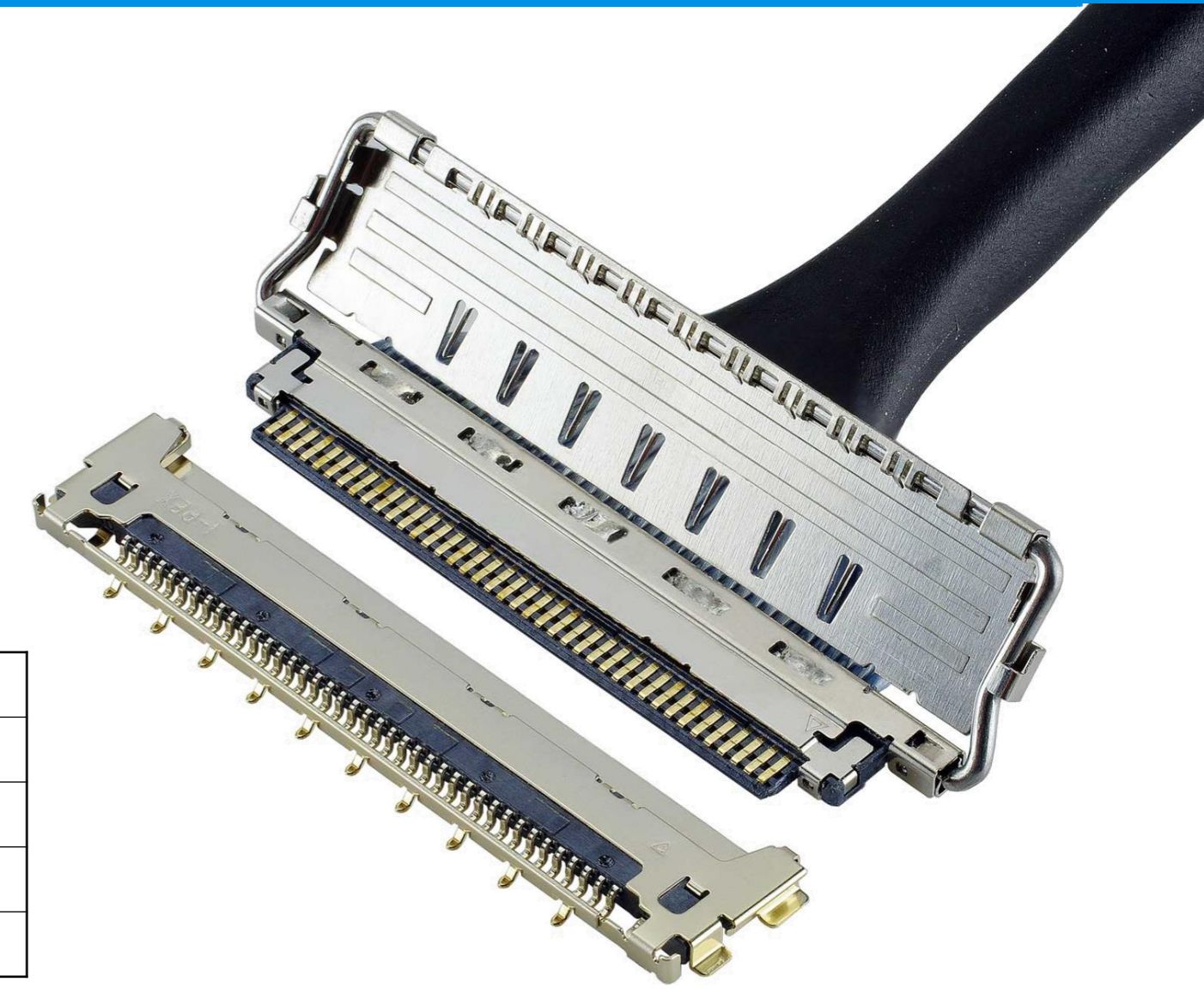


CABLINE® -CA II

全屏蔽設計帶機械鎖扣，高速數據傳輸，0.4mm 間距，水平插拔款的極細同軸連接器



Product Specifications:

| | | |
|--------------------|------------|--------------------------|
| Mating type | Horizontal | |
| Board Pitch (mm) | 0.4 | |
| Wiping Length (mm) | 0.54 | |
| Mated size (mm) | Height | 1.1 max. with cover |
| | Width | Formula: 6.95 + (0.4*?p) |
| | Depth | 6.2 |
| Pin Counts | Range | Up to 60 |
| | Available | 20, 30, 40, 50 |

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) | #40, #42 |
| Discrete (AWG) | #34 or smaller |

Applicable Standards (Reference Only):

USB4/Thunderbolt 4 (20 Gbps/lane), PCIe® Gen 4 (16 GT/s), eDP HBR 3 (8.1 Gbps)

*若有規格外 Pin 數需求,請與當地負責業務窗口聯繫。
*另有CABLINE®-CA II PLUS (wider space type)系列具60pin選擇

▶ ZenShield® 的全屏蔽和多點接地設計，有效防止EMI外洩

連接器底部視圖

○ 焊點
○ 機械式觸點

一般連接器

Wi-Fi 天線

ZenShield® 全屏蔽式連接器

高速訊號傳送

連接器可以放置於更靠近天線的位置

▶ ZenShield® 的全屏蔽和多點接地設計，有效防止EMI外洩

無法上鎖

插入

上鎖

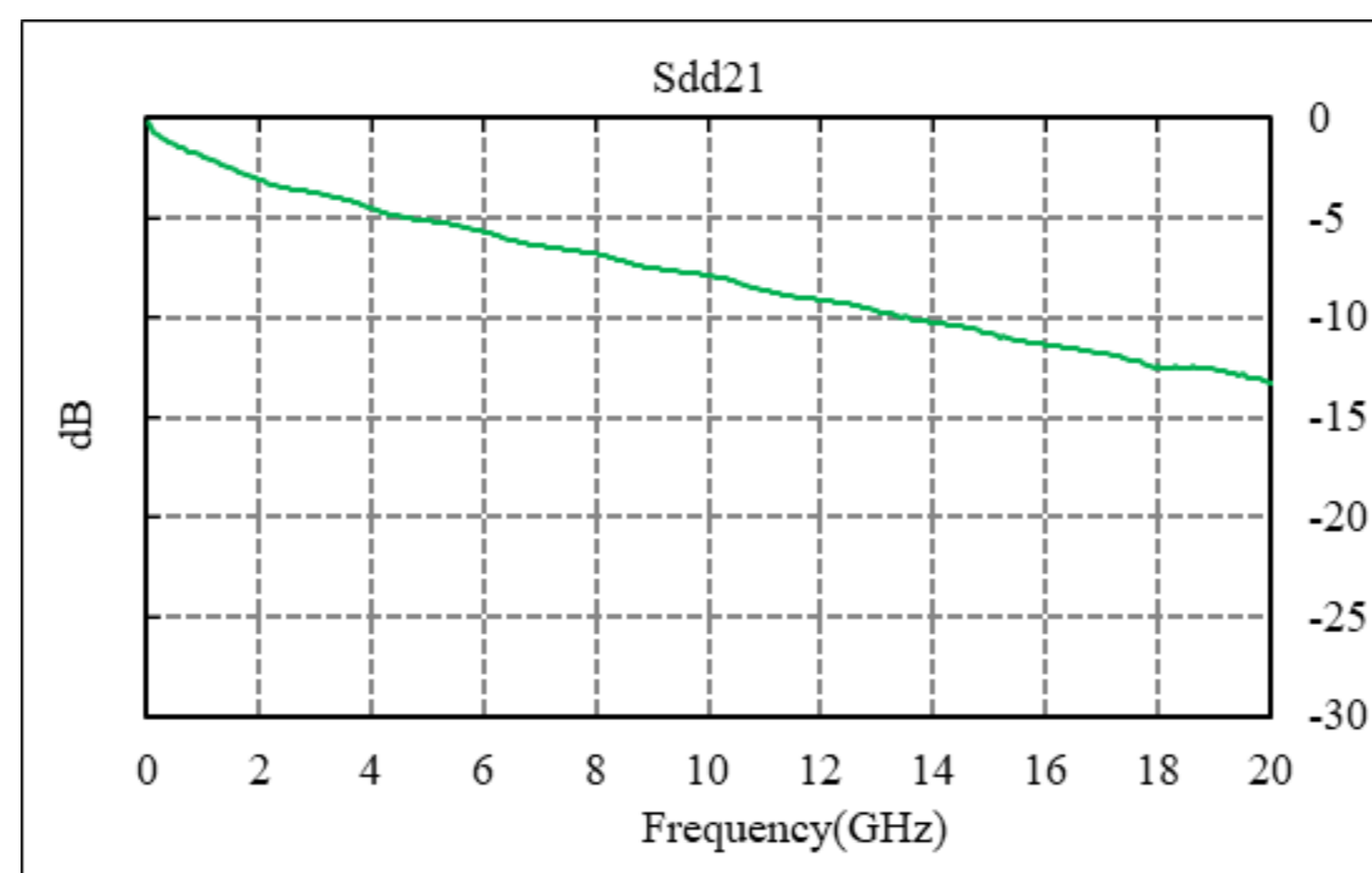
只有當完全插入後，SHELL才能上鎖

插入不到位

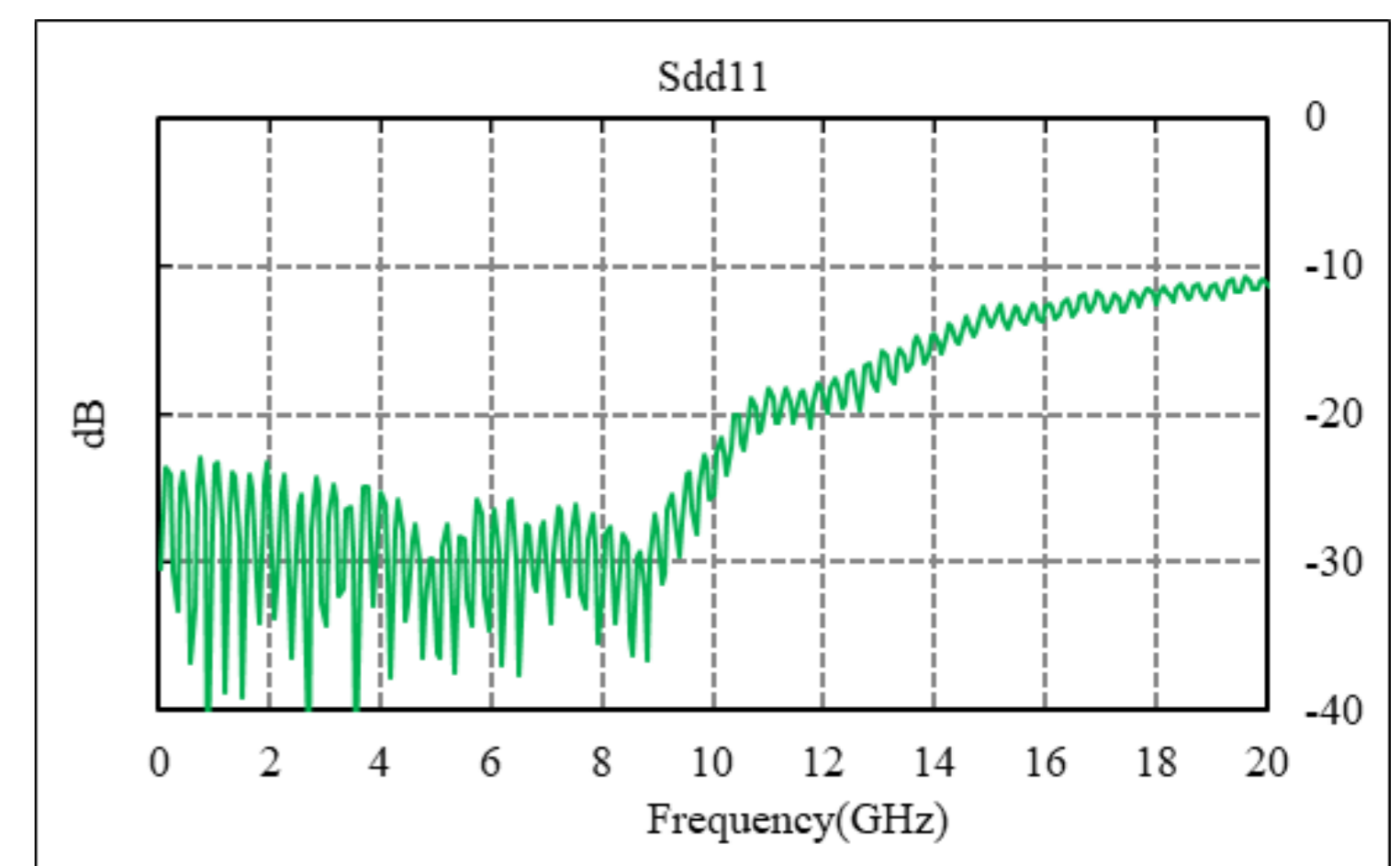
完全插入

▶ 出色的差分 SI 性能

Test material:
CABLINE-CA II harness (GND finger type)
Cable: Micro-coaxial AWG #38 45Ω
Cable Length: 320mm



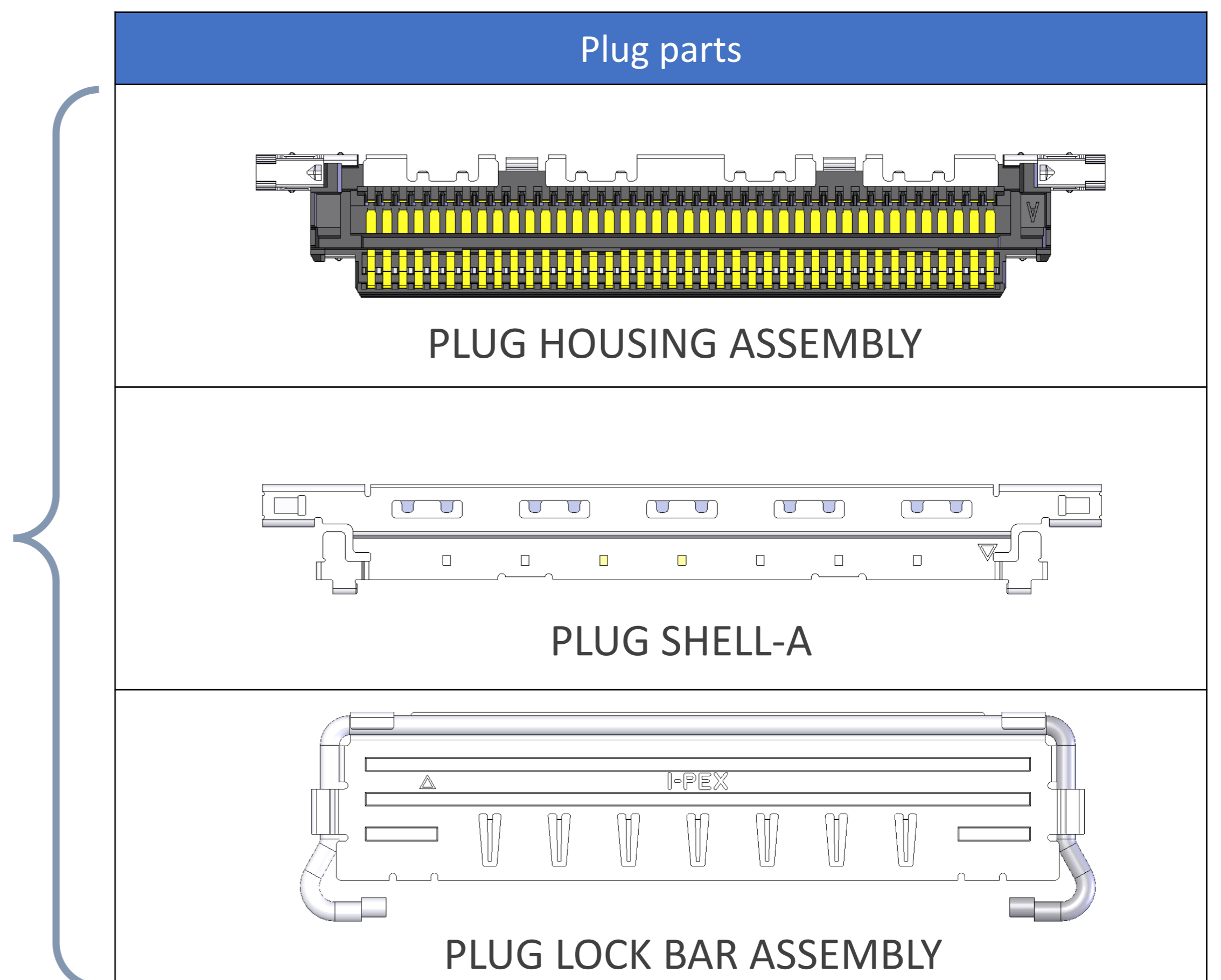
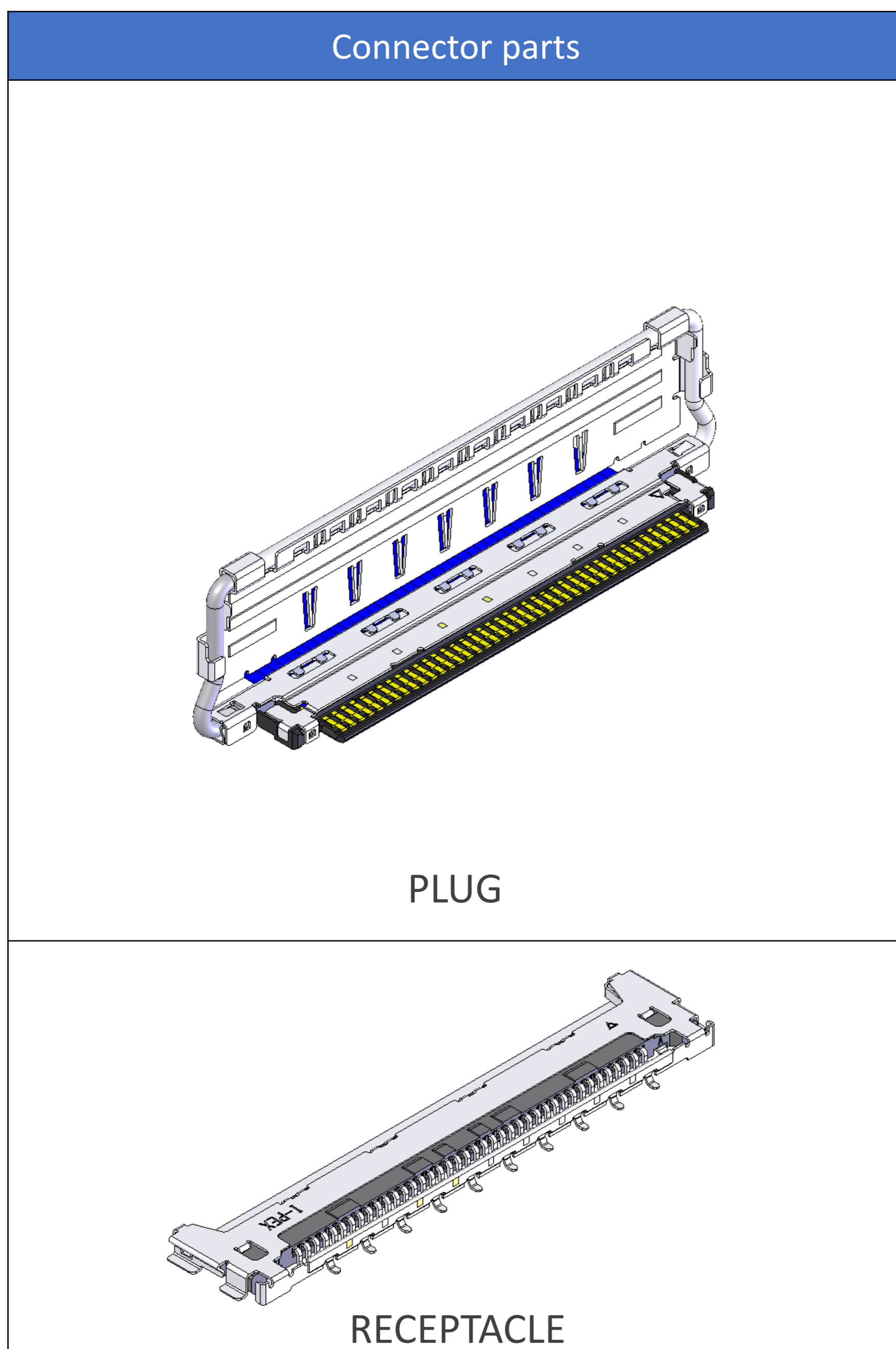
Insertion Loss



Return Loss

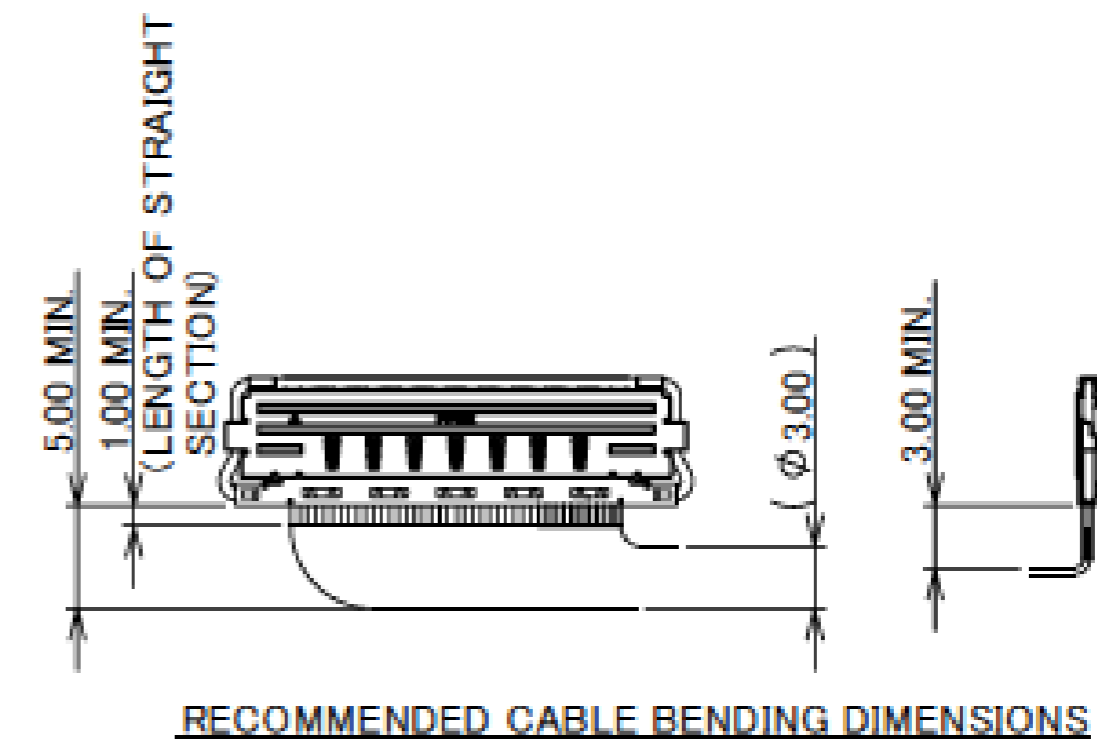
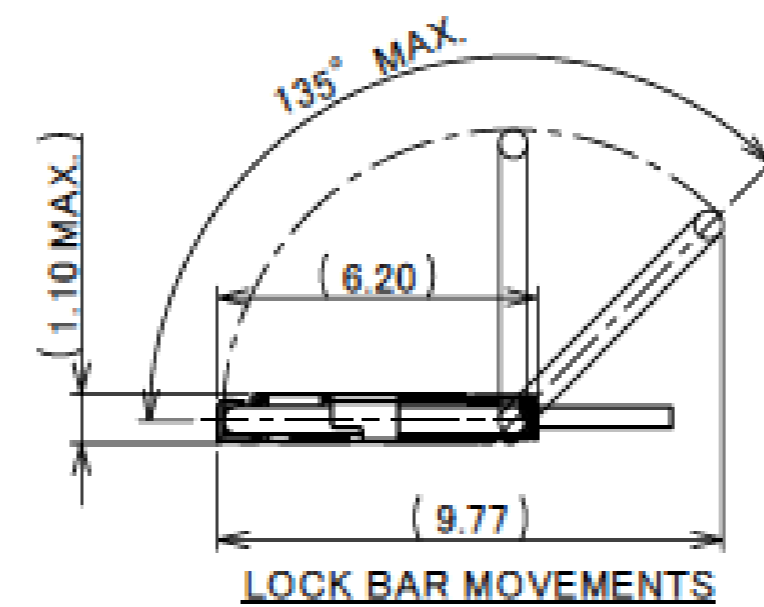
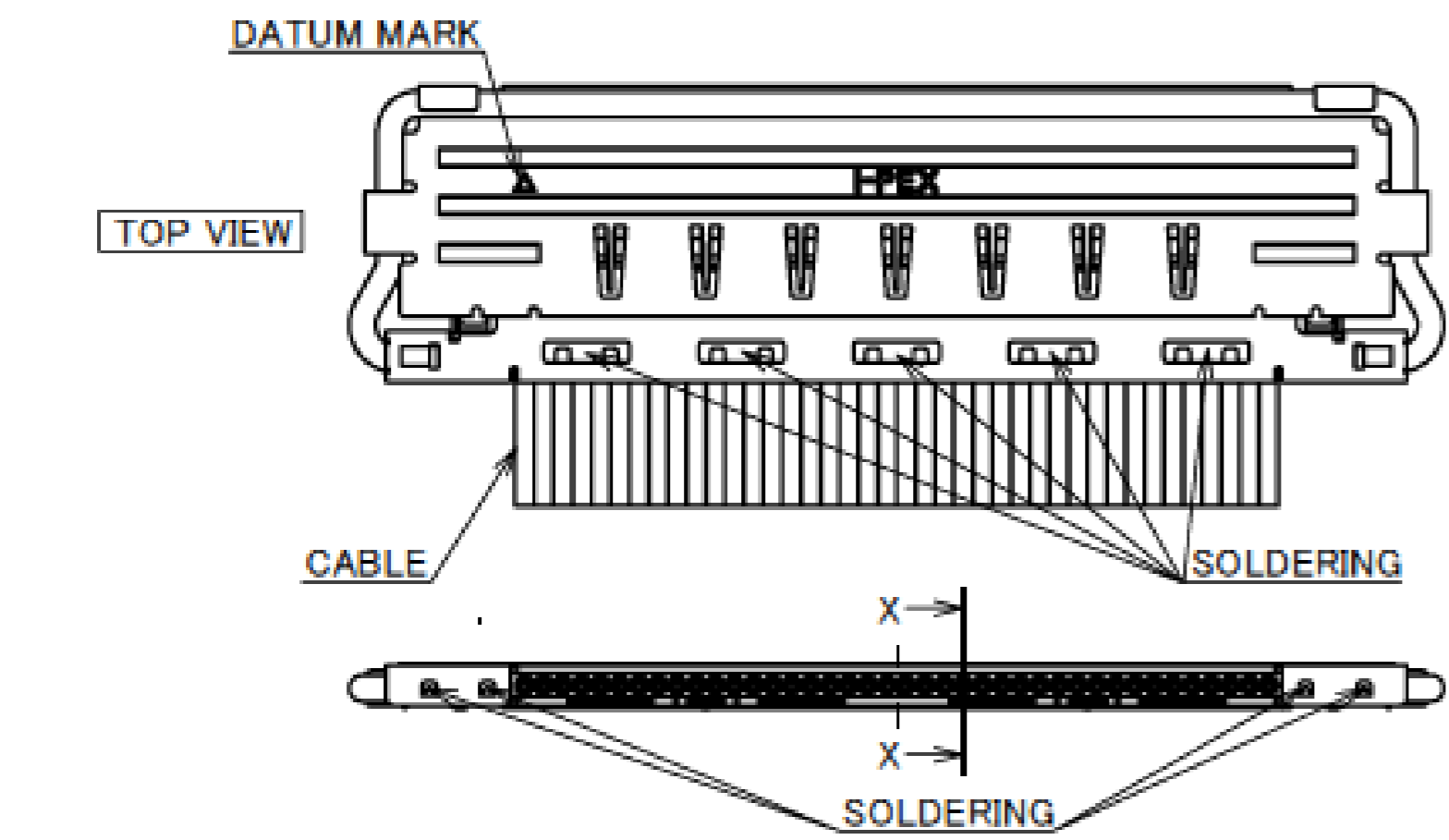
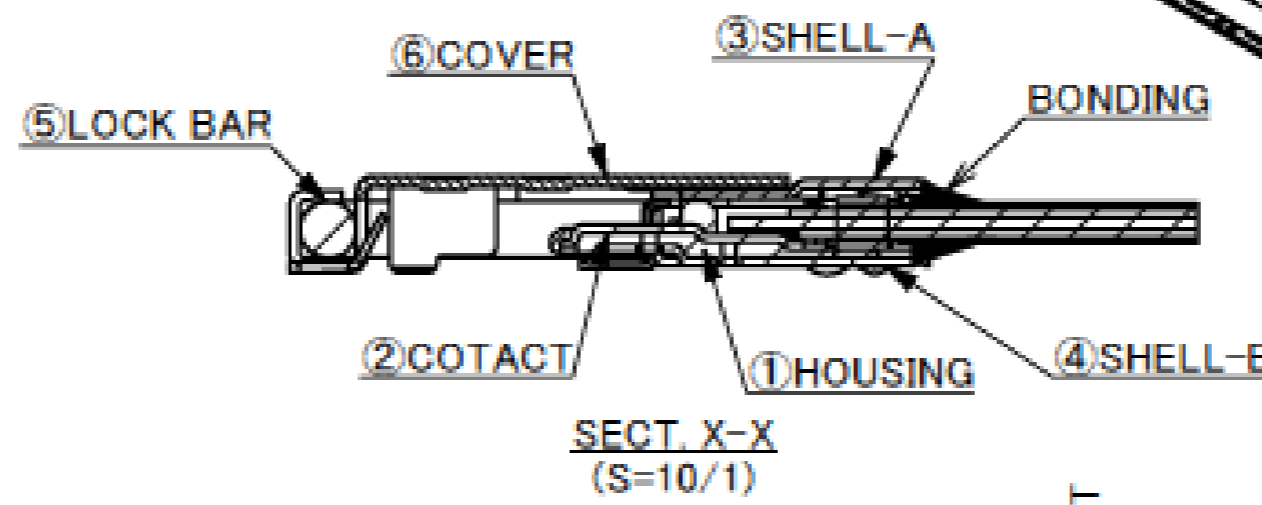
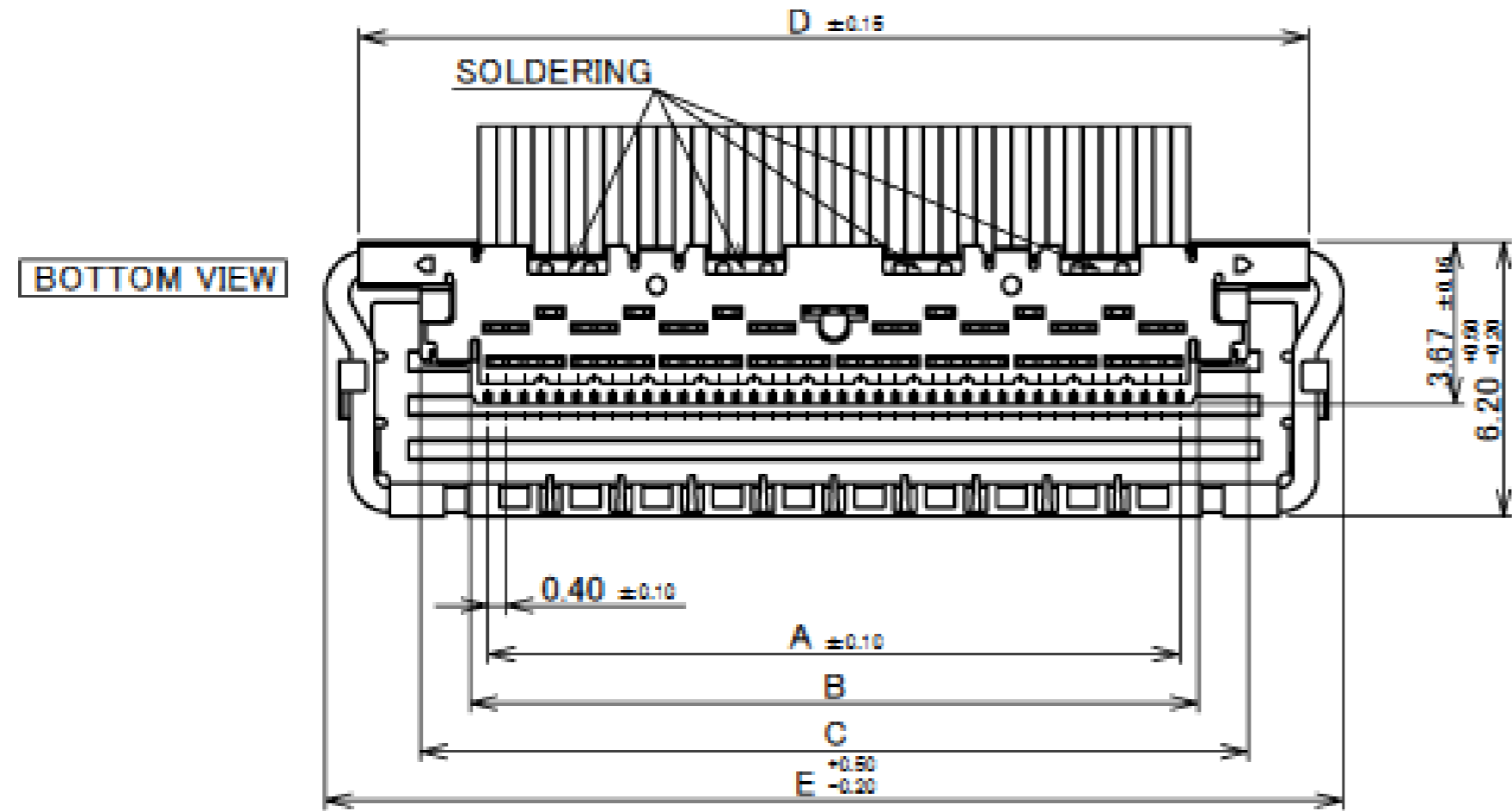
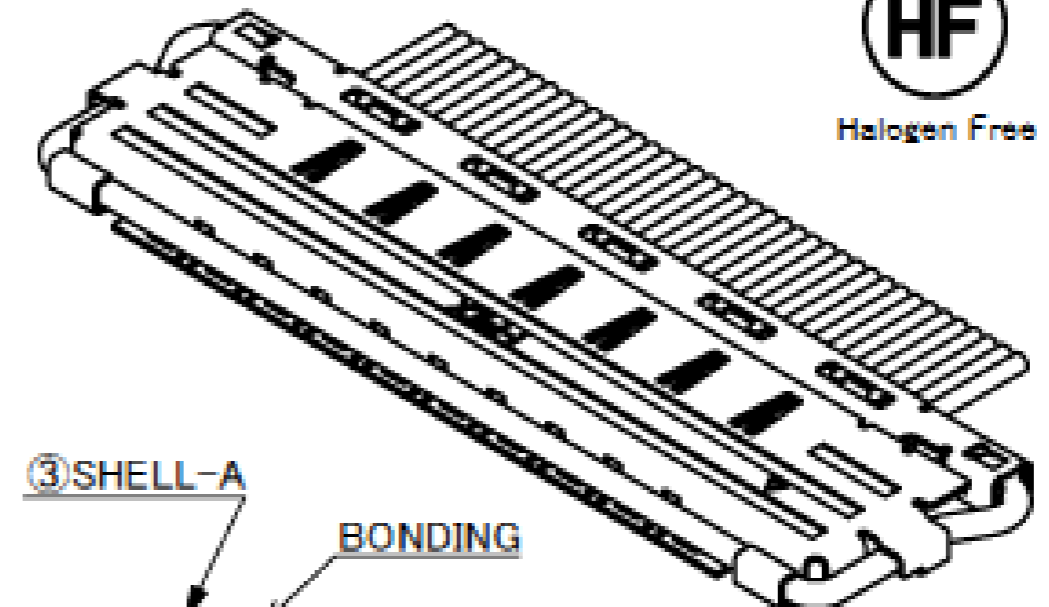
Component Parts Details

Component Parts



Plug for Cable Assembly

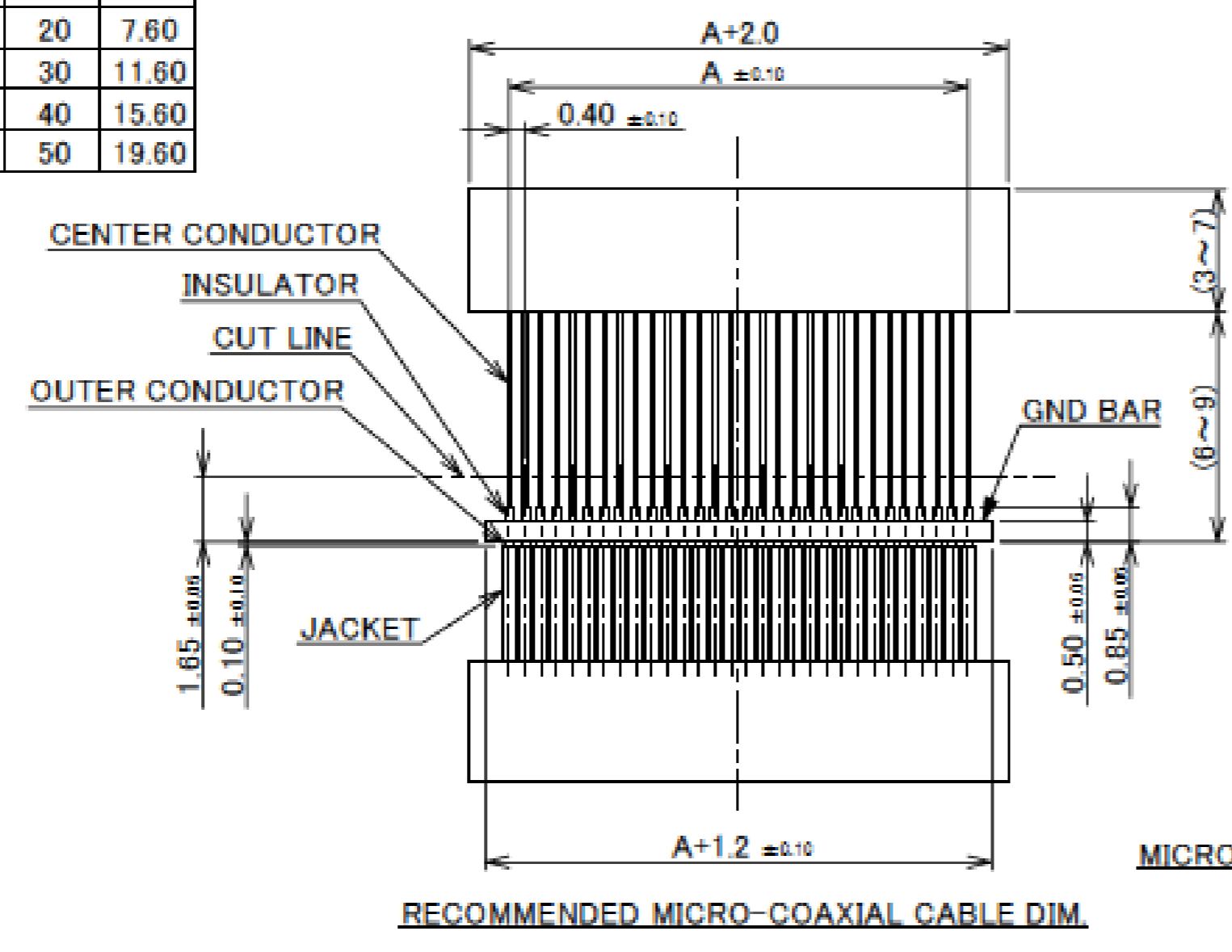
| Recommended P/N | | 20679-0**T-01 | | | | |
|-----------------|------|---------------|-------|-------|-------|-------|
| PART NO. | Pos. | A | B | C | D | E |
| 20679-020T-01 | 20 | 7.60 | 8.40 | 10.66 | 13.40 | 14.95 |
| 20679-030T-01 | 30 | 11.60 | 12.40 | 14.66 | 17.40 | 18.95 |
| 20679-040T-01 | 40 | 15.60 | 16.40 | 18.66 | 21.40 | 22.95 |
| 20679-050T-01 | 50 | 19.60 | 20.40 | 22.66 | 25.40 | 26.95 |



| NO. | DISCRIPTION | MATERIAL | FINISH . REMARKS |
|-----|-------------|-----------------|---|
| 6 | COVER | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN. |
| 5 | LOCK BAR | SUS | - |
| 4 | SHELL-B | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN. |
| 3 | SHELL-A | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 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 | UL94V-0 .BLACK |

Rev.9

| PART NO. | Pos. | A |
|---------------|------|-------|
| 20679-020T-01 | 20 | 7.60 |
| 20679-030T-01 | 30 | 11.60 |
| 20679-040T-01 | 40 | 15.60 |
| 20679-050T-01 | 50 | 19.60 |



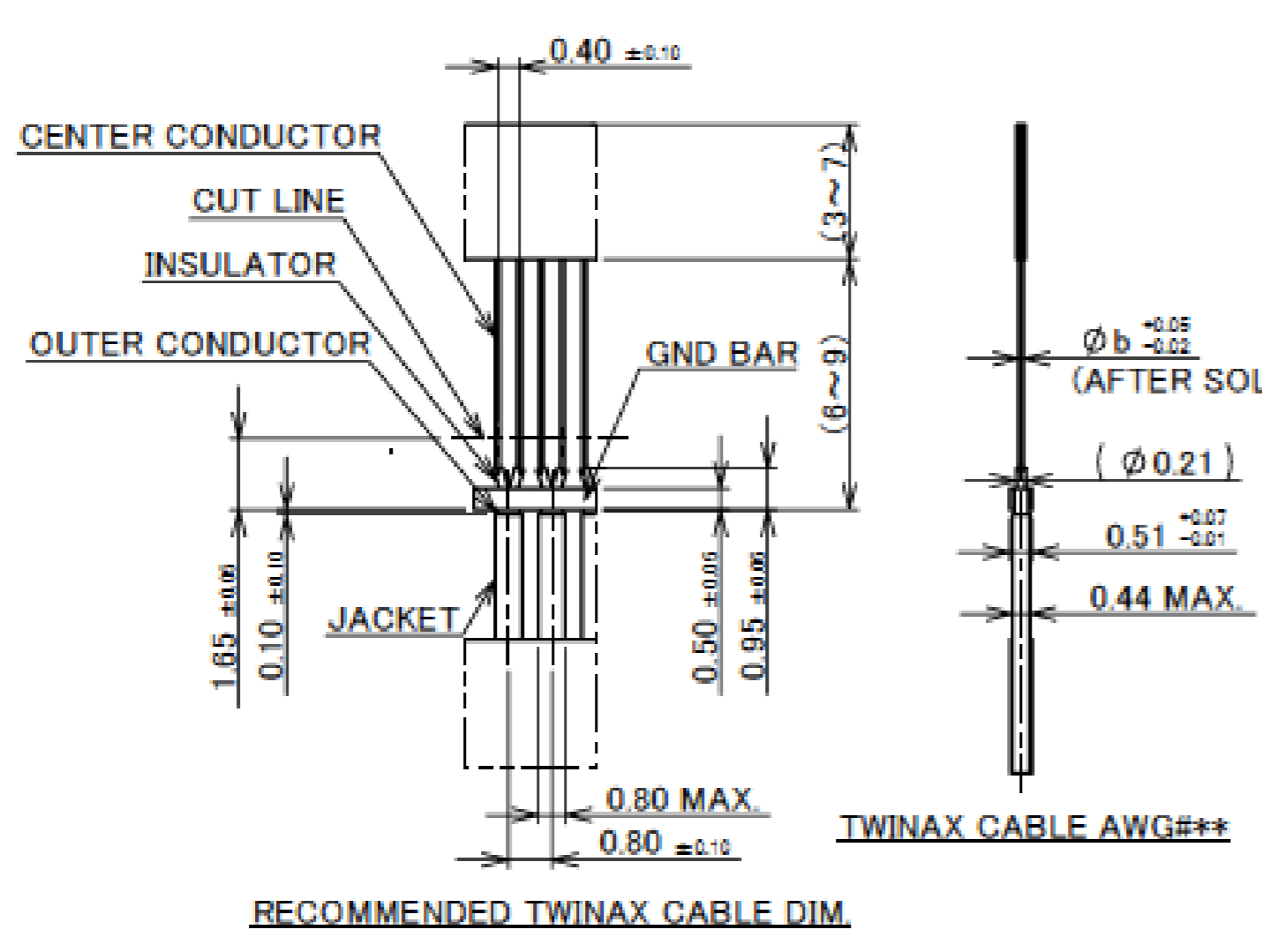
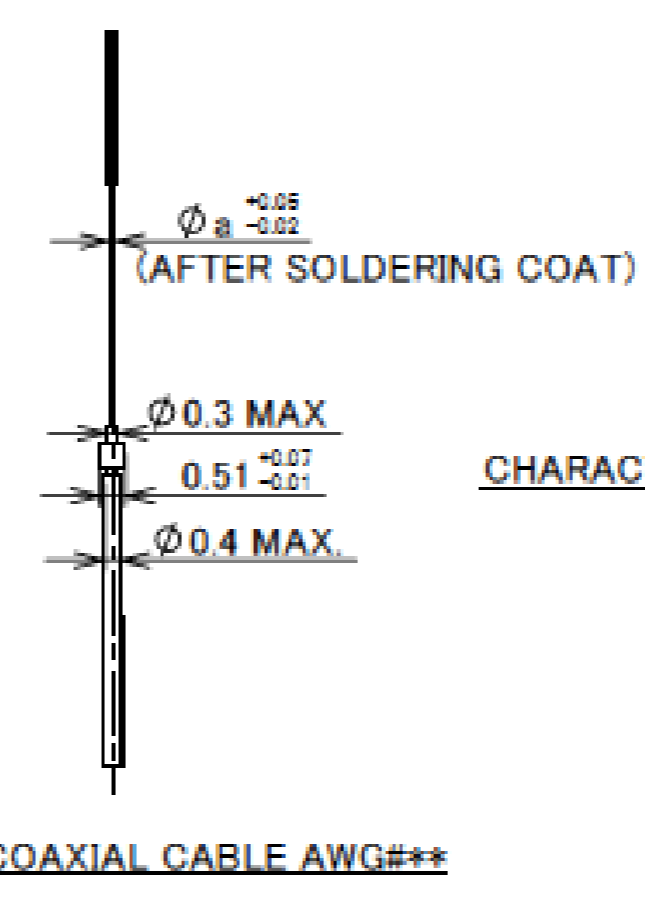
CHARACTERISTIC IMPEDANCE MATCHING MICRO-COAXIAL CABLE

| | a |
|-----|-------|
| #38 | 0.12 |
| #40 | 0.09 |
| #42 | 0.075 |
| #44 | 0.063 |

CHARACTERISTIC IMPEDANCE UN-MATCHING MICRO-COAXIAL CABLE

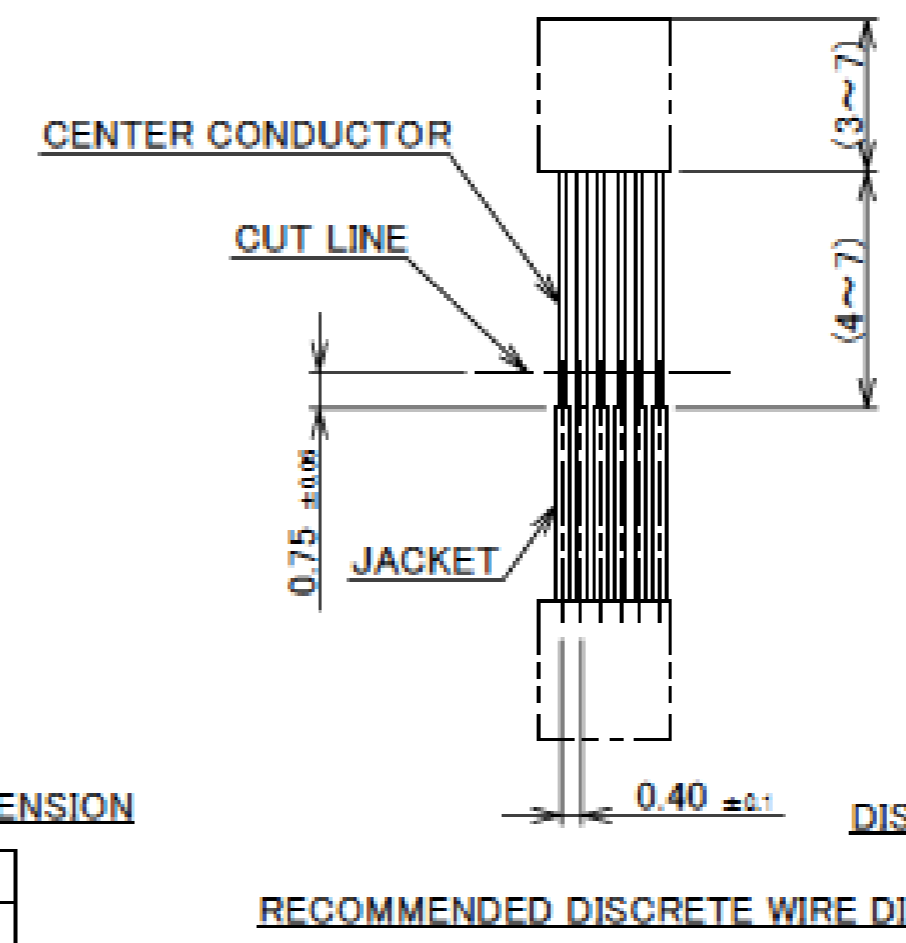
| | a |
|-----|------|
| #36 | 0.15 |

MICRO-COAXIAL CABLE #36 : NOT RECOMMENDED FOR HIGH SPEED SIGNAL TRANSFER



TWINAX CABLE DIMENSION

| | b |
|-----|-------|
| #40 | 0.09 |
| #42 | 0.075 |



DISCRETE WIRE DIMENSION

| | c |
|-----|-------|
| #34 | 0.192 |
| #36 | 0.15 |

RECOMMENDED DISCRETE WIRE DIM.

Rev.9

Plug for Cable Assembly

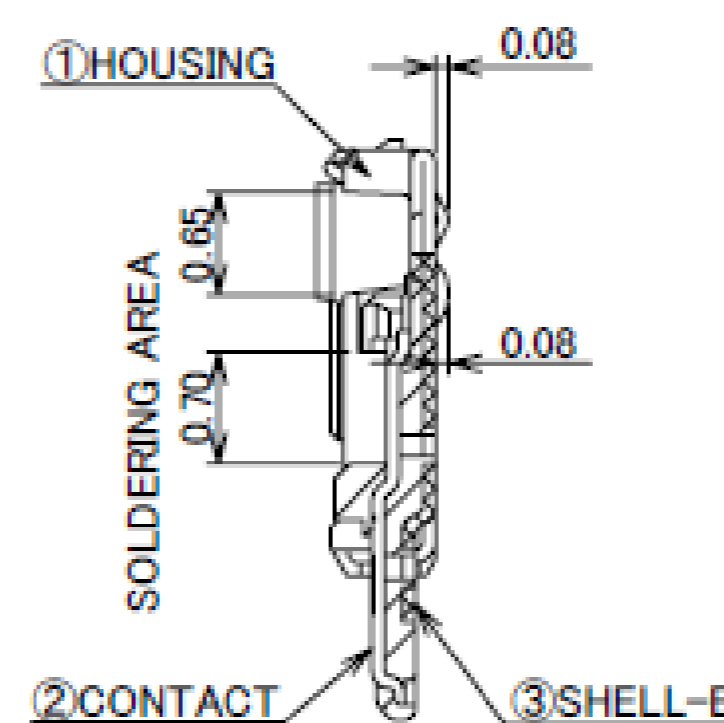
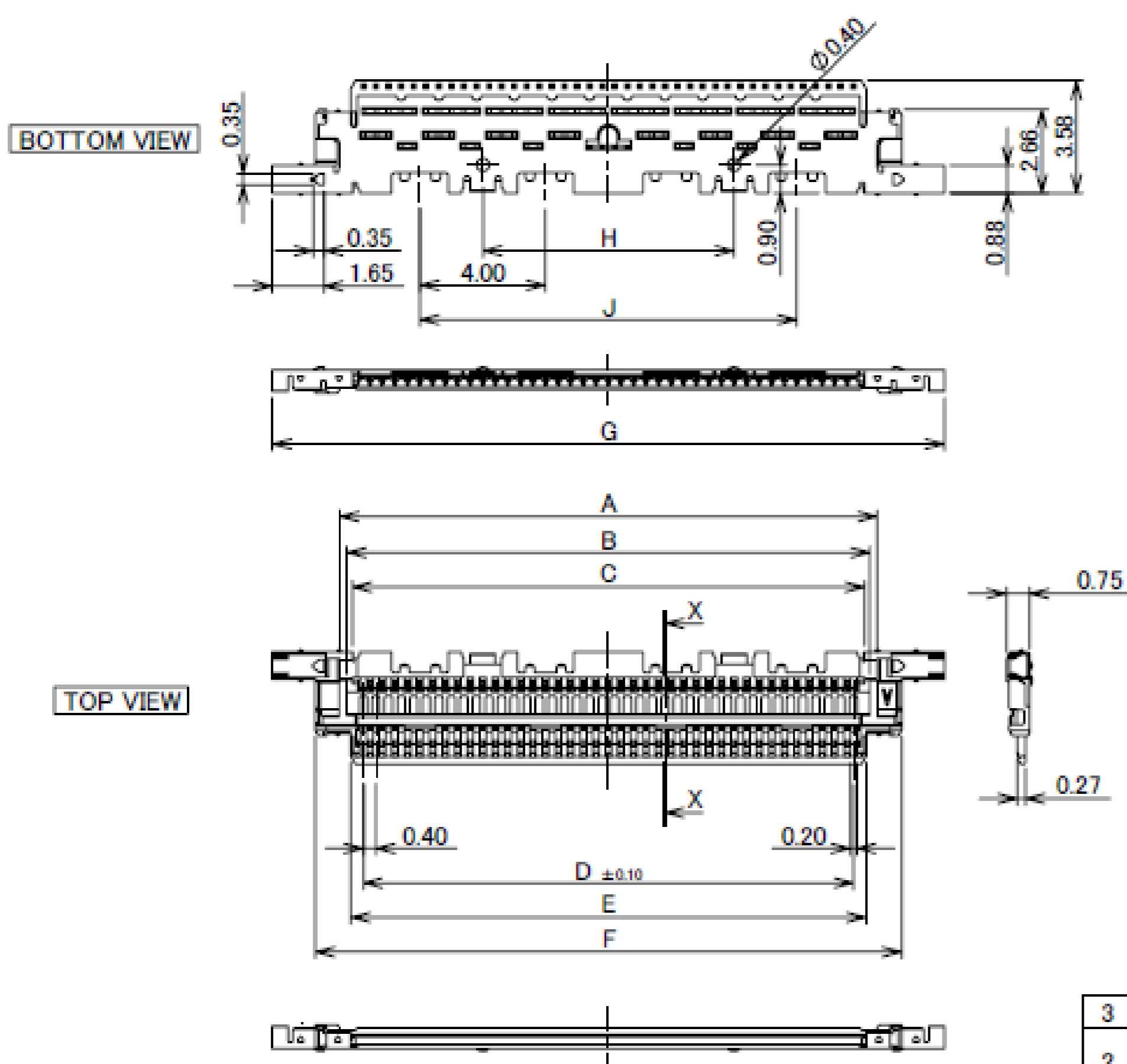
| ITEMS | SPECIFICATION |
|---|--|
| APPLICABLE CABLE | MICRO-COAXIAL CABLE : AWG# 44 , 42 , 40 , 38 , 36 DISCRETE WIRE : AWG# 36 , 34 TWINAX CABLE : AWG# 40 , 42 |
| RATING VOLTAGE | 100V AC (PER CONTACT PIN) |
| RATING AMPERAGE (FOR CONTACT) | 0.1A AC/DC [AWG#44] PER CONTACT PIN/UP TO 50 CONTACTS 0.24A 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 TEMPERATURE RISE MAY AFFECTED BY ACTUAL SITUATION |
| OPERATING TEMPERATURE | 248~378K(-40°C~105°C) |
| OPERATING HUMIDITY | 85% MAX.(NON-CONDENSING) |
| CONTACT RESISTANCE | INITIAL : 180mohm MAX.(AWG#34) / AFTER TEST : \triangleleft40mohm 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 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 : 9.80N MIN. 30P : 14.70N MIN. 40P : 19.60N MIN. 50P : 24.50N MIN. |
| PRODUCT SPECIFICATION | PRS-2163 |
| TEST REPORT | TR-15103 |
| INSTRUCTION MANUAL | HIM-15033 |
| ASSEMBLY MANUAL | ASM-15005 |
| APPEARANCE CRITERIA NO. | QLS-A*** |

Rev.9

Plug Housing Assembly

Recommended P/N 20680-0**T-01

| PART NO. | Pos. | A | B | C | D | E | F | G | H | J |
|---------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20680-020T-01 | 20 | 9.10 | 8.65 | 8.30 | 7.60 | 8.40 | 10.66 | 13.40 | - | 5.00 |
| 20680-030T-01 | 30 | 13.10 | 12.65 | 12.30 | 11.60 | 12.40 | 14.66 | 17.40 | 4.00 | 8.00 |
| 20680-040T-01 | 40 | 17.10 | 16.65 | 16.30 | 15.60 | 16.40 | 18.66 | 21.40 | 8.00 | 12.00 |
| 20680-050T-01 | 50 | 21.10 | 20.65 | 20.30 | 19.60 | 20.40 | 22.66 | 25.40 | 12.00 | 16.00 |
| 20680-060T-01 | 60 | 25.10 | 24.65 | 24.30 | 23.60 | 24.40 | 26.66 | 29.40 | 16.00 | 20.00 |



SECT. X-X
(S=15/1)

NOTES.

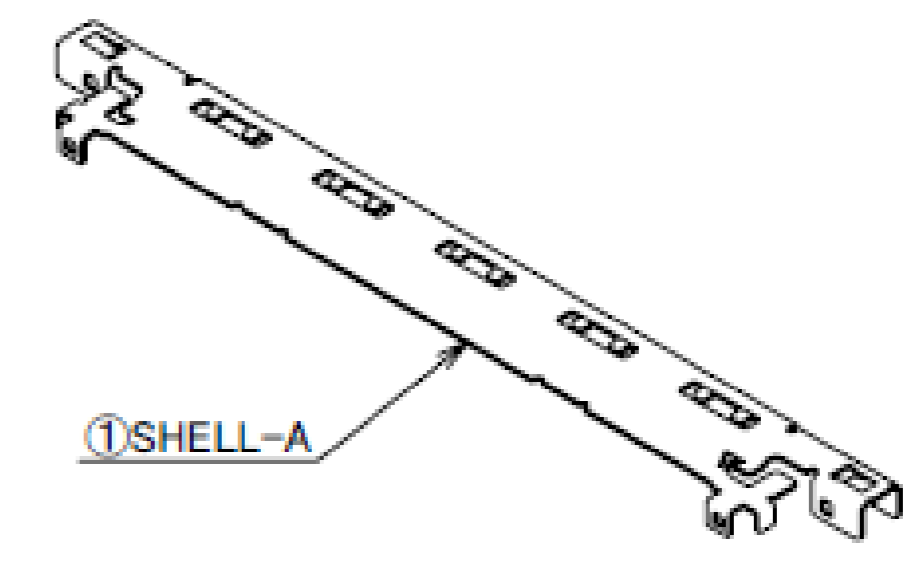
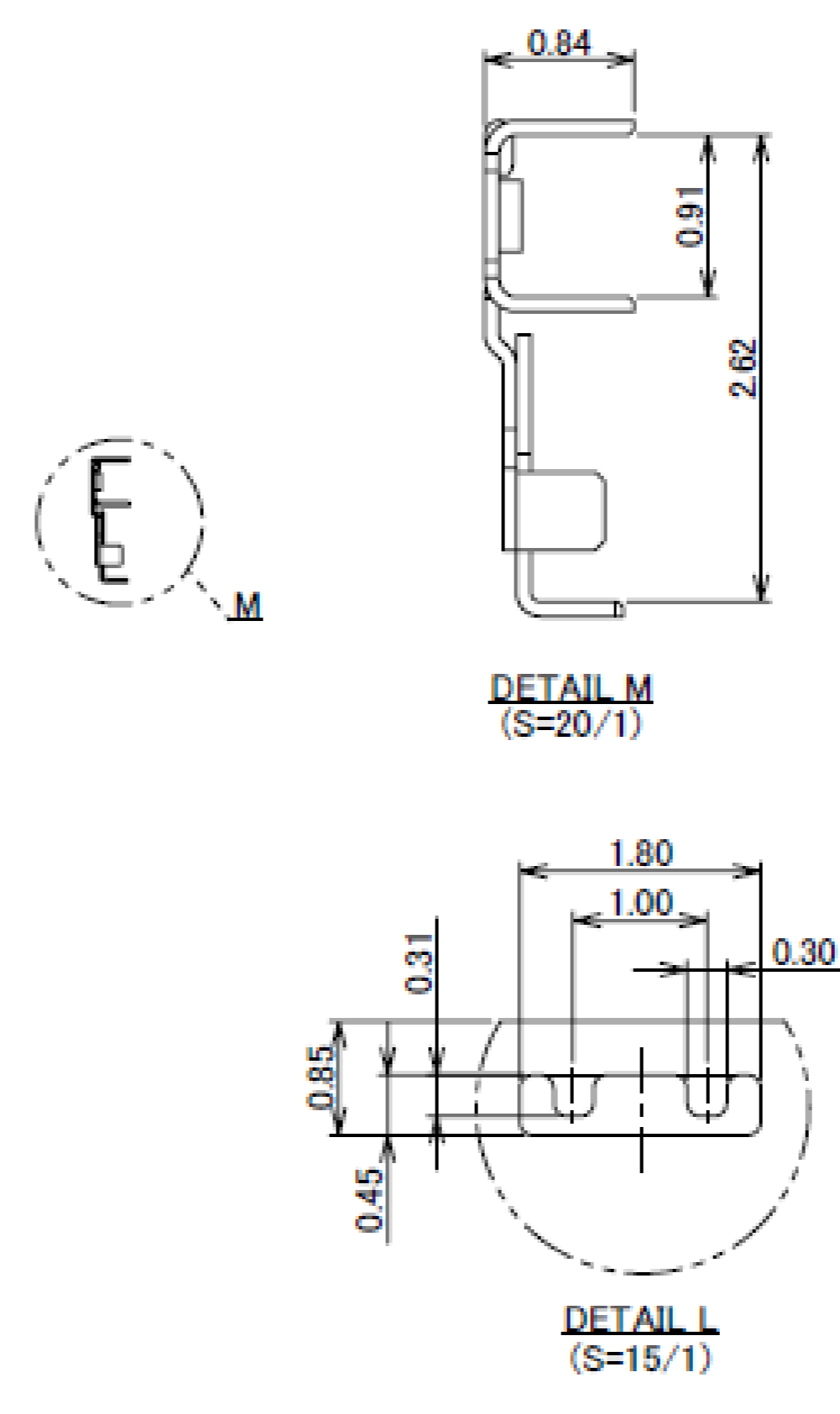
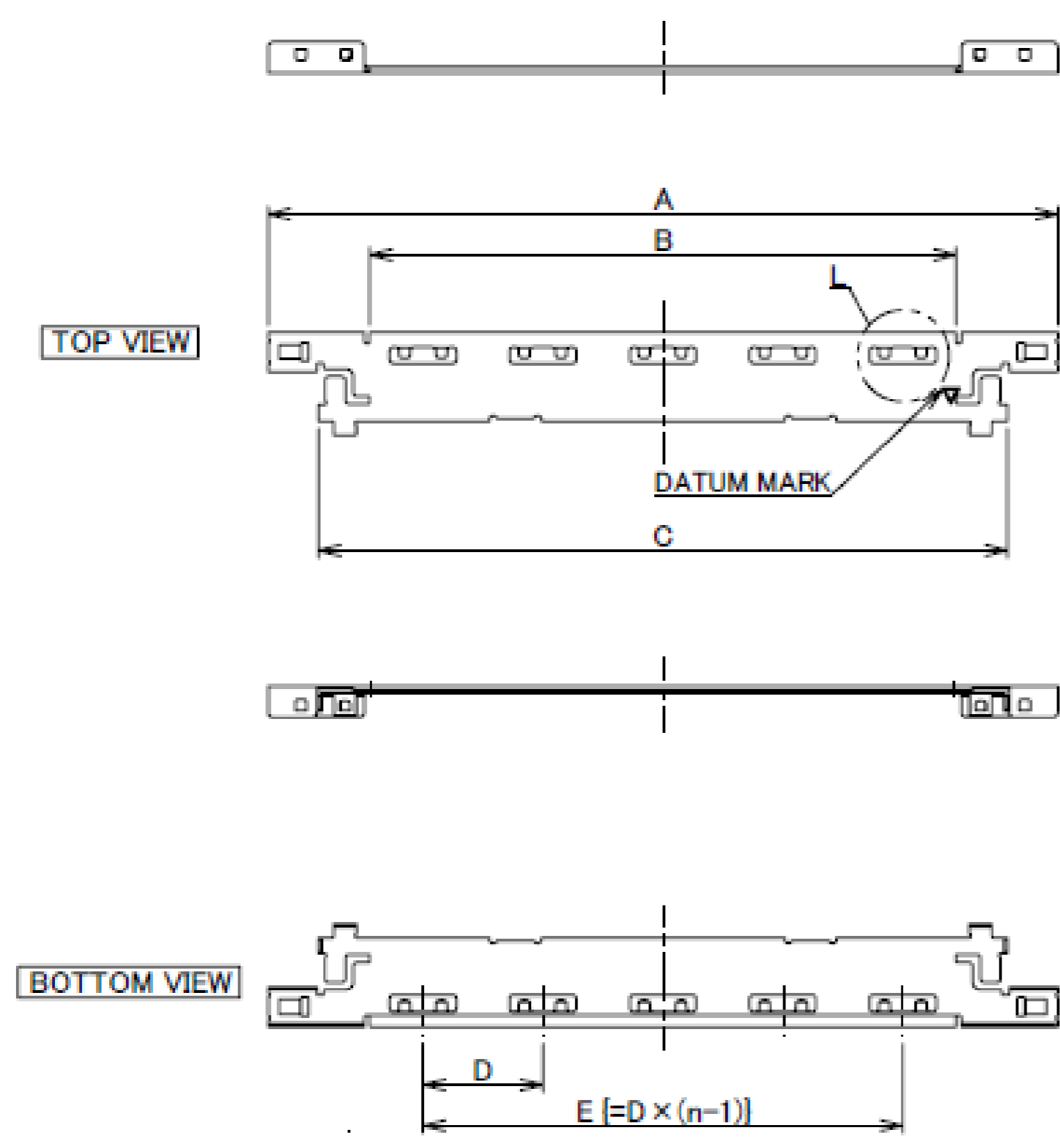
- THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0**1) AND LOCK BAR ASS'Y(P/N 20681-0**T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20679-0**T-01
- THIS PART IS ASSEMBLED WITH SHELL A(P/N 3204-0**1) AND LOCK BAR ASS'Y(P/N 20789-0**T-01) AFTER SOLDERED THE CABLE, AND IT BECOMES P/N 20788-0**T-01

| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|--|
| 3 | SHELL-B | PHOSPHOR BRONZE | PARTIAL Au 0.003 μ m MIN. OVER Ni 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 | UL94V-0 ,BLACK |

Rev.7

Plug Shell-A

| Recommended P/N | | 3204-0**1 | | | | |
|-----------------|------|-----------|-------|-------|------|-------|
| PART NO. | Pos. | A | B | C | D | E |
| 3204-0201 | 20 | 13.40 | 7.88 | 10.66 | 2.50 | 5.00 |
| 3204-0301 | 30 | 17.40 | 11.88 | 14.66 | 3.00 | 9.00 |
| 3204-0401 | 40 | 21.40 | 15.88 | 18.66 | 3.25 | 13.00 |
| 3204-0501 | 50 | 25.40 | 19.88 | 22.66 | 3.40 | 17.00 |
| 3204-0601 | 60 | 29.40 | 23.88 | 26.66 | 4.00 | 20.00 |

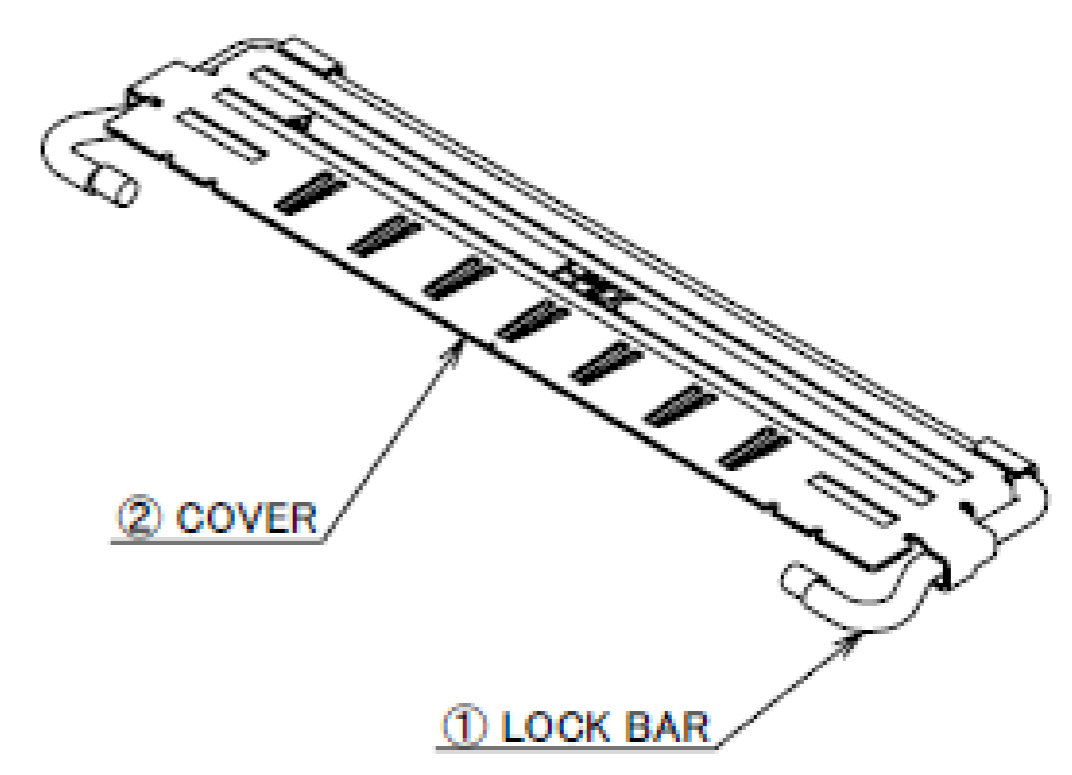
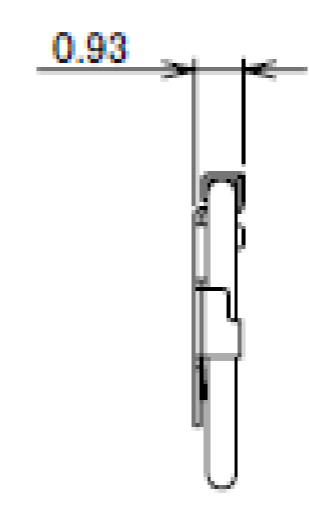
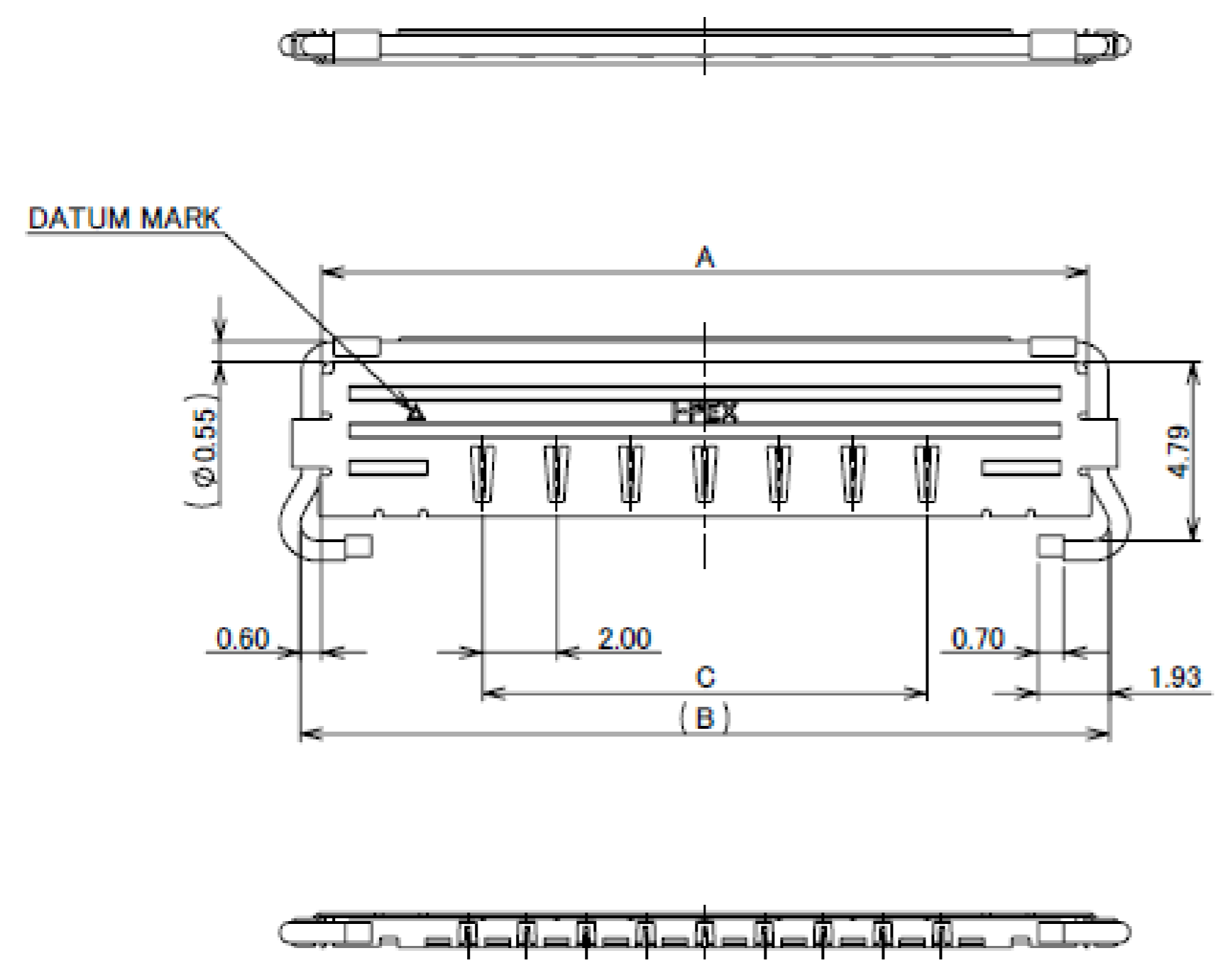
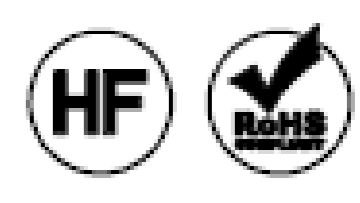


| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|---|
| 1 | SHELL-A | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN. |

Rev.7

Lock Bar Assembly

| Recommended P/N | | 20681-0**T-01 | | |
|-----------------|------|---------------|-------|-------|
| PART NO. | Pos. | A | B | C |
| 20681-020T-01 | 20 | 12.65 | 13.85 | 4.00 |
| 20681-030T-01 | 30 | 16.65 | 17.85 | 8.00 |
| 20681-040T-01 | 40 | 20.65 | 21.85 | 12.00 |
| 20681-050T-01 | 50 | 24.65 | 25.85 | 16.00 |



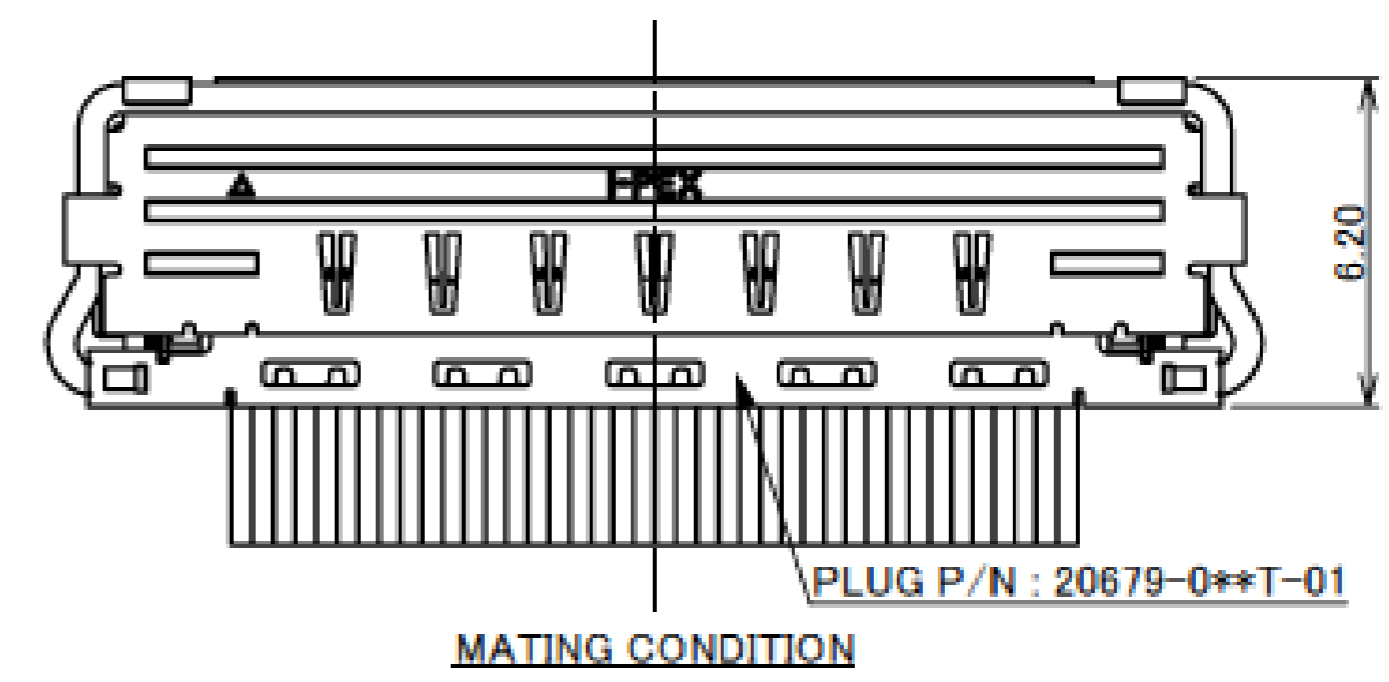
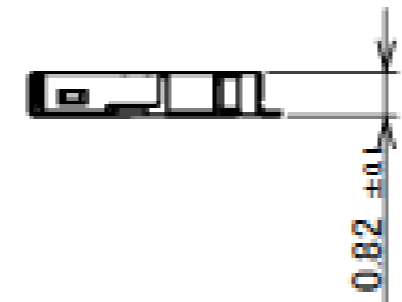
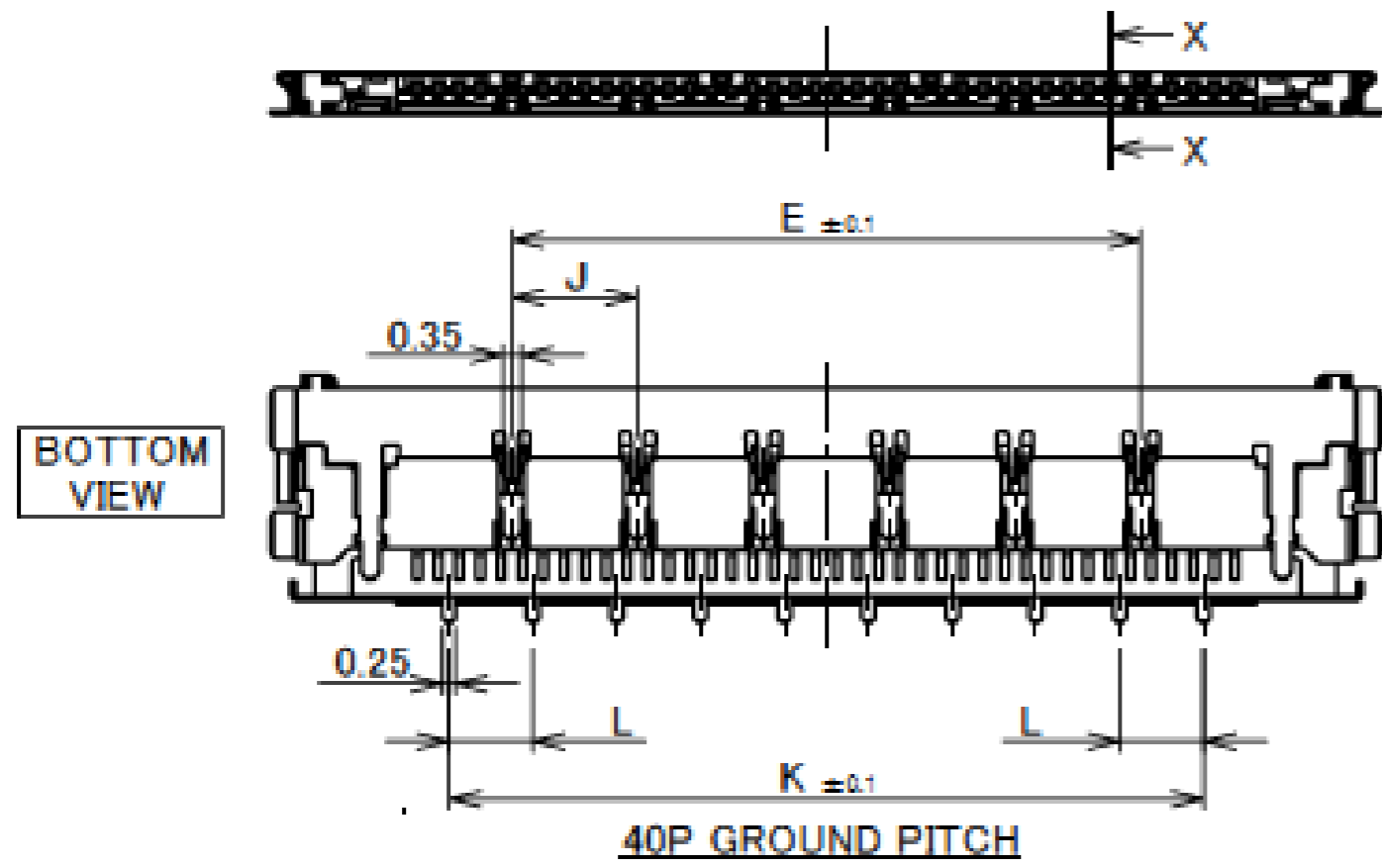
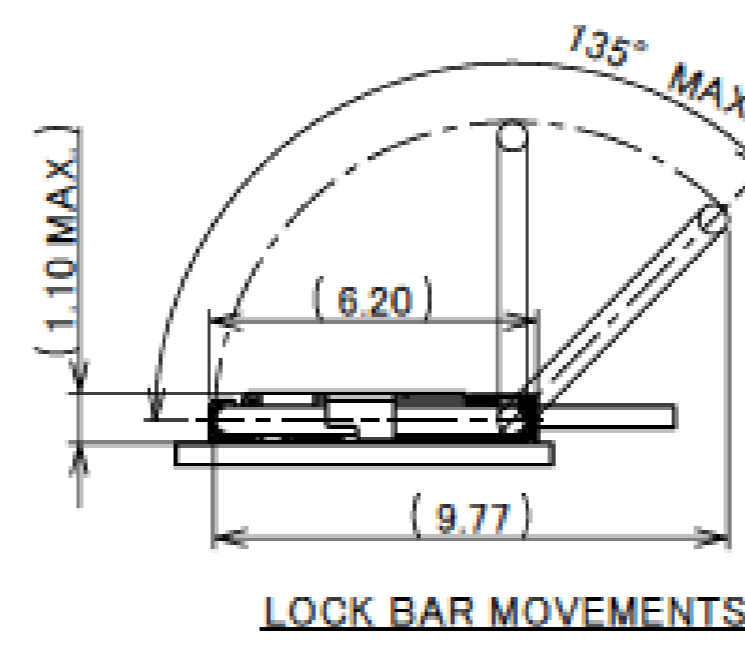
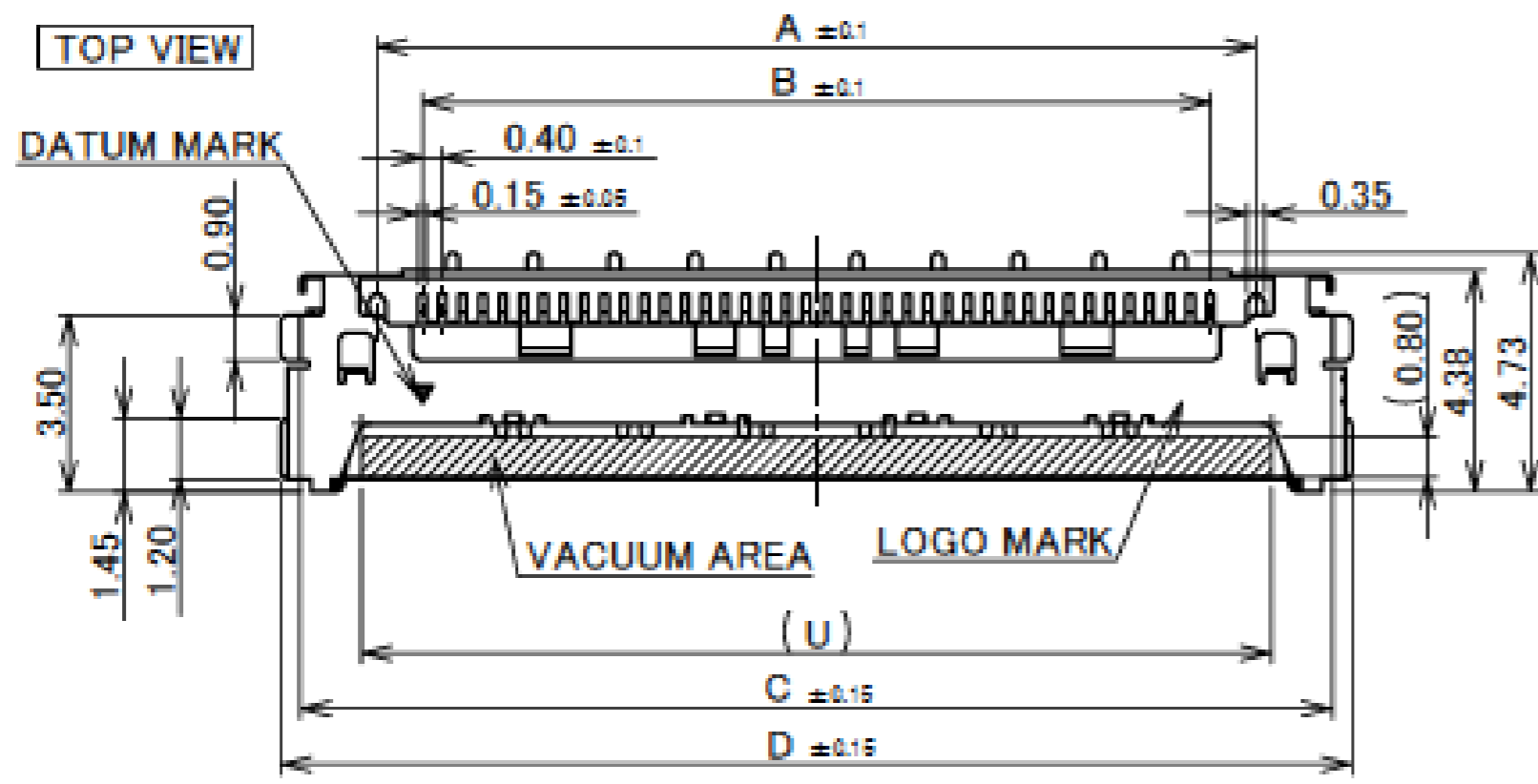
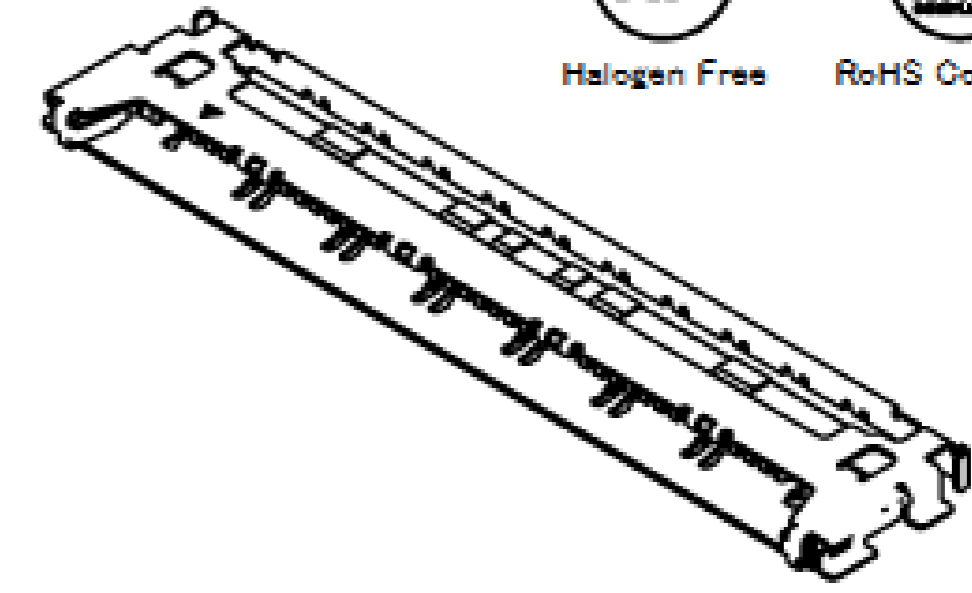
| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|--------------------------|
| 2 | COVER | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN. |
| 1 | LOCK BAR | SUS φ0.55 | - |

Rev.5

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 | |

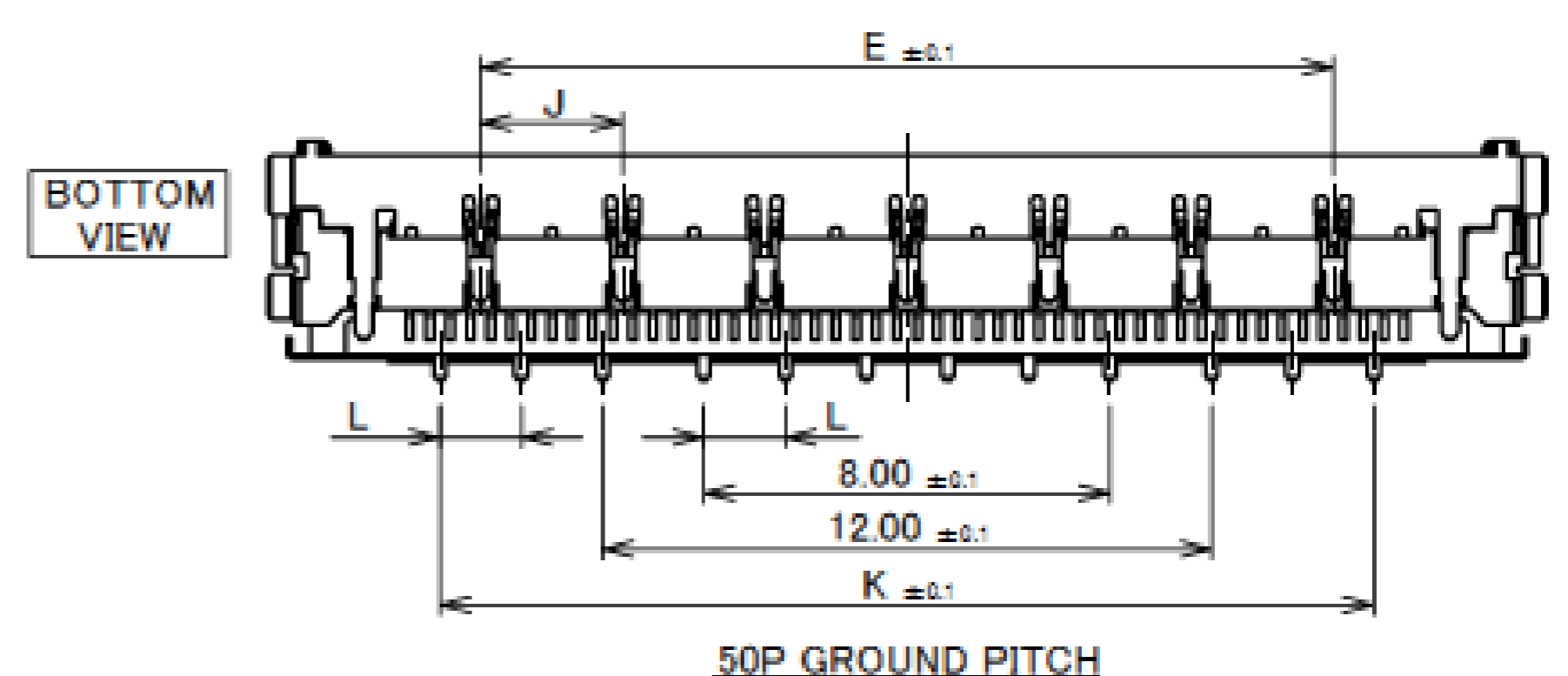
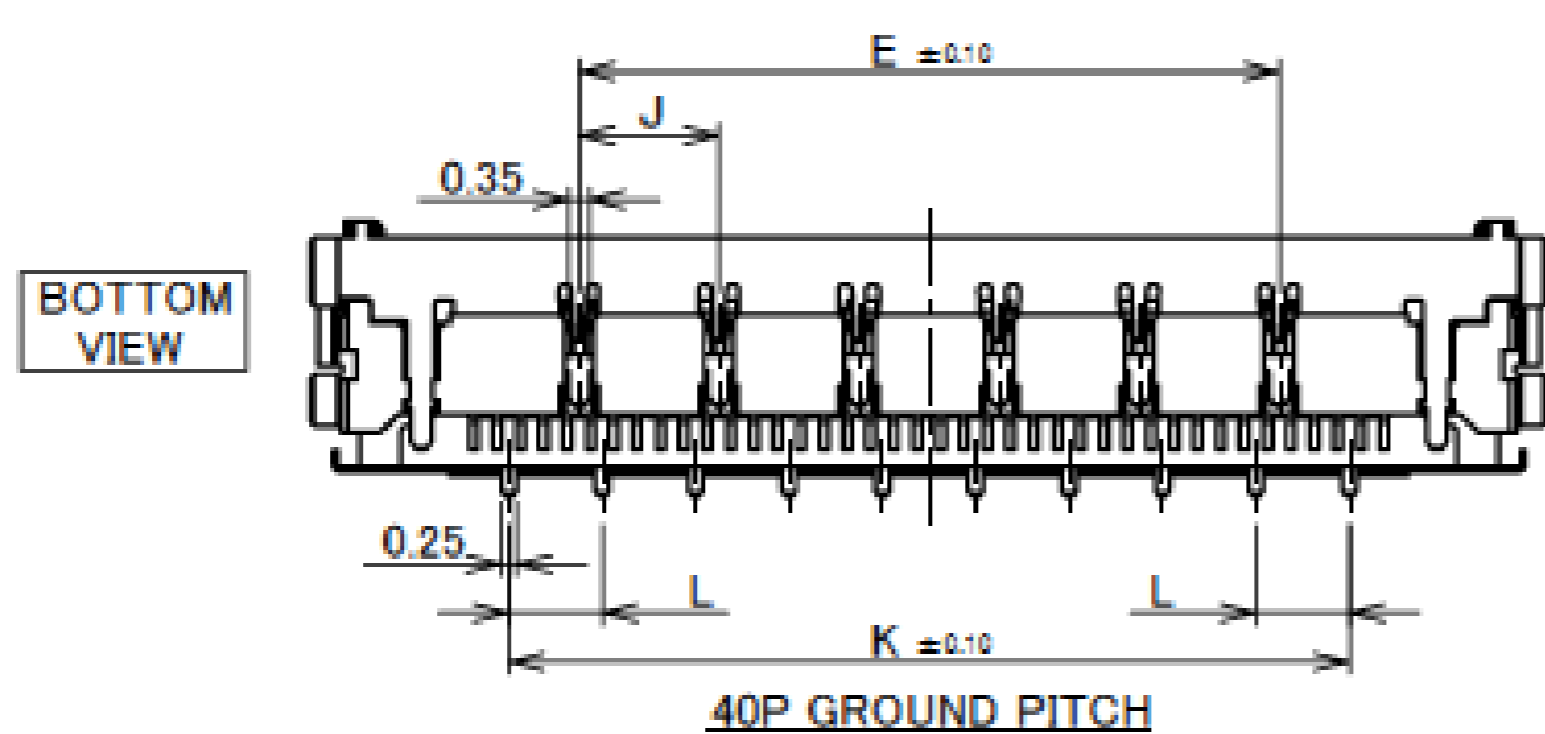
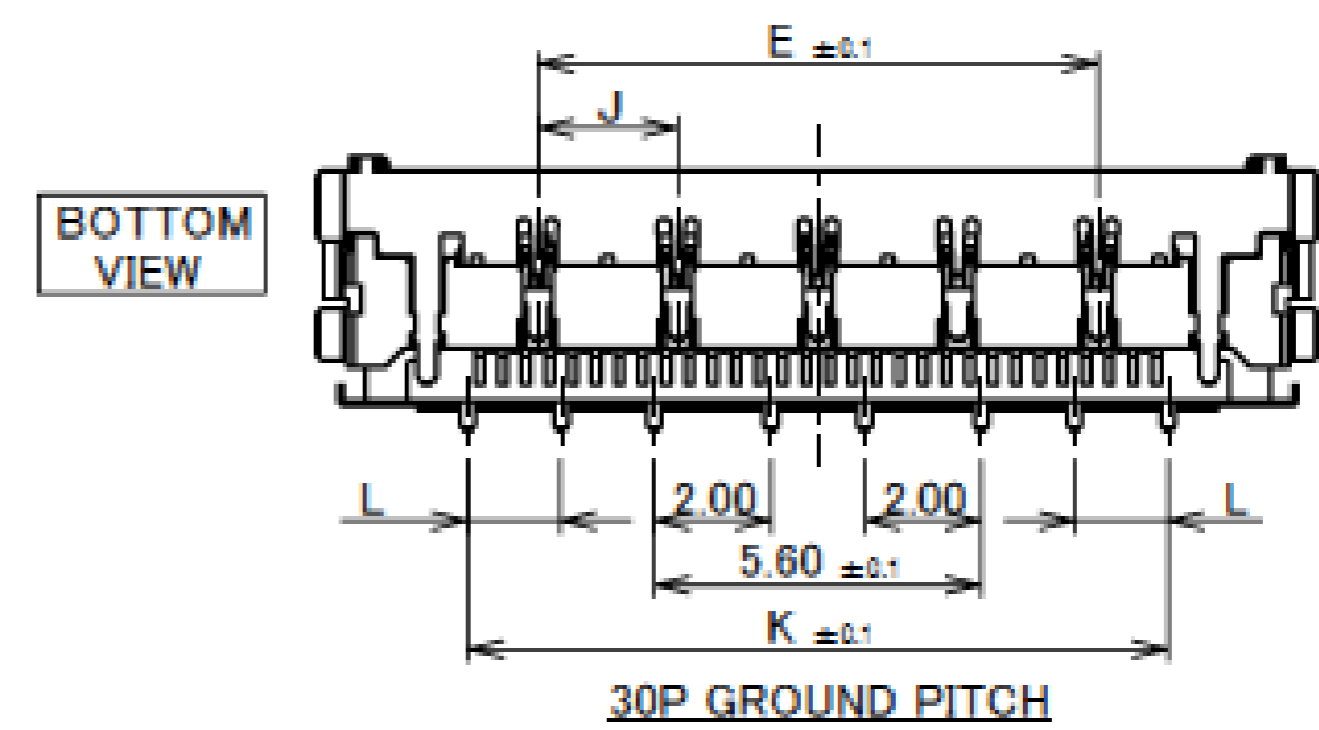
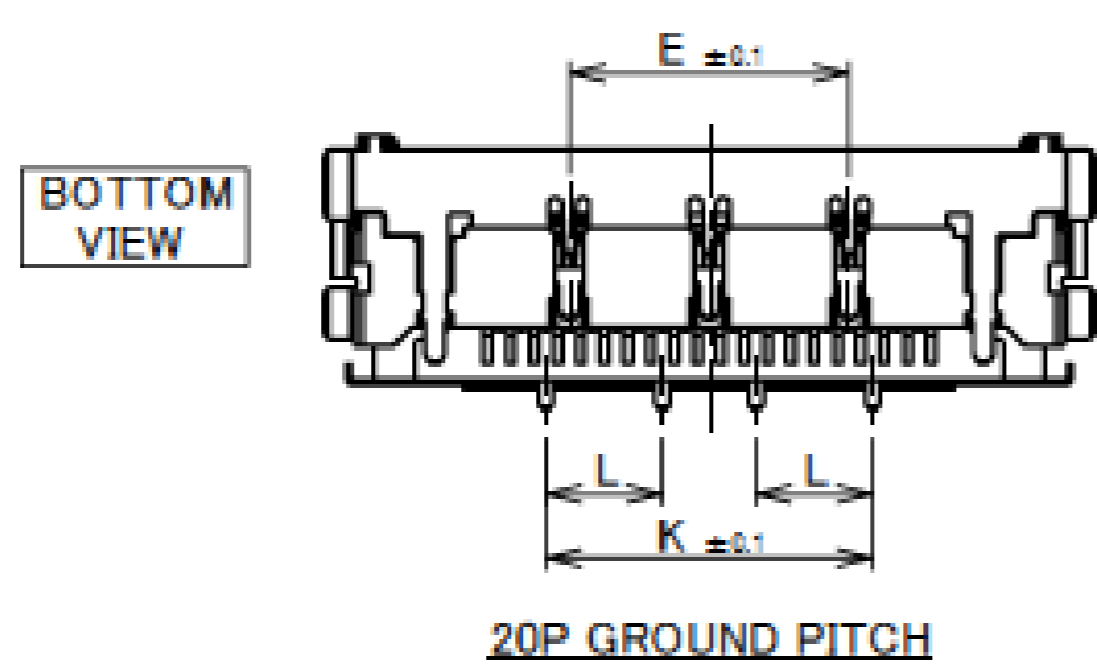
P/N : 20682-0**E-02
Pos.



| NO. | DISCRPTION | MATERIAL | FINISH , REMARKS |
|-----|------------|-----------------|--|
| 3 | SHELL | PHOSPHOR BRONZE | ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.03 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 |

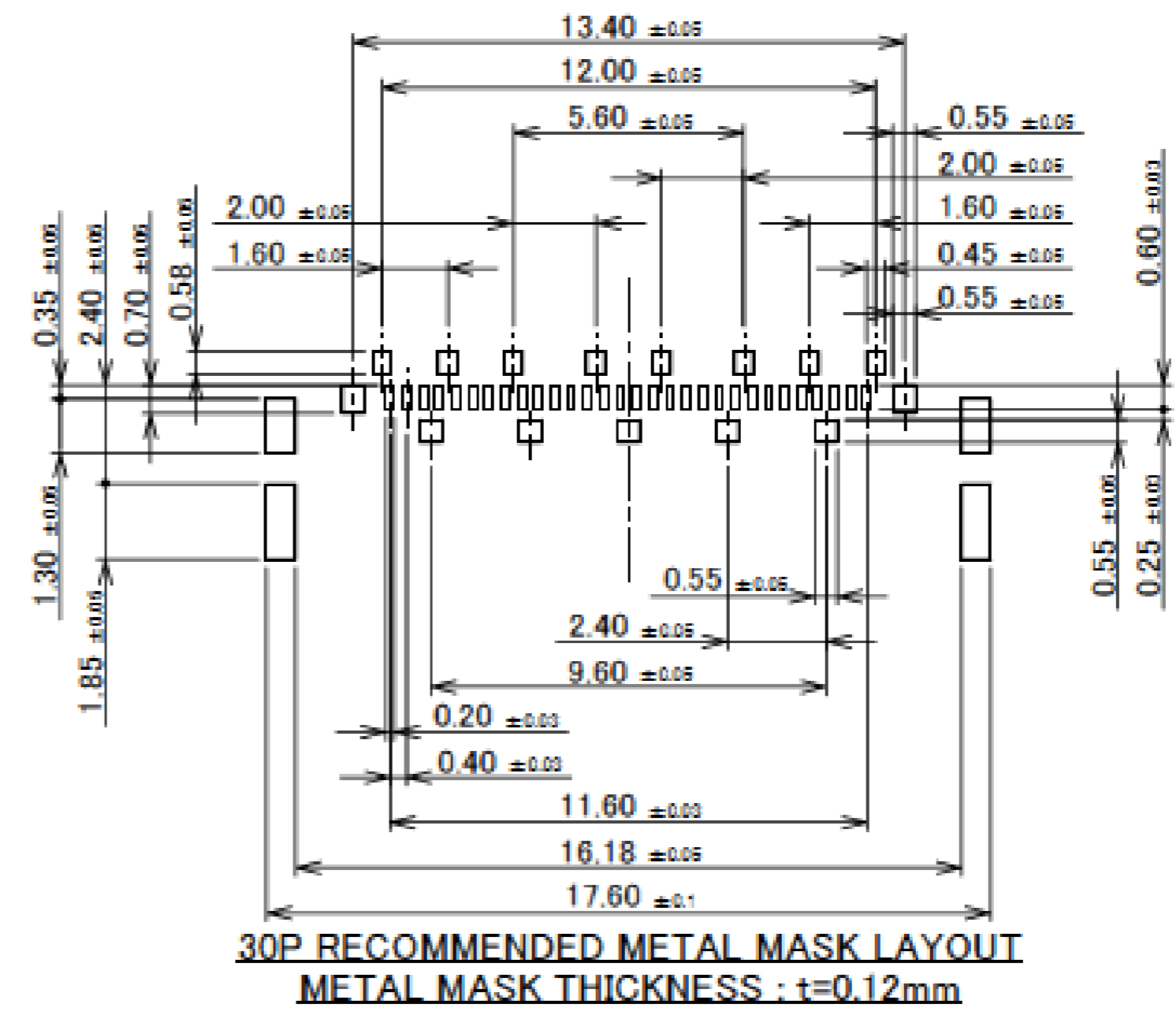
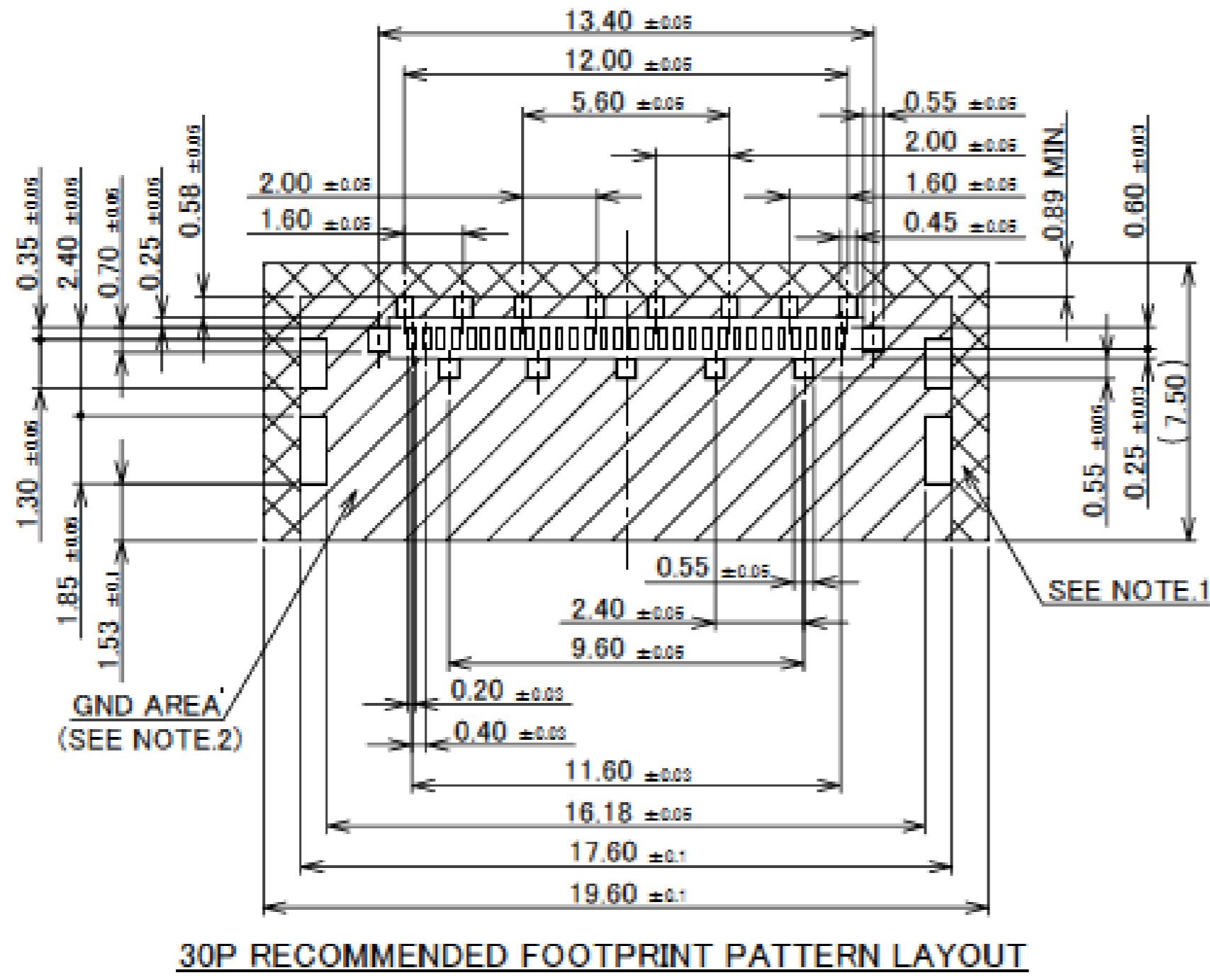
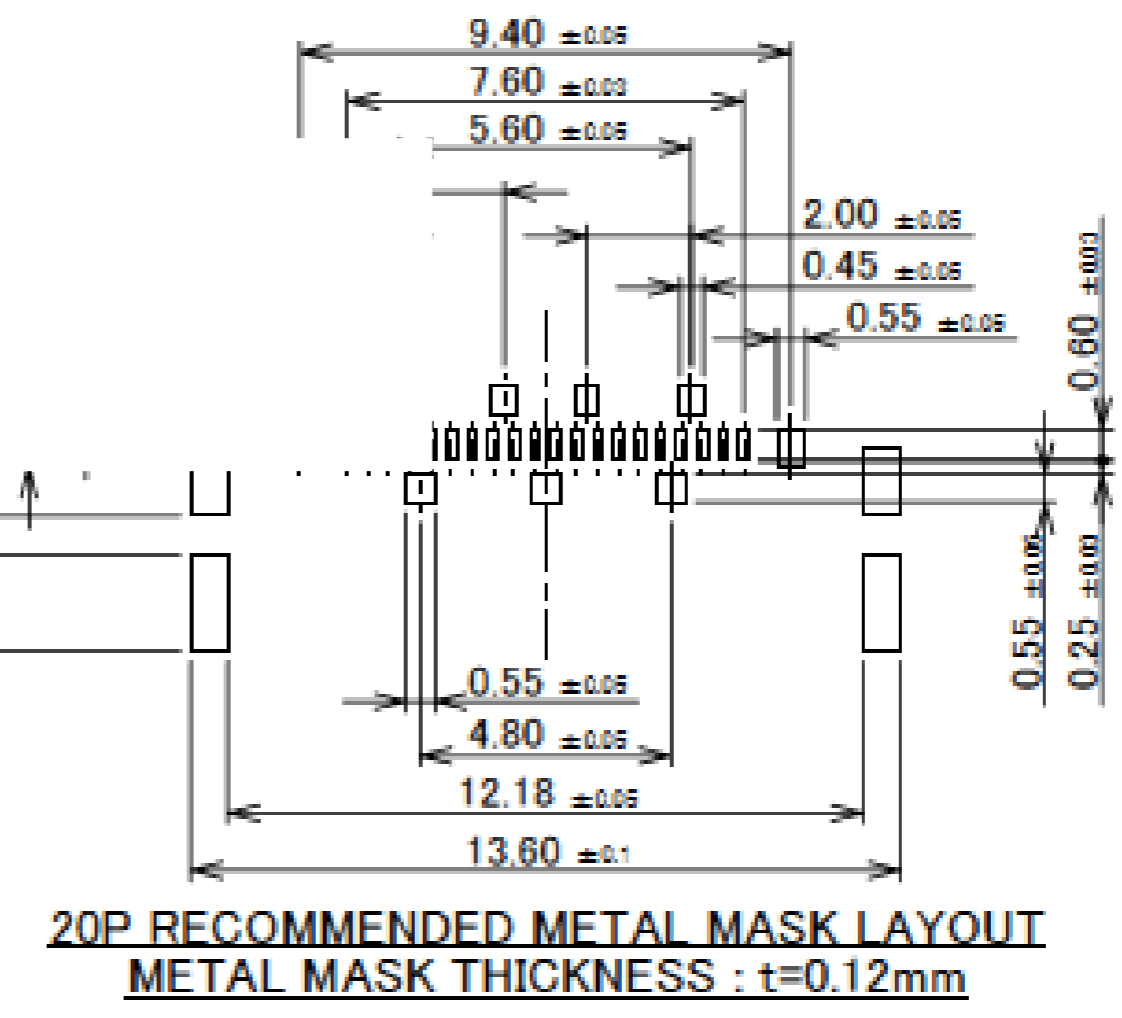
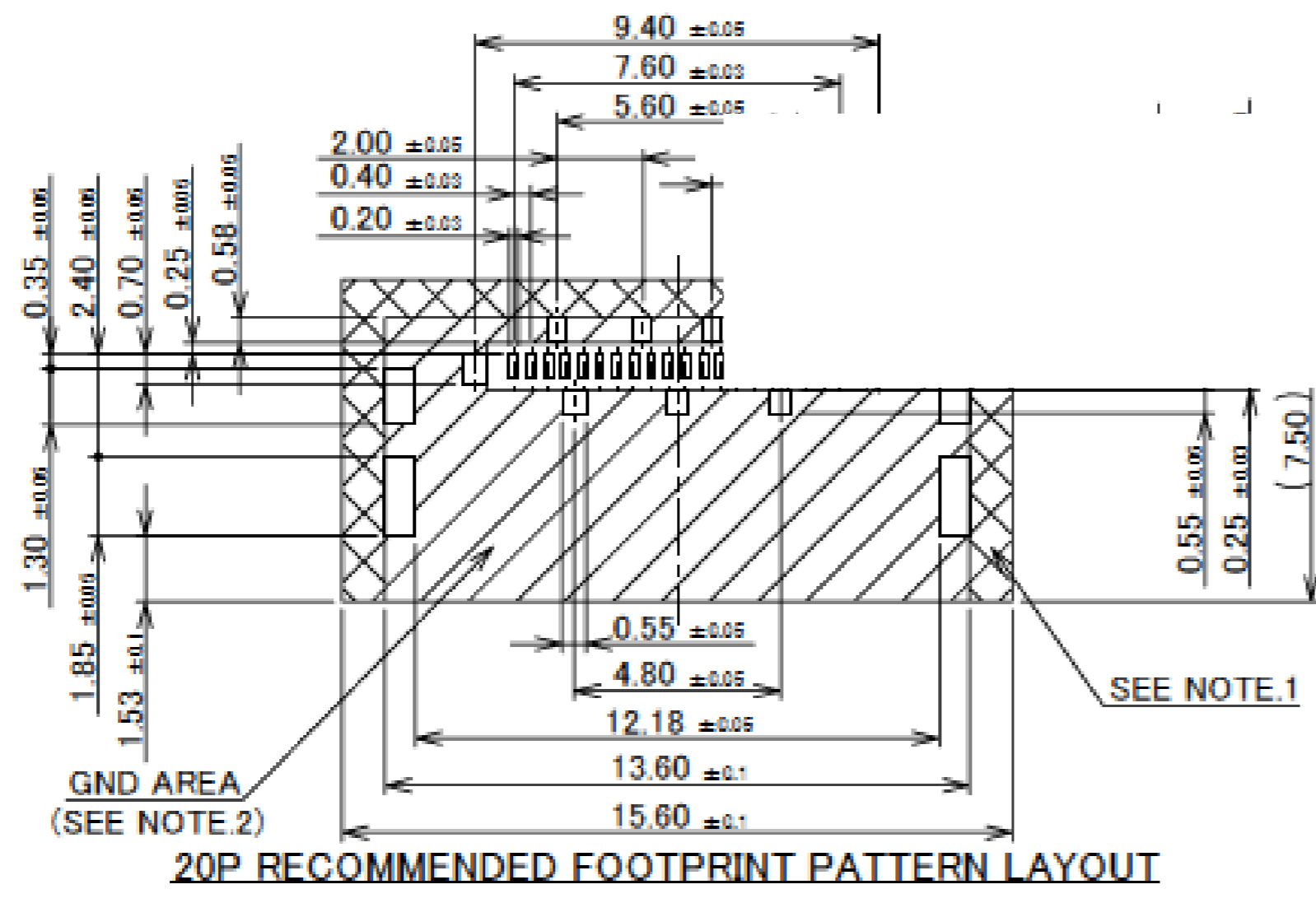
Rev.13

| 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 |



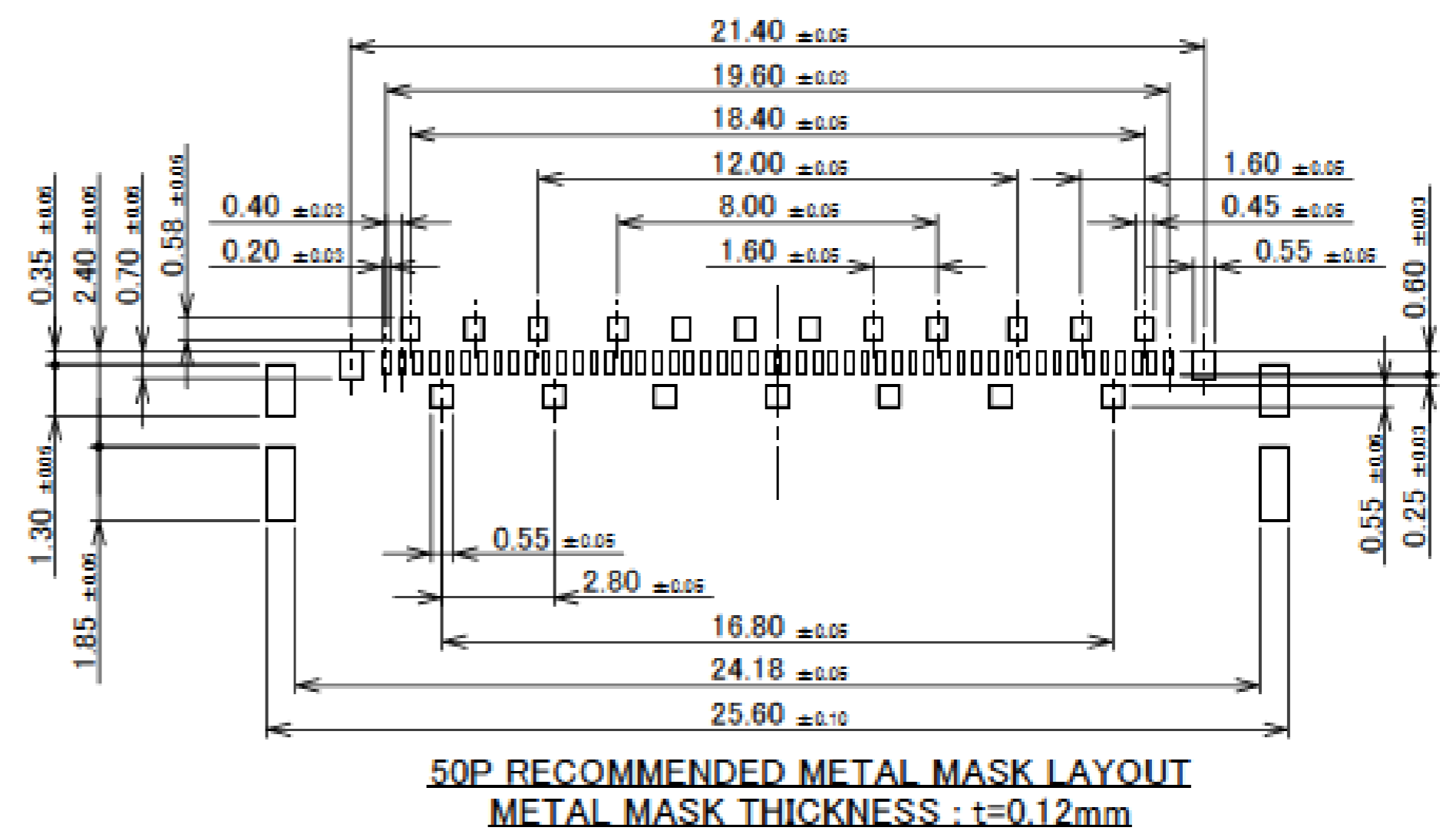
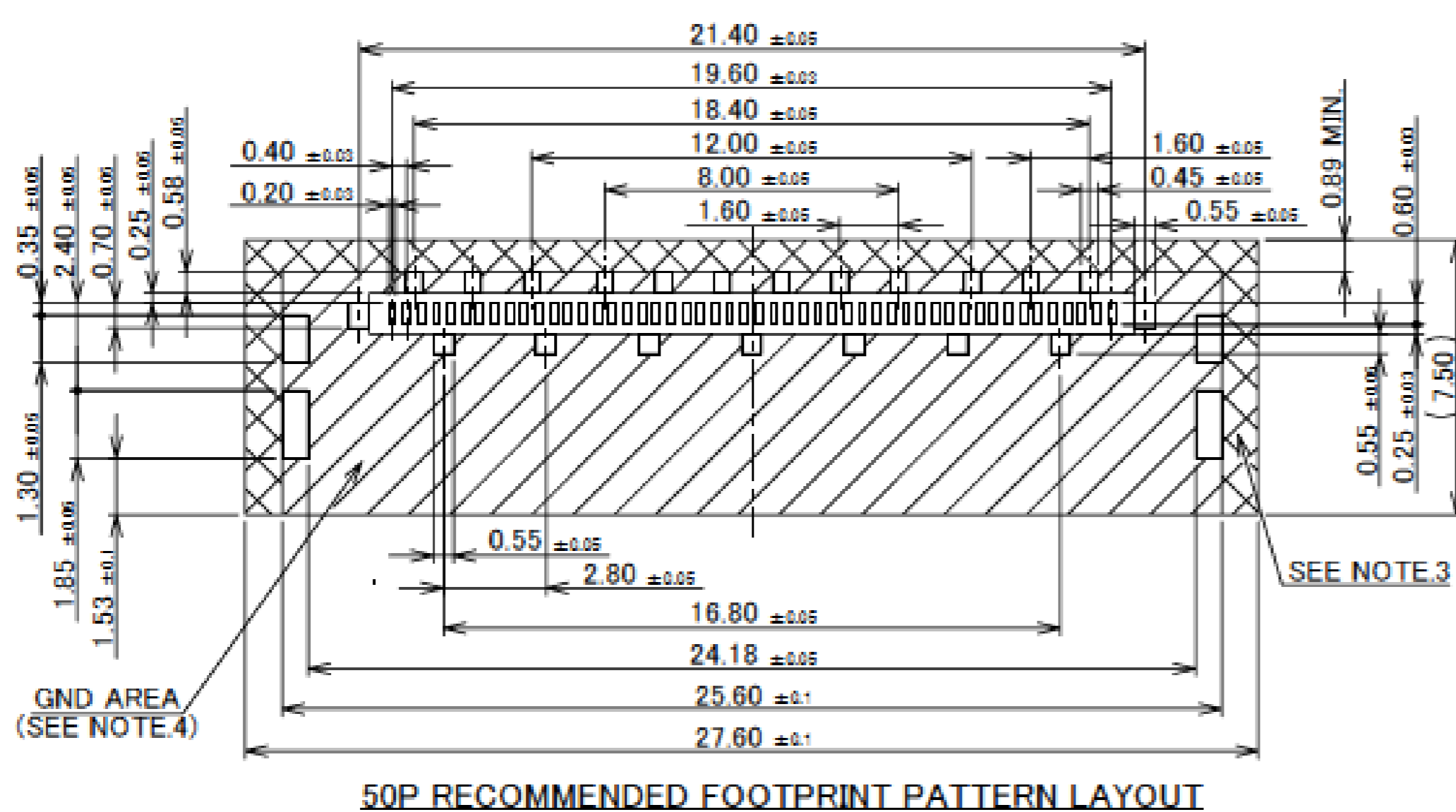
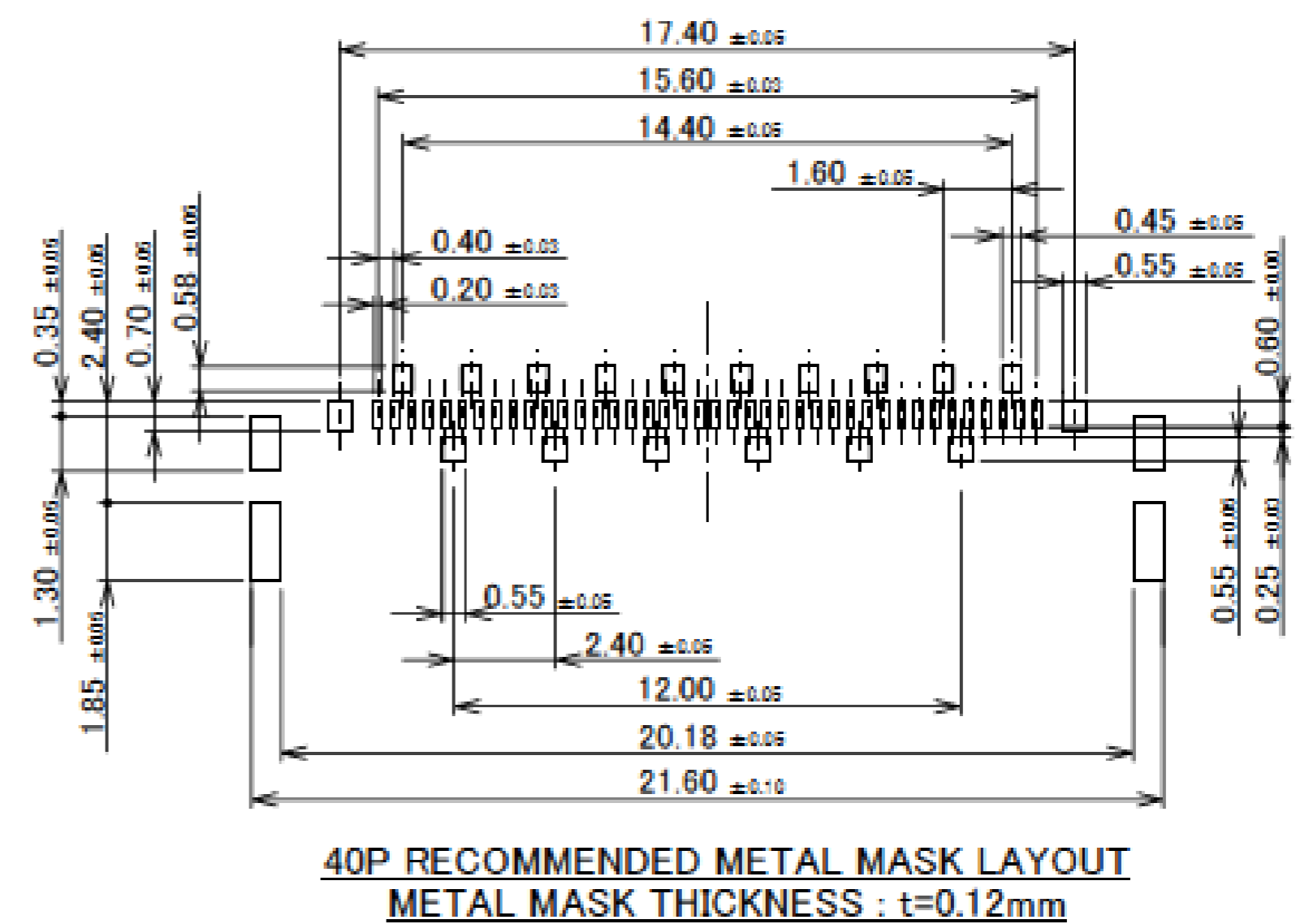
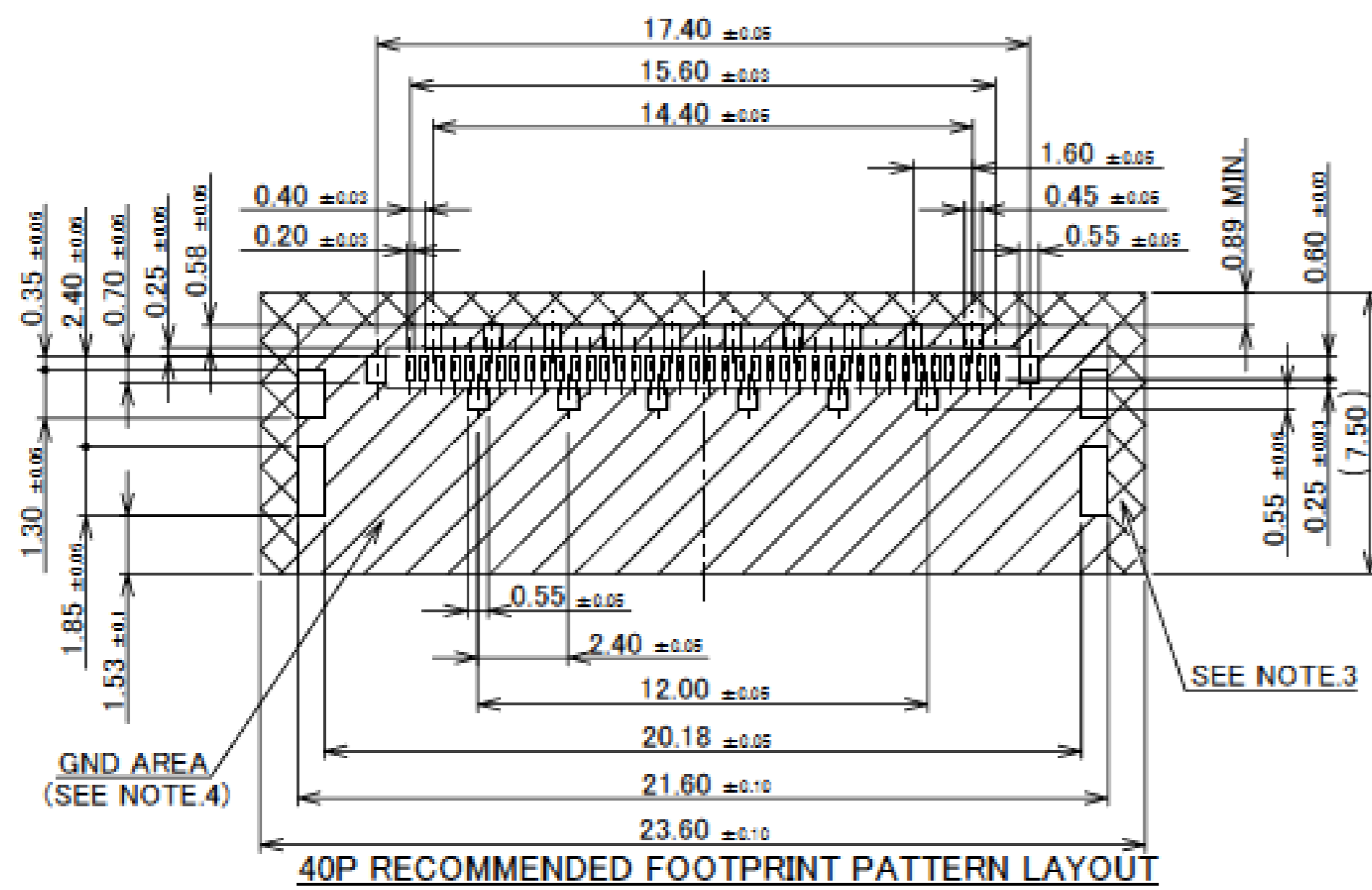
Rev.13

Receptacle Assembly



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

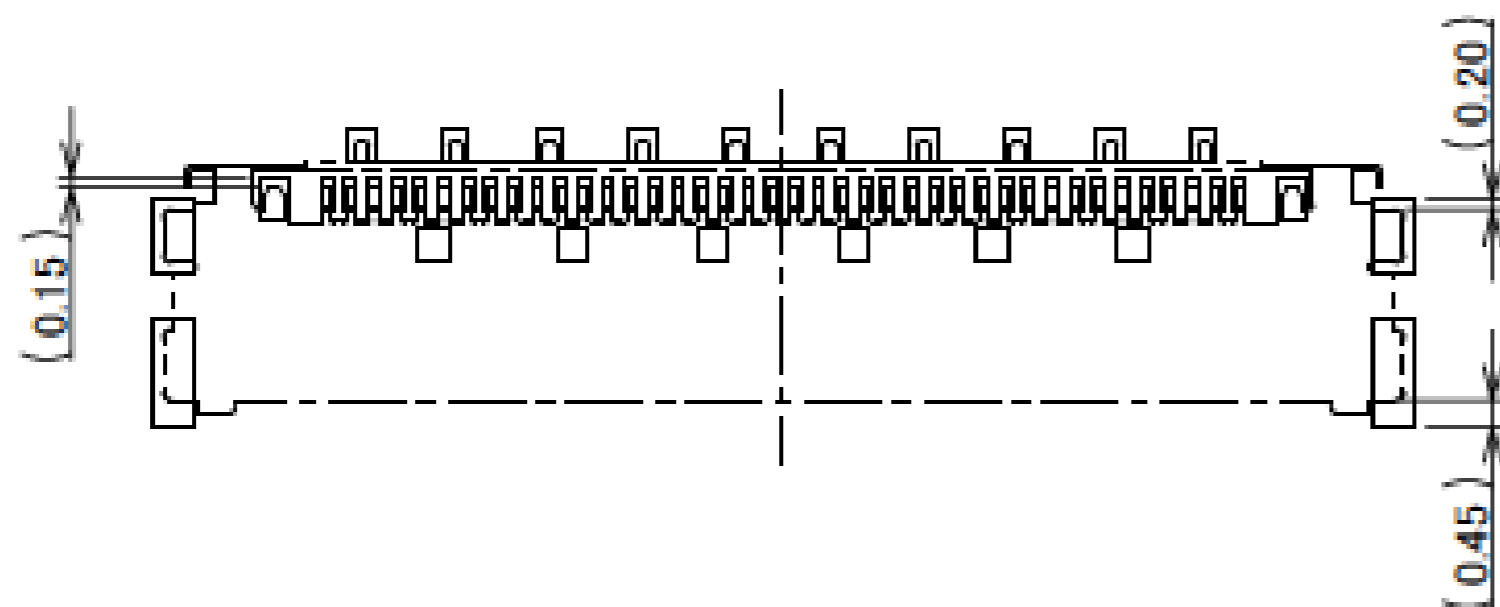
Rev.13



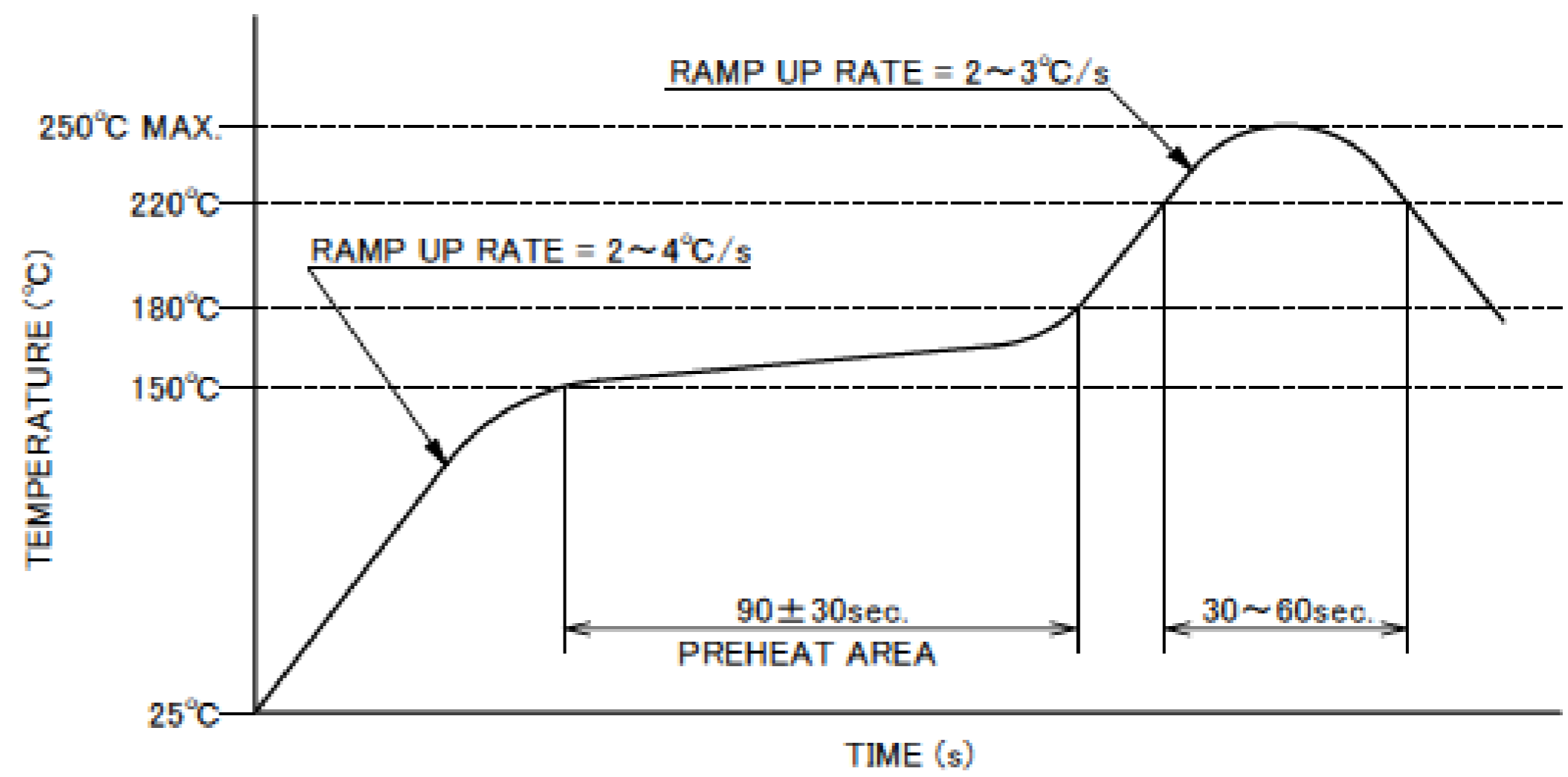
NOTES:
3. DO NOT MOUNT ANOTHER COMPONENT IN THIS AREA.
4. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.13

Receptacle Assembly



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN



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

Rev.13

| 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 TEMPERATURE 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 : \triangle40mohm 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 : \triangle40mohm 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

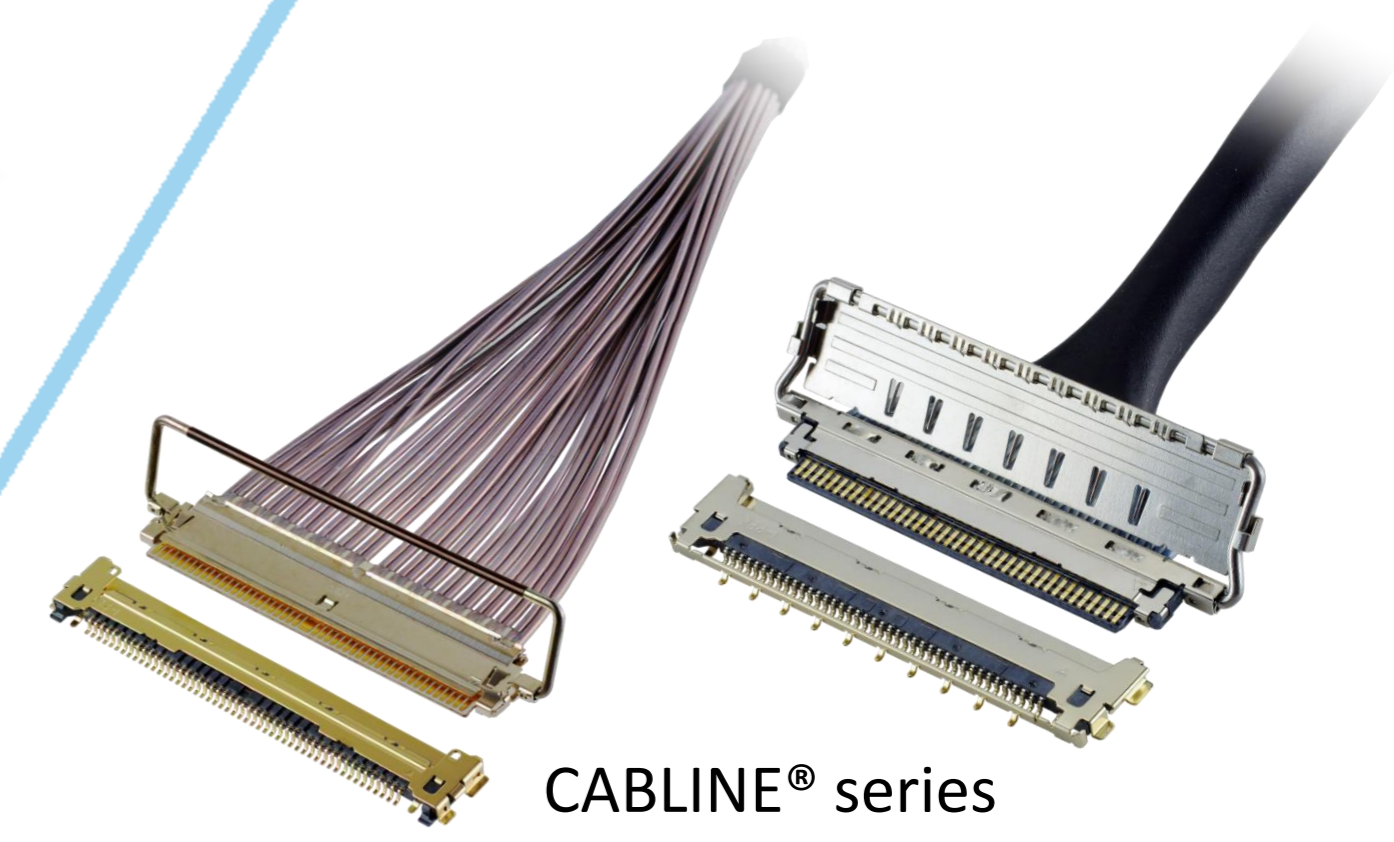
Custom Connectors Available

 RF Connector

MHF® series



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



Optical Module

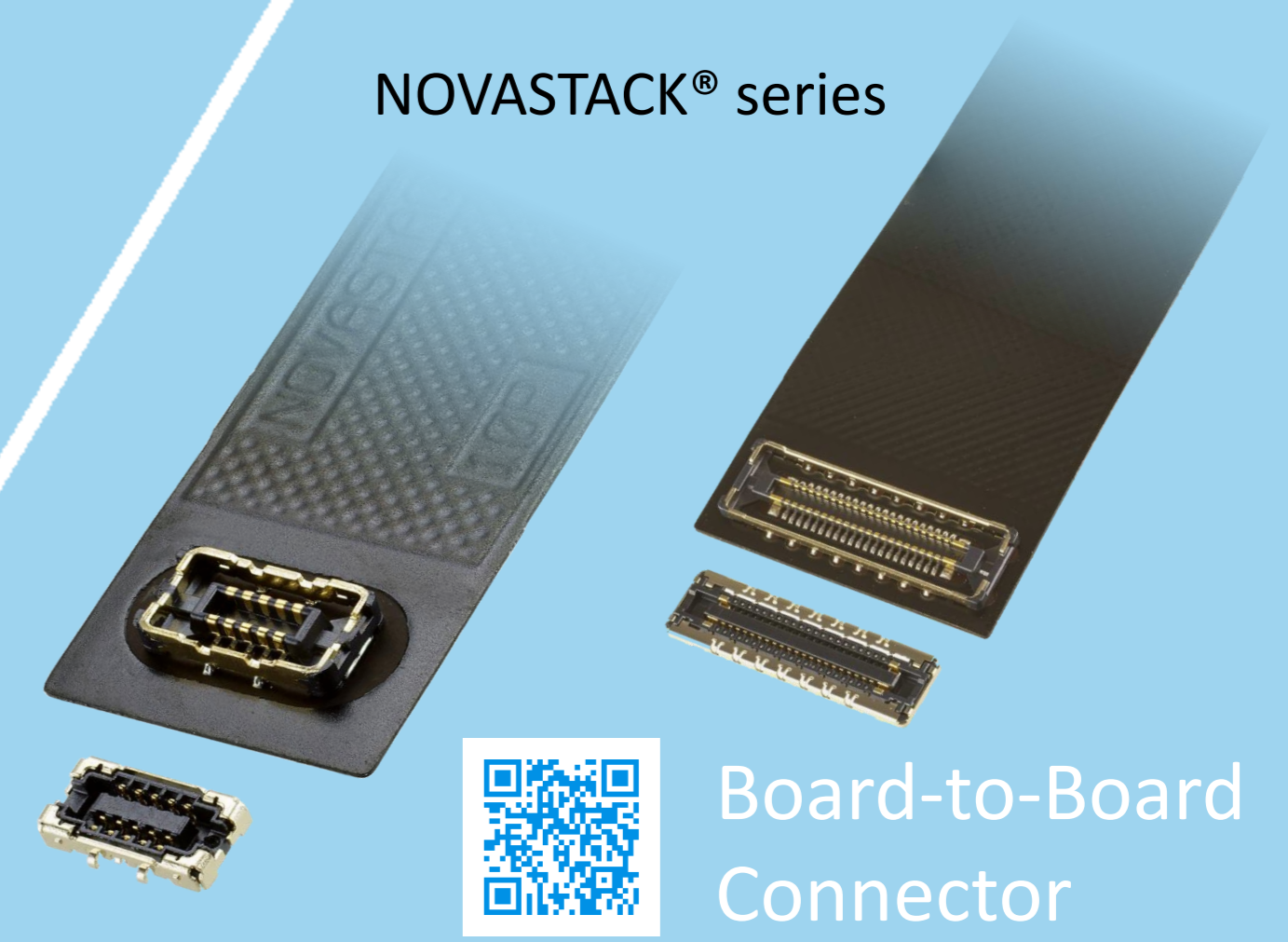
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



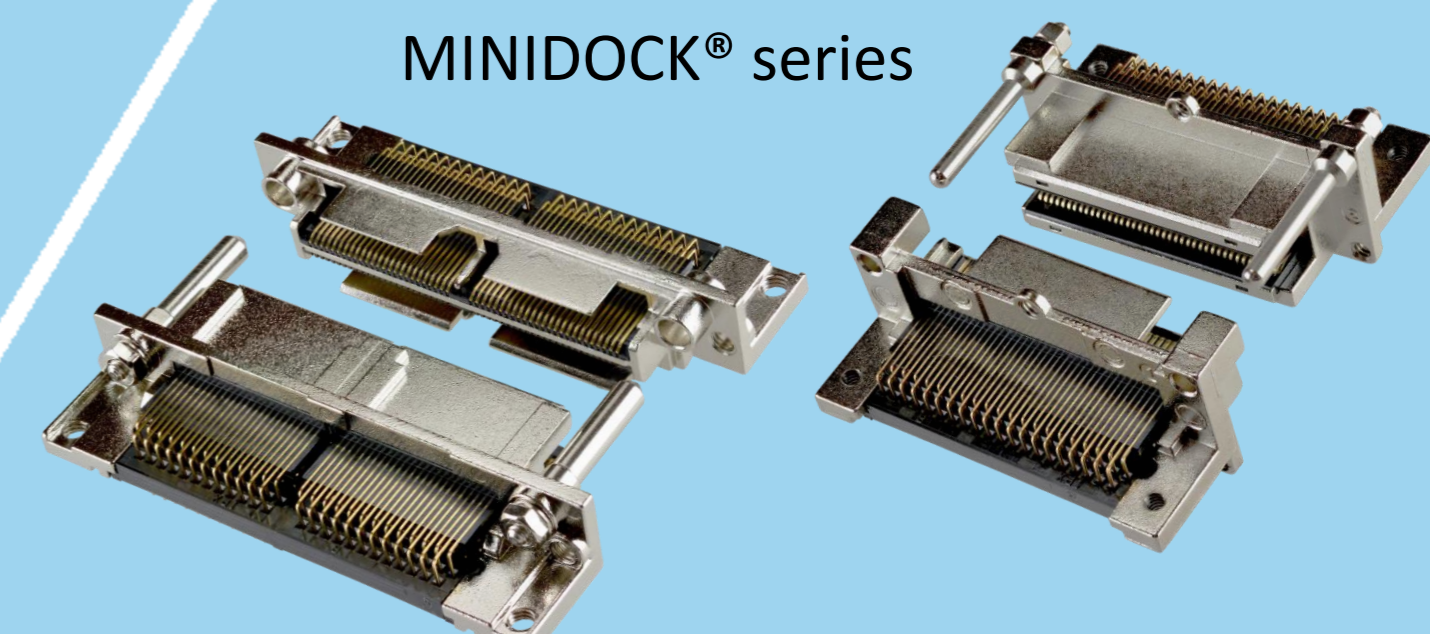
Inquiry



MINIDOCK® series



I/O Connector



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