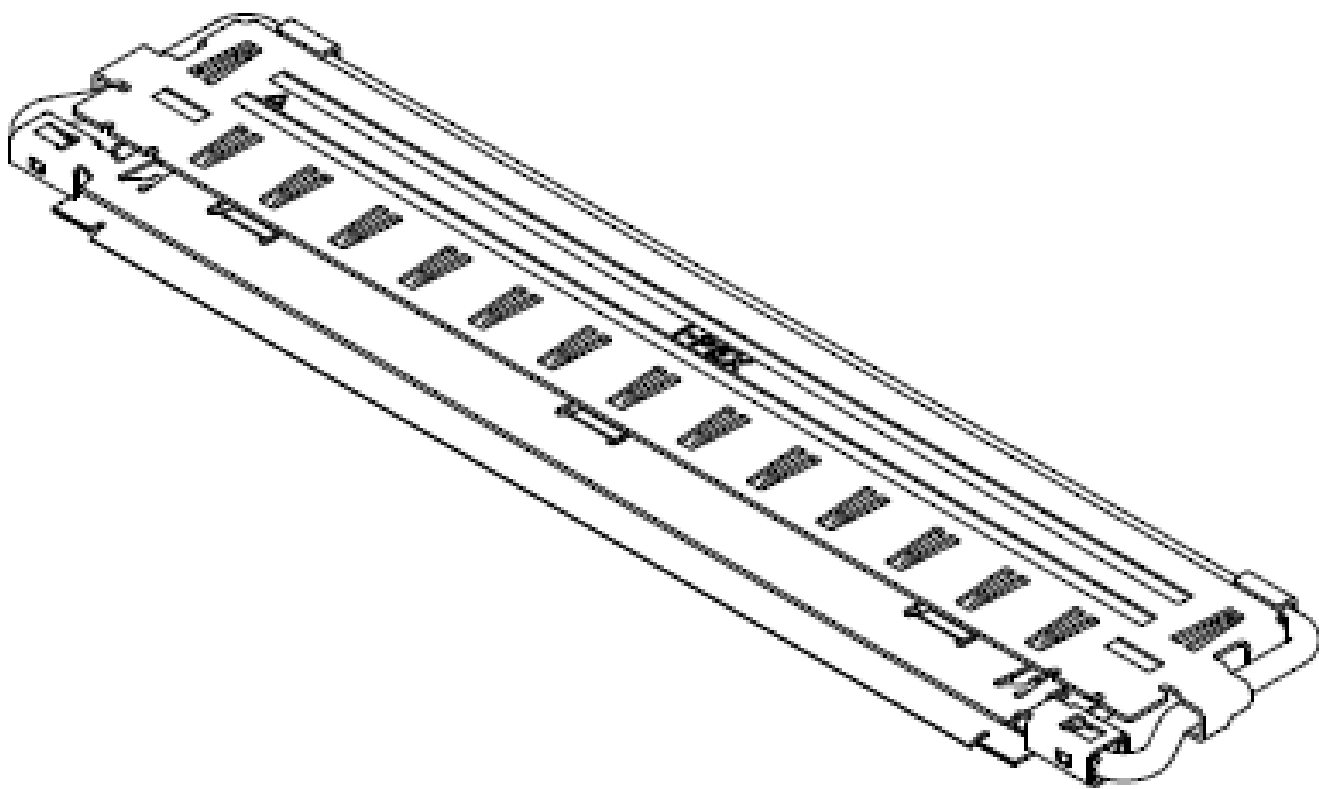
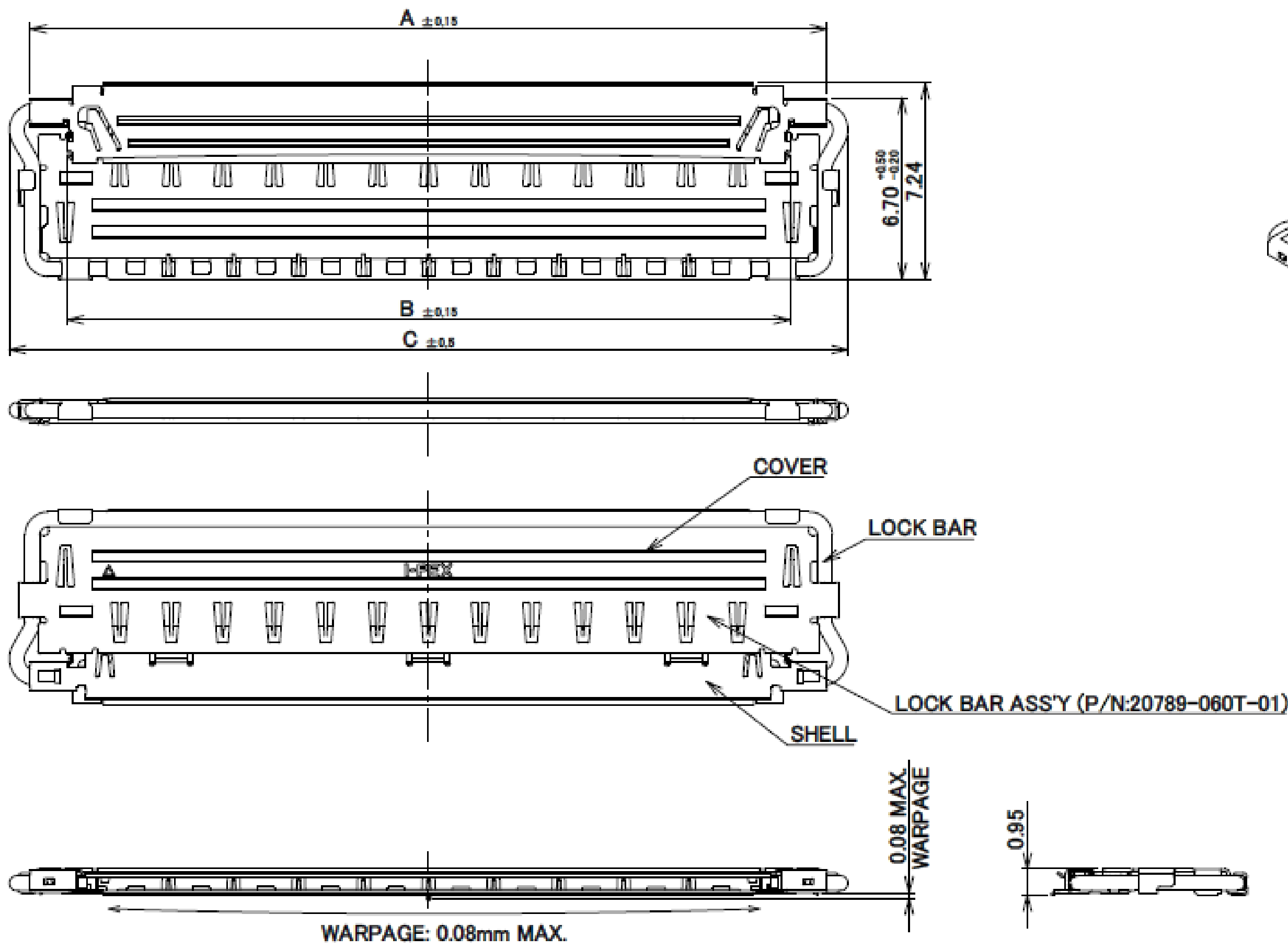
# Component Parts Details

## Component Parts

Connector parts

CABLINE-CA IIF PLUG with FPC

CABLINE-CA II PLUS RECEPTACLE

Shell Assembly

Recommended P/N		20901-060T-01			
PART NO.	Pos.	A	B	C	
20901-060T-01	60	29.40	26.66	30.95	



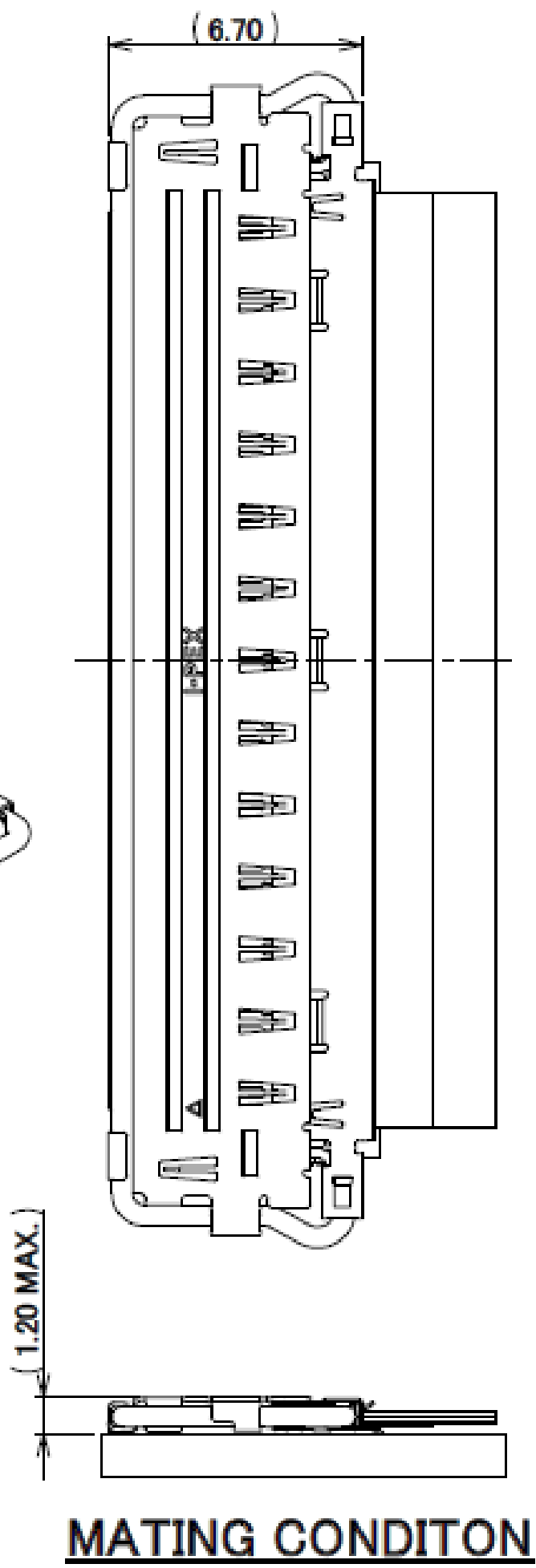
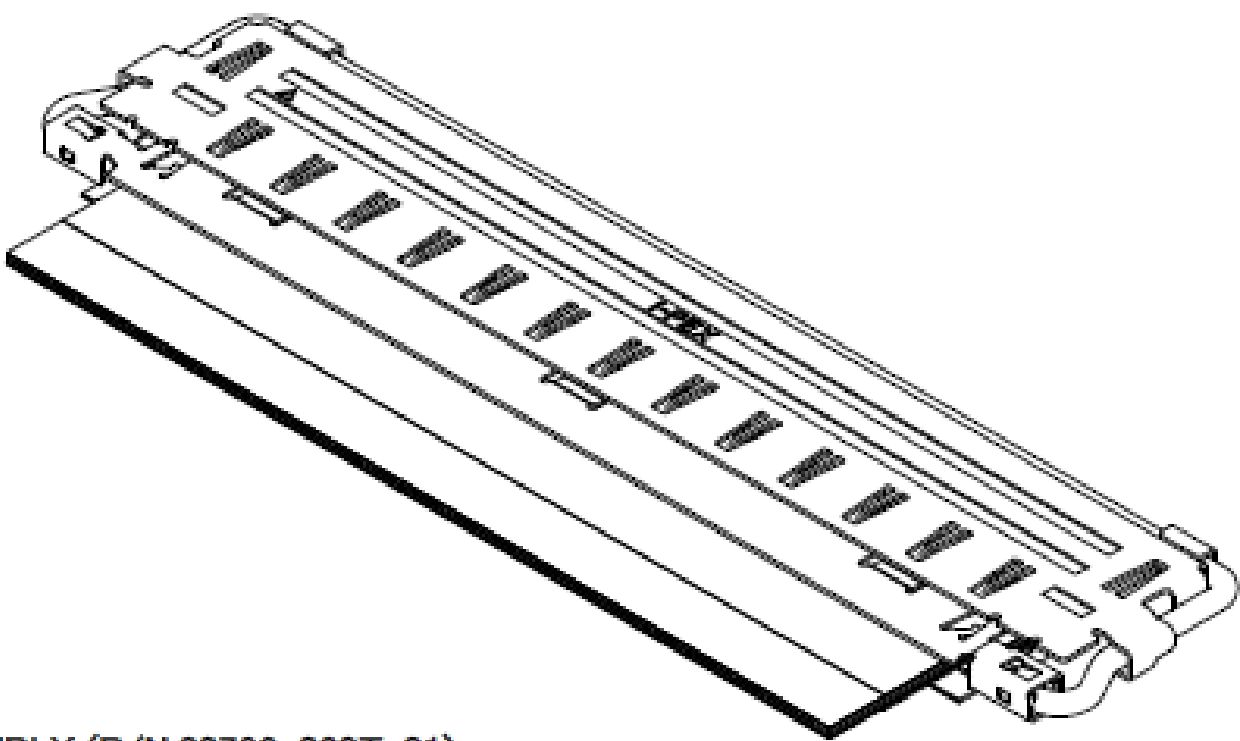
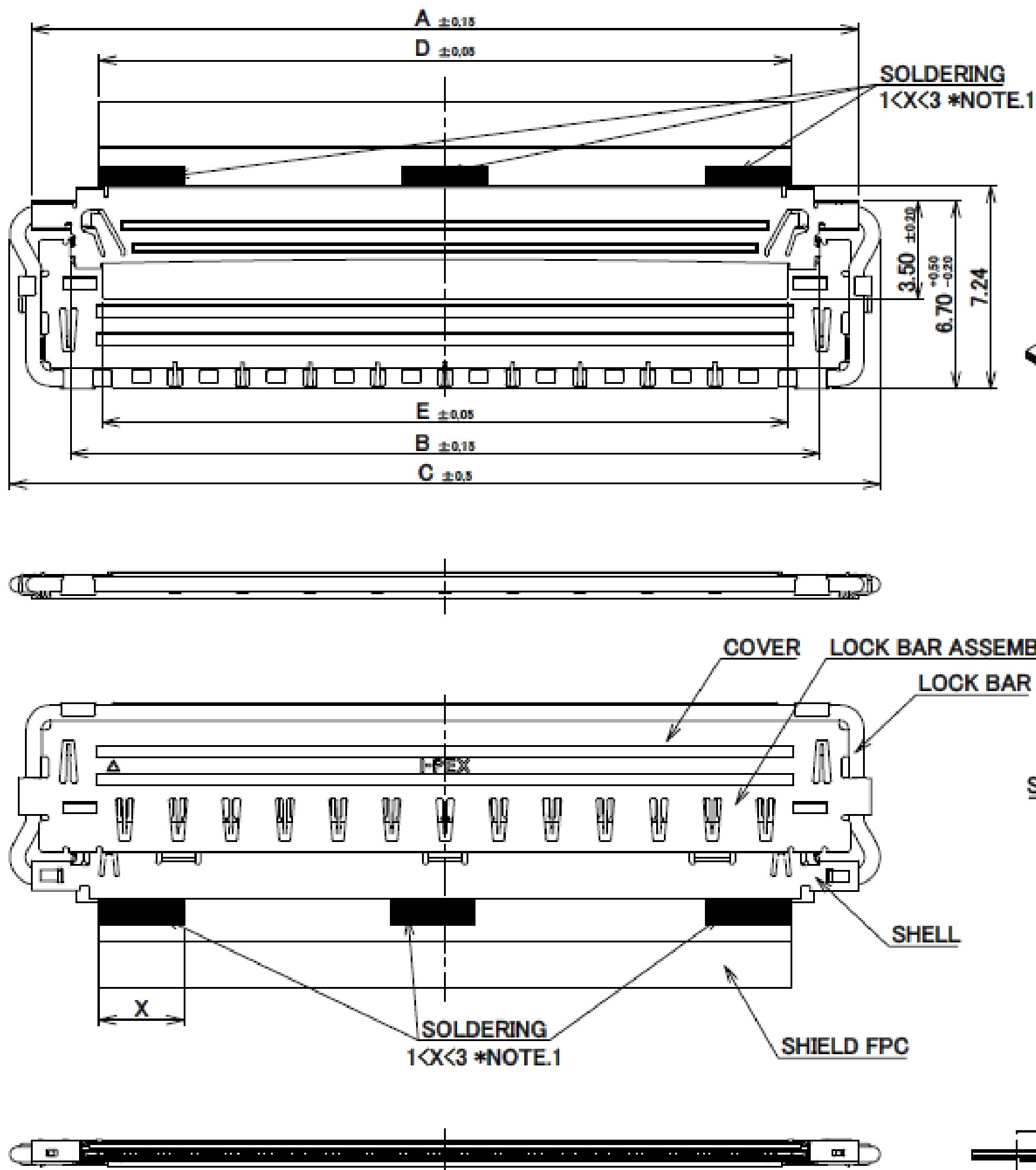
3	COVER	PHOSPHOR BRONZE	Ni PLATING
2	LOCK BAR	STAINLESS STEEL	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0.003 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS

Rev.2

Recommended P/N		20901-060T-01				
PART No.		A	B	C	D	E
20901-060T-01		29.40	26.66	30.95	24.60	24.40



FPC ASSEMBLY STATE COVER CLOSE

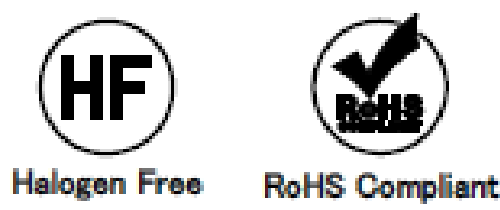


NOTES.  
1.Soldering Area X is recommended dimension.  
It does not mater if it might be exceed the recommended dimension.

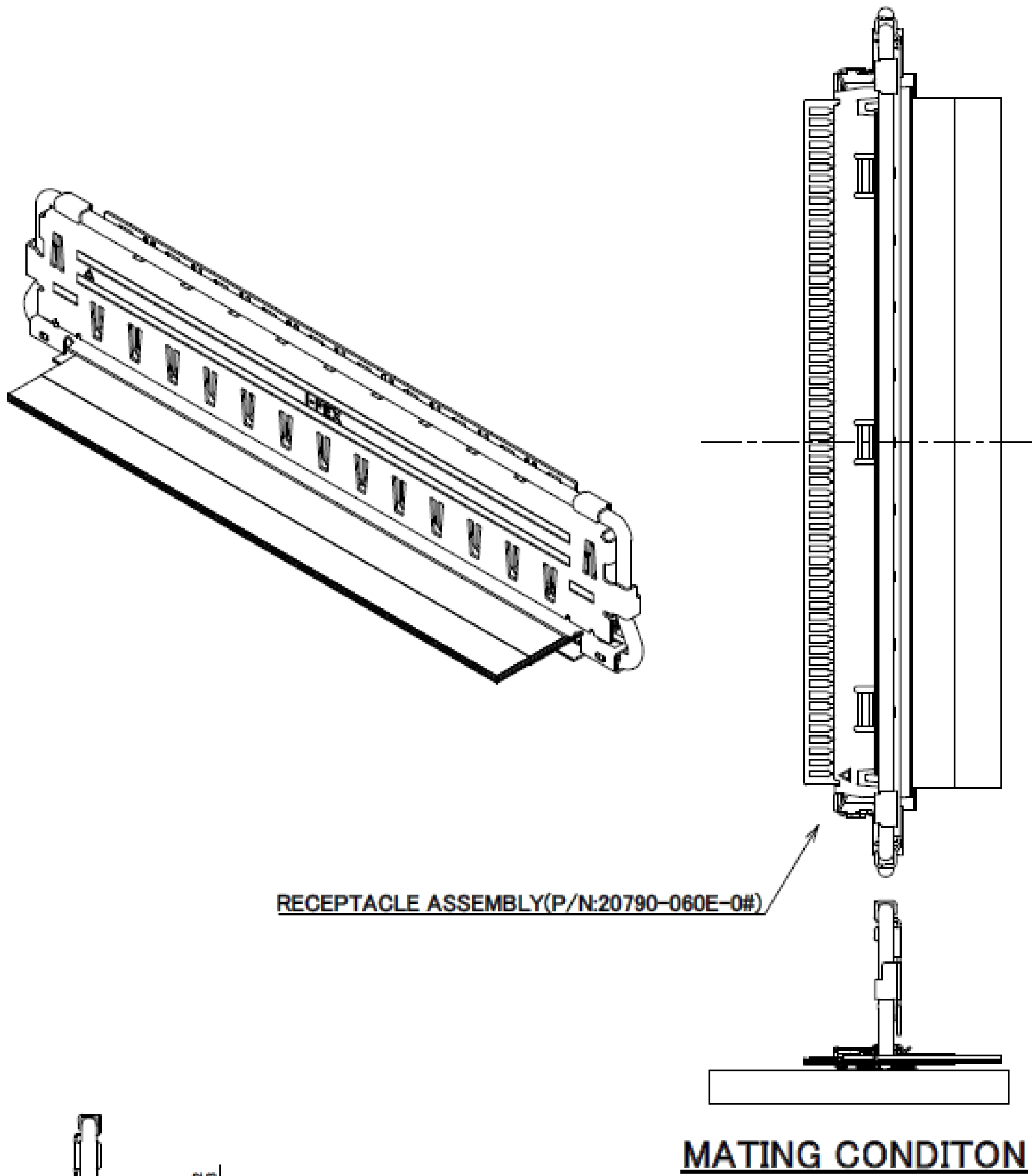
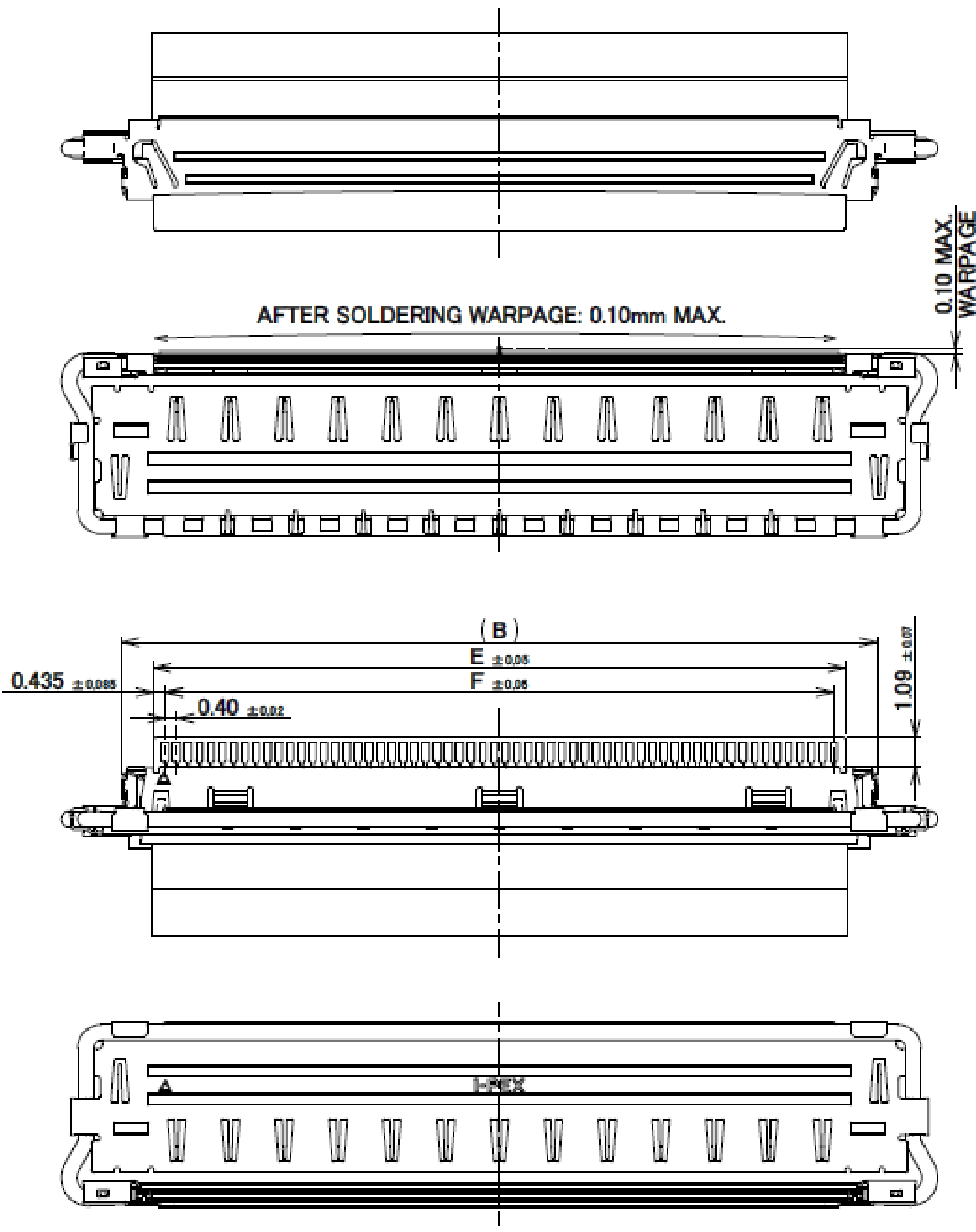
Rev.2

Shell Assembly

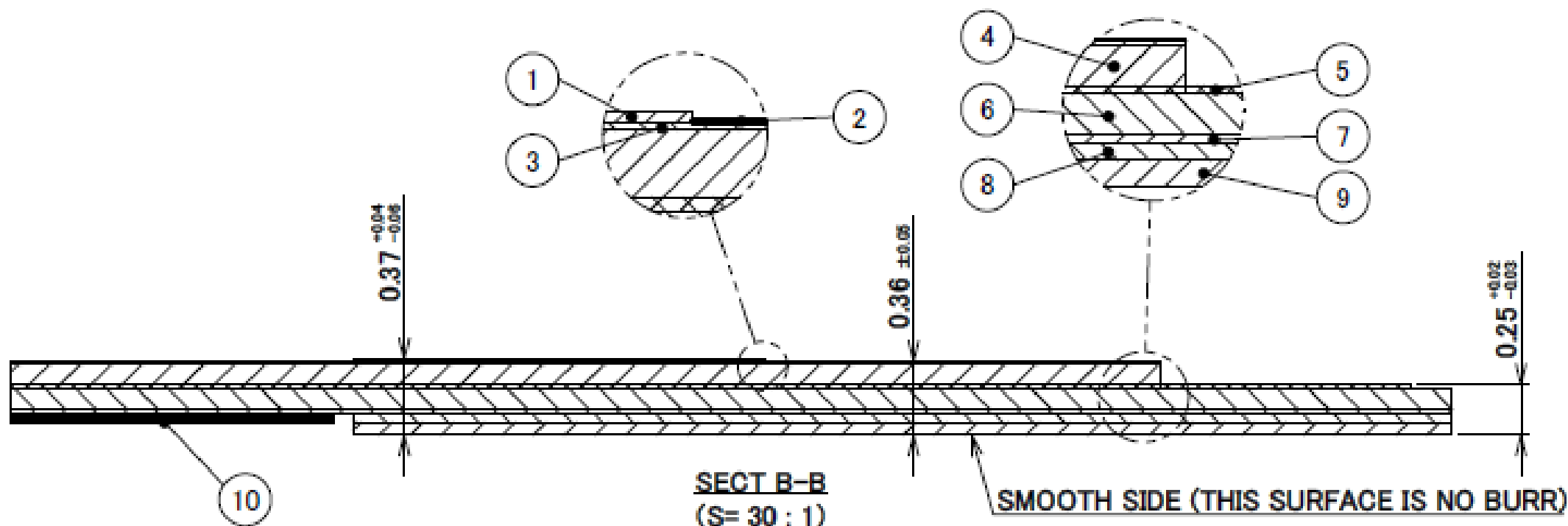
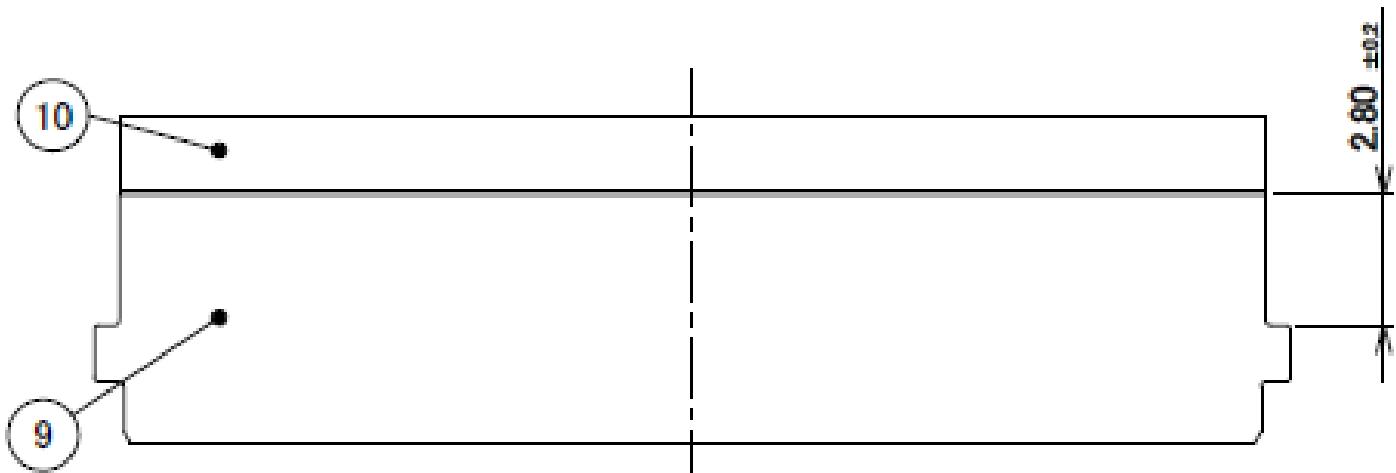
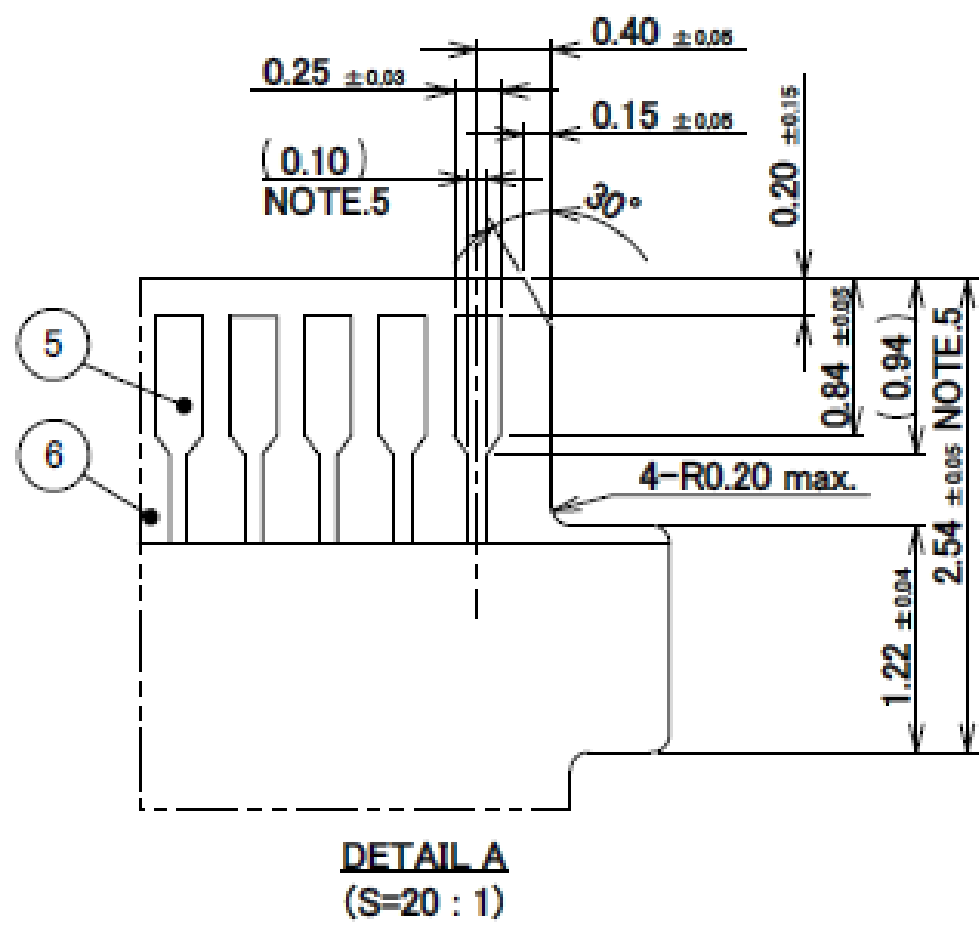
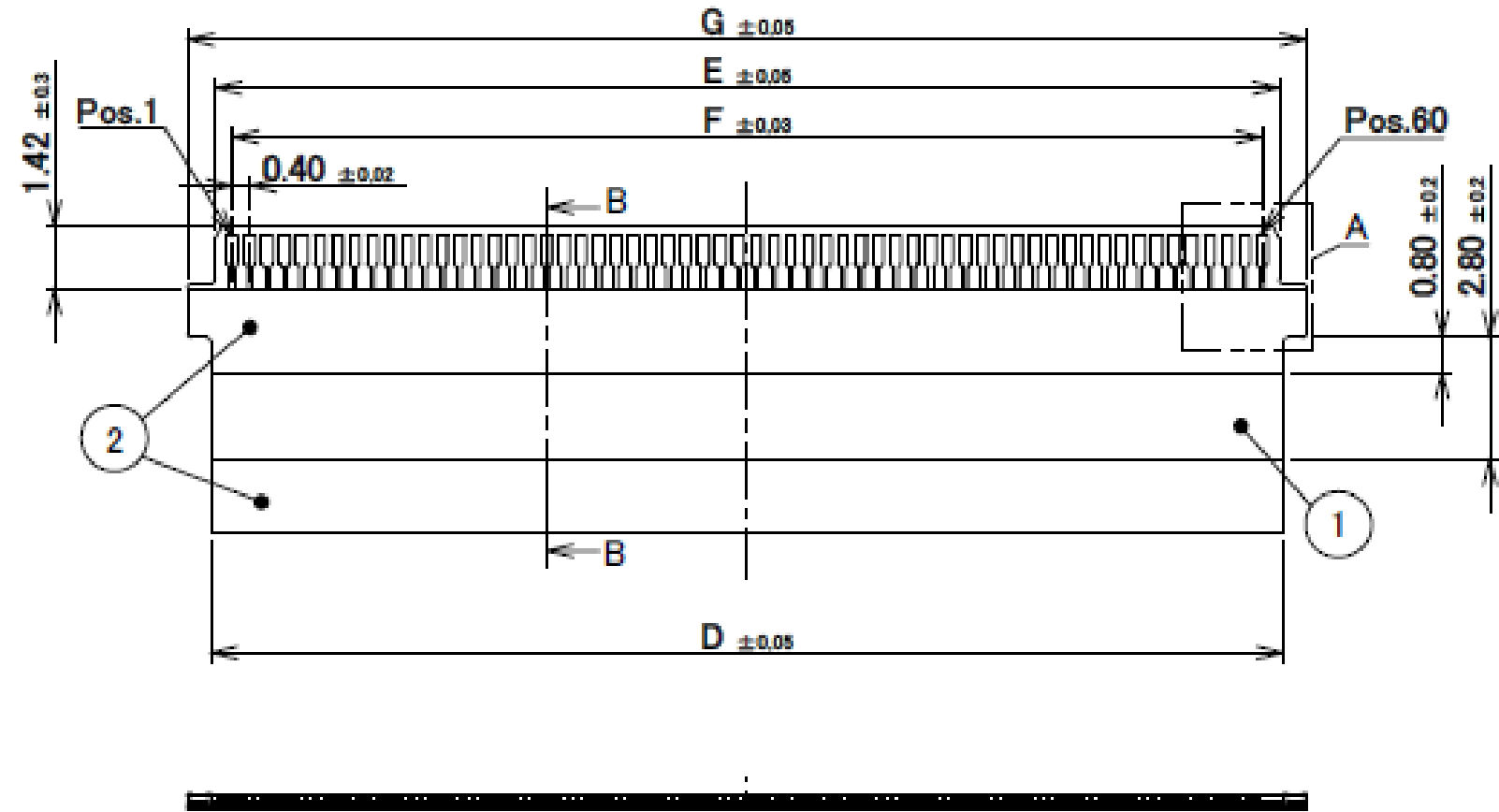
Recommended P/N	20901-060T-01		
PART No.	B	E	F
20901-060T-01	26.66	24.40	23.60



FPC ASSEMBLY STATE COVER OPEN



PART No.	D	E	F	G
20901-060T-01	24.60	24.40	23.60	25.66



- 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.2

Rev.2

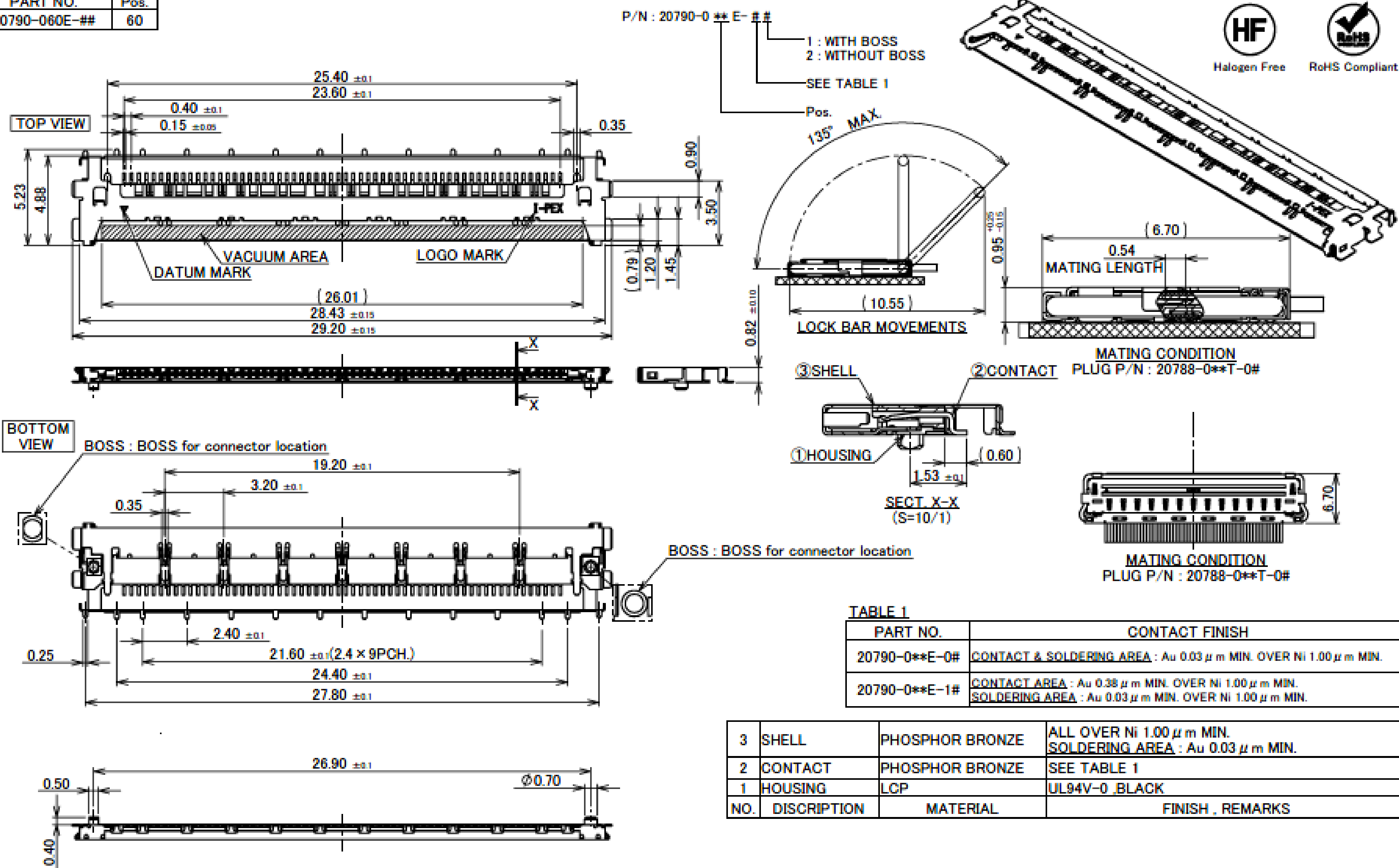
Shell Assembly

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)	60P : 27.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	60P : 2.88N MIN.
PRODUCT SPECIFICATION	PRS-2893
TEST REPORT	TR-24034
PACKING STANDARD	PST-24023
INSTRUCTION MANUAL	HIM-24010
ASSEMBLY MANUAL	ASM-24004
APPEARANCE CRITERIA No.	QLS-A***

Rev.2

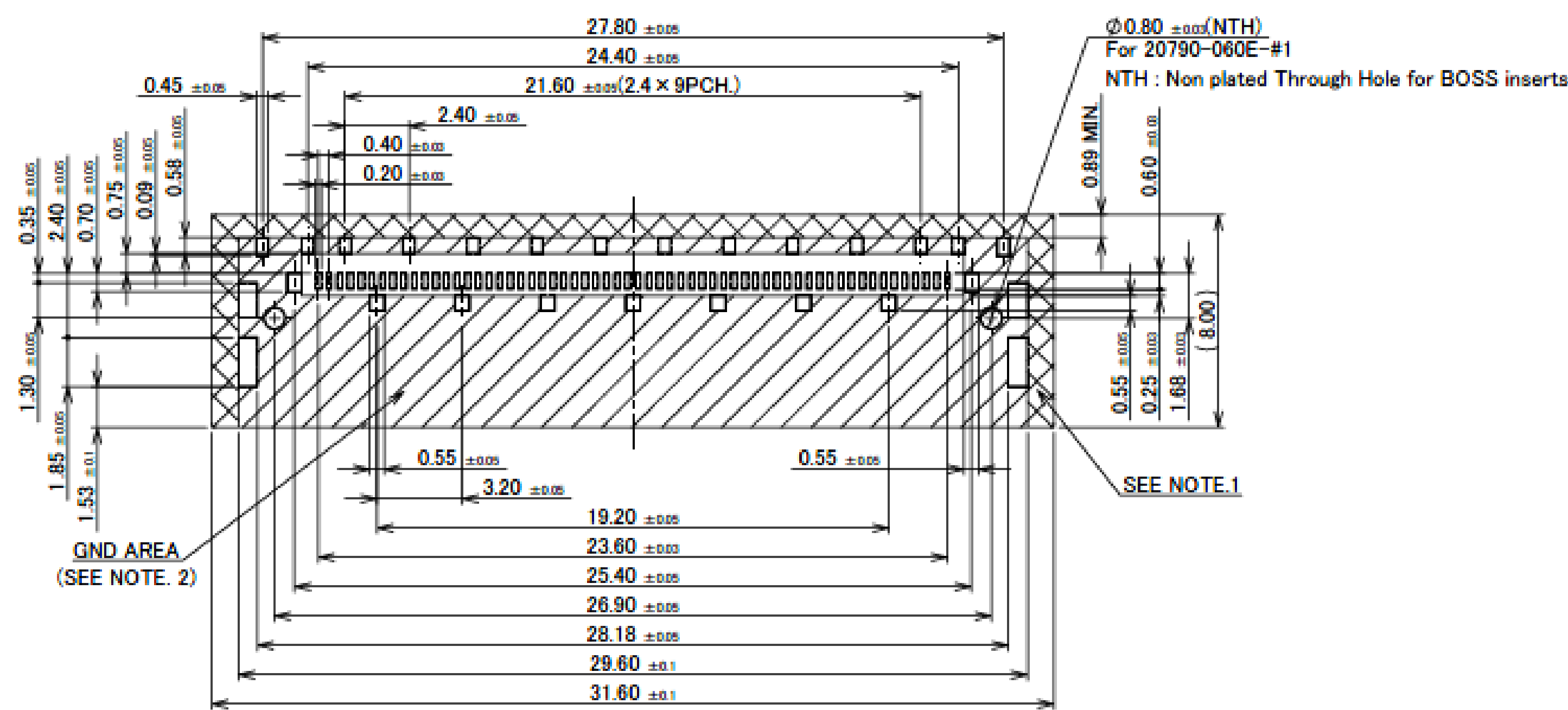
Receptacle Assembly

Recommended P/N	20790-060E-02
PART NO.	Pos.
20790-060E-##	60

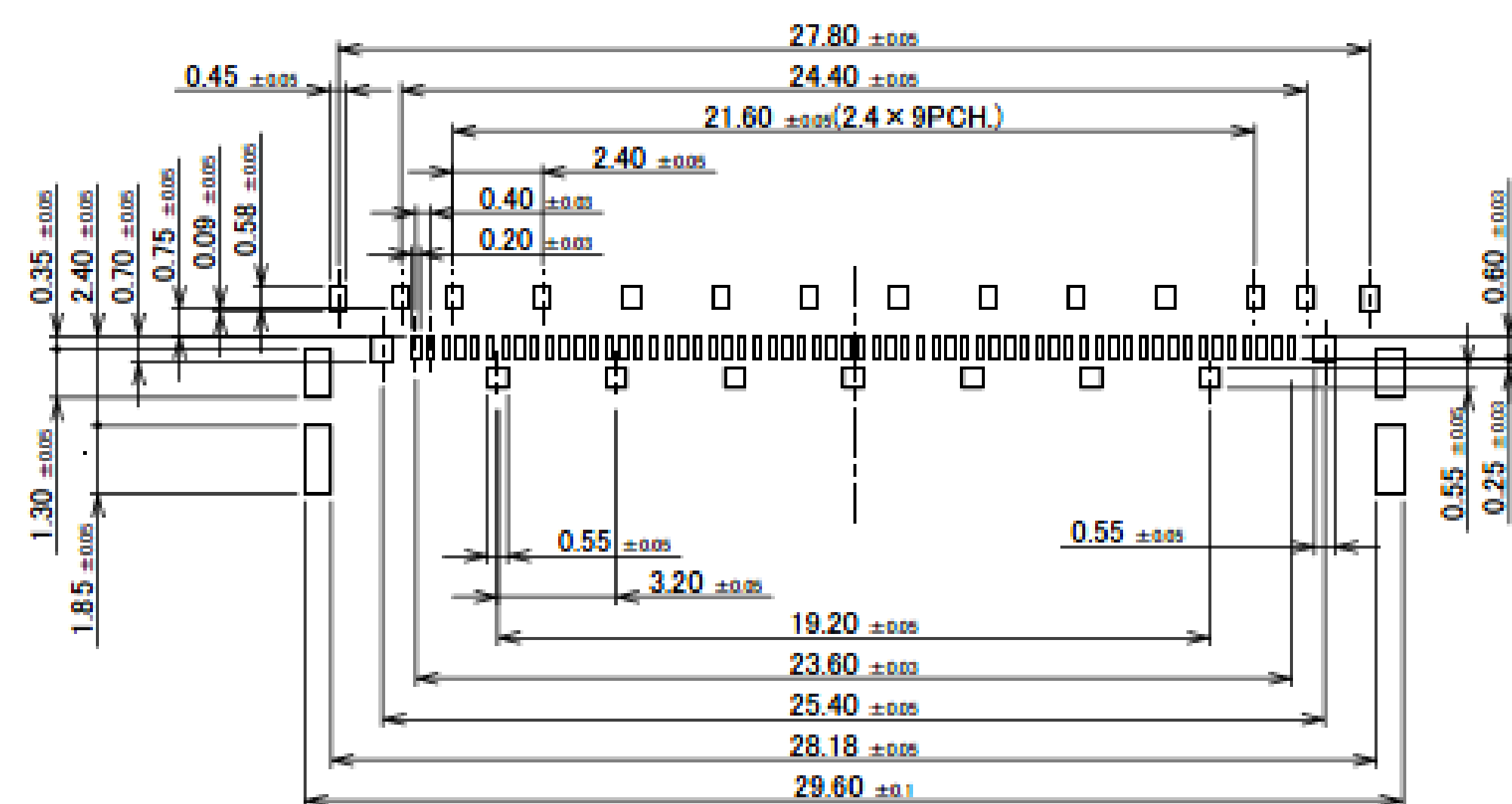


Rev.17

Receptacle Assembly

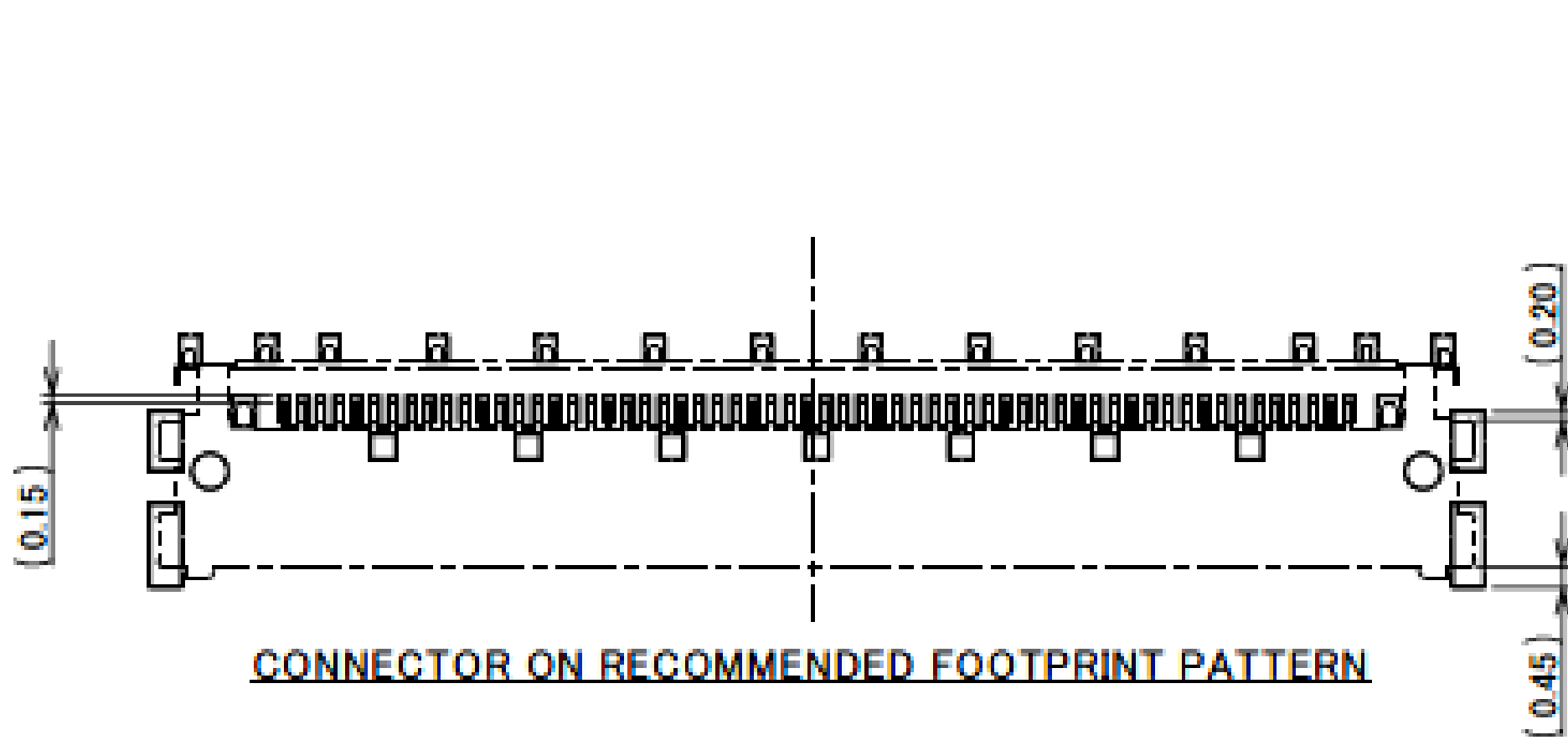


RECOMMENDED FOOTPRINT PATTERN LAYOUT

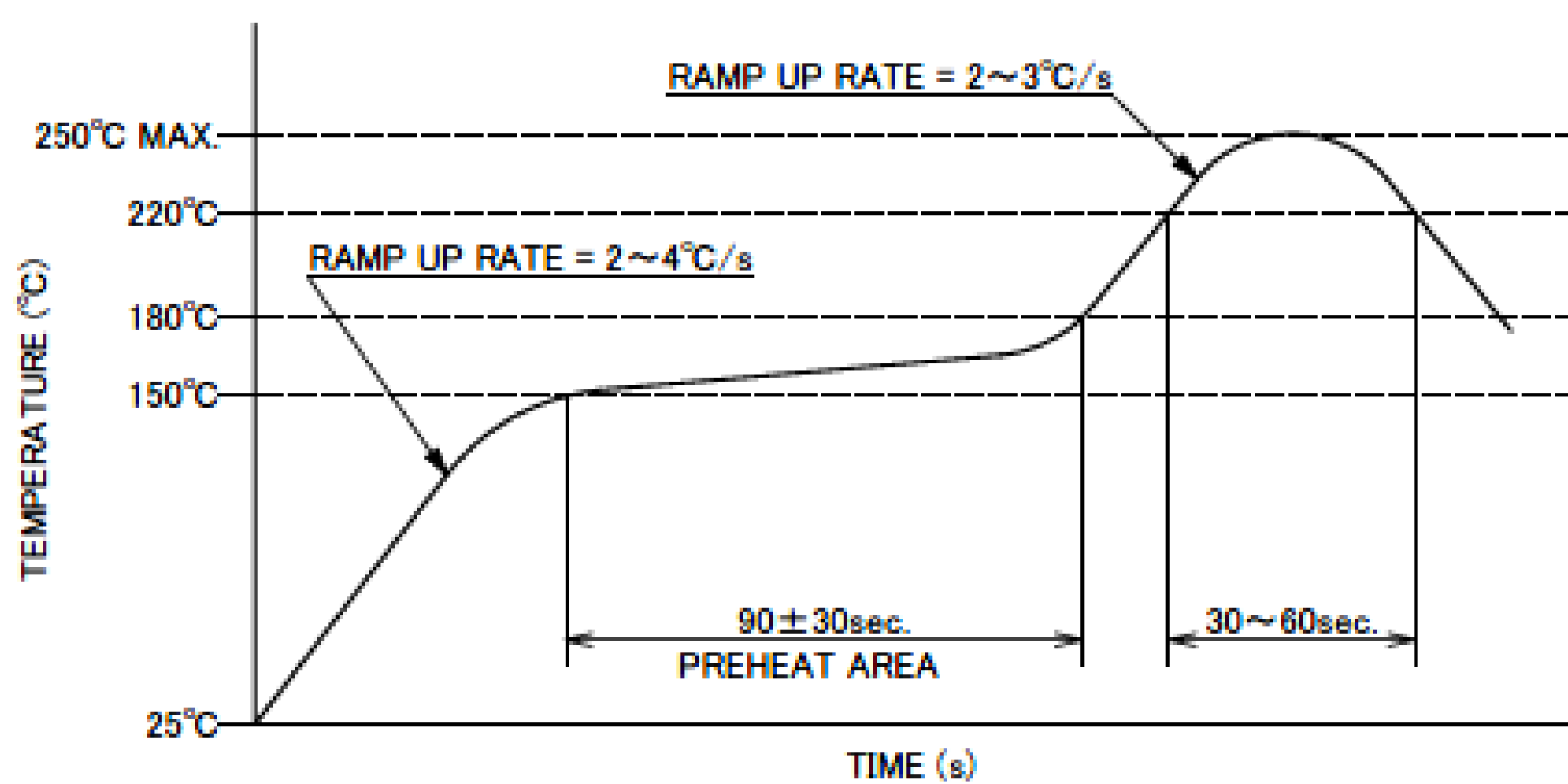


RECOMMENDED METAL MASK LAYOUT  
METAL MASK THICKNESS : t=0.12mm

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



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

# Receptacle Assembly

FOR CABLINE-CA IIF PLUS PLUG SHELL ASSEMBLY (DWG. NO. 20901)

ITEMS	SPECIFICATION
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN) ※TESTING BY REAL MACHINE IS RECOMMENDED BECAUSE TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~358K(−40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : ≦40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : ≦40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	27.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	2.88N MIN.
PRODUCT SPECIFICATION	PRS-2893
TEST REPORT	TR-24034
PACKING STANDARD	PST-24023
INSTRUCTION MANUAL	HIM-24010
ASSEMBLY MANUAL	ASM-24004
APPEARANCE CRITERIA No.	QLS-A***

Rev.17



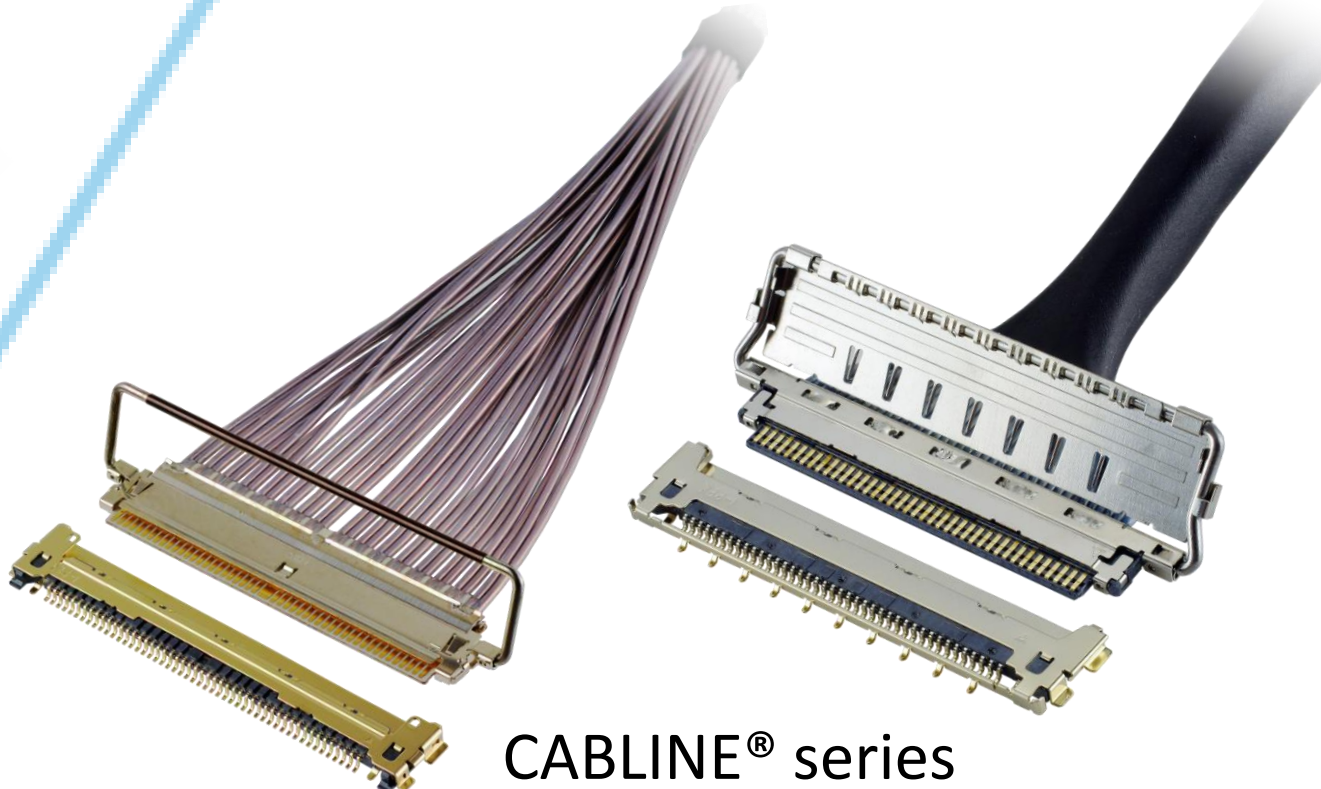
# Custom Connectors Available

 RF  
Connectors

MHF® series



CABLINE® series

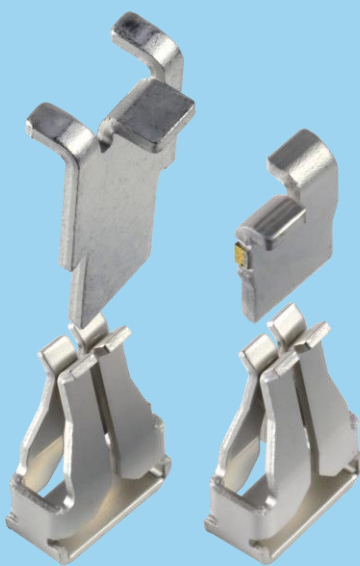


Micro-Coaxial/Twinax  
Connectors



Wire-to-Board  
Connectors/  
Terminals

AP series



ISH® series



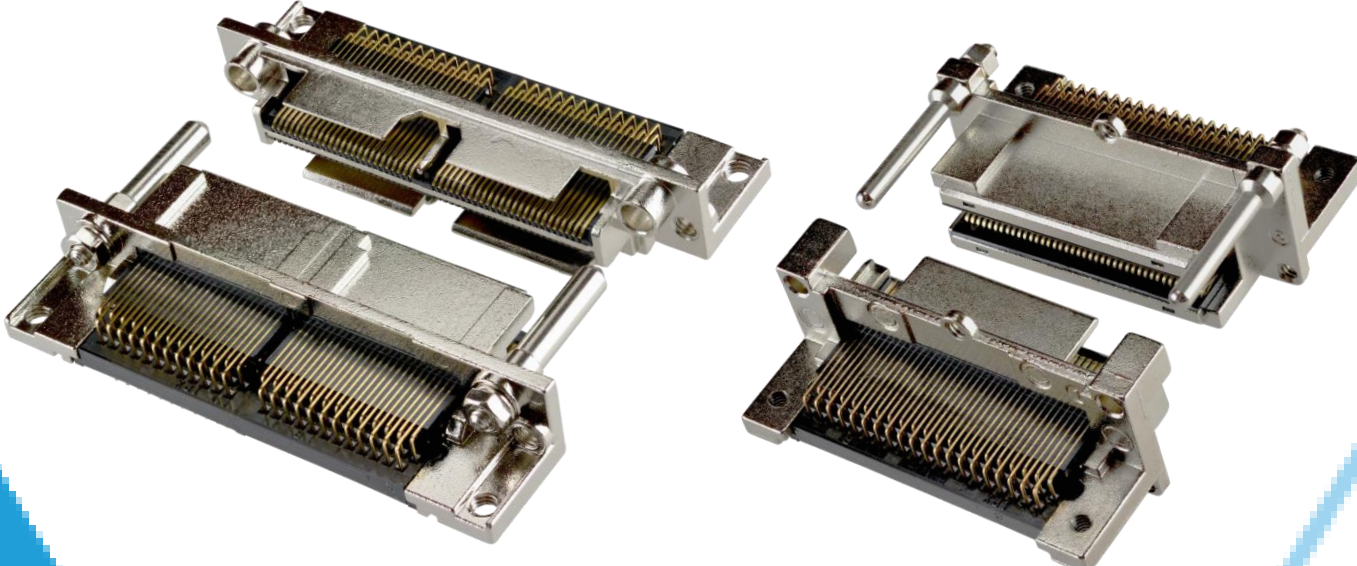
NOVASTACK® series



Board-to-Board  
Connectors



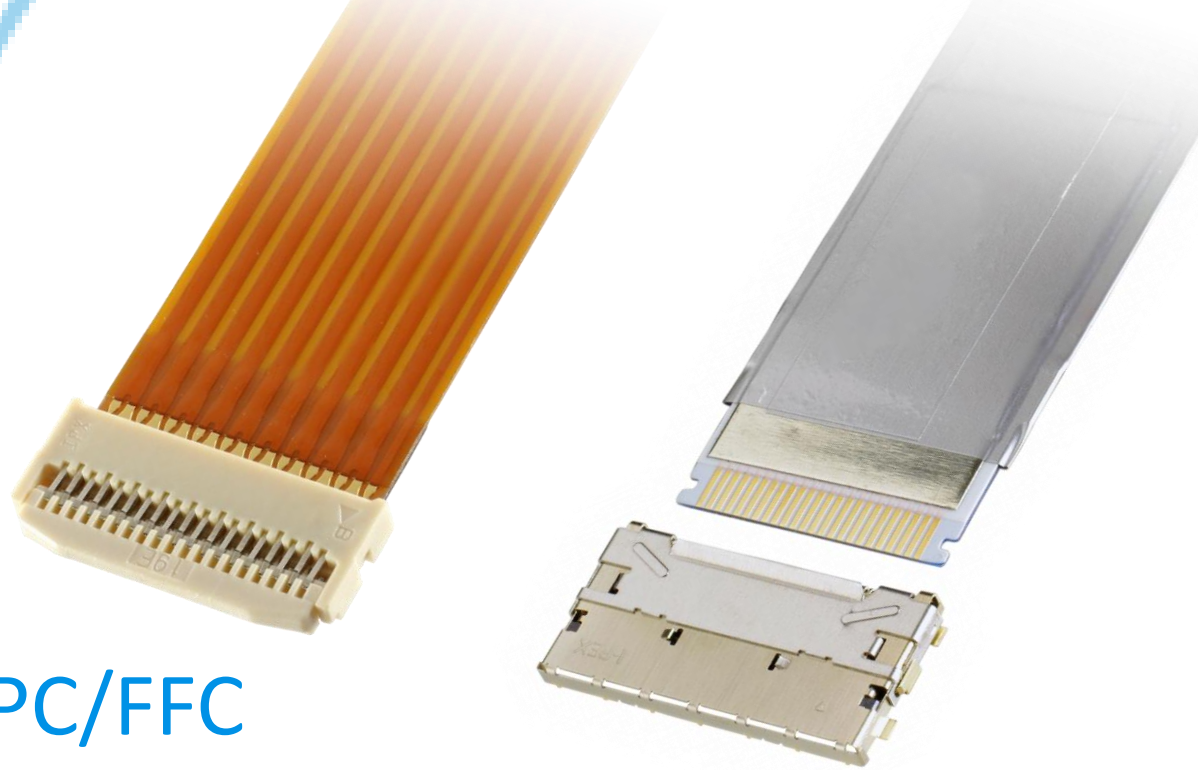
I/O  
Connectors



MINIDOCK™ series

MINIFLEX® series

EVAFLEX® series



FPC/FFC  
Connectors



Inquiry



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