

CABLIN[®]-CAL

저배(높이 = 0.7 mm), 고속 전송 대응(20+ Gbps/lane), 기계식 Lock 기능 포함, 0.4 mm Pitch, 수평 결합 타입 세션 동축 커넥터

Product Specifications:

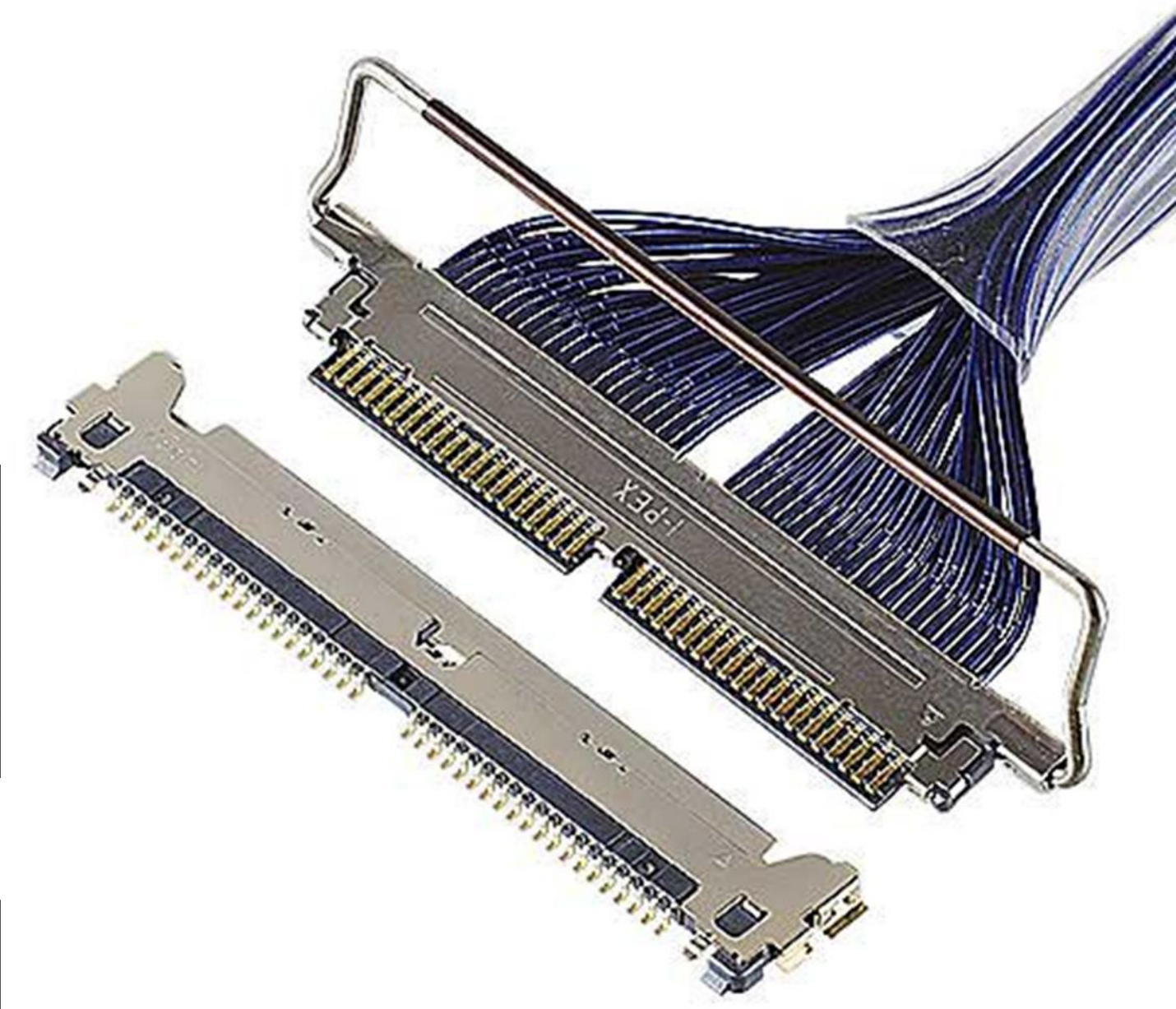
Mating type	Horizontal	
Board Pitch (mm)	0.4	
Wiping Length (mm)	0.4	
Mated size (mm)	Height	0.7 +/- 0.1
	Width	Formula: 10-20p: 6.85 +(0.4*?p) Formula: 22-40p: 8.05 +(0.4*?p)
	Depth	5.5
Pin Counts	Range	Up to 40
	Available	30, 40

Applicable Cable Size:

Maximum O.D. (mm)	0.4
Micro-Coaxial for Signal (AWG)	45 ohm: #38 or smaller 50 ohm: #40 or smaller
Twinax (AWG)	-
Discrete (AWG)	#34 or smaller

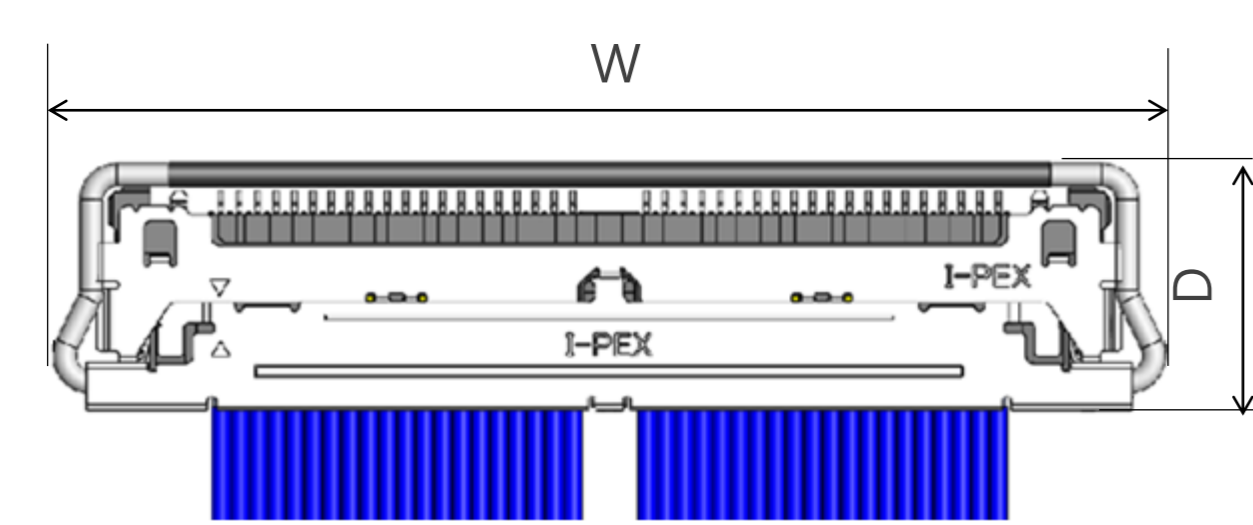
Applicable Standards (Reference Only):

USB4 Gen3/Thunderbolt 4 (20 Gbps/lane), PCIe Gen 4 (16 GT/s), USB 3.1 Gen 2 (10 Gbps), eDP HBR 3 (8.1 Gbps)

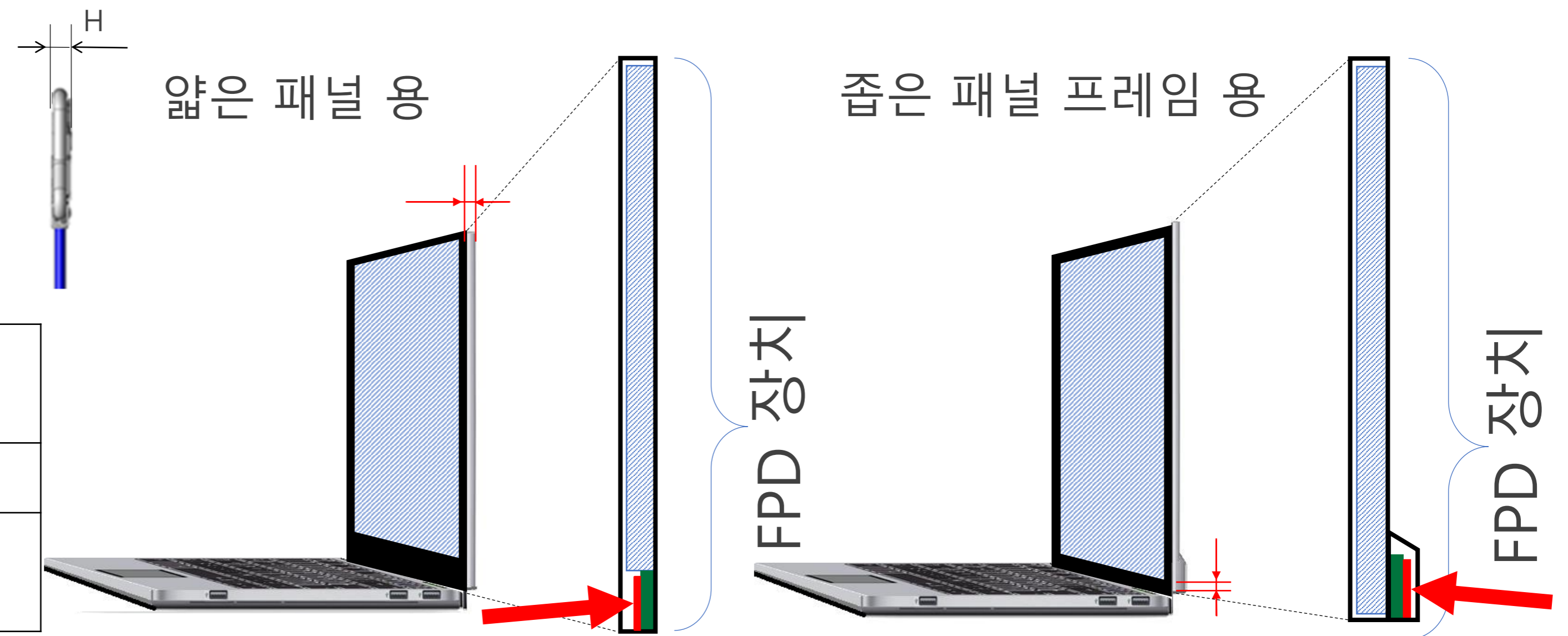


*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.

▶ 한정된 커넥터 실장 공간에 대응하는 초박형 설계



CABLIN [®] -CAL 40p 체결 세트 치수(mm)		
W	D	H
24.05	5.50	0.70 (최대 0.80)

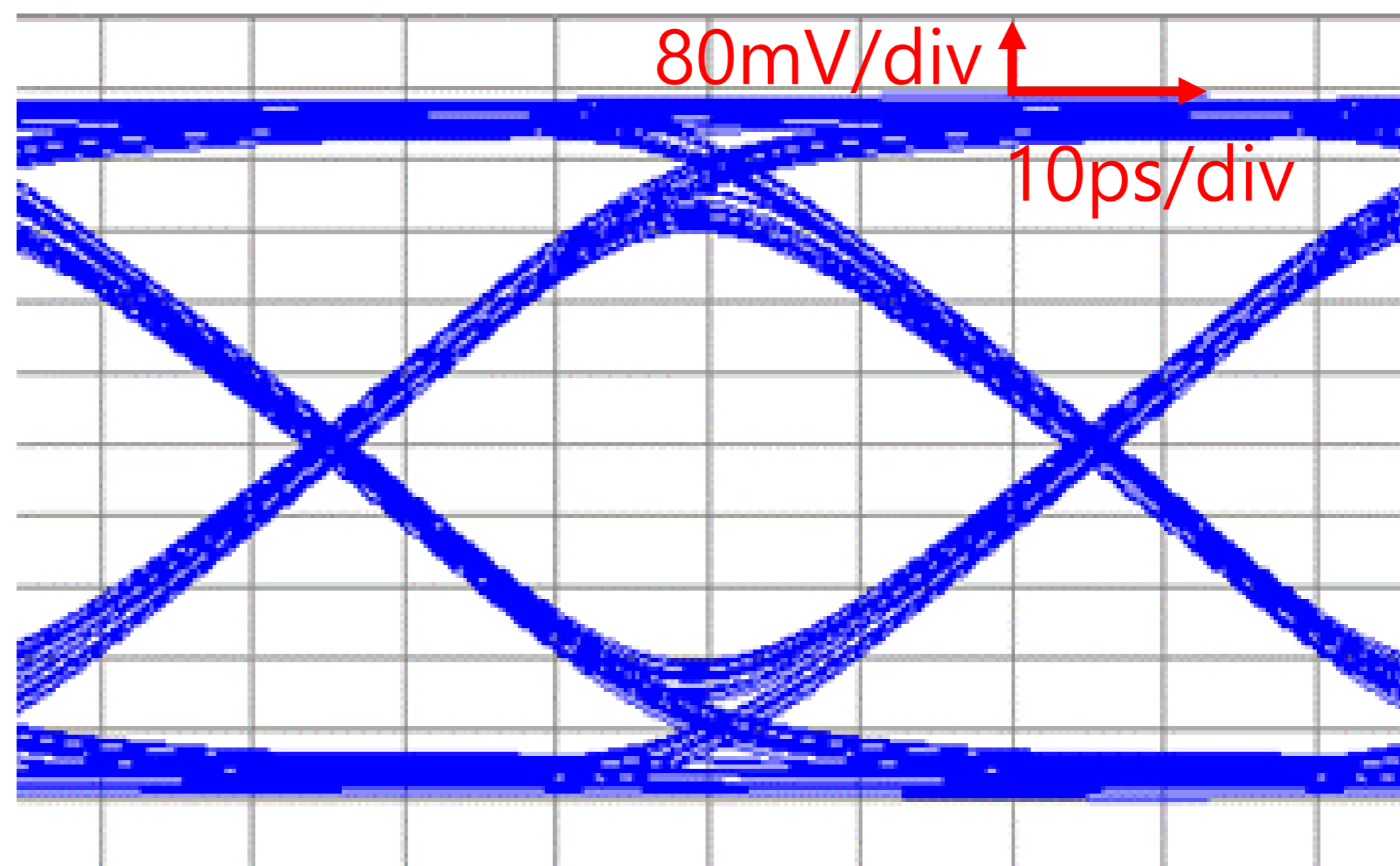


▶ USB4 Gen3/Thunderbolt 4 (20Gbps/lane)의 고속 전송 내부 접속에 최적

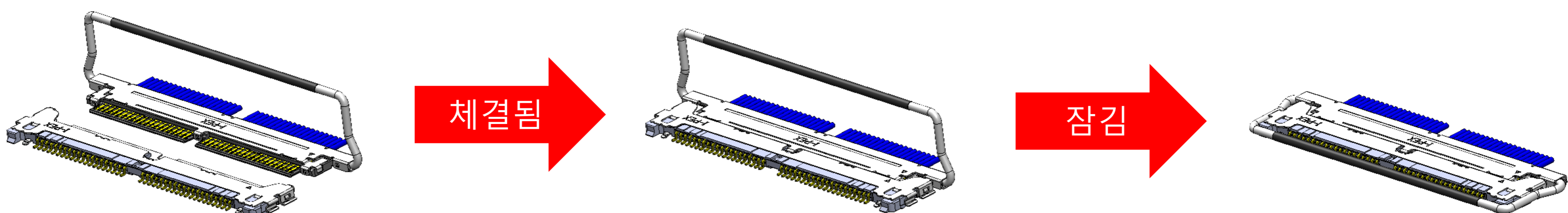
USB4 Gen3/Thunderbolt 4 (20 Gbps/lane)

아이 패턴(차동)
비트 전송률: 20Gbps
상승 시간: 30ps(10-90%)
입력 전압: 800mVp-p

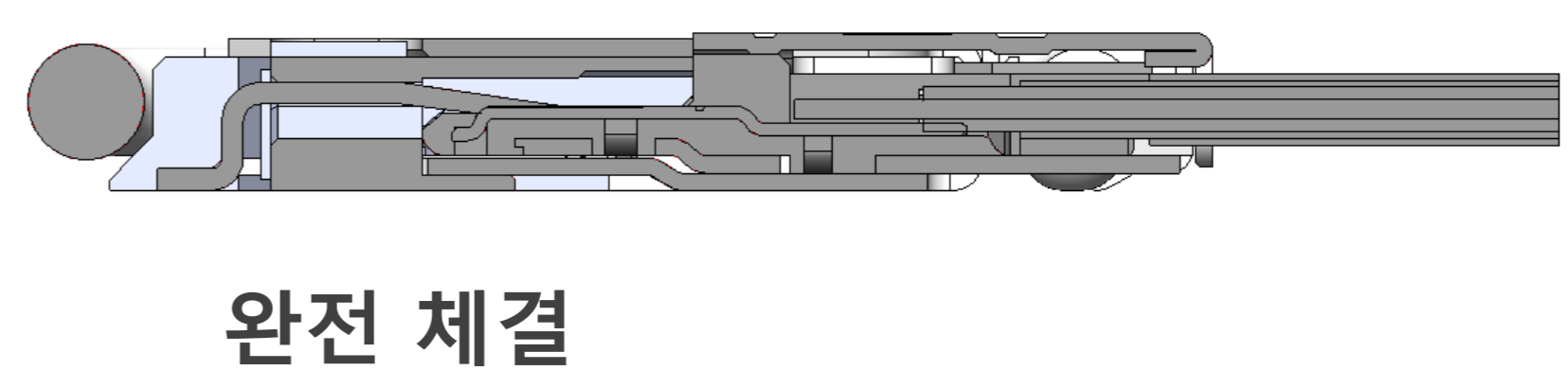
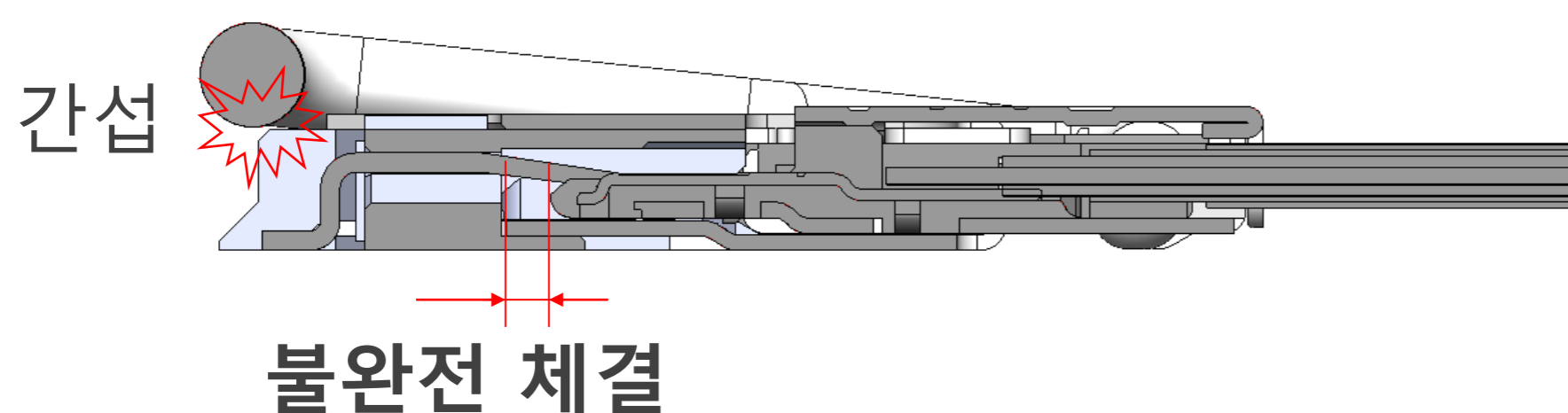
*자세한 테스트 정보는 I-PEX Connectors 에 문의하십시오.



▶ 기계식 Locking bar에 의한 불완전 결합 방지와 Plug 이탈 방지

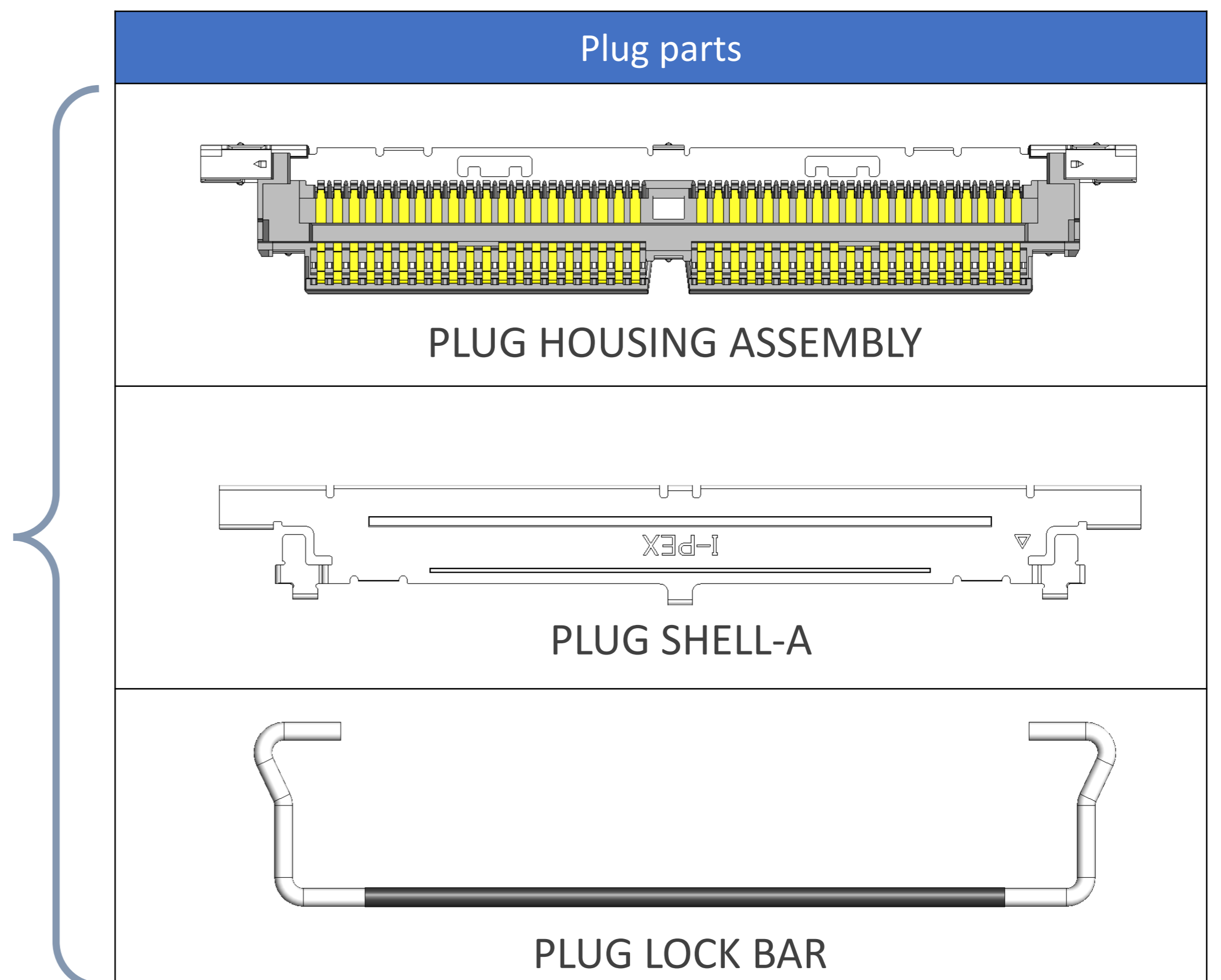
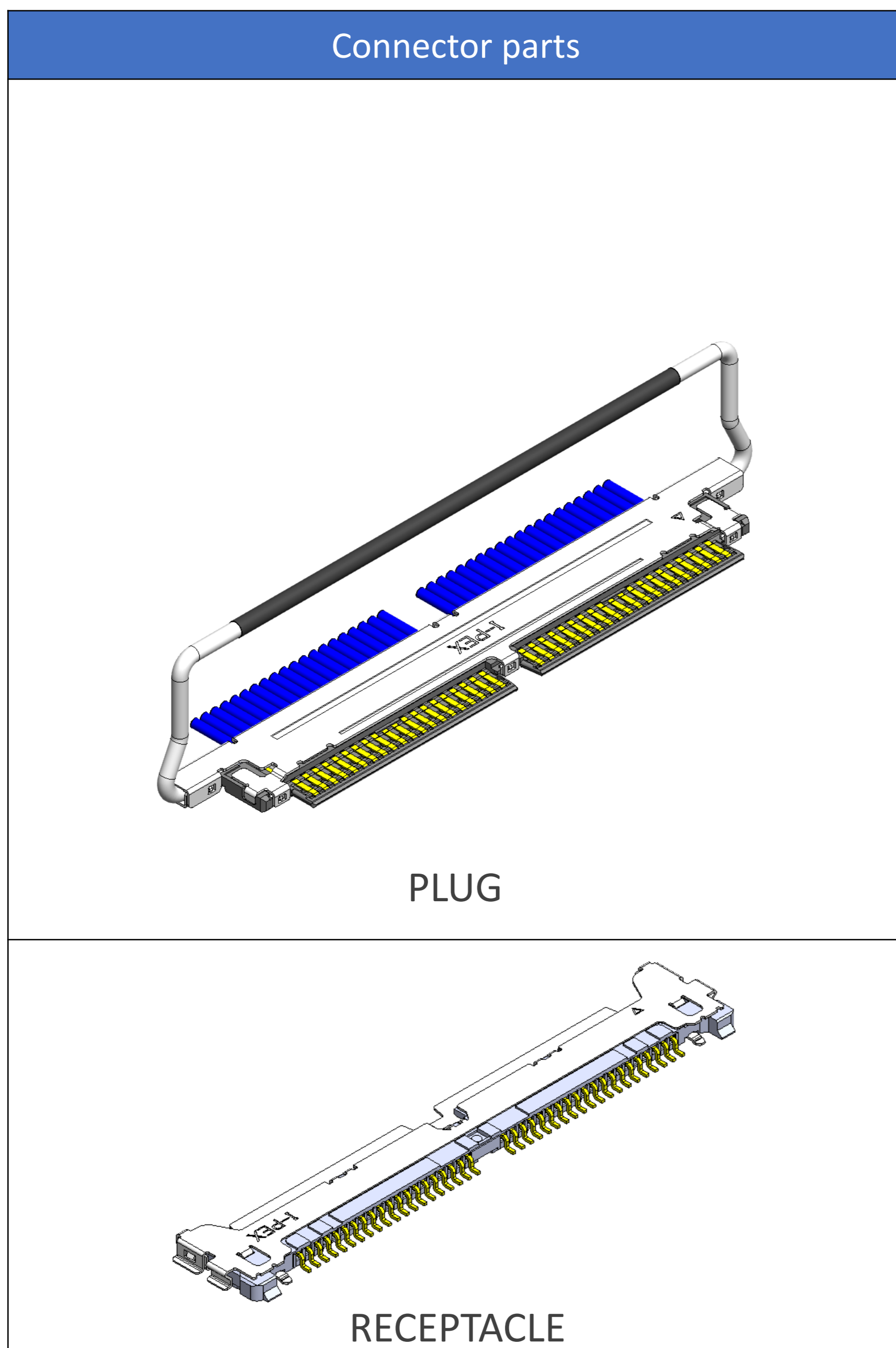


기계식 잠금 바는 플러그가 리셉터클에 완전히 체결된 경우에만 잠글 수 있습니다.



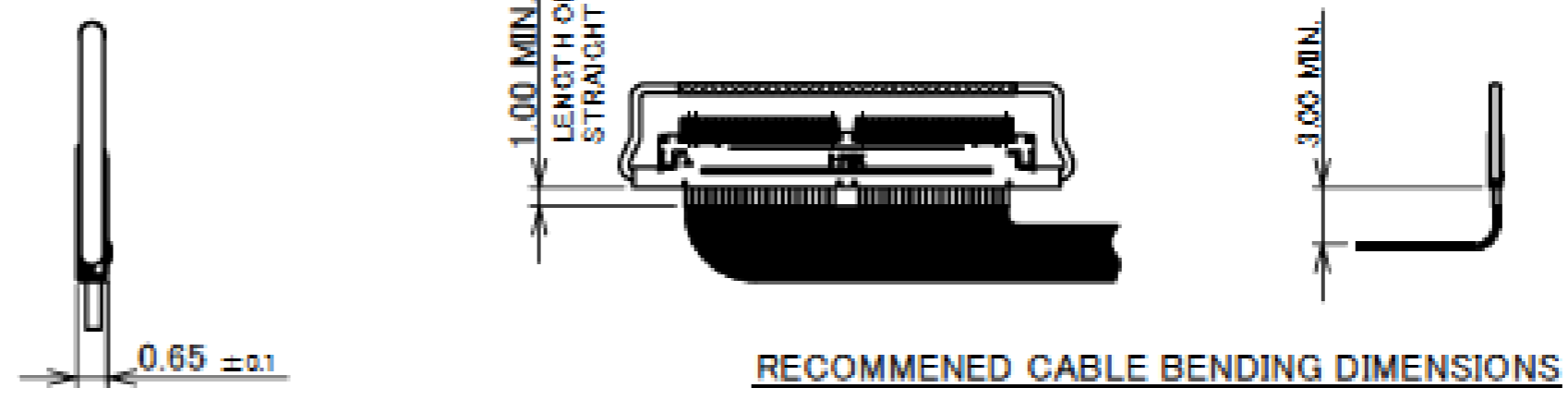
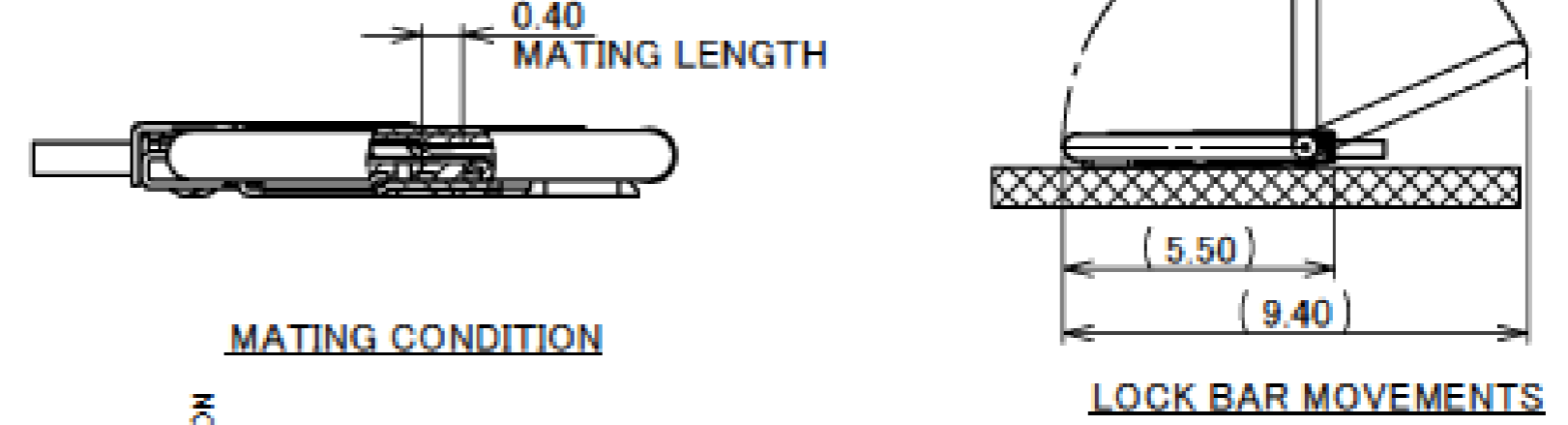
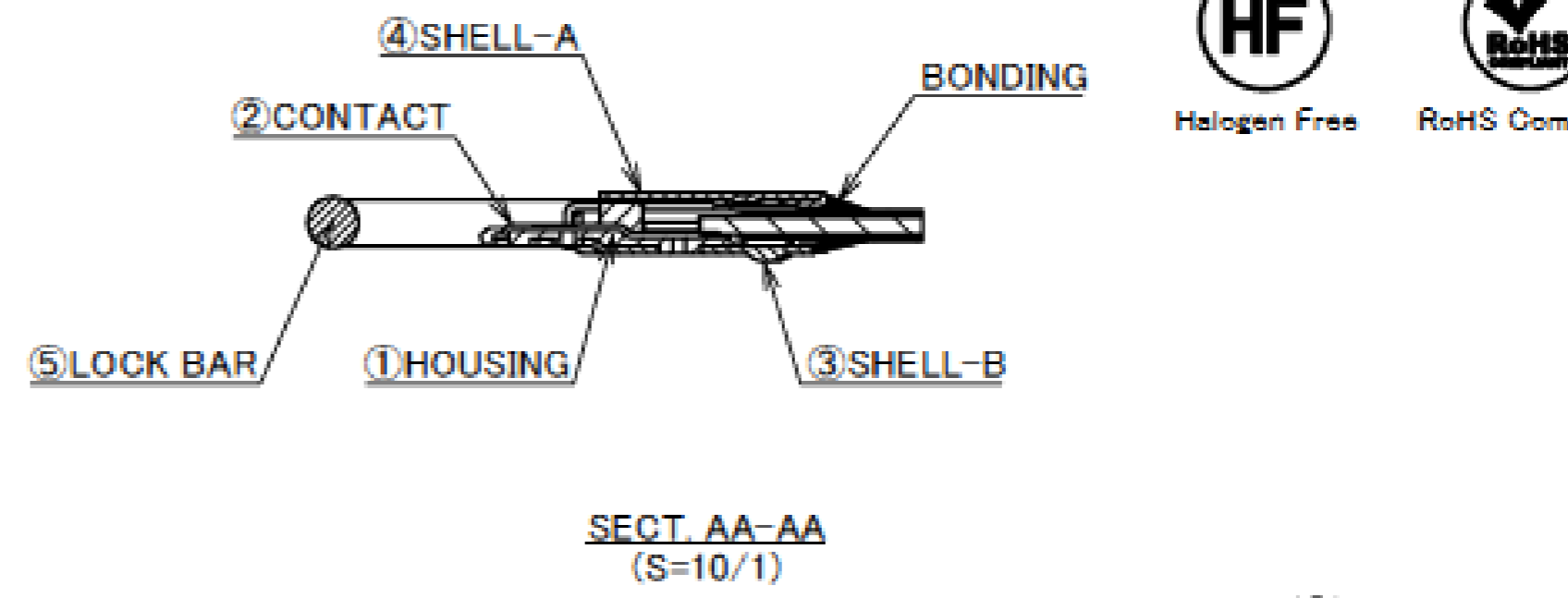
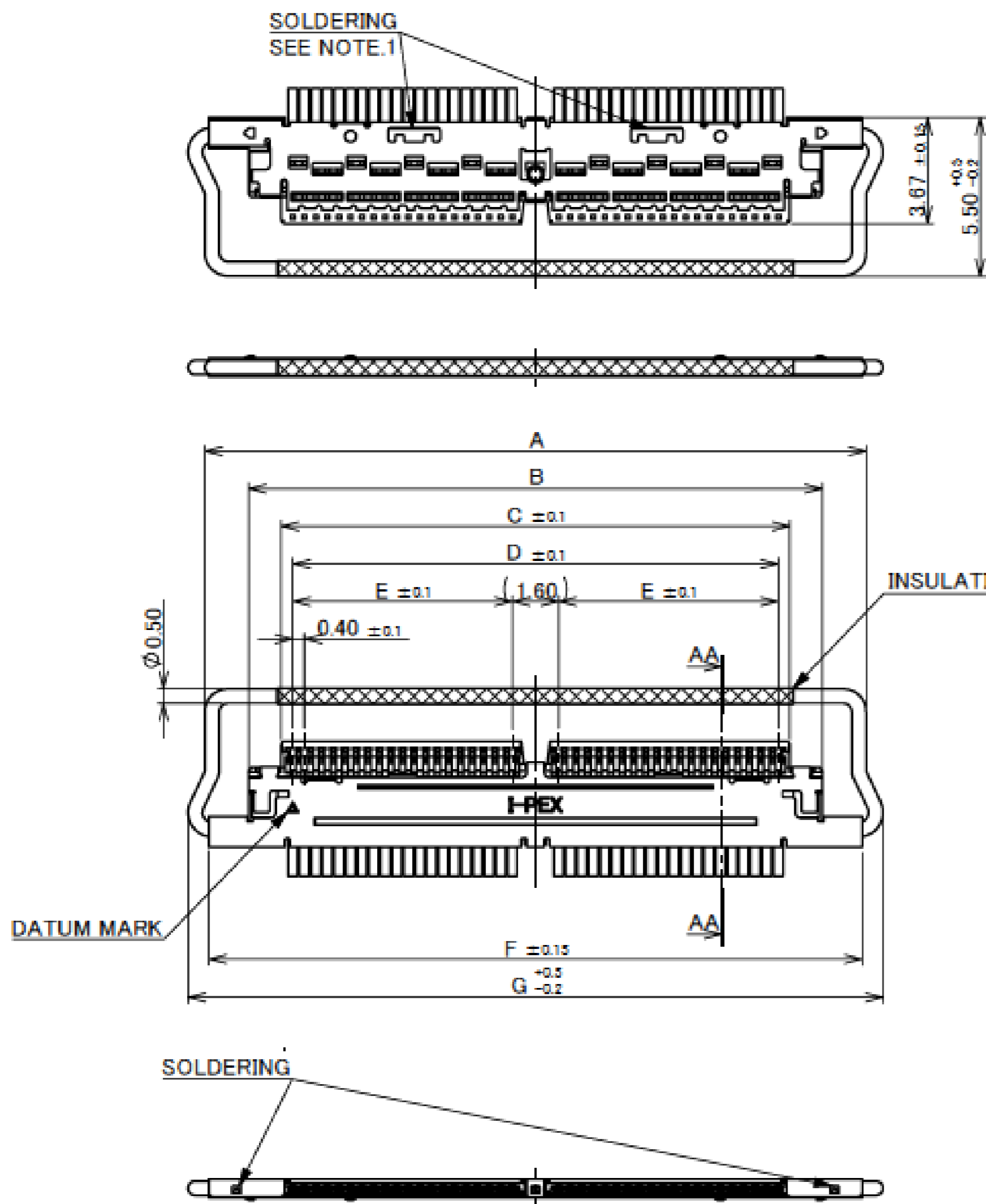
Component Parts Details

Component Parts



Plug for Cable Assembly

Recommended P/N		20728-0**T-01						
PART NO.	Pos.	A	B	C	D	E	F	G
20728-030T-01	30	18.89	15.86	13.60	12.80	5.60	18.60	20.05
20728-040T-01	40	22.89	19.86	17.60	16.80	7.60	22.60	24.05

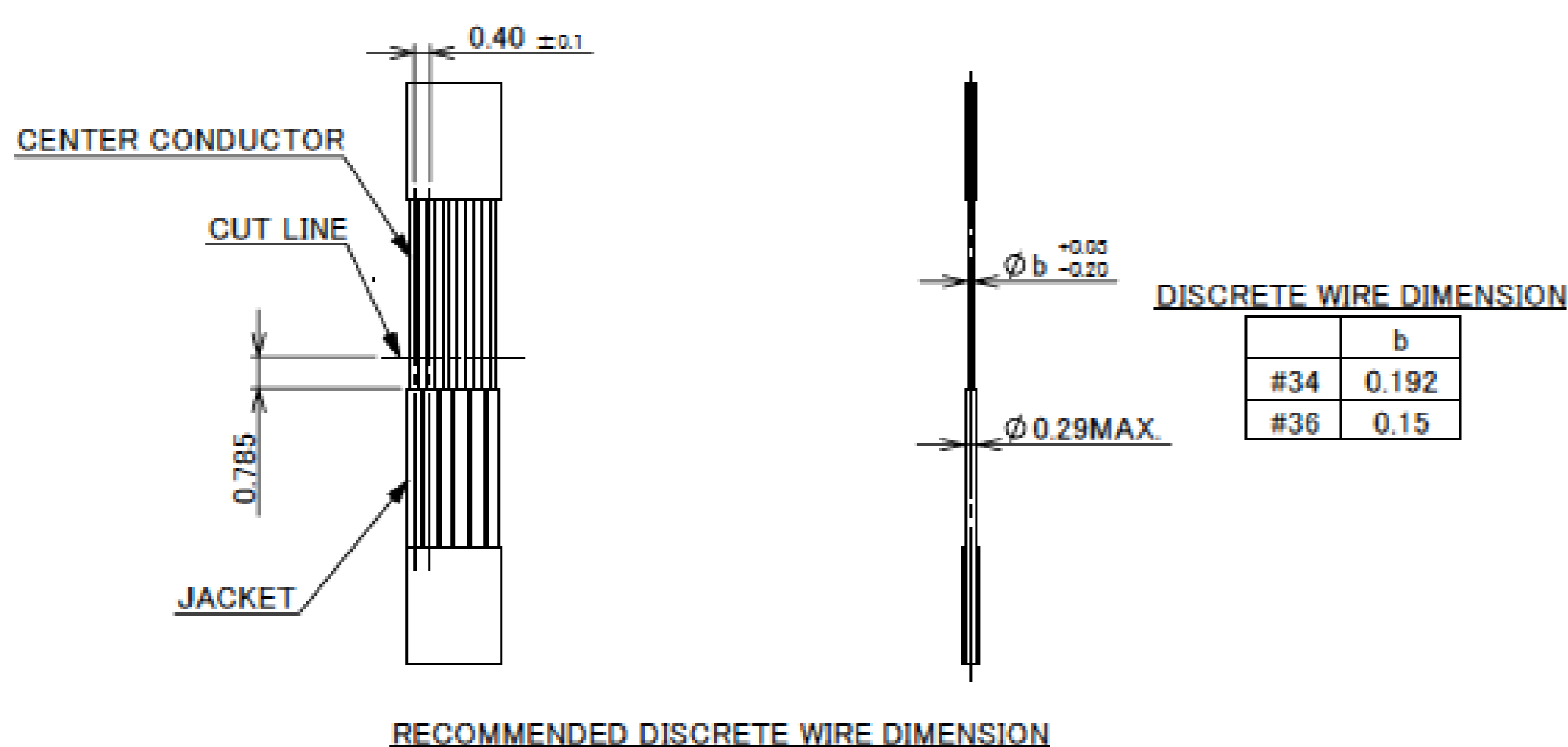
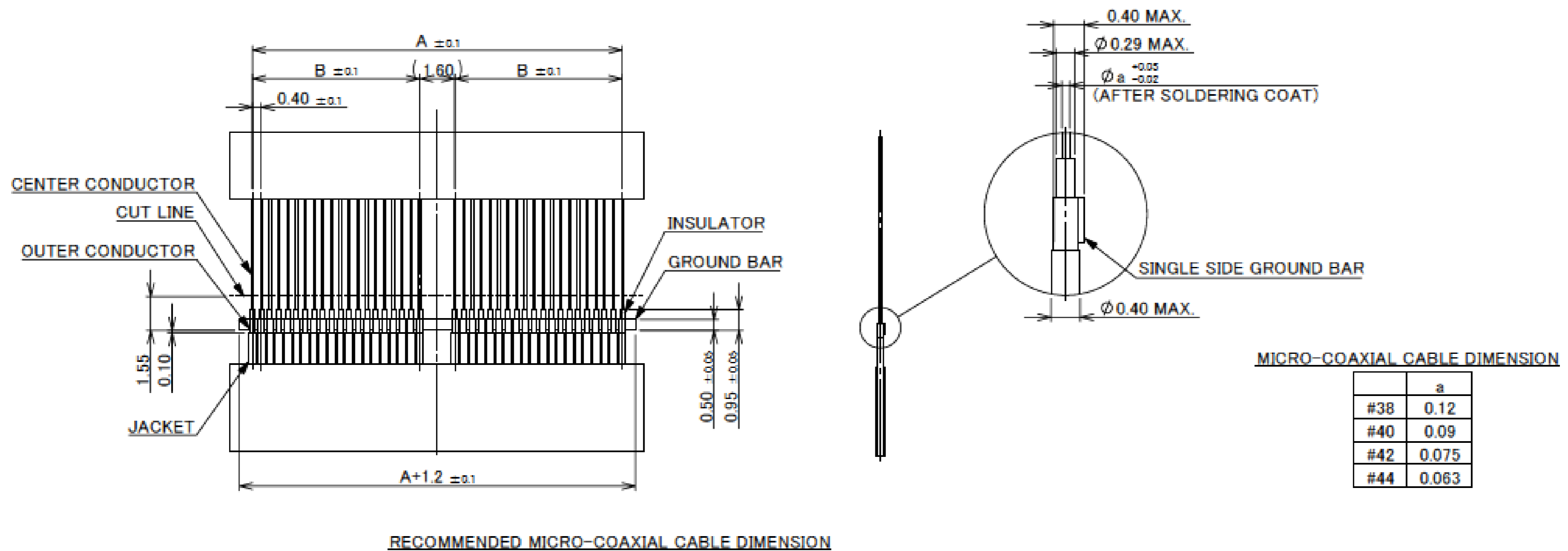


NO	DISCRIPTION	MATERIAL	FINISH , REMARKS
5	LOCK BAR	SUS	-
4	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.0 μm MIN.
3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.0 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.0 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0,BLACK, RED PHOSPHORUS FREE

NOTES.
1. SOLDERING IS ONLY A CASE WITH GND-BAR.

Rev.6

PART NO.	Pos.	A	B
20728-030T-0#	30	12.80	5.60
20728-040T-0#	40	16.80	7.60



Rev.6

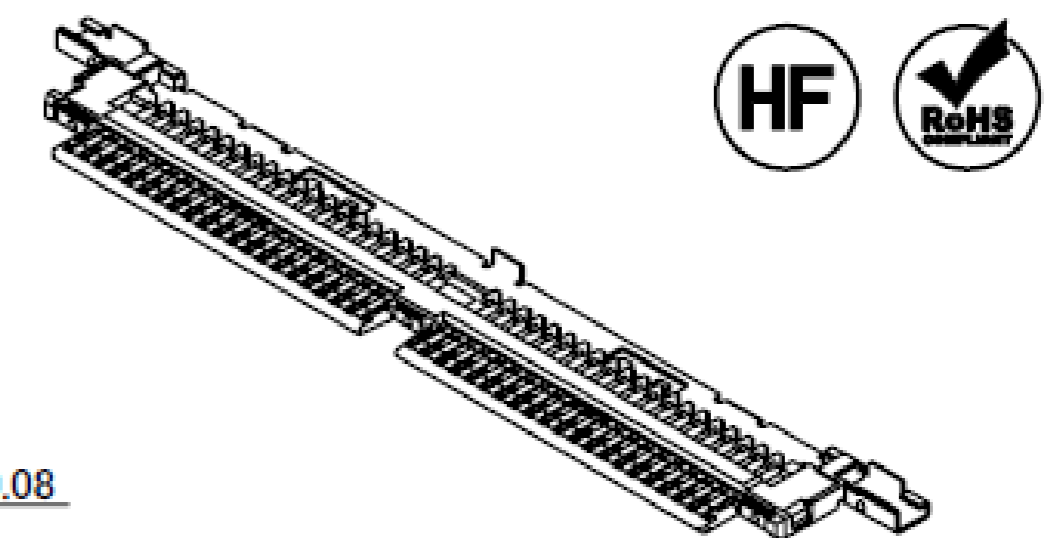
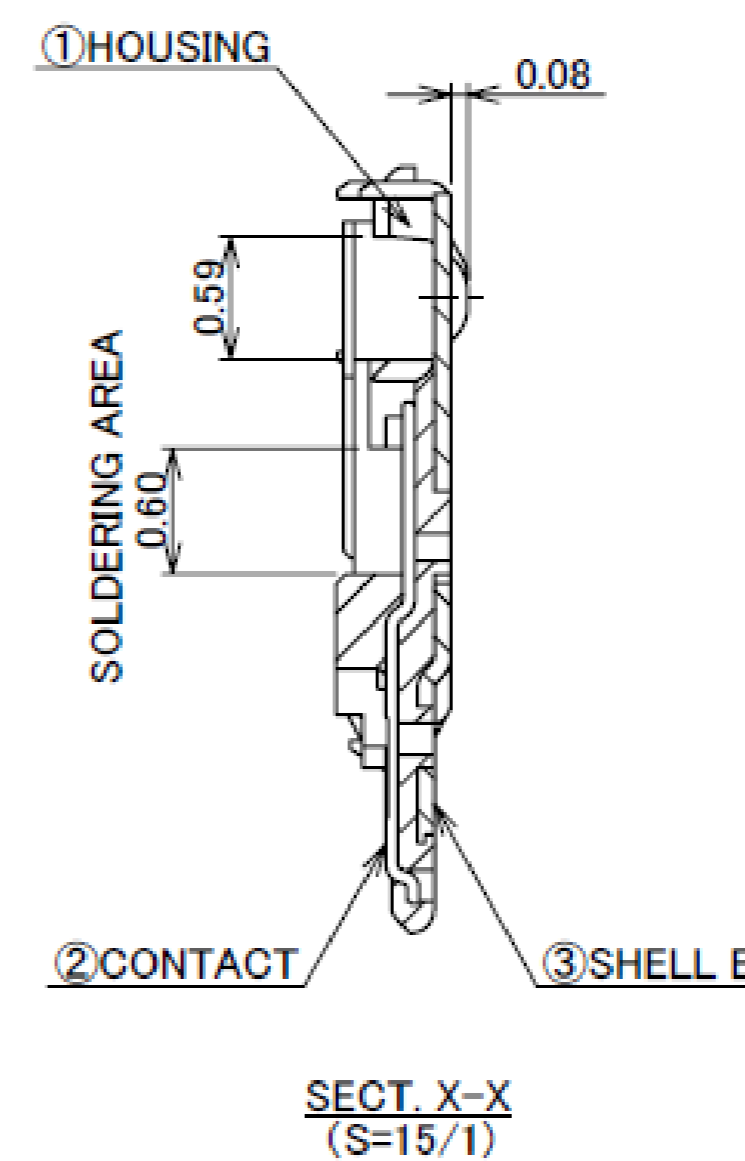
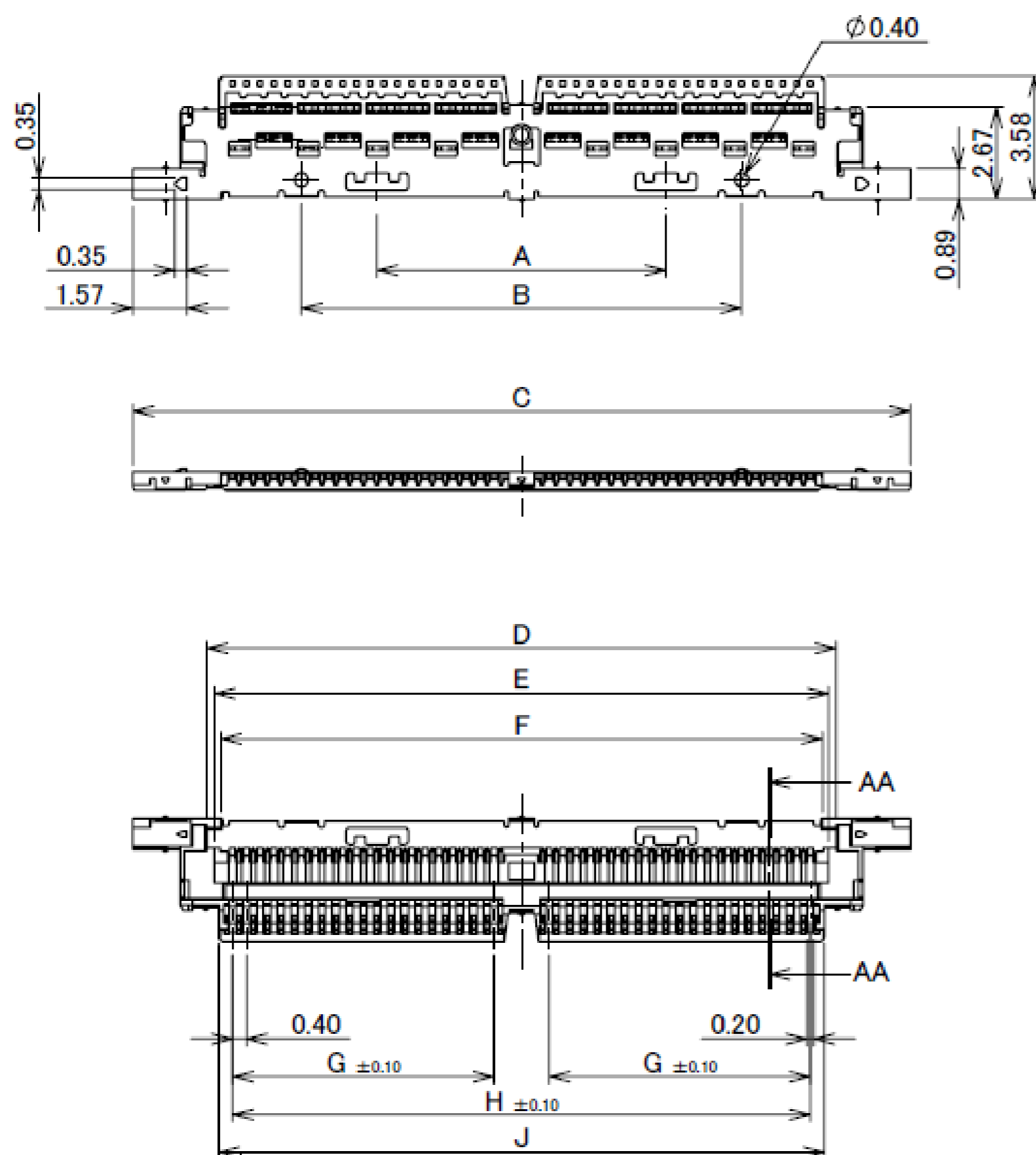
Plug for Cable Assembly

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE : AWG# 38,40,42,44 DISCRETE WIRE : AWG# 34,36
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.15A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 40 CONTACTS 0.30A AC/DC [AWG#40] PER CONTACT PIN/UP TO 32 CONTACTS 0.50A AC/DC [AWG#38] PER CONTACT PIN, FOR POWER/UP TO 14 CONTACTS 0.80A AC/DC [AWG#36] PER CONTACT PIN, FOR POWER/UP TO 5 CONTACTS 1.00A AC/DC [AWG#34] PER CONTACT PIN, FOR POWER/UP TO 4 CONTACTS ※ 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 : 180mohm MAX.(AWG#34) / AFTER TEST : \triangleleft140mohm 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 : \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 : 12.0N MAX. 40P : 16.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 1.80N MIN. 40P : 2.40N MIN.
CABLE RETENTION FORCE	30P : 11.8N MIN. 40P : 12.4N MIN.
PRODUCT SPECIFICATION	PRS-2371
TEST REPORT	TR-17036
INSTRUCTION MANUAL	HIM-17010
ASSEMBLY MANUAL	ASM-17003
APPEARANCE CRITERIA No.	QLS-A***

Rev.6

Plug Housing Assembly

Recommended P/N		20777-0**T-01									
PART No.	Pos.	A	B	C	D	E	F	G	H	J	
20777-030T-01	30	4.40	8.80	18.60	14.30	13.85	13.50	5.60	12.80	13.60	
20777-040T-01	40	8.40	12.80	22.60	18.30	17.85	17.50	7.60	16.80	17.60	



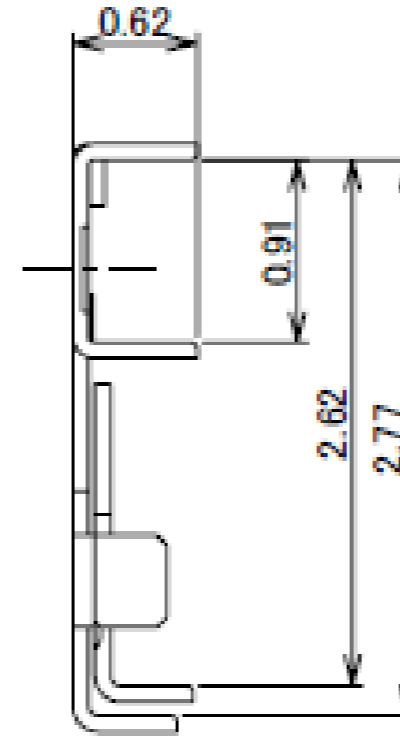
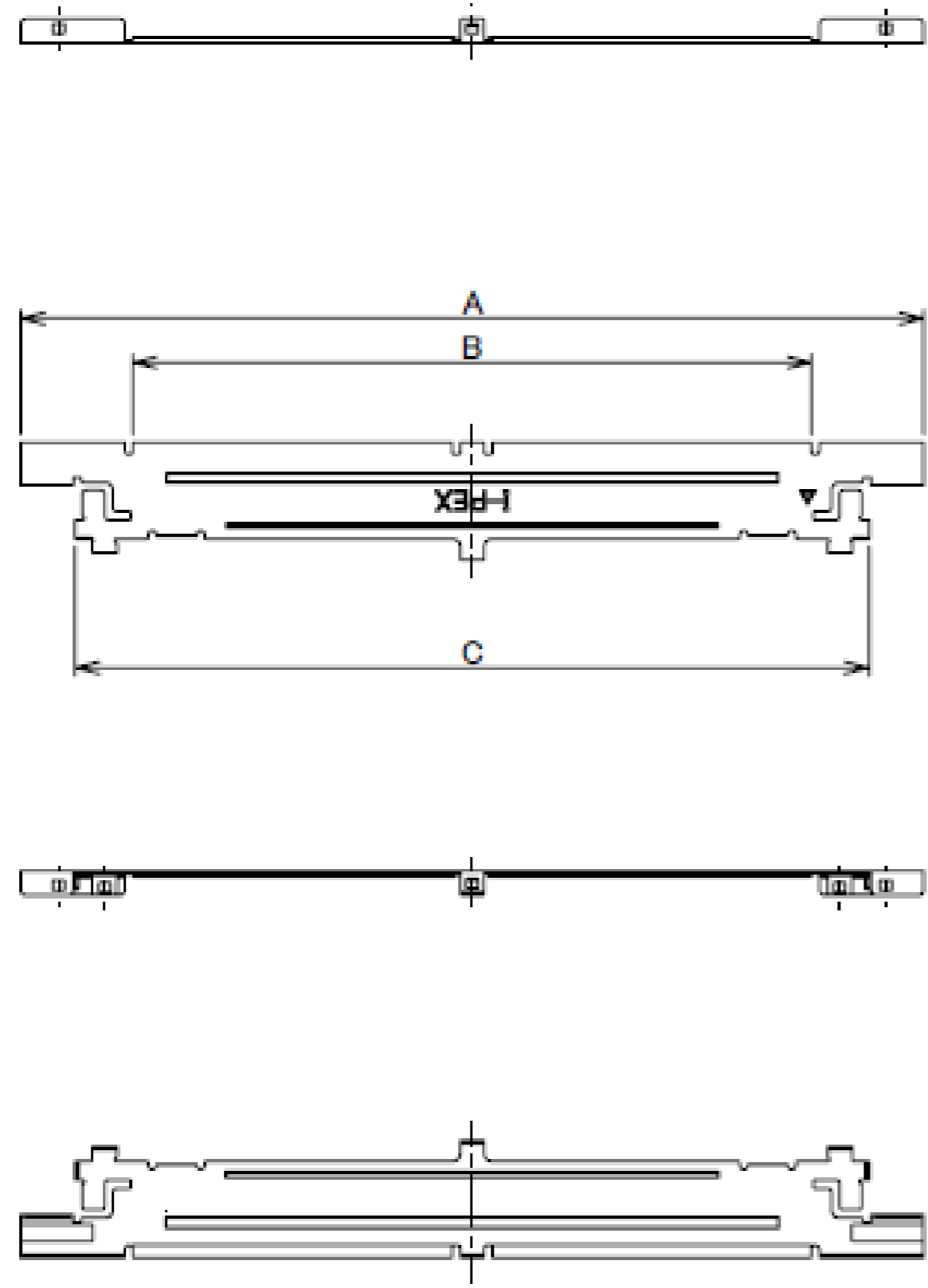
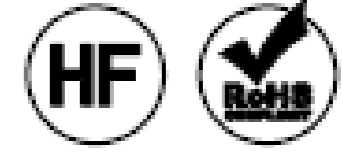
NOTES.
1. THIS PART IS ASSEMBLED WITH P/N: 3298-0**1 AND 3300-**1 AFTER SOLDERING CABLES AND SHALL BE ASSIGNED AS P/N: 20728-0**T-01.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
3	SHELL-B	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER 1.00 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94-0, BLACK, RED PHOSPHORUS FREE

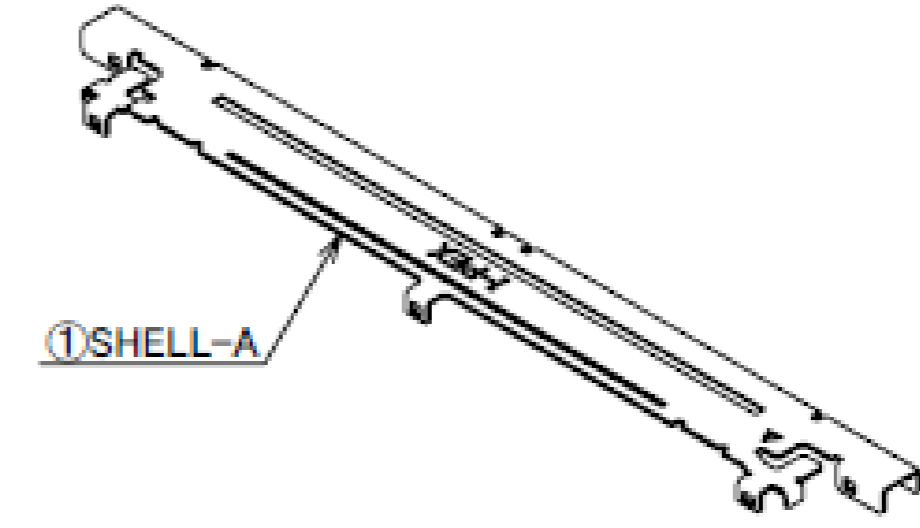
Rev.4

Plug Shell-A

Recommended P/N		3298-0**1		
PART No.	Pos.	A	B	C
3298-0301	30	18.60	12.98	15.86
3298-0401	40	22.60	16.98	19.86



DETAIL AA
(S=20/1)

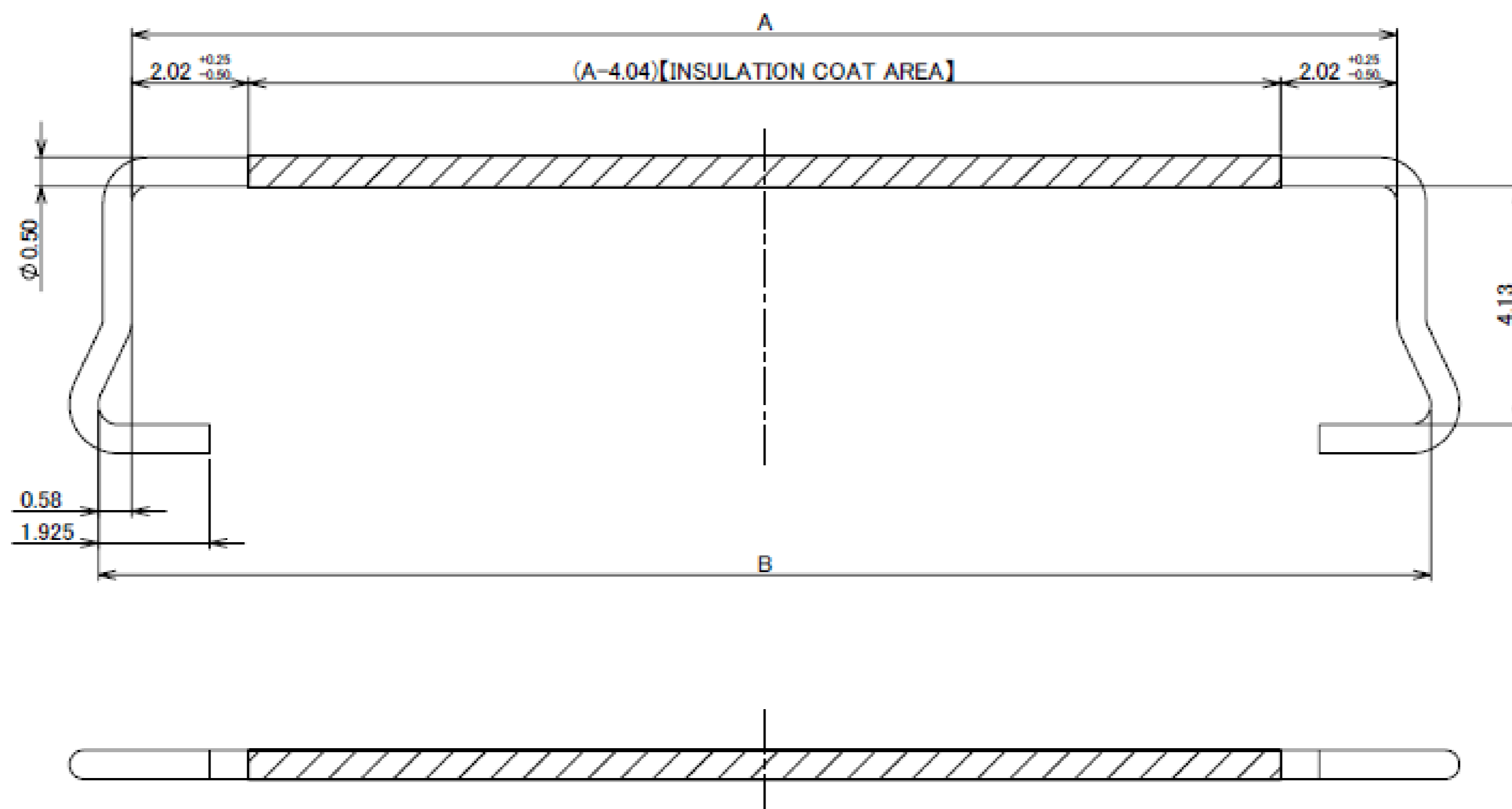
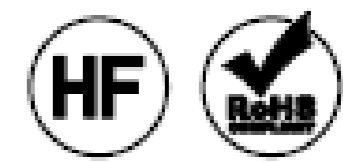


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	SHELL-A	PHOSPHOR BRONZE	PARTIAL Au 0.003 μm MIN. OVER Ni 1.0 μm MIN.

Rev.3

Plug Lock Bar

Recommended P/N		3300-0**1	
PART No.	Pos.	A	B
3300-0301	30	17.89	19.05
3300-0401	40	21.89	23.05

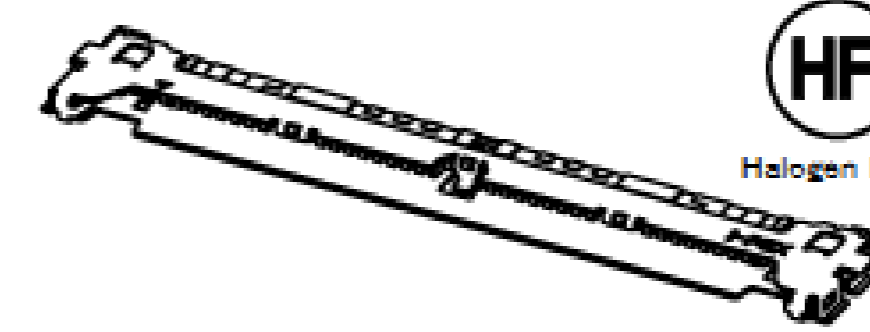


NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
1	LOCK BAR	SUS	--

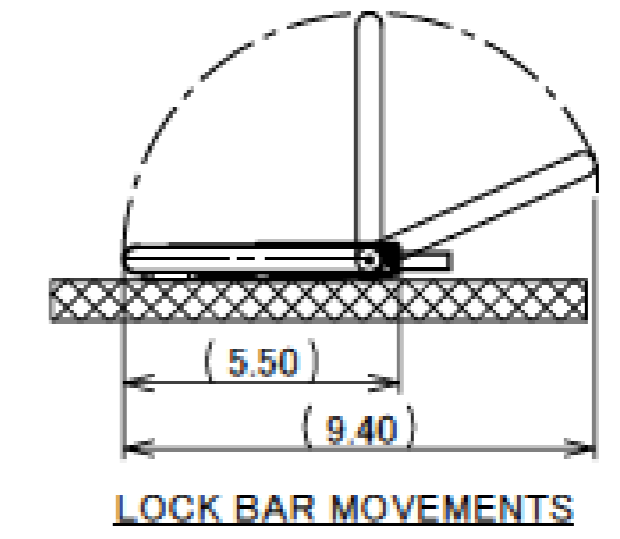
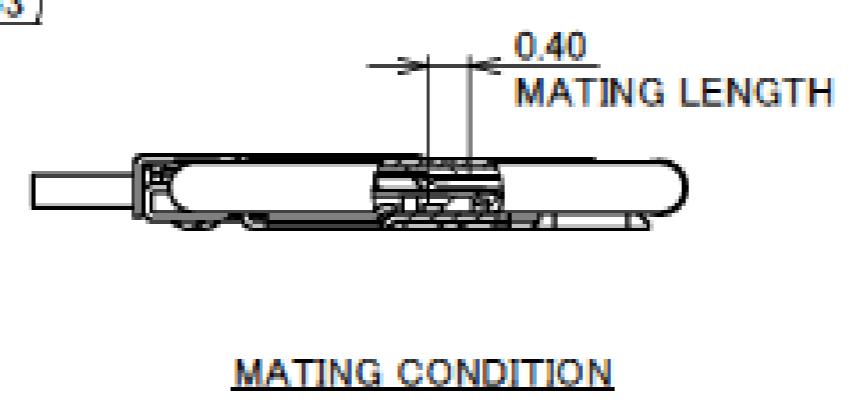
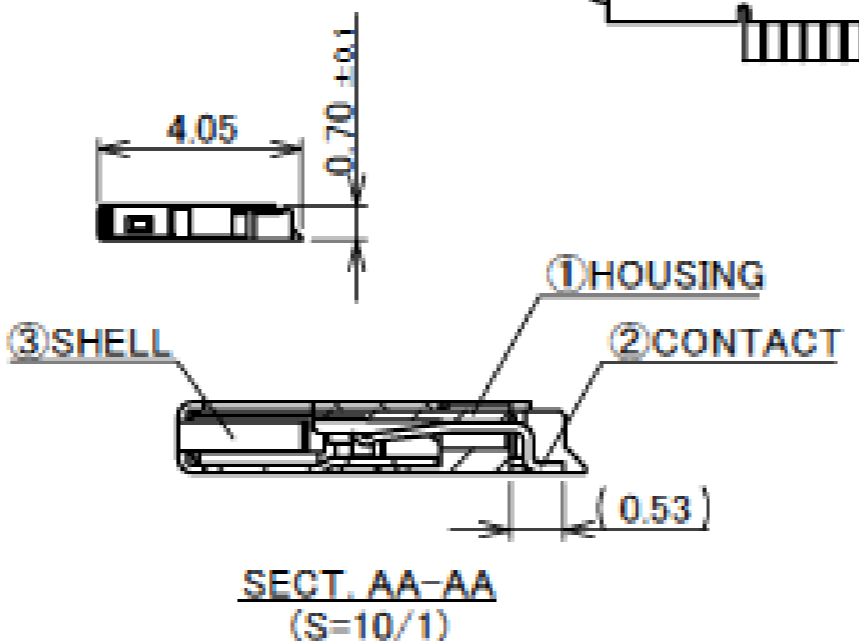
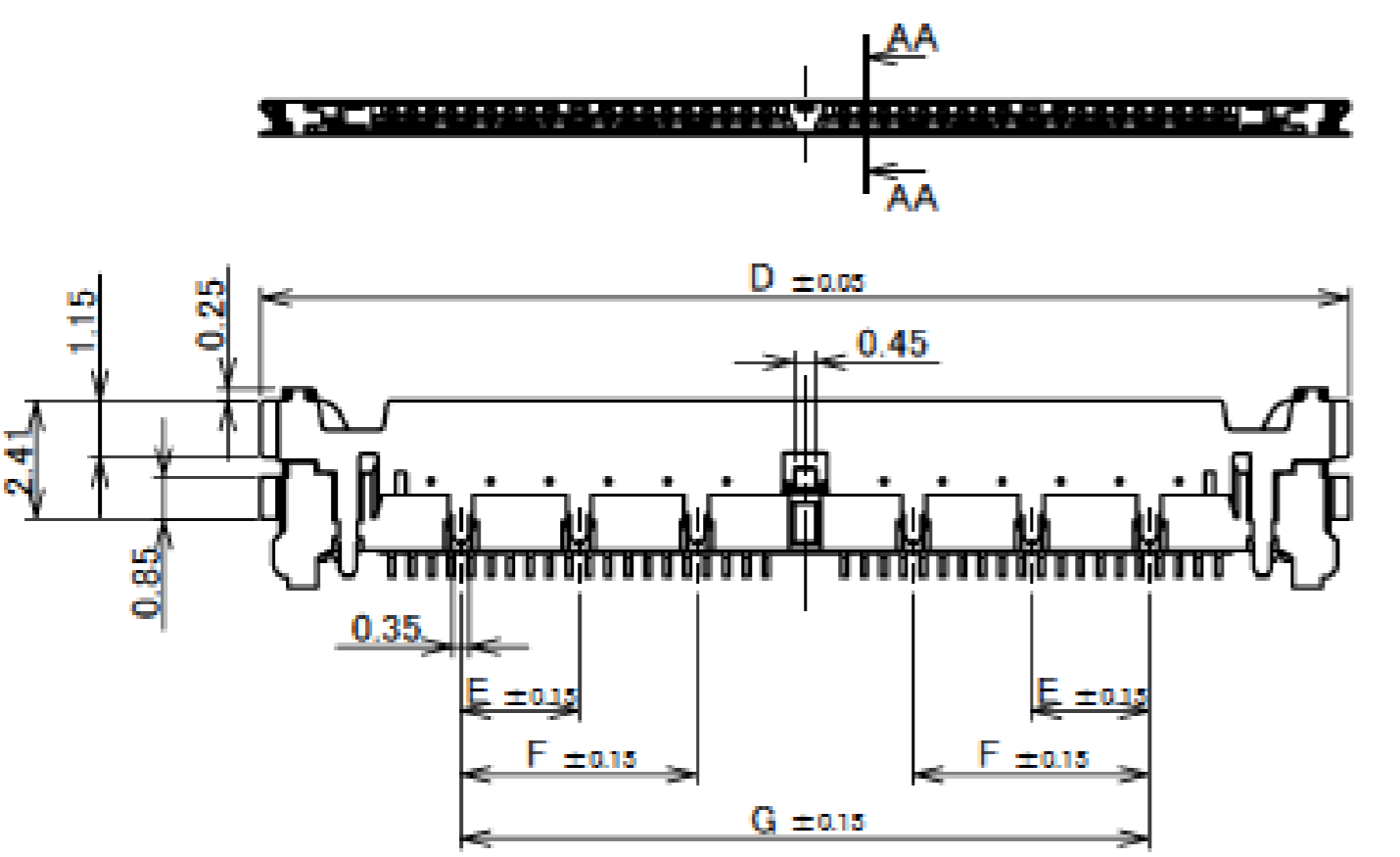
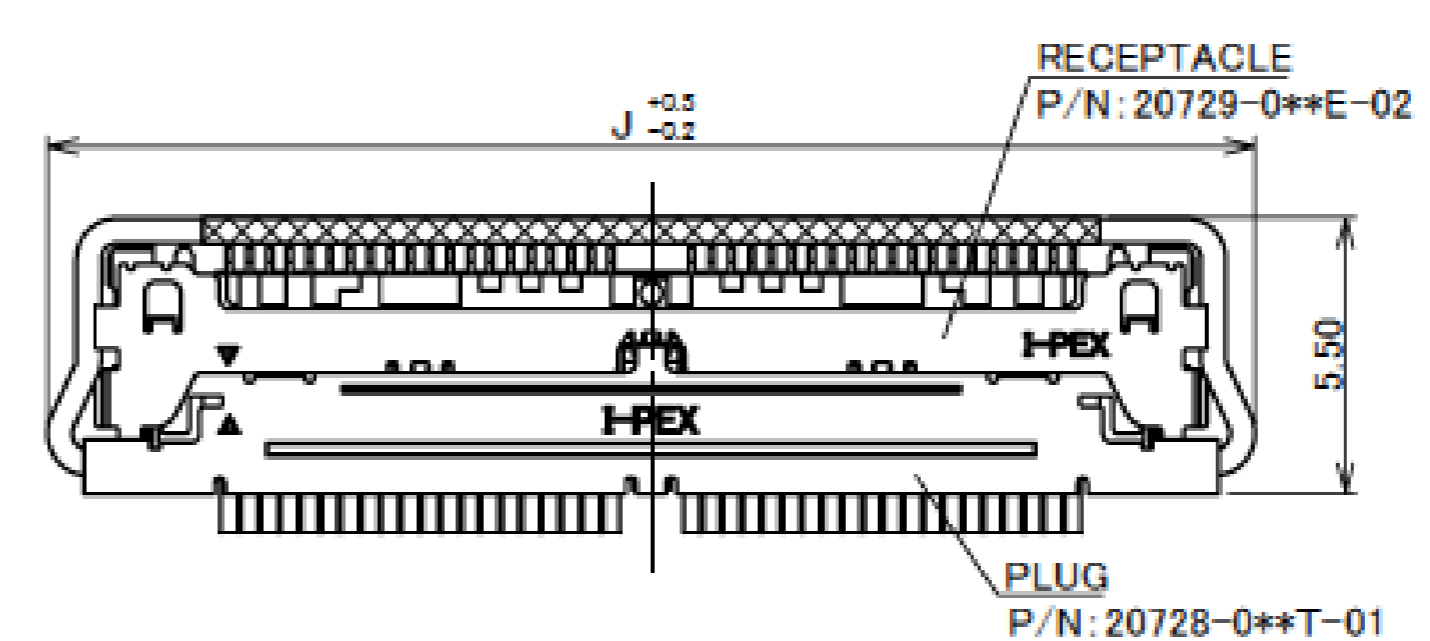
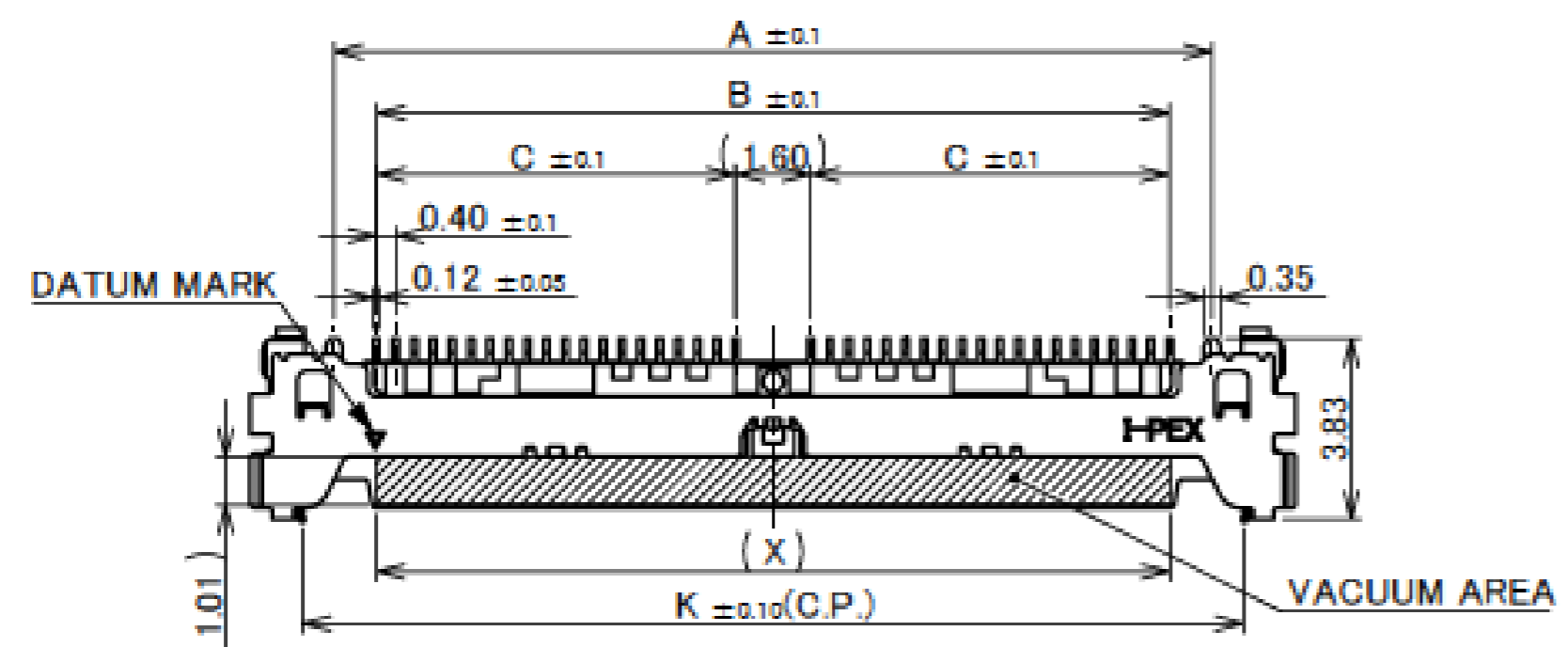
Rev.3

Receptacle Assembly

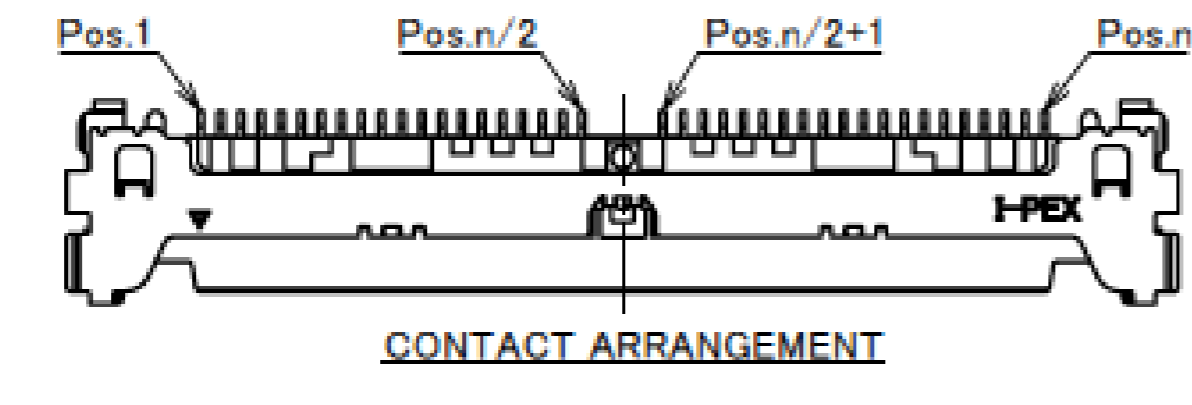
Recommended P/N		20729-0**E-02									
PART NO.	Pos.	A	B	C	D	E	F	G	H	K	X
20729-030E-02	30	14.60	12.80	5.60	18.14	-	2.80	10.00	20.05	15.95	12.81
20729-040E-02	40	18.60	16.80	7.60	22.14	2.40	4.80	14.00	24.05	19.95	16.81



Halogen Free RoHS Compliant

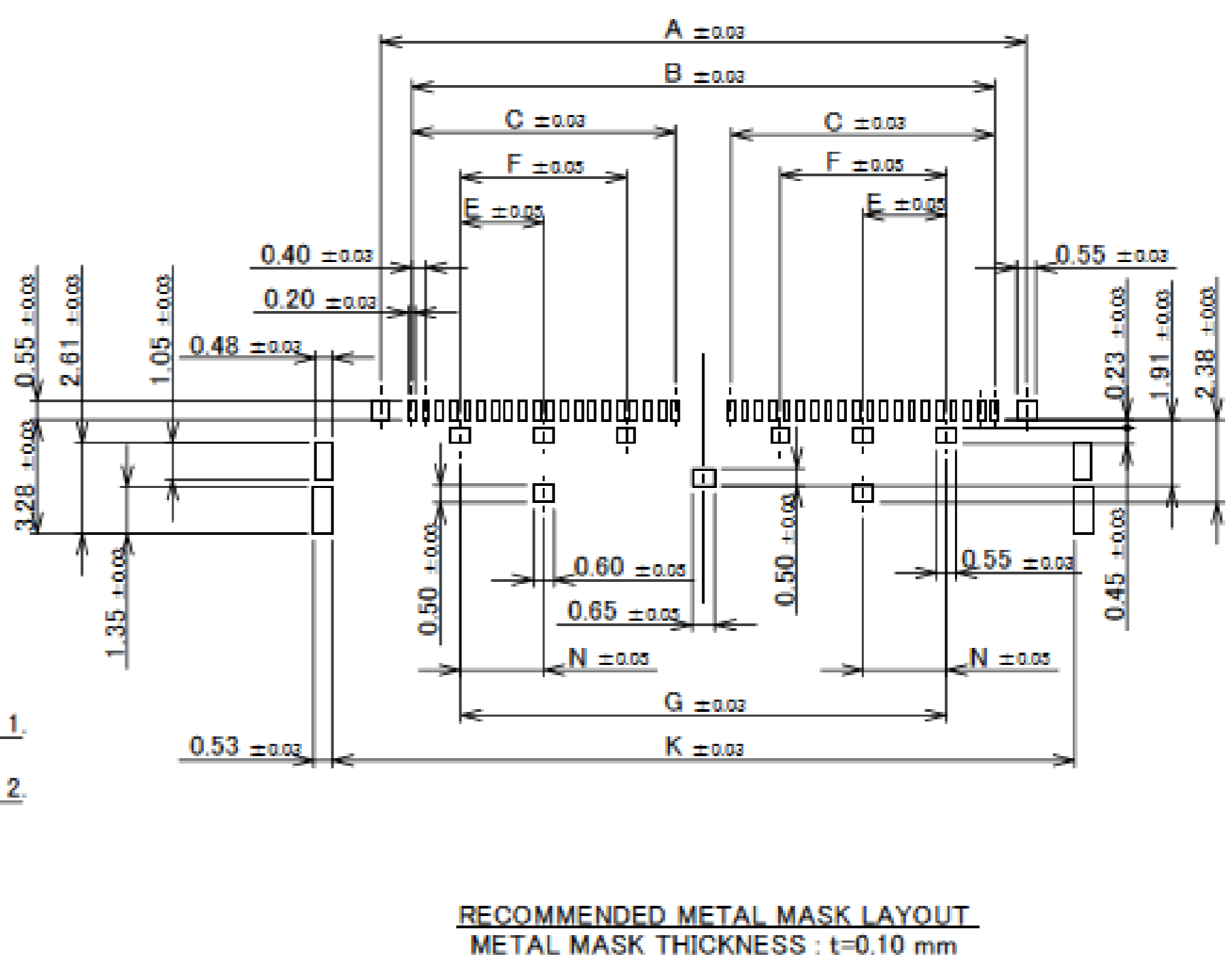
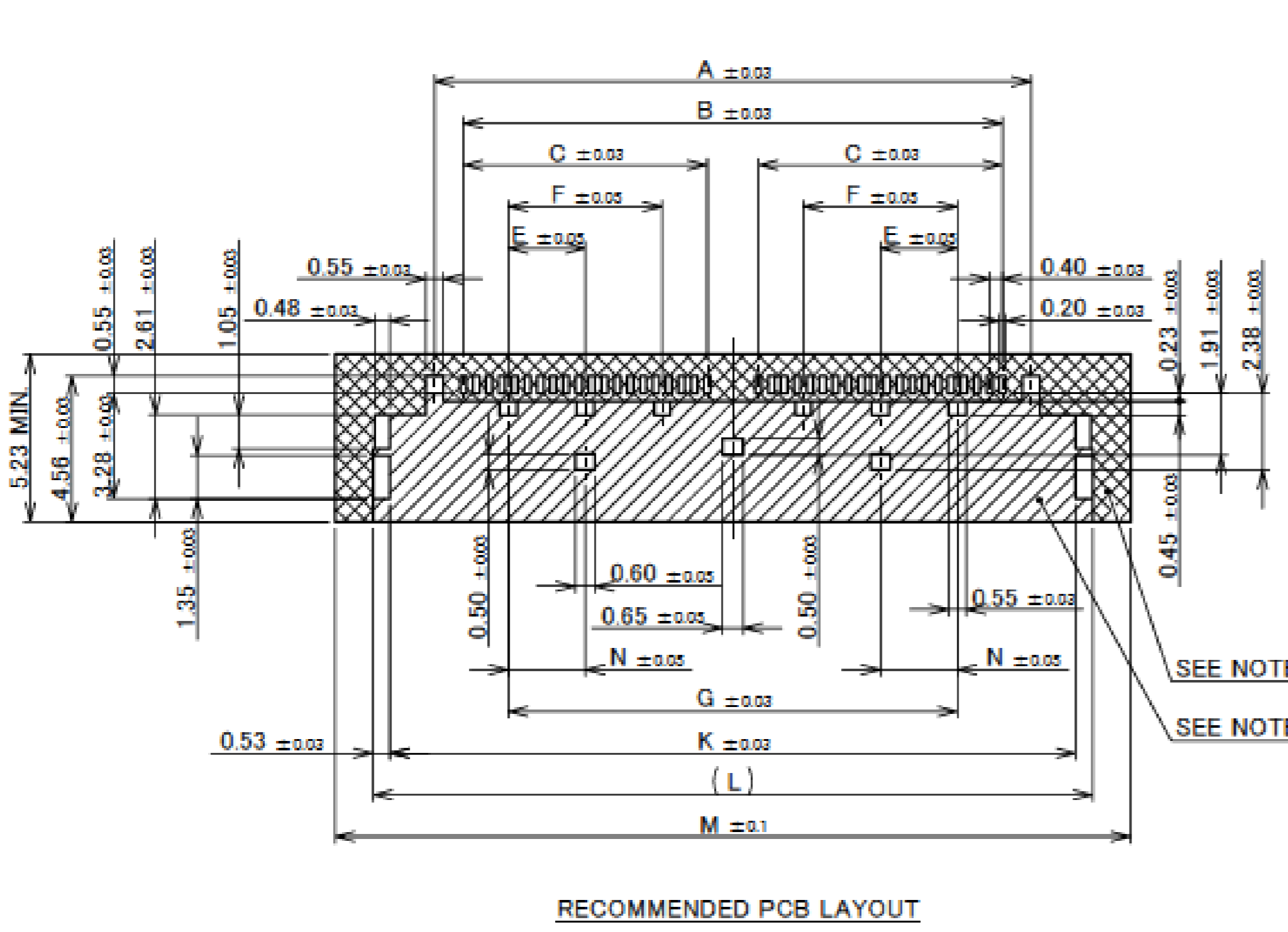


NO.	DISCRIPTION	MATERIAL	FINISH, REMARKS
3	SHELL	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.02 μm MIN.
2	CONTACT	PHOSPHOR BRONZE	ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN.
1	HOUSING	LCP	UL94V-0. BLACK, RED PHOSPHORUS FREE



Rev.8

PART NO.	Pos.	A	B	C	E	F	G	K	L	M	N
20729-030E-02	30	14.60	12.80	5.60	-	2.80	10.00	17.38	18.44	20.80	1.40
20729-040E-02	40	18.60	16.80	7.60	2.40	4.80	14.00	21.38	22.44	24.80	2.40



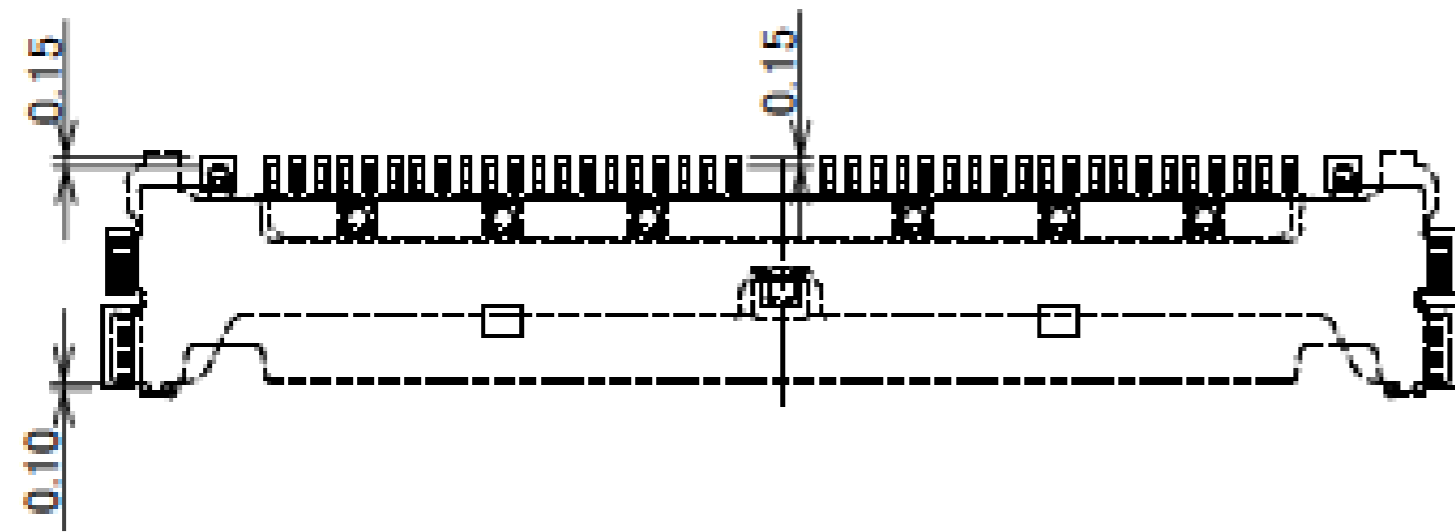
NOTES:
1. DO NOT MOUNT ANOTHER COMPONENTS IN THIS AREA.
2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.8

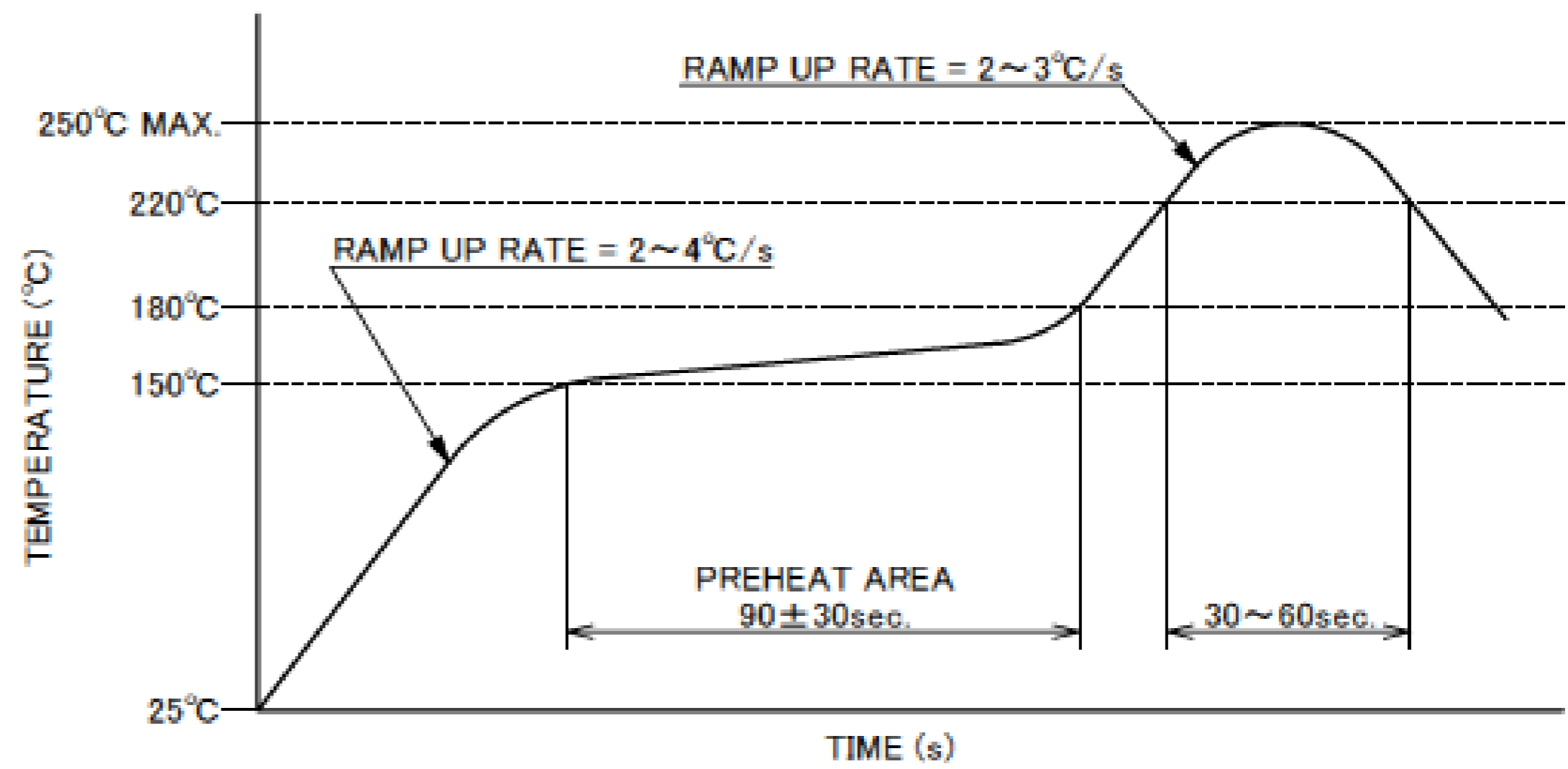


Contact your sales representative for more detailed information. www.i-pex.com

Receptacle Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.8

ITEMS	SPECIFICATION
APPLICABLE CABLE	MICRO-COAXIAL CABLE: AWG# 40,42,44 DISCRETE WIRE : AWG# 34,36
RATING VOLTAGE	100V AC (PER CONTACT PIN)
RATING AMPERAGE (FOR CONTACT)	0.15A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [AWG#42] PER CONTACT PIN/UP TO 40 CONTACTS 0.30A AC/DC [AWG#40] PER CONTACT PIN/UP TO 32 CONTACTS 0.50A AC/DC [AWG#38] PER CONTACT PIN, FOR POWER/UP TO 14 CONTACTS 0.80A AC/DC [AWG#36] PER CONTACT PIN, FOR POWER/UP TO 5 CONTACTS 1.00A AC/DC [AWG#34] PER CONTACT PIN, FOR POWER/UP TO 4 CONTACTS ※ 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 : 180mohm MAX.(AWG#34) / AFTER TEST : \triangleleft40mohm MAX. 275mohm MAX.(AWG#36) 600mohm MAX.(AWG#40) 700mohm MAX.(AWG#42) 1080mohm MAX.(AWG#44)
GROUND SHELL RESISTANCE	INITIAL : 50mohm 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 : 12.0N MAX. 40P : 16.0N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	30P : 1.80N MIN. 40P : 2.40N MIN.
CABLE RETENTION FORCE	30P : 11.8N MIN. 40P : 12.4N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2371
TEST REPORT	TR-17036
PACKING STANDARD	PST-17058
INSTRUCTION MANUAL	HIM-17010
APPEARANCE CRITERIA No.	QLS-A***

Rev.8

Custom Connectors Available

 RF Connector

MHF® series



CABLINÉ® series
Micro-coaxial/Twinax/
Discrete Wire Connector



Optical Module

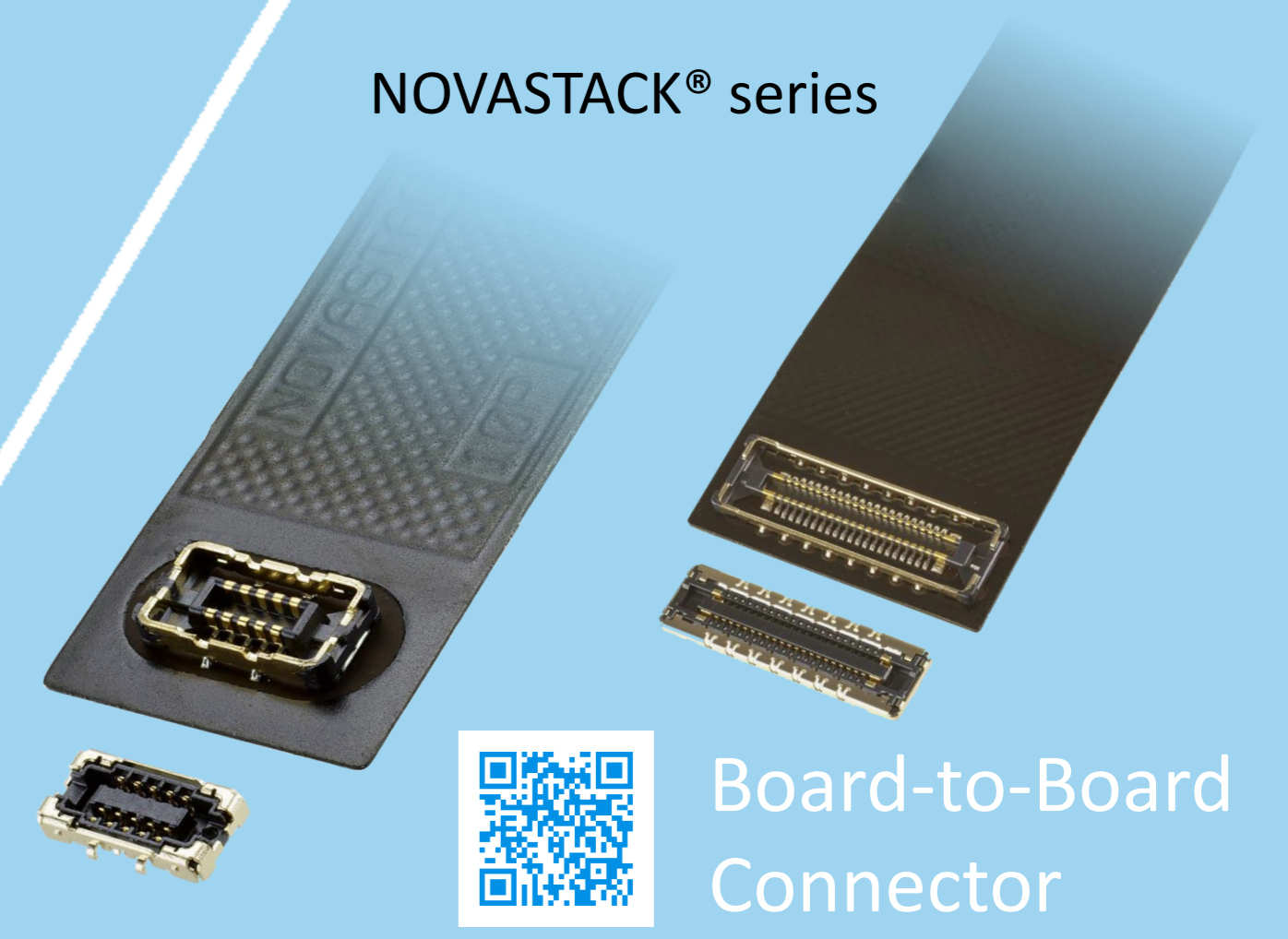
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



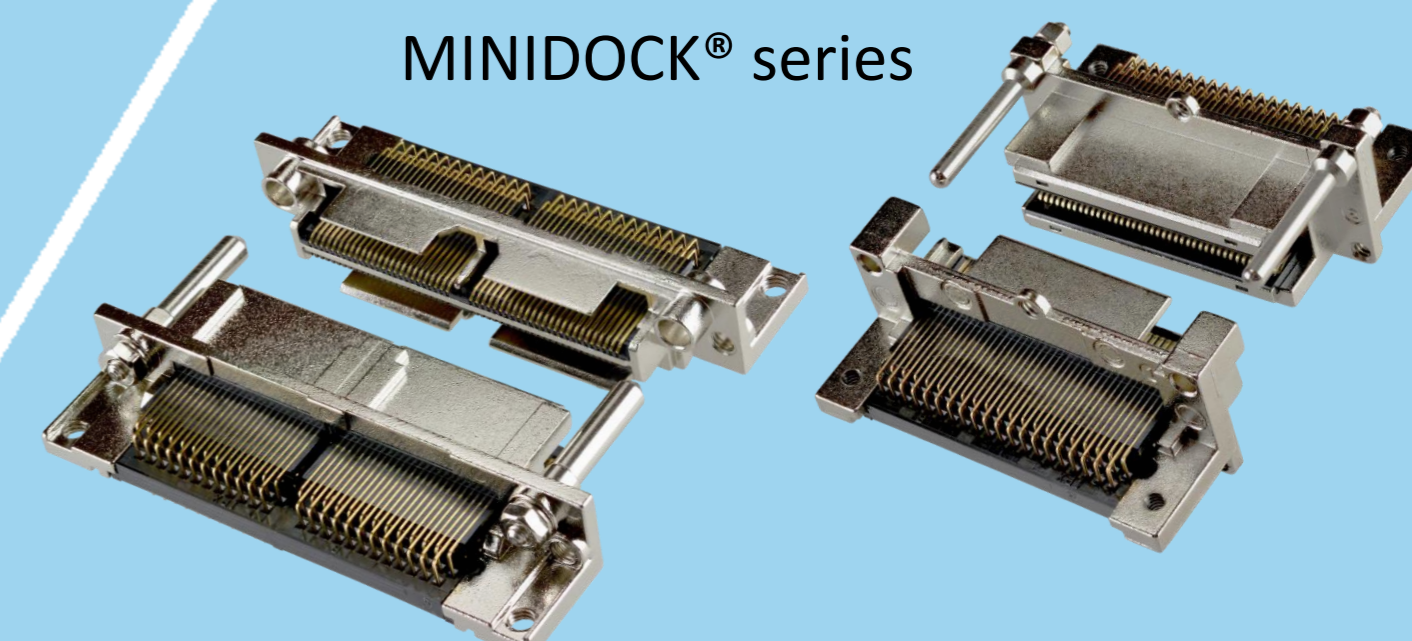
Inquiry



MINIDOCK® series



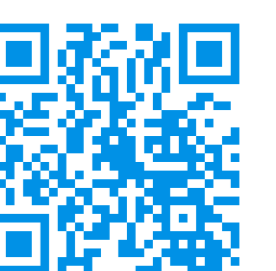
I/O Connector



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Contact your sales representative or more detailed information.

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