

CABLIN[®]-CAL

较低嵌合高度(嵌合高度 = 0.7 mm), 高速数据传输(20+ Gbps/lane), 机械锁扣, 0.4 mm间距, 水平对插款的极细同轴线连接器

Product Specifications:

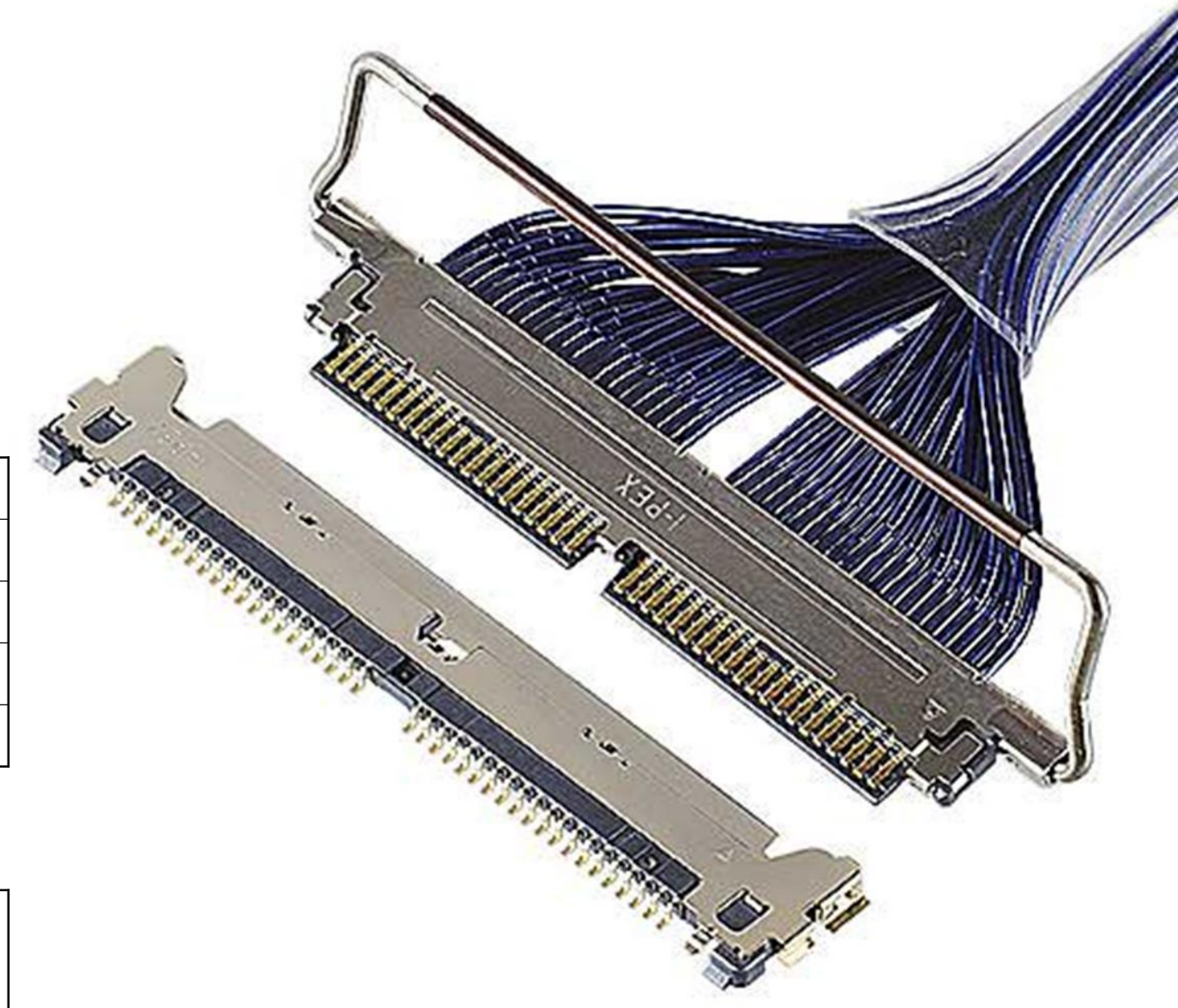
| | | |
|--------------------|------------|---------------------------------|
| Mating type | Horizontal | |
| Board Pitch (mm) | 0.4 | |
| Wiping Length (mm) | 0.4 | |
| Mated size (mm) | Height | 0.7 +/- 0.1 |
| | Width | Formula: 10-20p: 6.85 +(0.4*?p) |
| | Depth | Formula: 22-40p: 8.05 +(0.4*?p) |
| 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 |

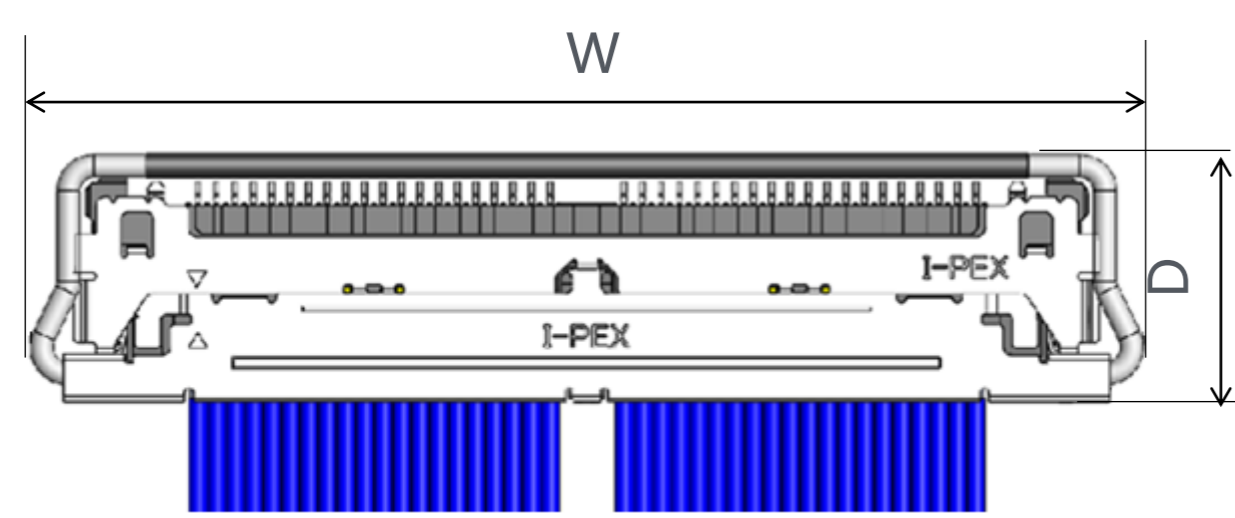
Applicable Standards (Reference Only):

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)

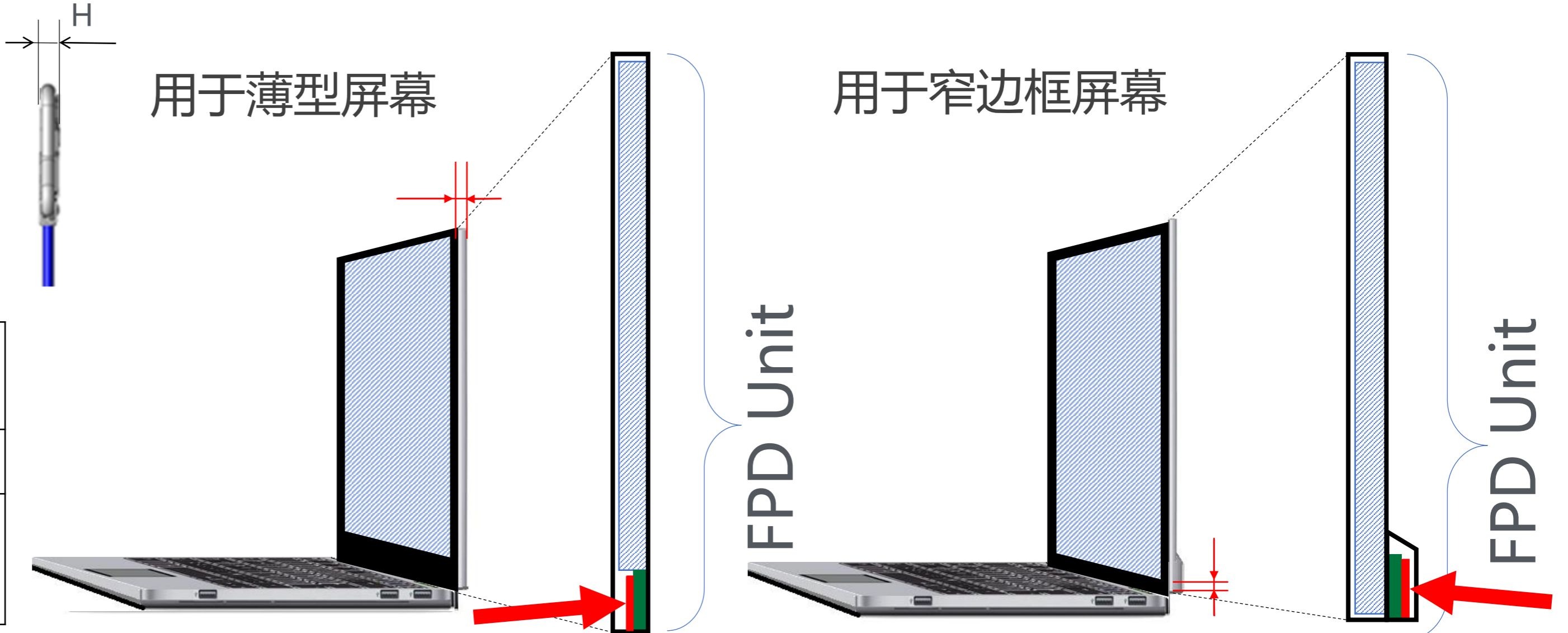


*如您需要了解未列出或不在范围内的Pin数, 请咨询我们。

适用于低空间的连接器



| CABLIN [®] -CAL 40p 一套嵌合后的尺寸(mm) | | |
|--|------|---------------------|
| W | D | H |
| 24.05 | 5.50 | 0.70 (0.80 max.) |

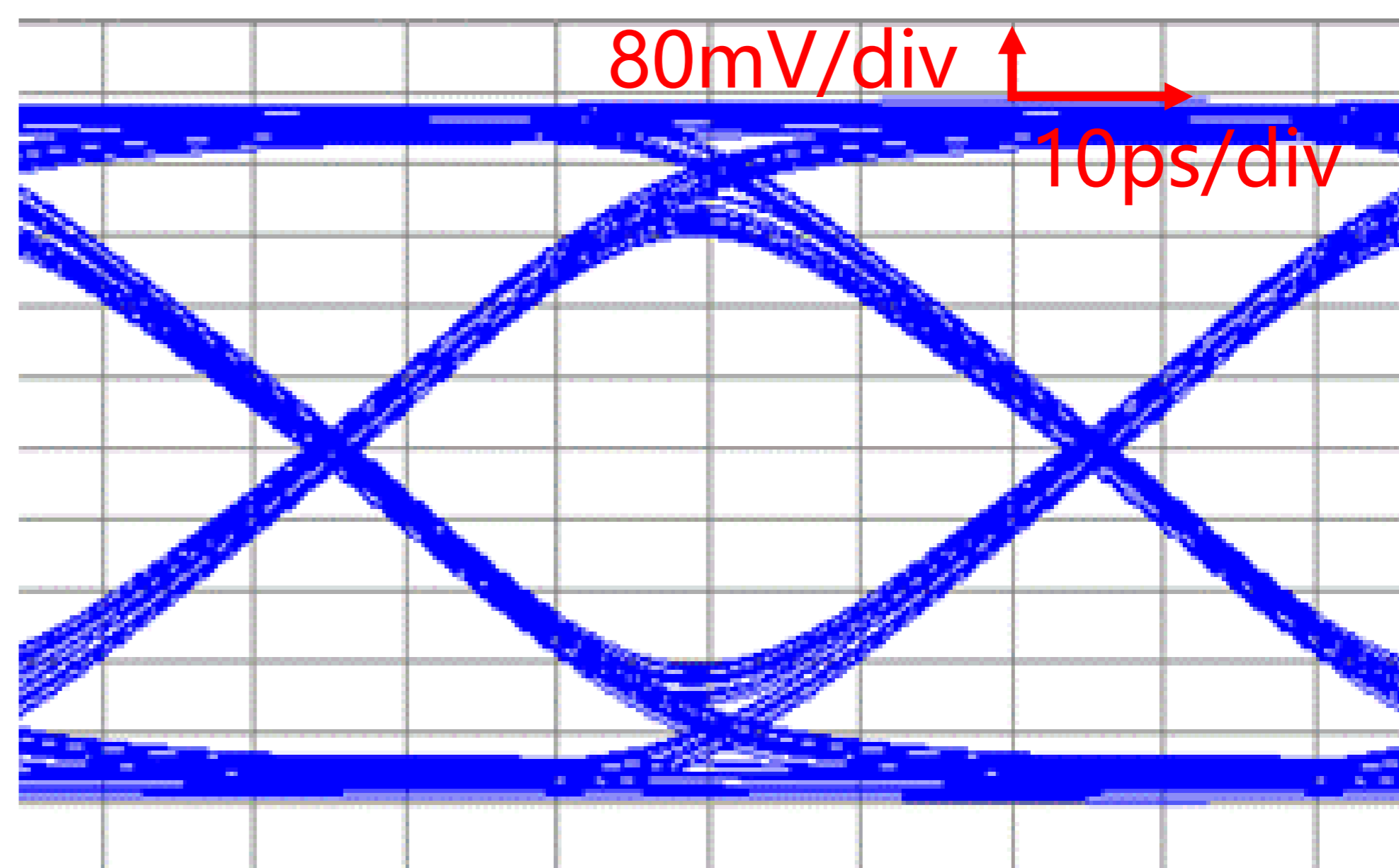


高速率传输, USB4 Gen3/Thunderbolt 4 (20Gbps/lane)应用的理想之选

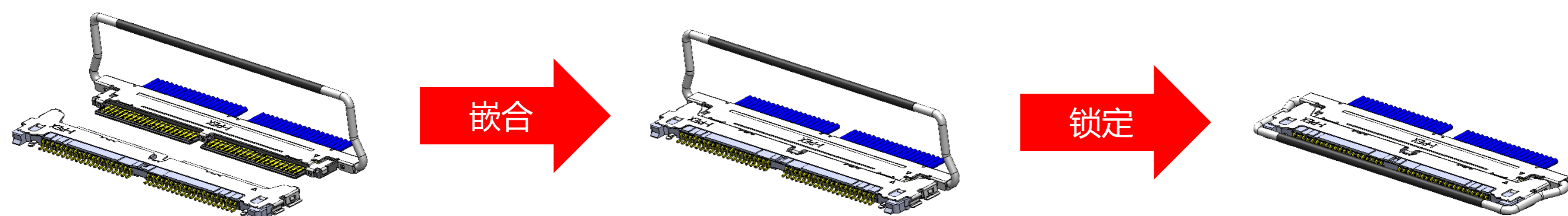
USB4 Gen3/Thunderbolt 4 (20Gbps/lane)

眼图 (微分)
 比特率: 20Gbps
 上升时间: 30ps (10-90%)
 输入电压: 800mVp-p

*更多测试细节, 请联系I-PEX 连接器。



机械式锁扣防止半嵌合和连接器弹出/未嵌合

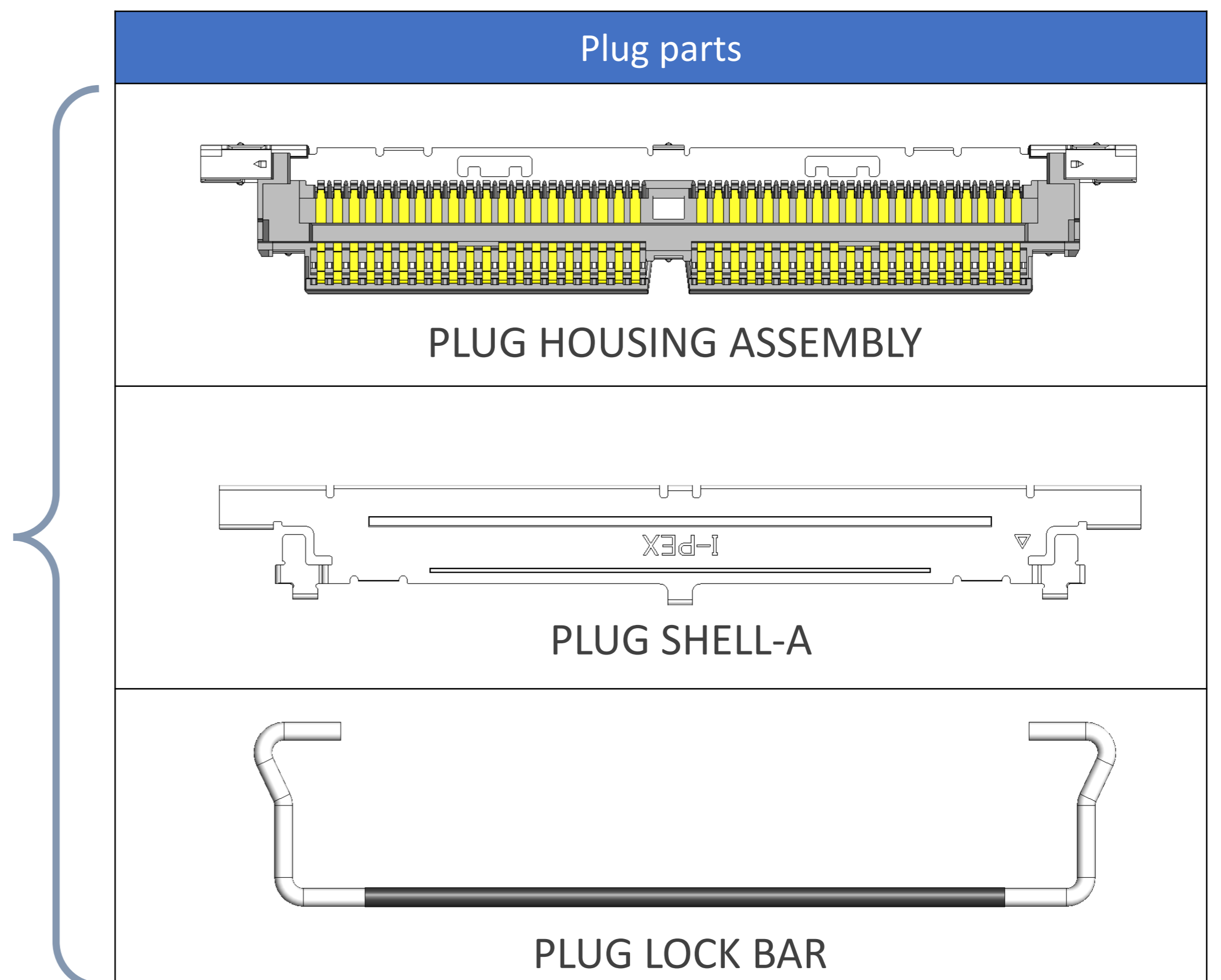
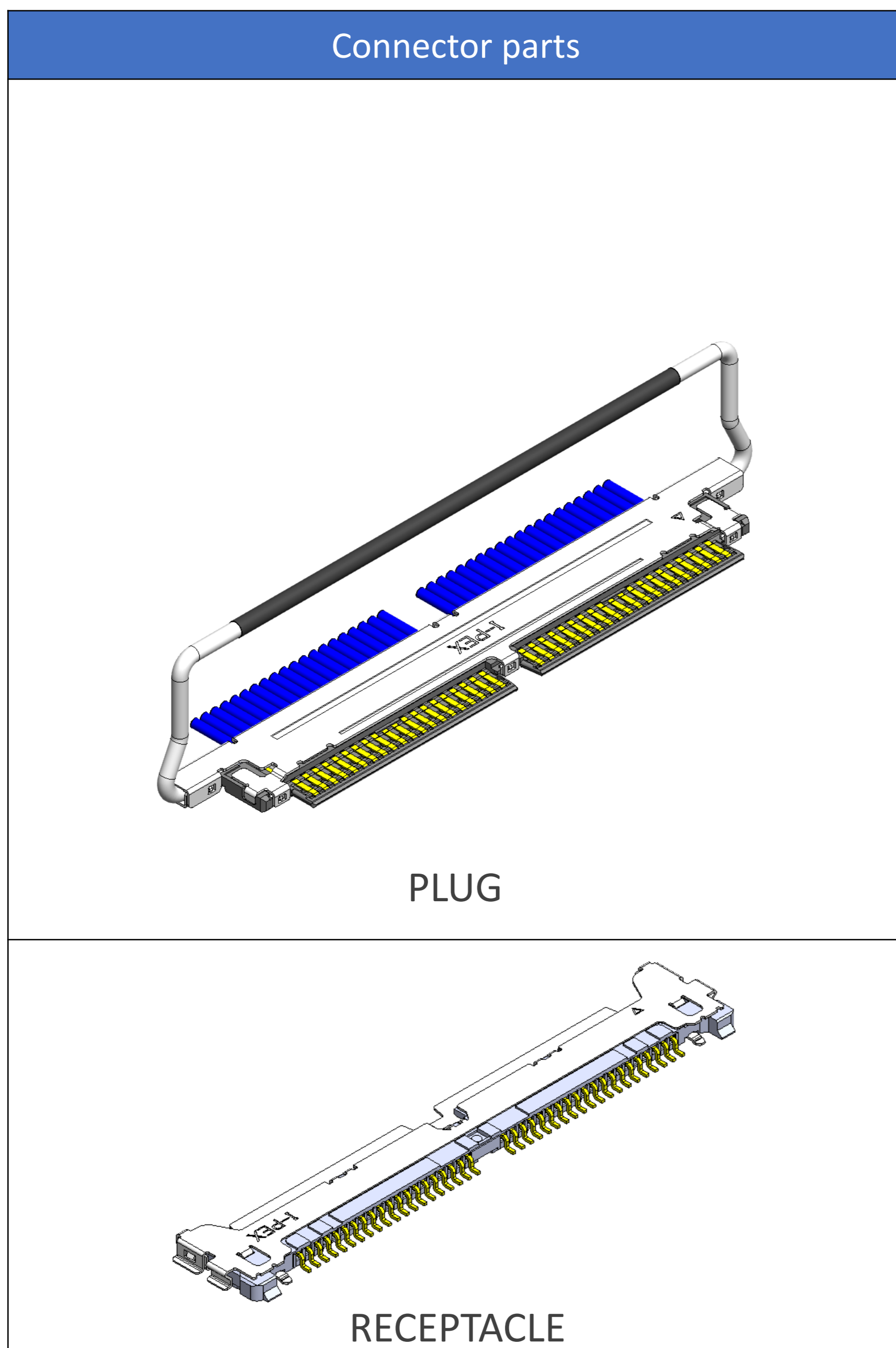


只有当公座完全和母座嵌合时, 机械锁扣才能锁上。



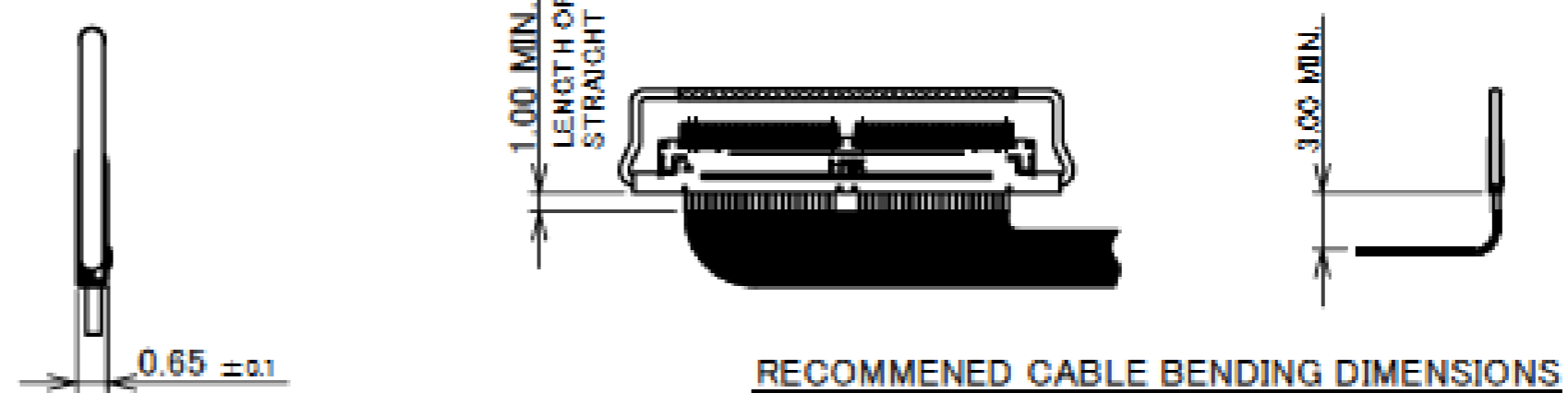
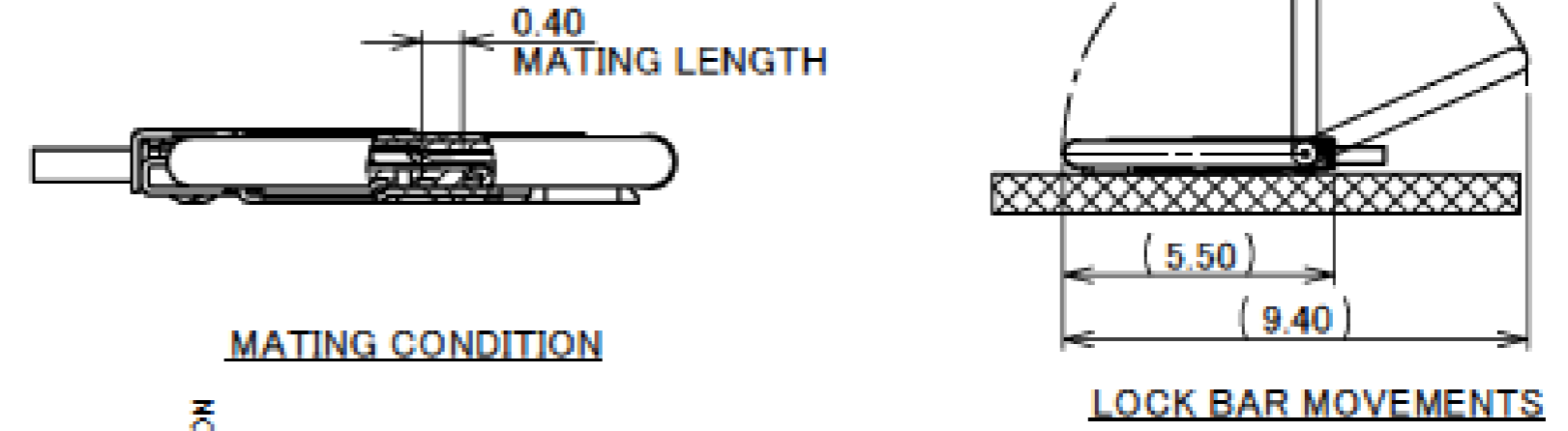
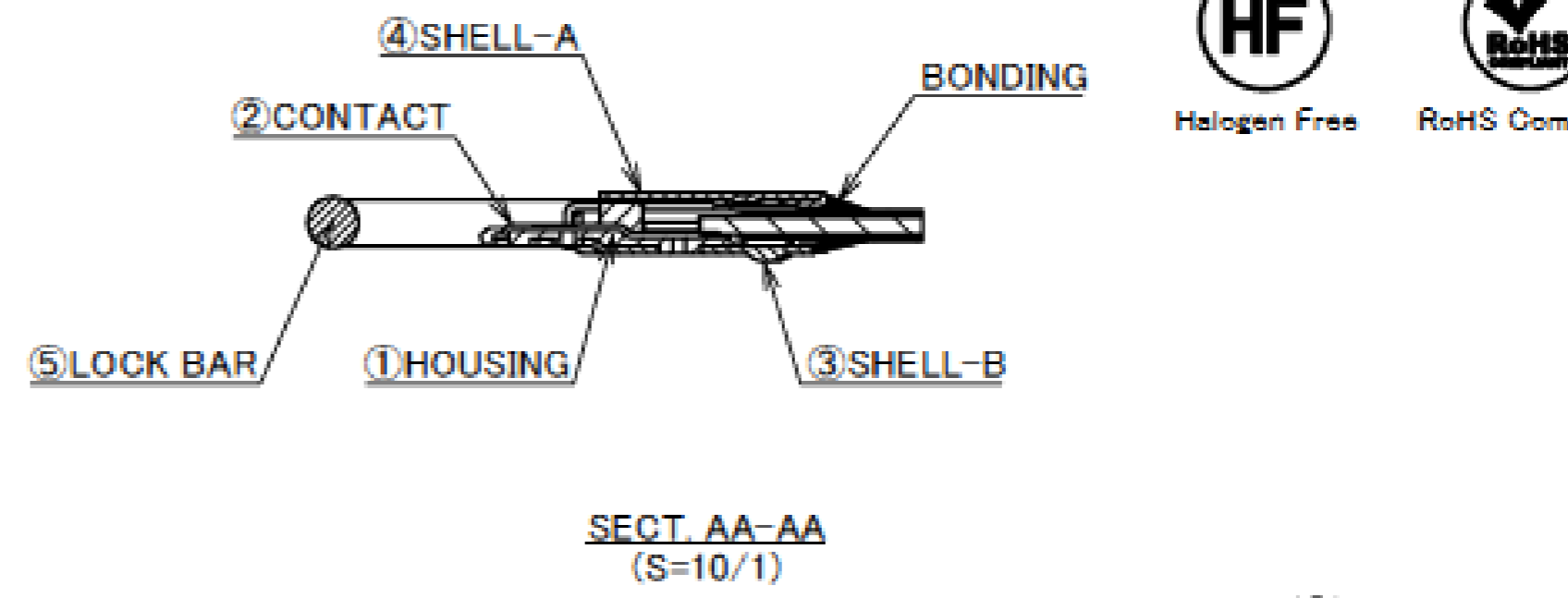
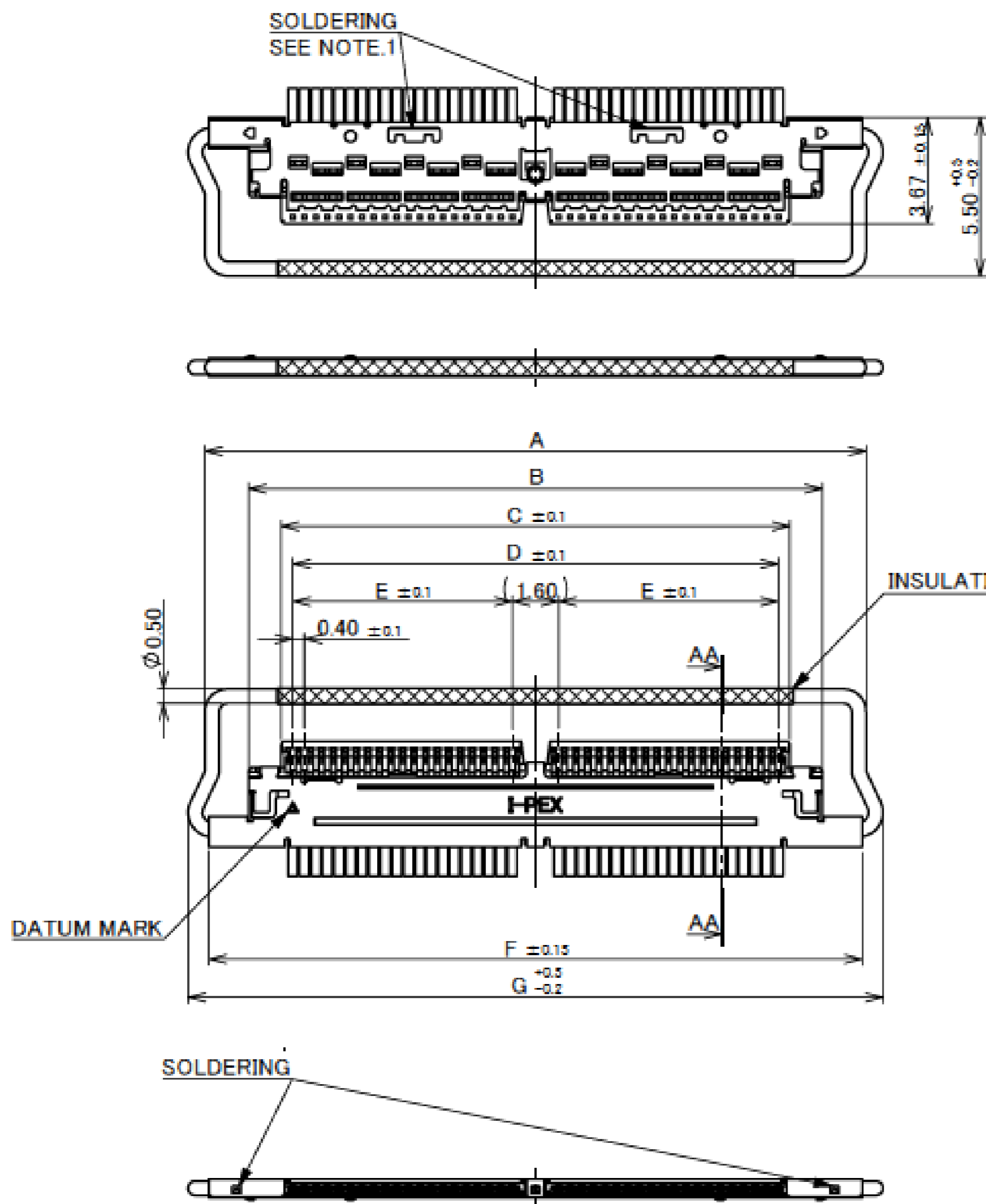
Component Parts Details

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 |

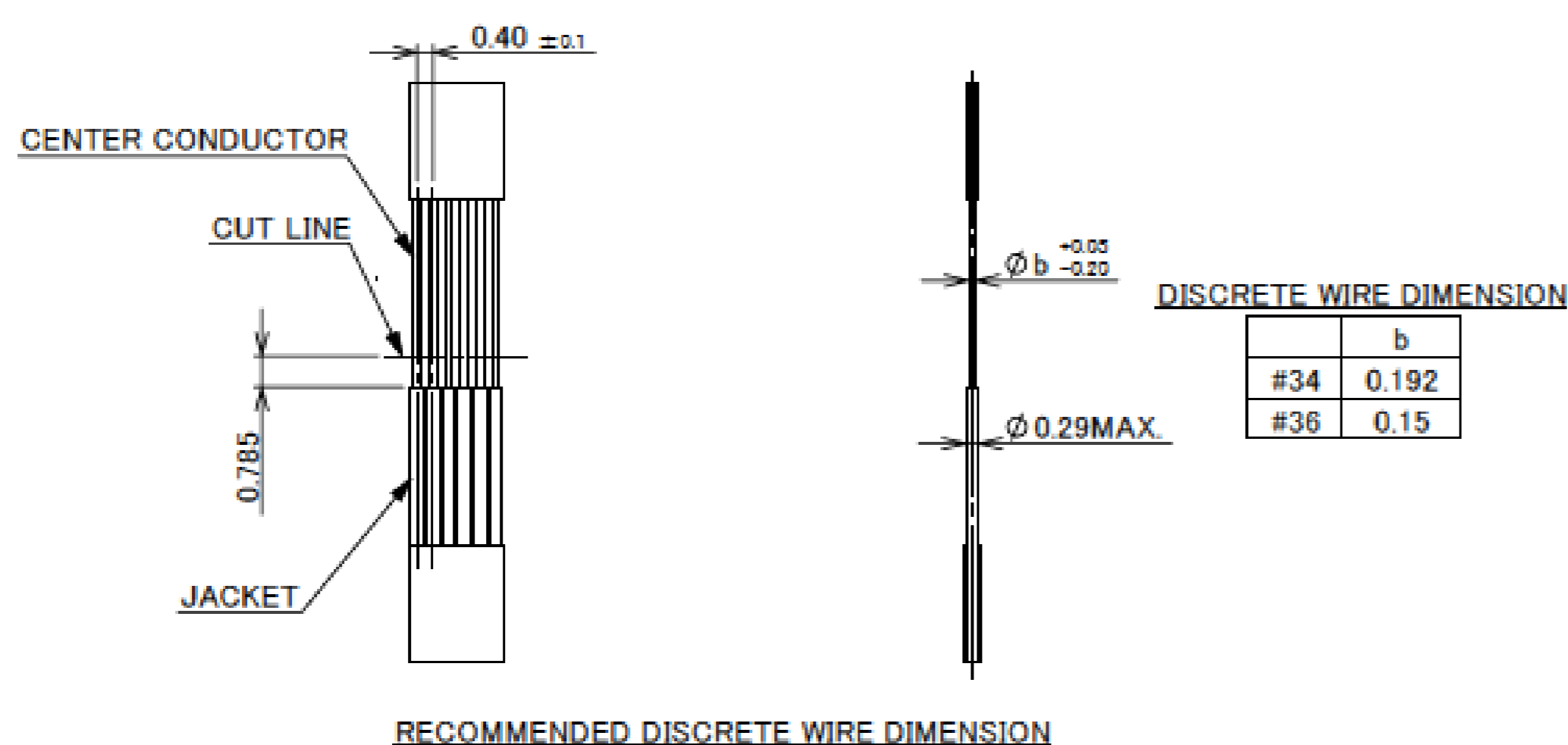
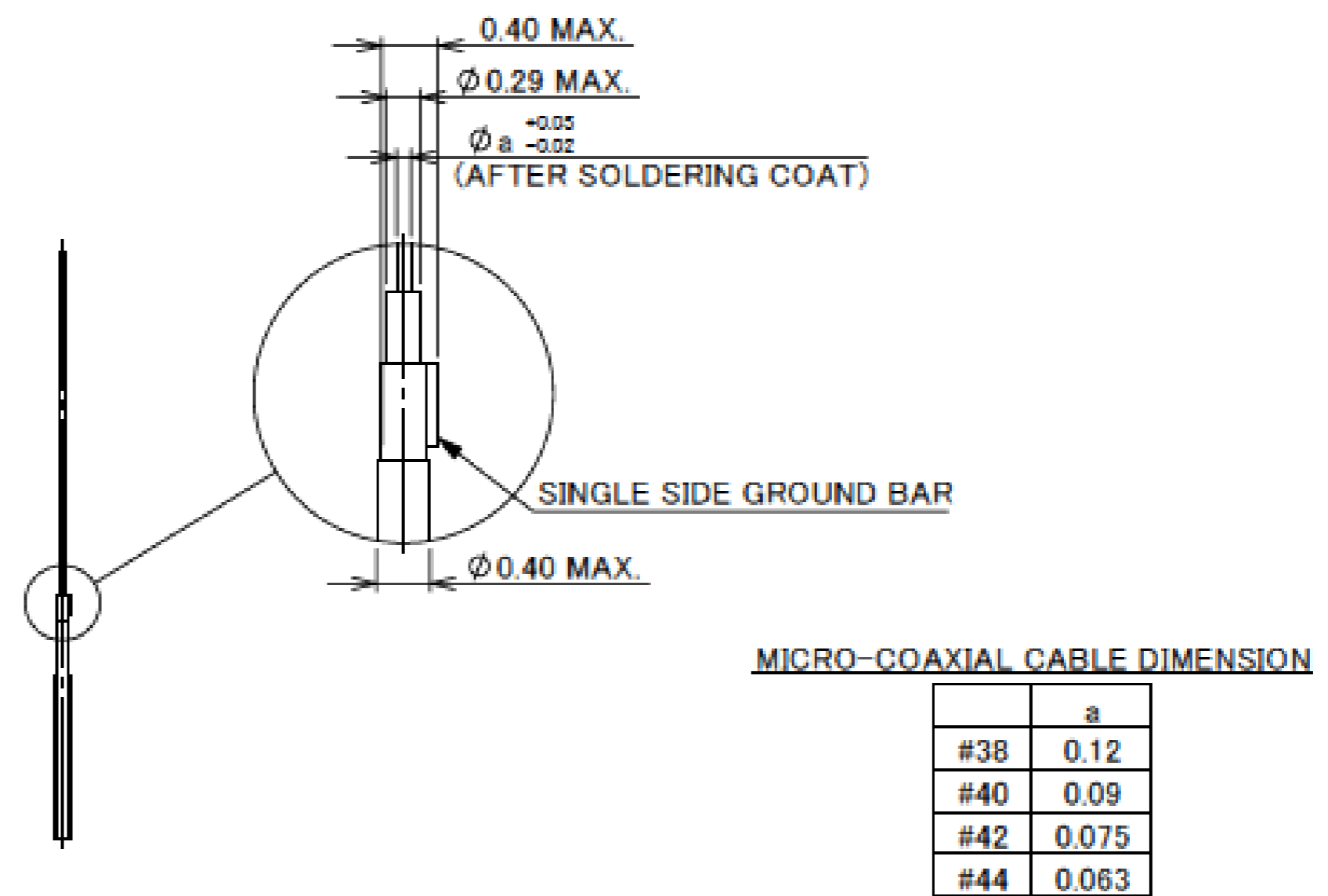
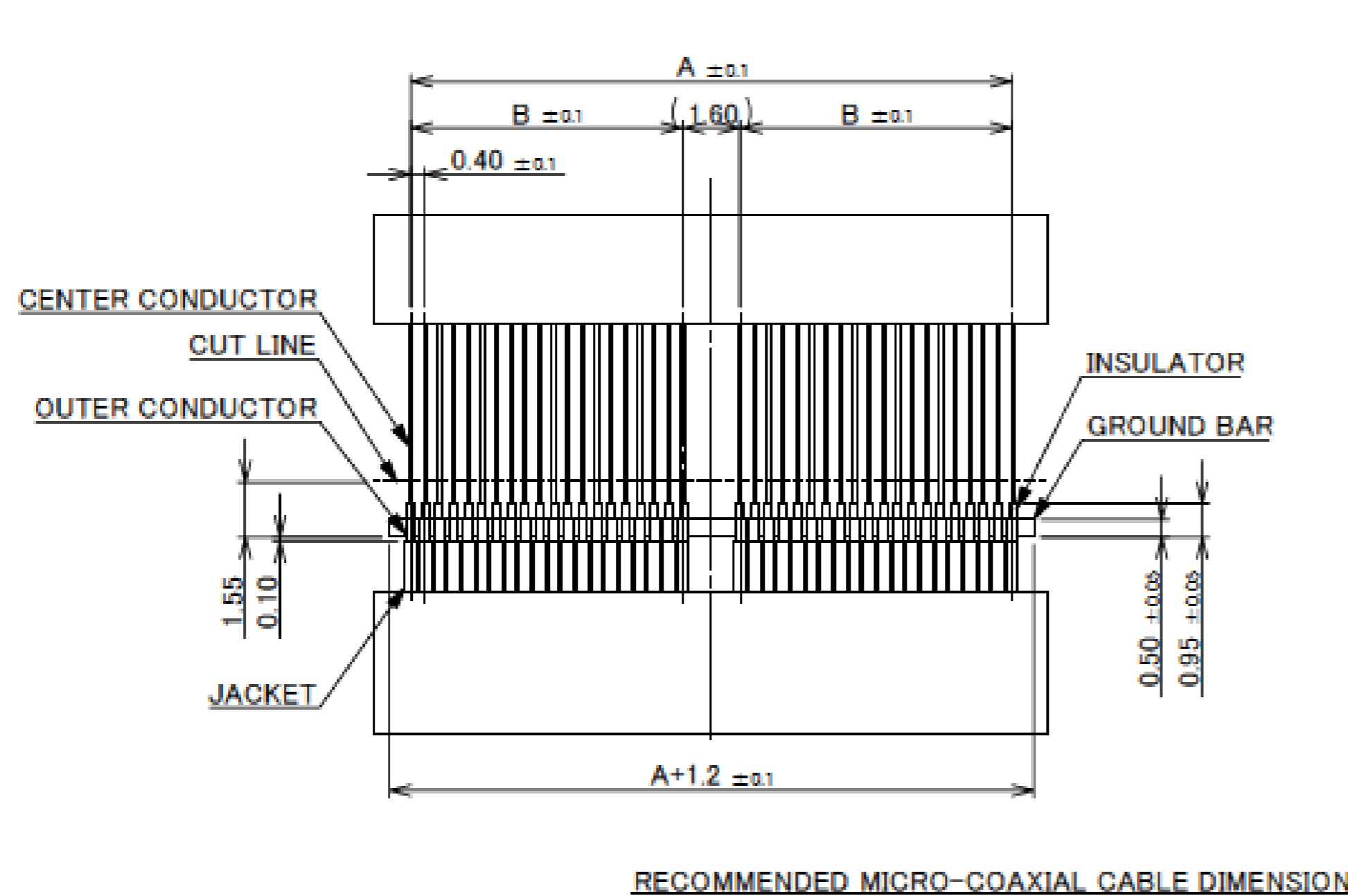


| NO | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|----|-------------|-----------------|--|
| 5 | LOCK BAR | SUS | - |
| 4 | SHELL-A | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 1.0 μm MIN. |
| 3 | SHELL-B | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 1.0 μm MIN. |
| 2 | CONTACT | PHOSPHOR 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

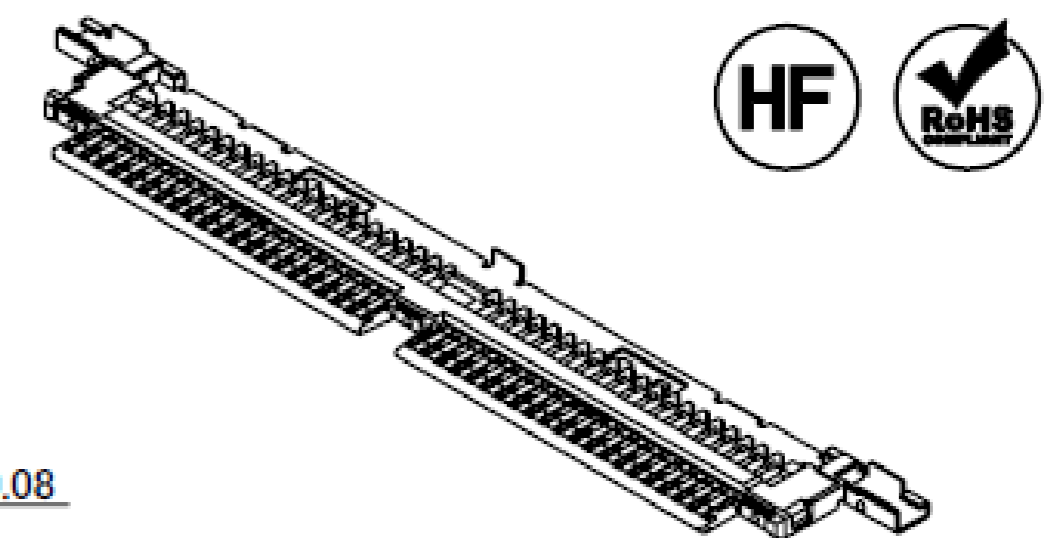
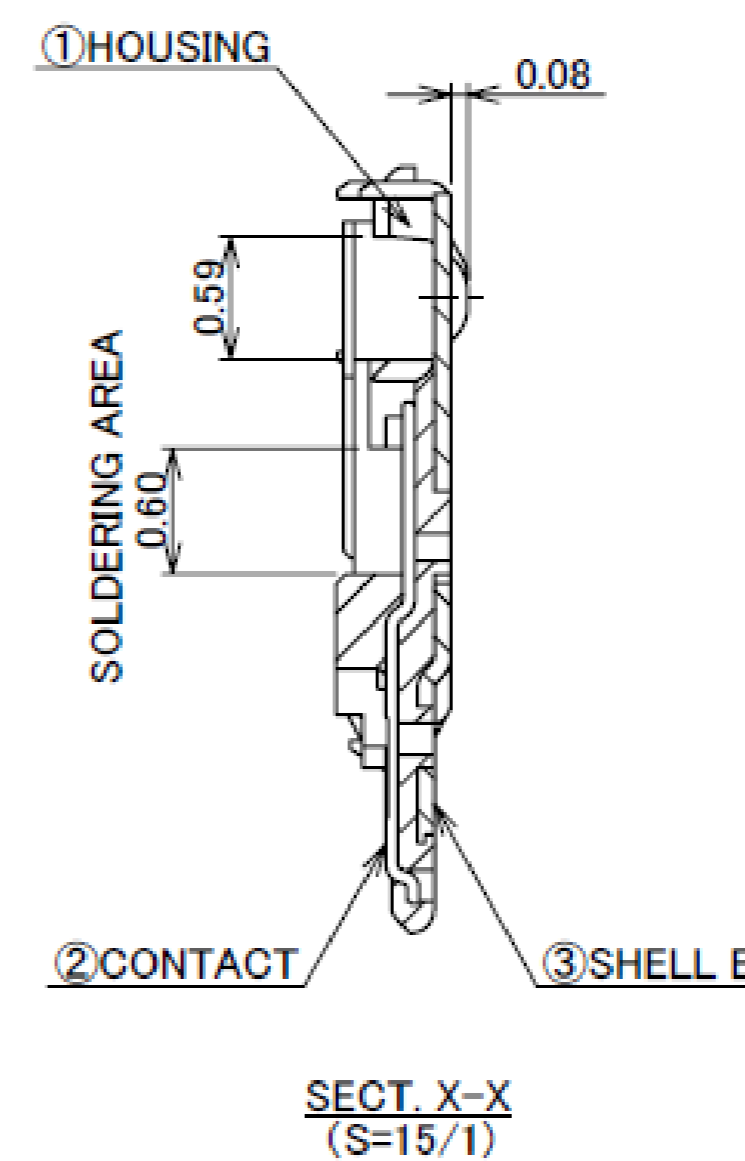
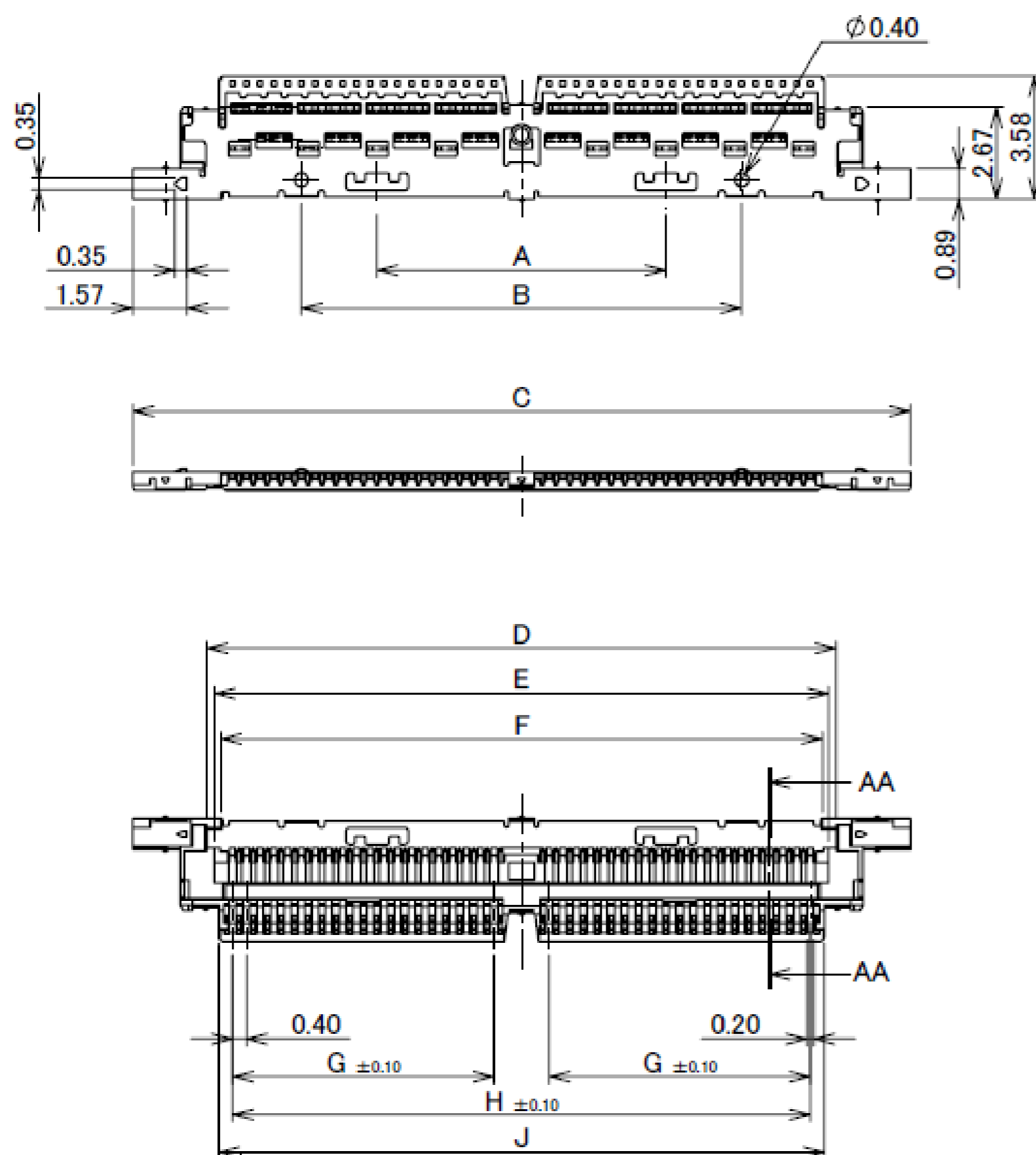
Plug for Cable Assembly

| 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 : \triangleleft 140mohm 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 : \triangleleft 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 : 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 |



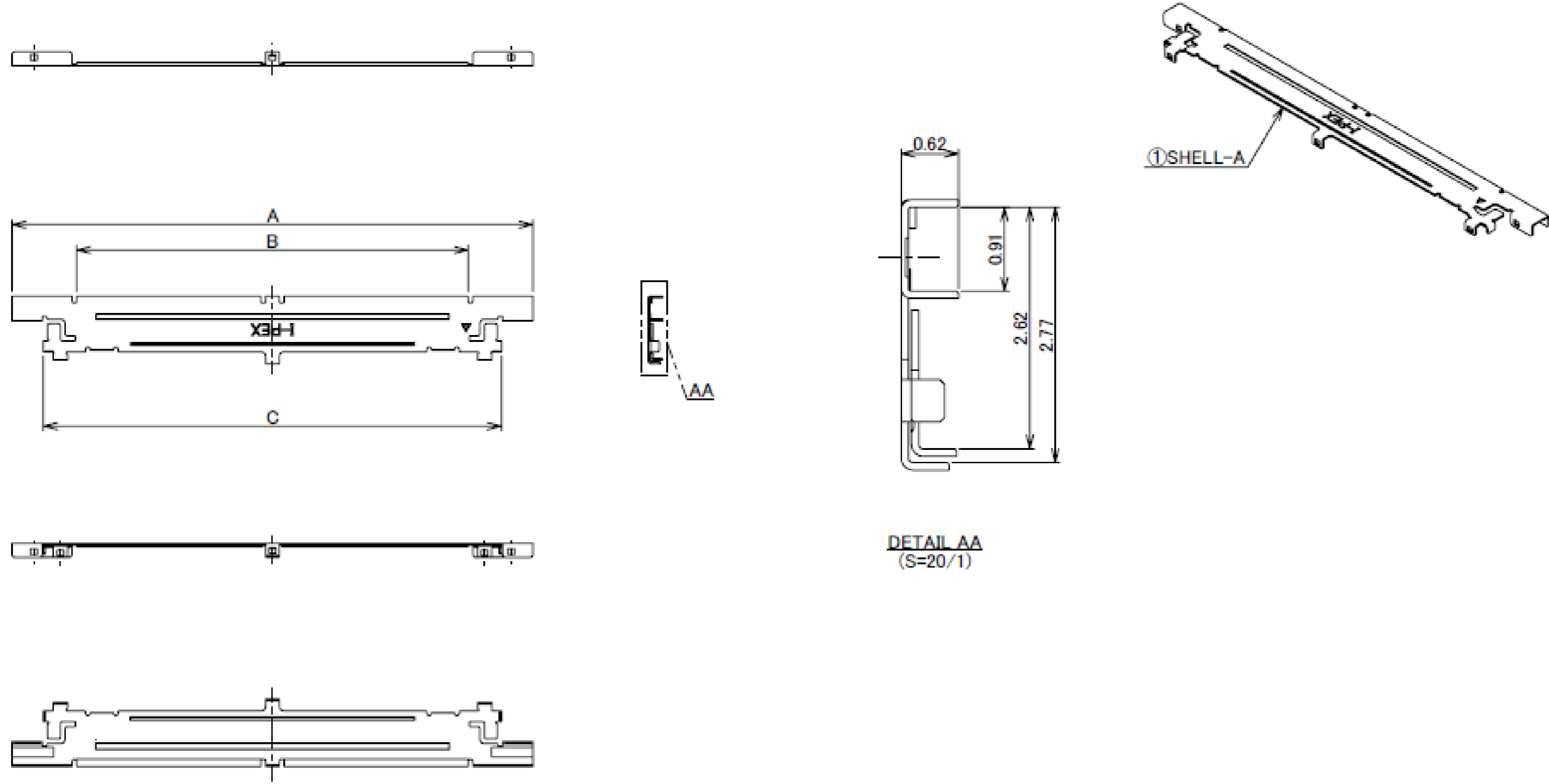
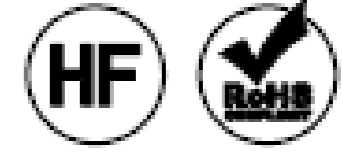
NOTES.
1. THIS PART IS ASSEMBLED WITH P/N: 3298-0**1 AND 3300-**1 AFTER SOLDERING CABLES AND SHALL BE ASSIGNED AS P/N: 20728-0**T-01.

| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|--|
| 3 | SHELL-B | PHOSPHOR BRONZE | PARTIAL Au 0.003 μ m MIN. OVER 1.00 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 | 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 |

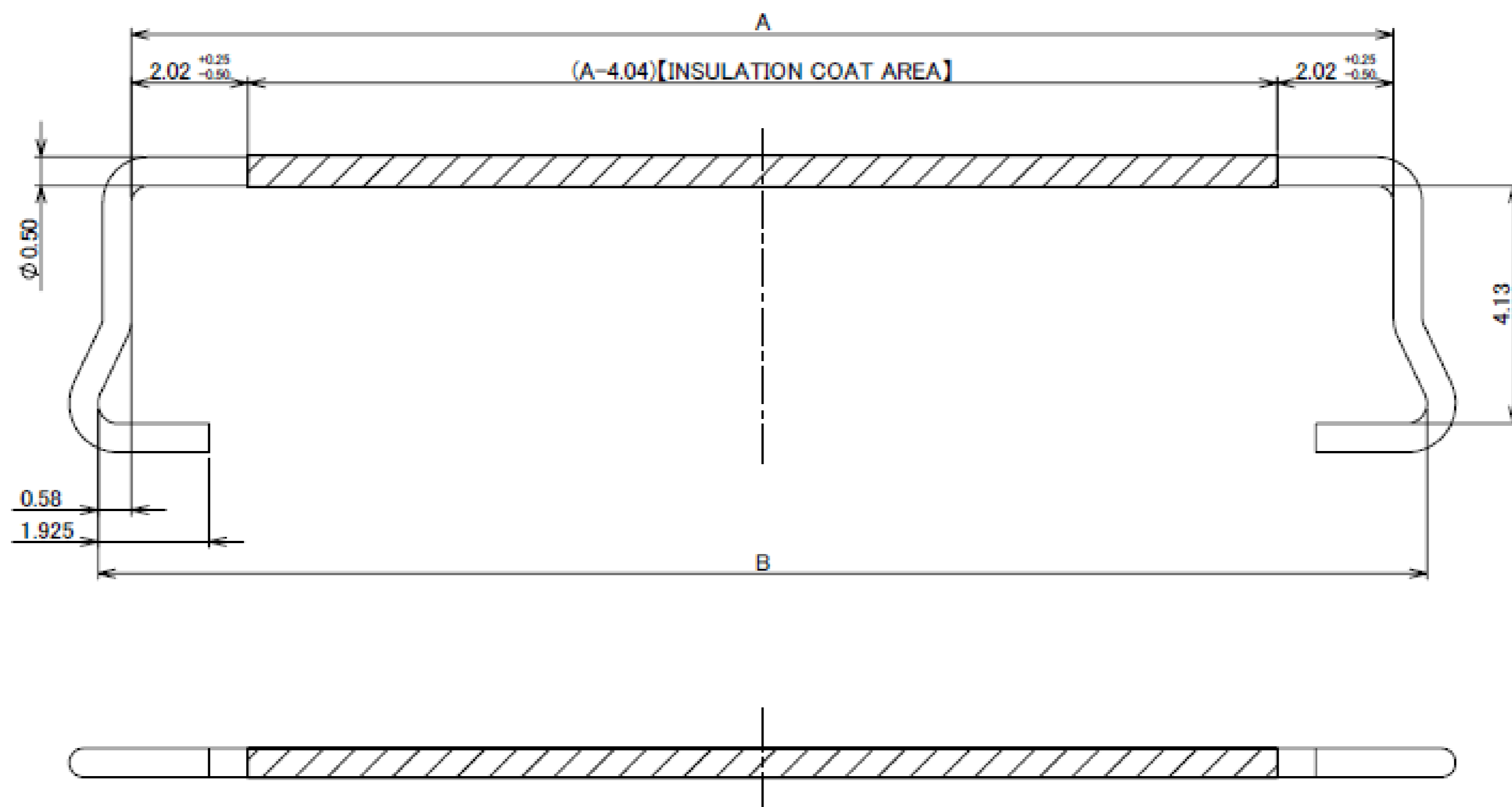
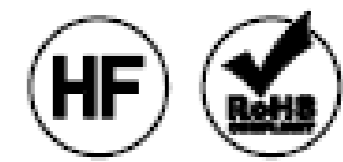


| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|--|
| 1 | SHELL-A | PHOSPHOR BRONZE | PARTIAL Au 0.003 μ m MIN. OVER Ni 1.0 μ m MIN. |

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 |

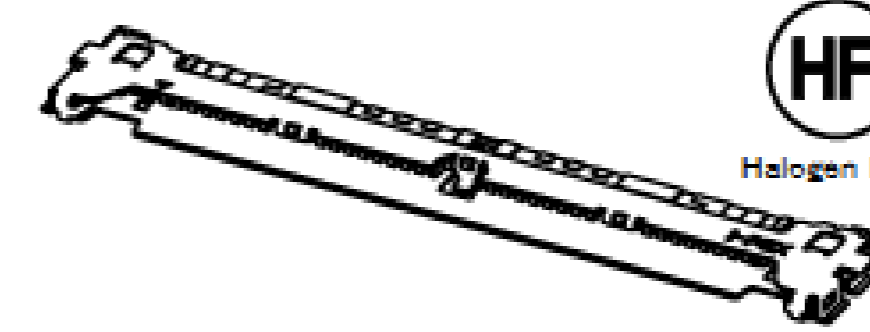


| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|----------|------------------|
| 1 | LOCK BAR | SUS | -- |

Rev.3

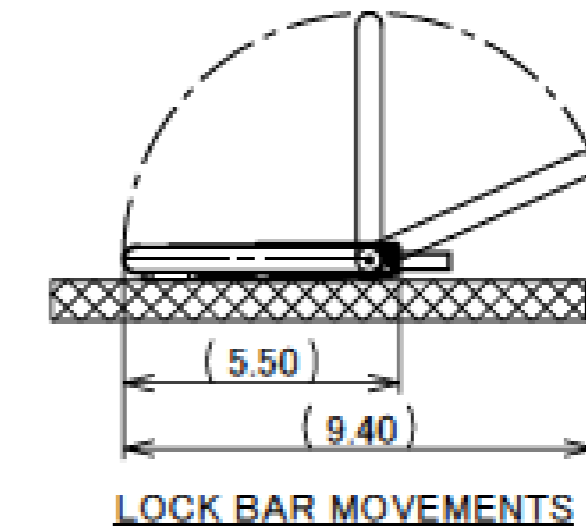
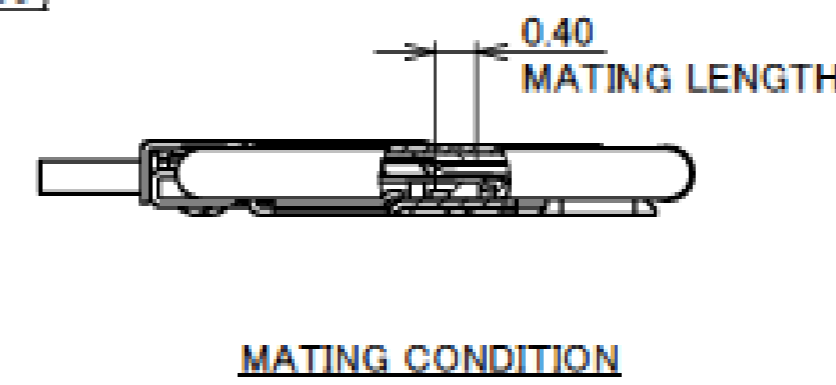
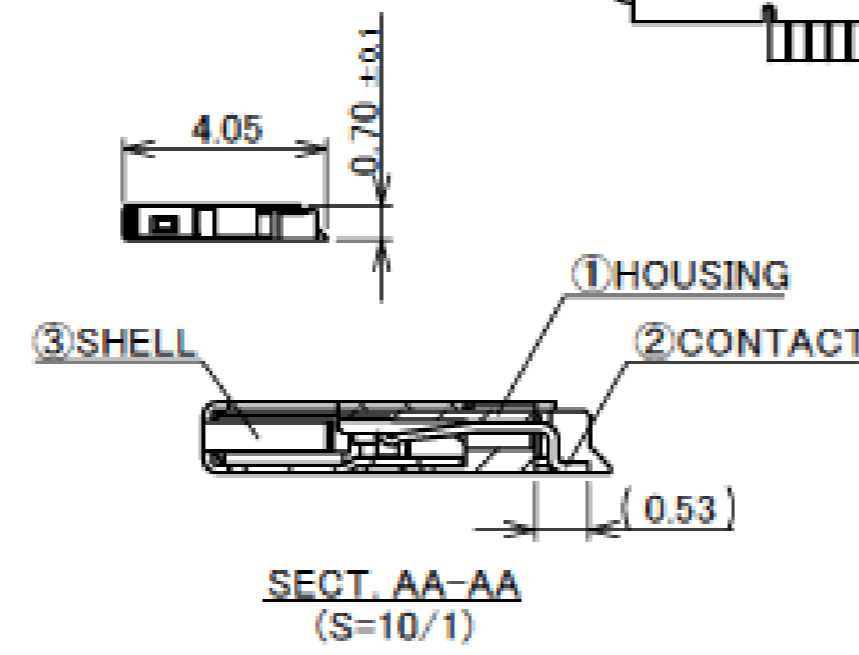
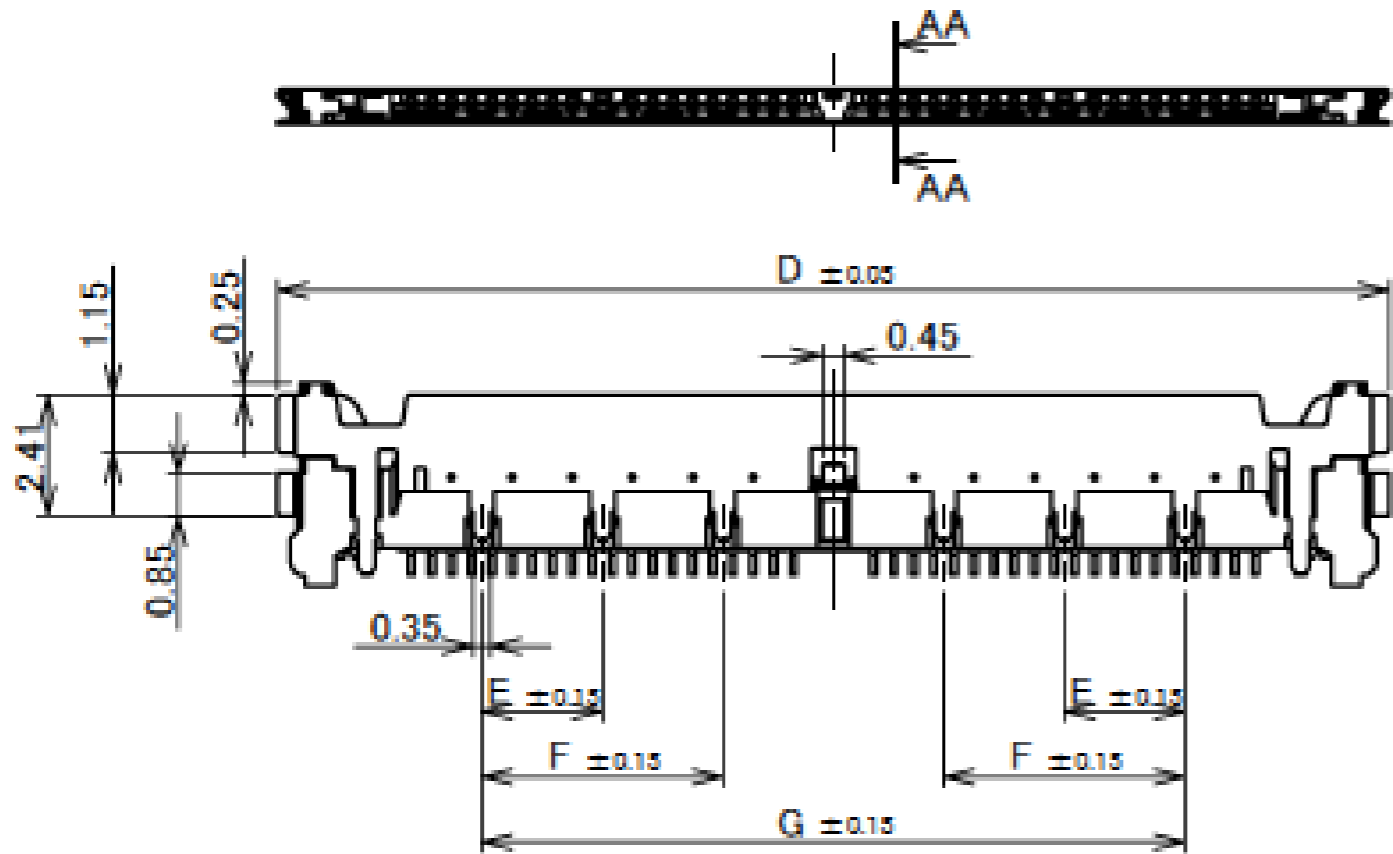
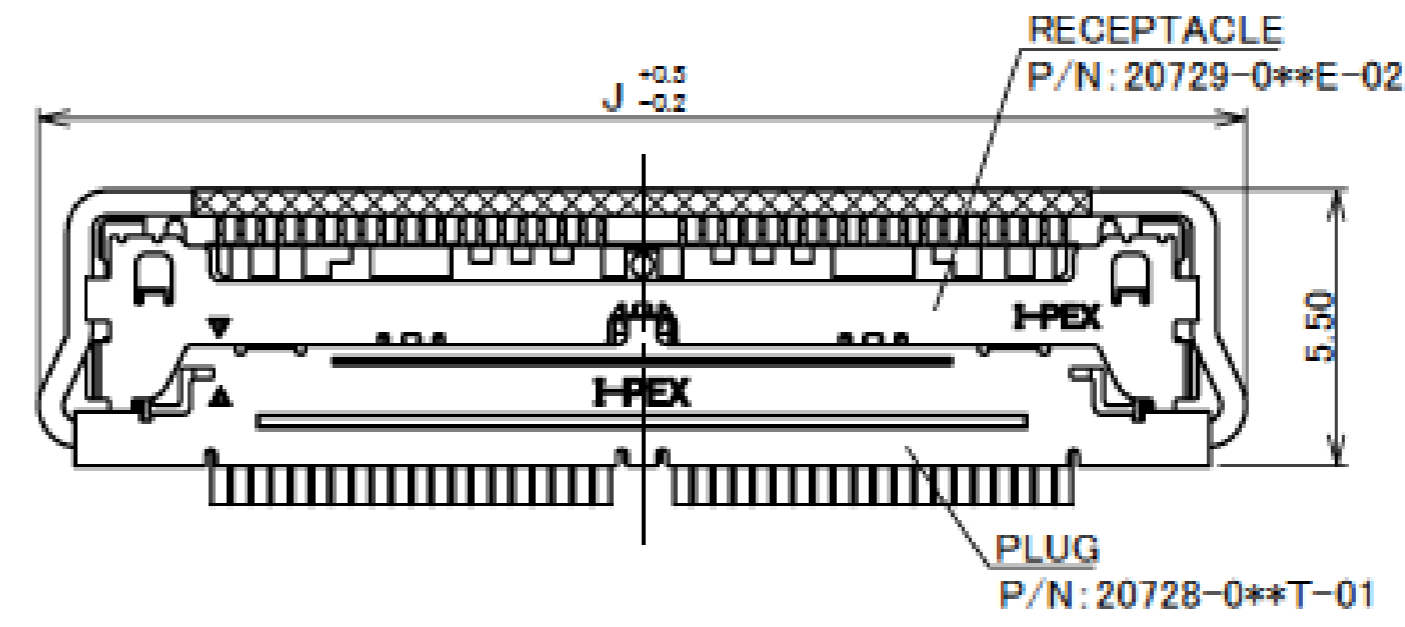
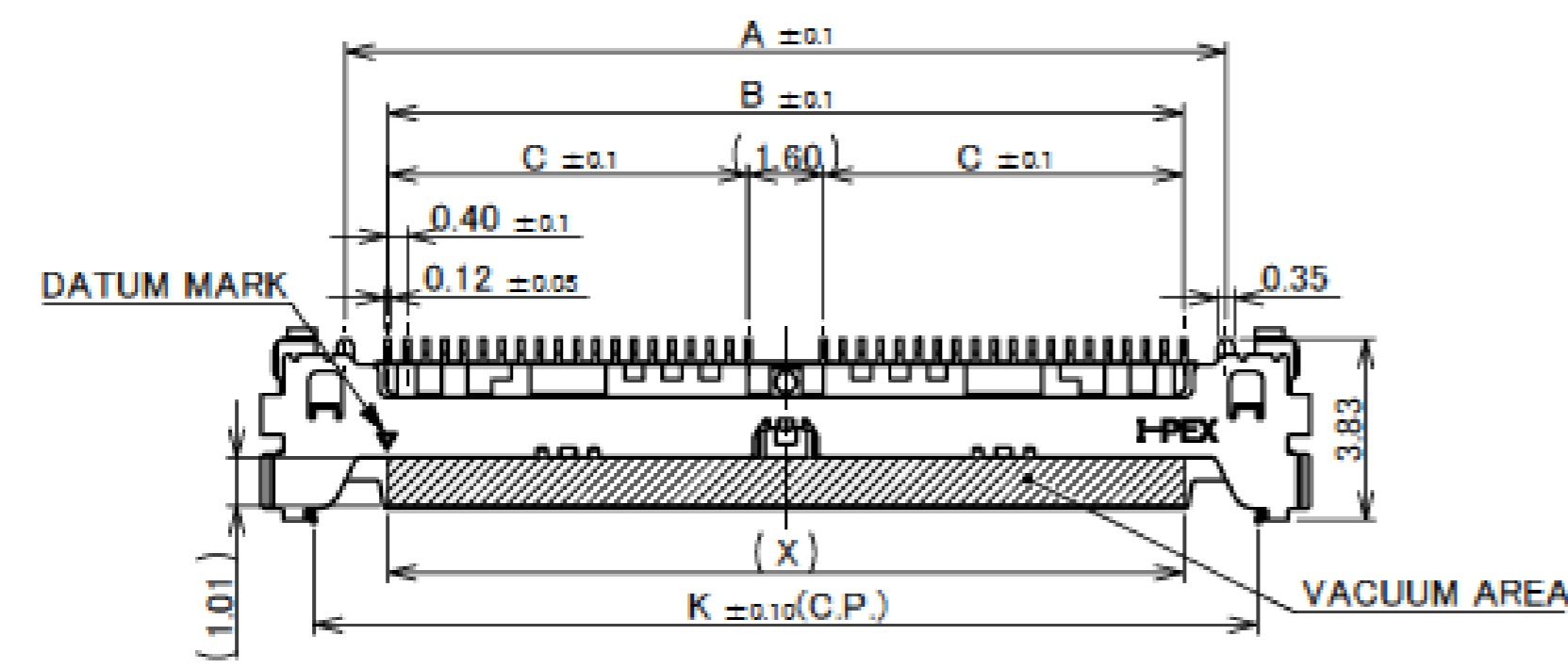
Receptacle Assembly

| 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 |

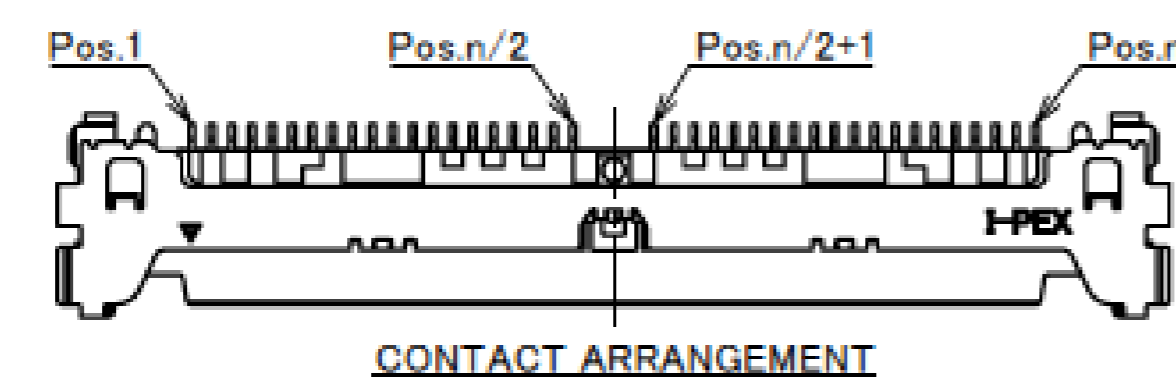


Halogen Free

RoHS Compliant

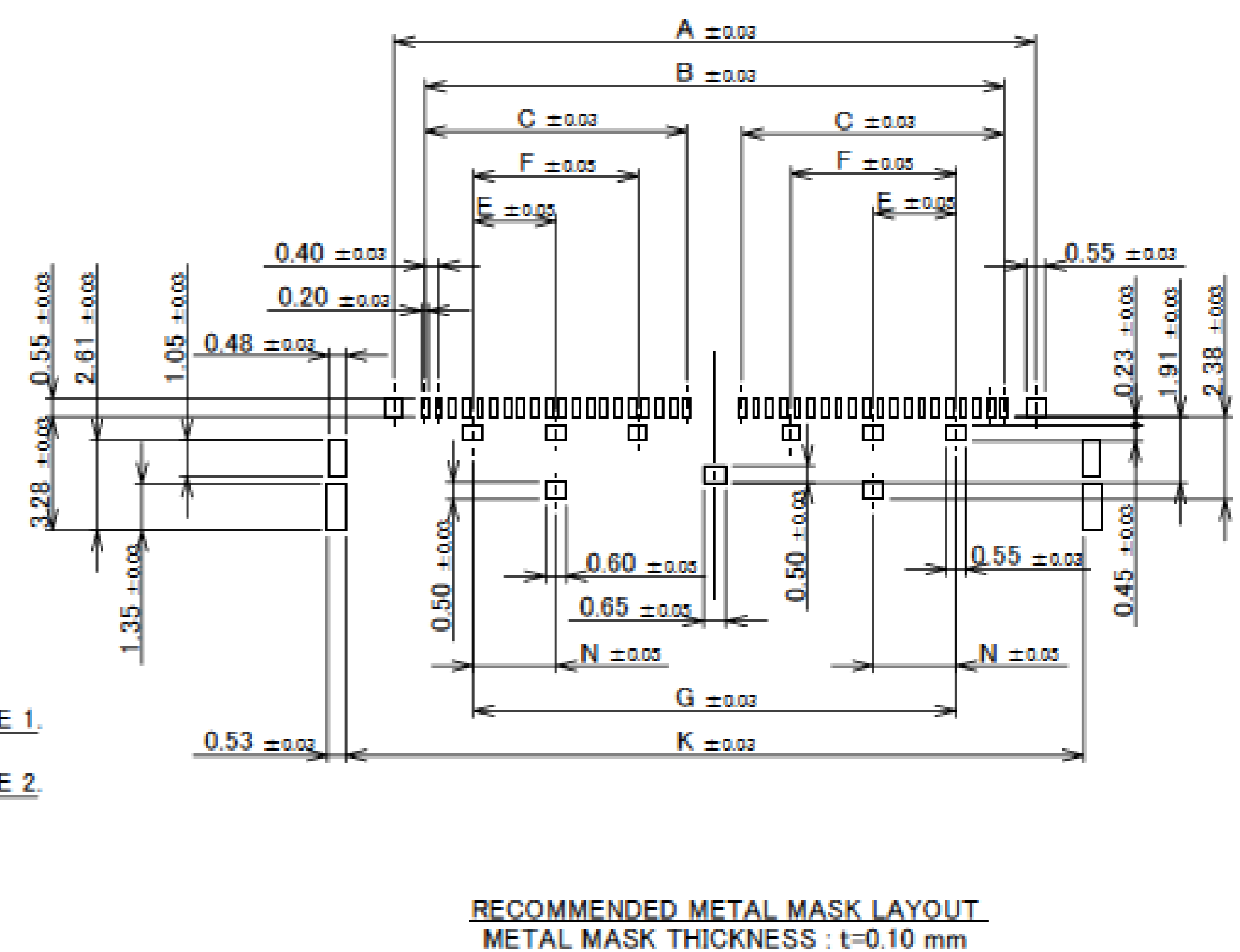
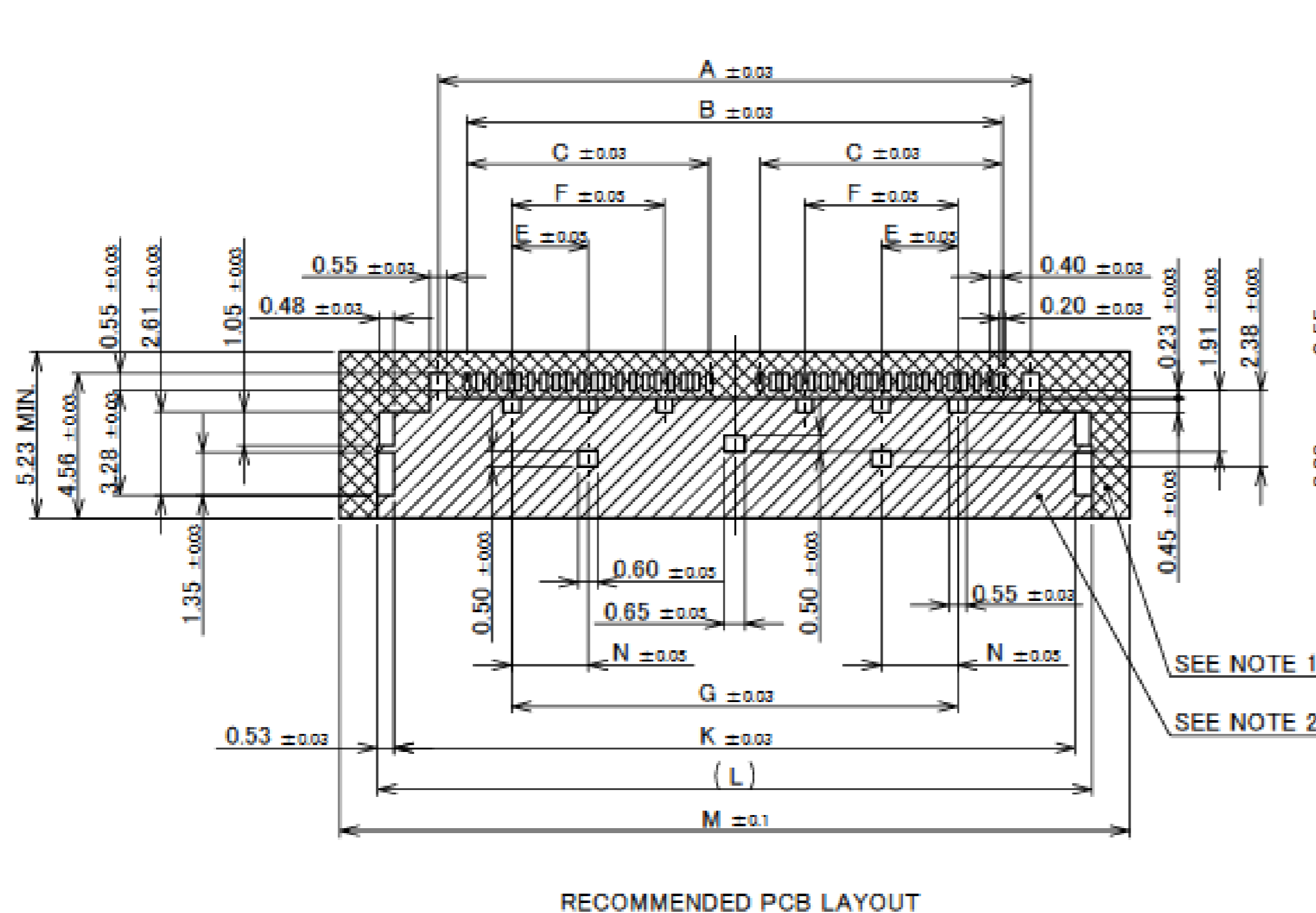


| NO. | DISCRIPTION | MATERIAL | FINISH, REMARKS |
|-----|-------------|-----------------|--|
| 3 | SHELL | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.02 μm MIN. |
| 2 | CONTACT | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN. CONTACT & SOLDERING AREA : Au 0.03 μm MIN. |
| 1 | HOUSING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



Rev.8

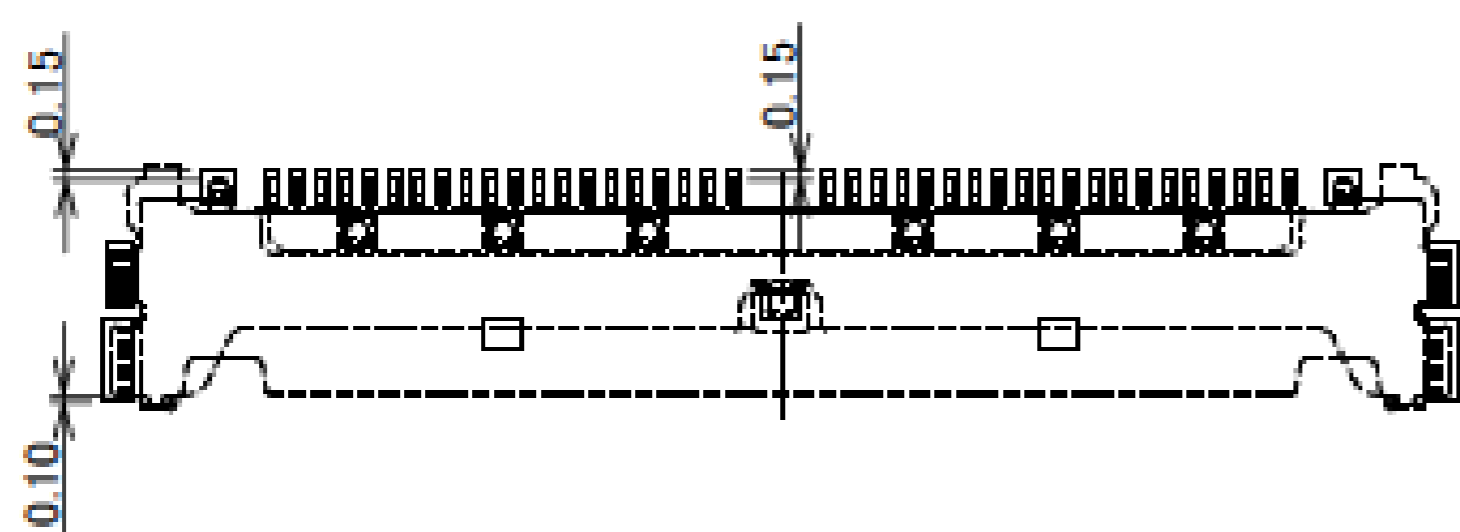
| PART NO. | Pos. | A | B | C | E | F | G | K | L | M | N |
|---------------|------|-------|-------|------|------|------|-------|-------|-------|-------|------|
| 20729-030E-02 | 30 | 14.60 | 12.80 | 5.60 | - | 2.80 | 10.00 | 17.38 | 18.44 | 20.80 | 1.40 |
| 20729-040E-02 | 40 | 18.60 | 16.80 | 7.60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



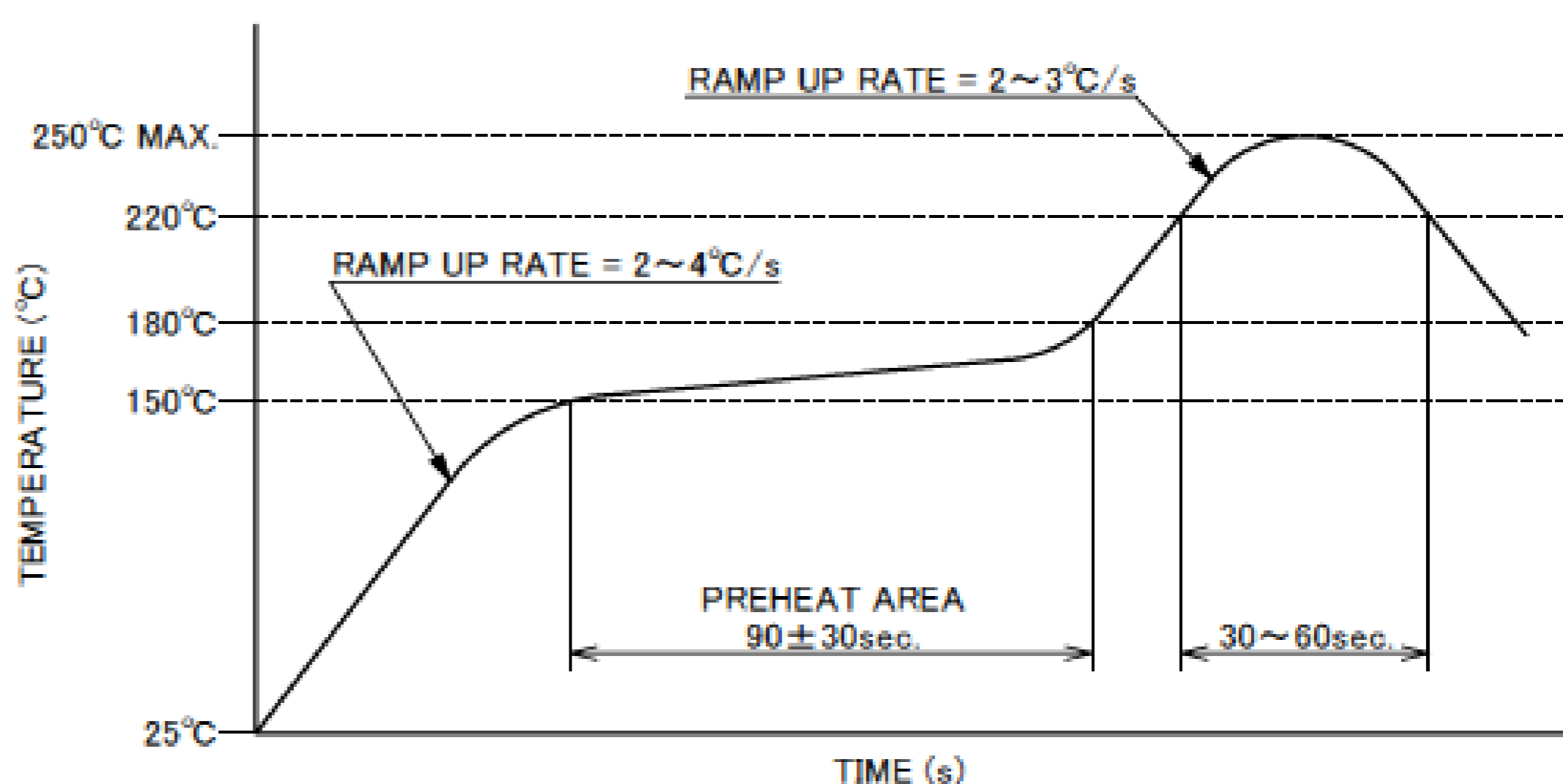
NOTES.
1. DO NOT MOUNT ANOTHER COMPONENTS IN THIS AREA.
2. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.8

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

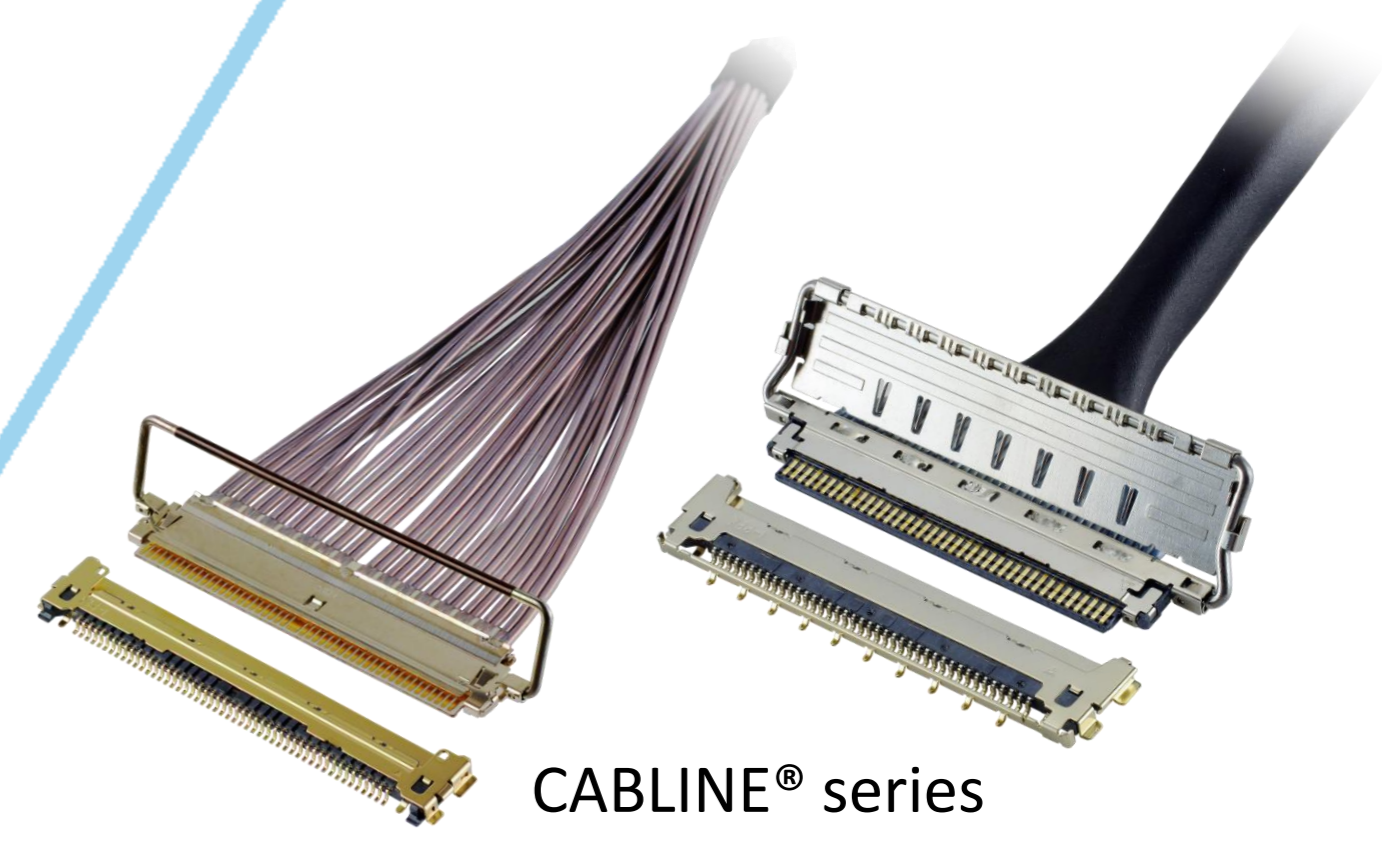
| ITEMS | SPECIFICATION |
|---------------------------------------|--|
| APPLICABLE CABLE | MICRO-COAXIAL CABLE: AWG# 40,42,44 DISCRETE WIRE : AWG# 34,36 |
| RATING VOLTAGE | 100V AC (PER CONTACT PIN) |
| RATING AMPERAGE (FOR CONTACT) | 0.15A AC/DC [AWG#44] PER CONTACT PIN/UP TO 40 CONTACTS 0.24A AC/DC [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



CABLINE® series

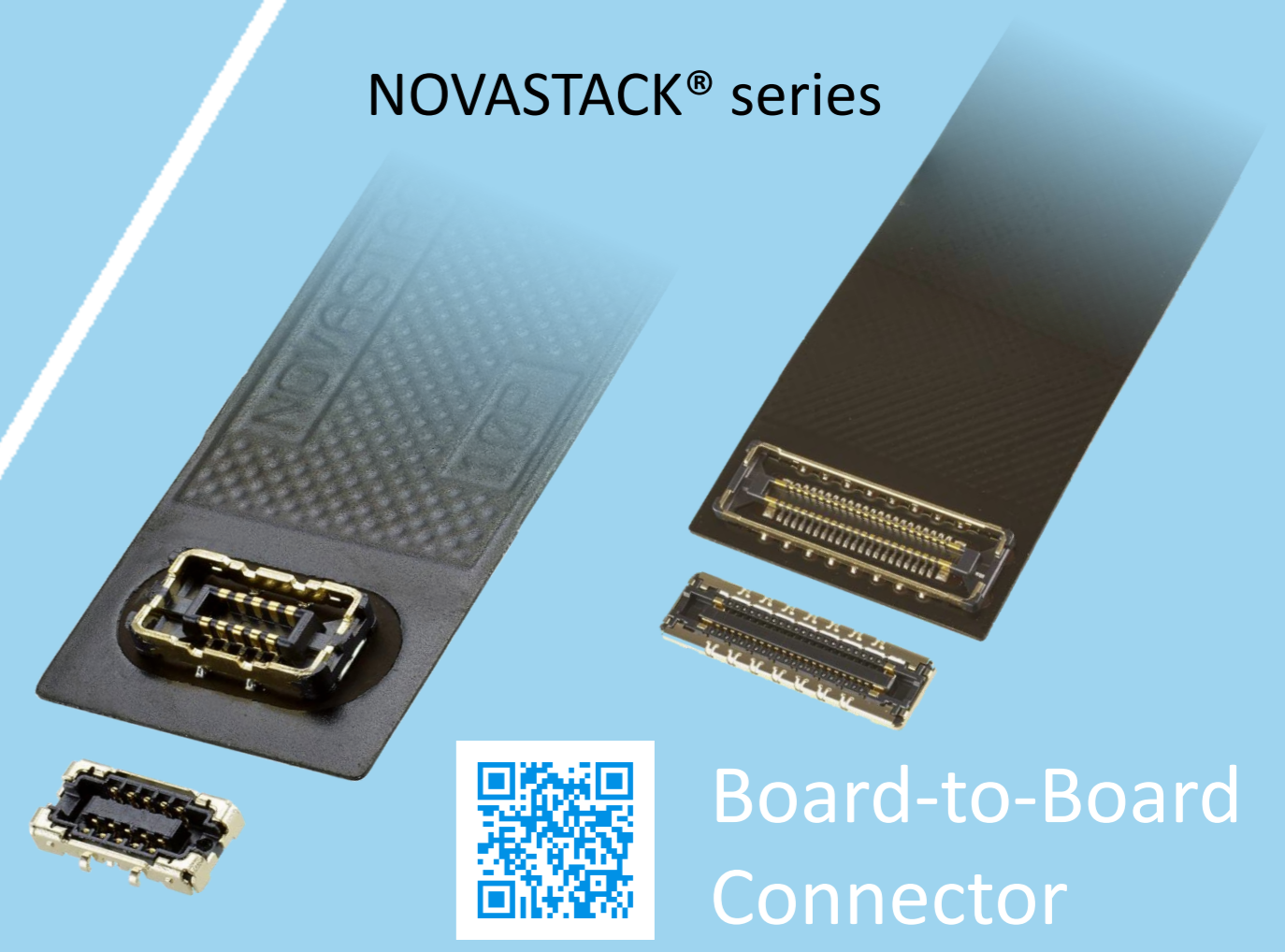
 Micro-coaxial/Twinax/
Discrete Wire Connector

 Optical Module

LIGHTPASS® series



NOVASTACK® series



 Board-to-Board Connector

 Power Connector/
Terminal

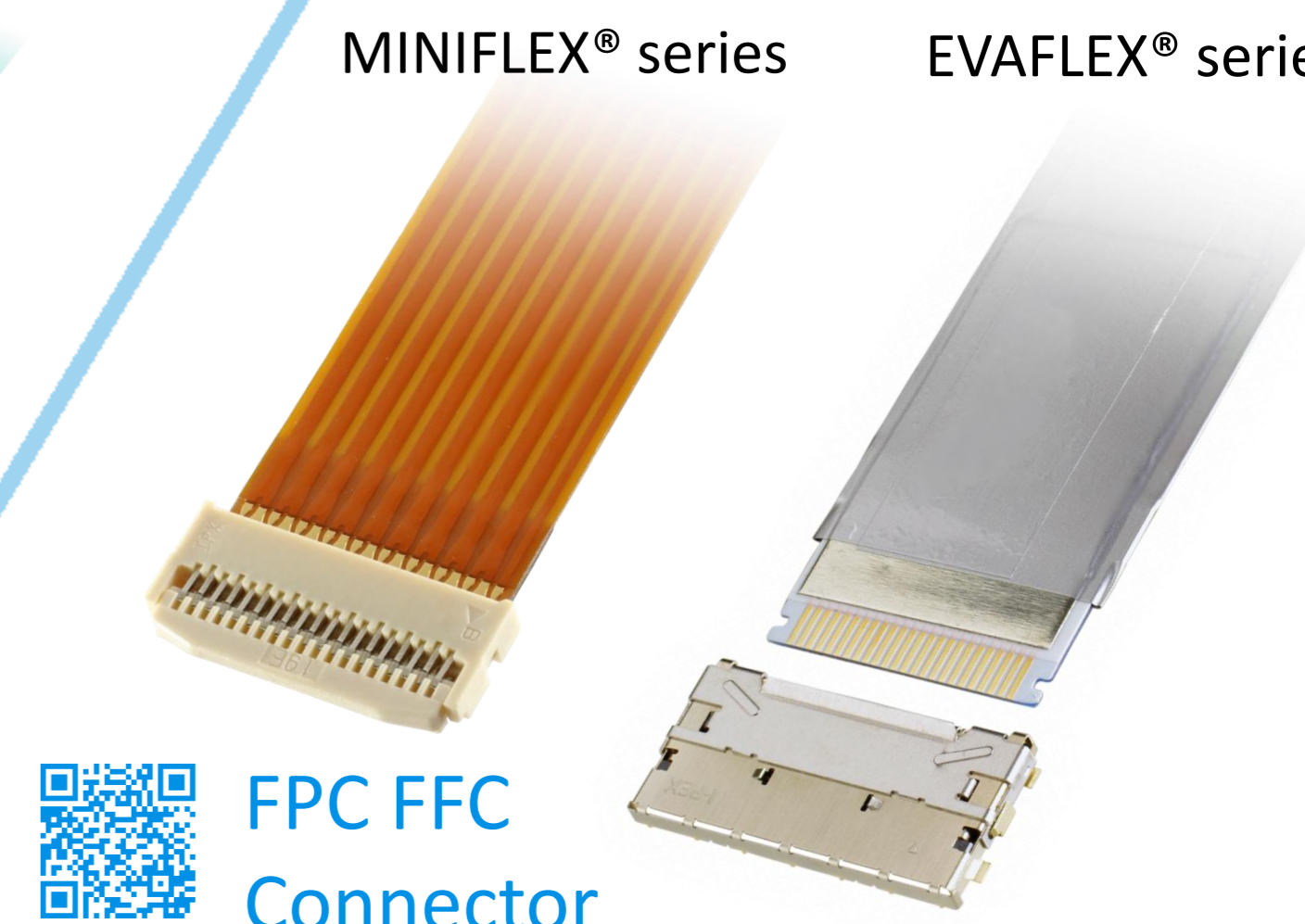
AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



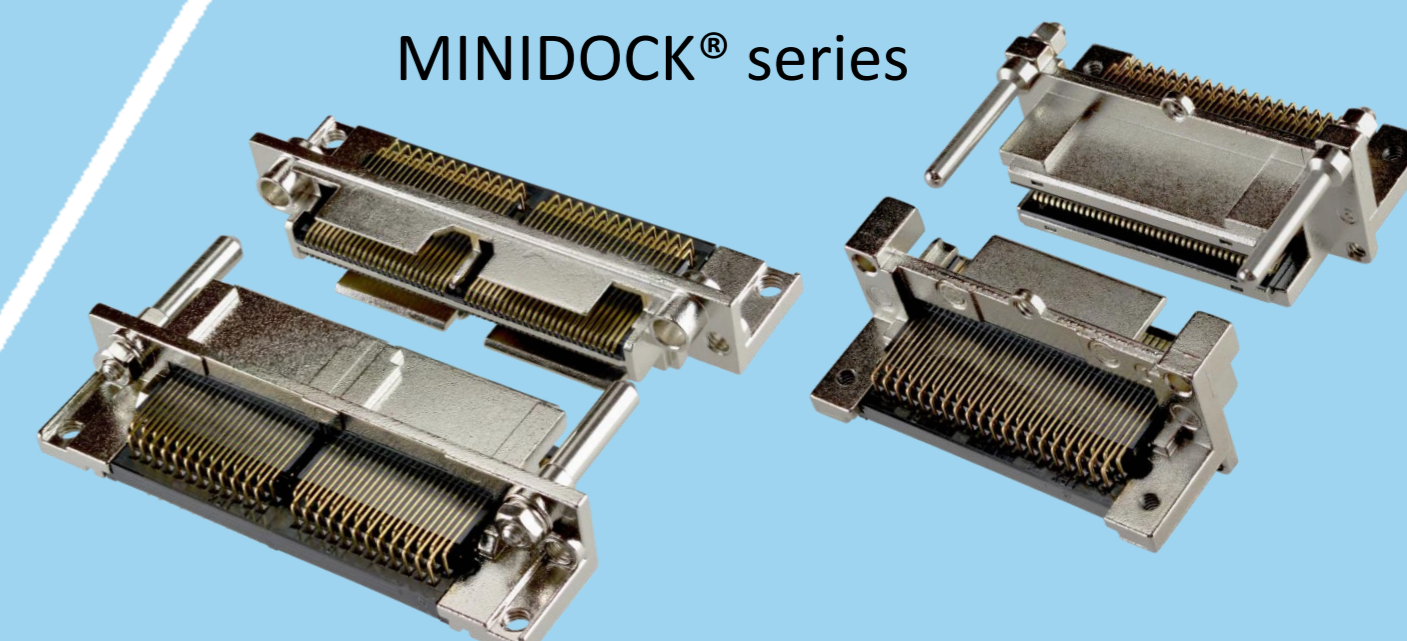
 FPC FFC
Connector



Inquiry



MINIDOCK® series



 I/O
Connector

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