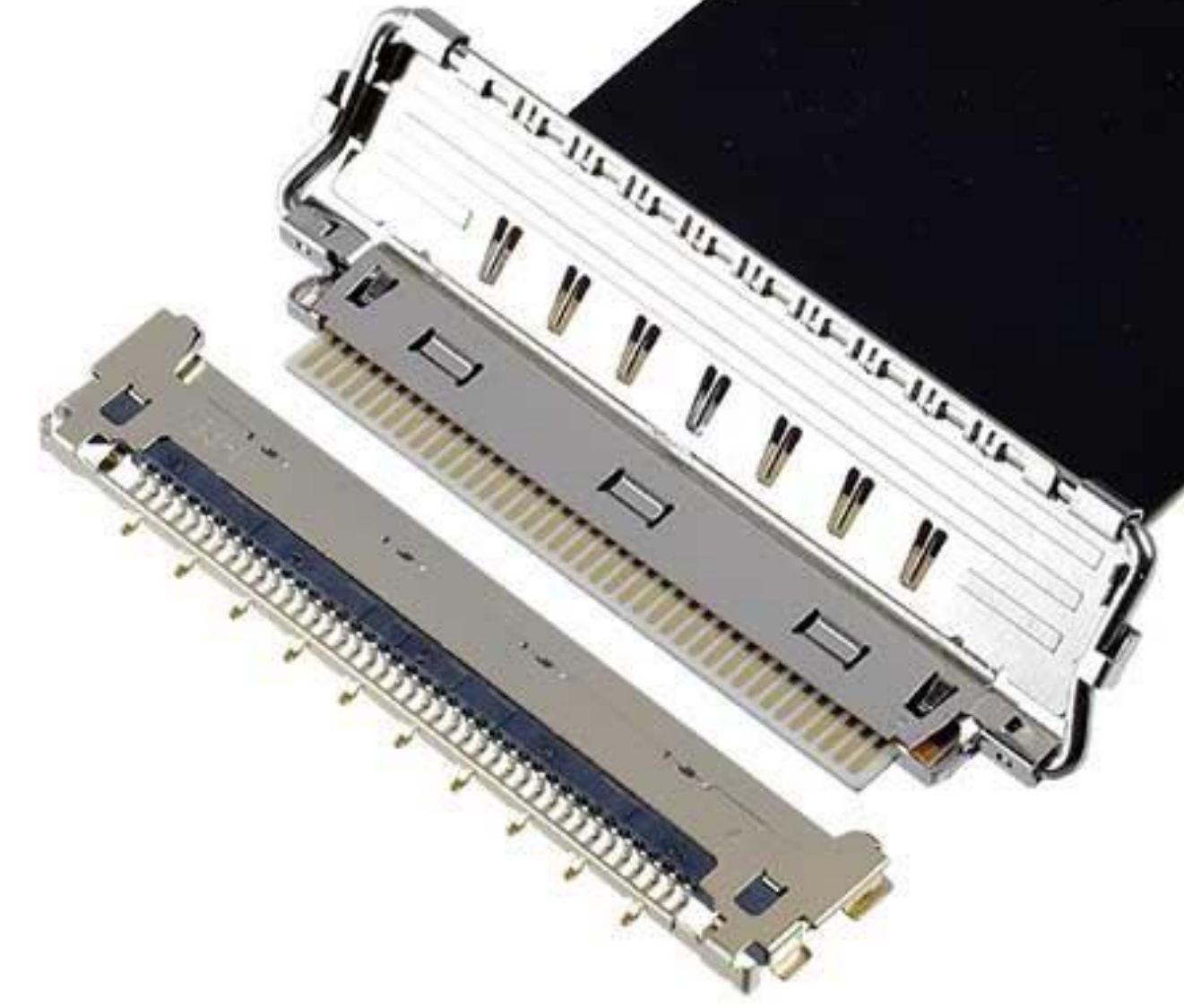


CABLINE®-CA IIF

Fully-shielded with multi-point ground and mechanical lock, 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	1.1 max. with cover
	Width	Formula: 6.95 + (0.4*?p)
	Depth	6.74
Pin Counts	Range	Up to 60
	Available	30, 40, 50

Applicable FPC

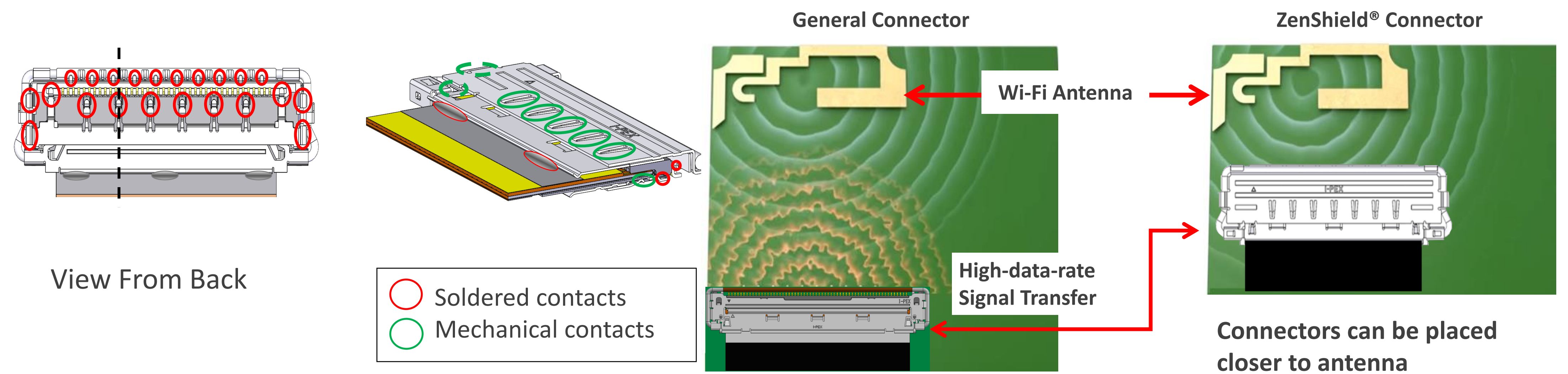
FPC Type	Shielded FPC
FPC Pitch (mm)	0.4
FPC Contact Point	Top
FPC Thickness (mm)	Contact Area: 0.25 +0.02/-0.03
	Ground Area: 0.37 +0.04/-0.06

Applicable Standards (Reference Only):

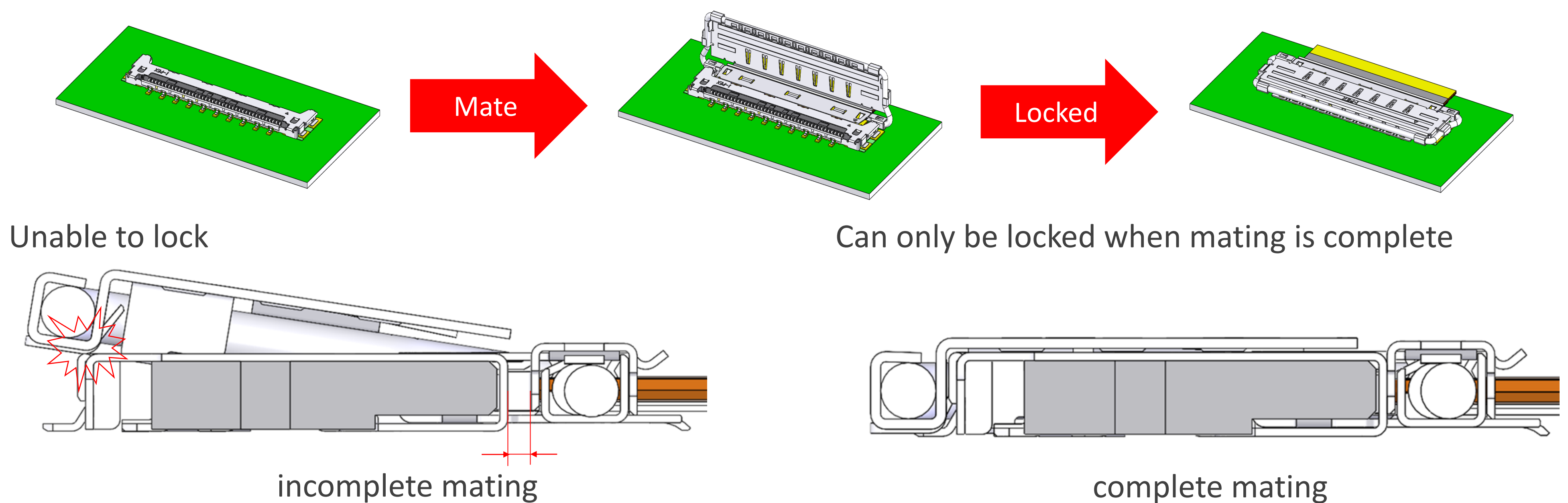
USB4 Gen3 (20 Gbps/Lane), Display Port UHBR20 (20 Gbps/Lane), PCIe® Gen 4 (16 GT/s/Lane), eDP HBR 3 (8.1 Gbps/Lane)

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

ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage



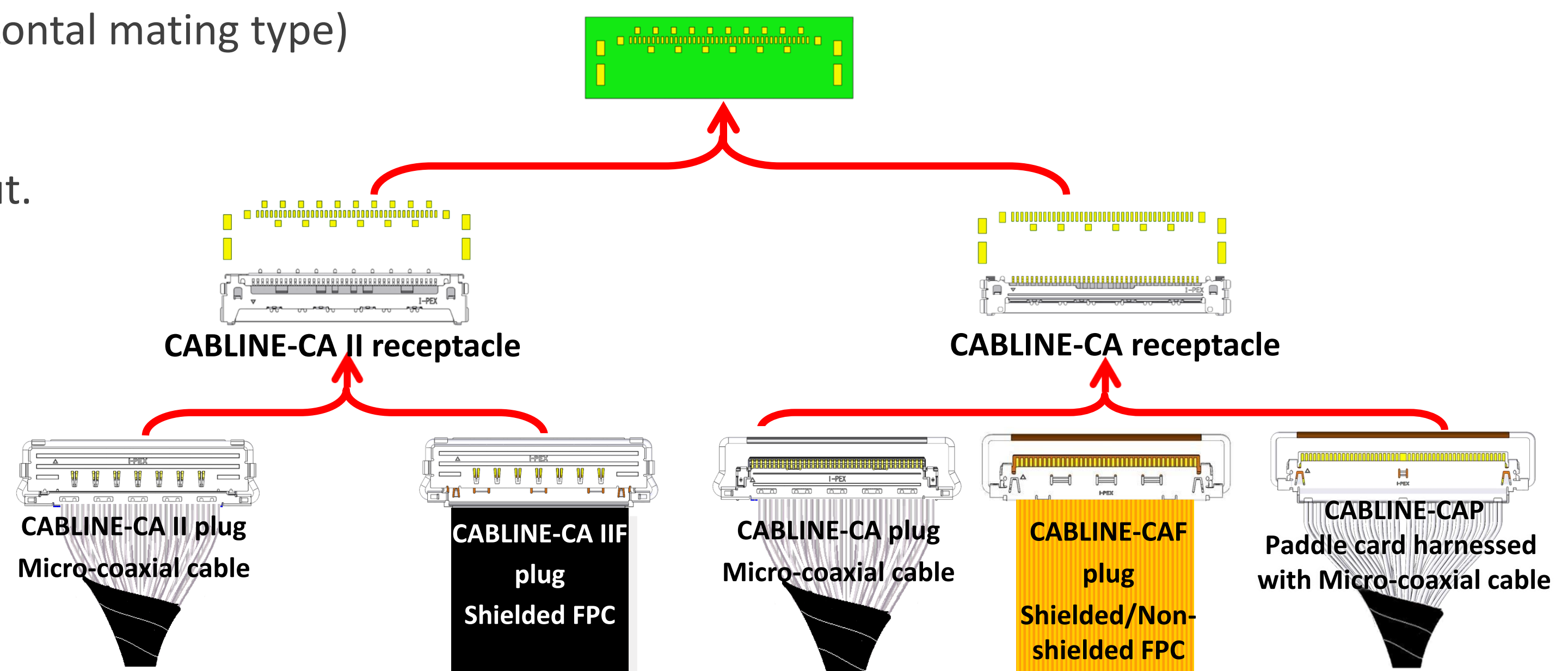
Mechanical locking cover prevents incomplete mating and back-out/un-mating



Multiple Connector Options with CABLINE®-CA Series

CABLIME-CA series (0.4 mm pitch, horizontal mating type)

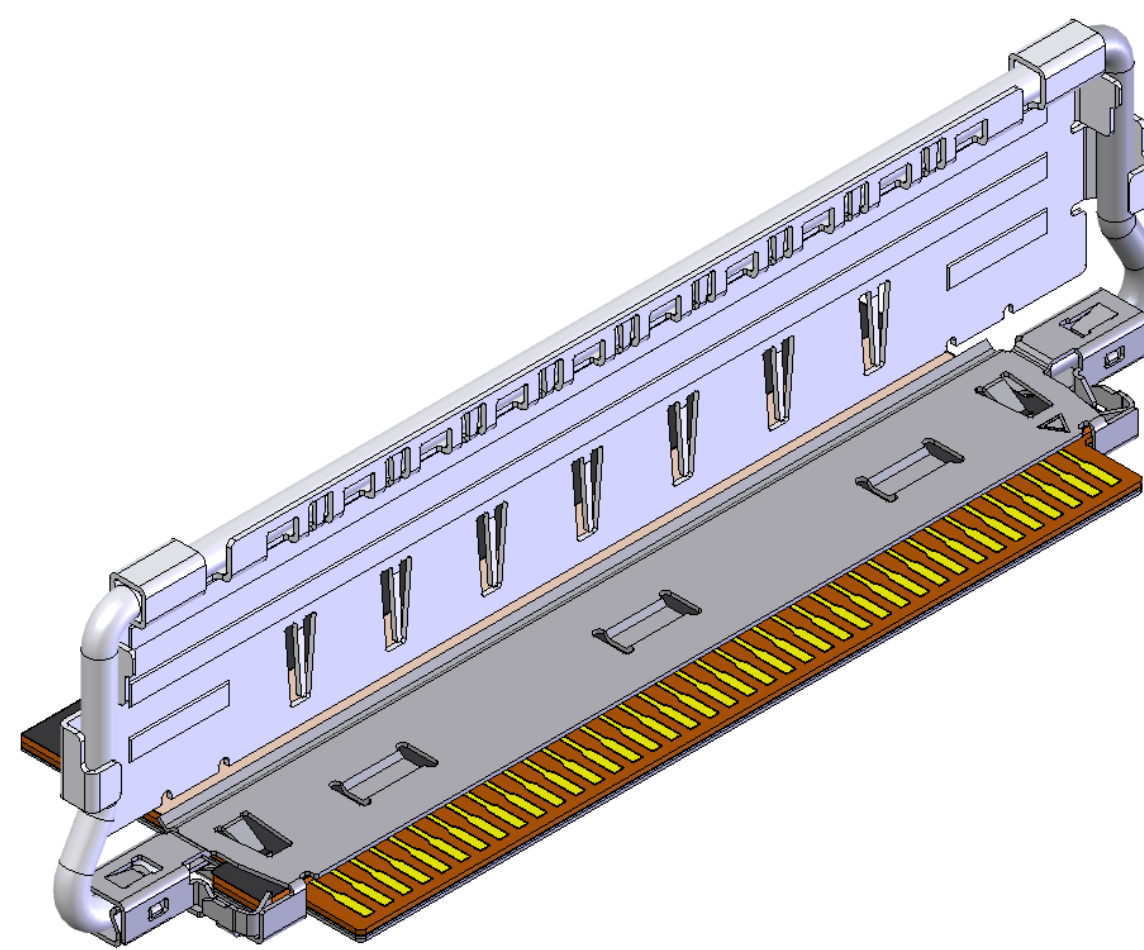
CABLIME-CA and CA II receptacles can be mounted to the same PCB layout.



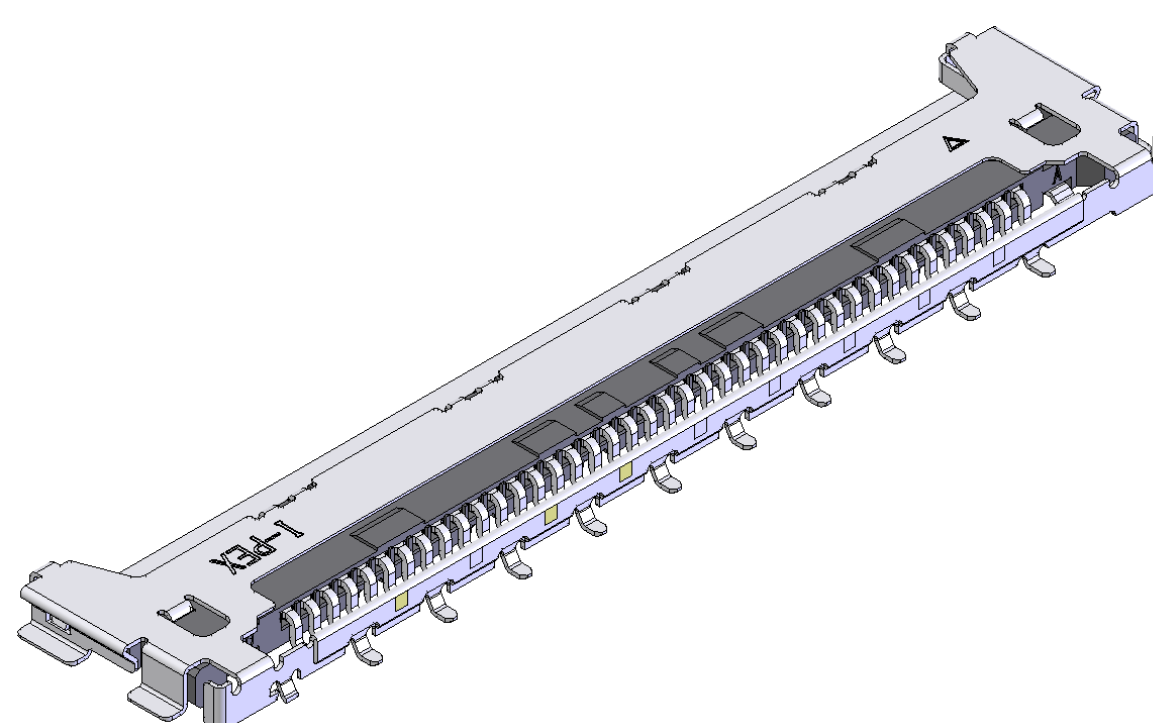
Component Parts Details

Component Parts

Connector parts



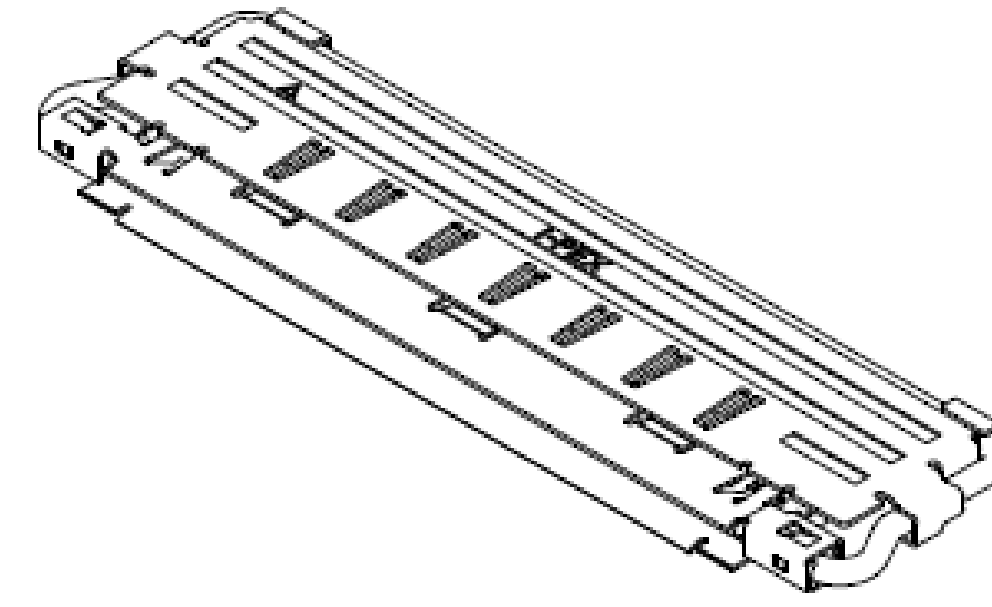
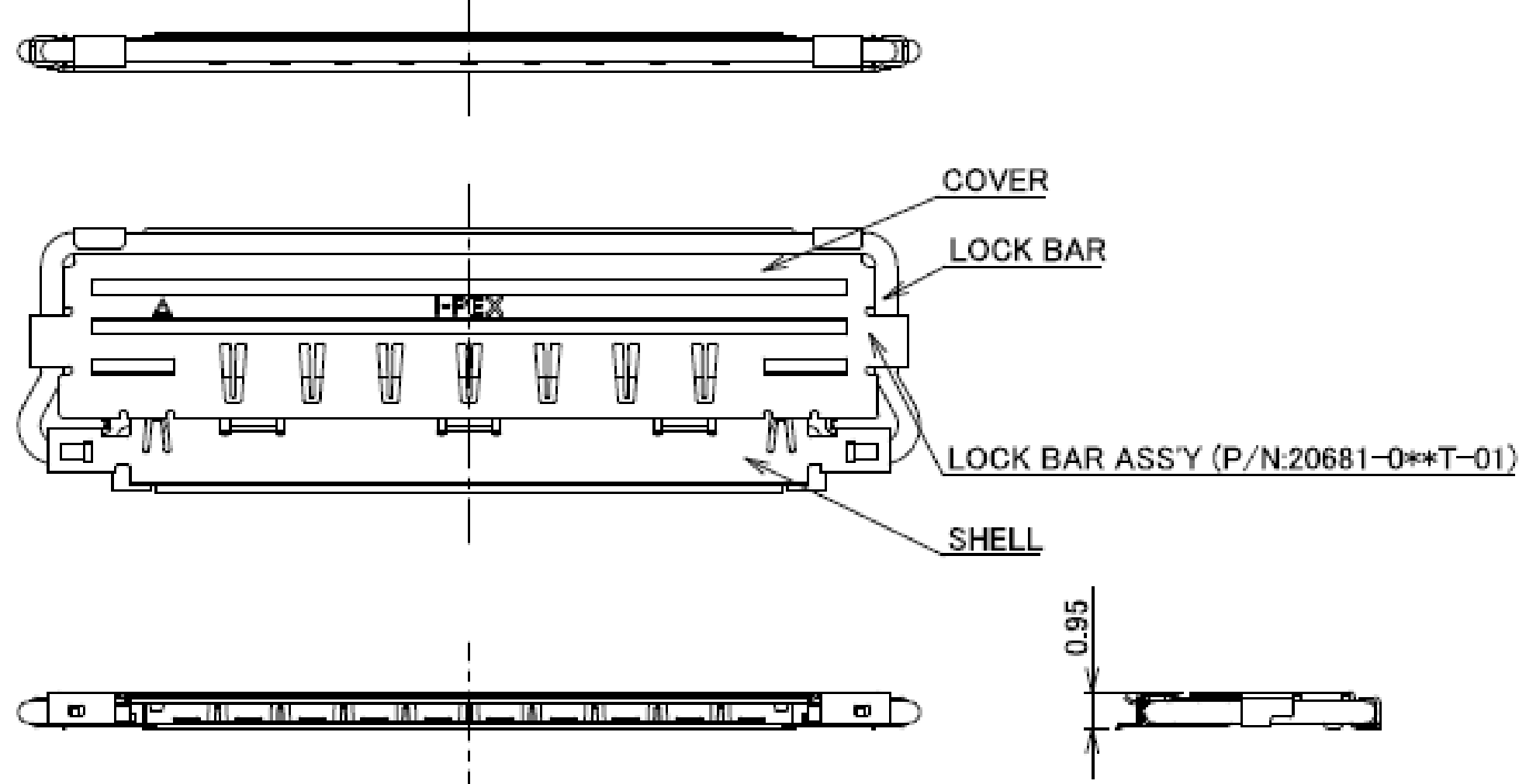
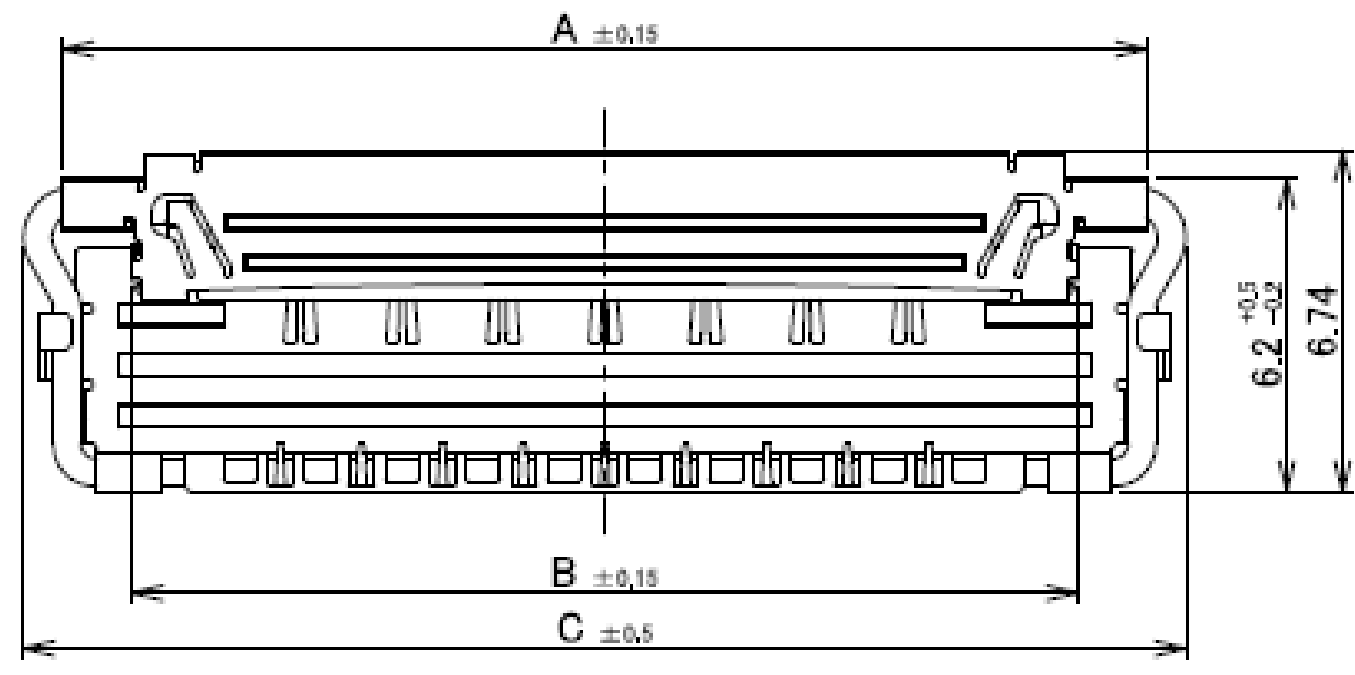
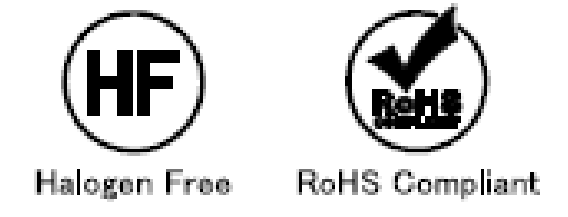
CABLINE-CA IIF PLUG with FPC



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	

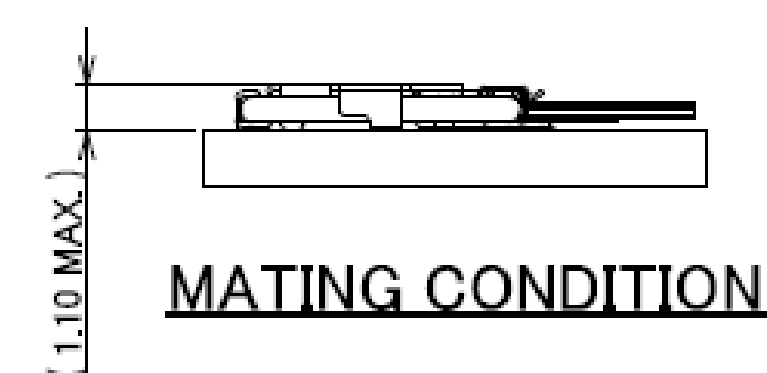
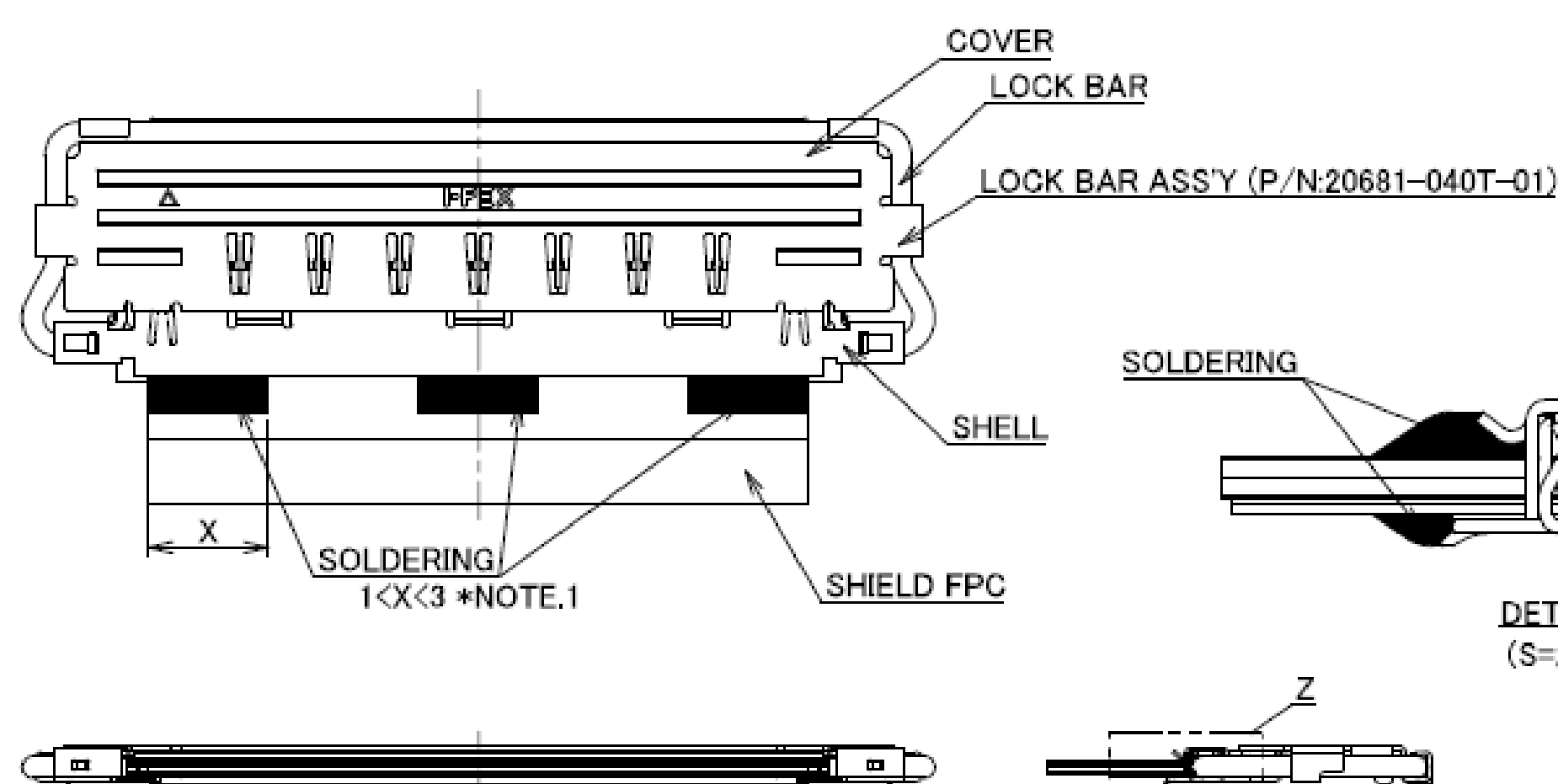
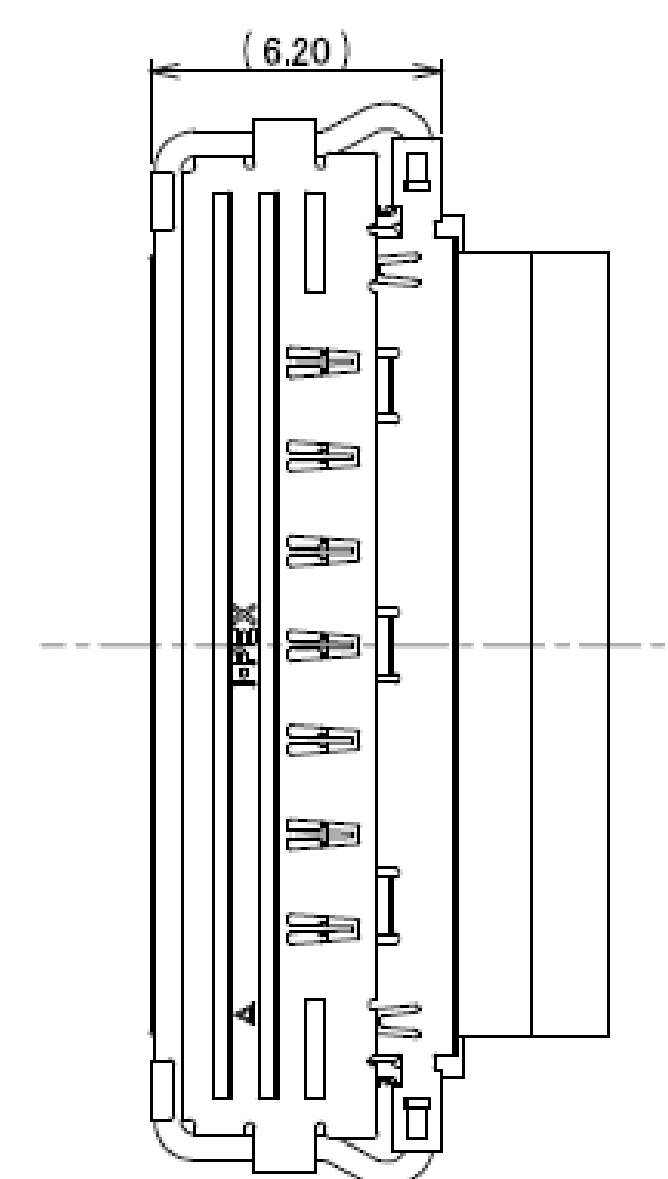
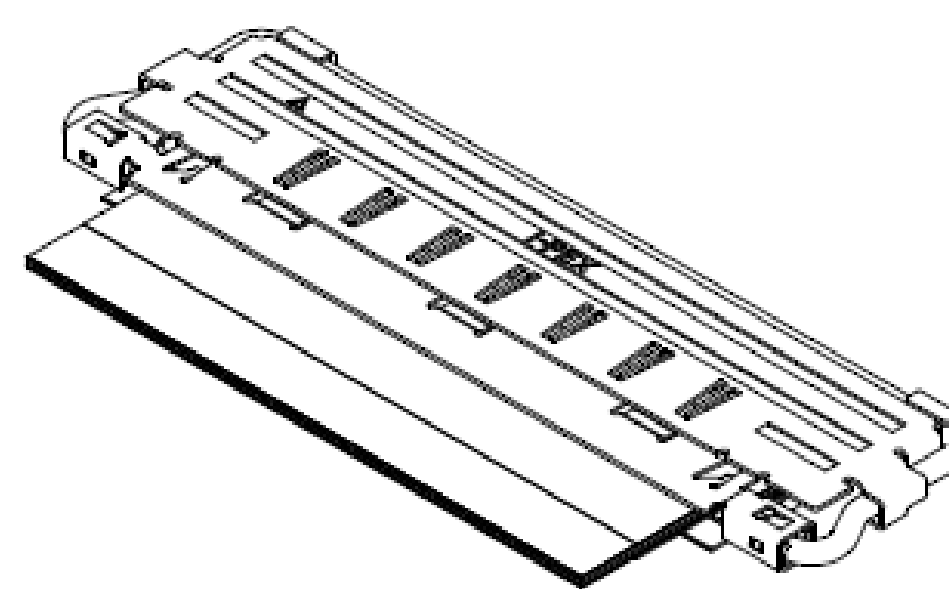
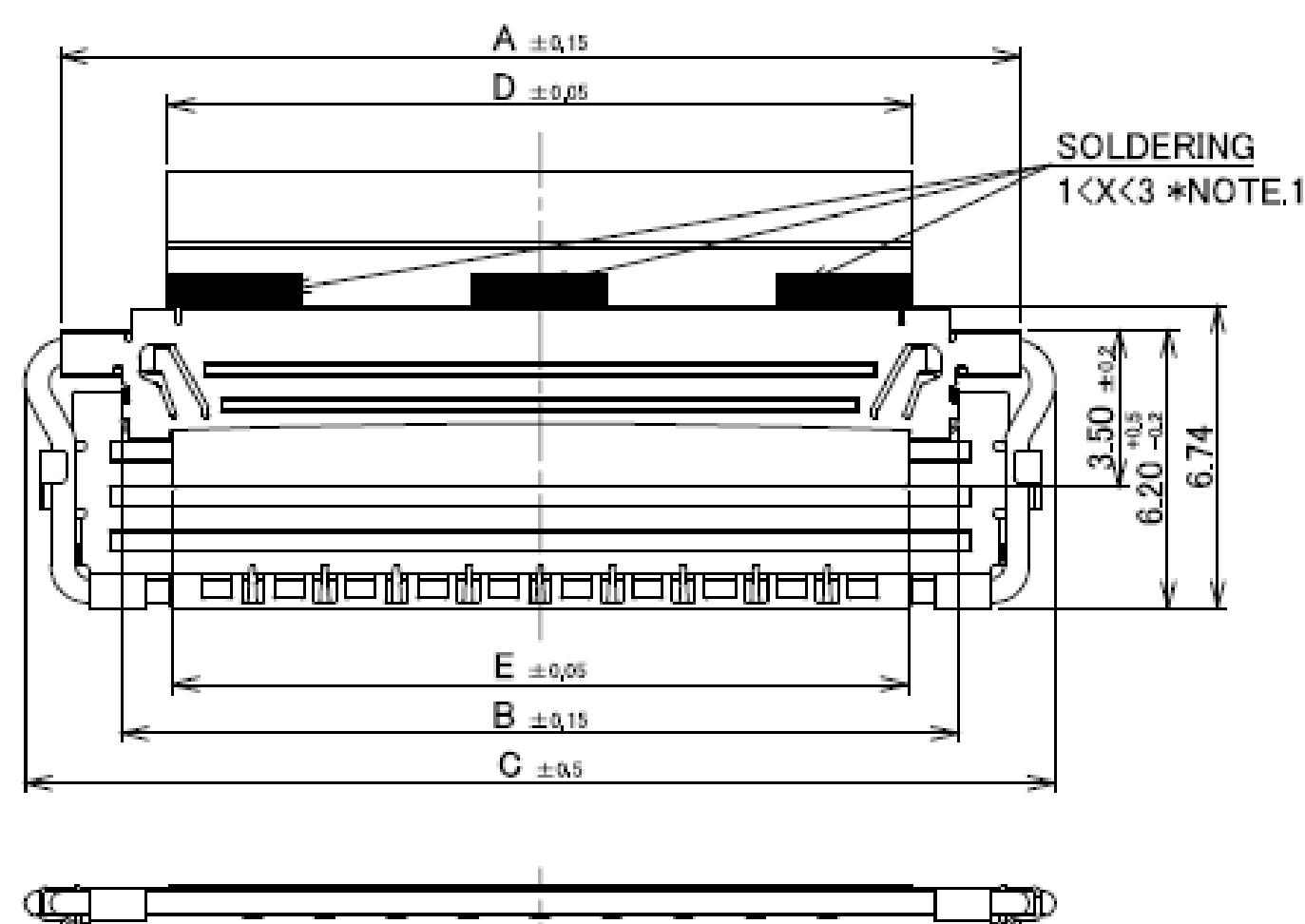
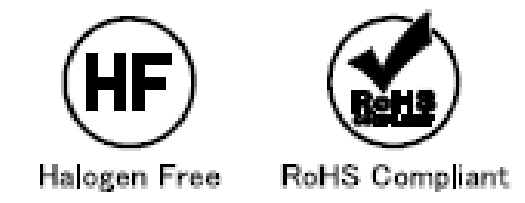


3	COVER	PHOSPHOR BRONZE	Ni PLATING
2	LOCK BAR	STAINLESS STEEL	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0,003 μm MIN. OVER Ni 1,00 μm MIN.
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Rev.12

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 ASS'Y STATE COVER CLOSE

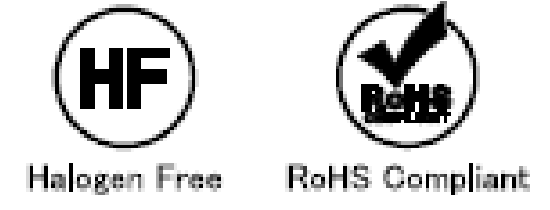


NOTES.
1.Soldering Area X is recommended dimension.
It does not mater if it might be exceed the recommended dimension.

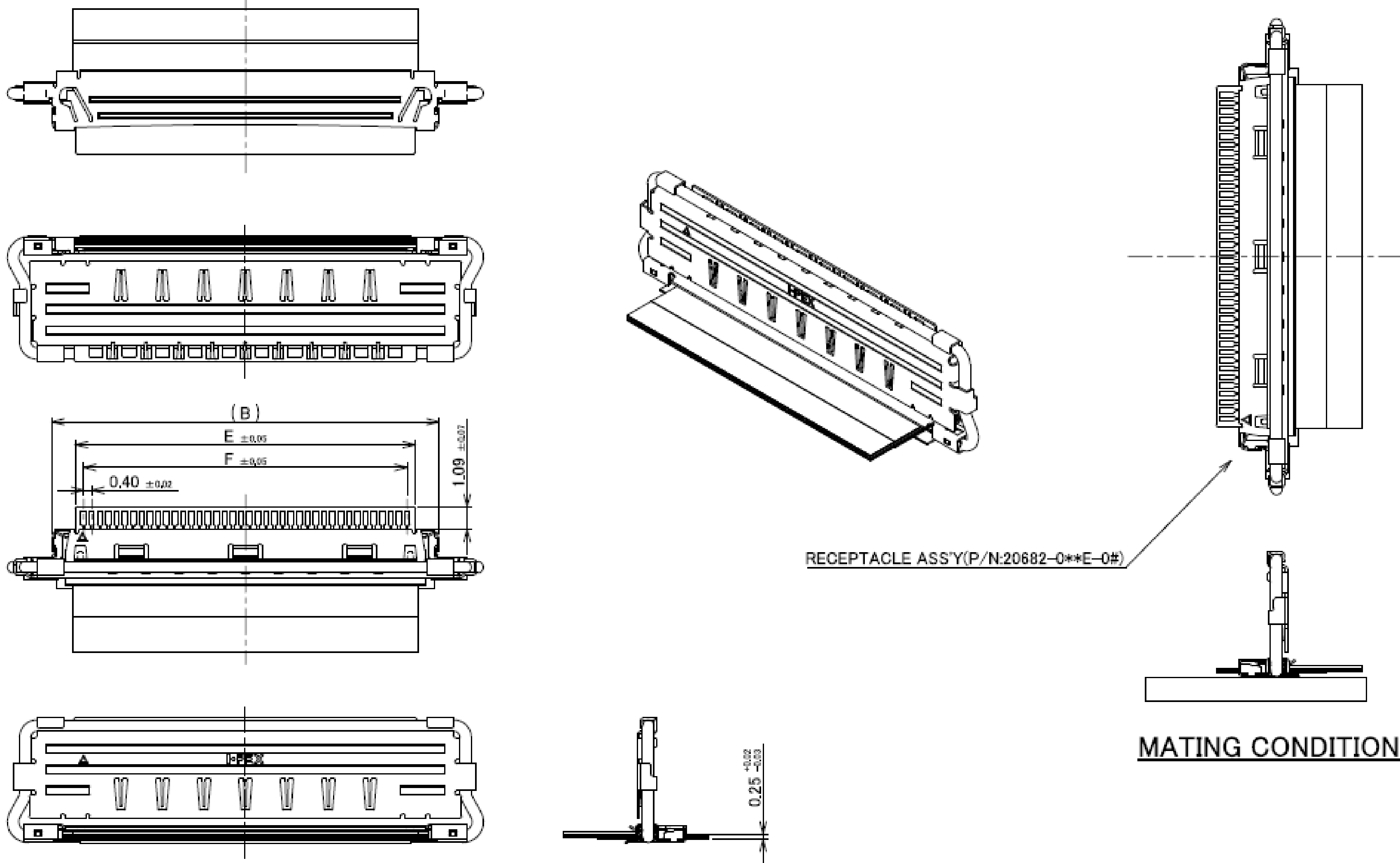
Rev.12

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

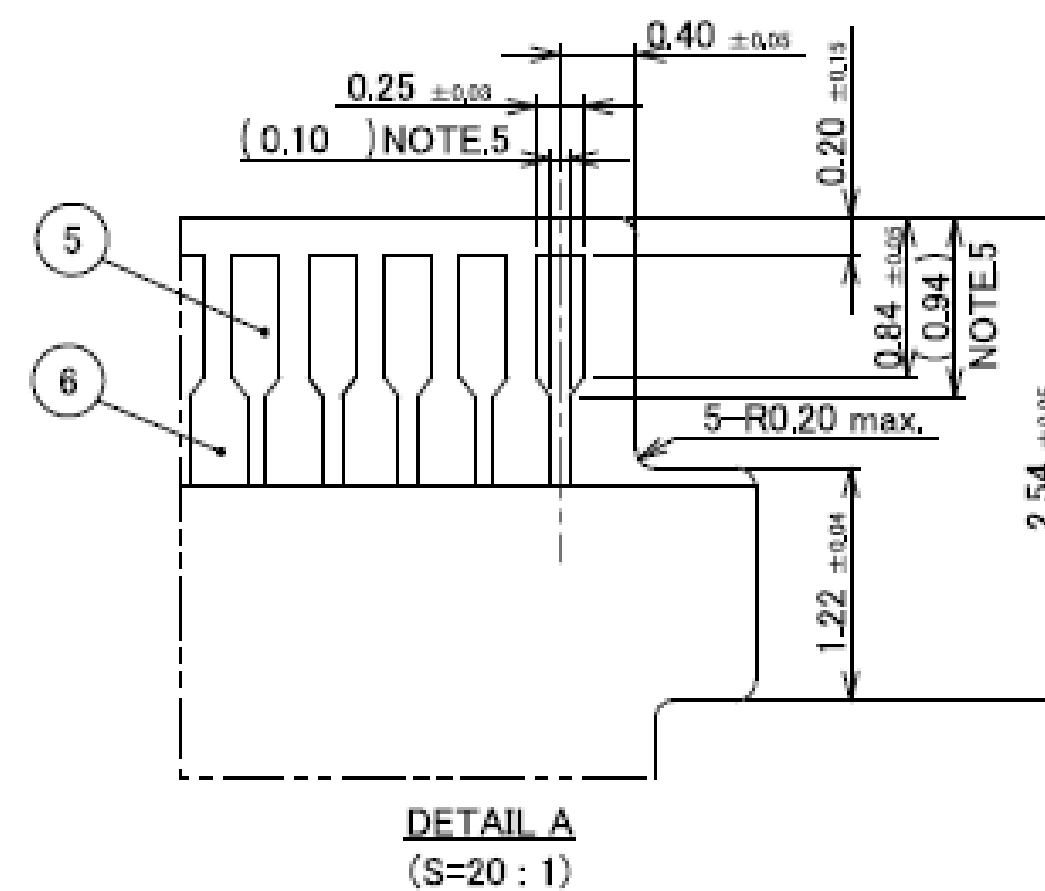
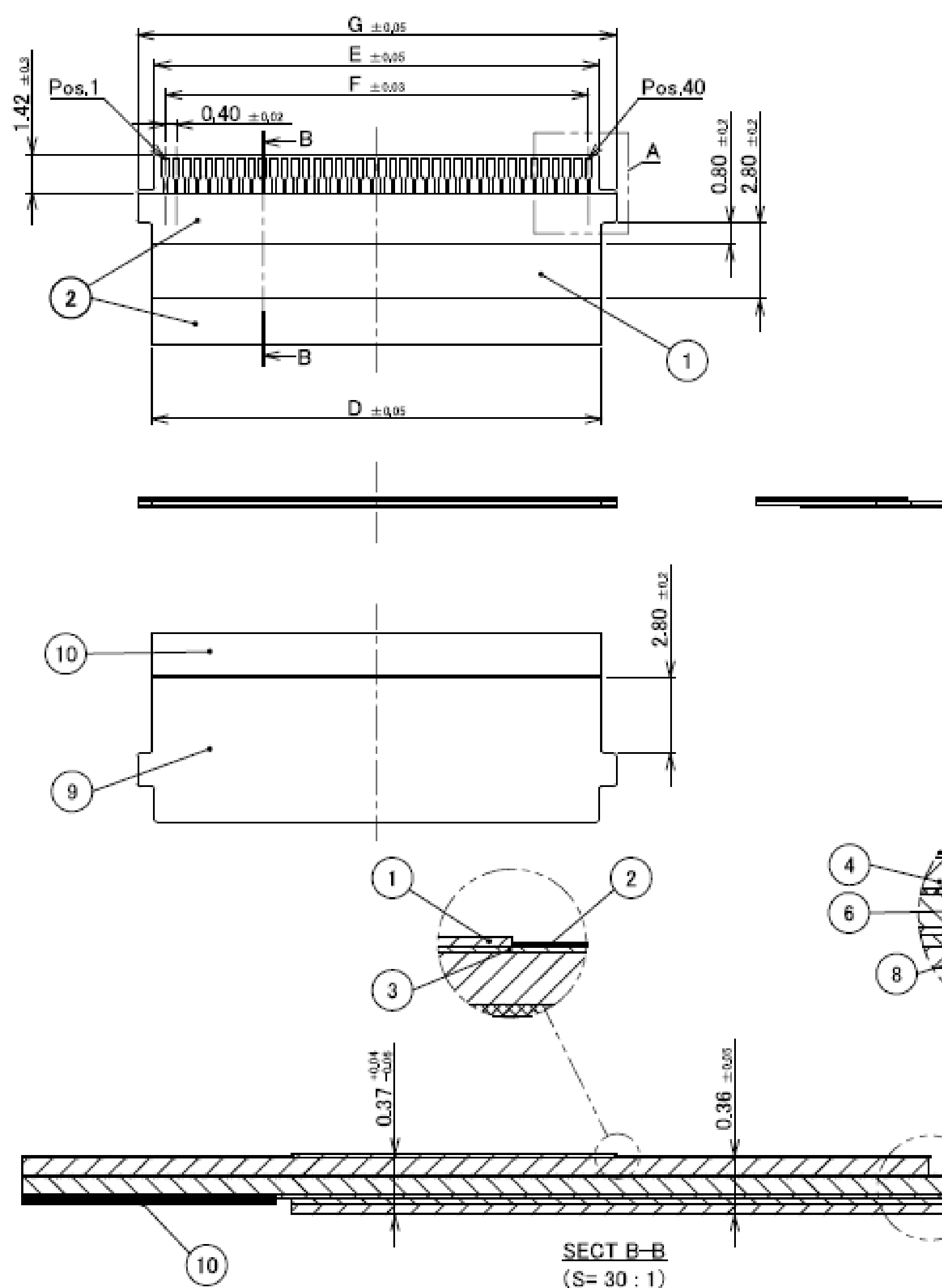


FPC ASS'Y STATE COVER OPEN



Rev.12

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	-	-

Rev.12

Shell Assembly

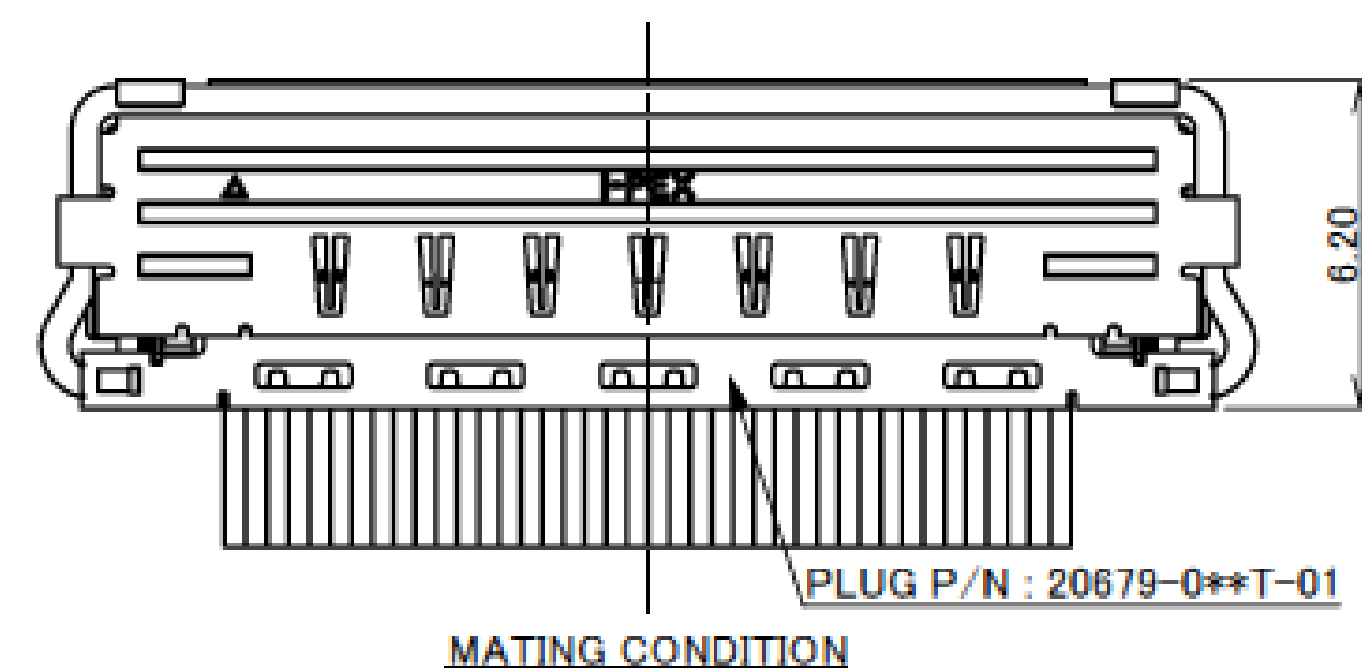
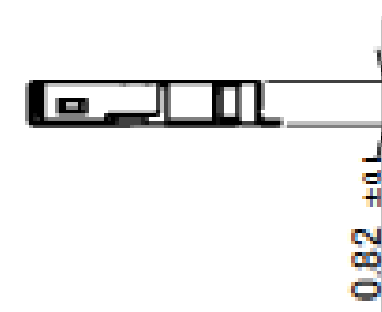
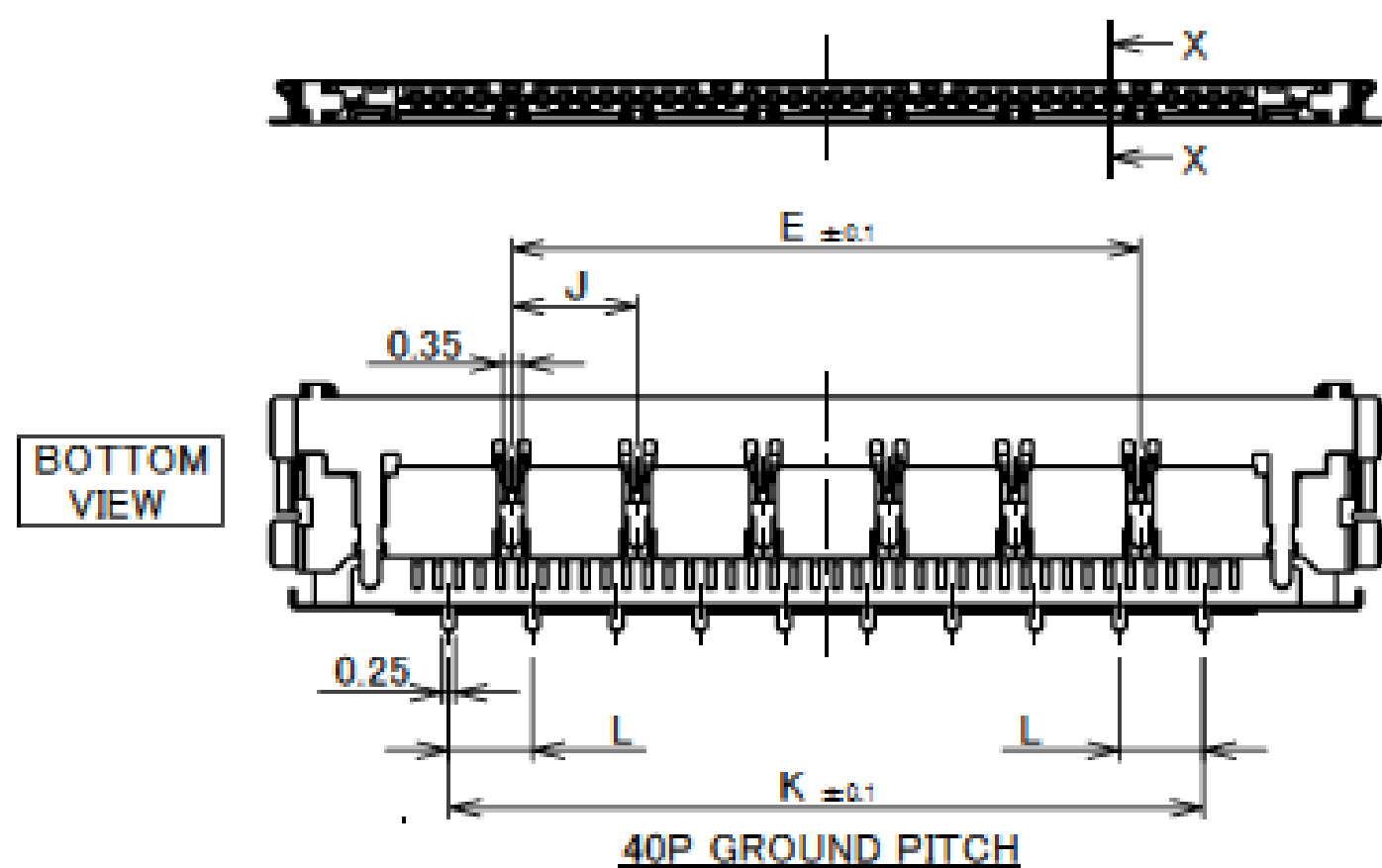
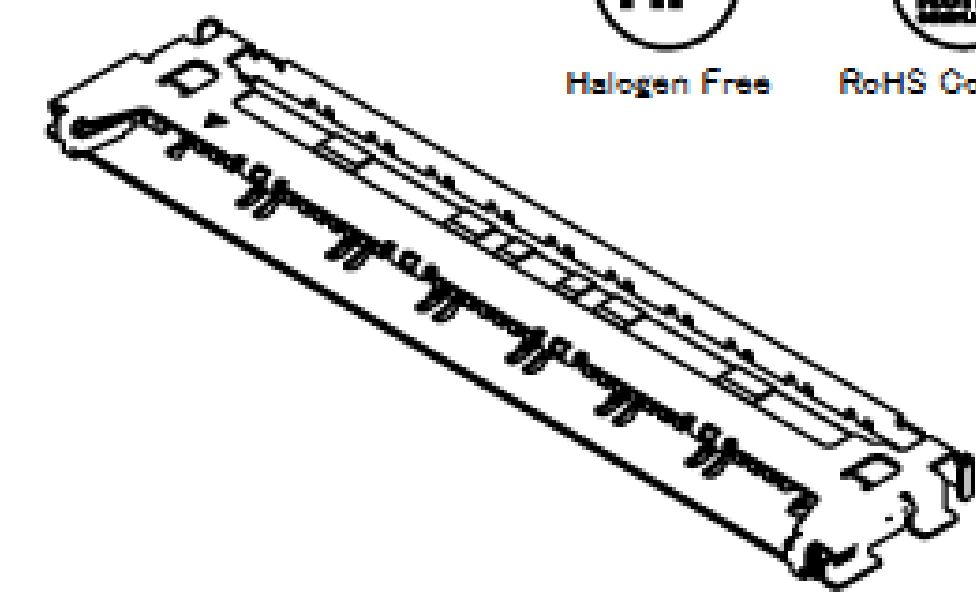
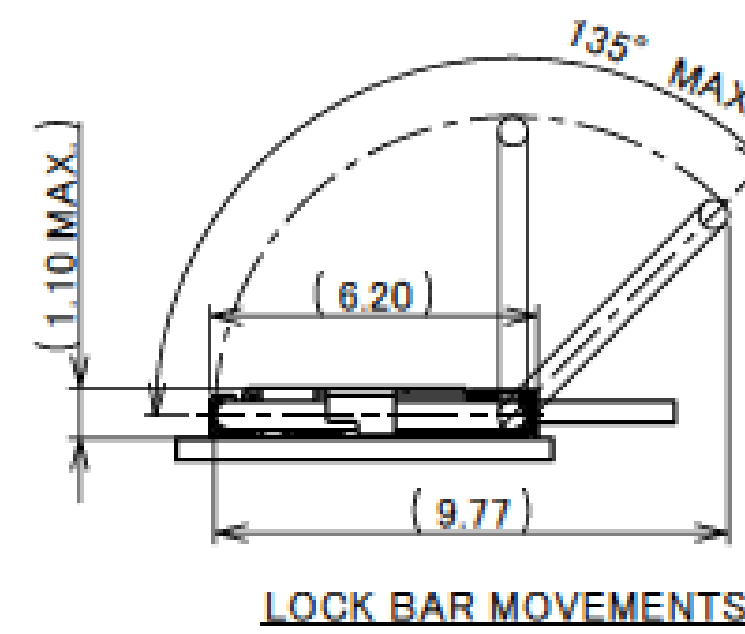
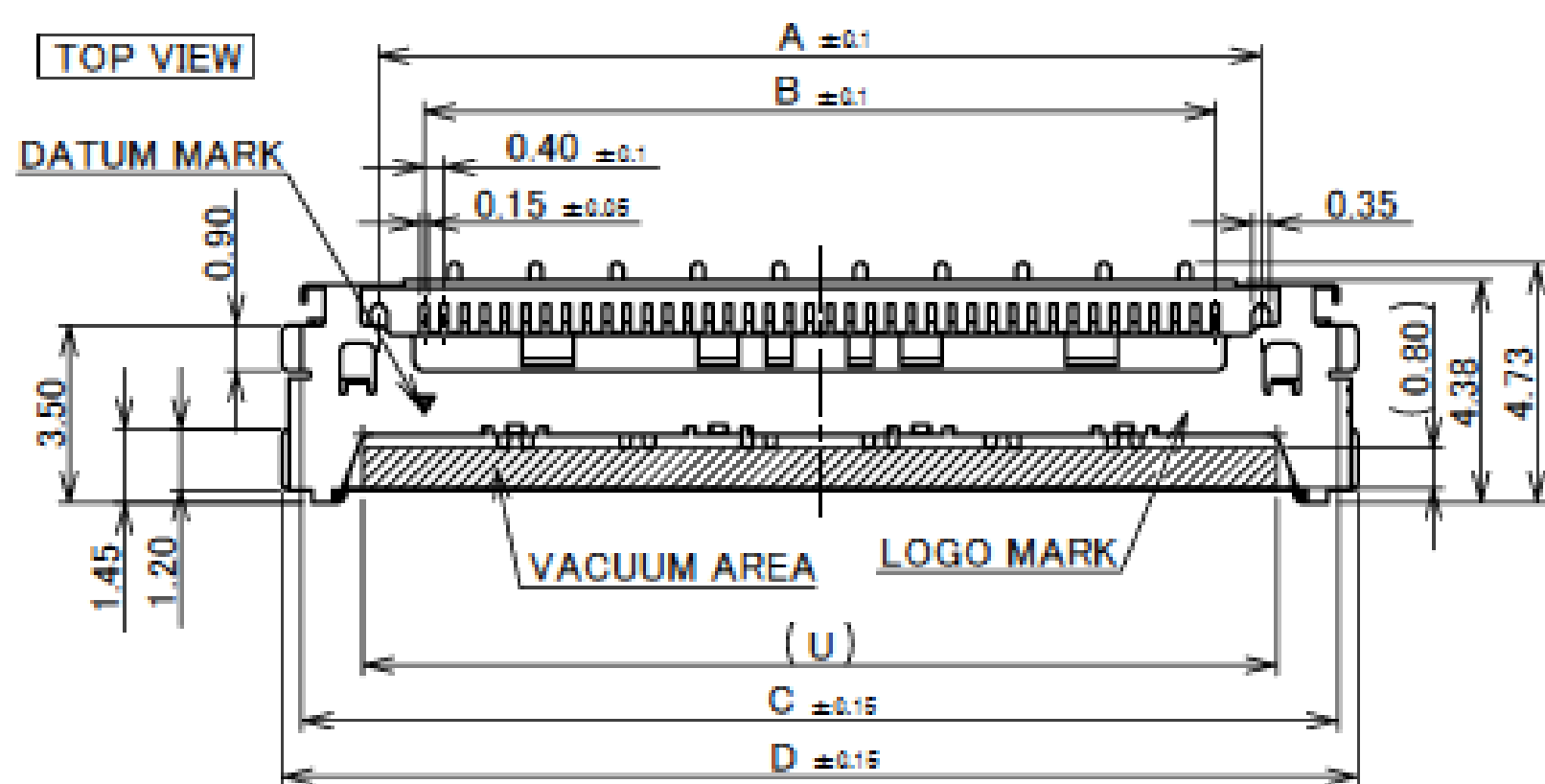
ITEMS	SPECIFICATION
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.3A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K(-40°C~+85°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : \triangle 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 : 13.5N 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.12

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.

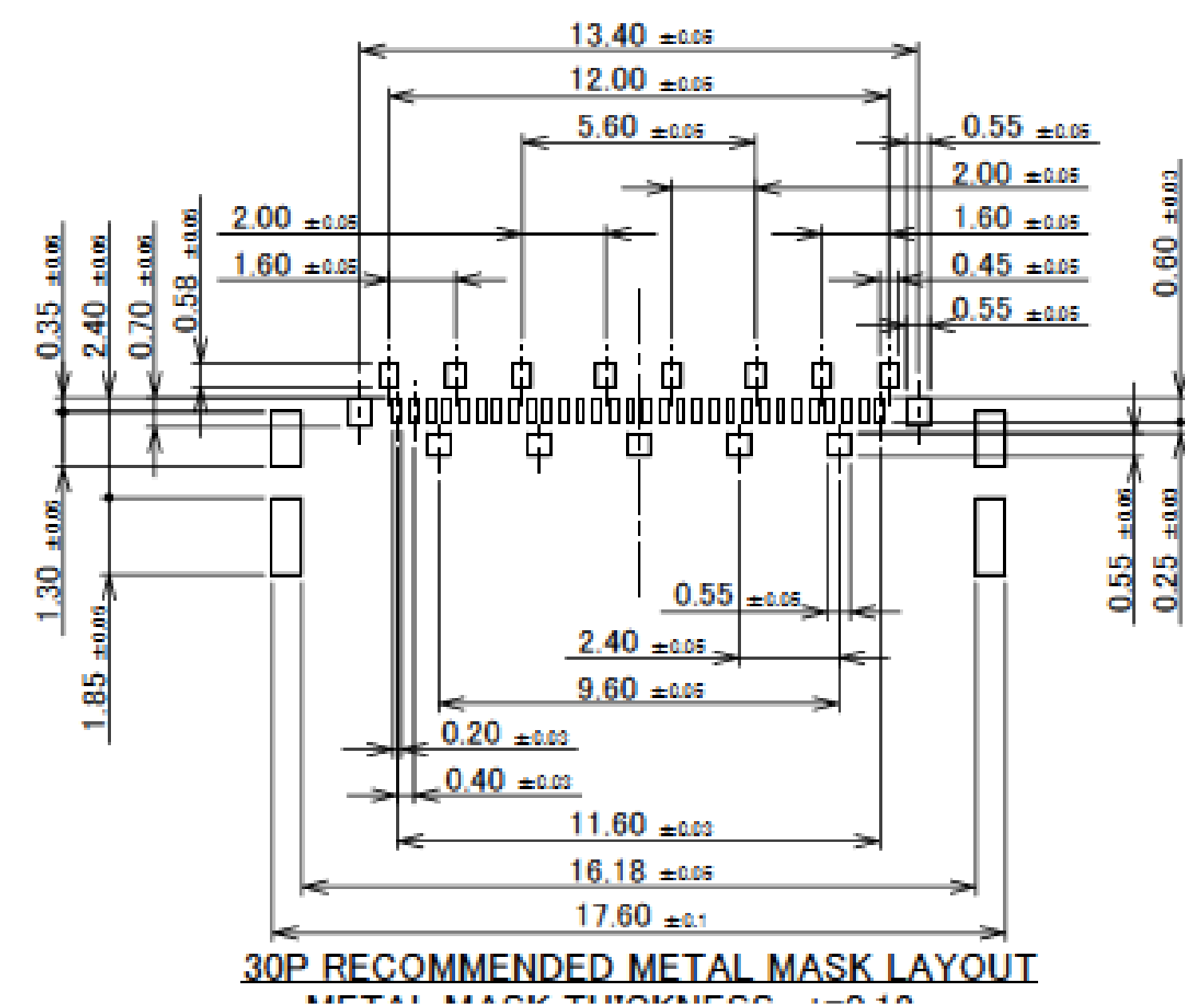
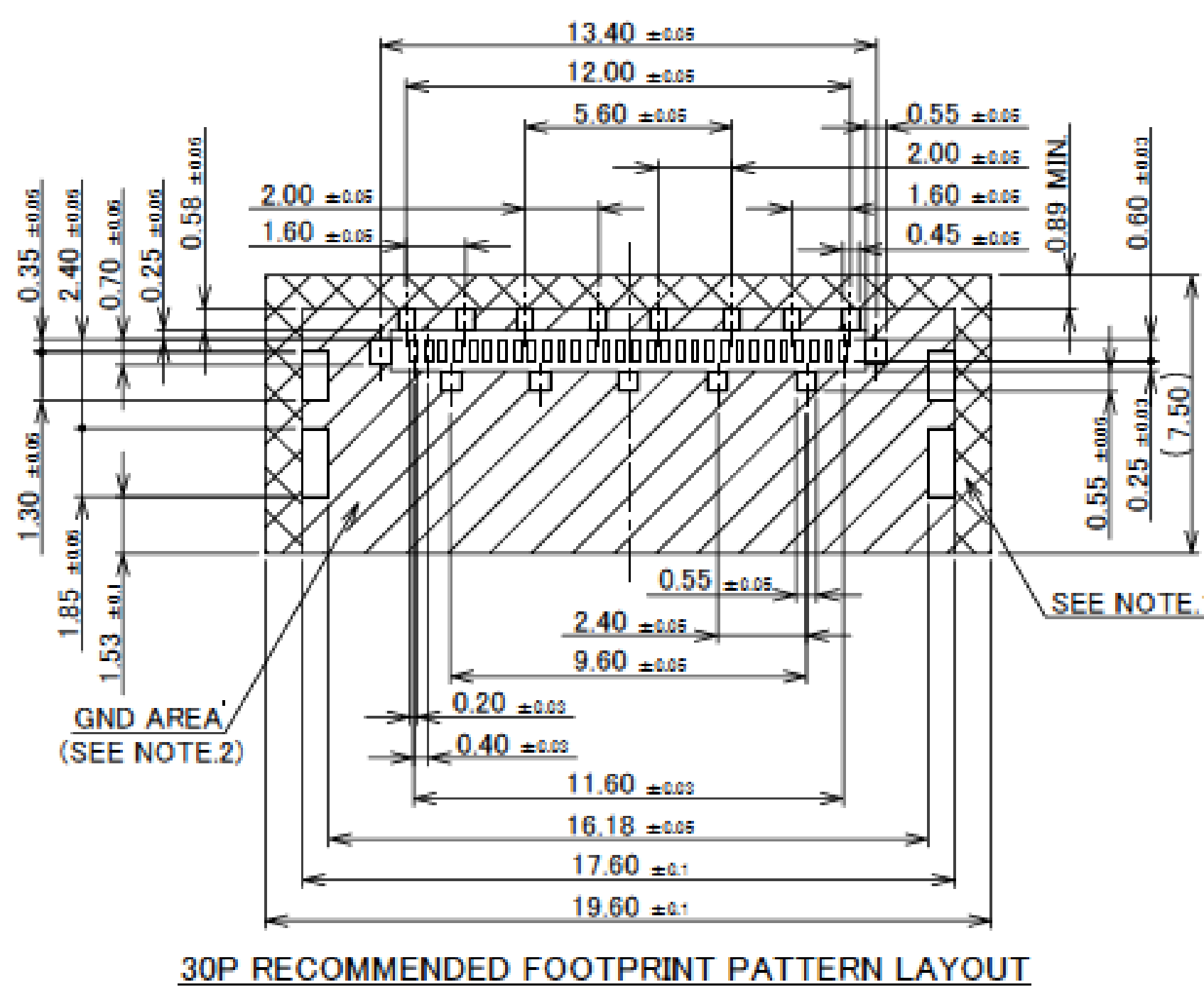
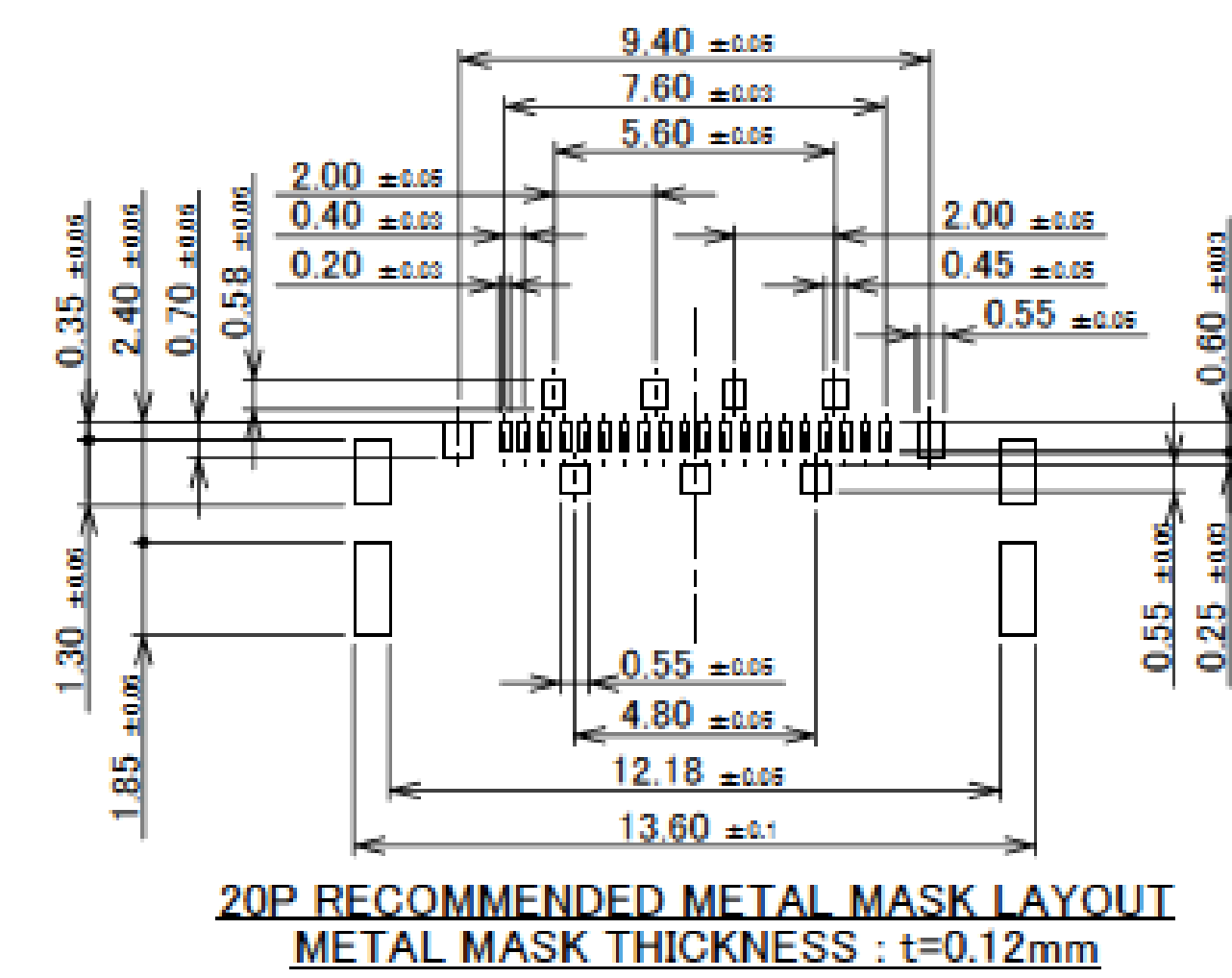
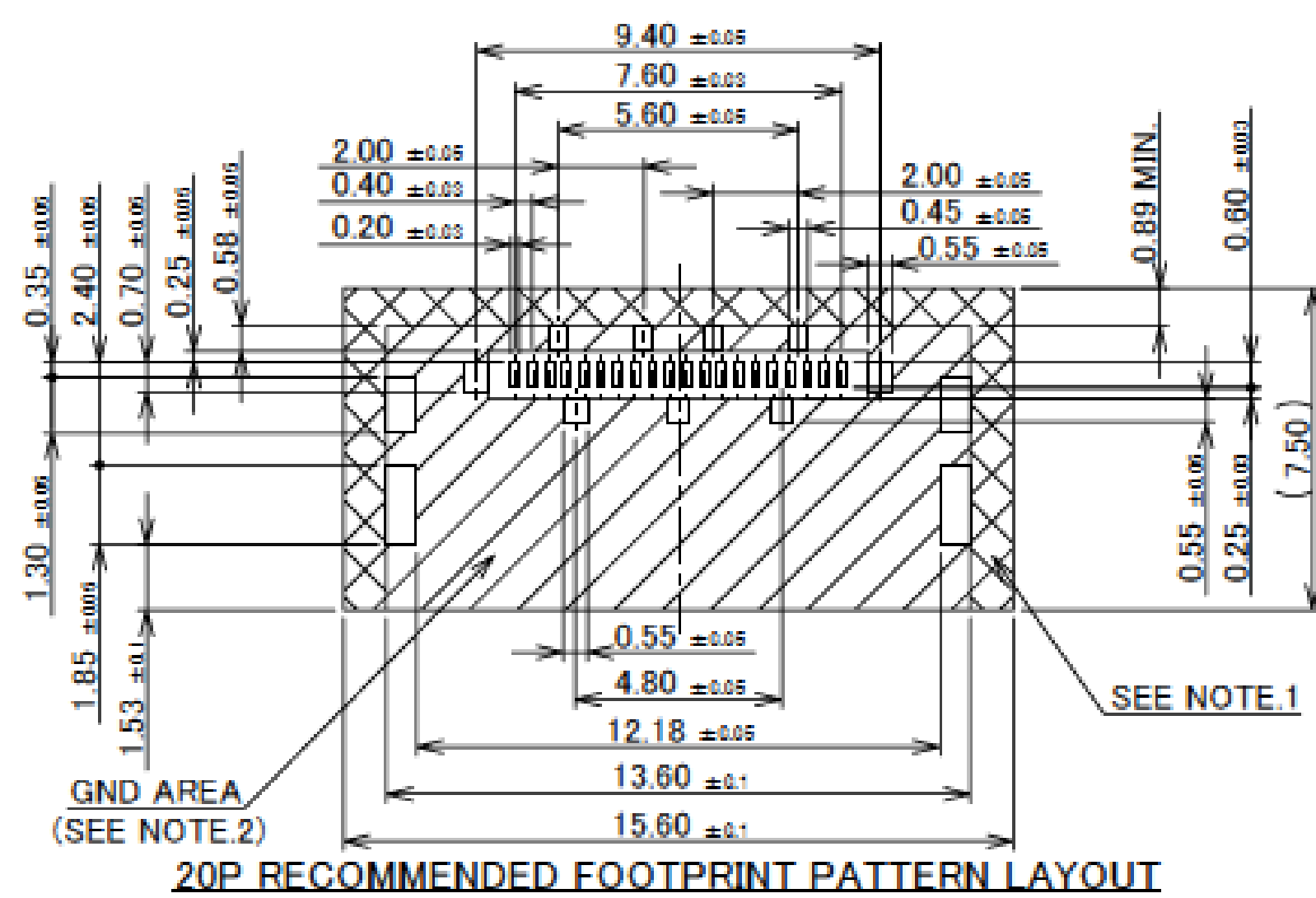
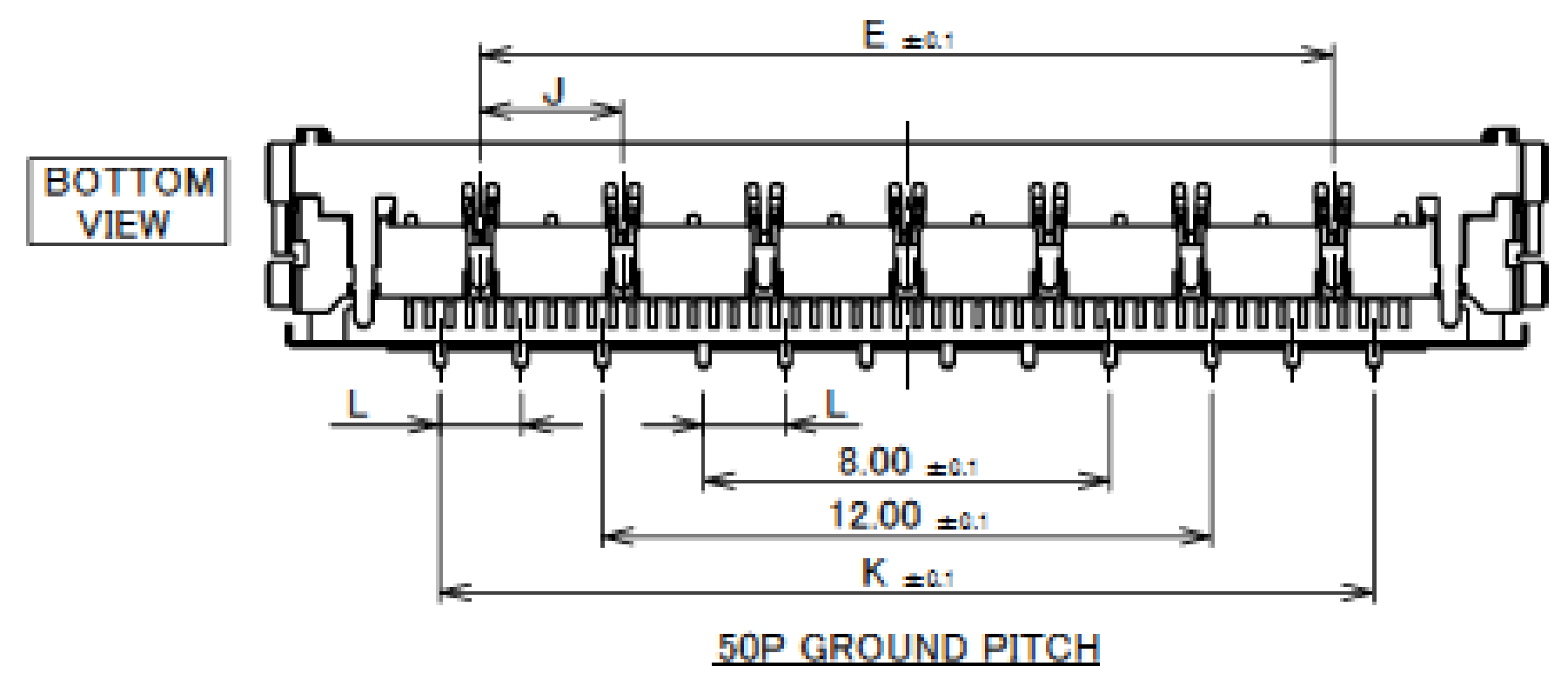
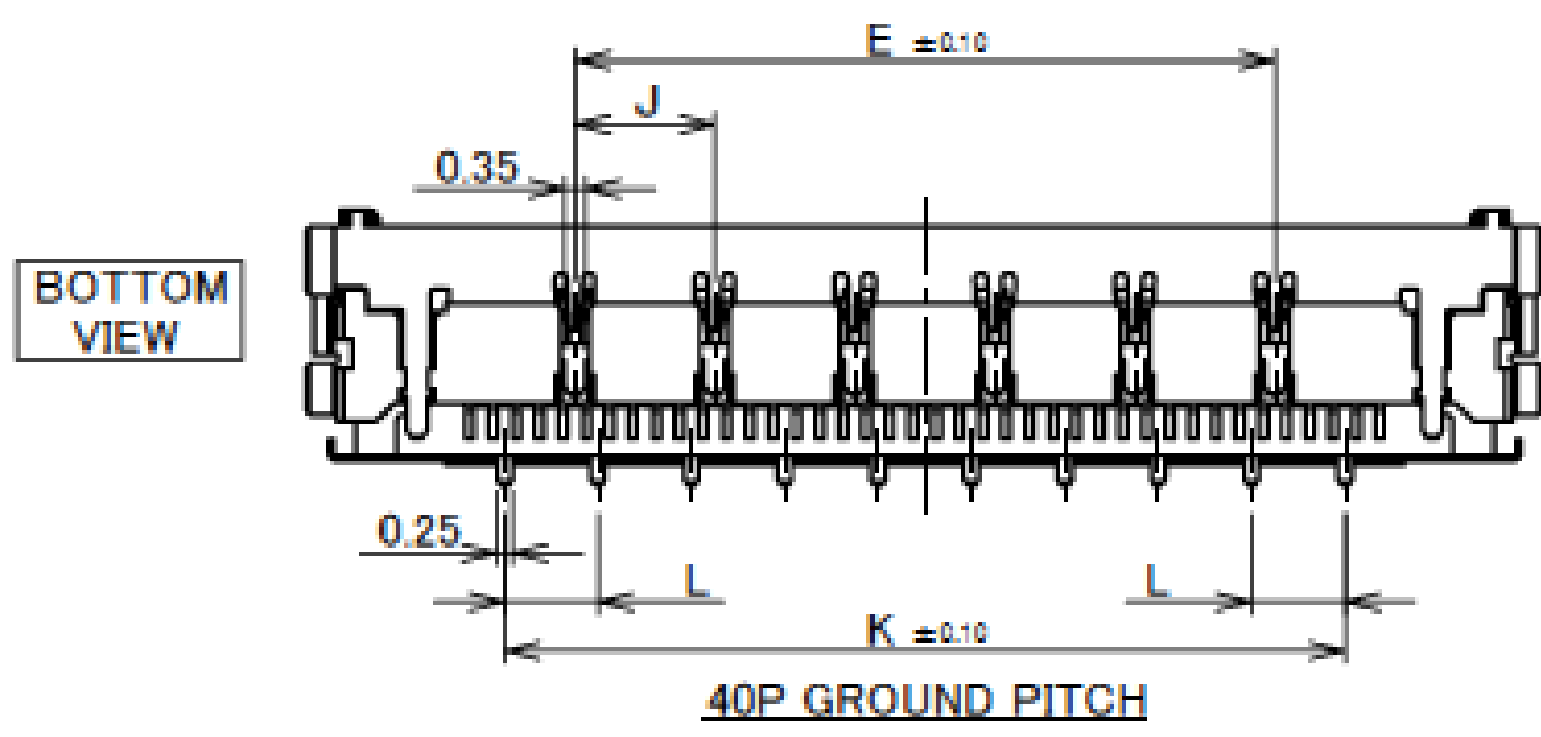
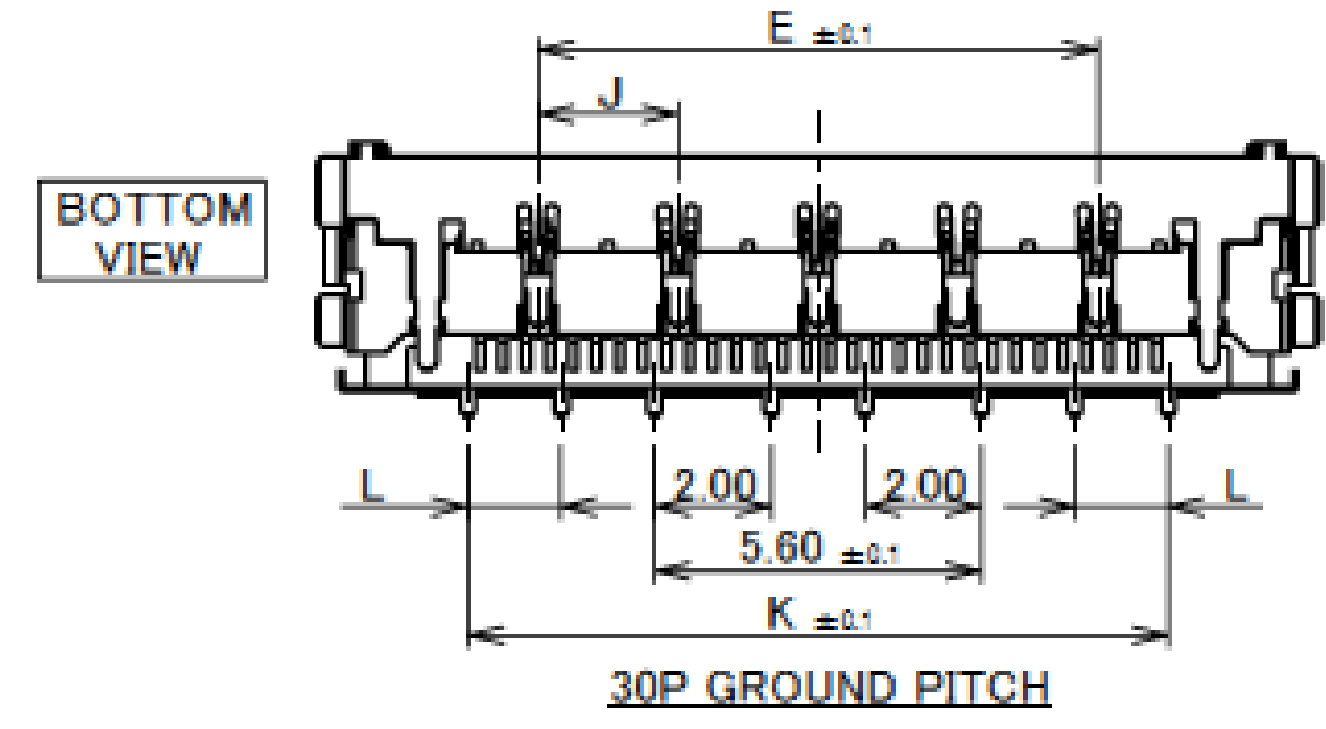
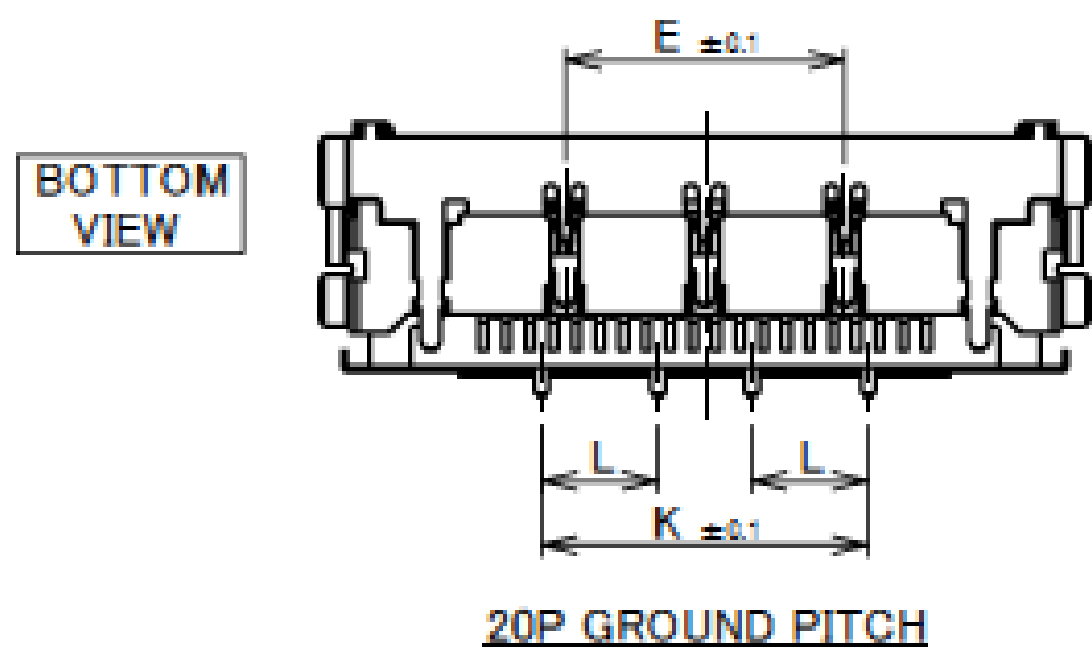


NO.	DISCRPTION	MATERIAL	FINISH , REMARKS
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. SOLDERING AREA : Au 0.03 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT & SOLDERING AREA : Au 0.03 μ m MIN.
1	HOUSING	LCP	UL94V-0 .BLACK

Rev.13

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

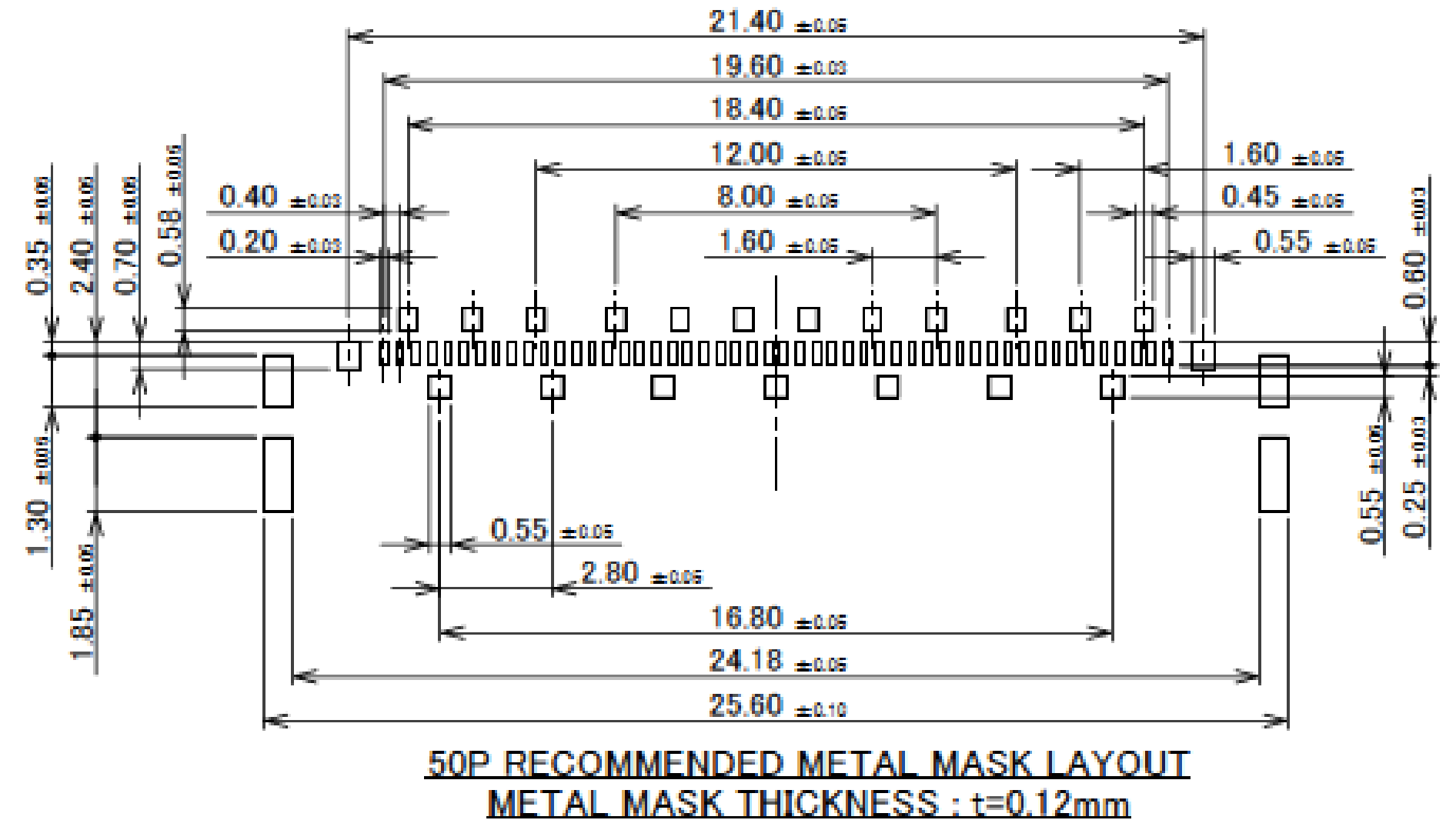
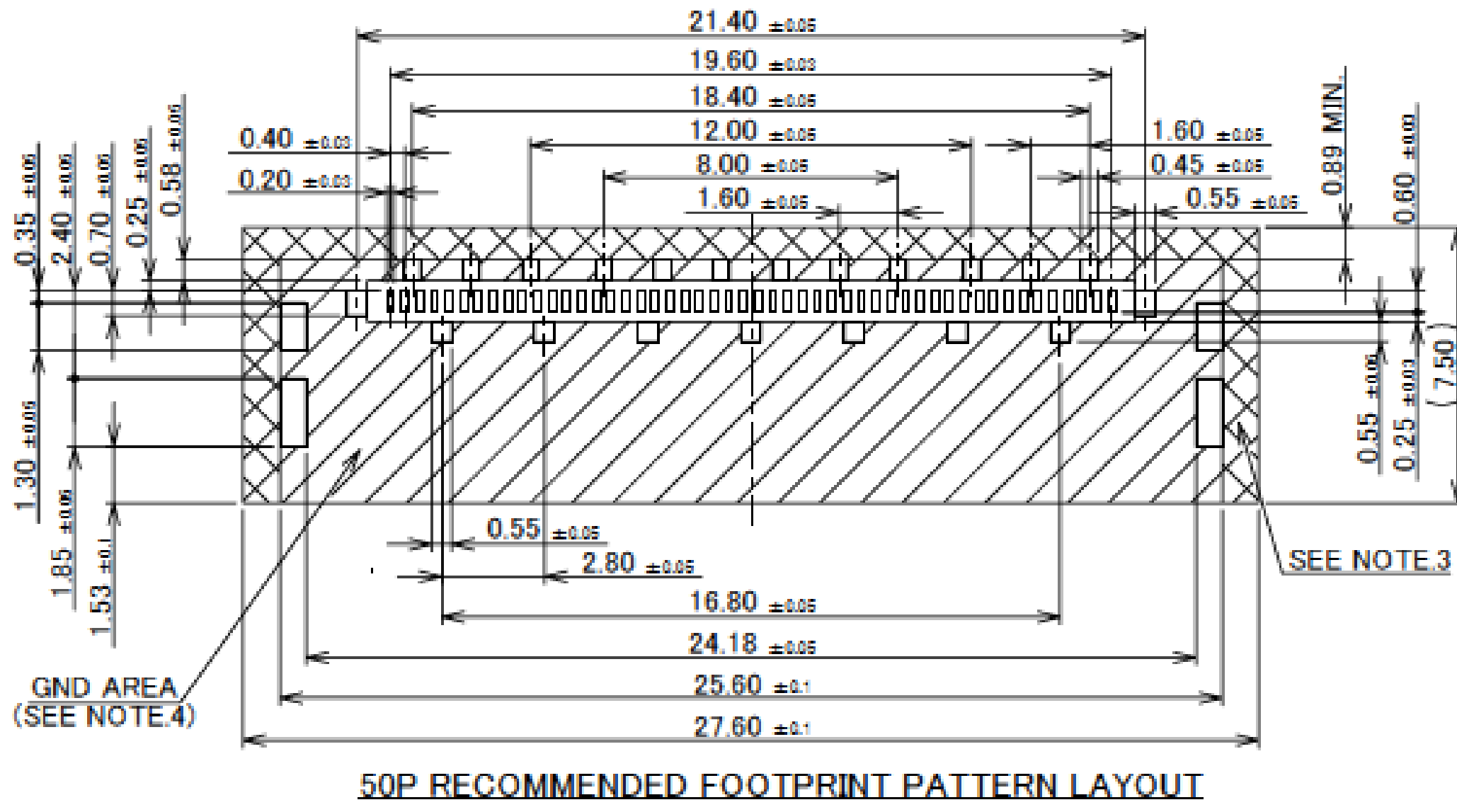
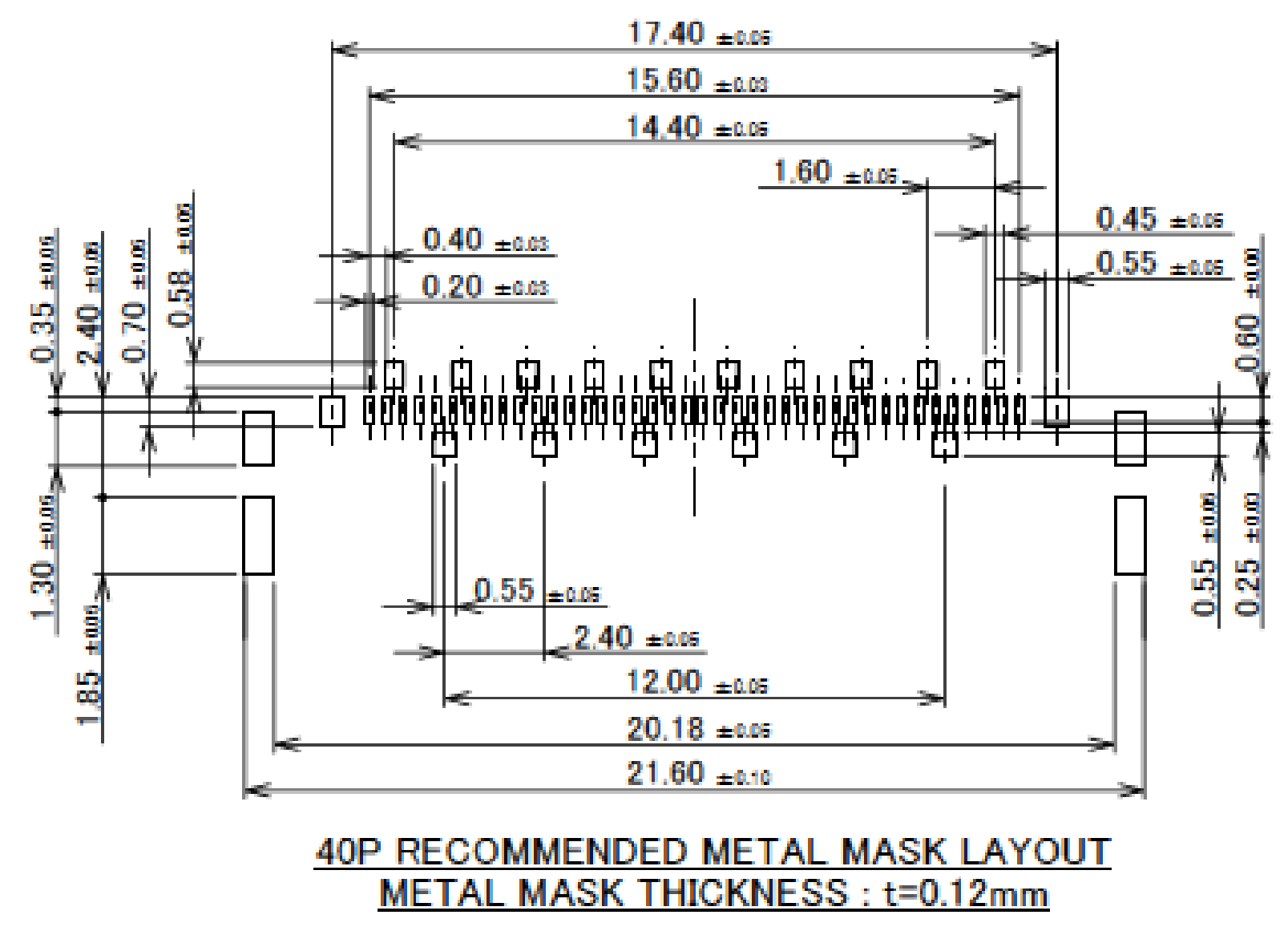
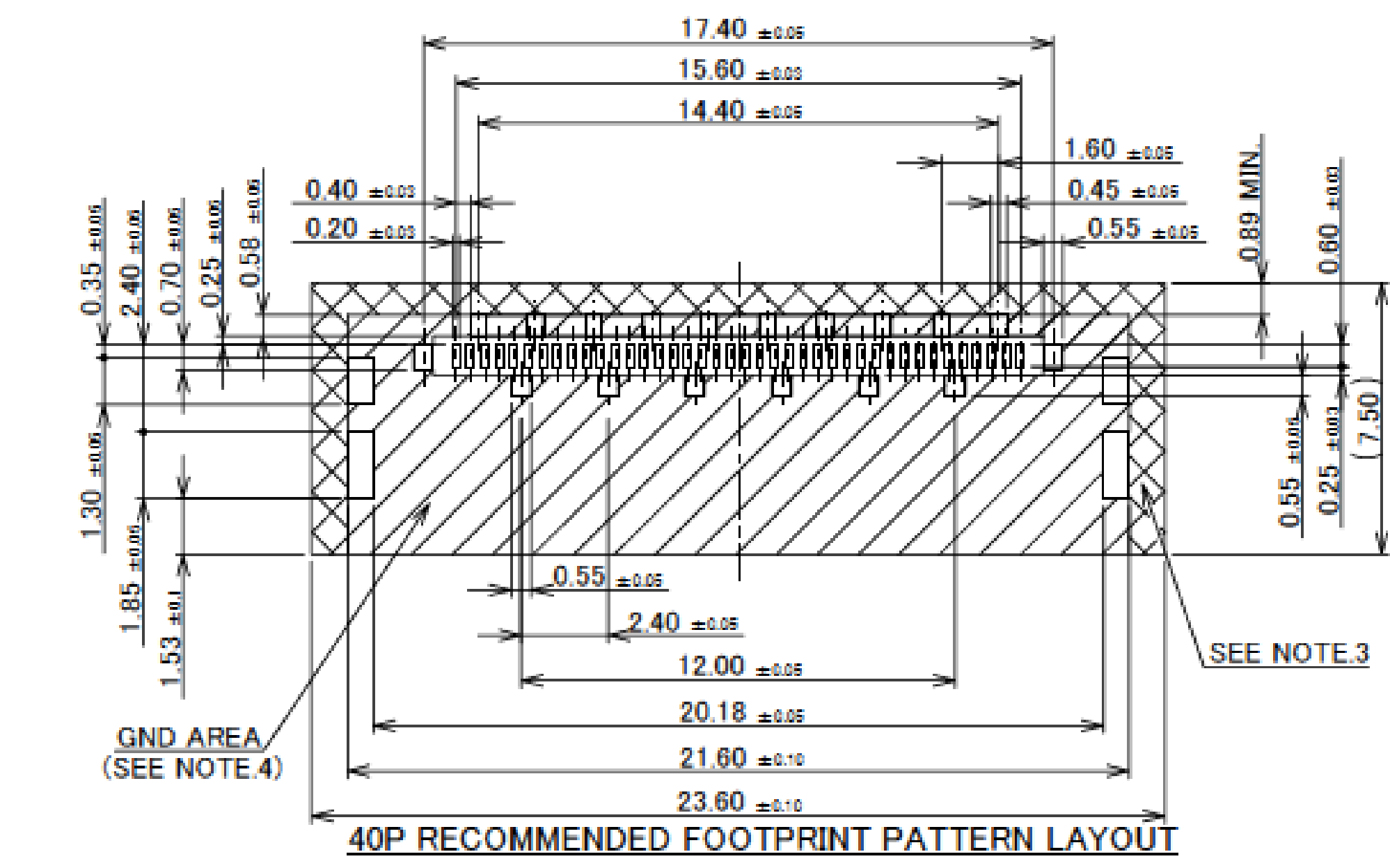


- NOTES:
 1. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
 2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.13

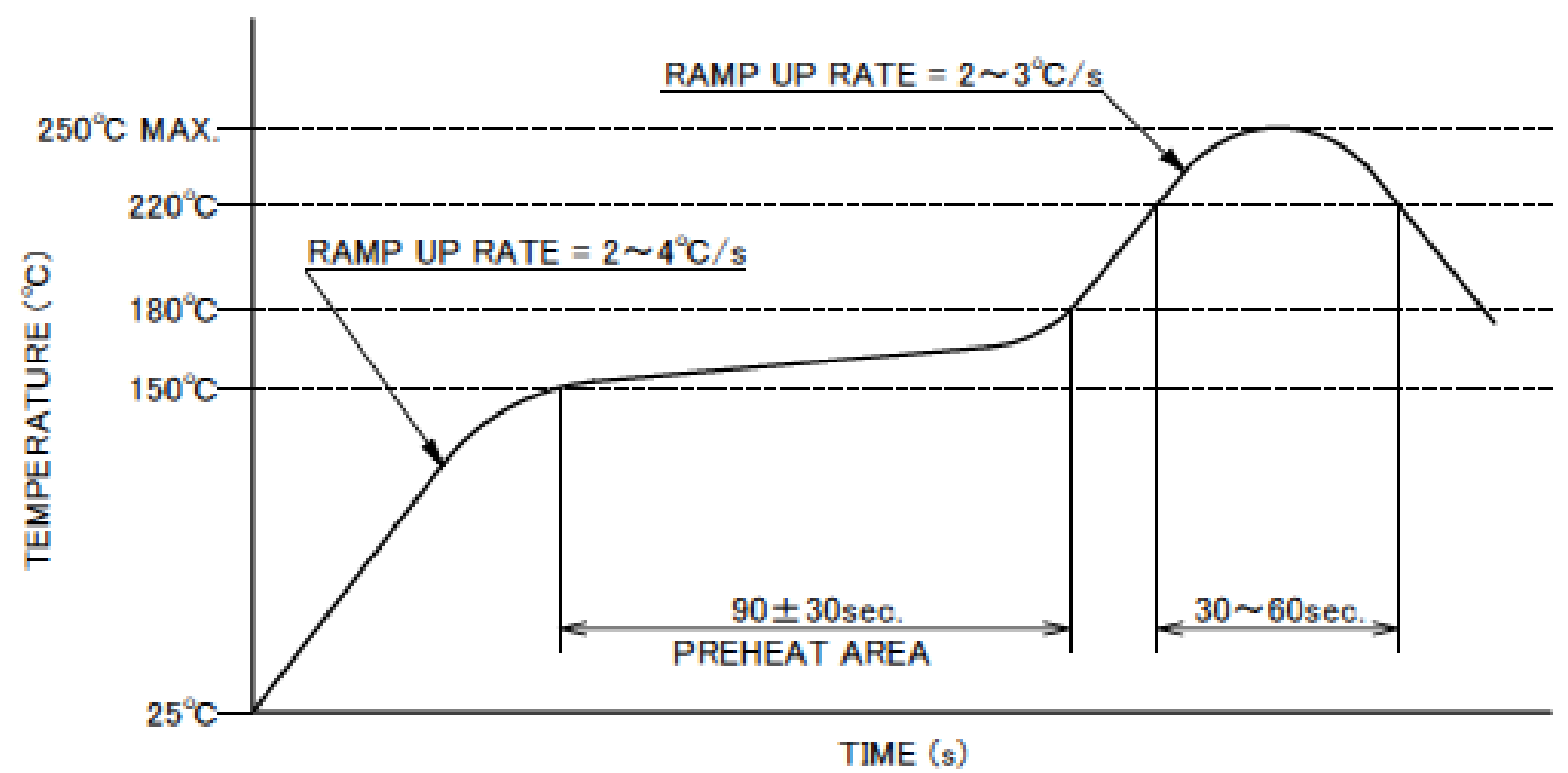
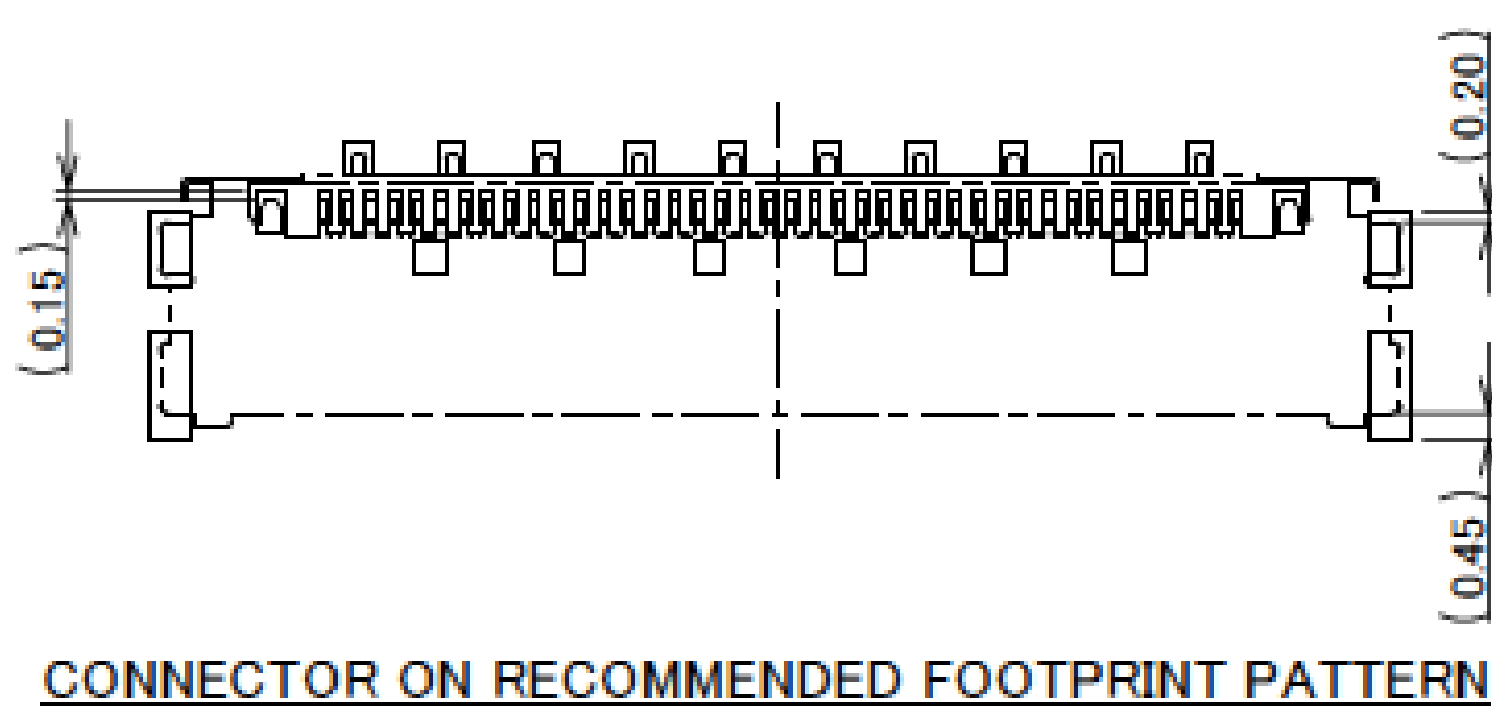
Rev.13

Receptacle Assembly



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

Rev.13



Receptacle Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG# 36 , 34 TWINAX CABLE : AWG# 40 , 42
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.1A AC/DC [AWG#44] PER CONTACT PIN/UP TO 50 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 50 CONTACTS 0.3A AC/DC [AWG#40] PER CONTACT PIN/UP TO 50 CONTACTS 0.5A AC/DC [AWG#38] PER CONTACT PIN/UP TO 18 CONTACTS 0.8A AC/DC [AWG#36] PER CONTACT PIN/UP TO 6 CONTACTS 1.0A AC/DC [AWG#34] PER CONTACT PIN/UP TO 6 CONTACTS ※TESTING BY A REAL MACHINE IS RECOMMENDED BECAUSE TEMPURTURE RISE MAY AFFECTED BY ACTUAL SITUATION.
OPERATING TEMPERATURE	233~378K(-40°C~105°C)
OPERATING HUMIDITY	85% MAX.(NON-CONDENDING)
CONTACT RESISTANCE	INITIAL : 180mohm MAX.(AWG#34) / AFTER TEST : $\leq 140\text{mohm}$ MAX. 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 : $\leq 40\text{mohm}$ 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. 50P : 24.25N MAX.
UN-MATING FORCE (INITIAL / AFTER 30 CYCLES)	20P : 2.0N MIN. 30P : 3.0N MIN. 40P : 4.0N MIN. 50P : 5.0N MIN.
CABLE RETENTION FORCE	20P : 9.70N MIN. 30P : 14.55N MIN. 40P : 19.40N MIN. 50P : 24.25N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2163
TEST REPORT	TR-15103
INSTRUCTION MANUAL	HIM-15033
PACKING STANDARD	PST-15027
APPEARANCE CRITERIA No.	QLS-A***

Rev.13

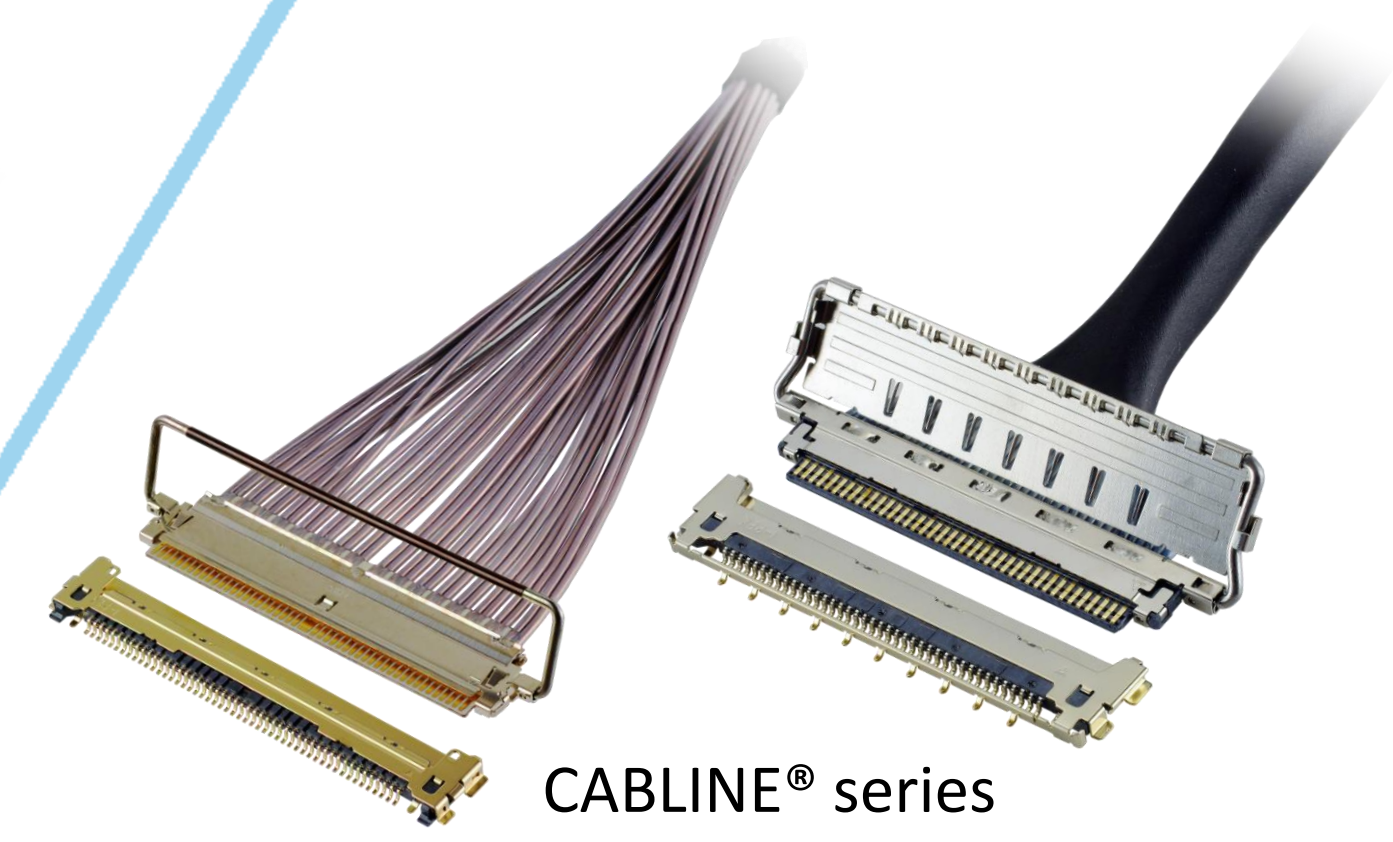
Custom Connectors Available

 RF Connector

MHF® series



Micro-coaxial/Twinax/
Discrete Wire Connector



CABLINE® series



Optical Module

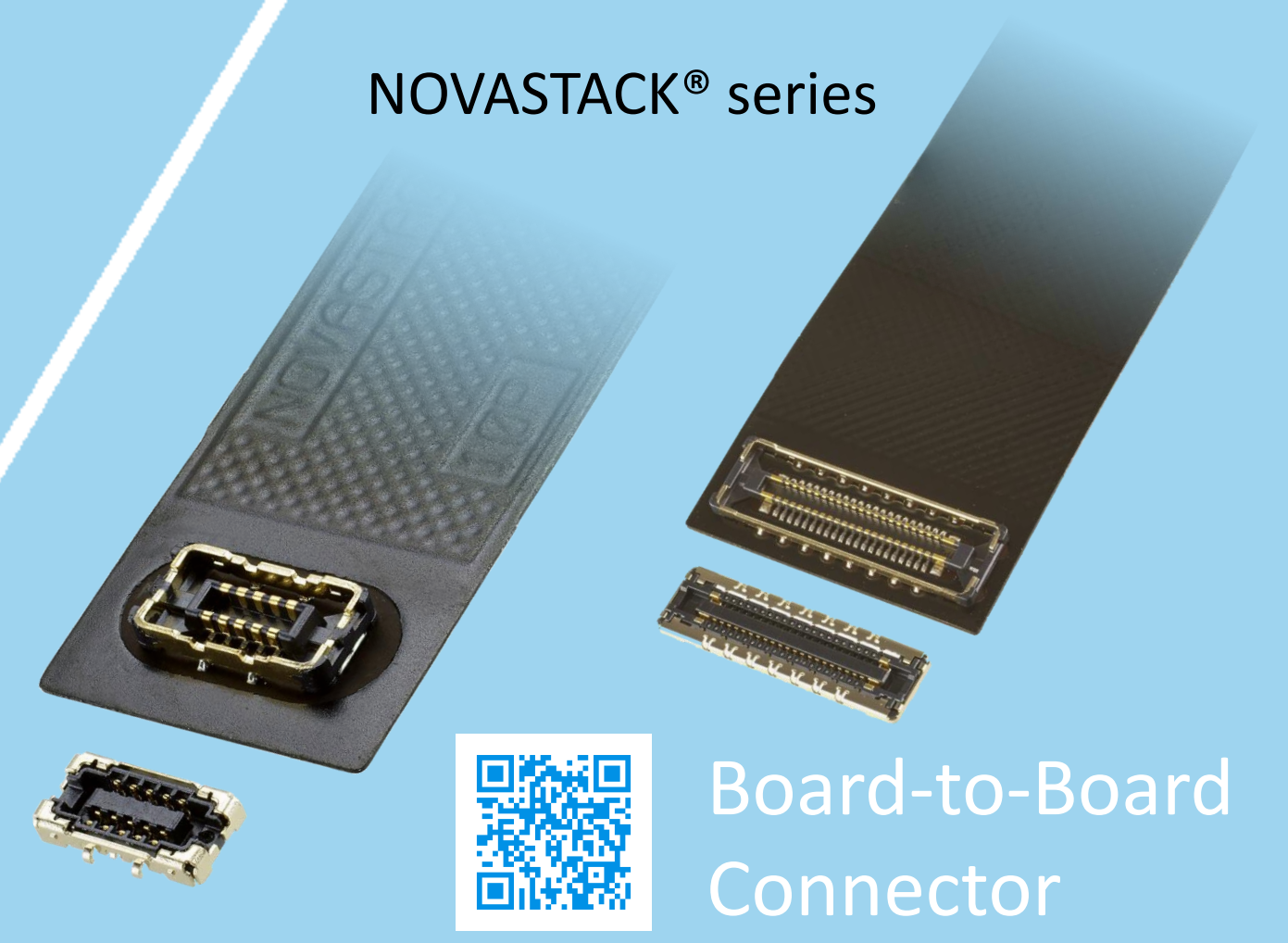
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



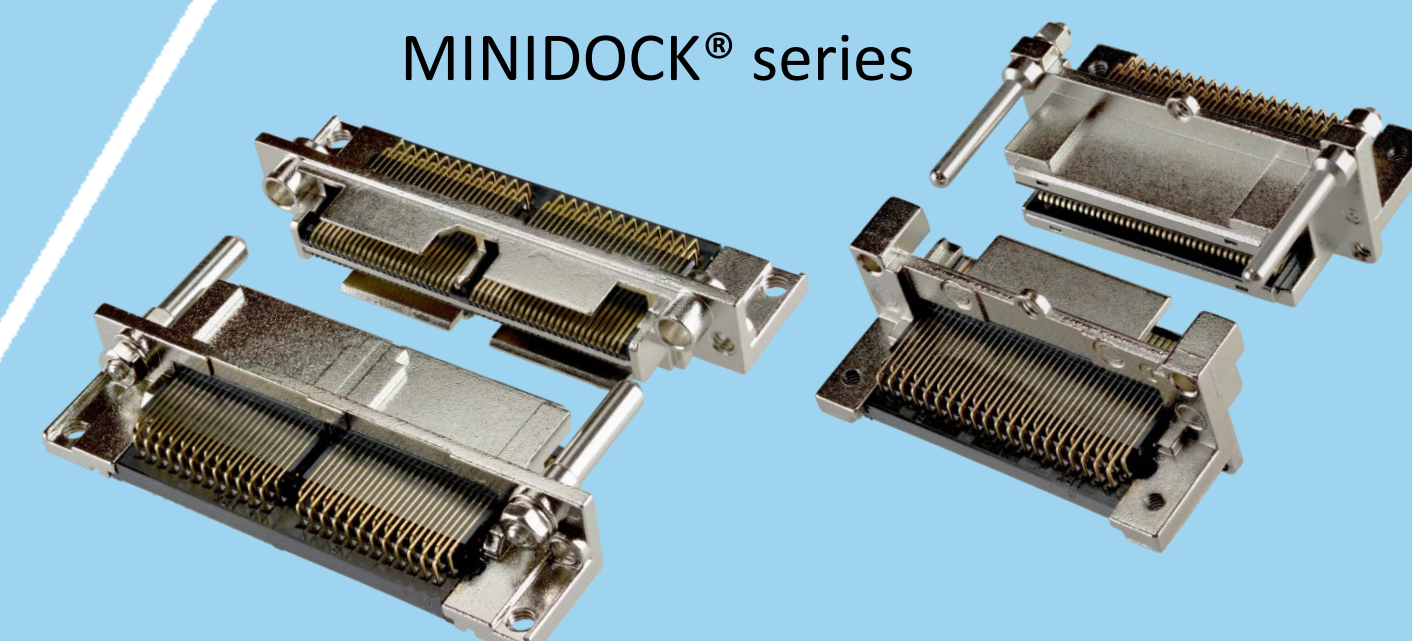
Inquiry



MINIDOCK® series



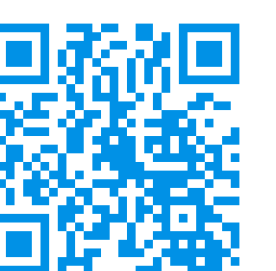
I/O Connector



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Contact your sales representative or more detailed information.

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