

CABLINE® -CAL IIF

Low profile (0.9 mm max.), fully-shielded with mechanical lock, suitable for high-data-rate transfer (32 Gbps/lane), 0.4 mm pitch, horizontal mating type FPC connector

Product Specifications:

Mating type		Horizontal
Board Pitch		0.4 mm
Wiping Length		0.44 mm
Mated size	Height	0.9 mm max.
	Width	5.74 + (0.4 x pin count) mm
	Depth	6.41 mm
Pin Counts	Range	Up to 60
	Available	50

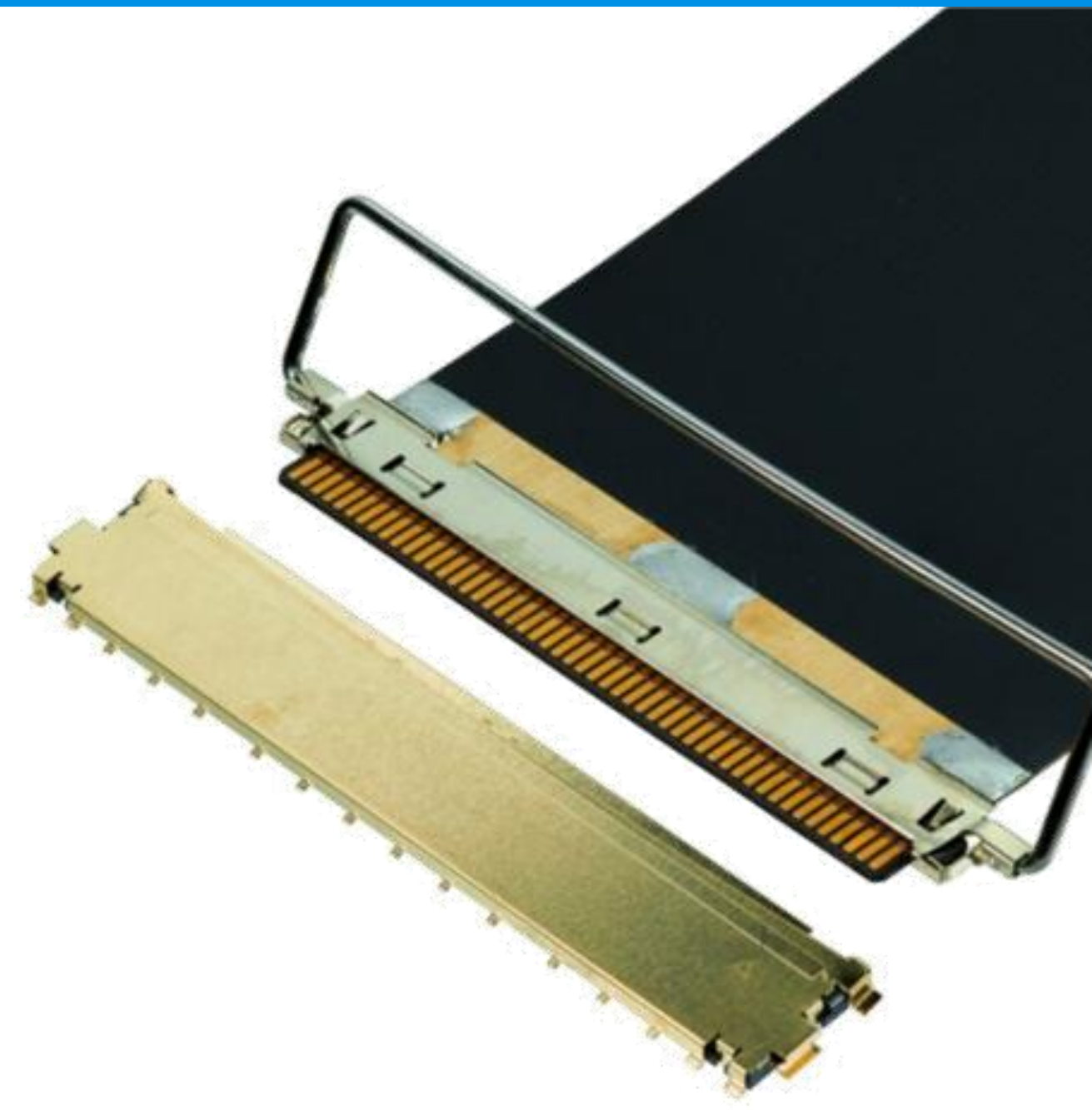
Applicable FPC

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

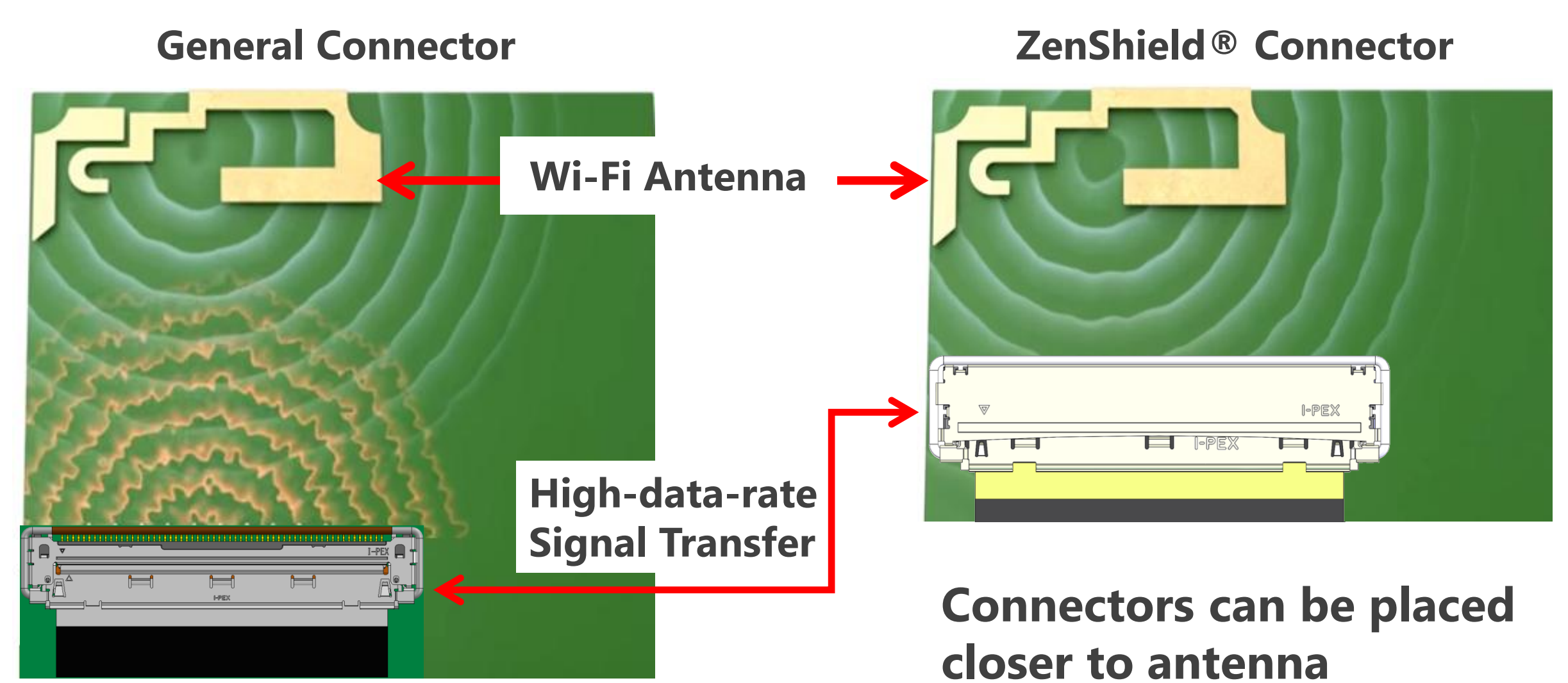
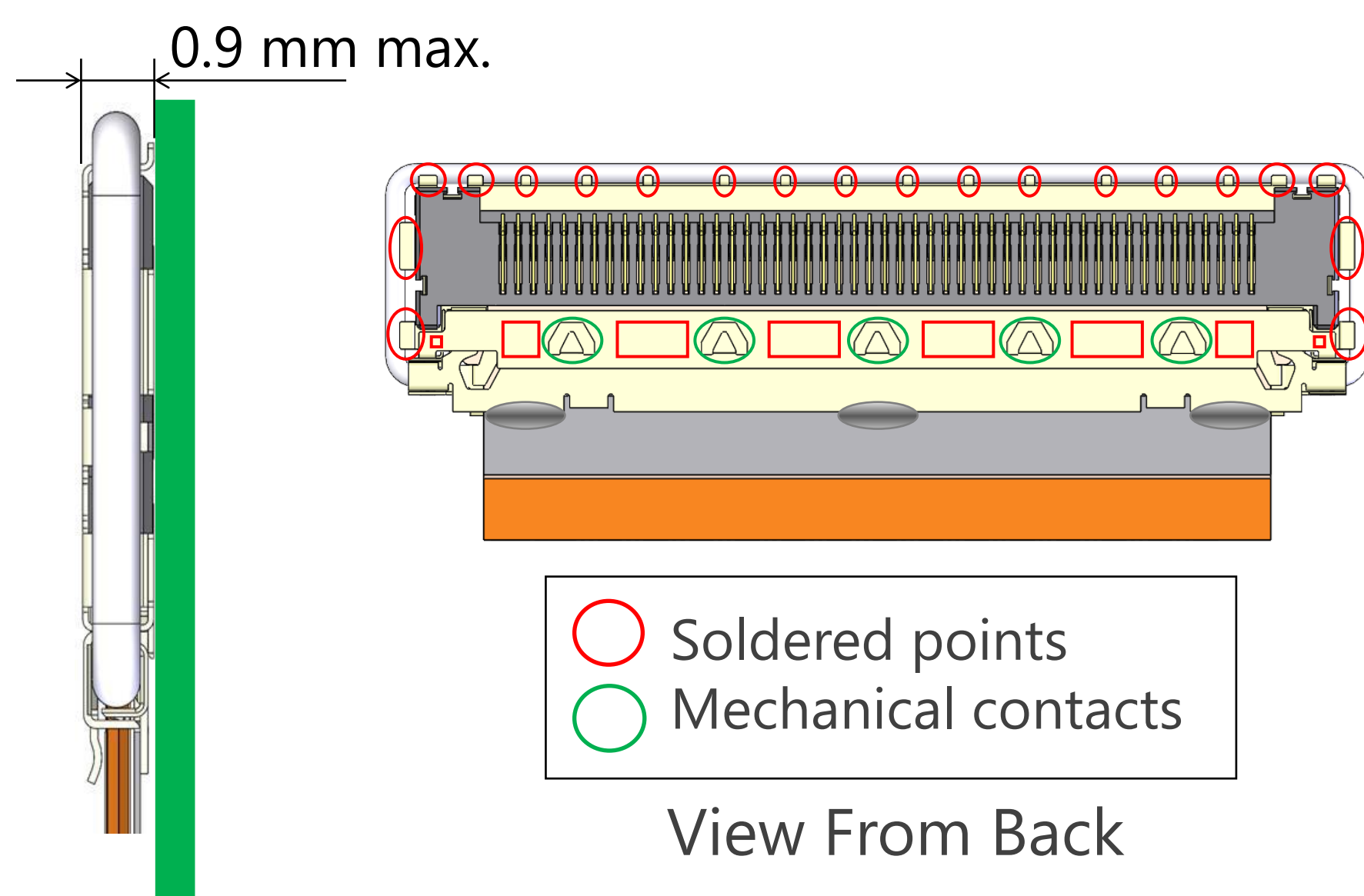
Applicable Standards (Reference Only):

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.



Low profile (0.9 mm max.), ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage



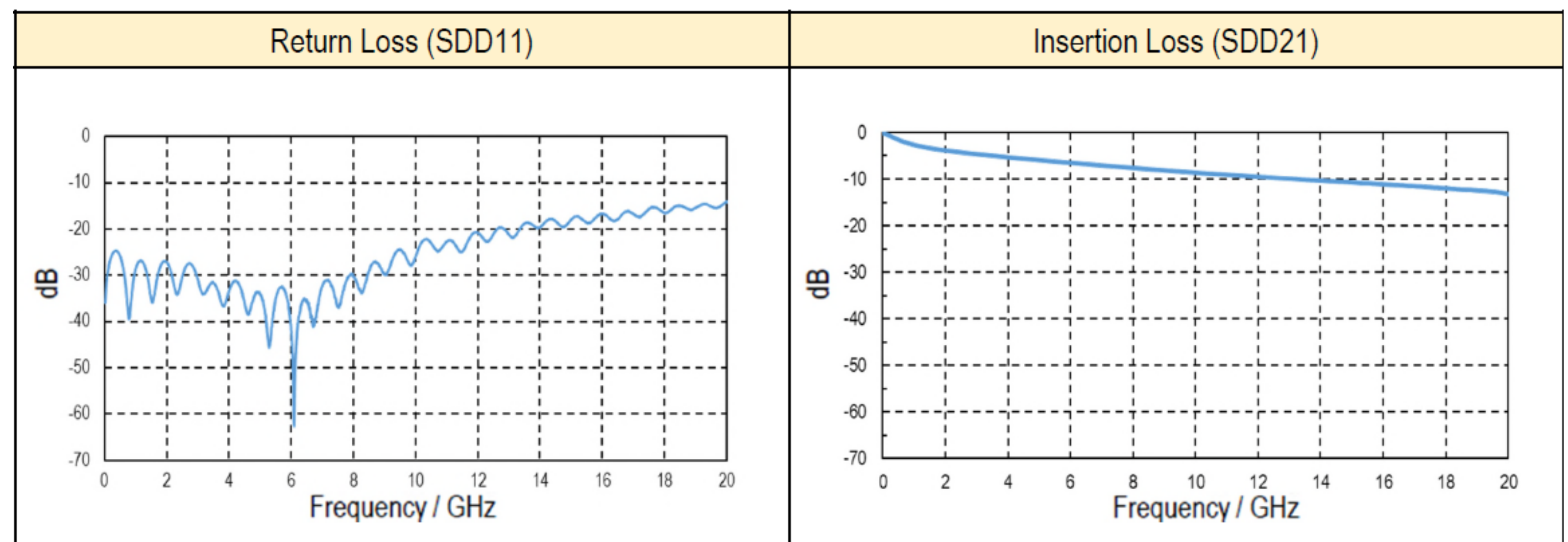
High-data-rate transfer, ideal for 32 Gbps/lane applications

Measurement results

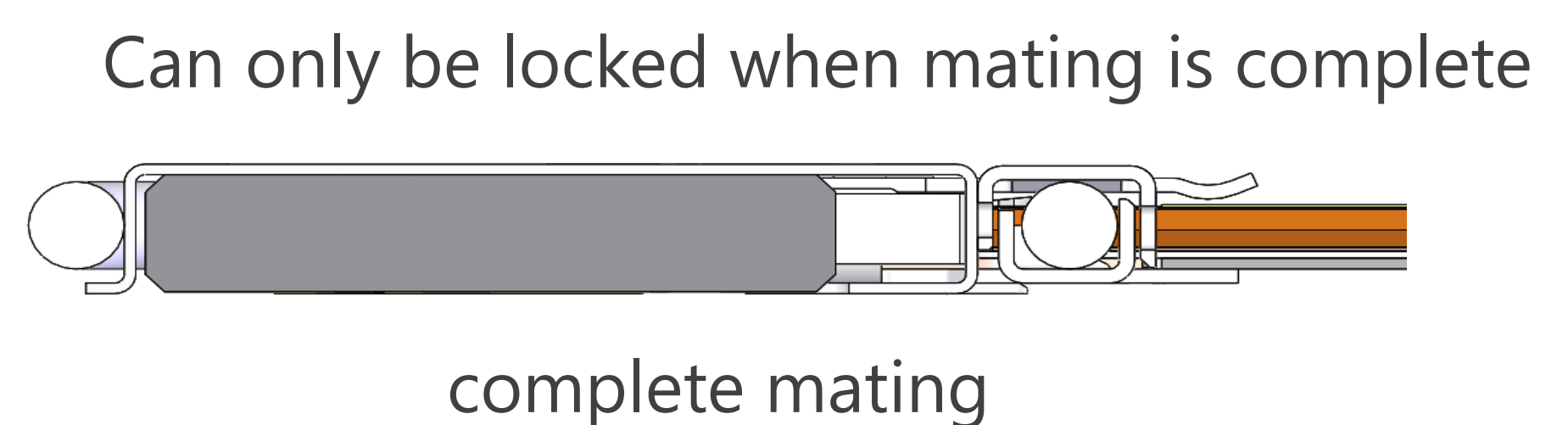
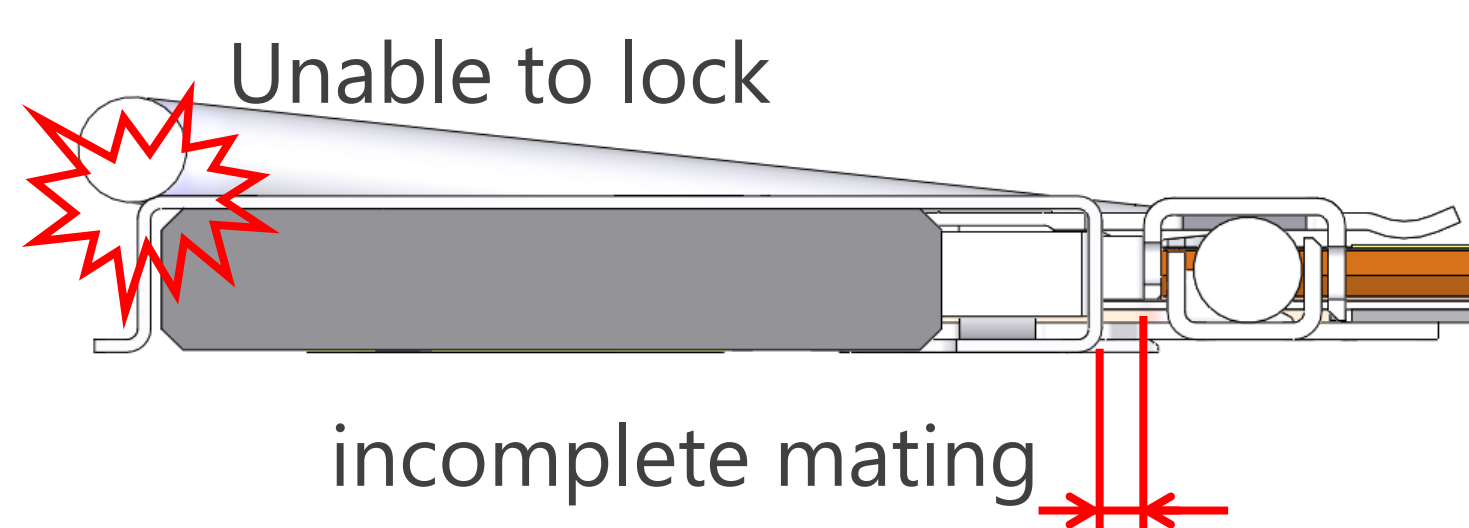
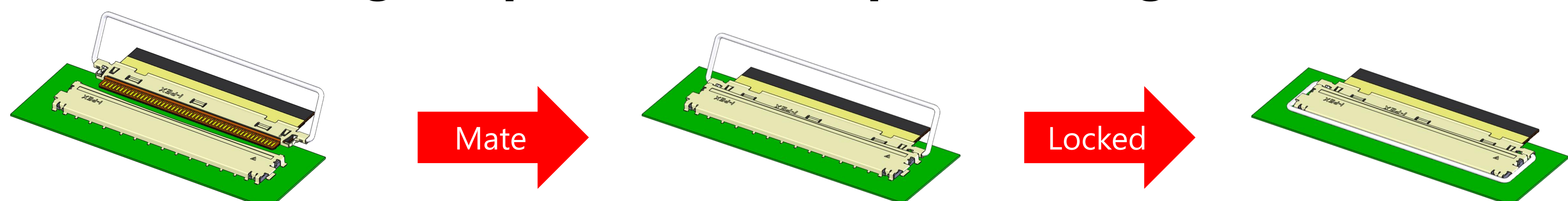
Connector: CABLINE-CAL IIF 50P

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

Pin Assignment: GSSGSSG

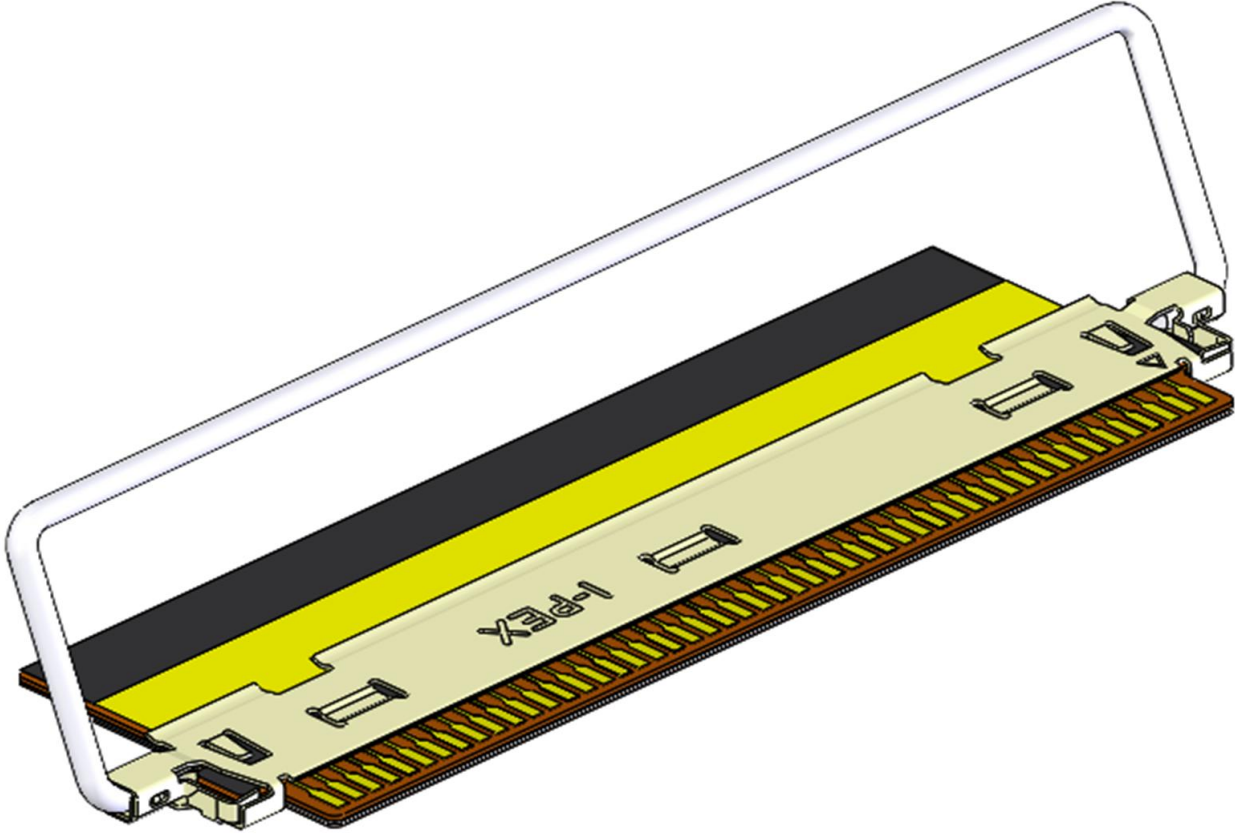
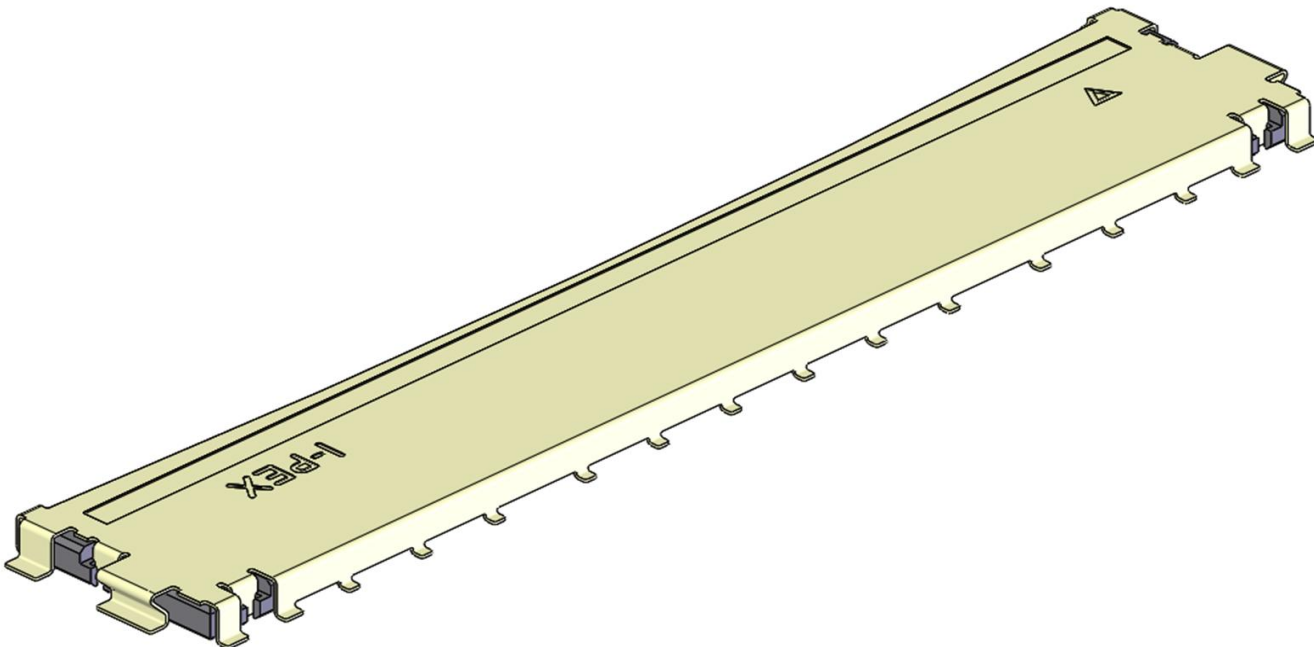


Mechanical locking bar prevents incomplete mating and back-out/unmating



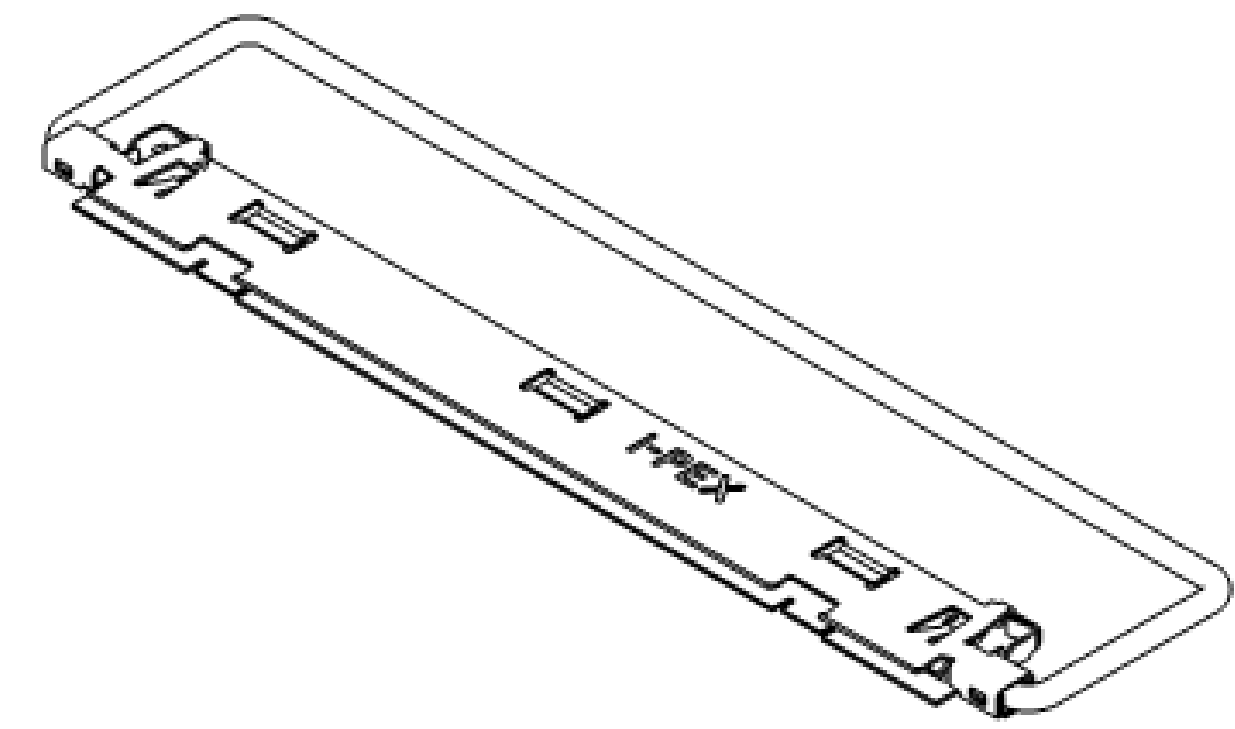
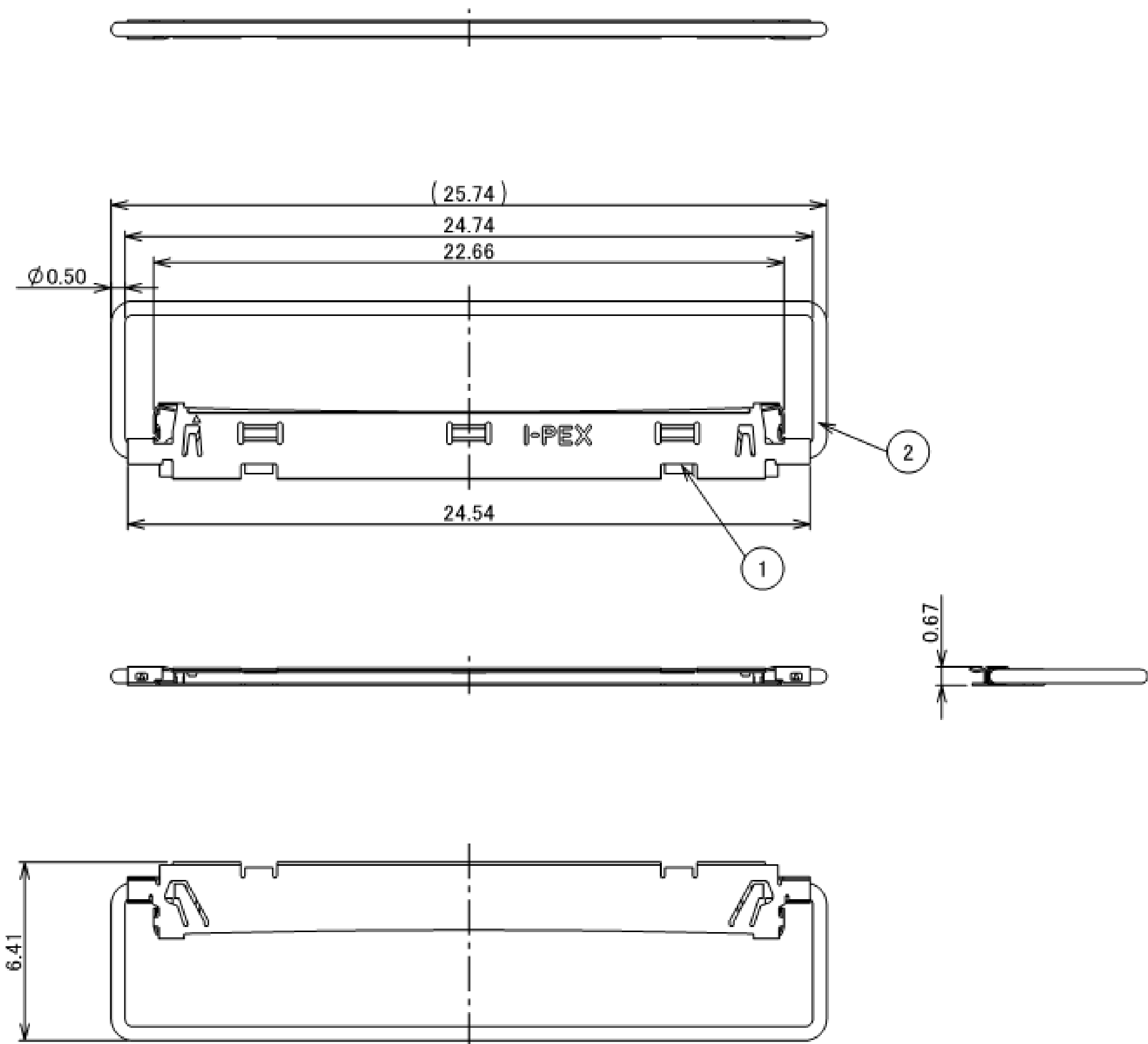
Component Parts Details

Component Parts

Connector parts

CABLINE-CAL IIF PLUG with FPC

CABLINE-CAL IIF RECEPTACLE

Shell Assembly

Recommended P/N		21088-050T-01
P/N	Pos.	
21088-050T-01	50	

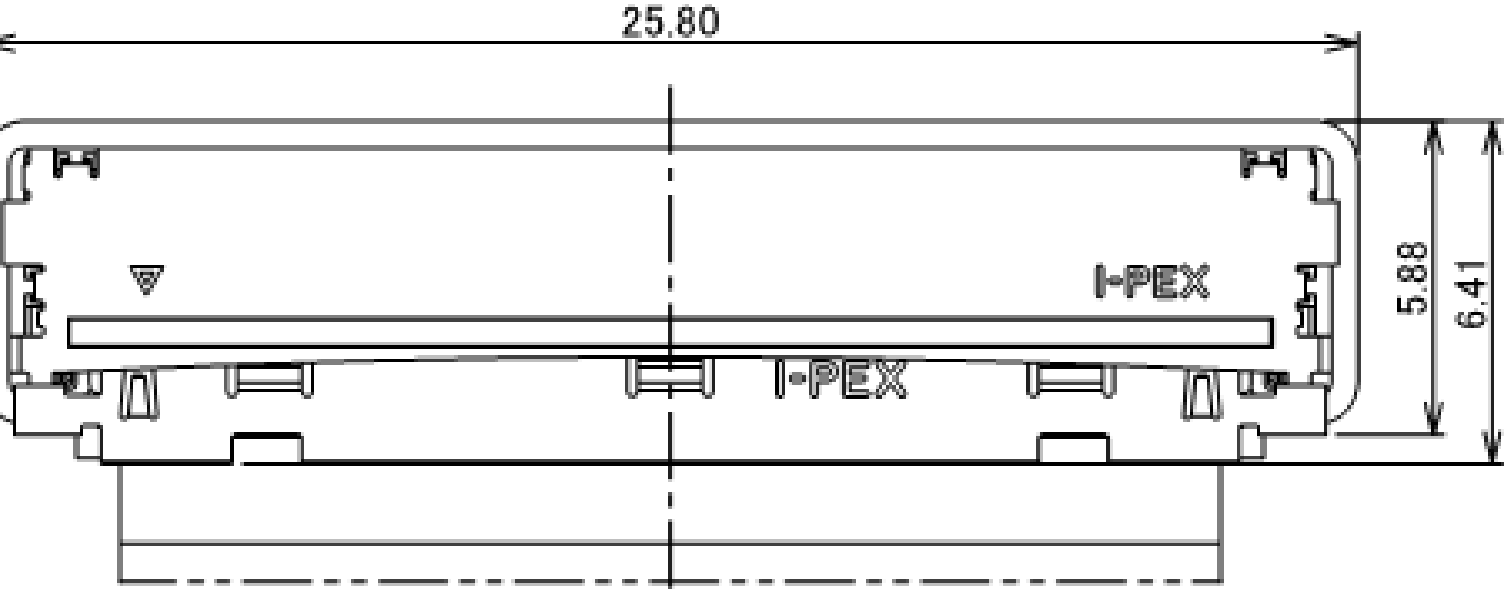
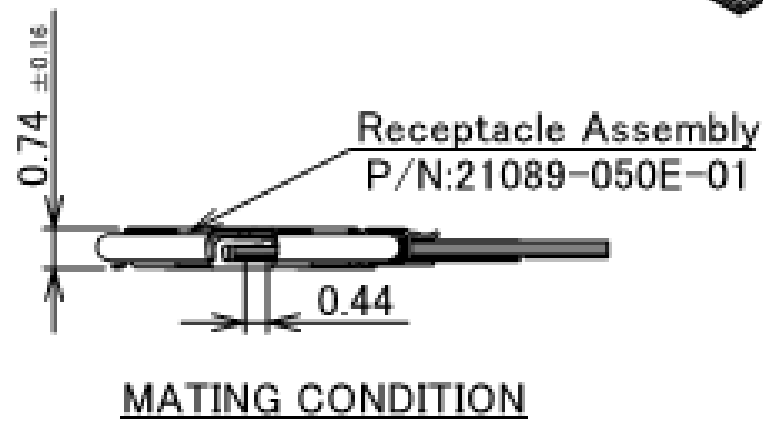
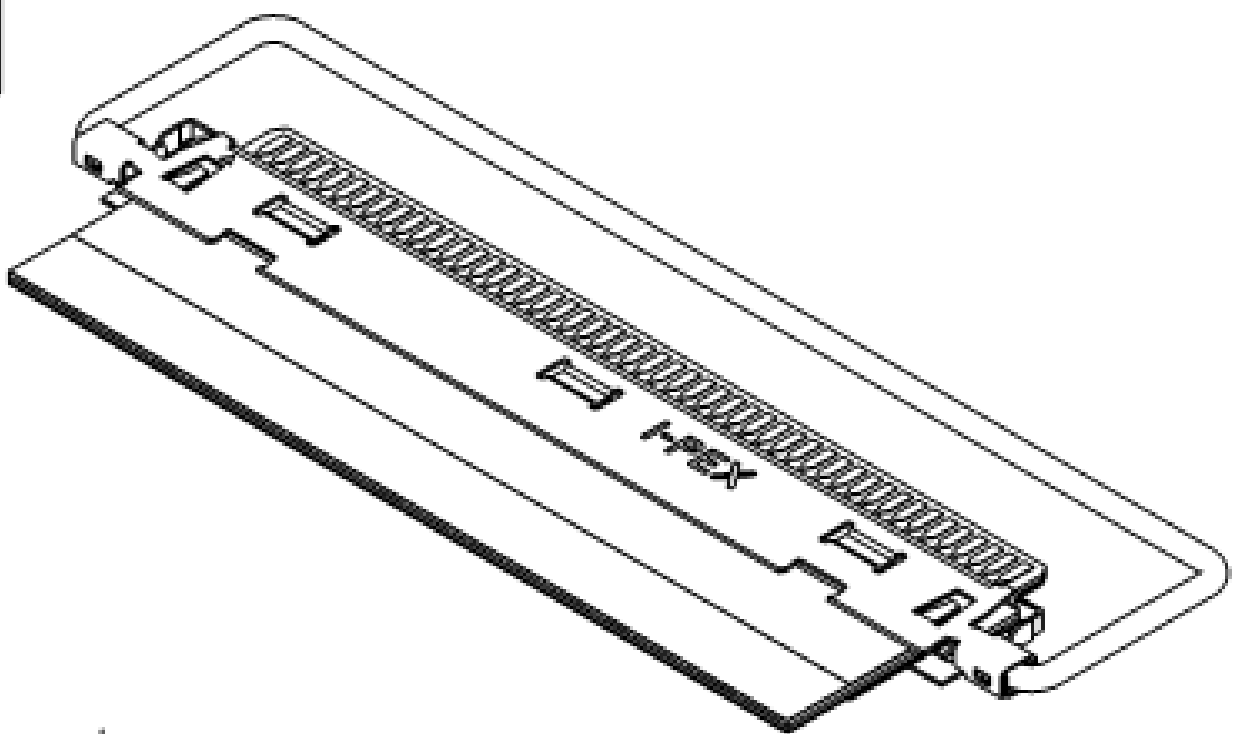
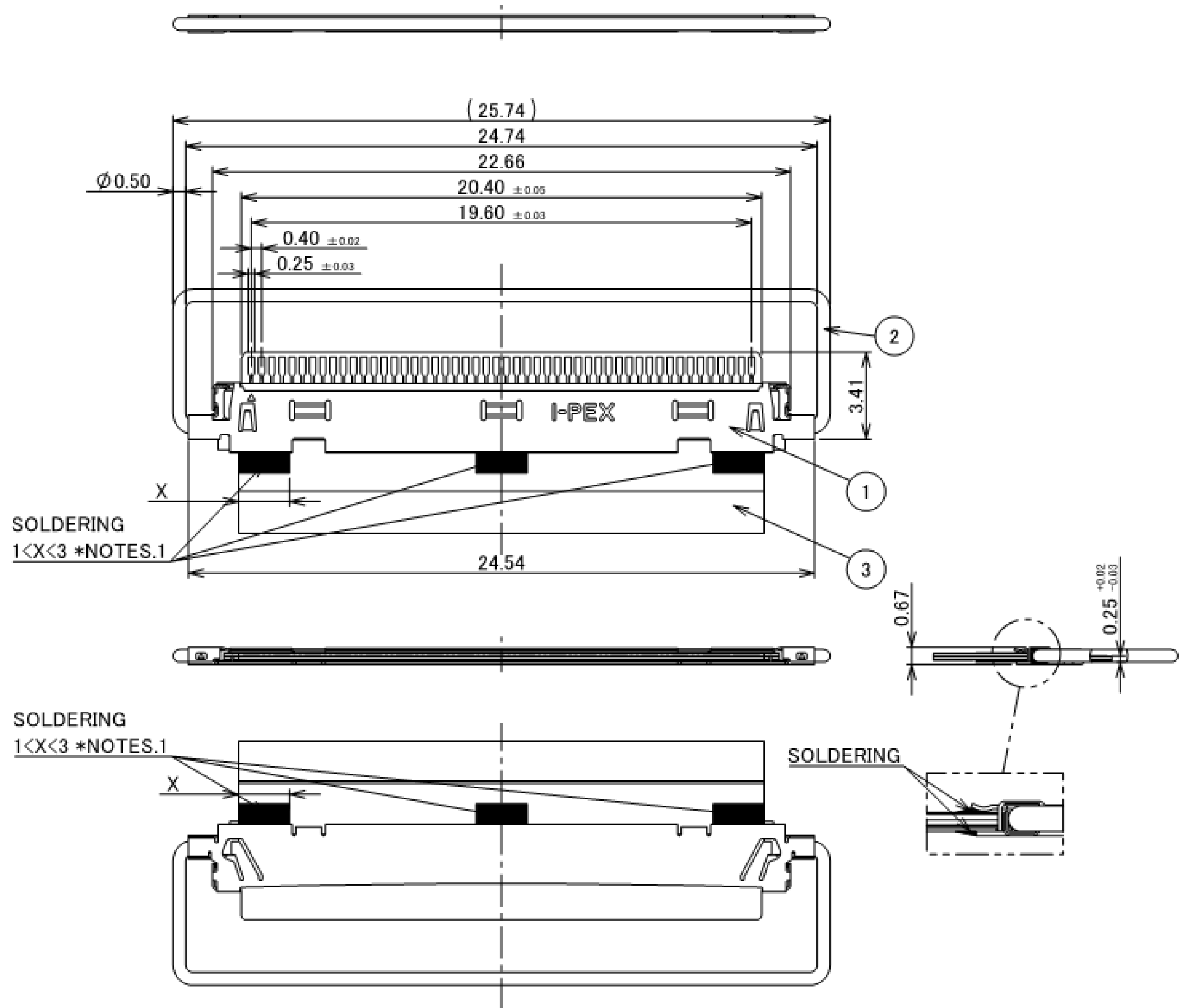


2	LOCK BAR	SUS	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS

Rev.0

P/N	Pos.
21088-050T-01	50

FPC ASSEMBLY STATE



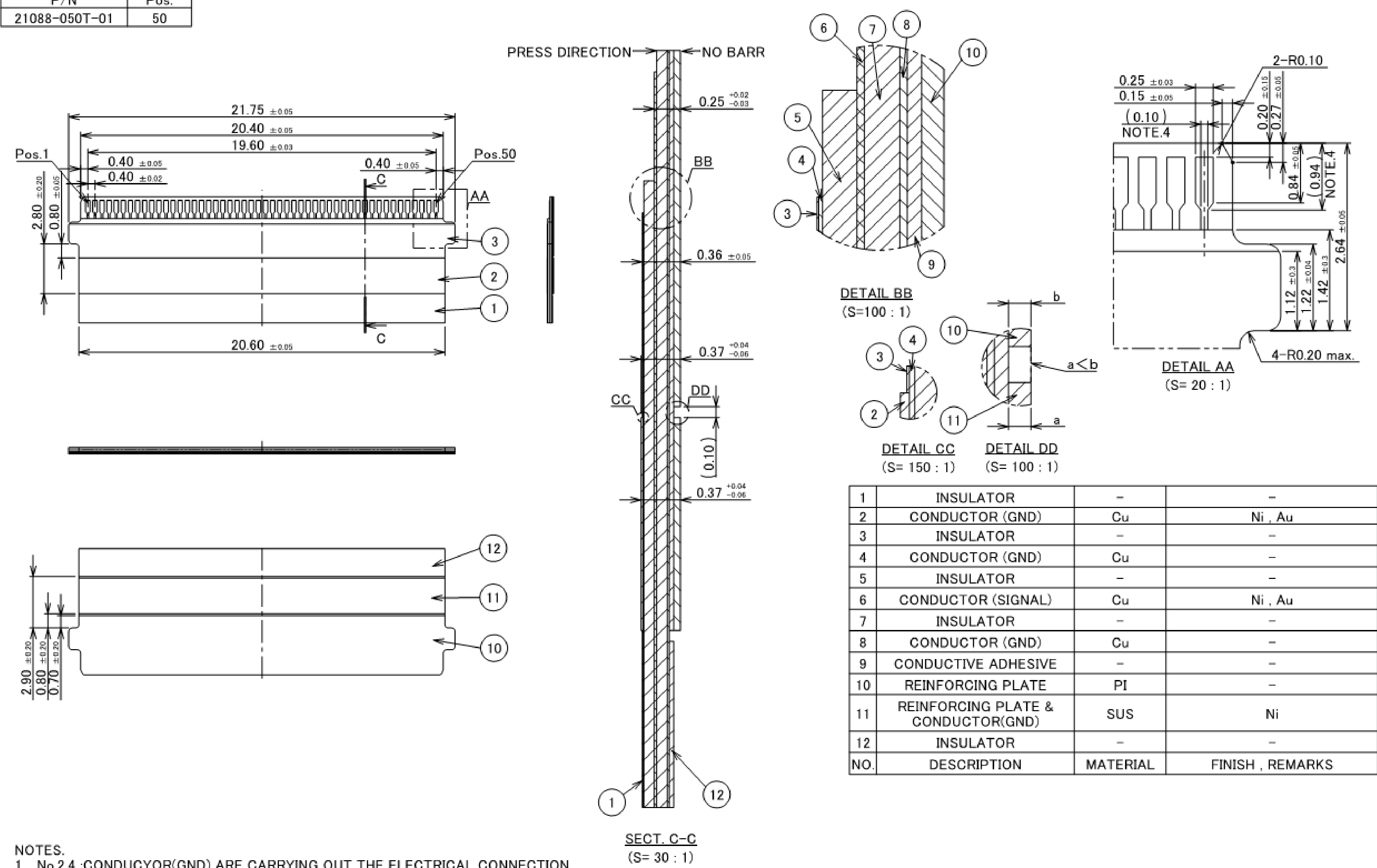
3	FPC	-	-
2	LOCK BAR	SUS	-
1	SHELL	PHOSPHOR BRONZE	PARTIAL Au 0.003 μ m MIN. OVER Ni 1.00 μ m MIN.
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS

NOTES.
1. SOLDERING AREA X IS RECOMMENDED DIMENSION.
IT DOES NOT MATTER IF IT MIGHT BE EXCEED THE RECOMMENDED DIMENSION.

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Shell Assembly

P/N	Pos.
21088-050T-01	50



- NOTES.
- No.2,4 :CONDUCTYOR(GND) ARE CARRYING OUT THE ELECTRICAL CONNECTION.
 - No.6 : SIGNAL Pos. AND No.2,4,8,11 : CONDUCTOR(GND) ARE NOT CONTACTING.
 - ADHESIVE SHOULD USE THERMOSETTING.
 - NUMBERS WITHIN PARENTHESES ARE ARBITRARY DIMENSIONS.
CHANGE DIMENSIONS IN ACCORDANCE WITH CHARACTERISTIC IMPEDANCE VALUE.

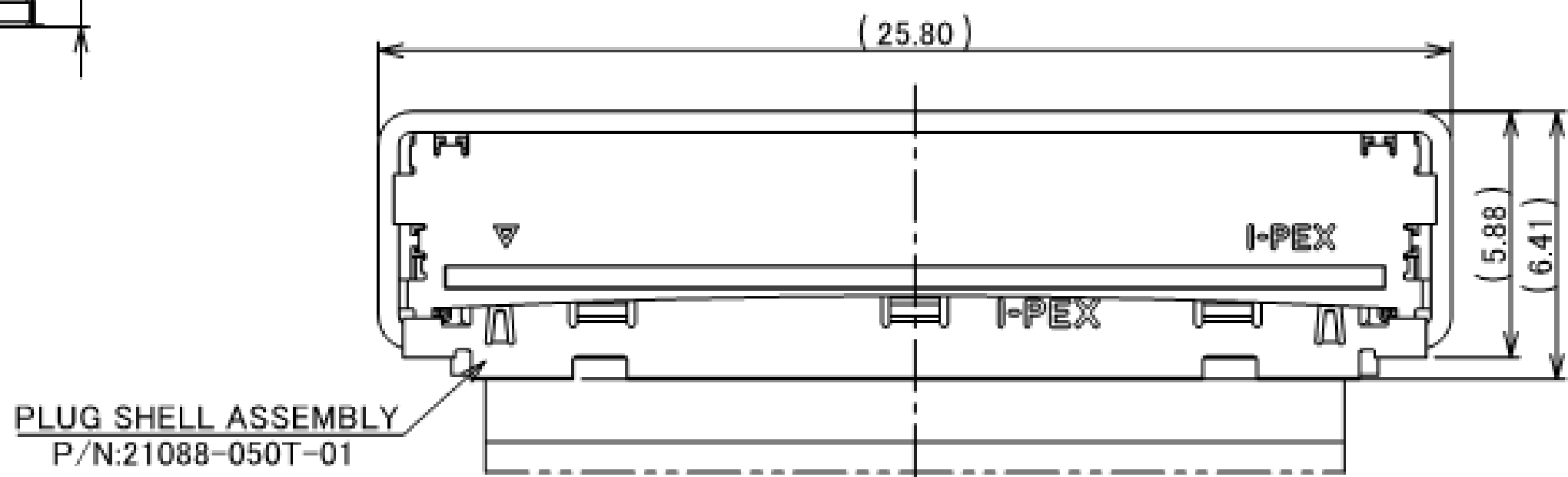
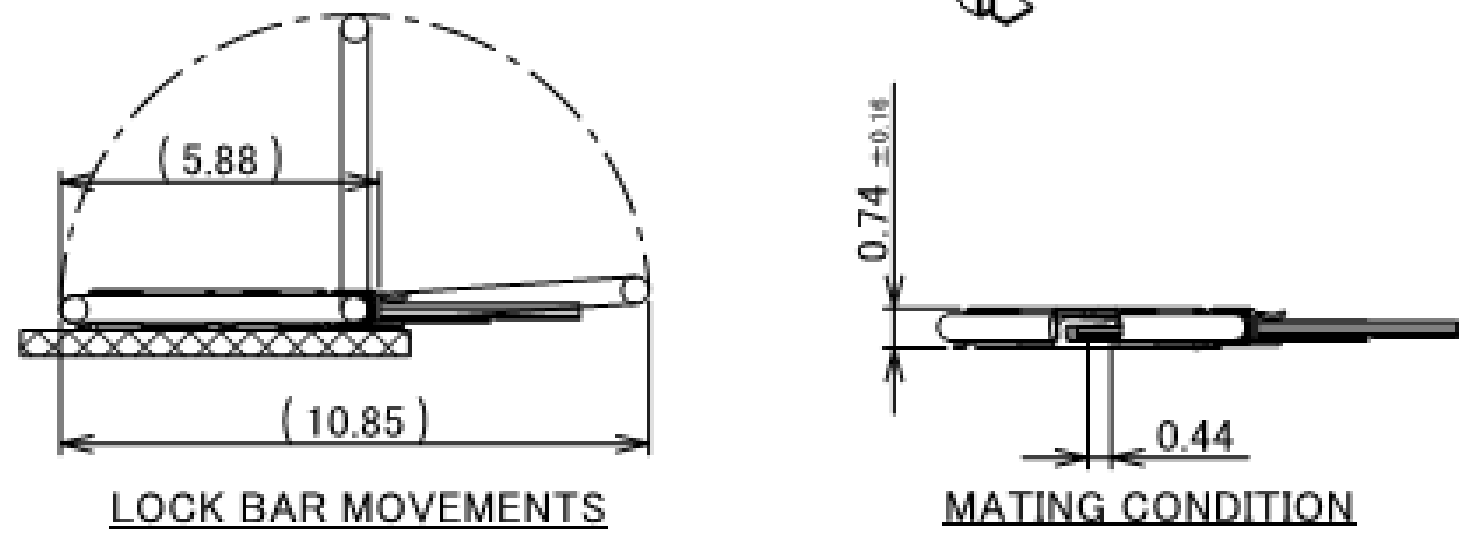
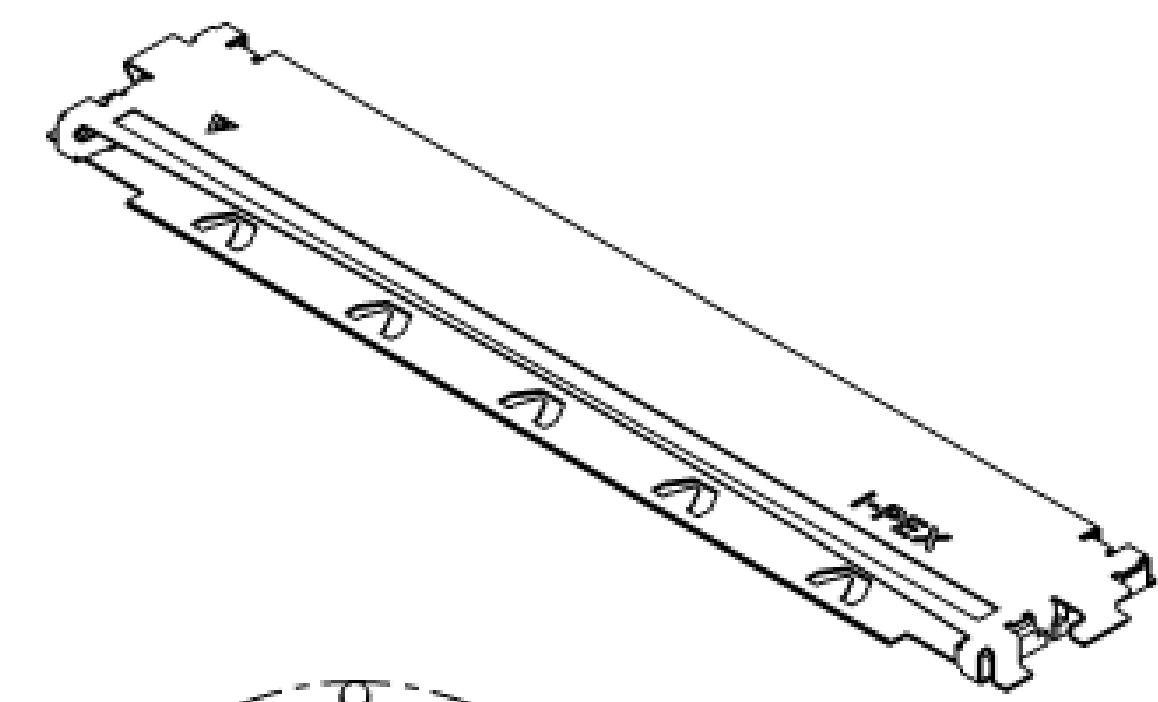
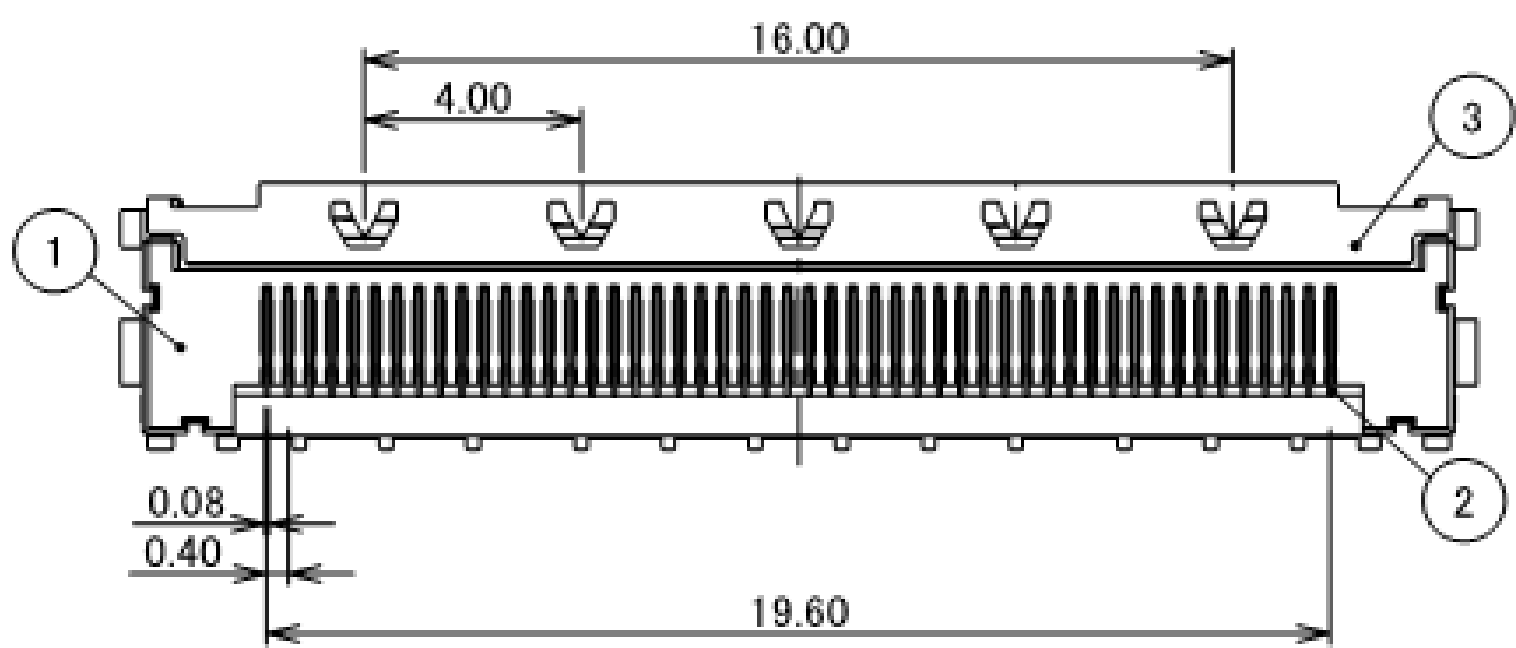
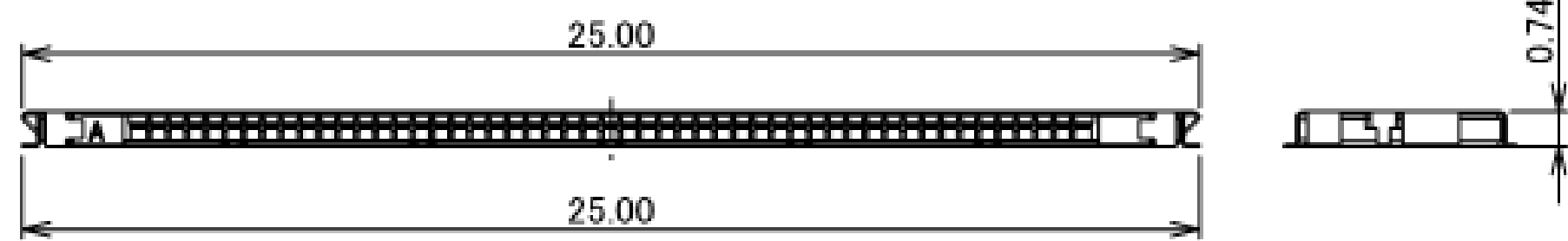
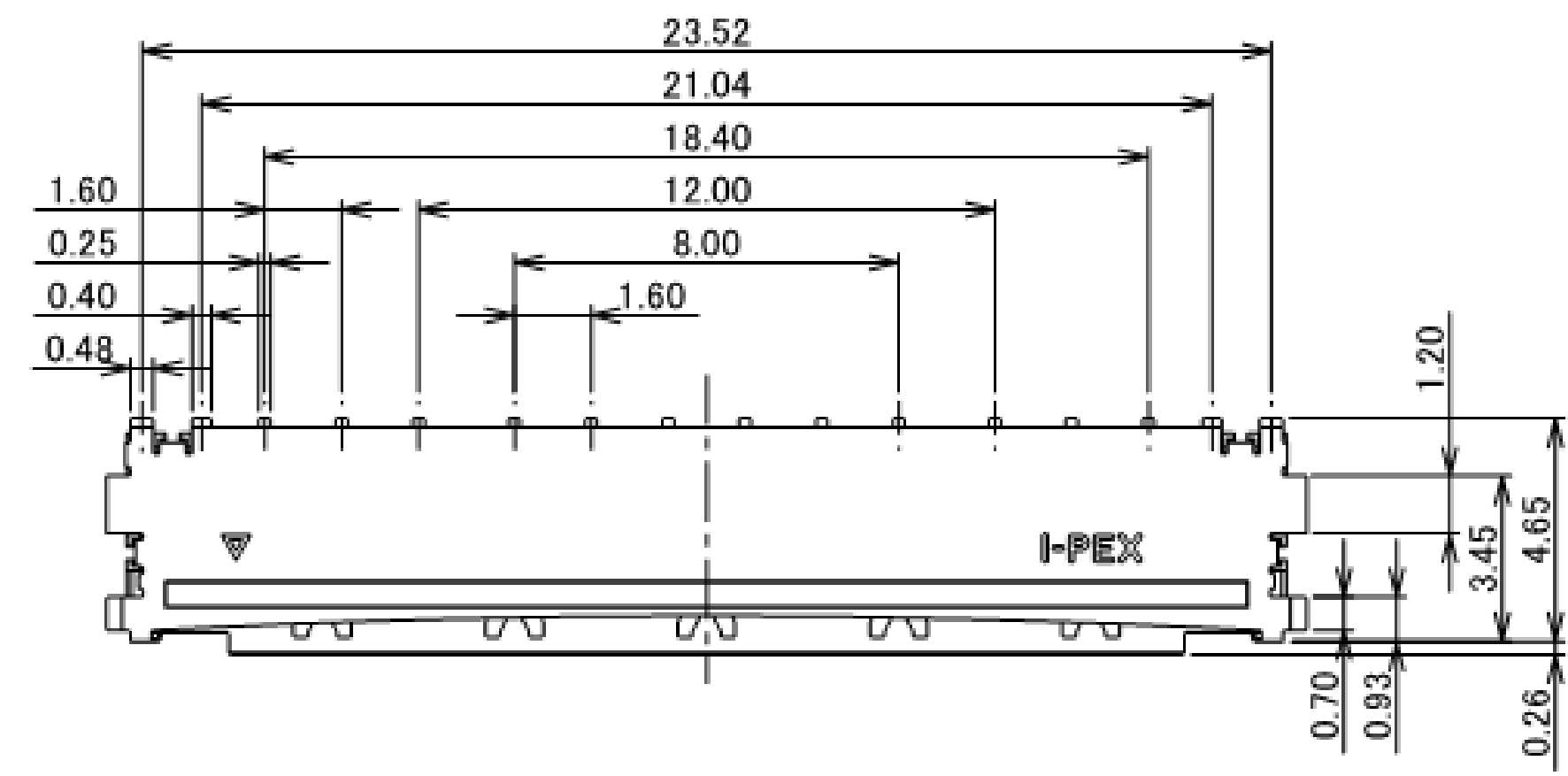
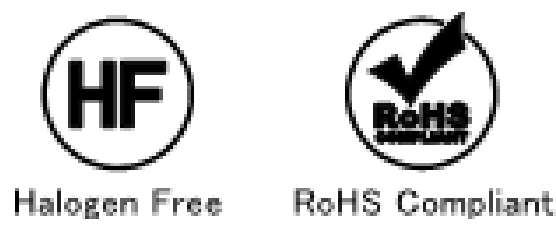
Rev.0

ITEMS	SPECIFICATION
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.26A AC/DC (per contact) ※ TESTING BY A 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	INITIAL : 100mohm MAX. / AFTER TEST : ≦40mohm MAX.
GROUND SHELL RESISTANCE	INITIAL : 100mohm 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)	50P : 15.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	50P : 1.00N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2917
TEST REPORT	TR-24059
PACKING STANDARD	PST-24040
INSTRUCTION MANUAL	HIM-24027
APPEARANCE CRITERIA No.	QLS-A***

Rev.0

Receptacle Assembly

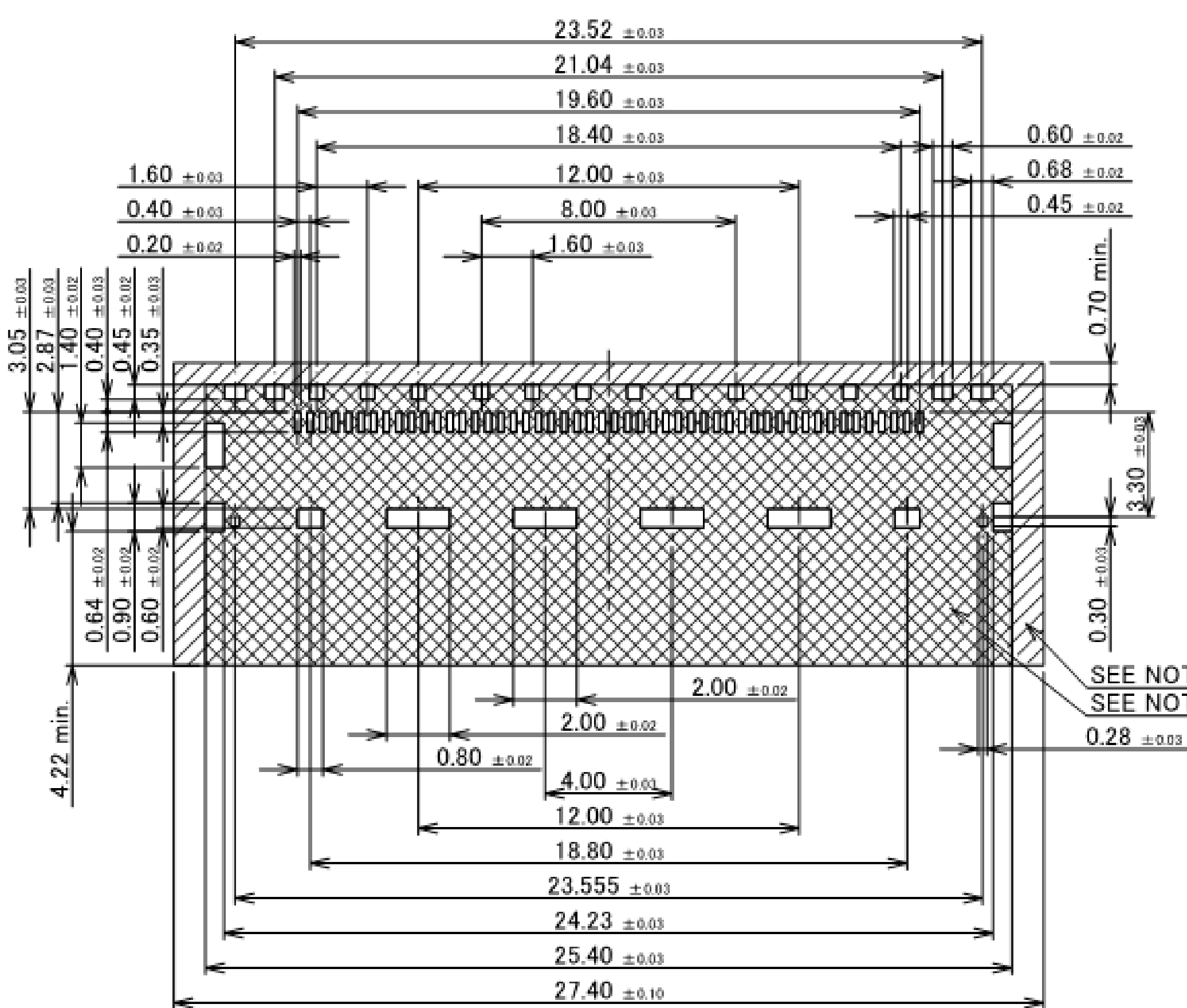
Recommended P/N		21089-050E-01
P/N	Pos.	
21089-050E-01	50	



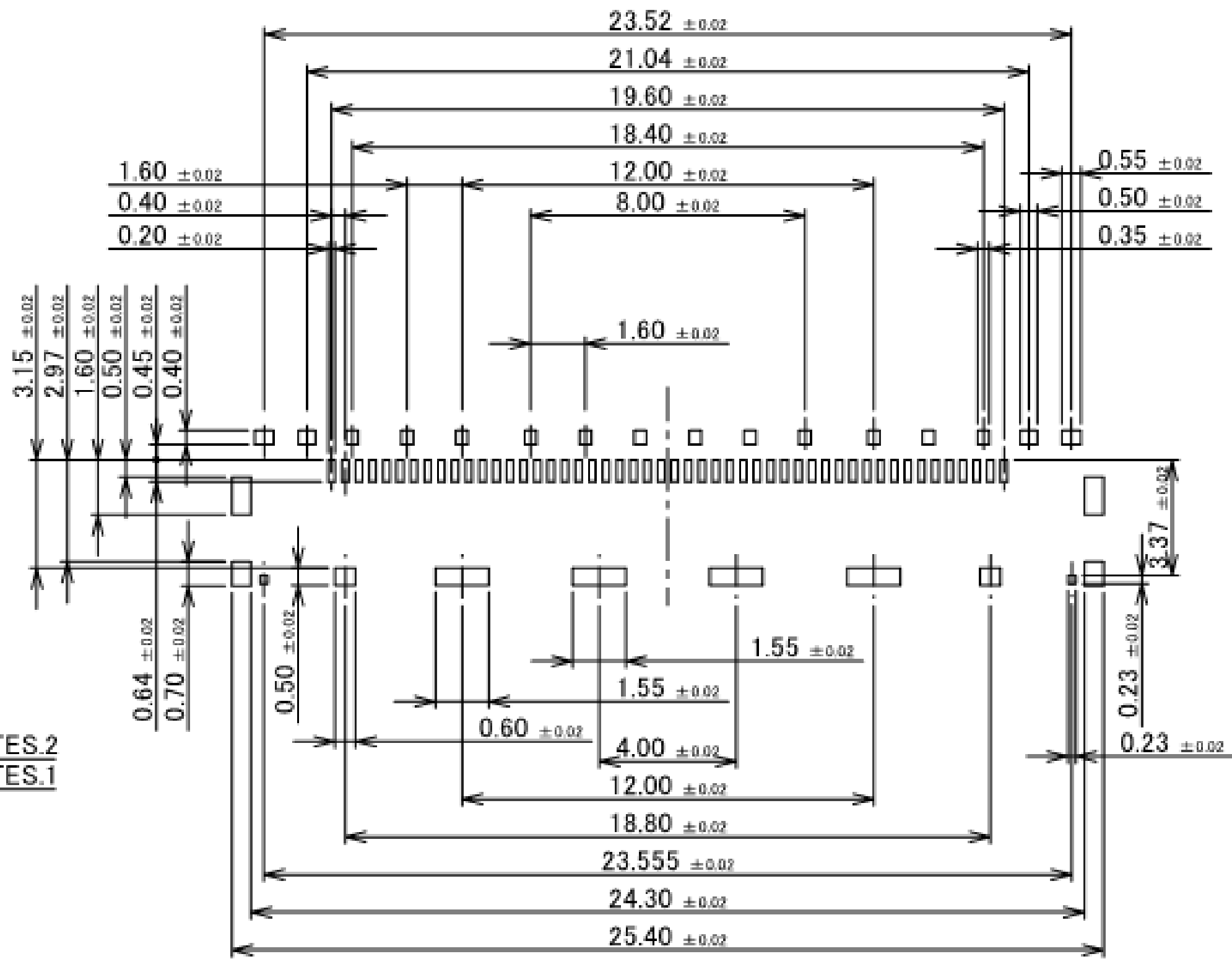
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. Au 0.01 μ m MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μ m MIN. CONTACT AREA Au 0.10 μ m MIN. SOLDERING AREA Au 0.03 μ m MIN.
1	HOUSING	LCP	-
NO.	DESCRIPTION	MATERIAL	FINISH , REMARKS

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P/N	Pos.
21089-050E-01	50



RECOMMENDED FOOTPRINT PATTERN LAYOUT



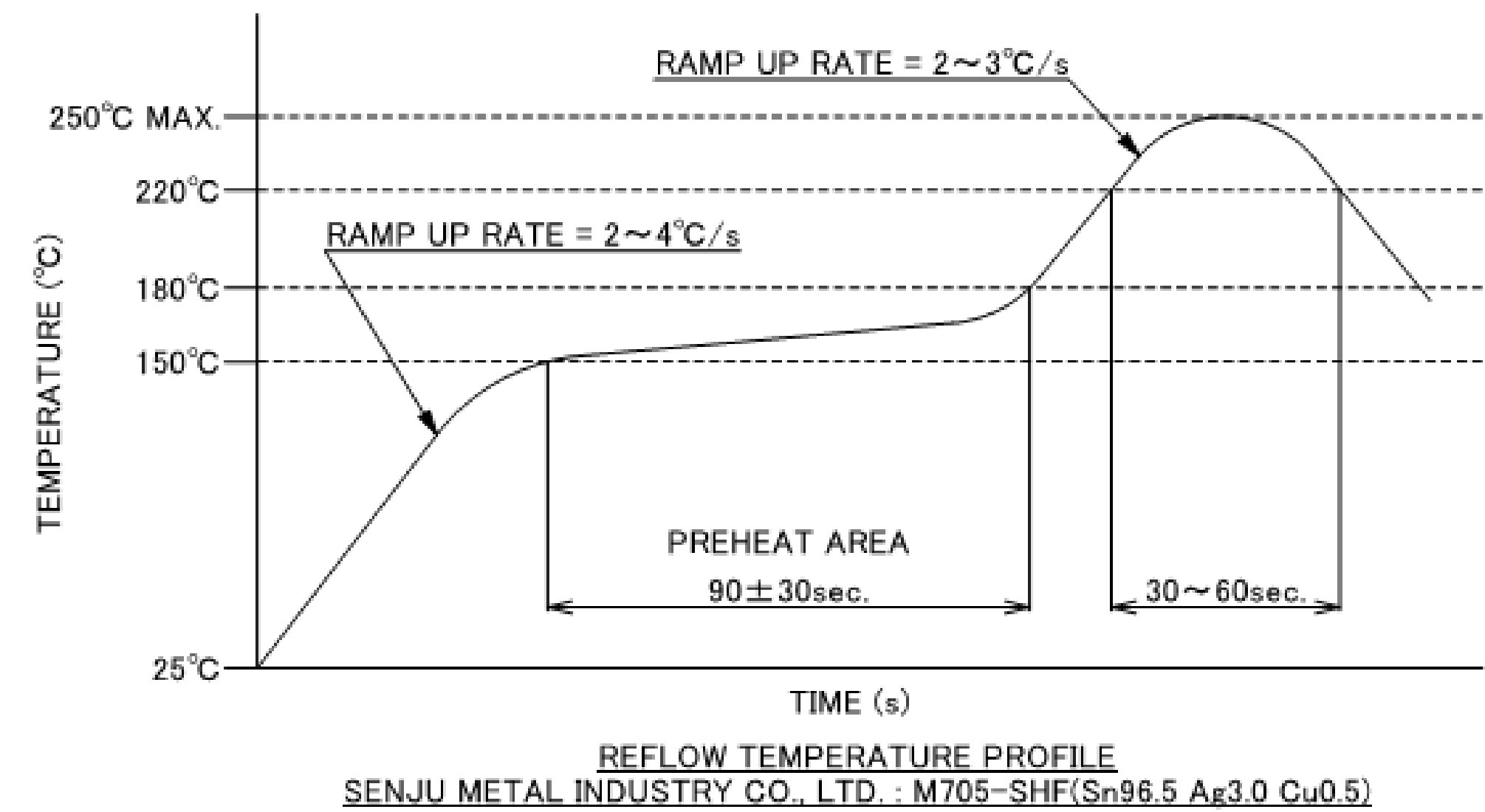
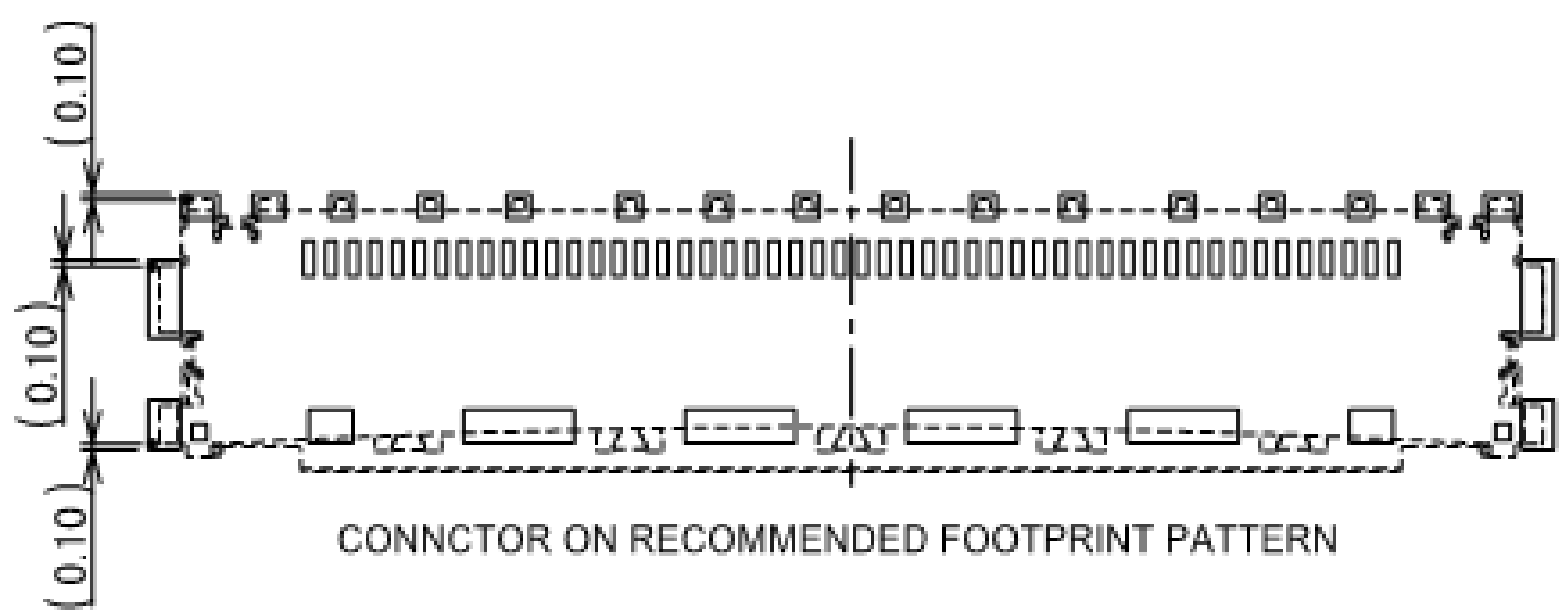
RECOMMENDED METAL MASK PATTERN LAYOUT
METAL MASK THICKNESS : t=0.12

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

Rev.0

Receptacle Assembly

P/N	Pos.
21089-050E-01	50



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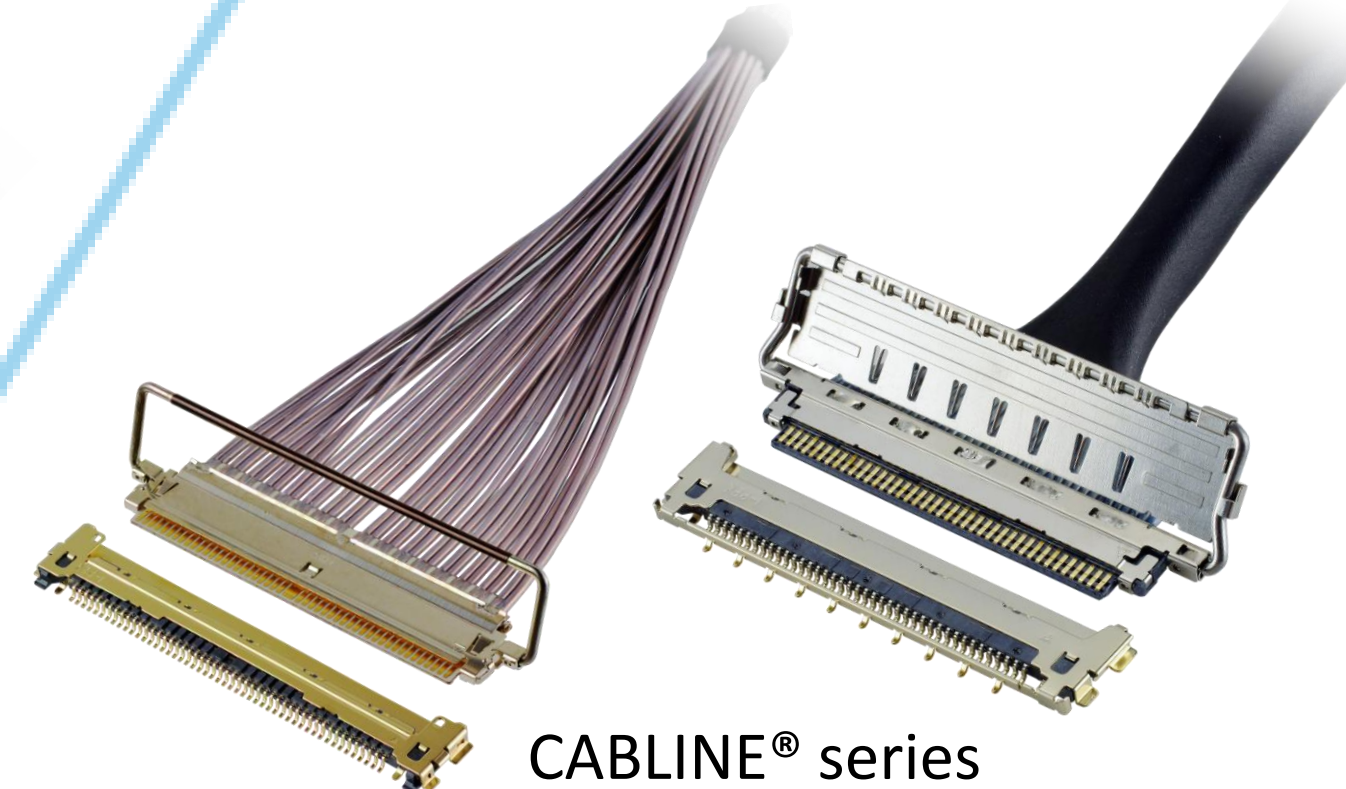
Custom Connectors Available

 RF
Connectors

MHF® series



Micro-Coaxial/Twinaxial
Connectors

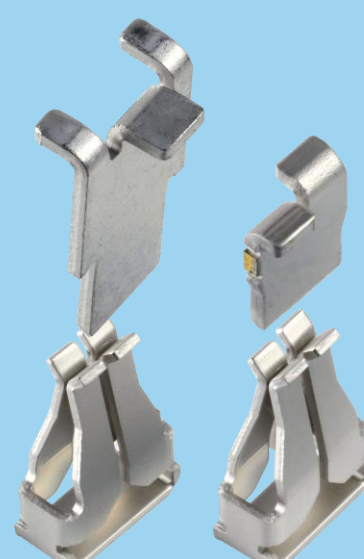


CABLIME® series

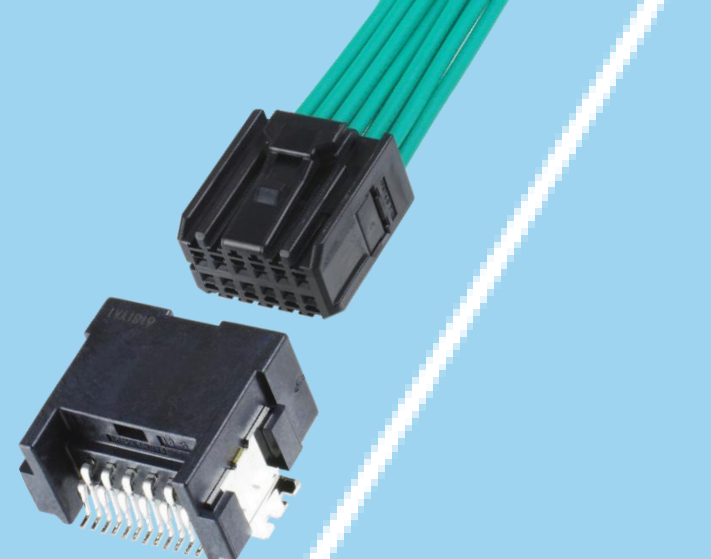


Wire-to-Board
Connectors/
Terminals

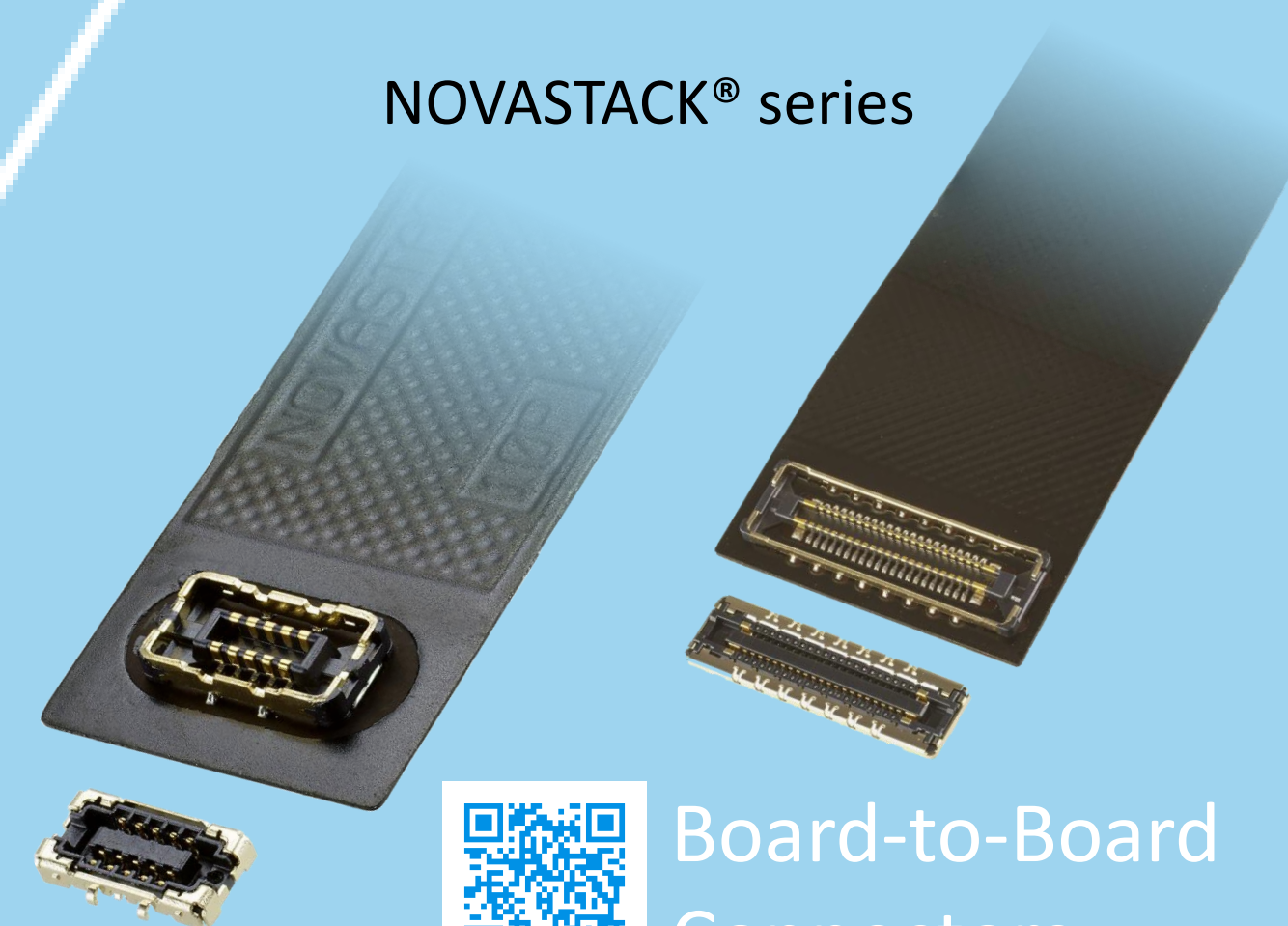
AP series



ISH® series



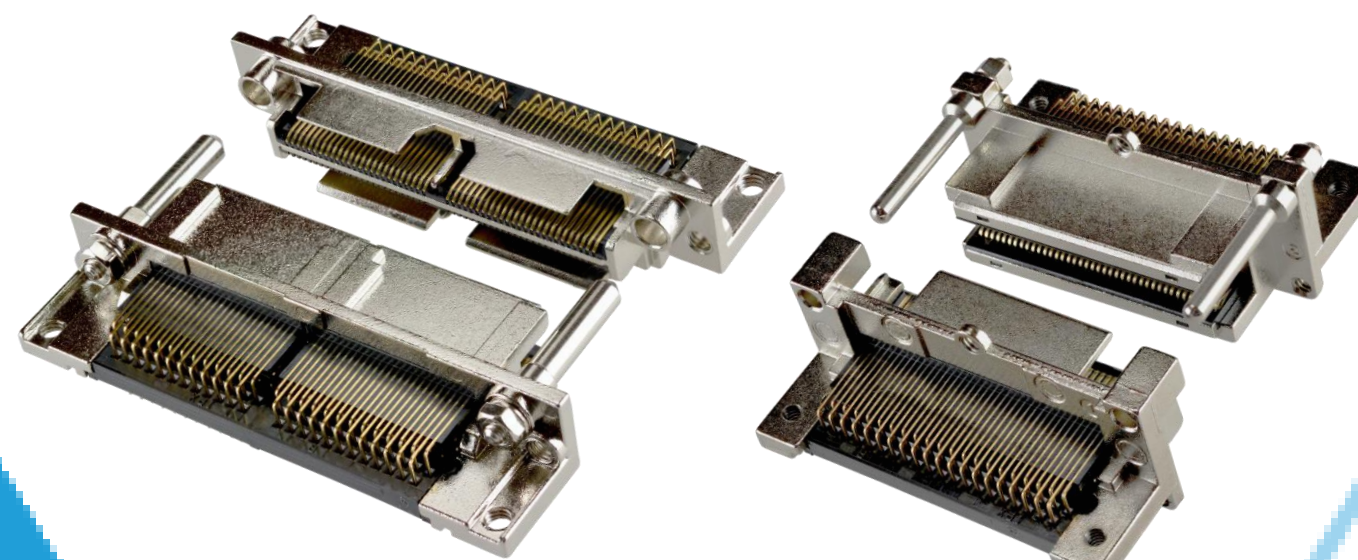
NOVASTACK® series



Board-to-Board
Connectors



I/O
Connectors



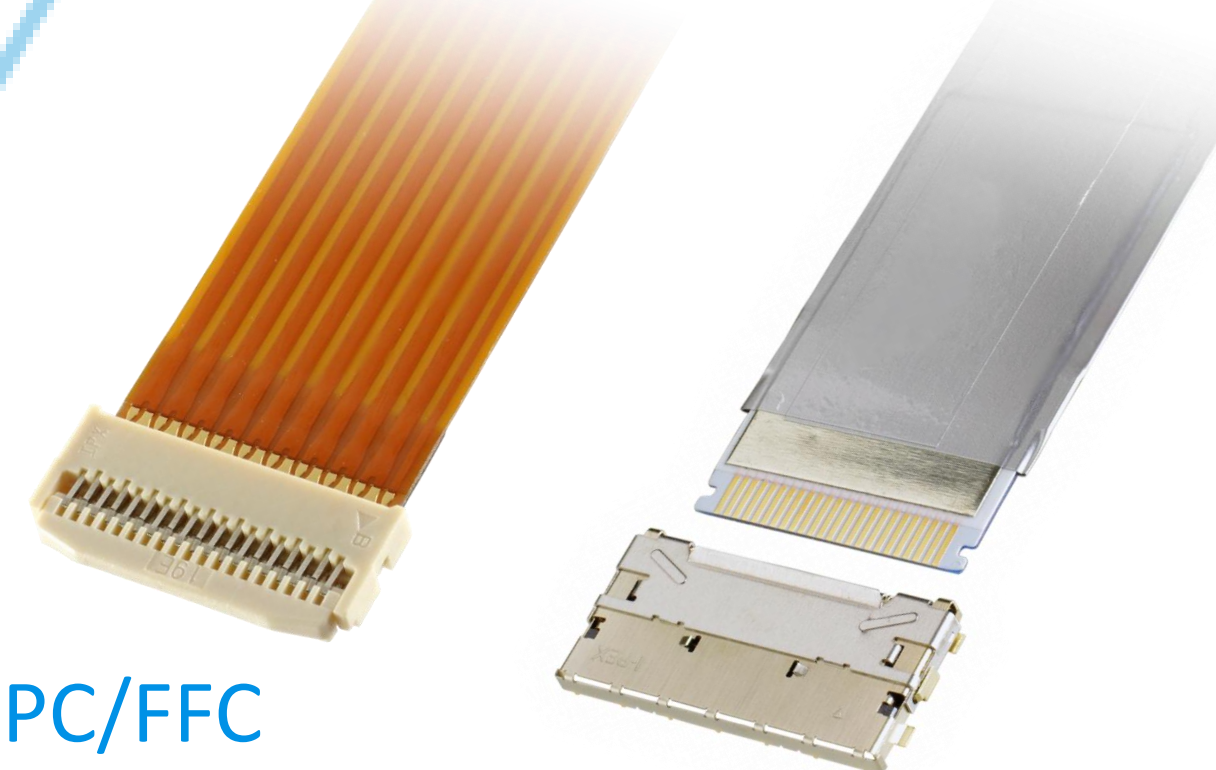
MINIDOCK™ series



FPC/FFC
Connectors

MINIFLEX® series

EVAFLEX® series



Inquiry



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