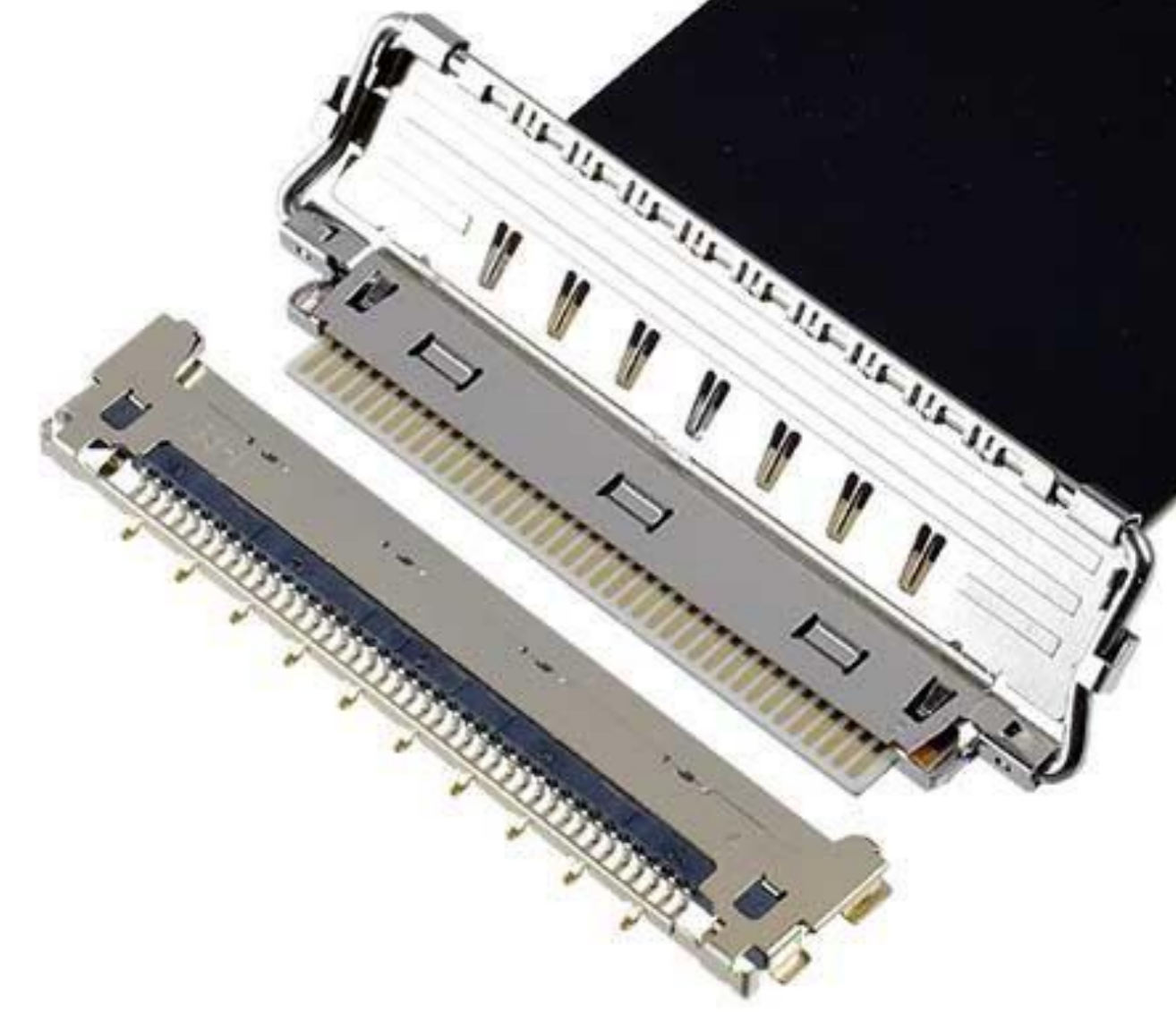


CABLINE®-CA IIF

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	0.4 mm	
Wiping Length	0.48 mm	
Mated Size	Height	1.10 mm max. with cover
	Width	6.95 + (0.4 x pin count) mm
	Depth	6.74 mm
Pin Counts	Range	Up to 60
	Available	30, 40, 50

Applicable FPC

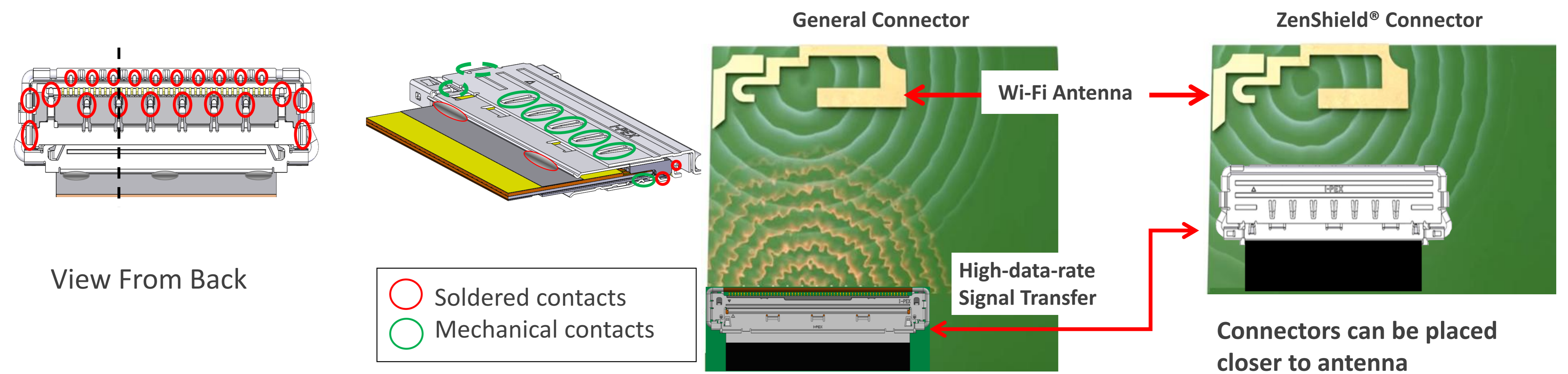
FPC Type	Shielded FPC
FPC Pitch	0.4 mm
FPC Contact Point	Top
FPC Thickness	Contact Area: 0.25 +0.02/-0.03 mm
	Ground Area: 0.37 +0.04/-0.06 mm

Applicable Standards (Reference Only):

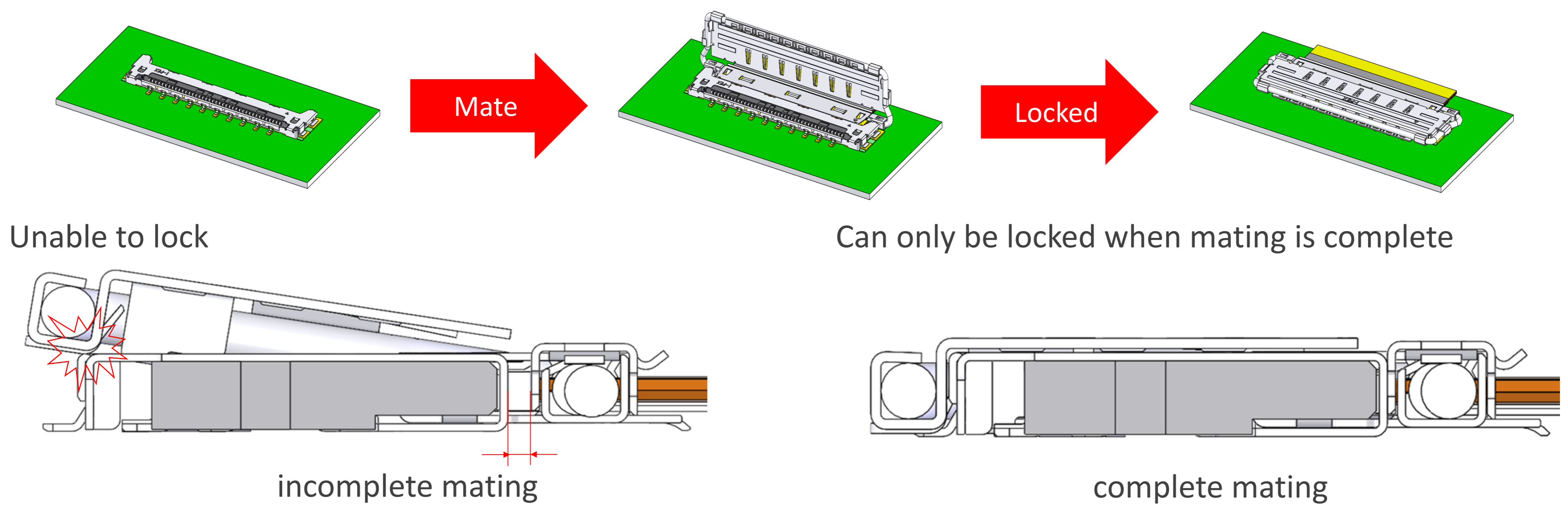
32 Gbps/ Lane, USB4 Gen4 (40 Gbps/ Lane PAM3)
Display Port UHBR20 (20 Gbps/Lane)

* 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**



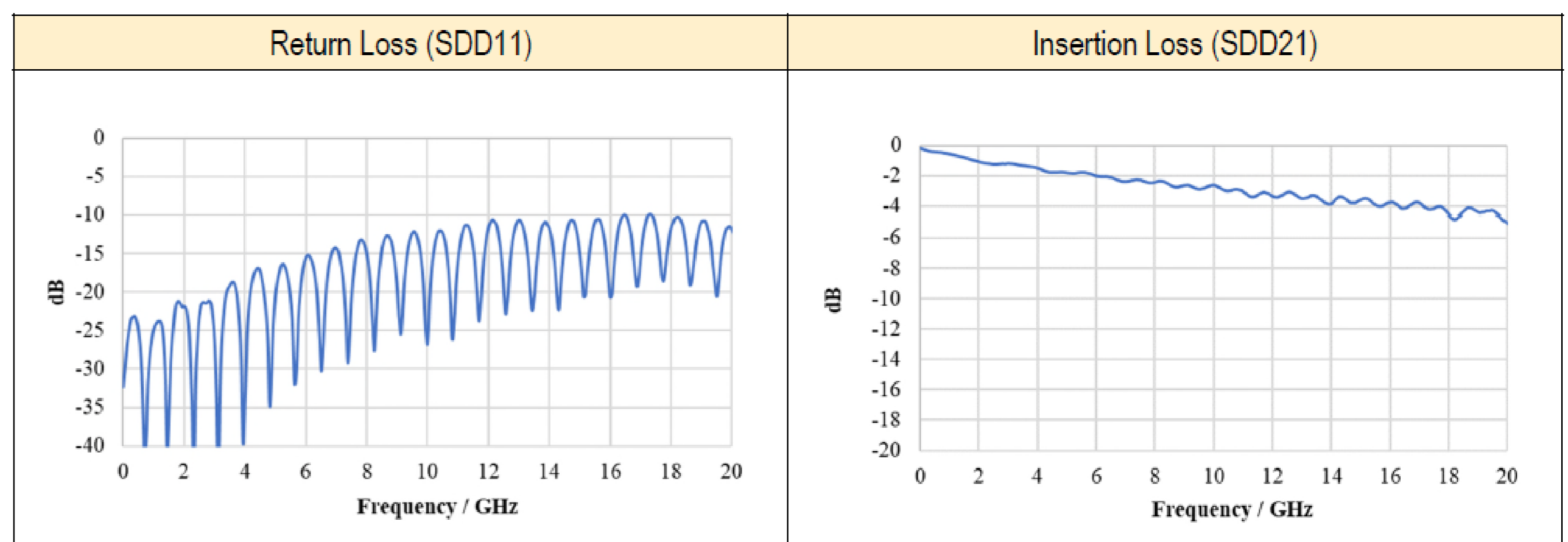
▶ **Mechanical locking cover prevents incomplete mating and back-out/unmating**



▶ **High-data-rate transfer, ideal for 32 Gbps/lane applications**

Measurement results

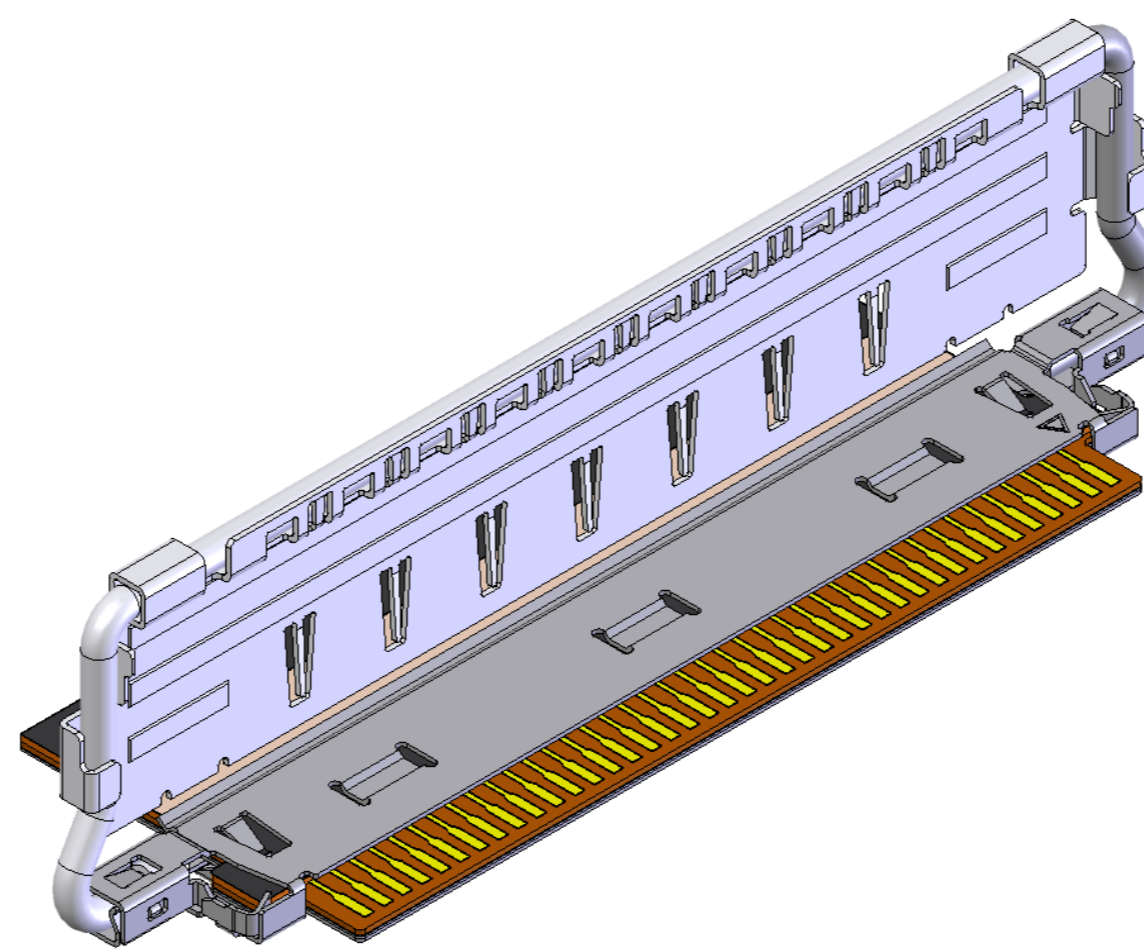
Connector: CABLINE-CA IIF 40 pin
FPC: Shielded FPC,
Differential 90 ohm, Length : 100 mm
Pin Assignment: GSSGSSG



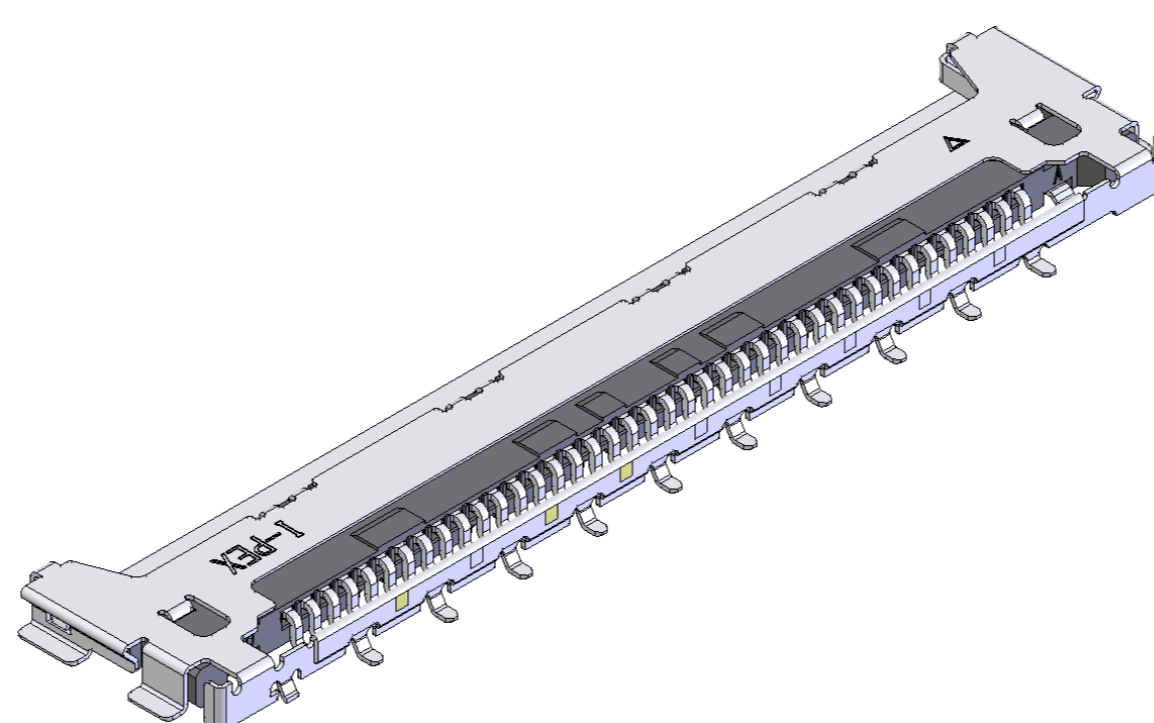
Component Parts Details

Component Parts

Connector parts



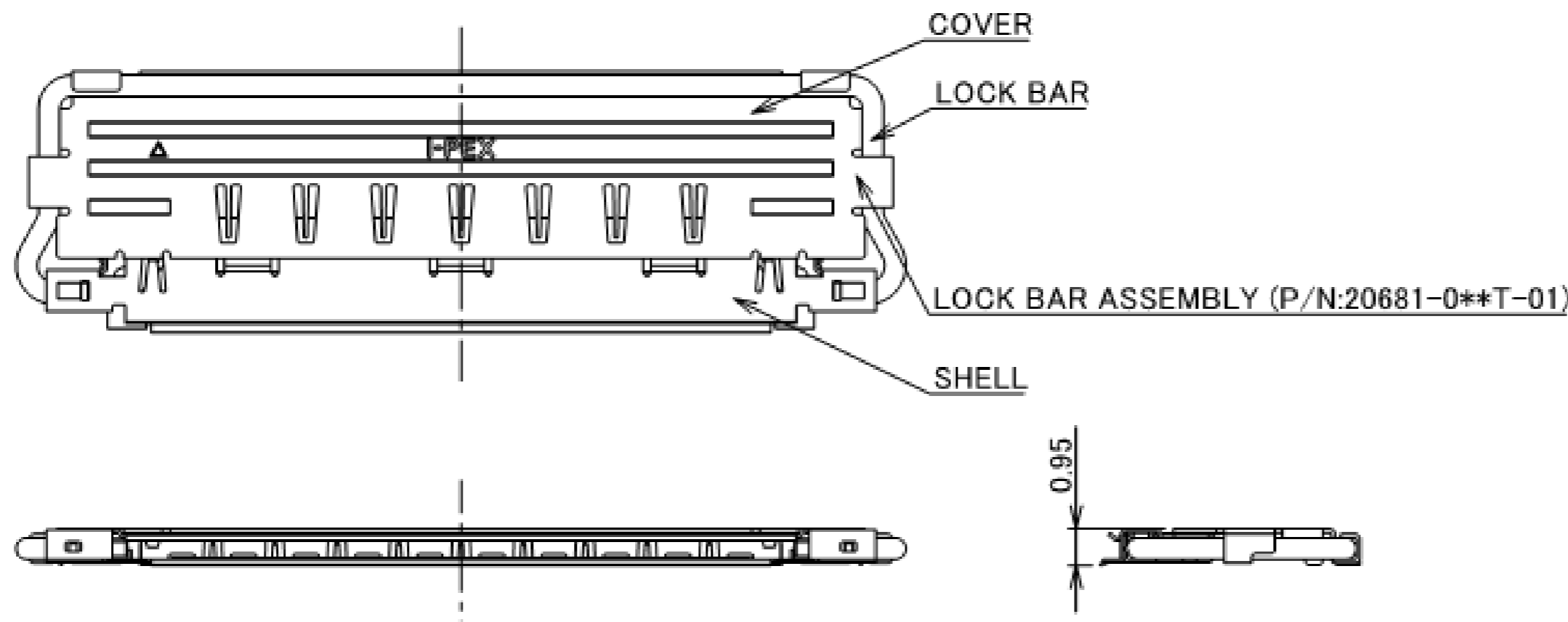
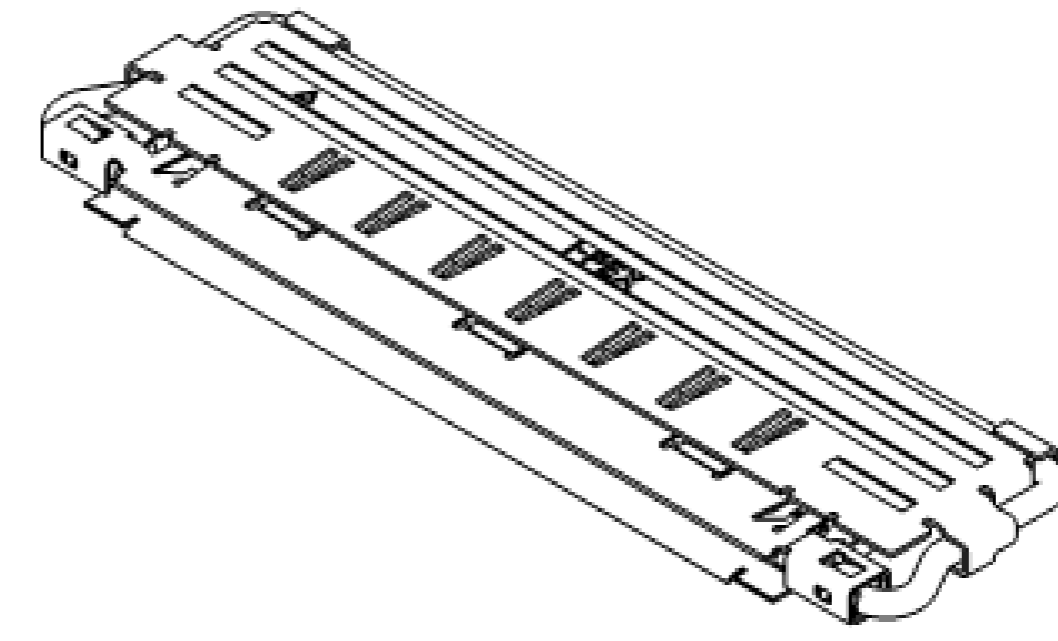
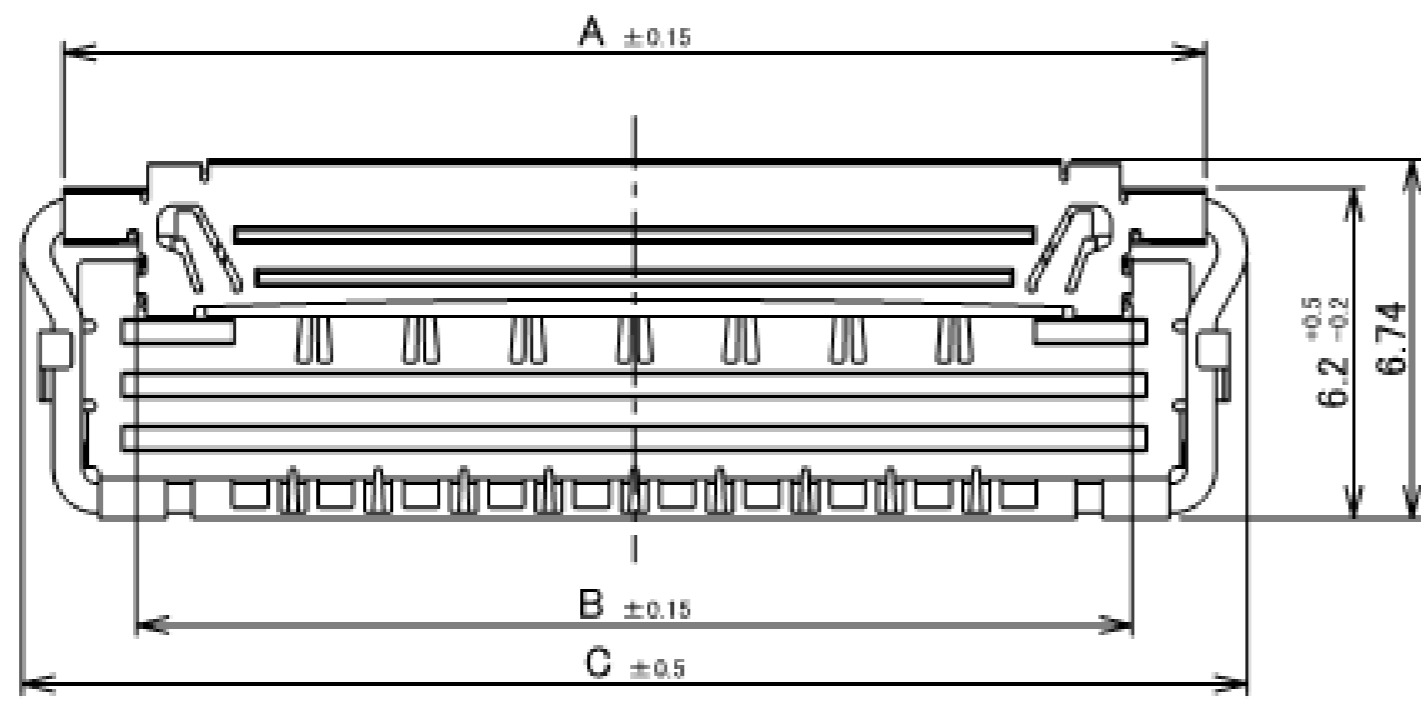
CABLINE-CA IIF PLUG with FPC



CABLINE-CA II RECEPTACLE

Shell Assembly

Recommended P/N		20856-0**T-01		
PART No.	A	B	C	
20856-030T-01	17.40	14.66	18.95	
20856-040T-01	21.40	18.66	22.95	
20856-050T-01	25.40	22.66	26.95	

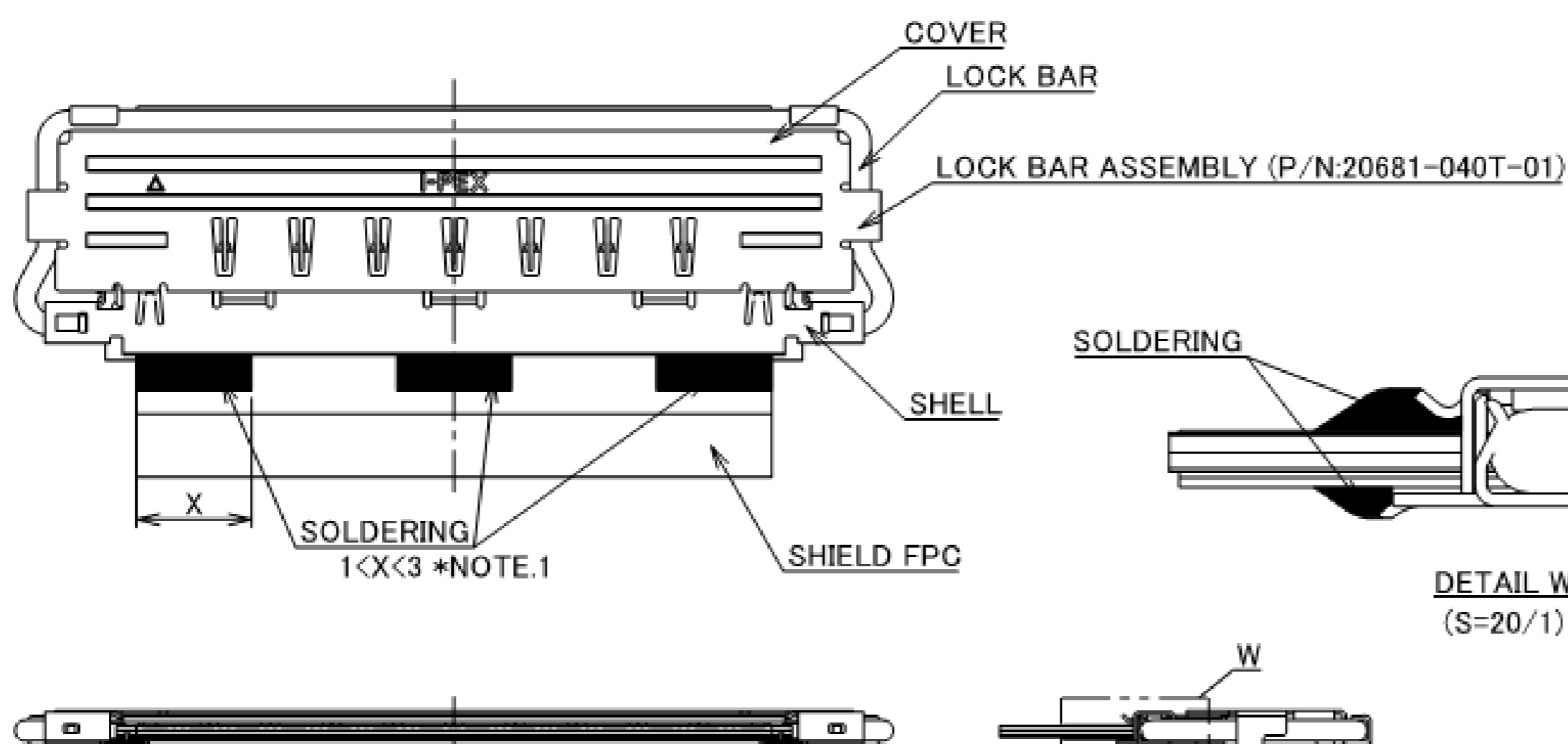
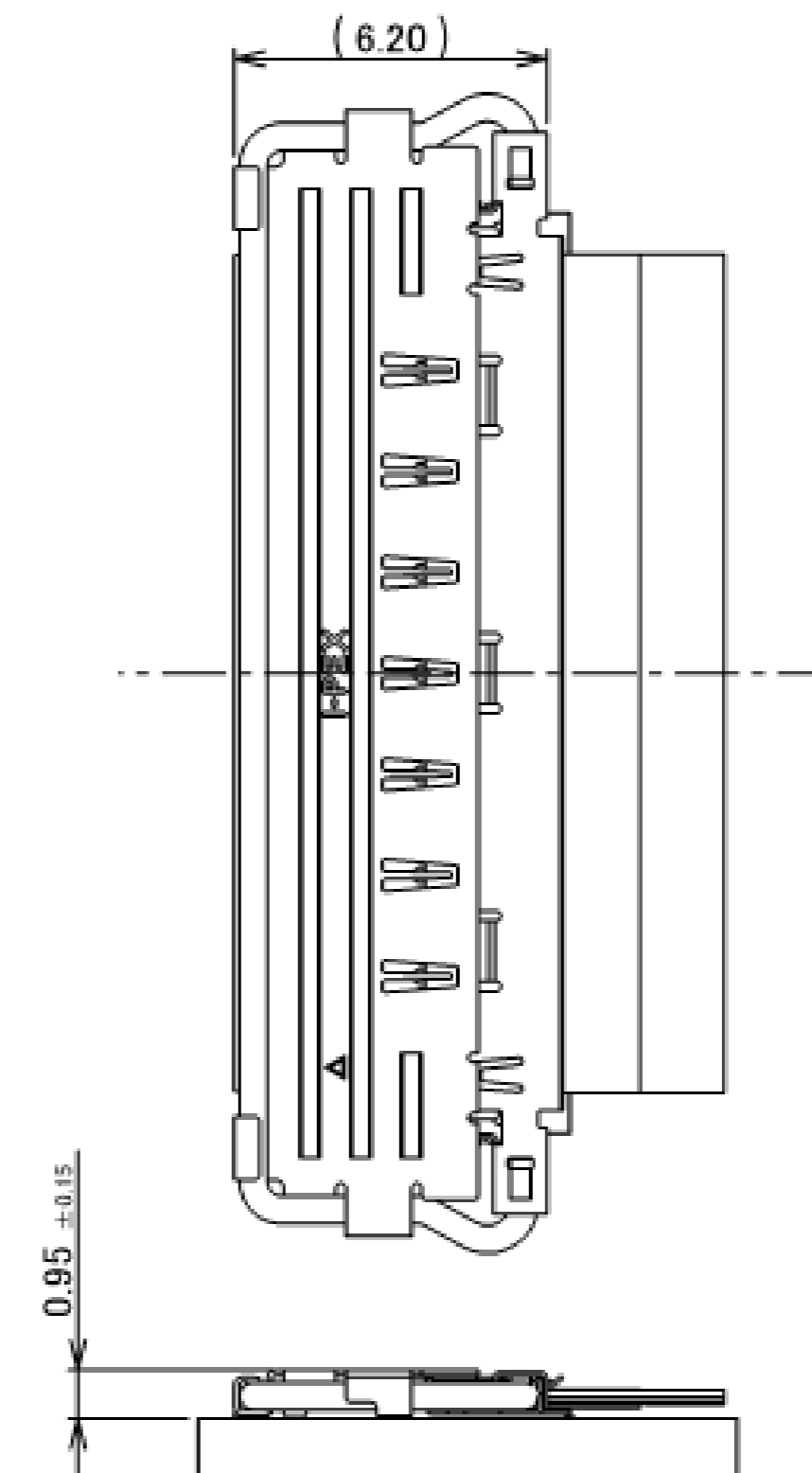
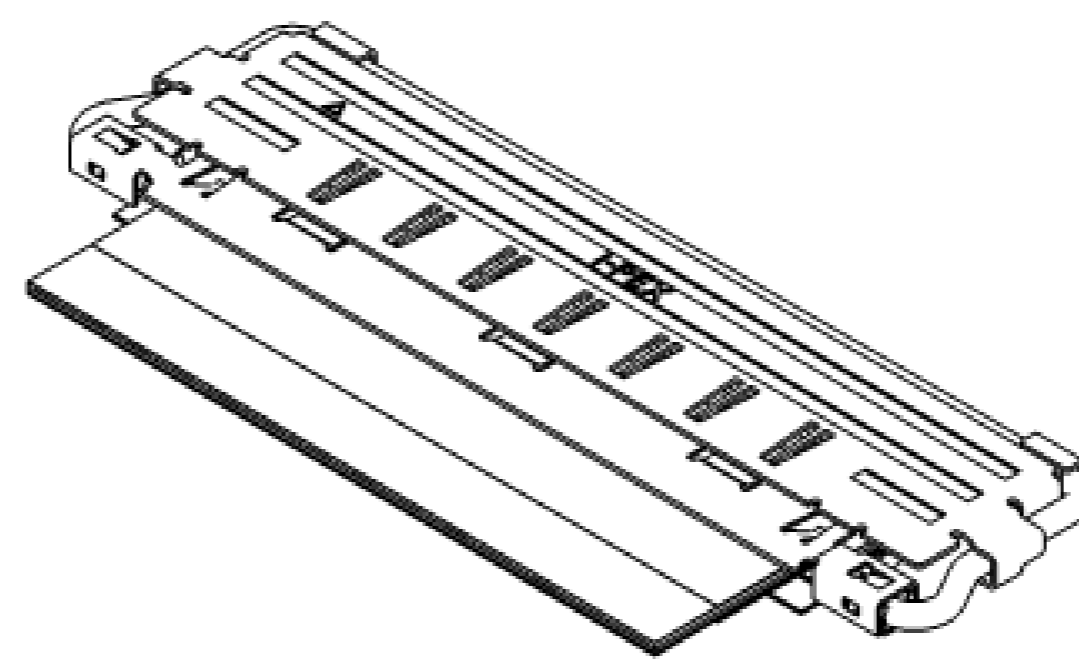
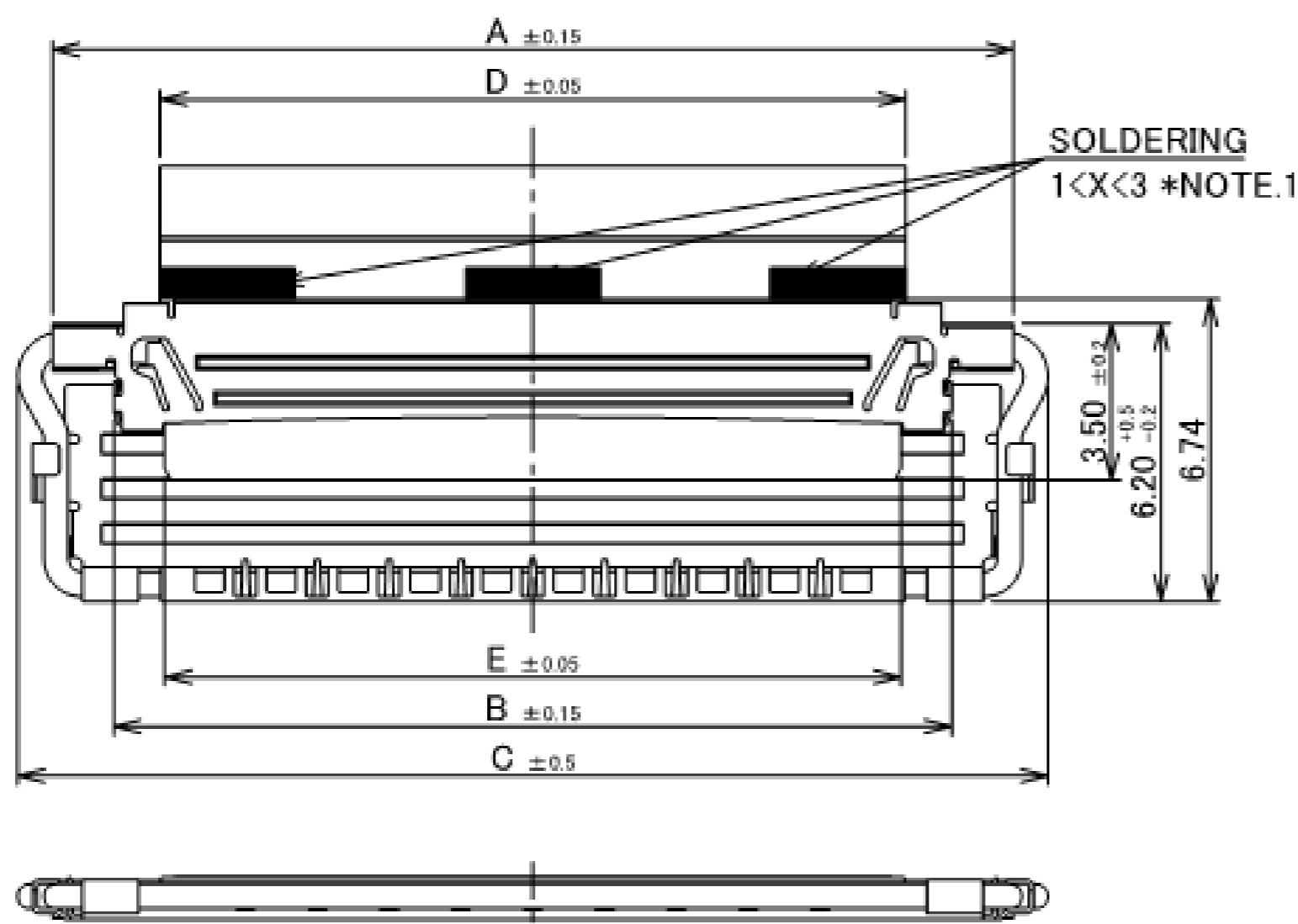


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	COVER	PHOSPHOR BRONZE	Ni PLATING
2	LOCK BAR	STAINLESS STEEL	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN.

Rev.14

Recommended P/N		20856-0**T-01				
PART No.	A	B	C	D	E	
20856-030T-01	17.40	14.66	18.95	12.60	12.40	
20856-040T-01	21.40	18.66	22.95	16.60	16.40	
20856-050T-01	25.40	22.66	26.95	20.60	20.40	

FPC ASSEMBLY STATE COVER CLOSE



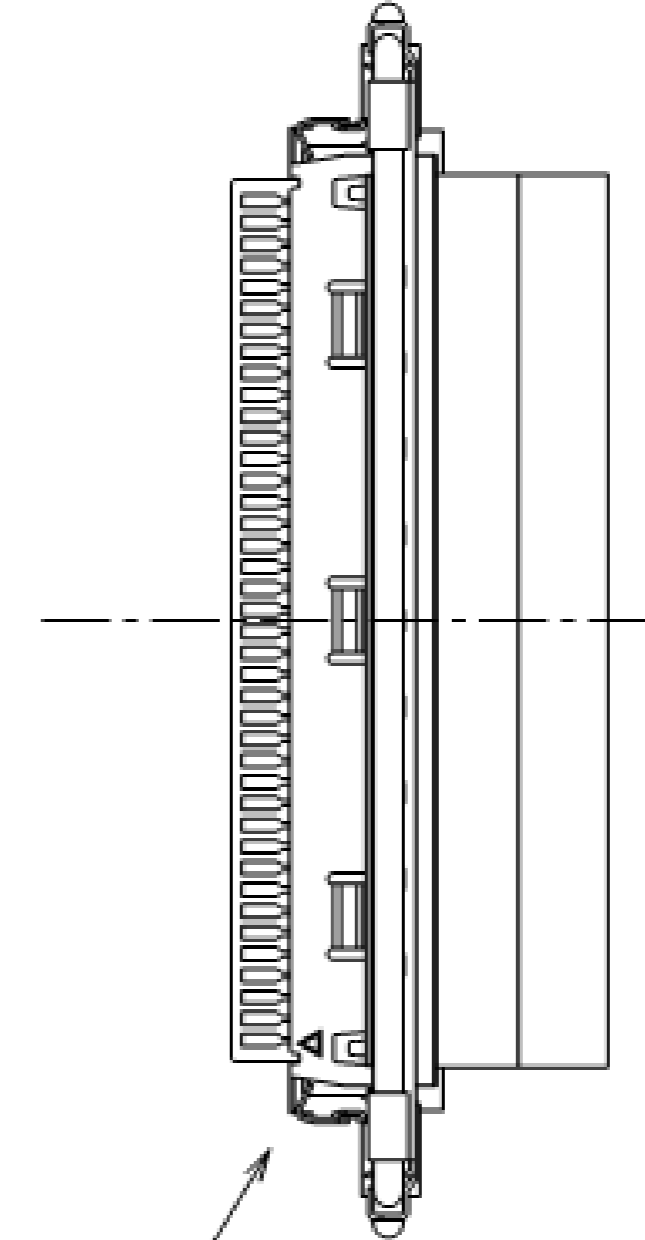
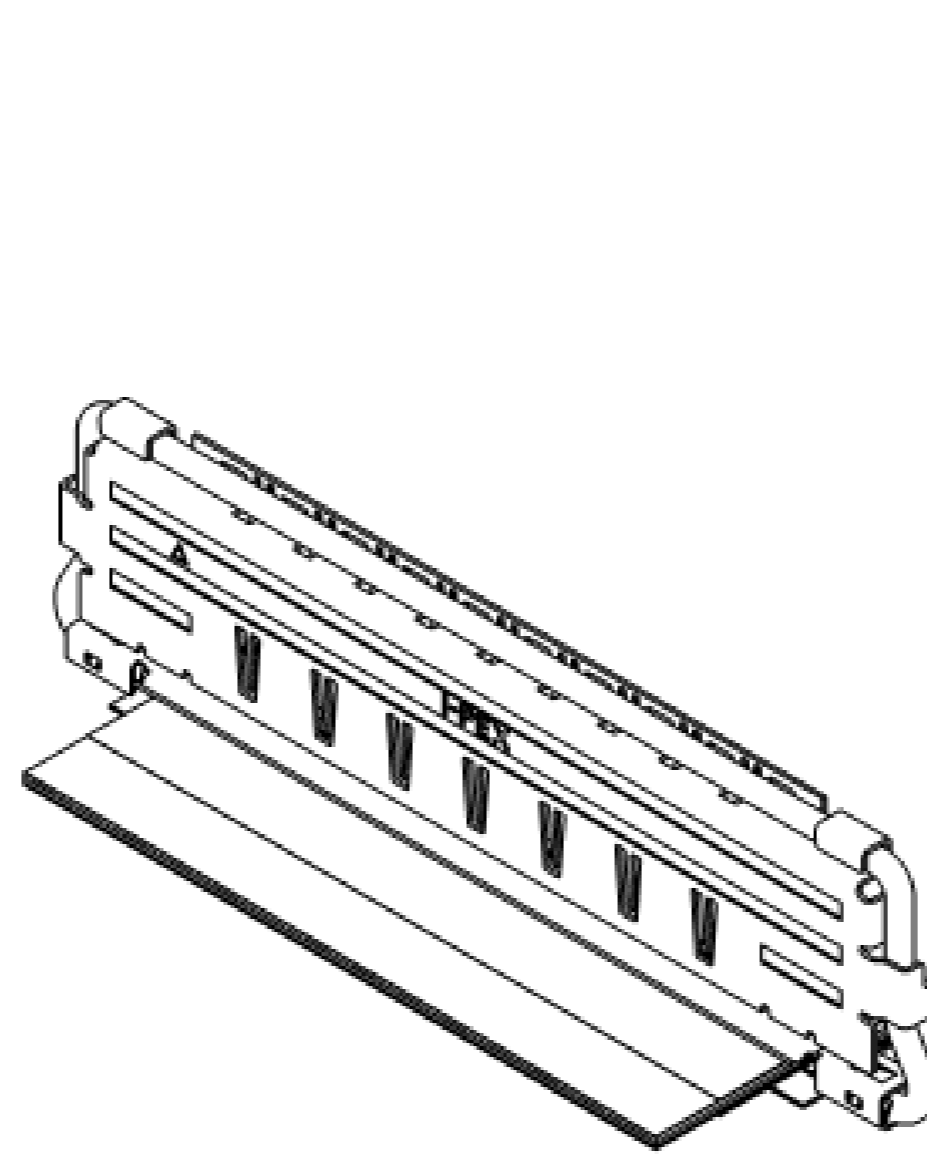
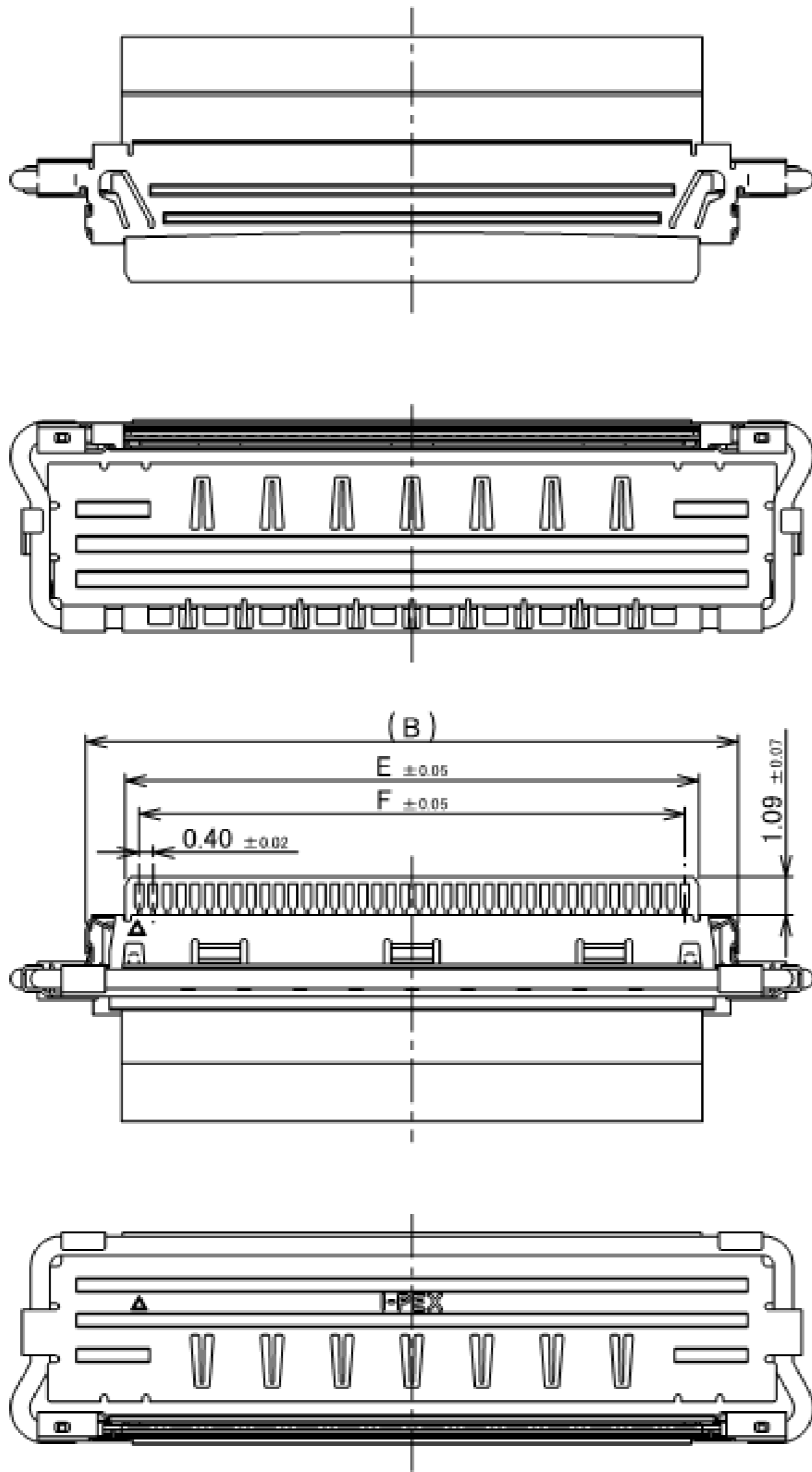
NOTES.
1.Soldering Area X is recommended dimension.
It does not mater if it might be exceed the recommended dimension.

Rev.14

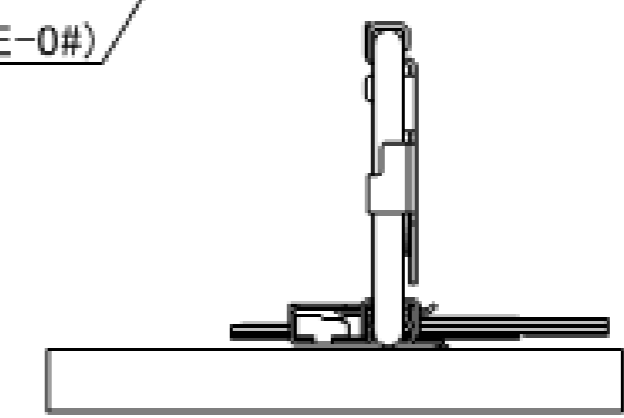
Shell Assembly

Recommended P/N		20856-0**T-01		
PART No.	B	E	F	
20856-030T-01	14.66	12.40	11.60	
20856-040T-01	18.66	16.40	15.60	
20856-050T-01	22.66	20.40	19.60	

FPC ASSEMBLY STATE COVER OPEN



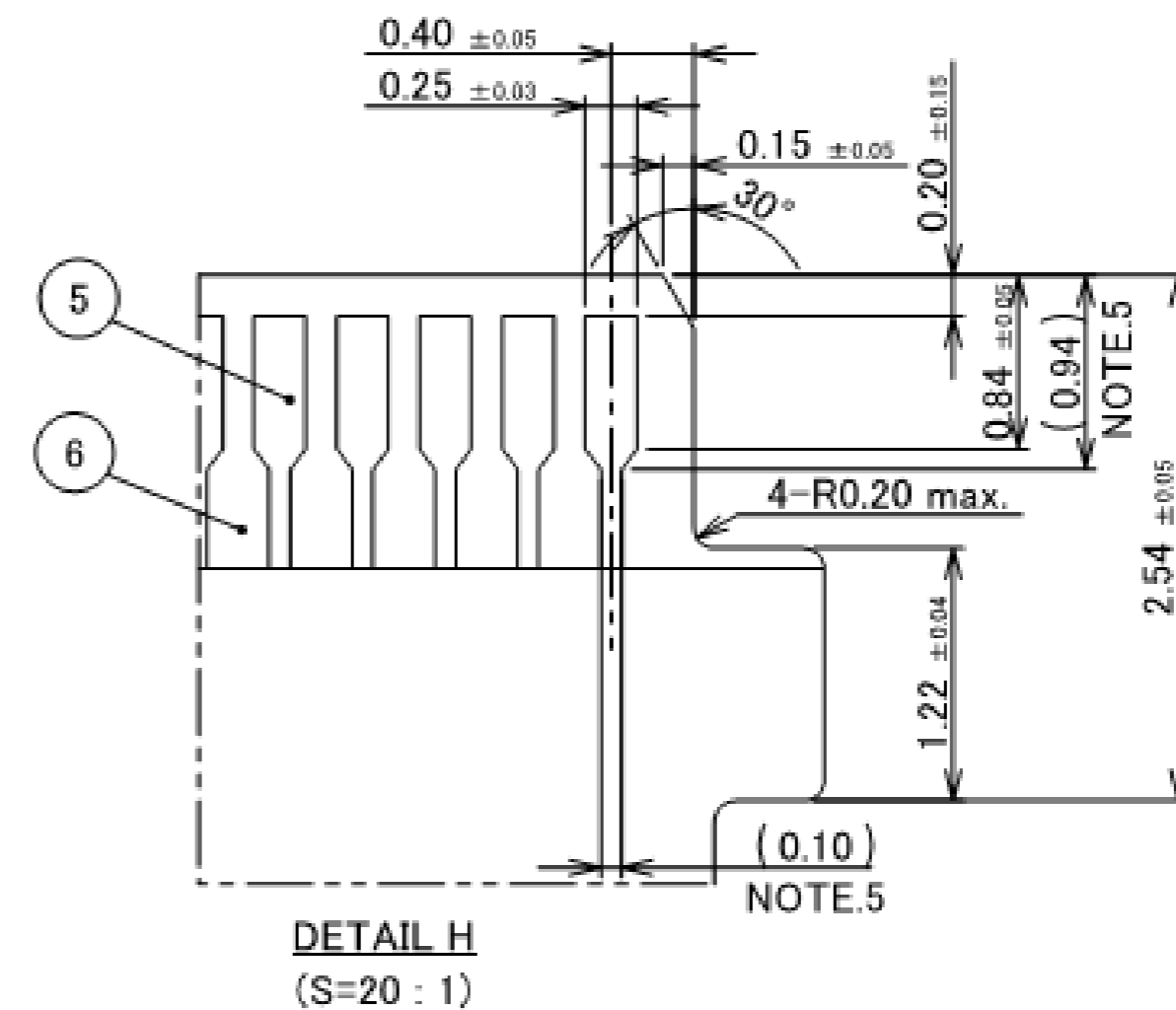
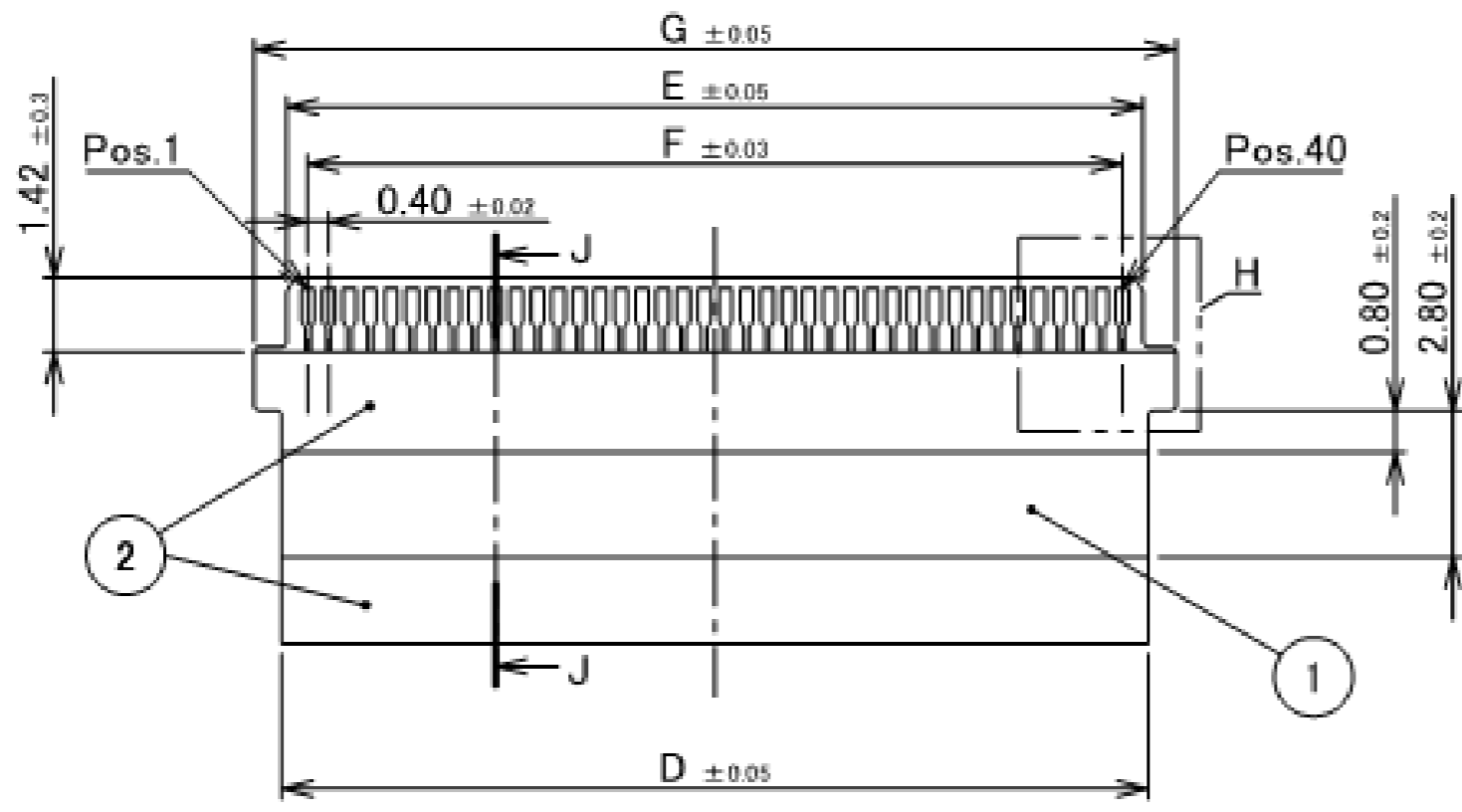
RECEPTACLE ASSEMBLY(P/N:20682-0**E-0#)



MATING CONDITION

Rev.14

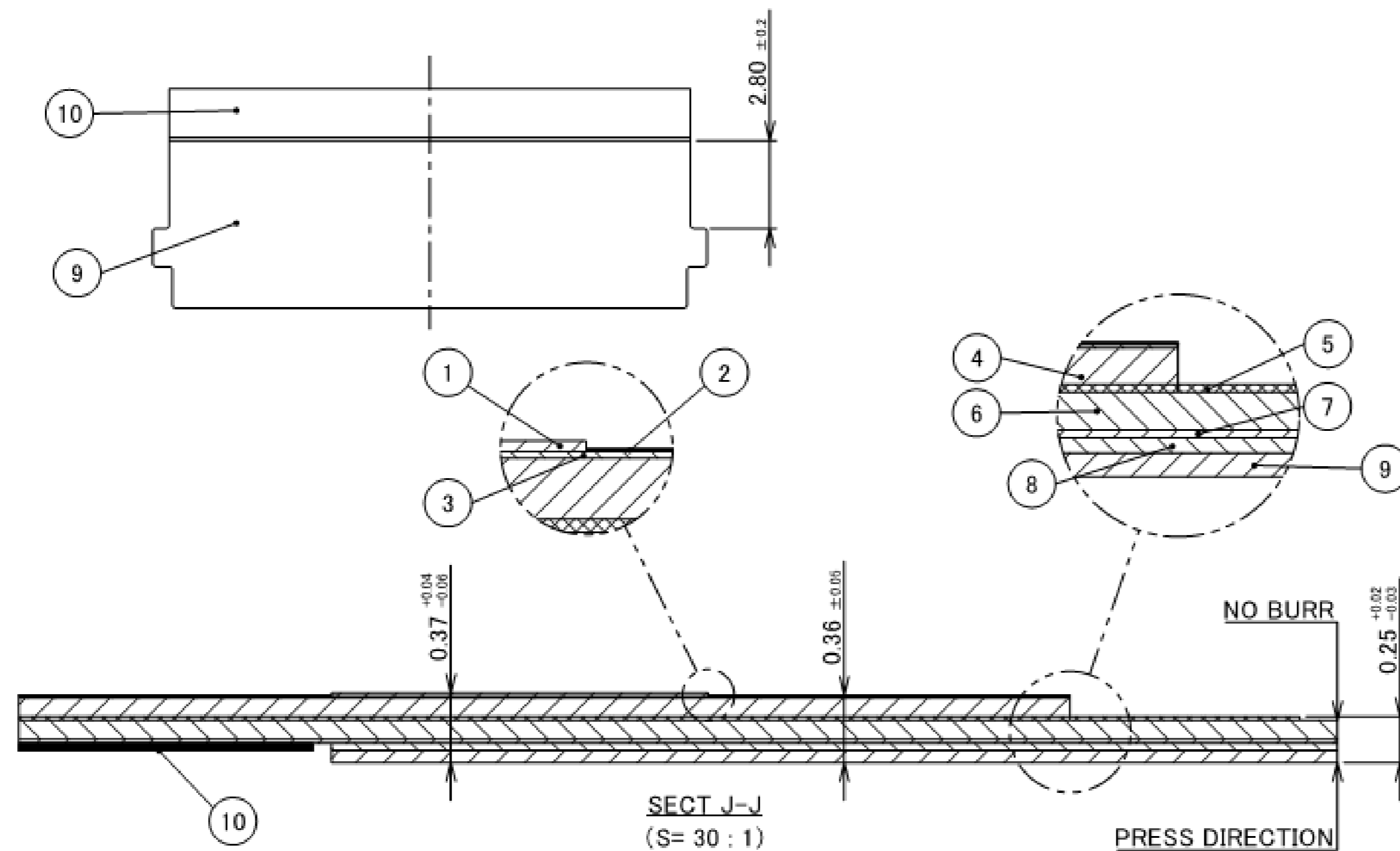
PART No.	D	E	F	G
20856-030T-01	12.60	12.40	11.60	13.66
20856-040T-01	16.60	16.40	15.60	17.66
20856-050T-01	20.60	20.40	19.60	21.66



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	-	-
No.	DESCRIPTION	MATERIAL	PLATING



Rev.14

Shell Assembly

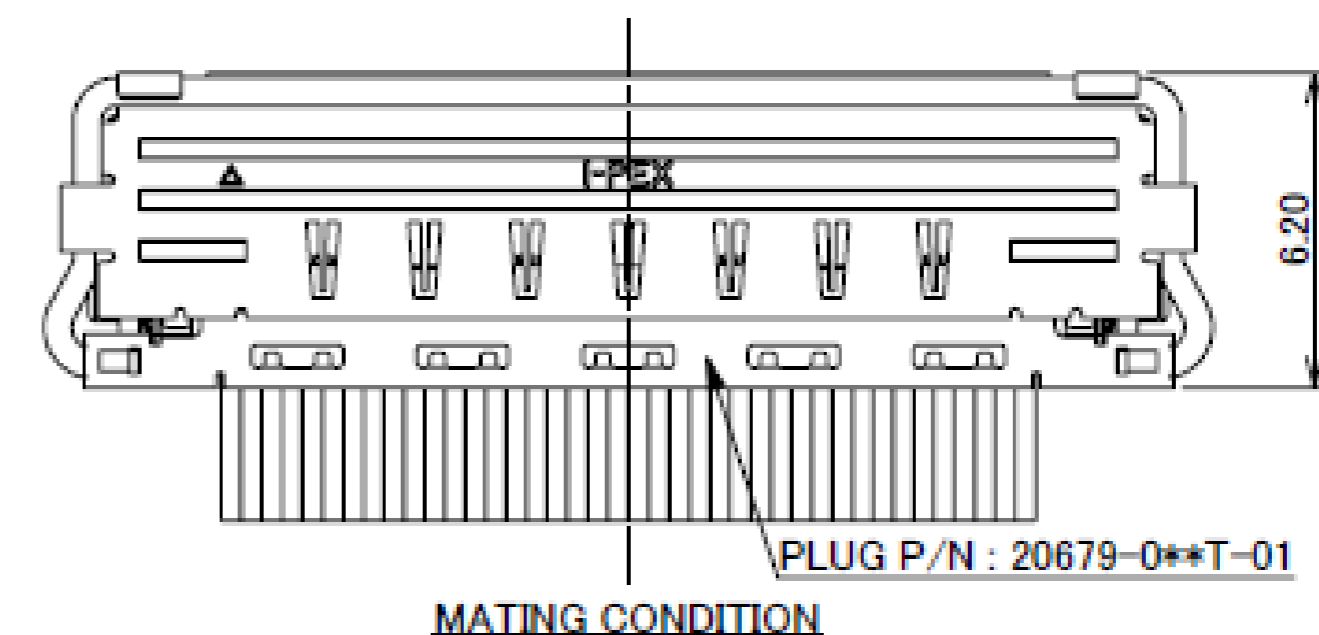
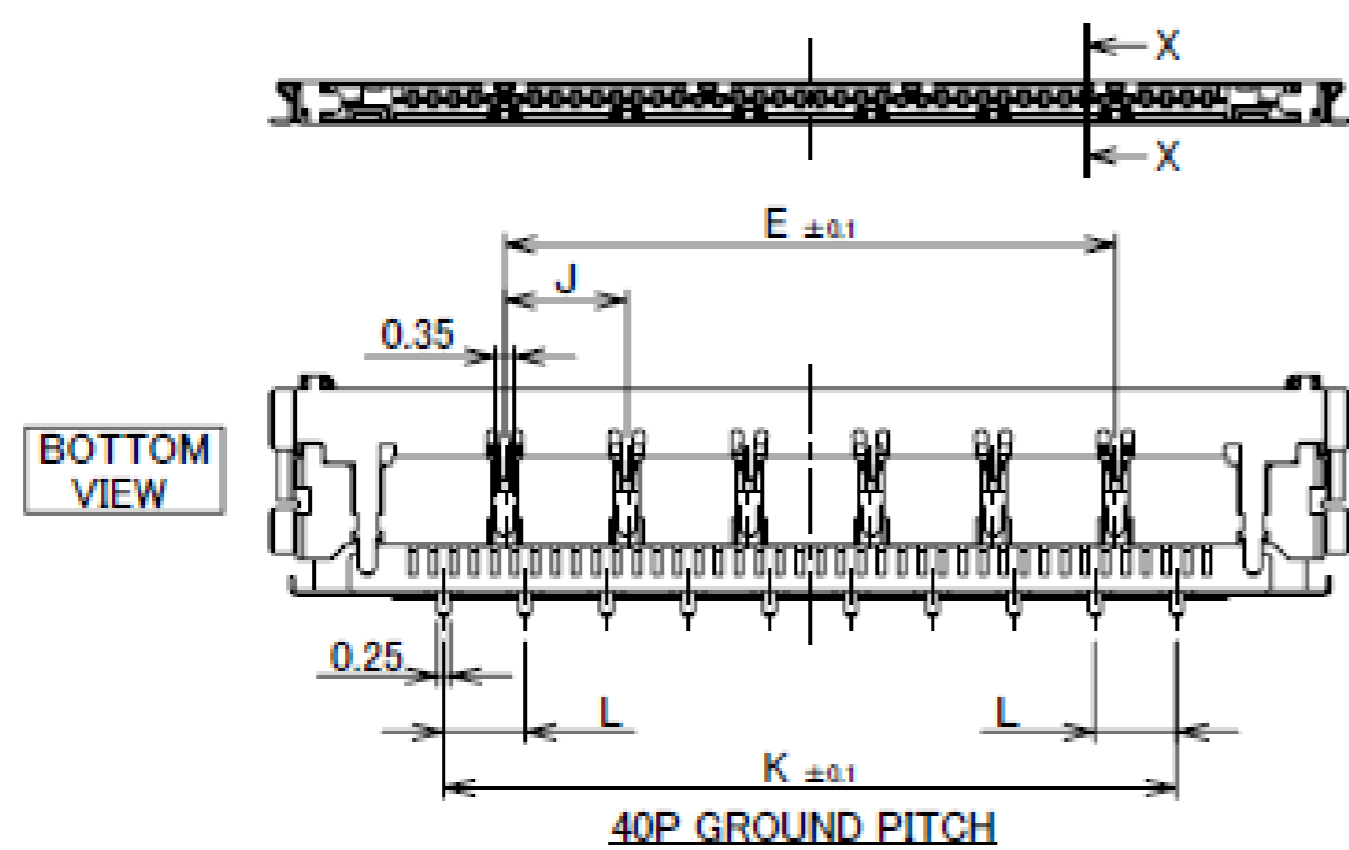
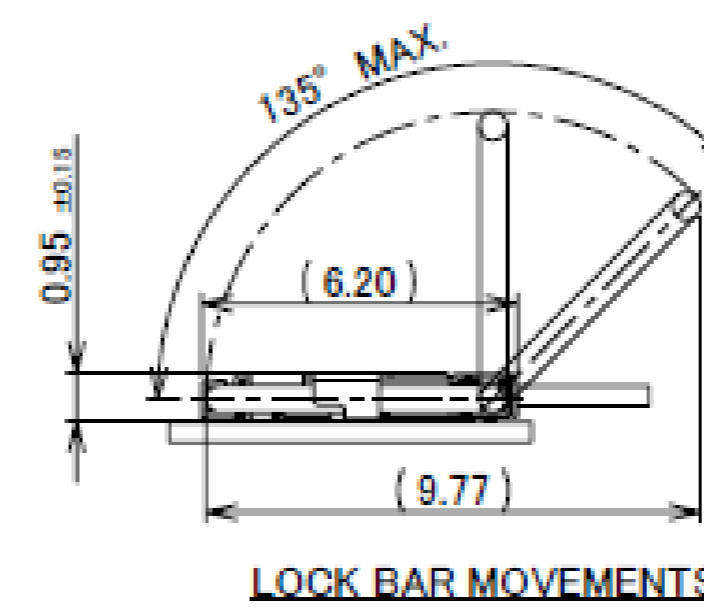
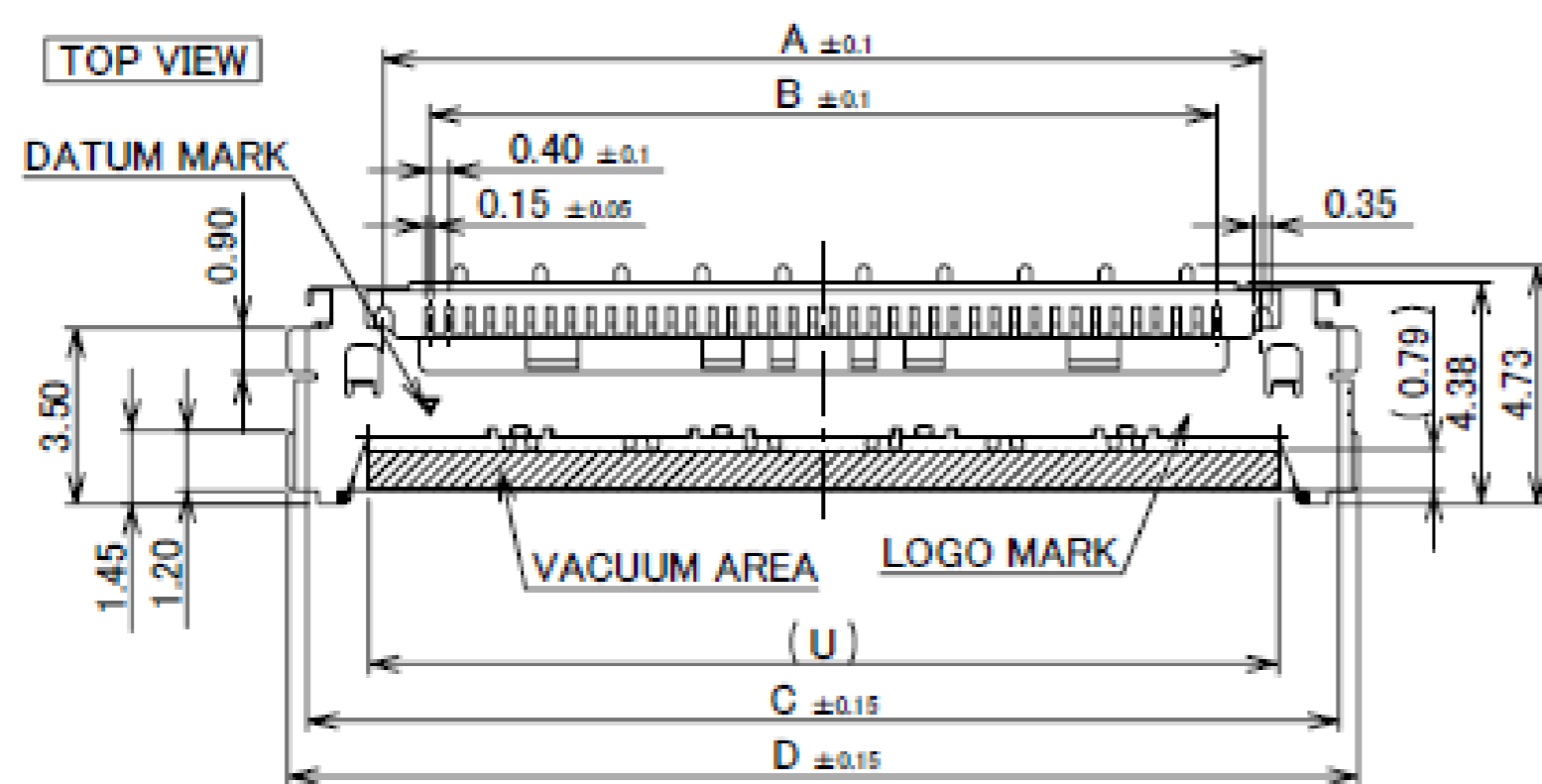
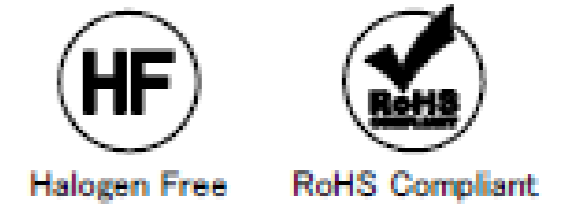
ITEMS	SPECIFICATION
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : \leq 40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \leq 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 : 13.5N MAX. 40P : 18.0N MAX. 50P : 22.5N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 1.44N MIN. 40P : 1.92N MIN. 50P : 2.40N MIN.
PRODUCT SPECIFICATION	PRS-2418
TEST REPORT	TR-17079
PACKING STANDARD	PST-17104
INSTRUCTION MANUAL	HIM-17029
ASSEMBLY MANUAL	ASM-17006
APPEARANCE CRITERIA No.	QLS-A***

Rev.14

Receptacle Assembly

Recommended P/N		20682-0**E-02									
PART NO.	Pos.	A	B	C	D	E	J	K	L	U	
20682-020E-02	20	9.40	7.60	12.43	13.20	4.80	2.40	5.60	2.00	10.01	
20682-030E-02	30	13.40	11.60	16.43	17.20	9.60	2.40	12.00	1.60	14.01	
20682-040E-02	40	17.40	15.60	20.43	21.20	12.00	2.40	14.40	1.60	18.01	
20682-050E-02	50	21.40	19.60	24.43	25.20	16.80	2.80	18.40	1.60	22.01	

P/N : 20682-0**E-02
Pos.

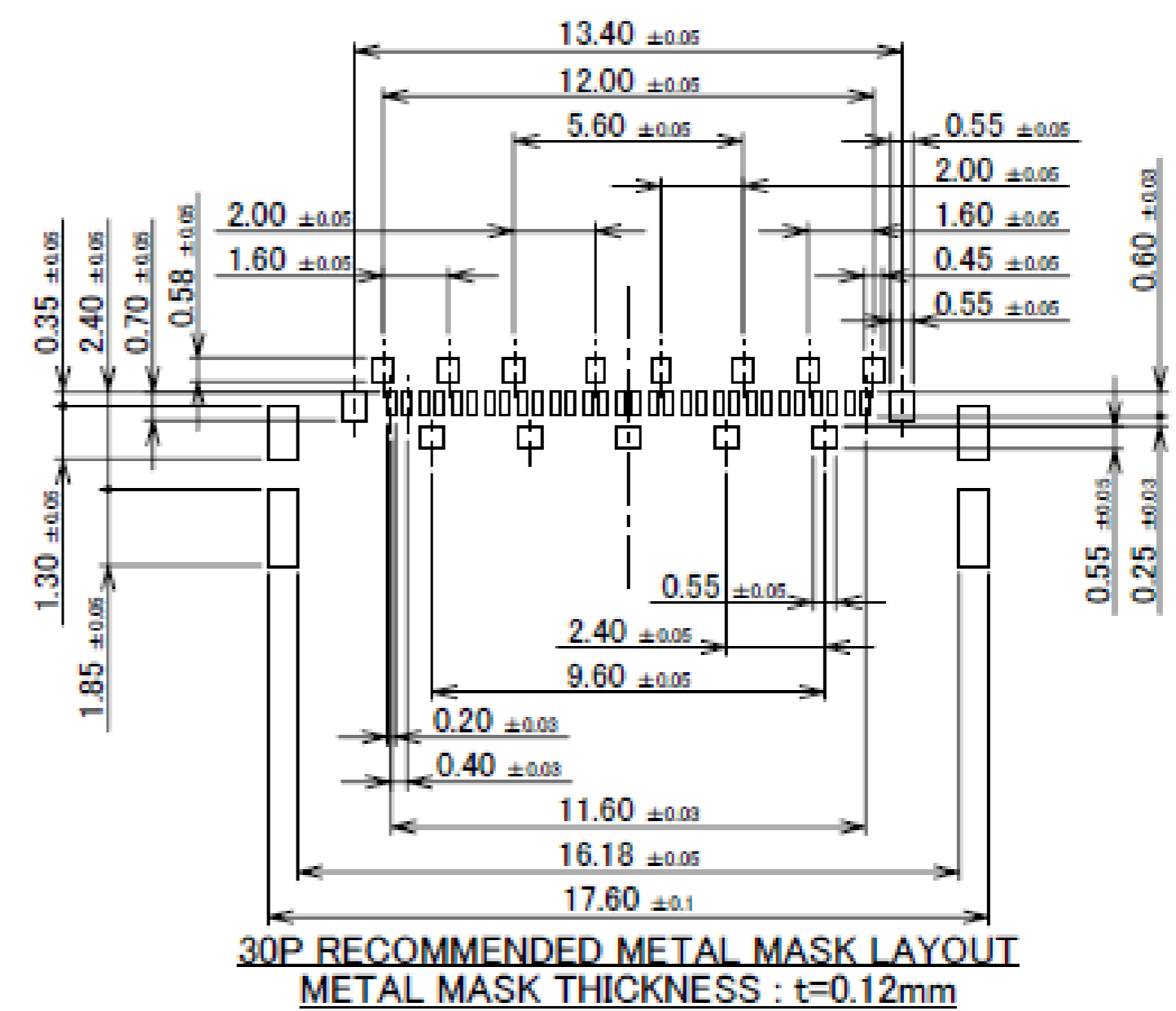
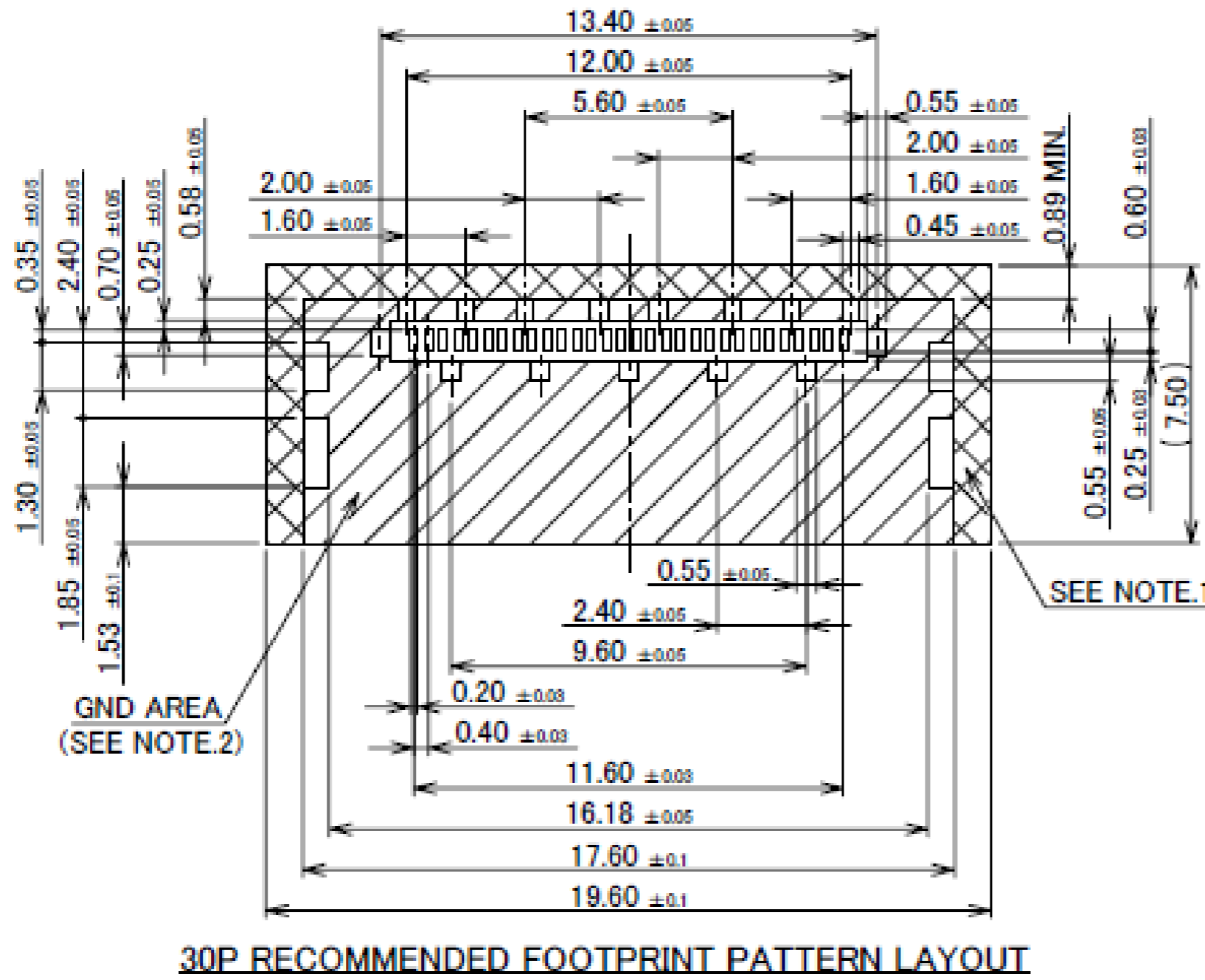
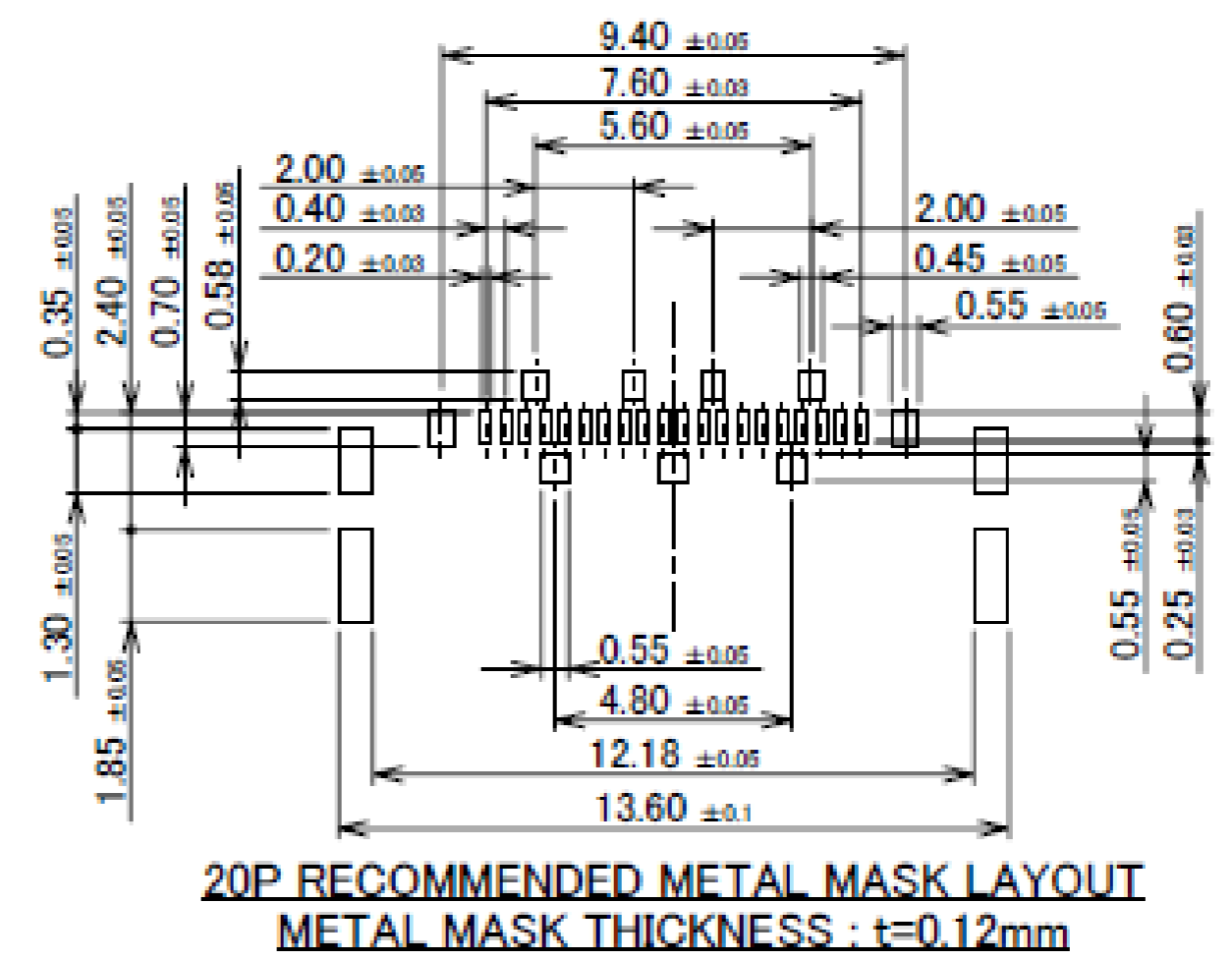
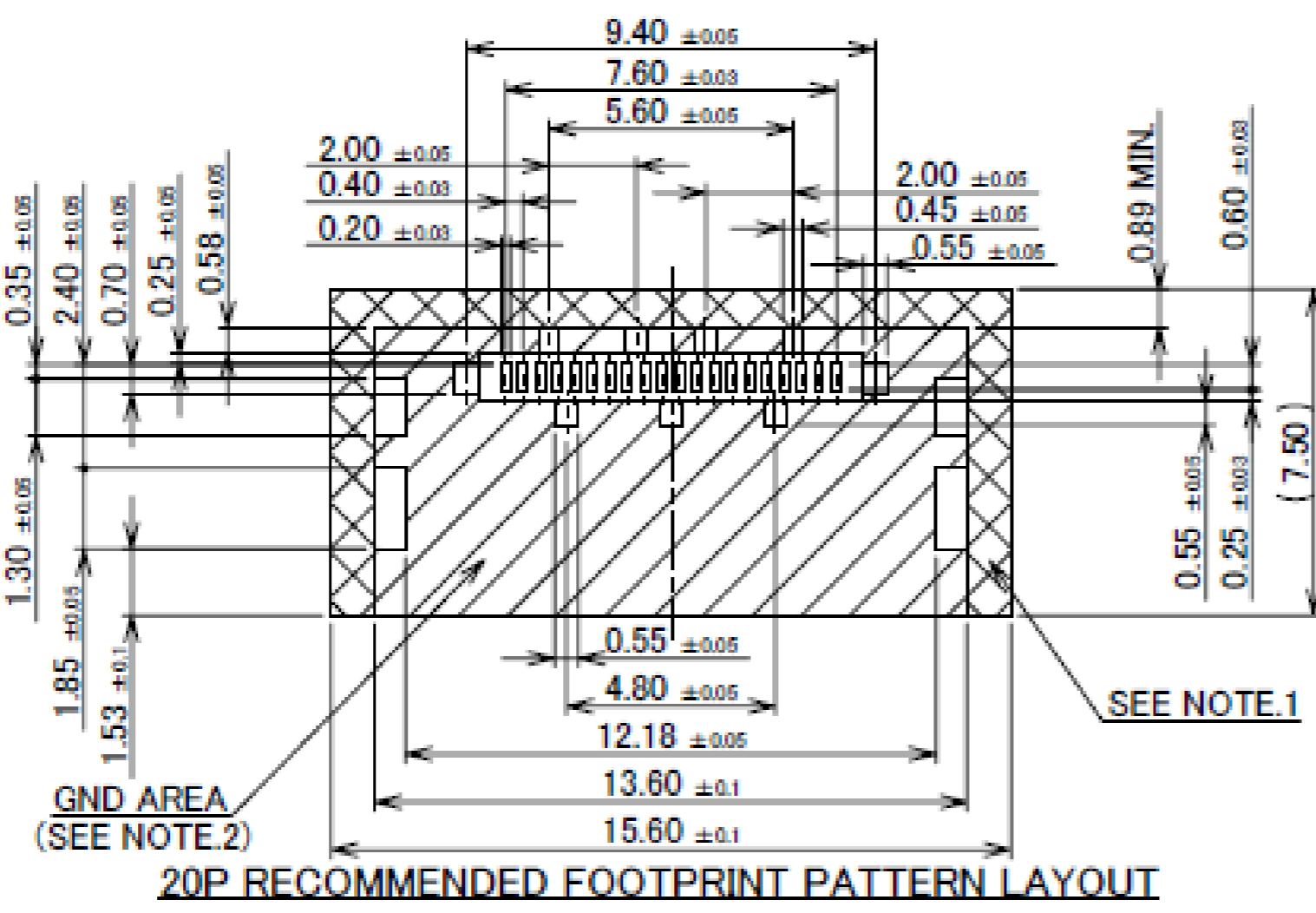
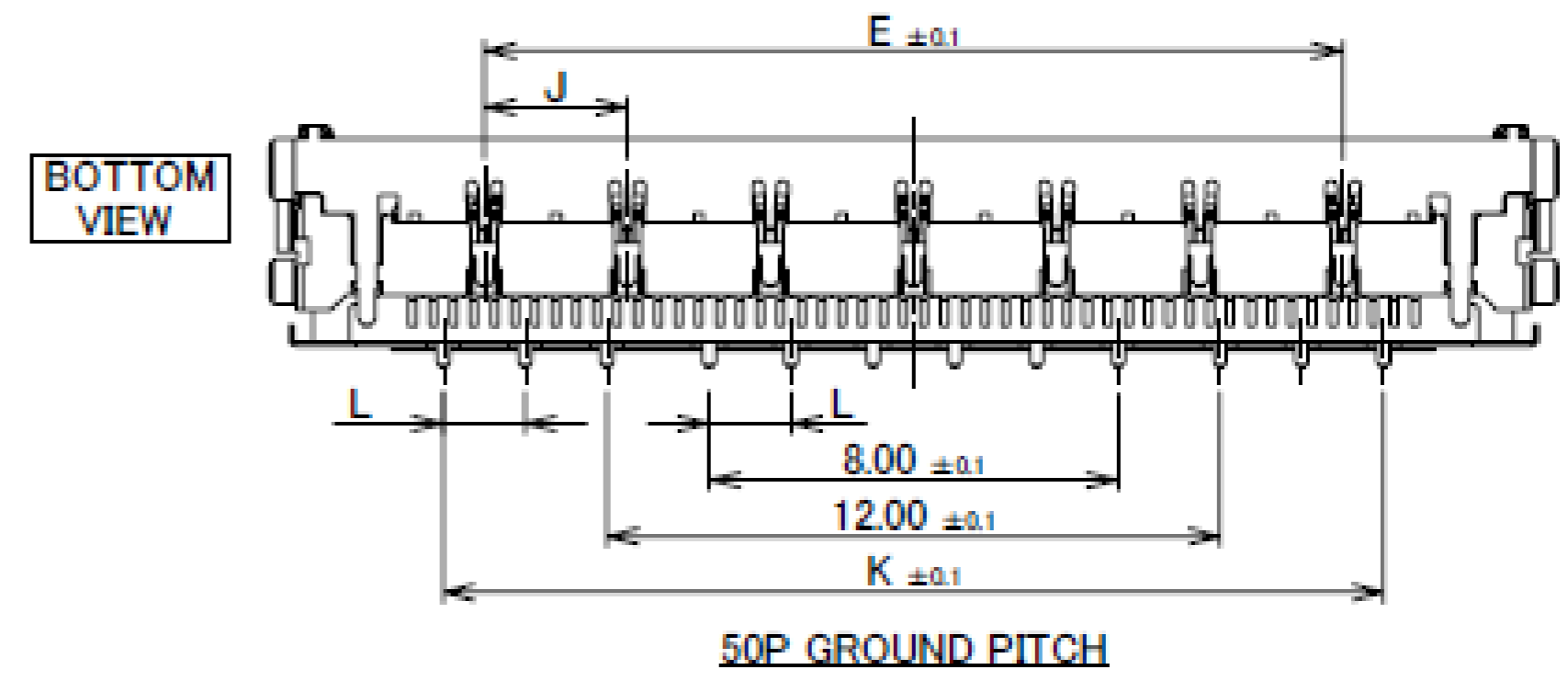
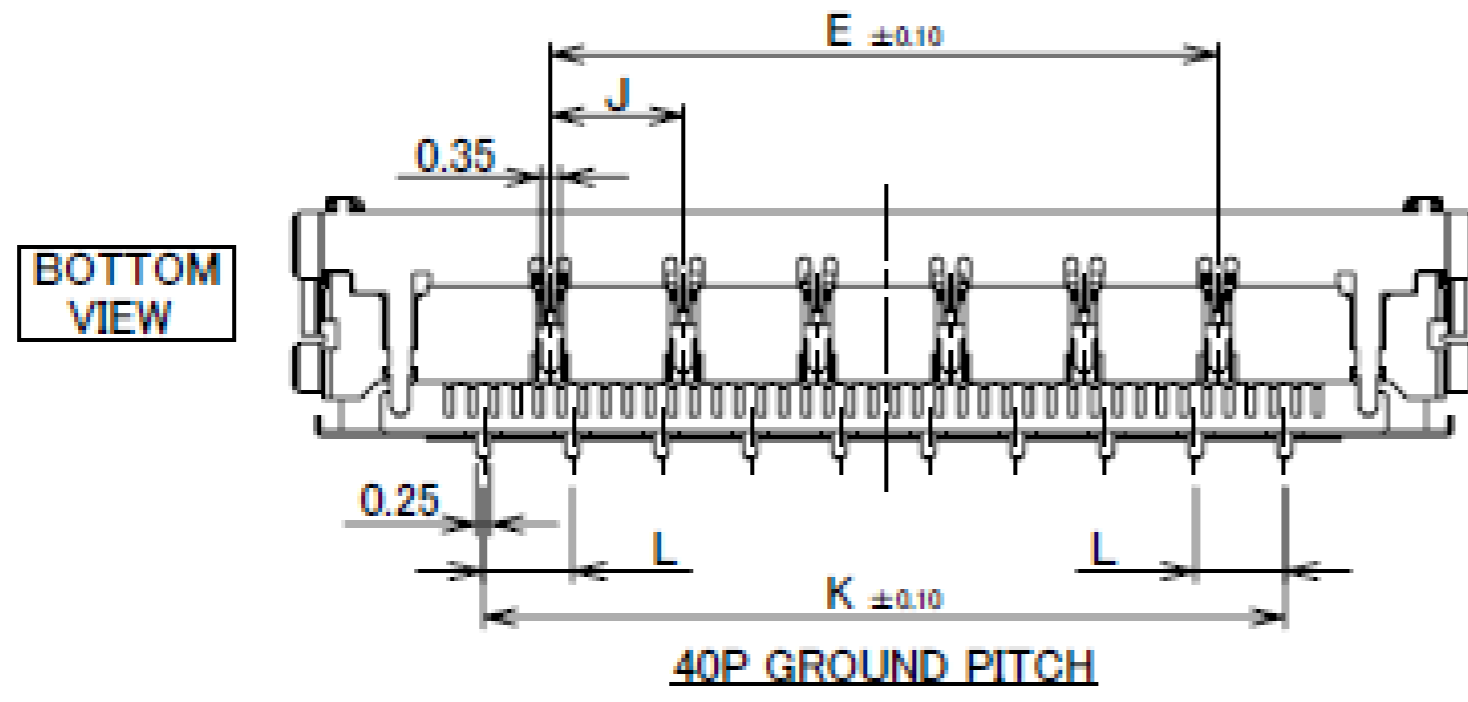
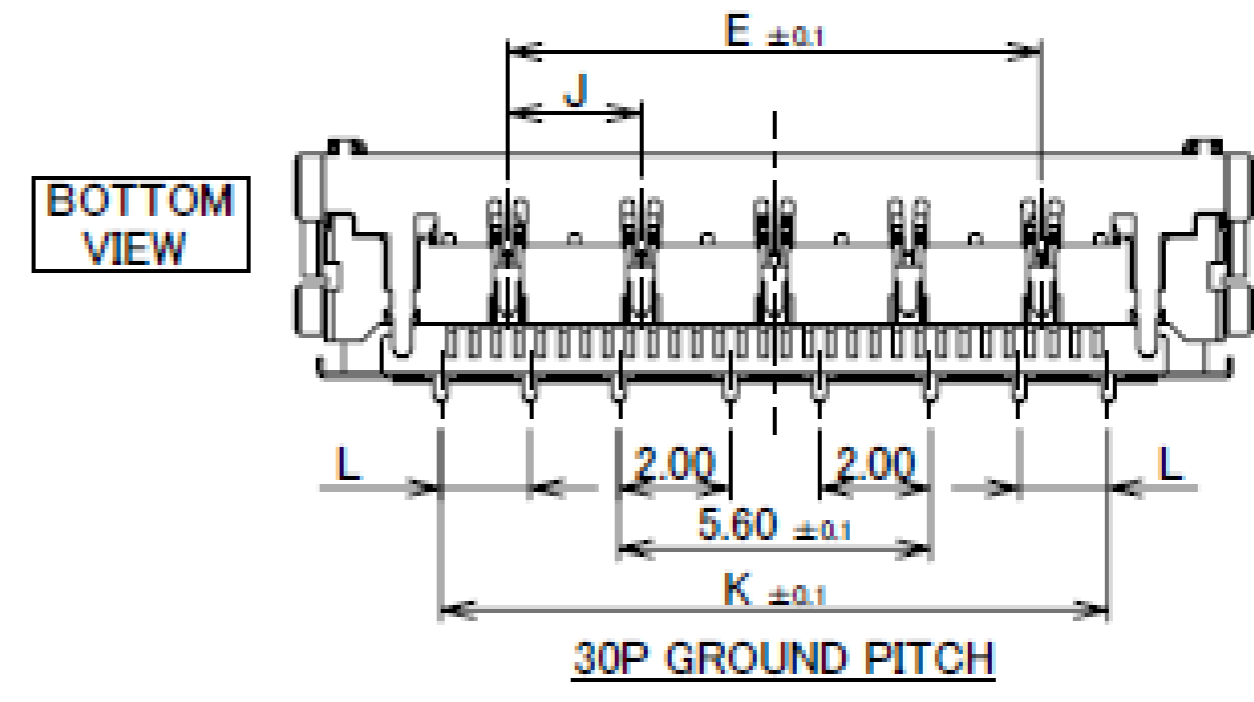
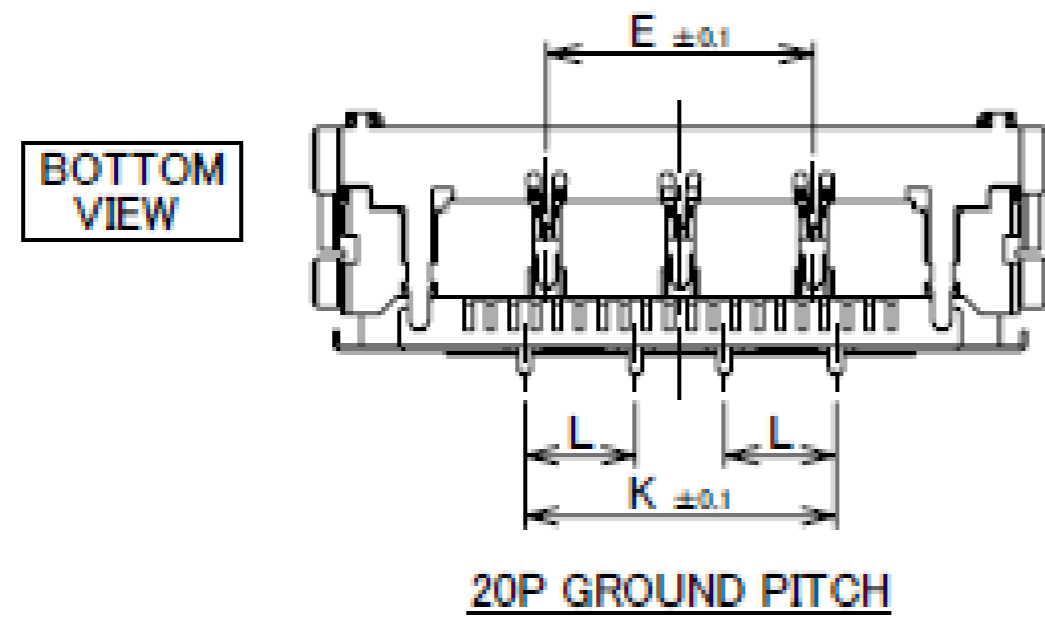


NO.	DISCRIPTION	MATERIAL	FINISH . REMARKS
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT & SOLDERING AREA : Au 0.03 μ m MIN.
1	HOUSING	LCP	UL94V-0 .BLACK

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Receptacle Assembly

PART NO.	Pos.	E	J	K	L
20682-020E-02	20	4.80	2.40	5.60	2.00
20682-030E-02	30	9.60	2.40	12.00	1.60
20682-040E-02	40	12.00	2.40	14.40	1.60
20682-050E-02	50	16.80	2.80	18.40	1.60

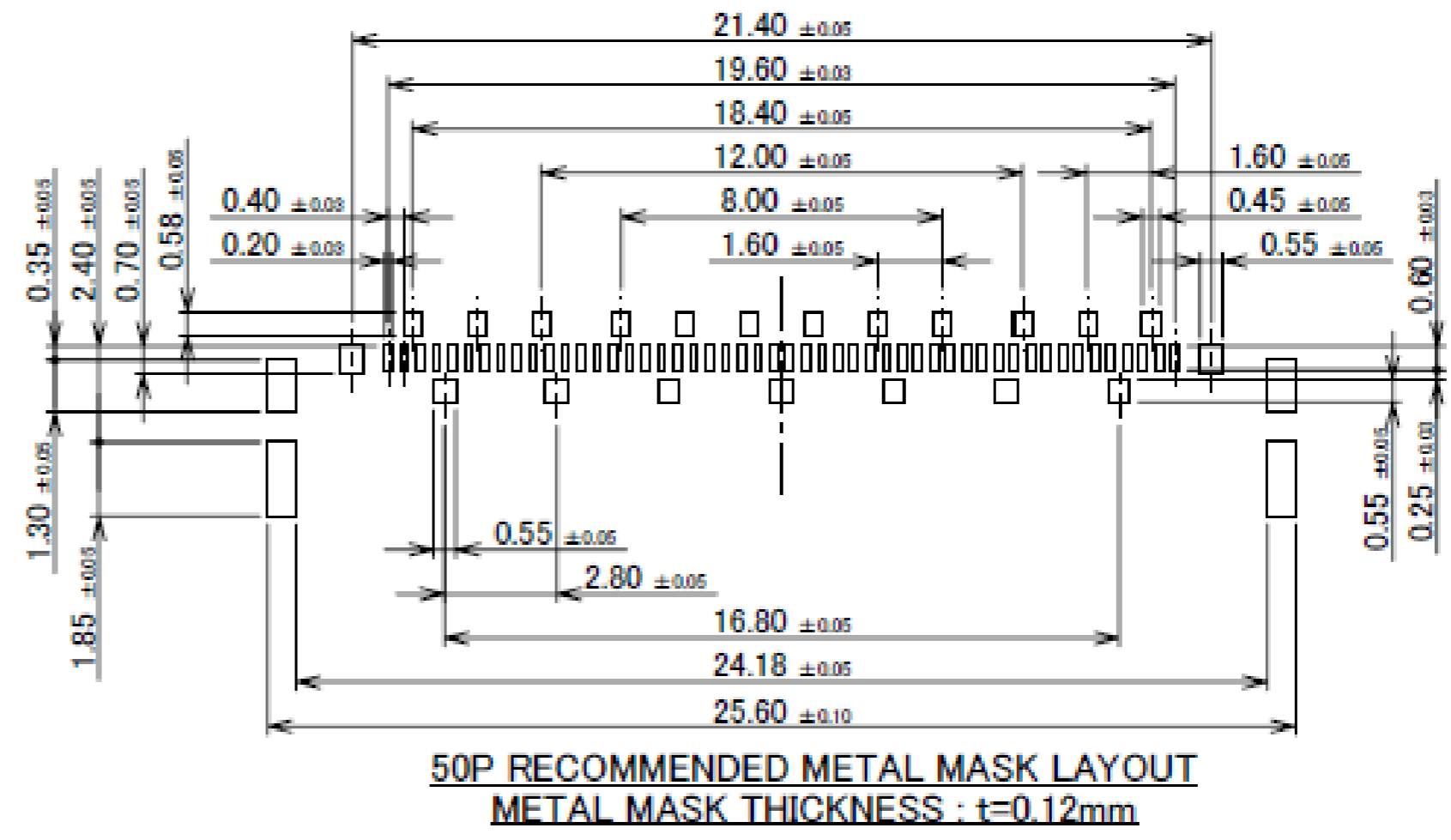
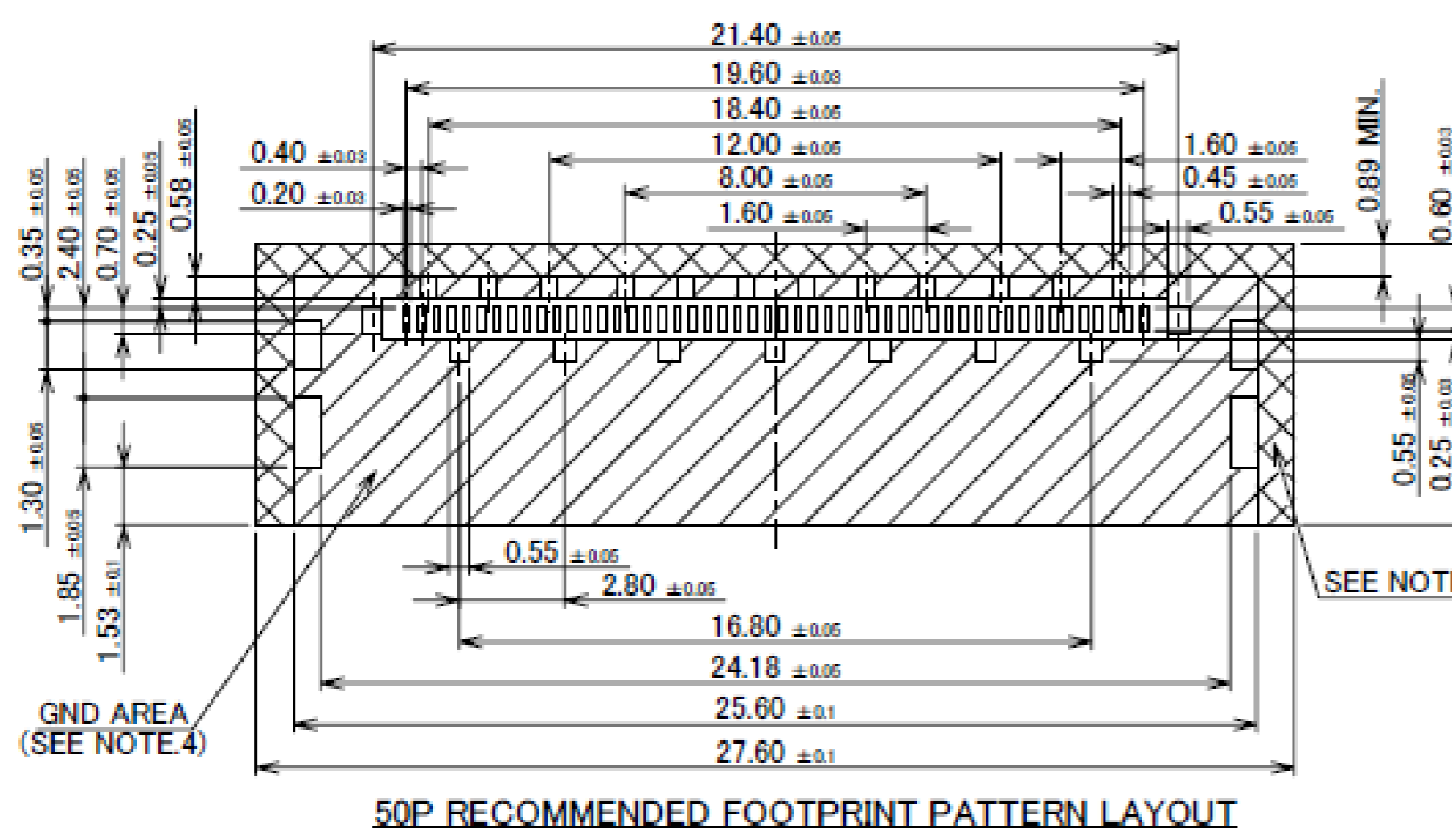
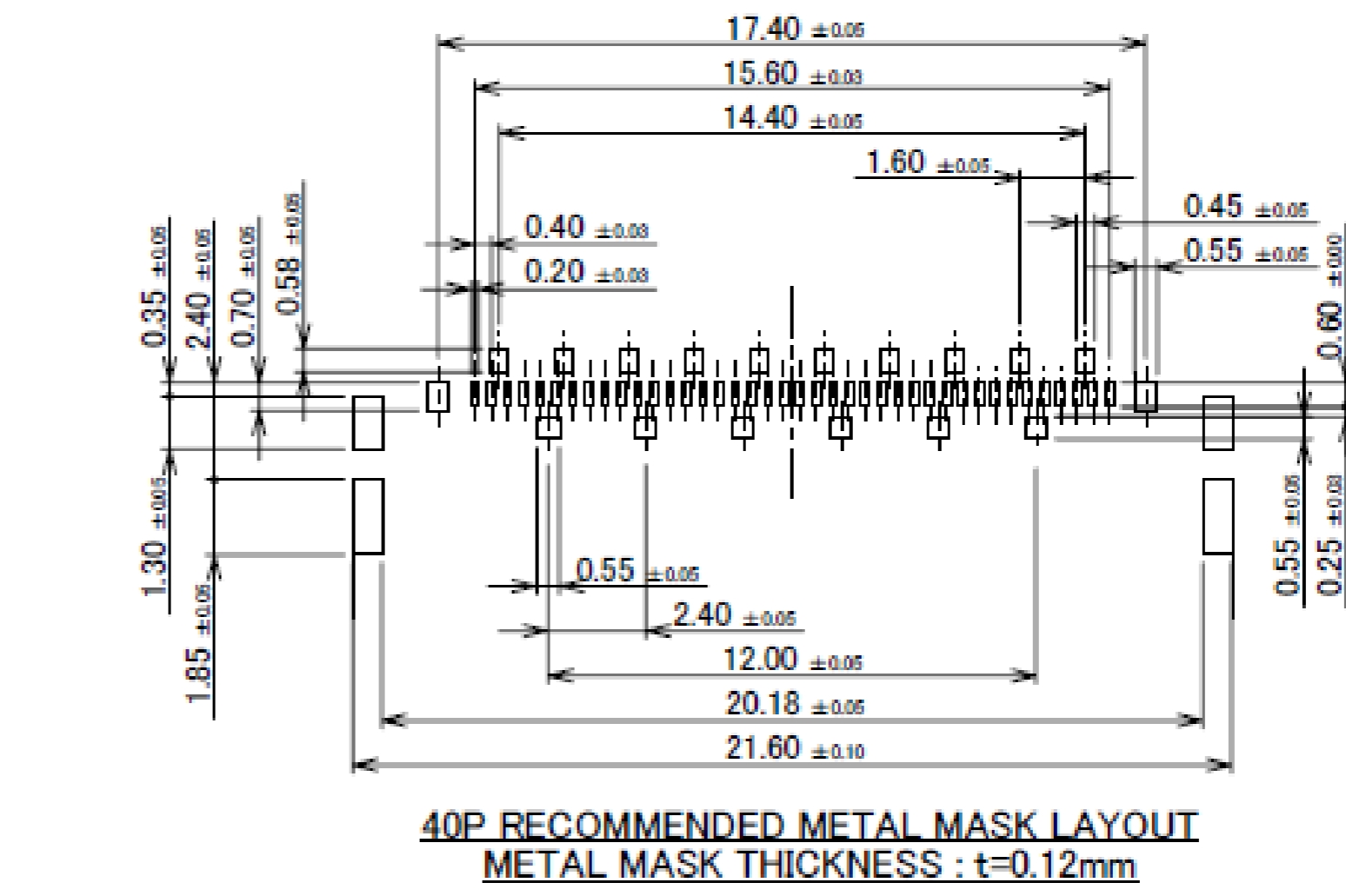
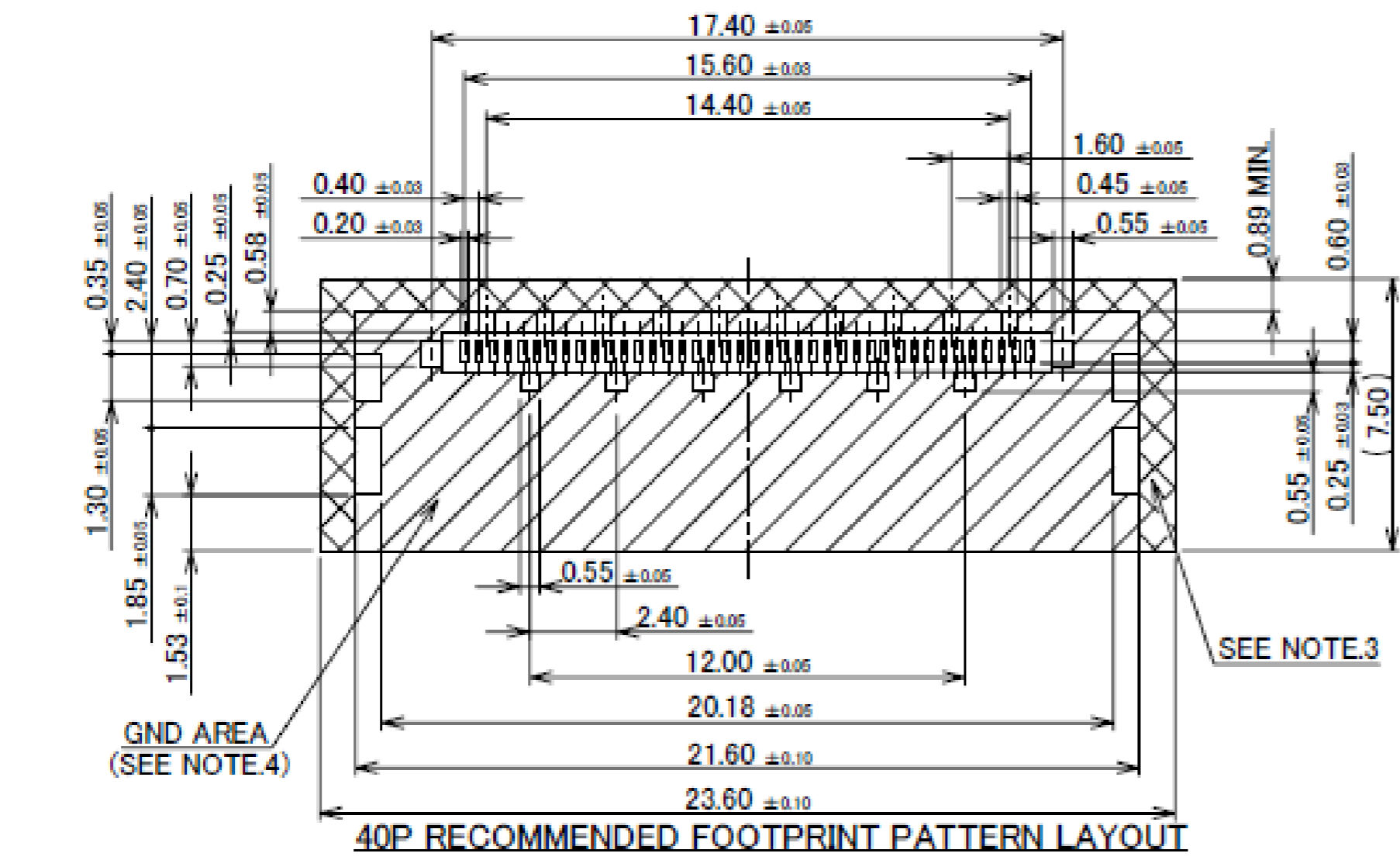


- NOTES:
 1. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
 2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

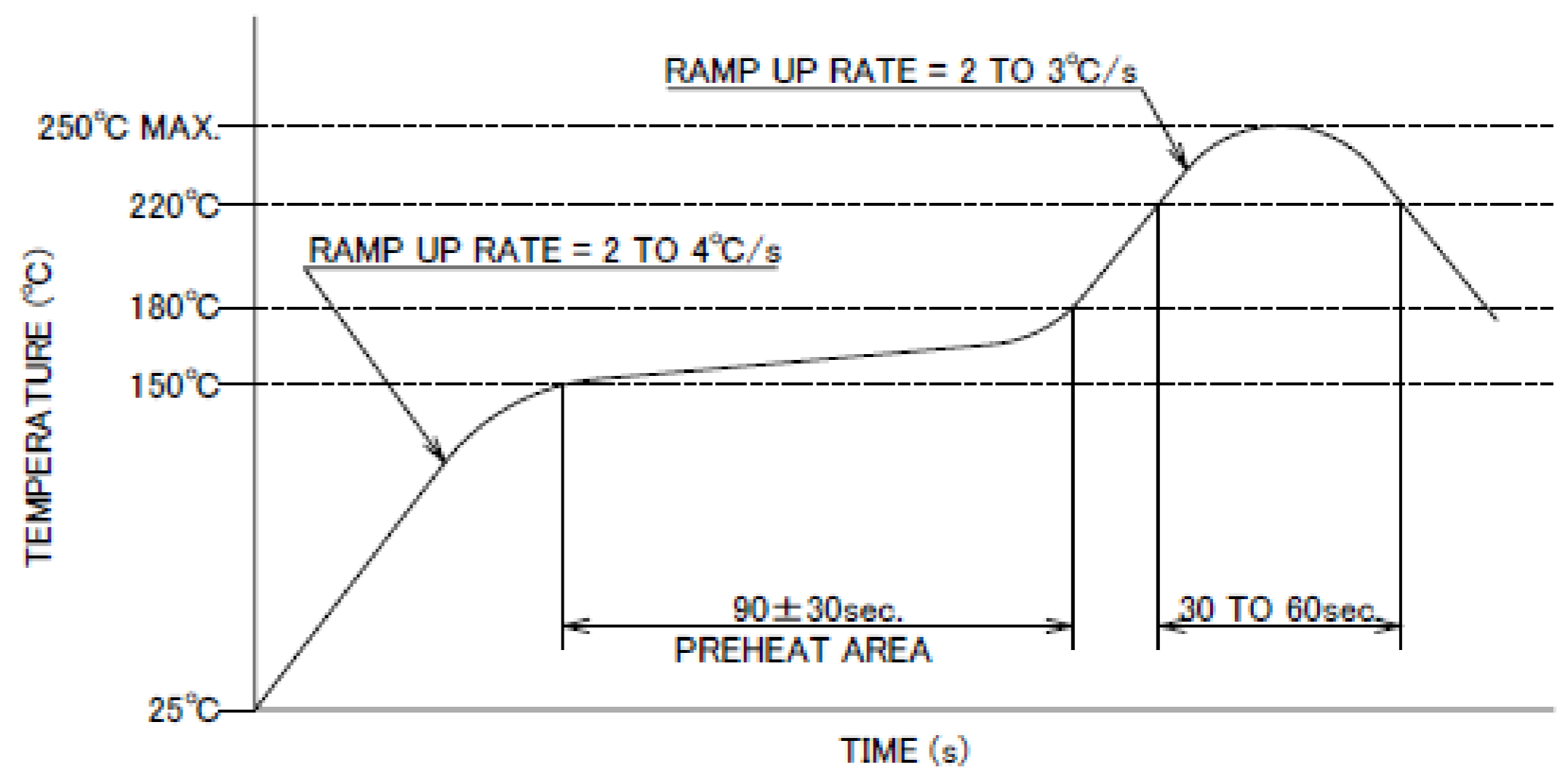
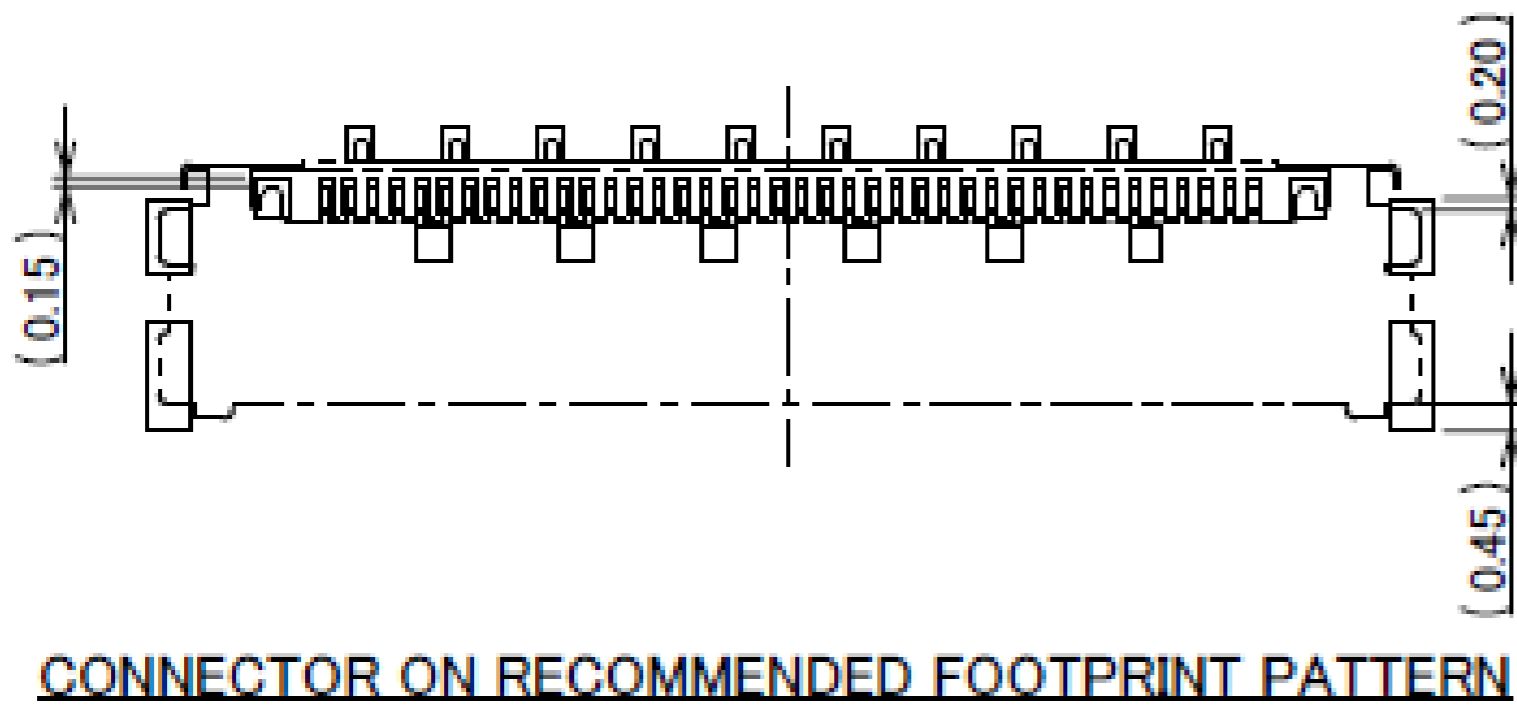
Rev.17

Rev.17

Receptacle Assembly



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



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

Receptacle Assembly

FOR CABLINE-CA IIF PLUG SHELL ASSEMBLY (DWG. NO. 20856)

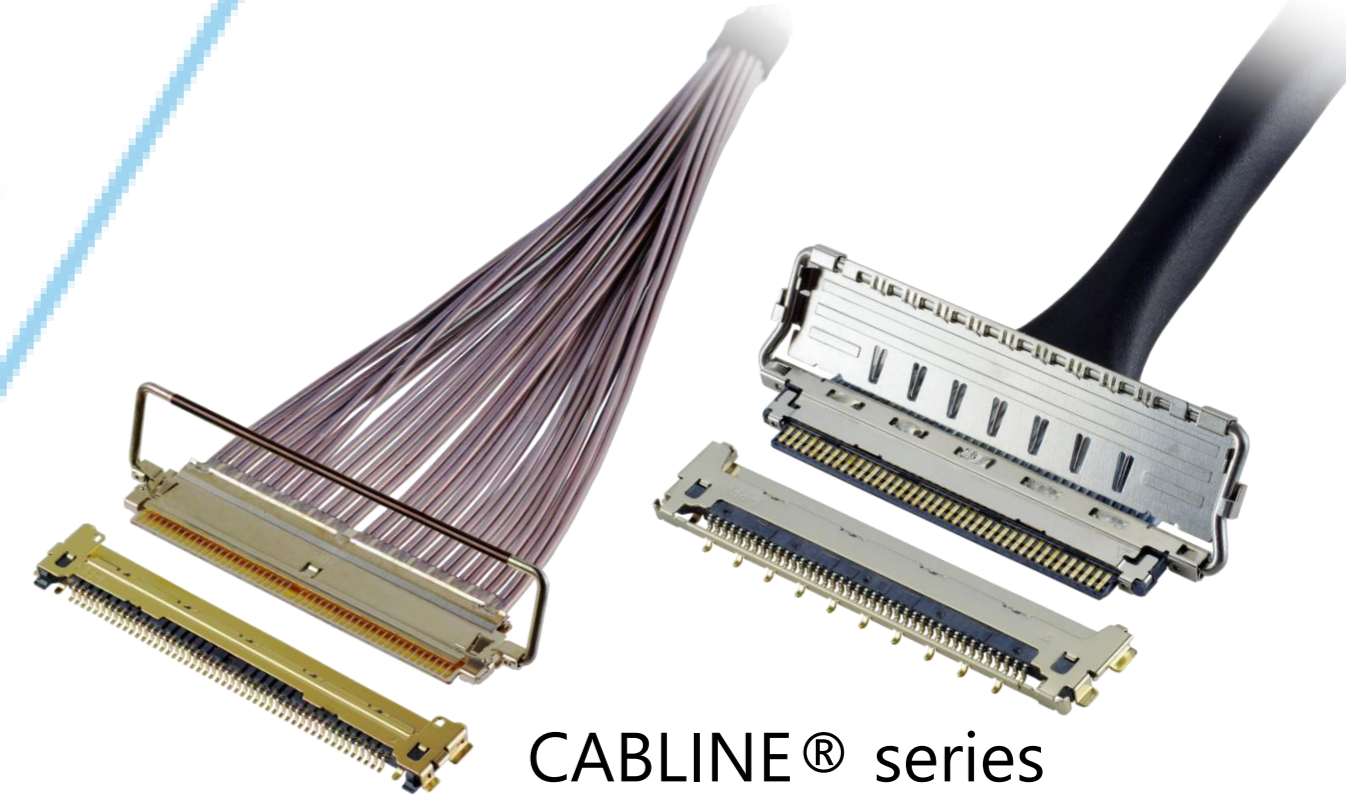
ITEMS	SPECIFICATION
RATED VOLTAGE	100V AC (PER CONTACT PIN)
RATED AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN) ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPERTURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233 TO 358K(-40°C TO +85°C)
OPERATING HUMIDITY	85% MAX.
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : \triangleleft40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 60mohm MAX. / AFTER TEST : \triangleleft40mohm MAX.
INSULATION RESISTANCE	INITIAL : 1000Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	30P : 13.5N MAX. 40P : 18.0N MAX. 50P : 22.5N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 1.44N MIN. 40P : 1.92N MIN. 50P : 2.40N MIN.
PRODUCT SPECIFICATION	PRS-2418
TEST REPORT	TR-17079
PACKING STANDARD	PST-17104
INSTRUCTION MANUAL	HIM-17029
ASSEMBLY MANUAL	ASM-17006
APPEARANCE CRITERIA No.	QLS-A***

Rev.17

Custom Connectors Available

RF Connectors

MHF® series

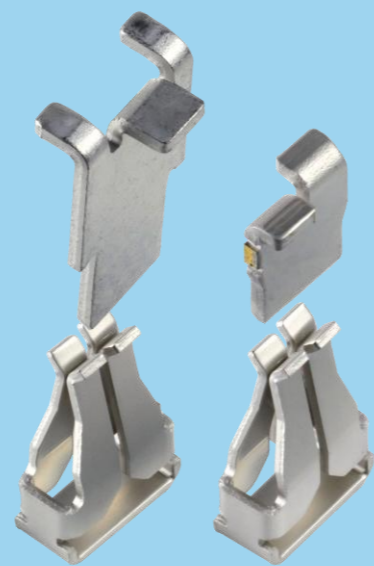


Micro-Coaxial/Twinaxial Connectors



Wire-to-Board Connectors/Terminals

AP series



ISH® series



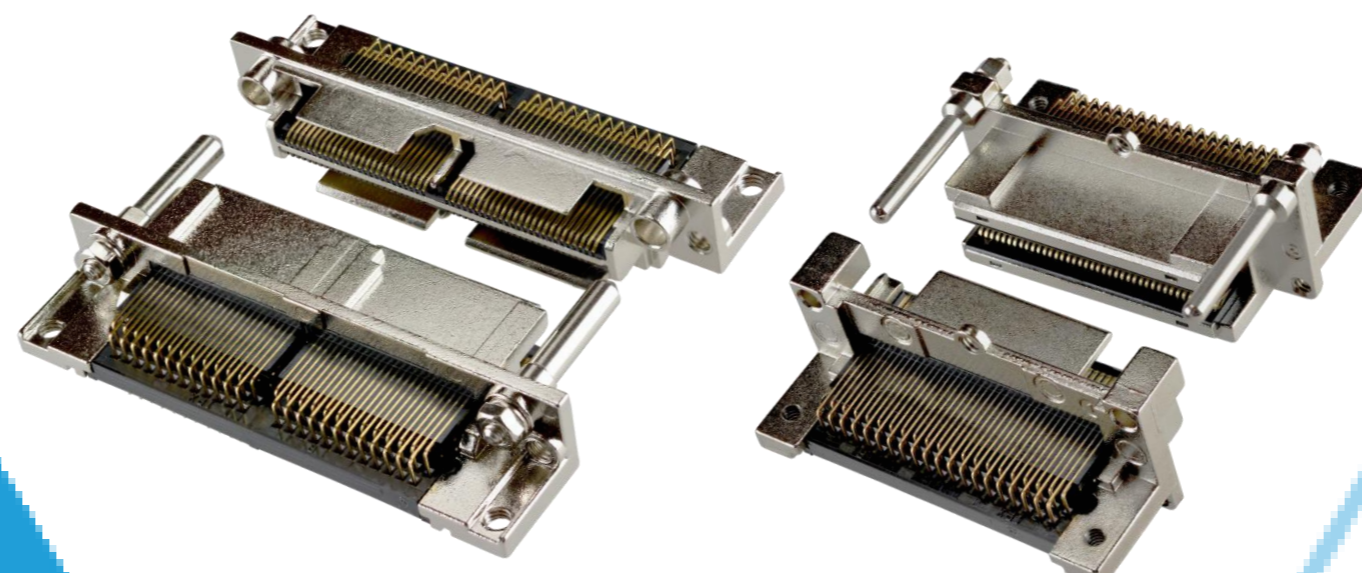
NOVASTACK® series



Board-to-Board Connectors



I/O Connectors



MINIDOCK™ series

MINIFLEX® series EVAFLEX® series



FPC/FFC Connectors



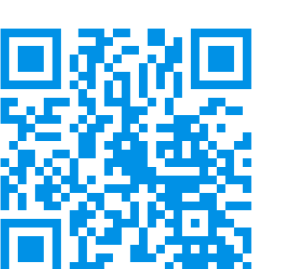
Inquiry



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Contact your sales representative or more detailed information.

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