

CABLINE®-VS IIF

Fully-shielded with multi-point ground and mechanical lock, 0.5 mm pitch, Horizontal mating type FPC plug connector

Product Specifications:

| | | |
|--------------------|------------|-----------------------------|
| Mating type | Horizontal | |
| Board Pitch (mm) | 0.5 | |
| Wiping Length (mm) | 0.48 | |
| Mated size (mm) | Height | 1.2 max. with cover |
| | Width | Formula: $6.85 + (0.5 * p)$ |
| | Depth | 7.24 |
| Pin Counts | Range | Up to 55 |
| | Available | 30, 40 |

Applicable FPC

| | |
|--------------------|--------------------------------------|
| FPC Type | Shielded FPC |
| FPC Pitch (mm) | 0.5 |
| FPC Contact Point | Top |
| FPC Thickness (mm) | Contact Area: $0.25 + 0.02 / - 0.03$ |
| | Ground Area: $0.37 + 0.04 / - 0.06$ |

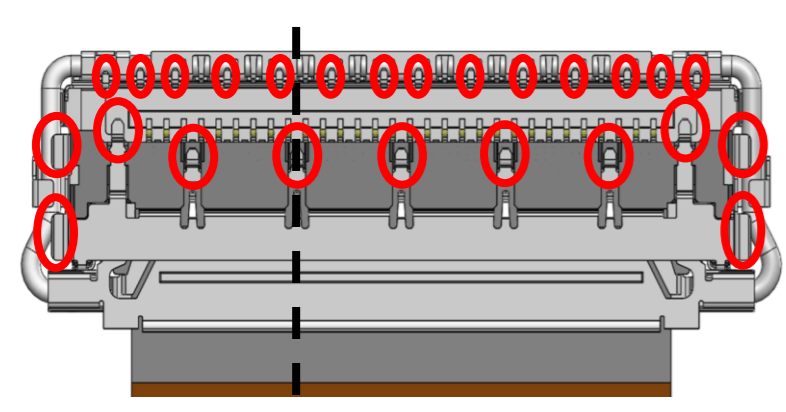
Applicable Standards (Reference Only):

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)

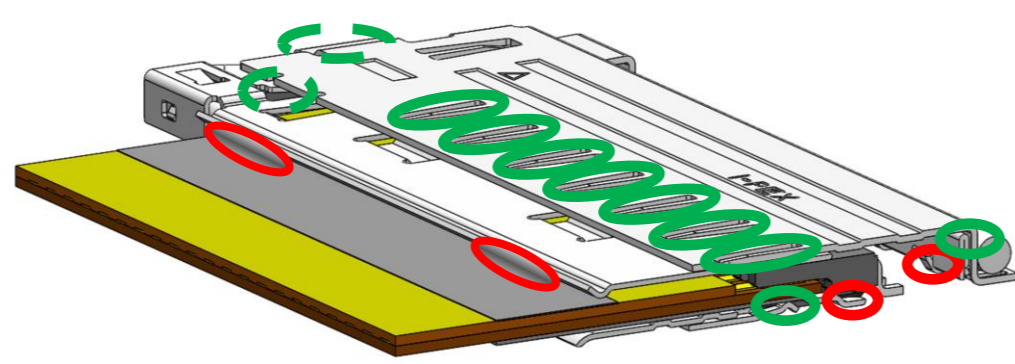
* Please inquire for pin counts not listed or outside of the pin count range.



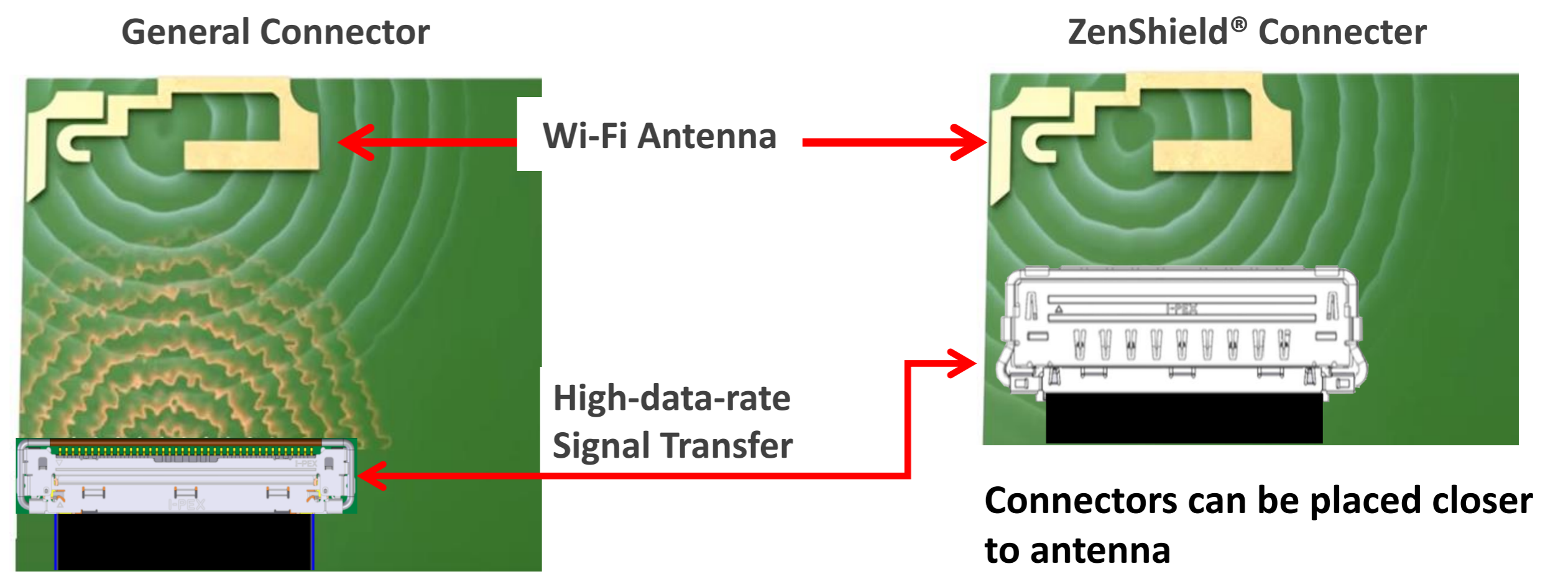
► **ZenShield® fully-shielded with multi-point grounds to prevent EMI leakage**



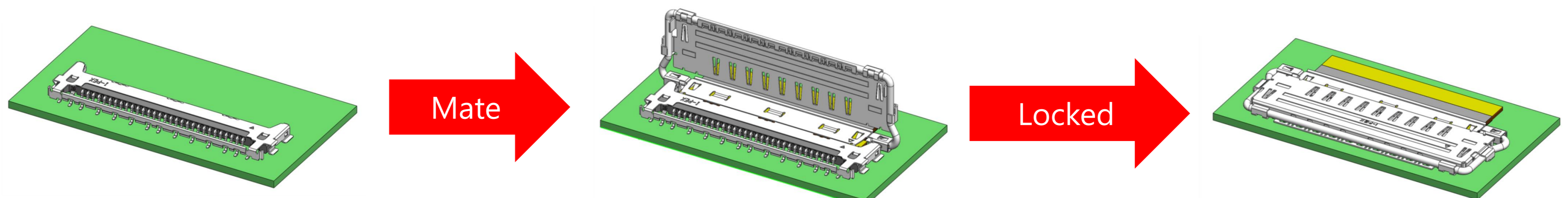
View From Back



- Soldered contacts
- Mechanical contacts

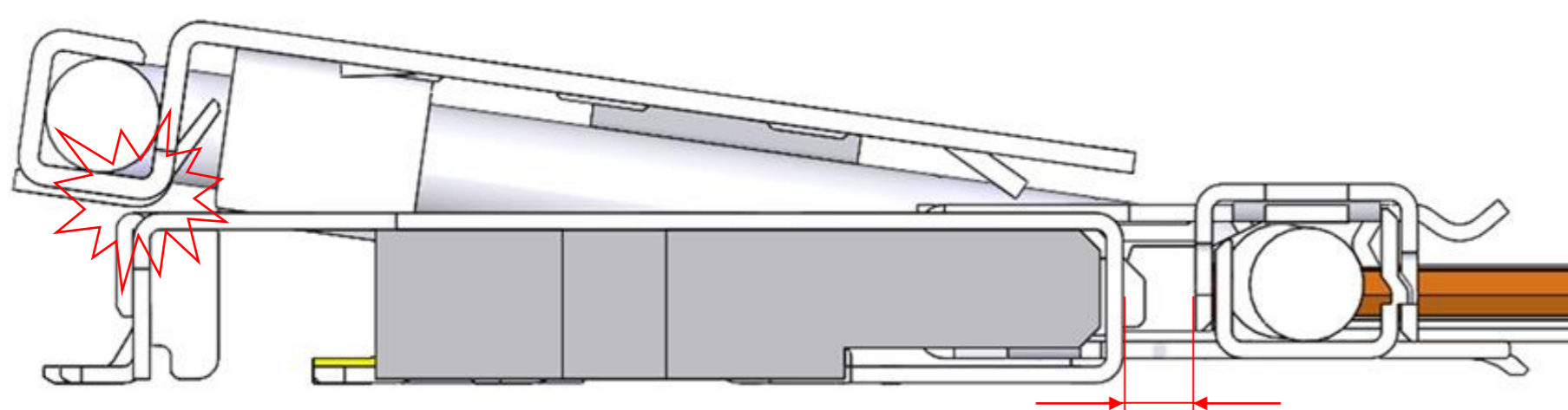


► **Mechanical locking cover prevents incomplete mating and back-out/un-mating**

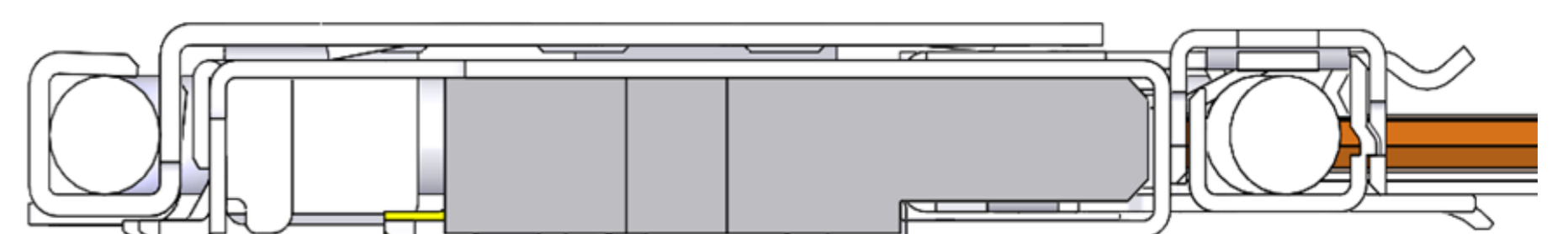


can only be locked when mating is complete

Unable to lock



incomplete mating



complete mating

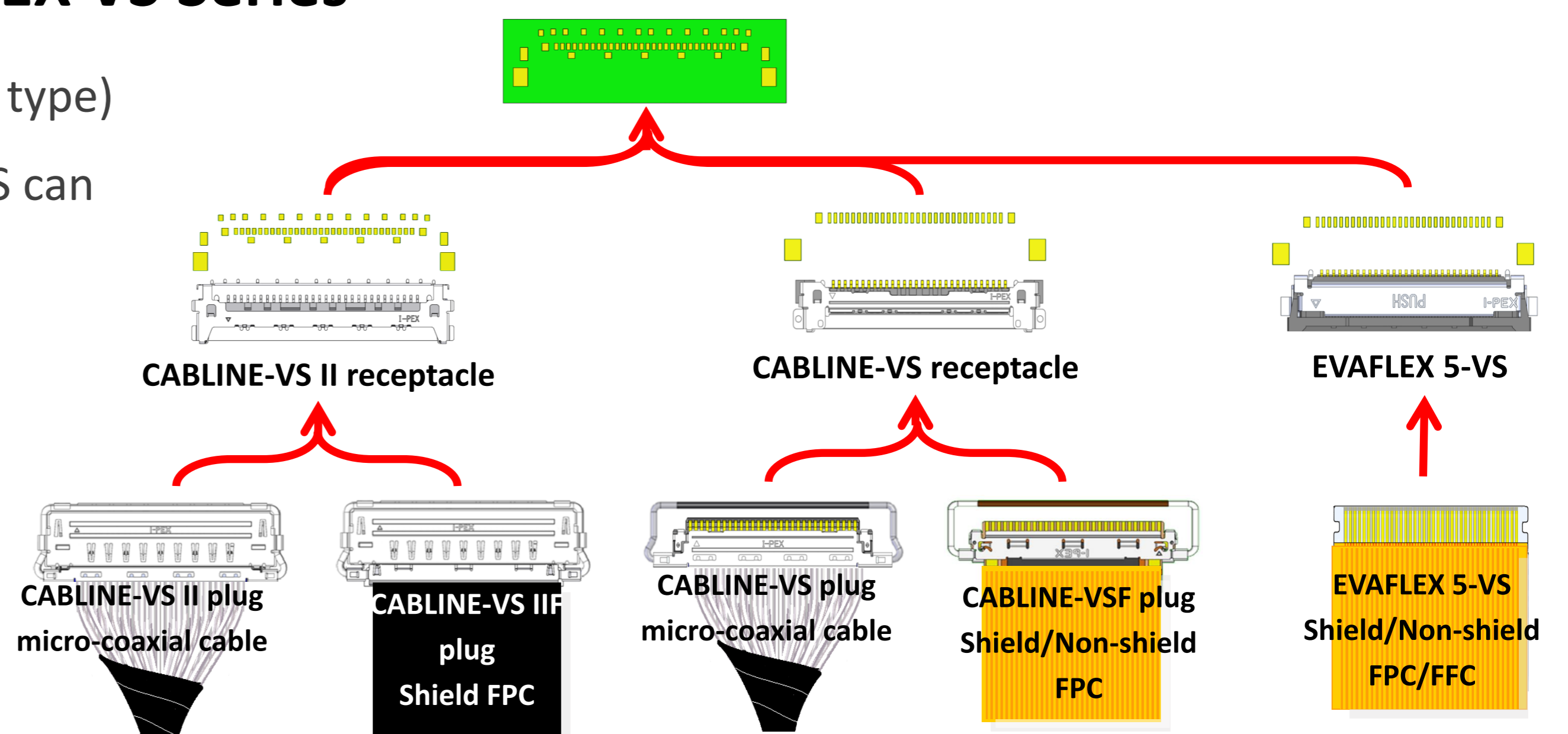
► **Multiple connector options with I-PEX VS Series**

I-PEX VS series (0.5 mm pitch, horizontal mating type)

CABLINE-VS, VS II receptacles and EVAFLEX® 5-VS can be mounted to the same PCB layout.

CABLINE-VS Receptacle:

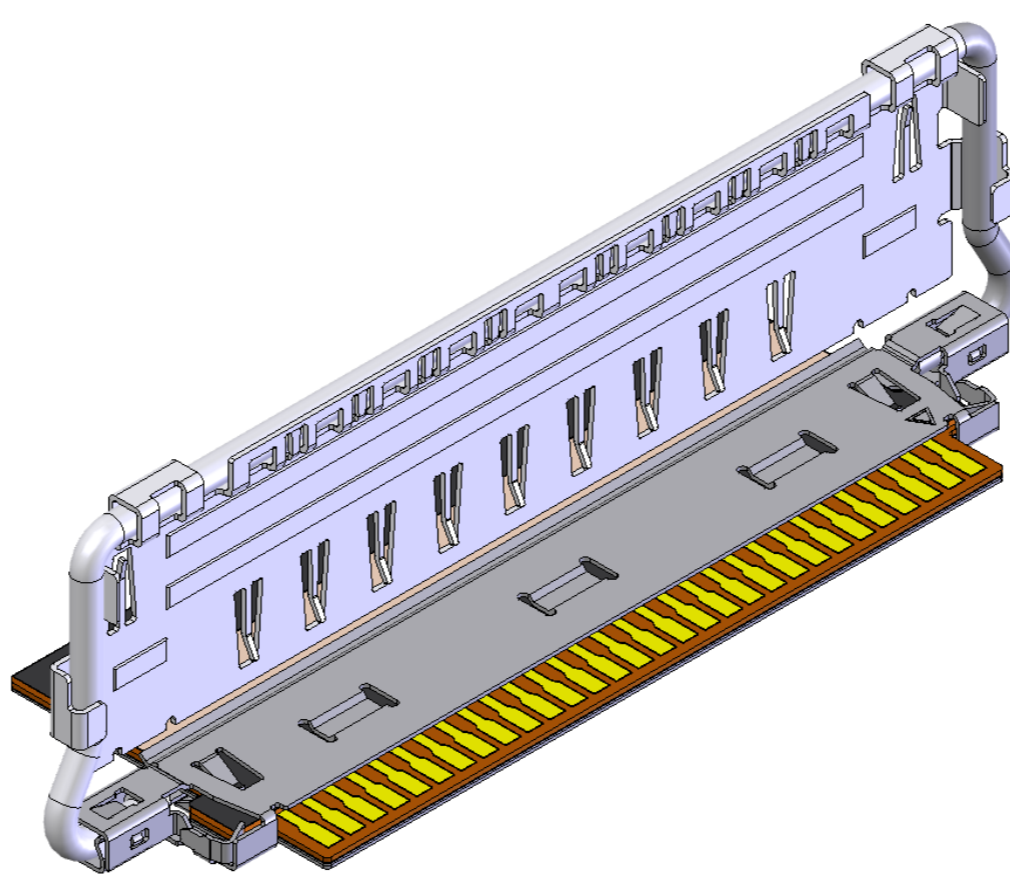
Has #1 share in the Notebook PC panel connector market as VESA standard connector.



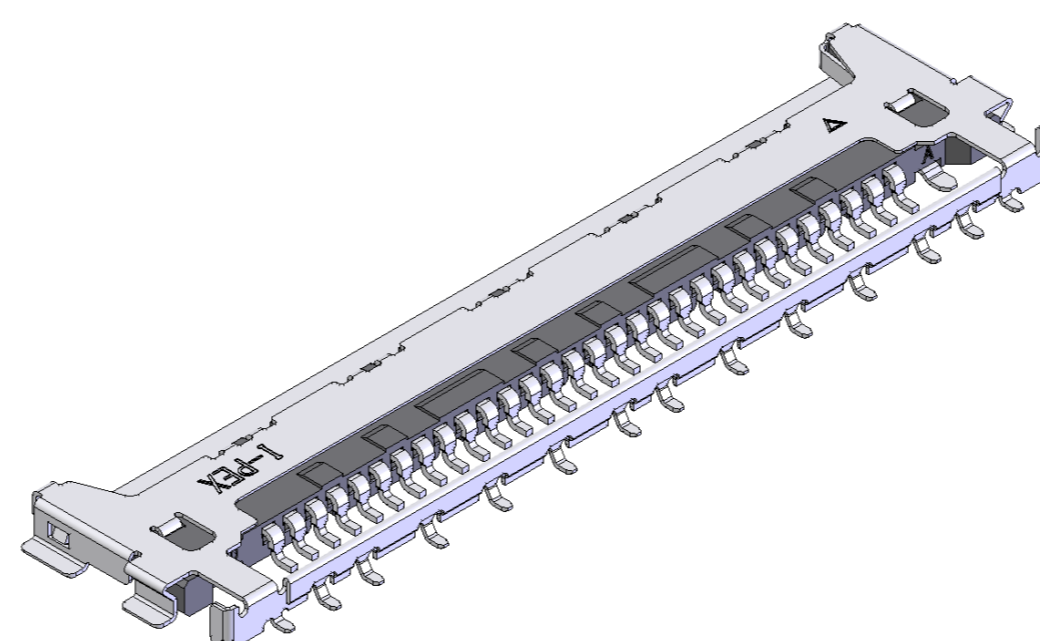
Component Parts Details

Component Parts

Connector parts



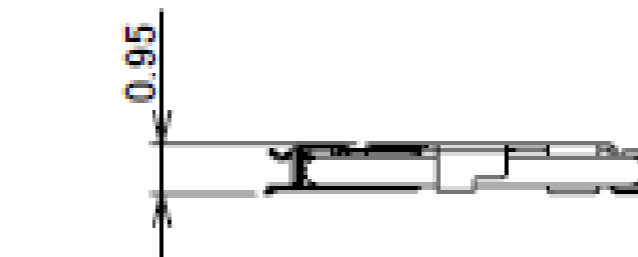
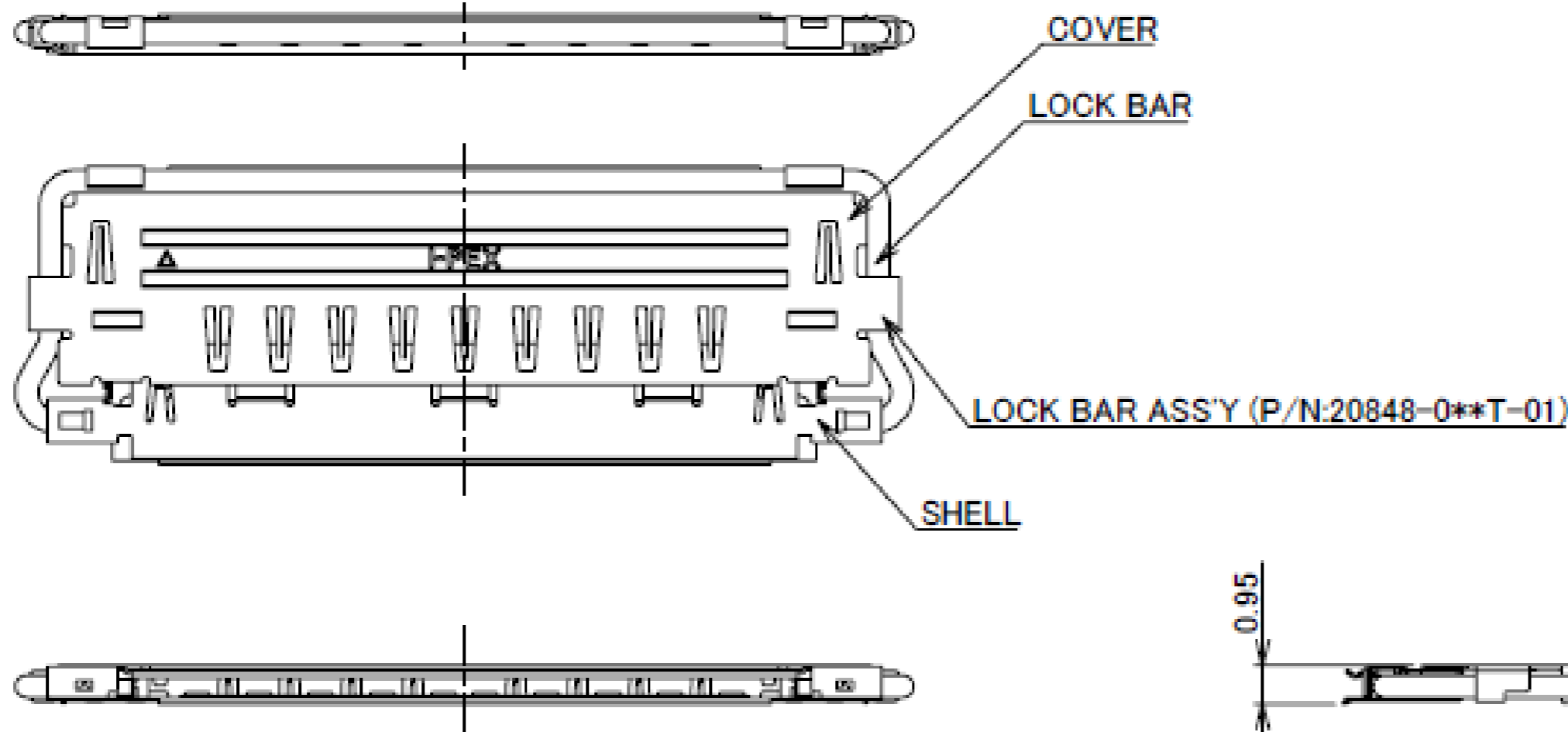
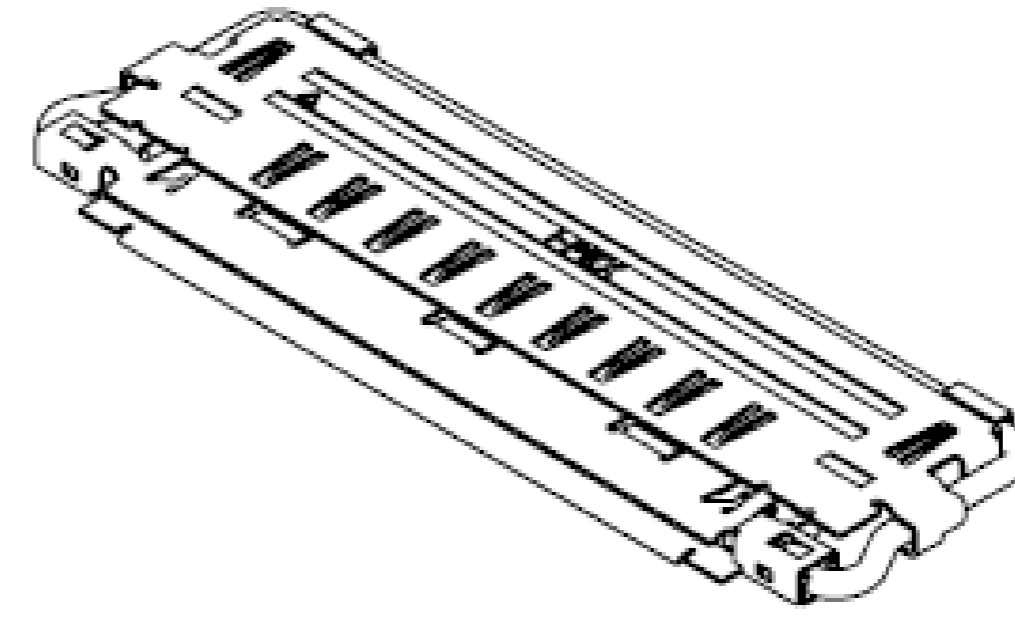
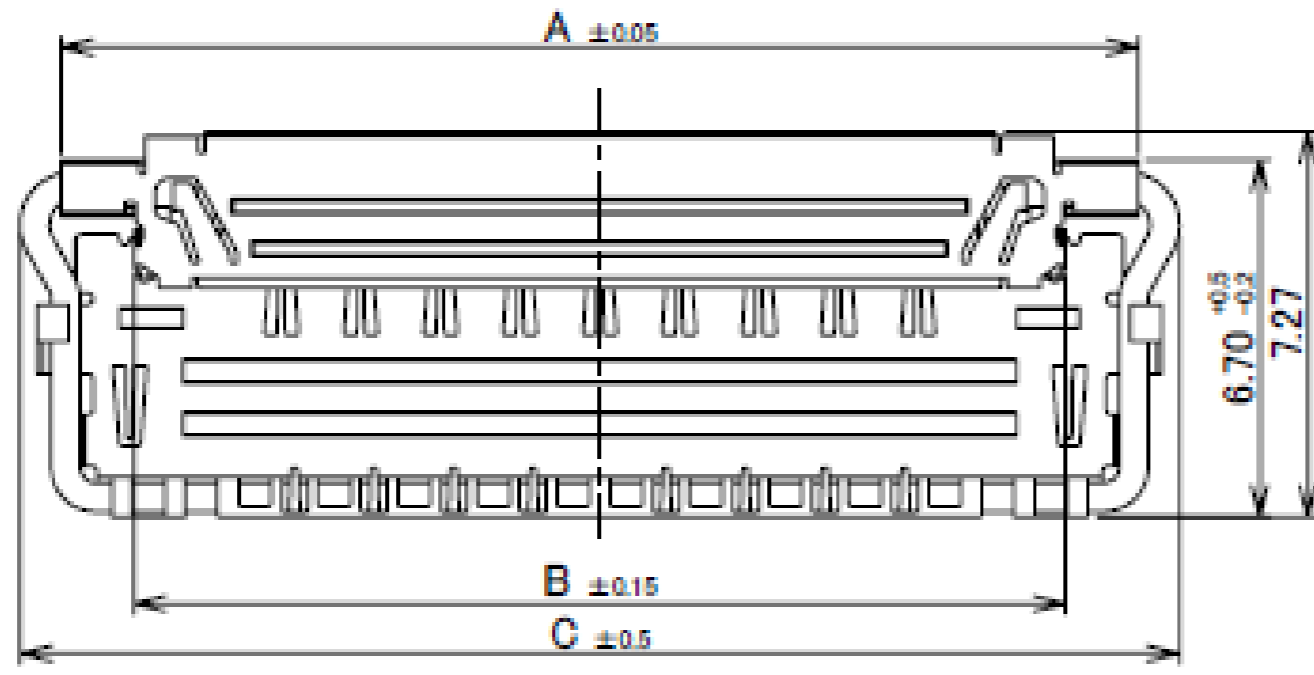
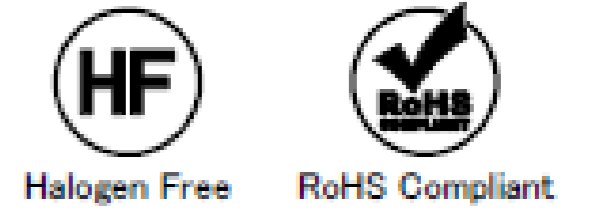
CABLINE-VS IIF PLUG with FPC



CABLINE-VS II RECEPTACLE

Shell Assembly

| Recommended P/N | | 20862-0**T-01 | | |
|-----------------|------|---------------|-------|-------|
| PART No. | Pos. | A | B | C |
| 20862-030T-01 | 30 | 20.30 | 17.56 | 21.85 |
| 20862-040T-01 | 40 | 25.30 | 22.56 | 26.85 |

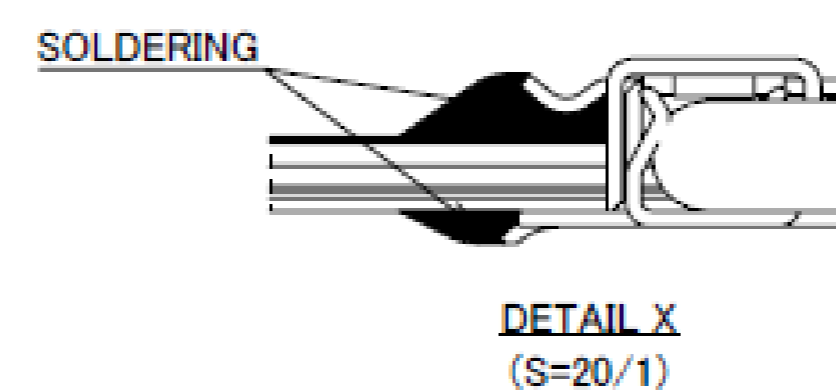
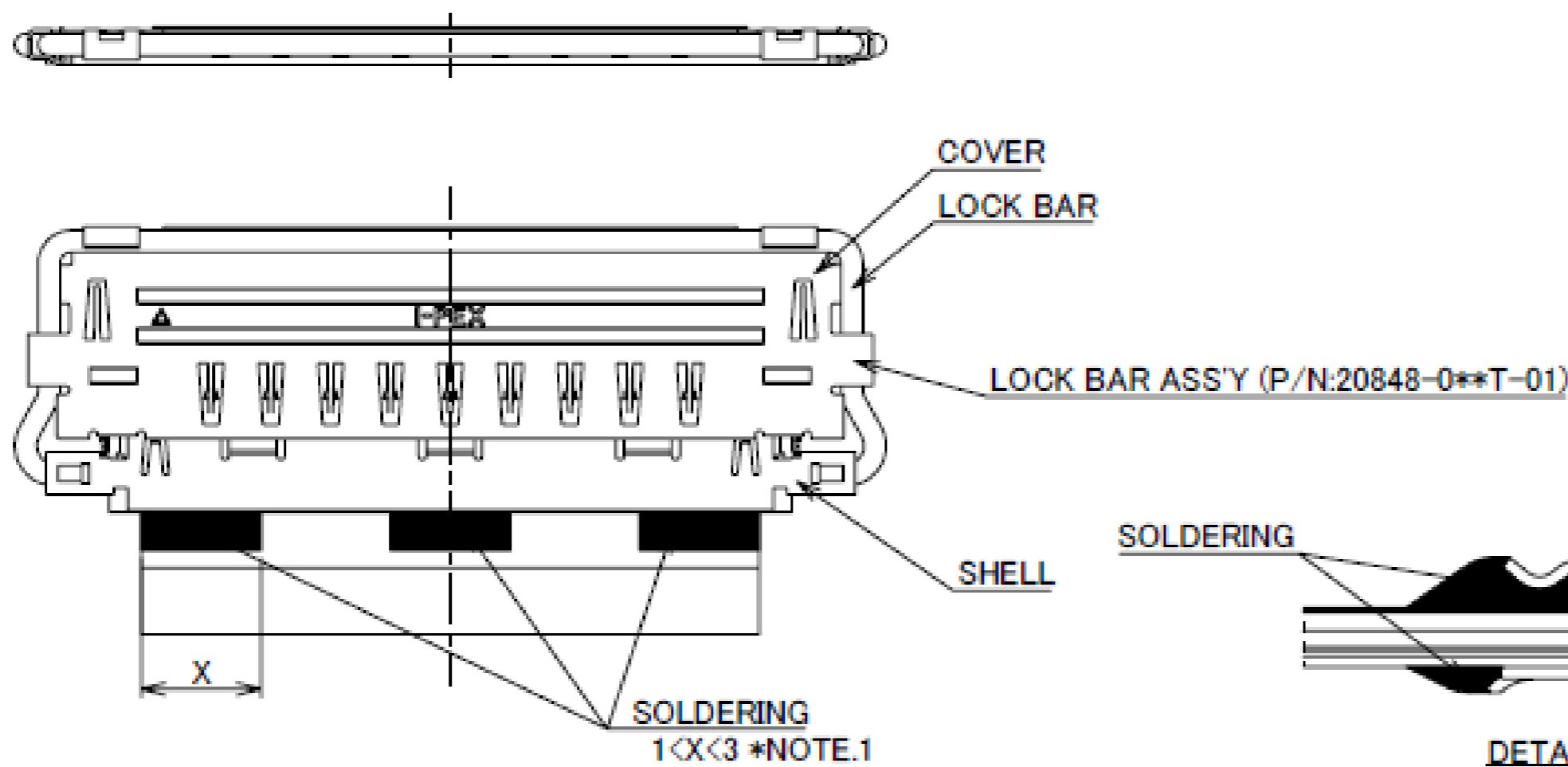
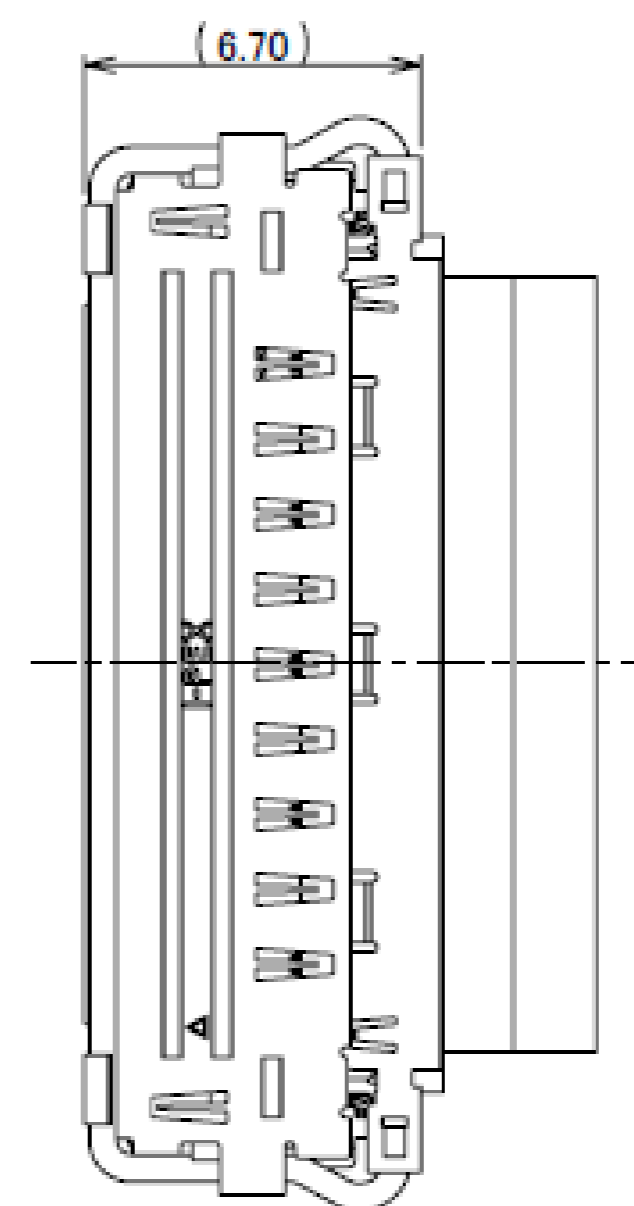
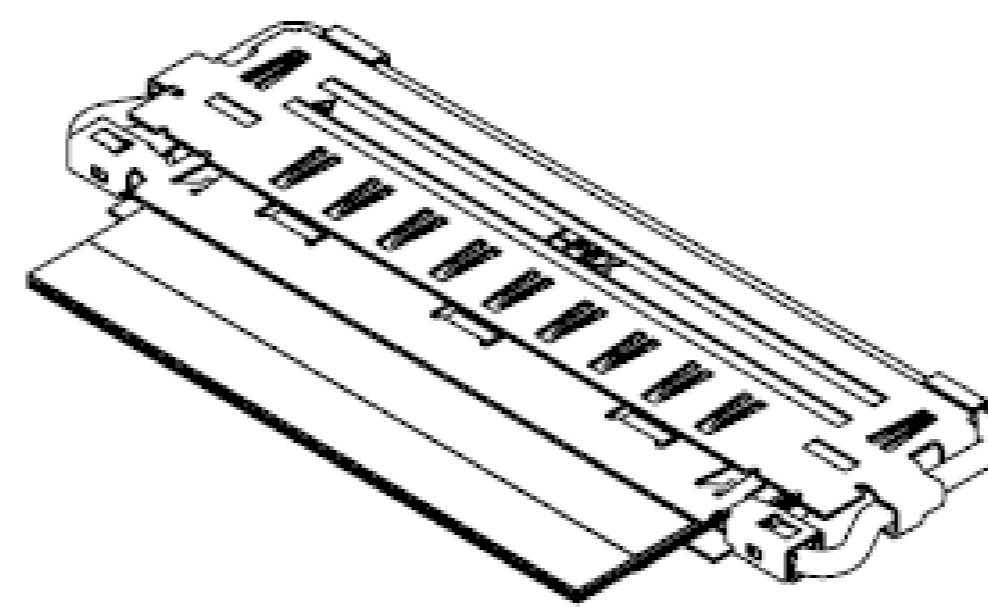
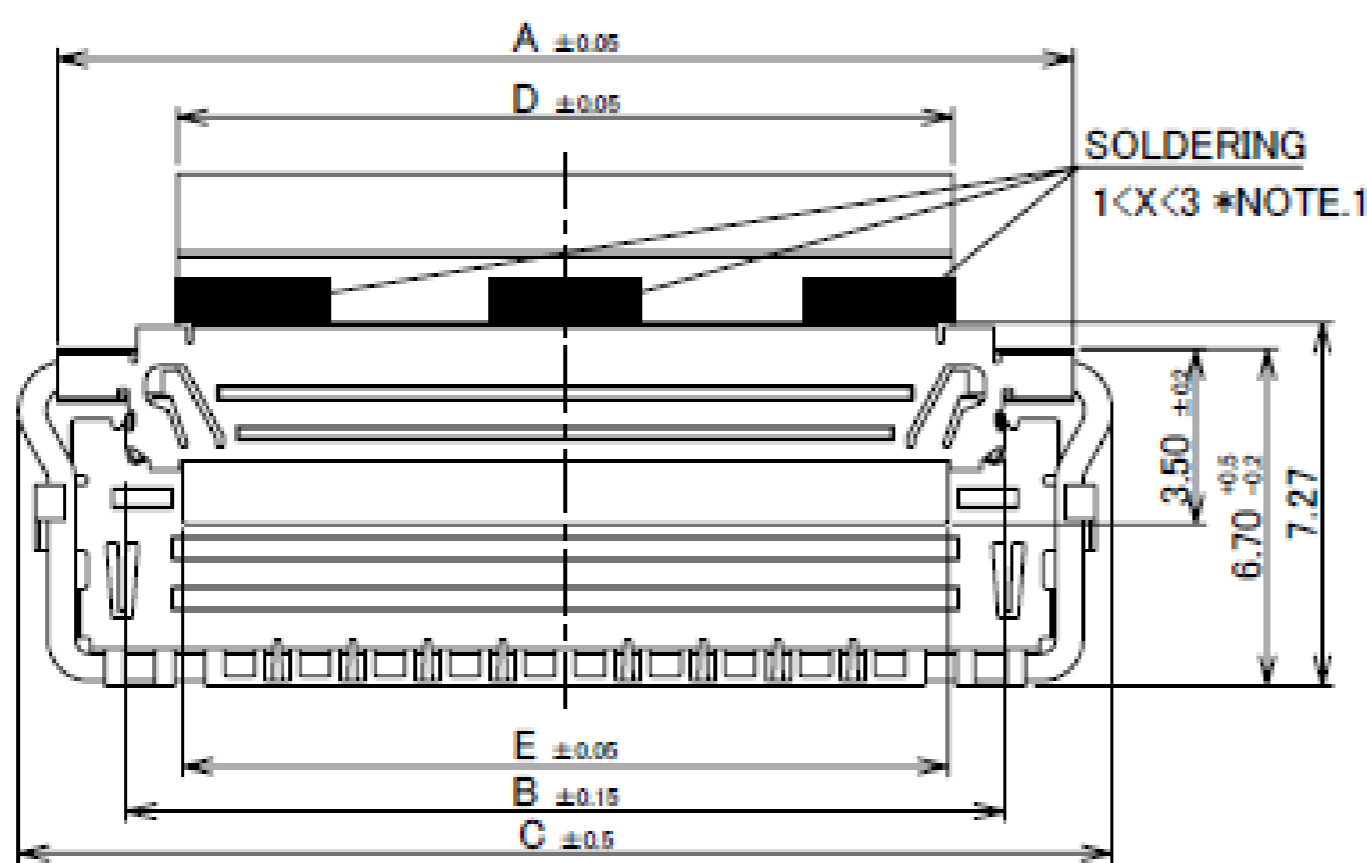


| NO. | DISCRIPTION | MATERIAL | FINISH , REMARKS |
|-----|-------------|-----------------|--|
| 3 | COVER | PHOSPHOR BRONZE | Ni 1.00 μm MIN. |
| 2 | LOCK BAR | STAINLESS STEEL | - |
| 1 | SHELL | PHOSPHOR BRONZE | PARTIAL Au 0.003 μm MIN. OVER Ni 1.00 μm MIN. |

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| Recommended P/N | | 20862-0**T-01 | | | | |
|-----------------|------|---------------|-------|-------|-------|-------|
| PART No. | Pos. | A | B | C | D | E |
| 20862-030T-01 | 30 | 20.30 | 17.56 | 21.85 | 15.50 | 15.30 |
| 20862-040T-01 | 40 | 25.30 | 22.56 | 26.85 | 20.50 | 20.30 |

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.

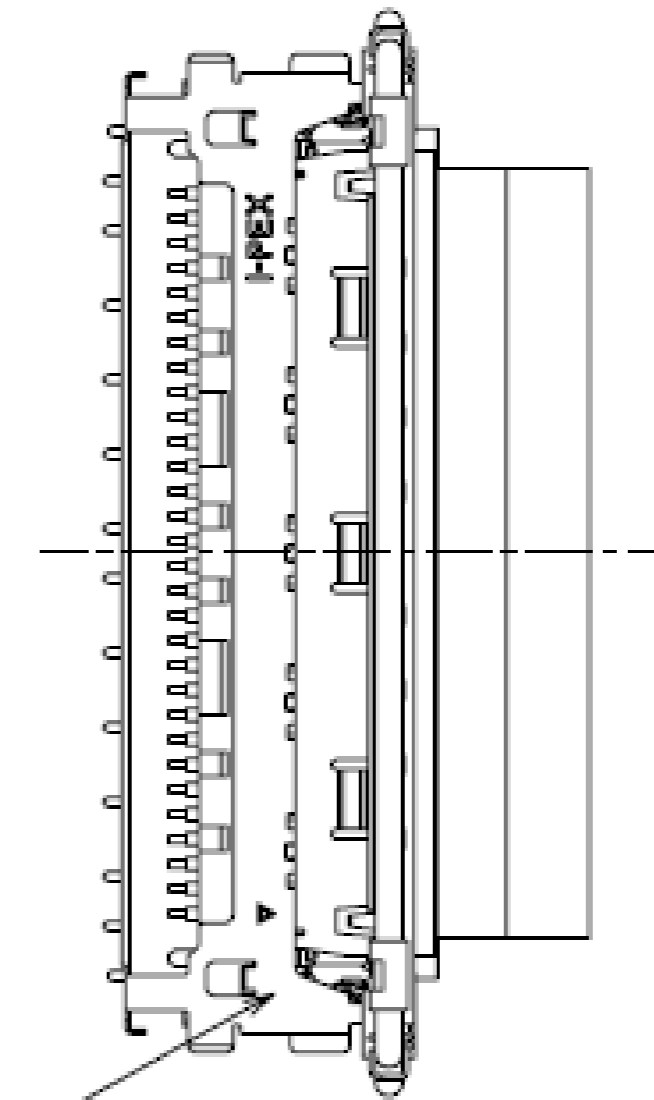
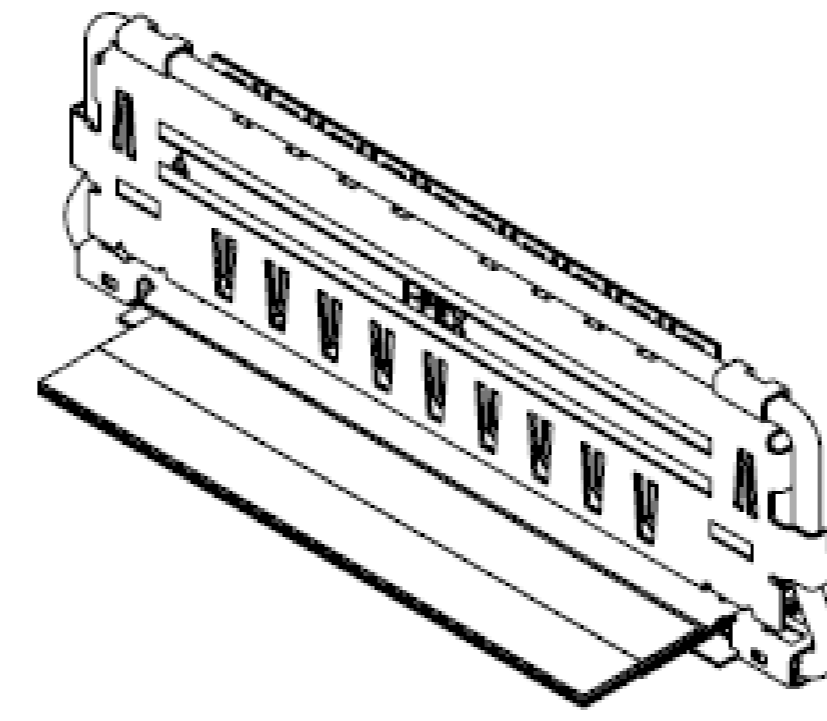
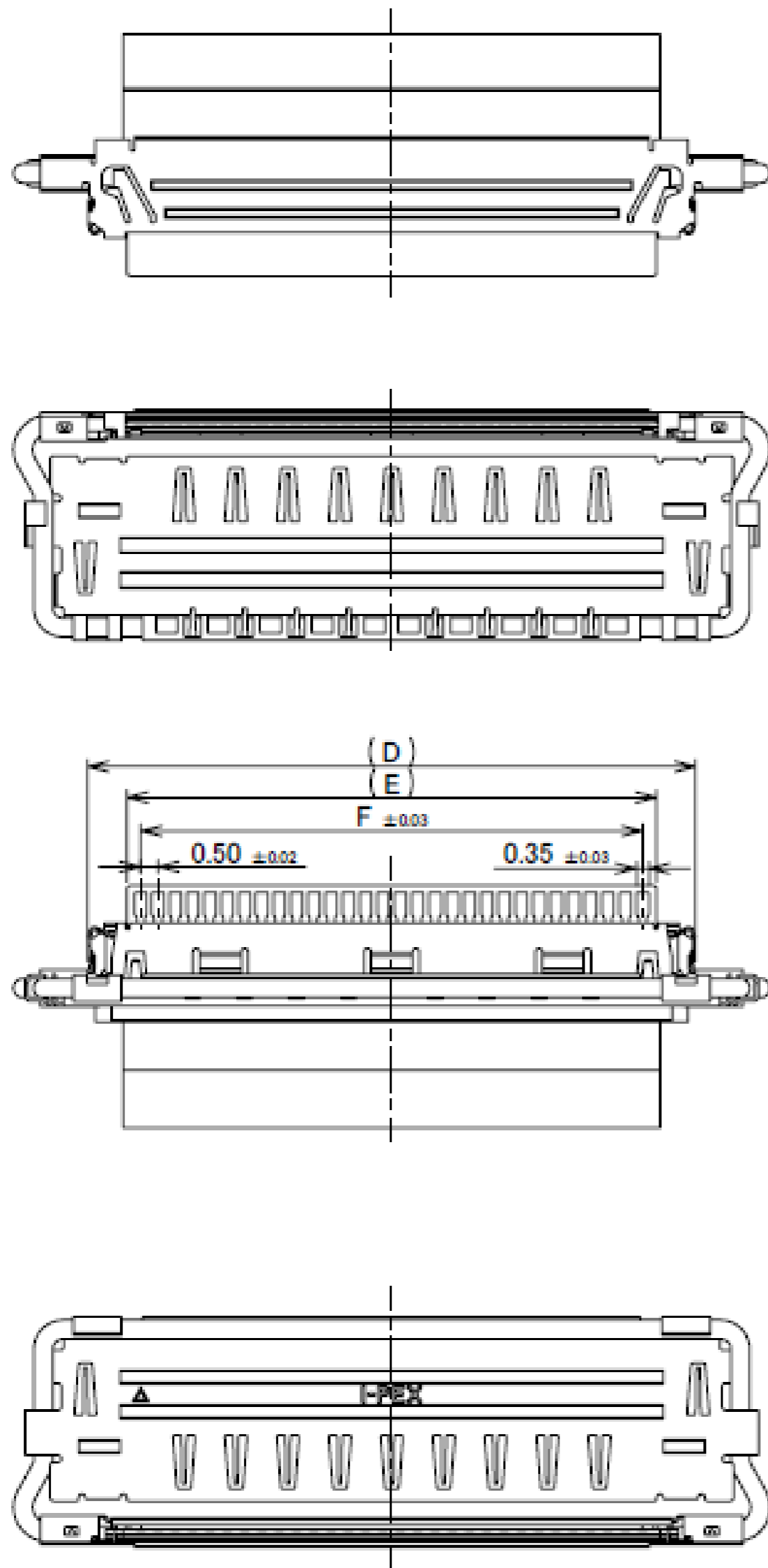
Rev.8

Shell Assembly

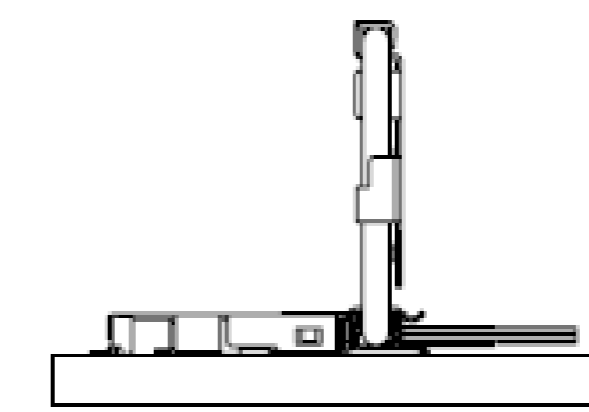
| Recommended P/N | | 20862-0**T-01 | | |
|-----------------|------|---------------|-------|-------|
| PART No. | Pos. | D | E | F |
| 20862-030T-01 | 30 | 17.56 | 15.30 | 14.50 |
| 20862-040T-01 | 40 | 22.56 | 20.30 | 19.50 |

FPC ASS'Y STATE COVER OPEN

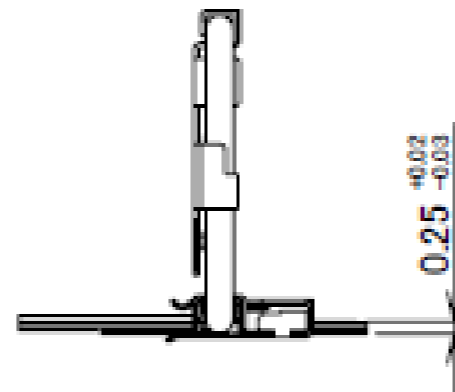
HF Halogen Free RoHS Compliant



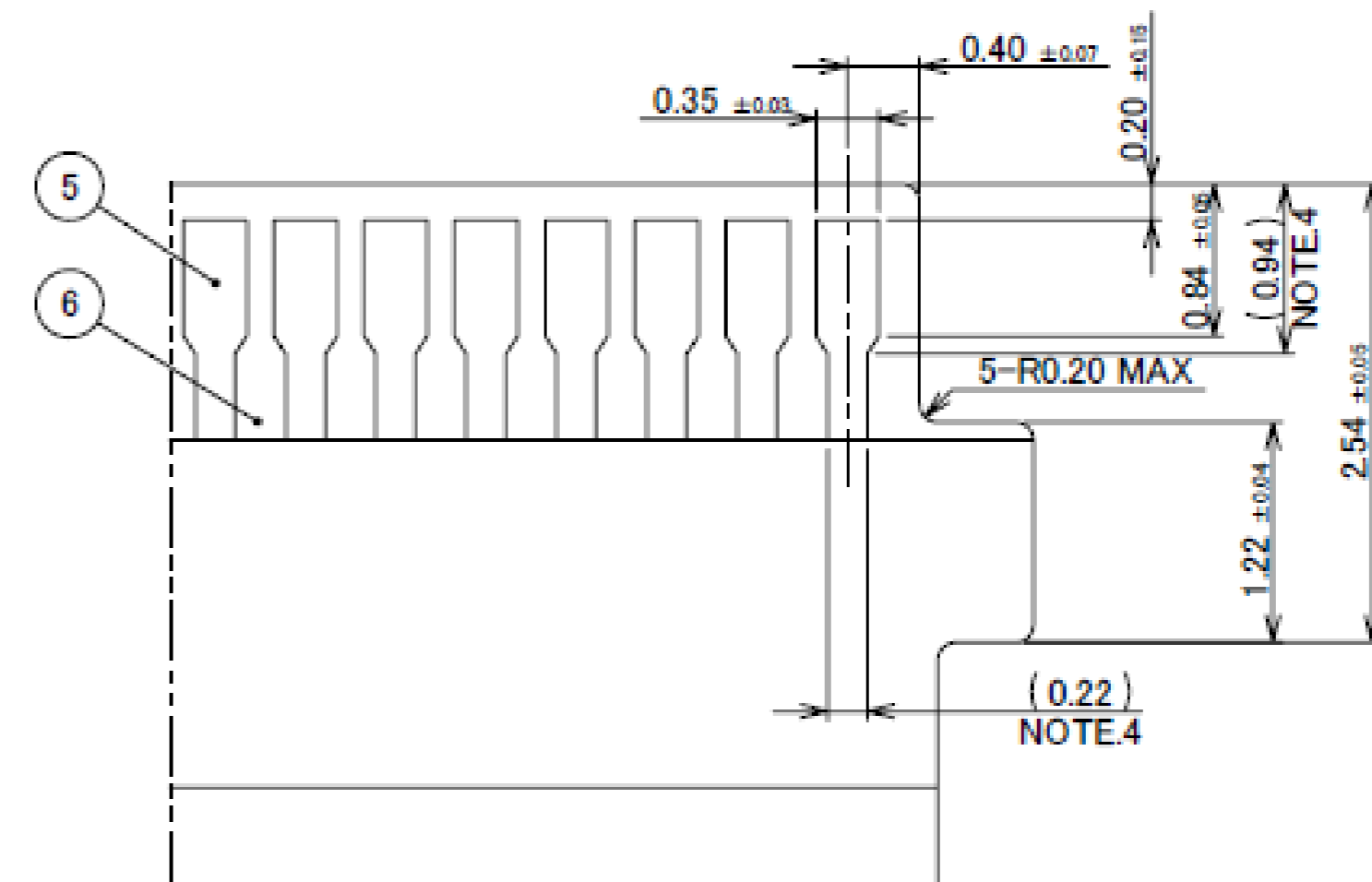
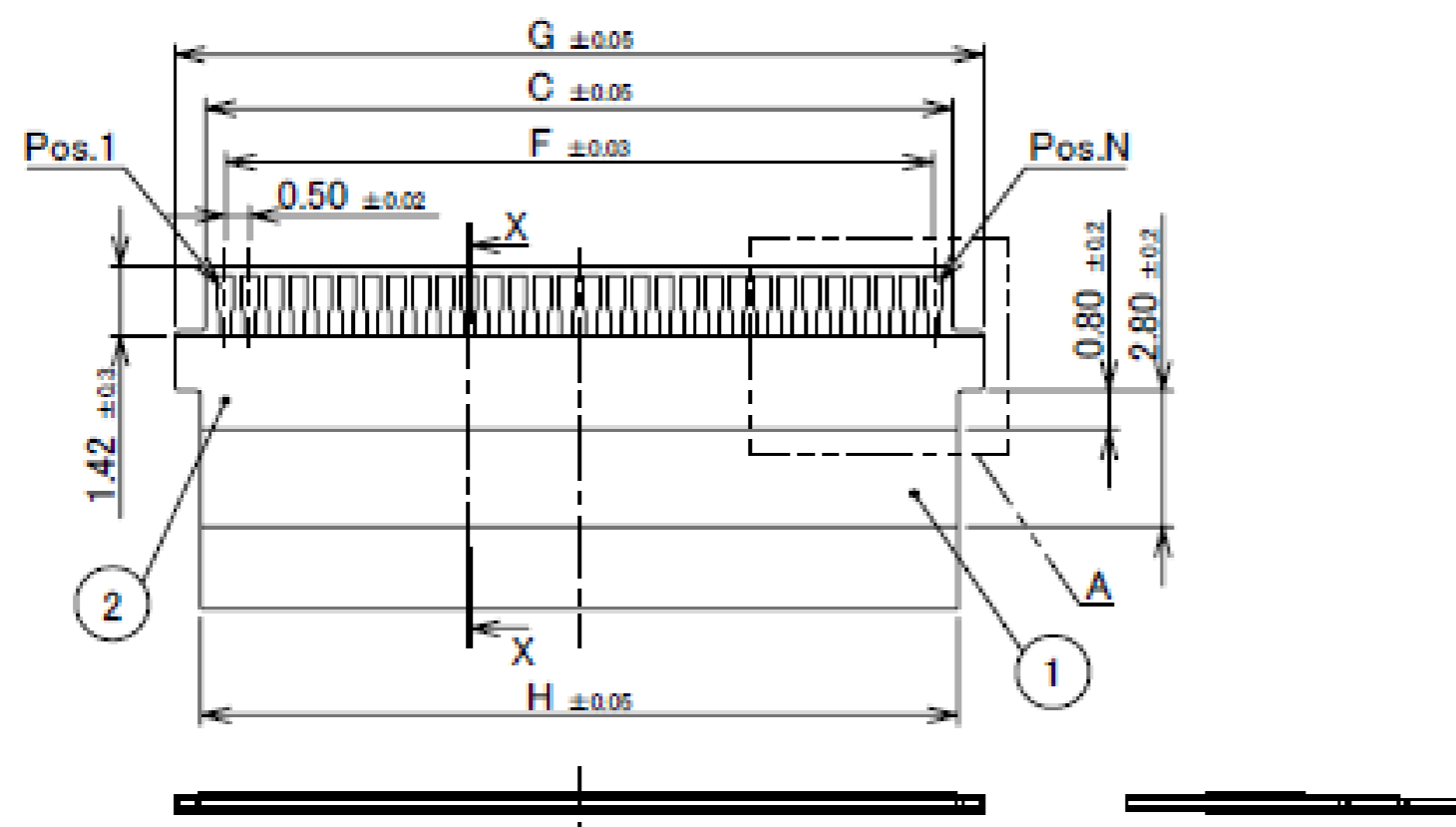
RECE ASS'Y (P/N:20849-0**E-01)



MATING CONDITION



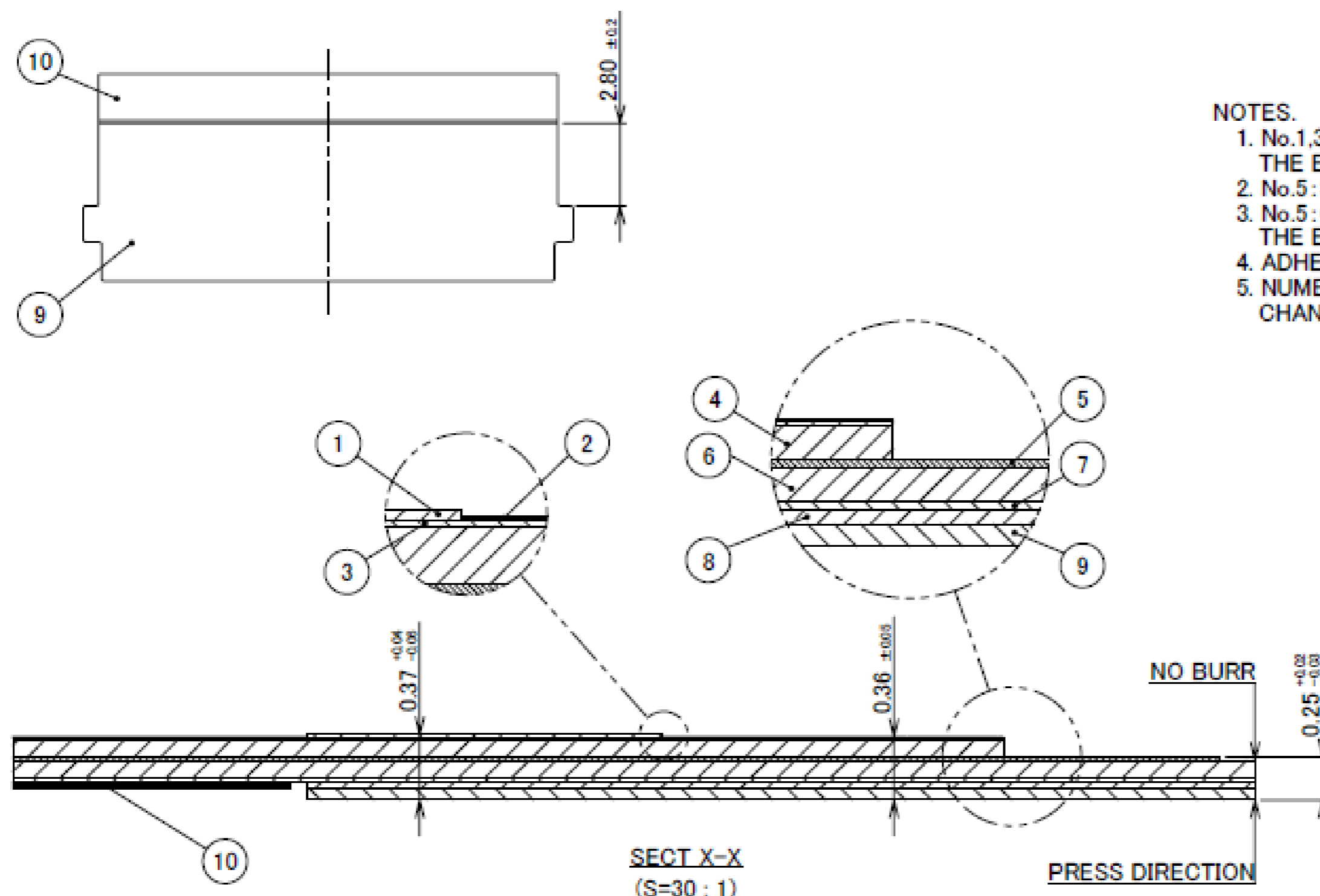
| PART No. | Pos. | C | F | G | H |
|---------------|------|-------|-------|-------|-------|
| 20862-030T-01 | 30 | 15.30 | 14.50 | 16.56 | 15.50 |
| 20862-040T-01 | 40 | 20.30 | 19.50 | 21.56 | 20.50 |



DETAIL A (S=20/1)

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.



SECT X-X (S=30:1)

PRESS DIRECTION

| 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 | - | - |

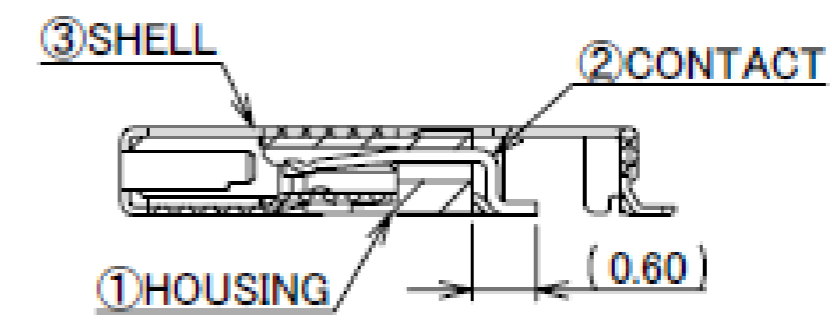
Rev.8

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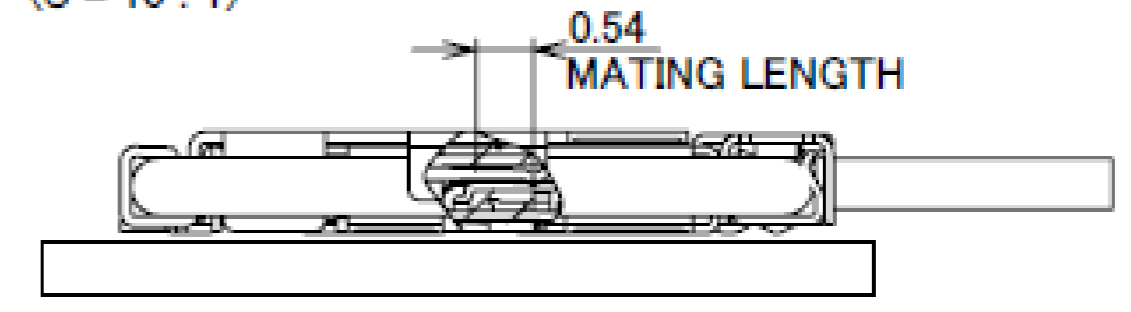
Receptacle Assembly

| Recommended P/N | | 20849-0**E-01 | | | | |
|-----------------|------|---------------|-------|-------|-------|-------|
| PART NO. | Pos. | A | B | C | D | E |
| 20849-020E-0# | 20 | 11.30 | 9.50 | 14.33 | 15.10 | 11.91 |
| 20849-030E-0# | 30 | 16.30 | 14.50 | 19.33 | 20.10 | 16.91 |
| 20849-040E-0# | 40 | 21.30 | 19.50 | 24.33 | 25.10 | 21.91 |

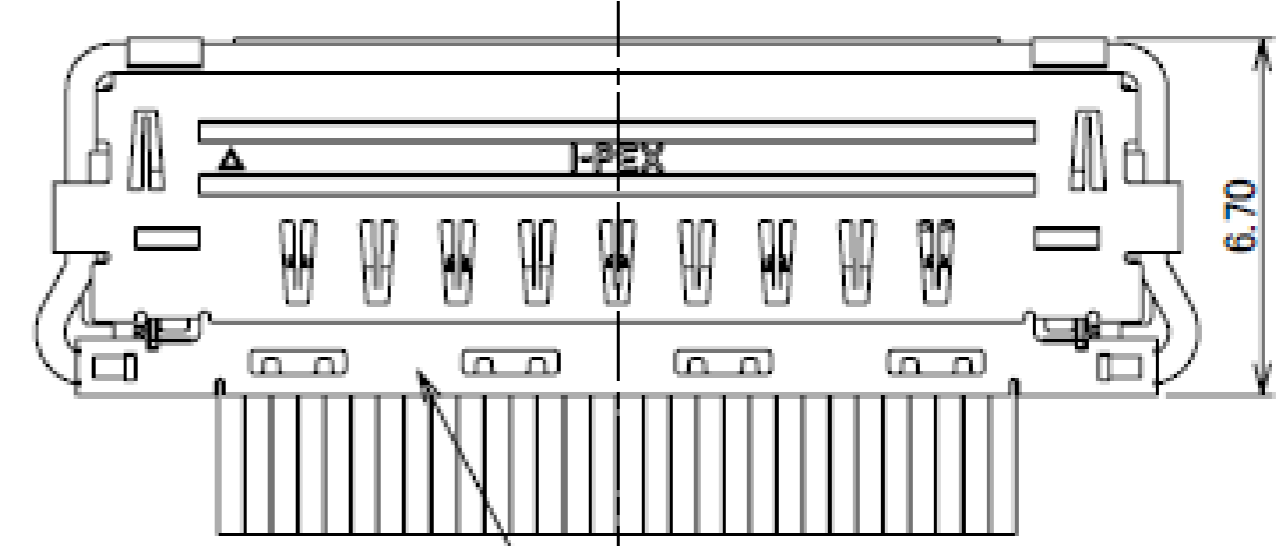
P/N : 20849-0**E-0#
SEE TABLE 1
POS.



SECT. W-W
(S = 10 : 1)



MATING CONDITION
(S = 10 : 1)



MATING CONDITION

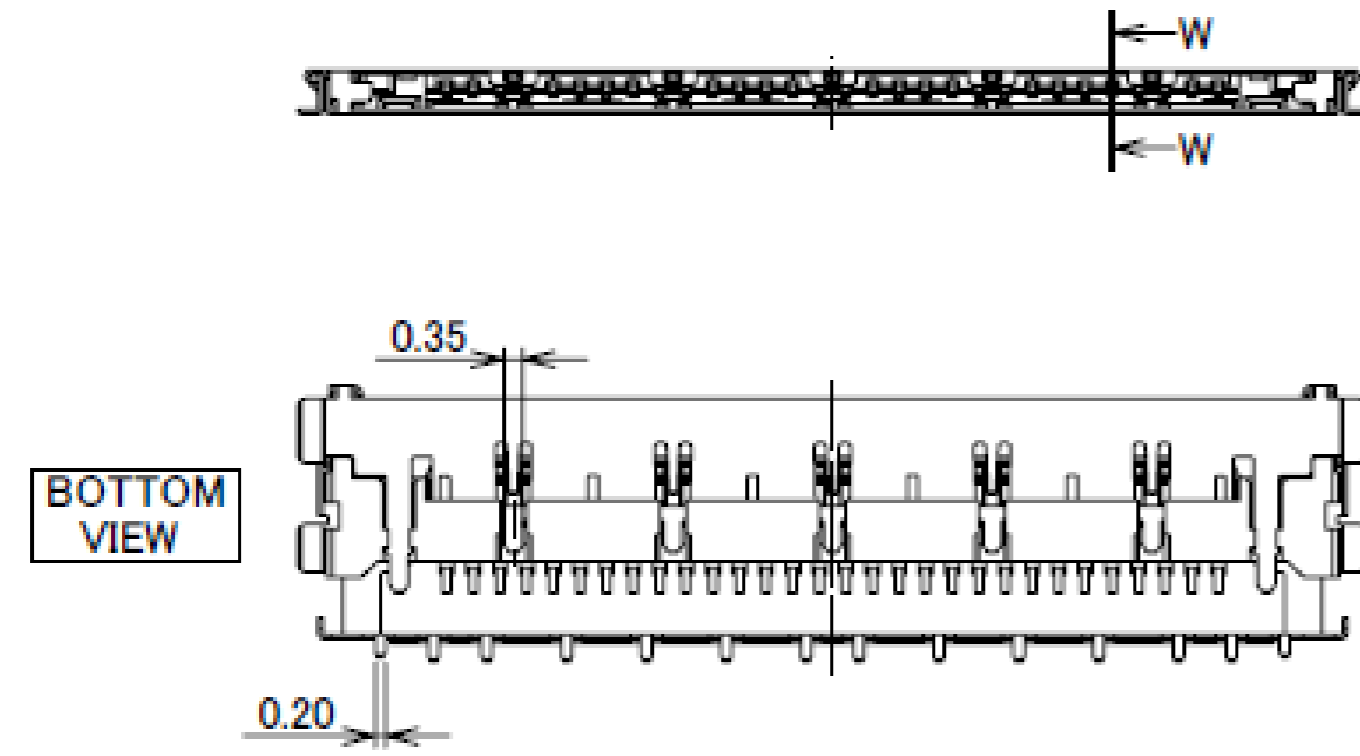
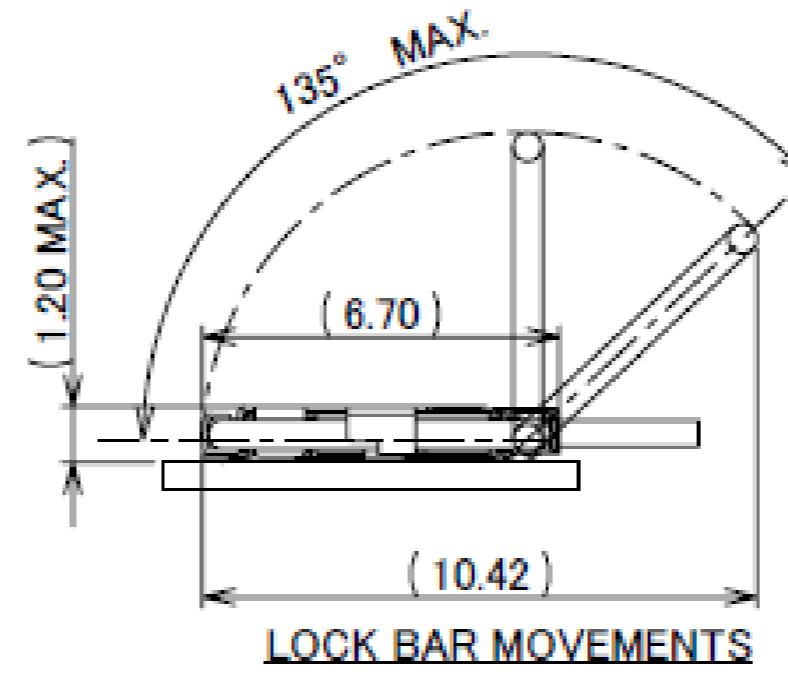
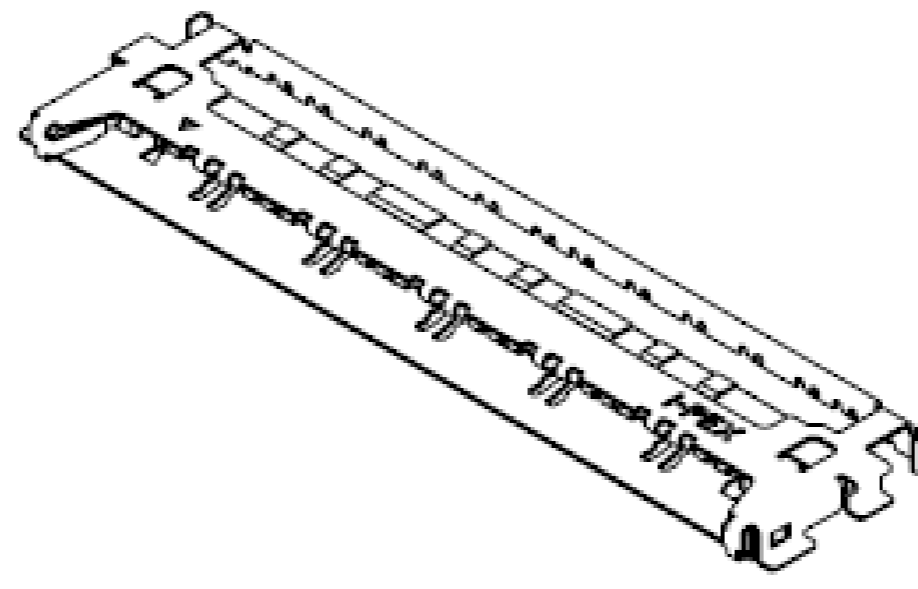
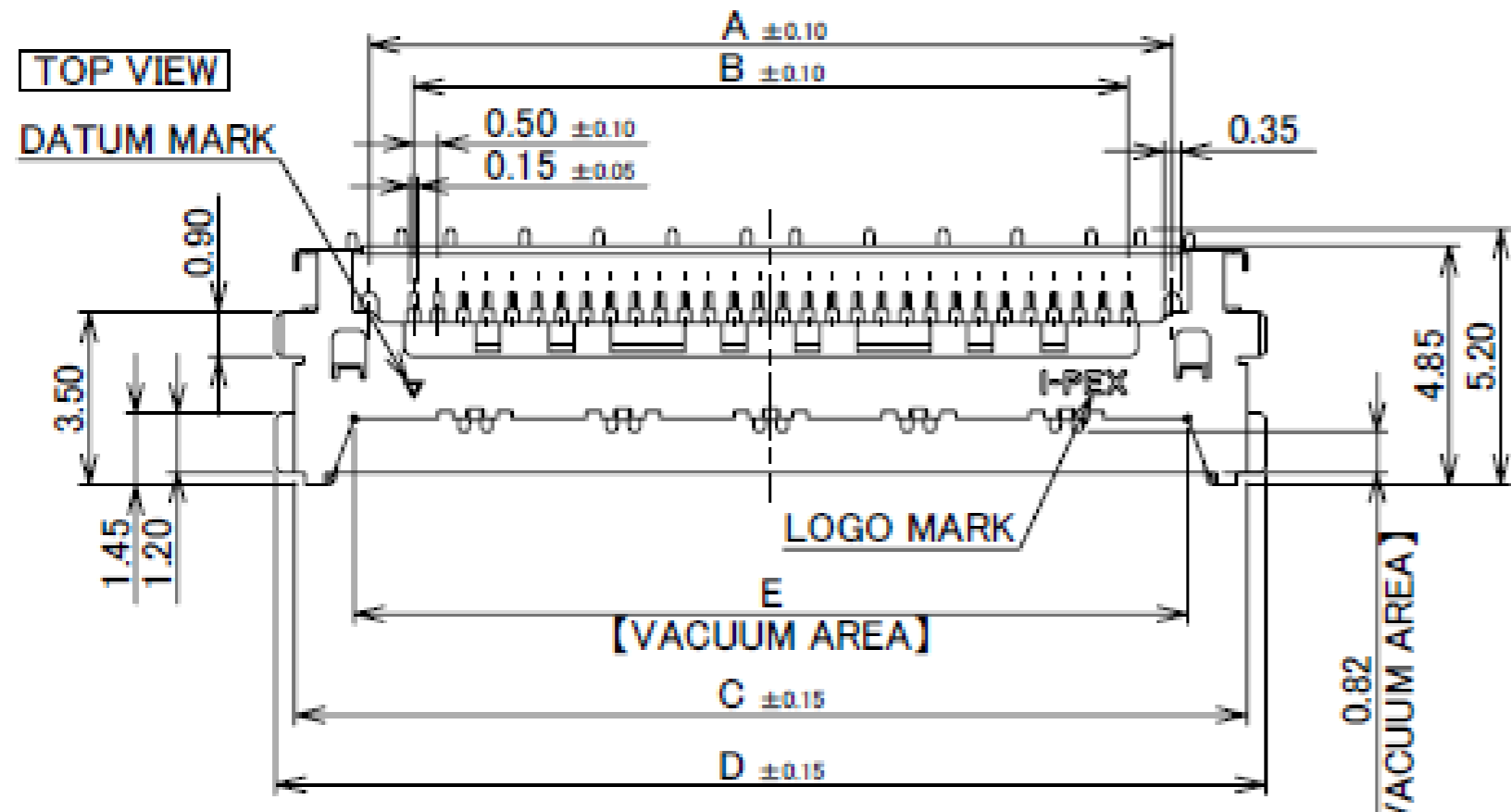
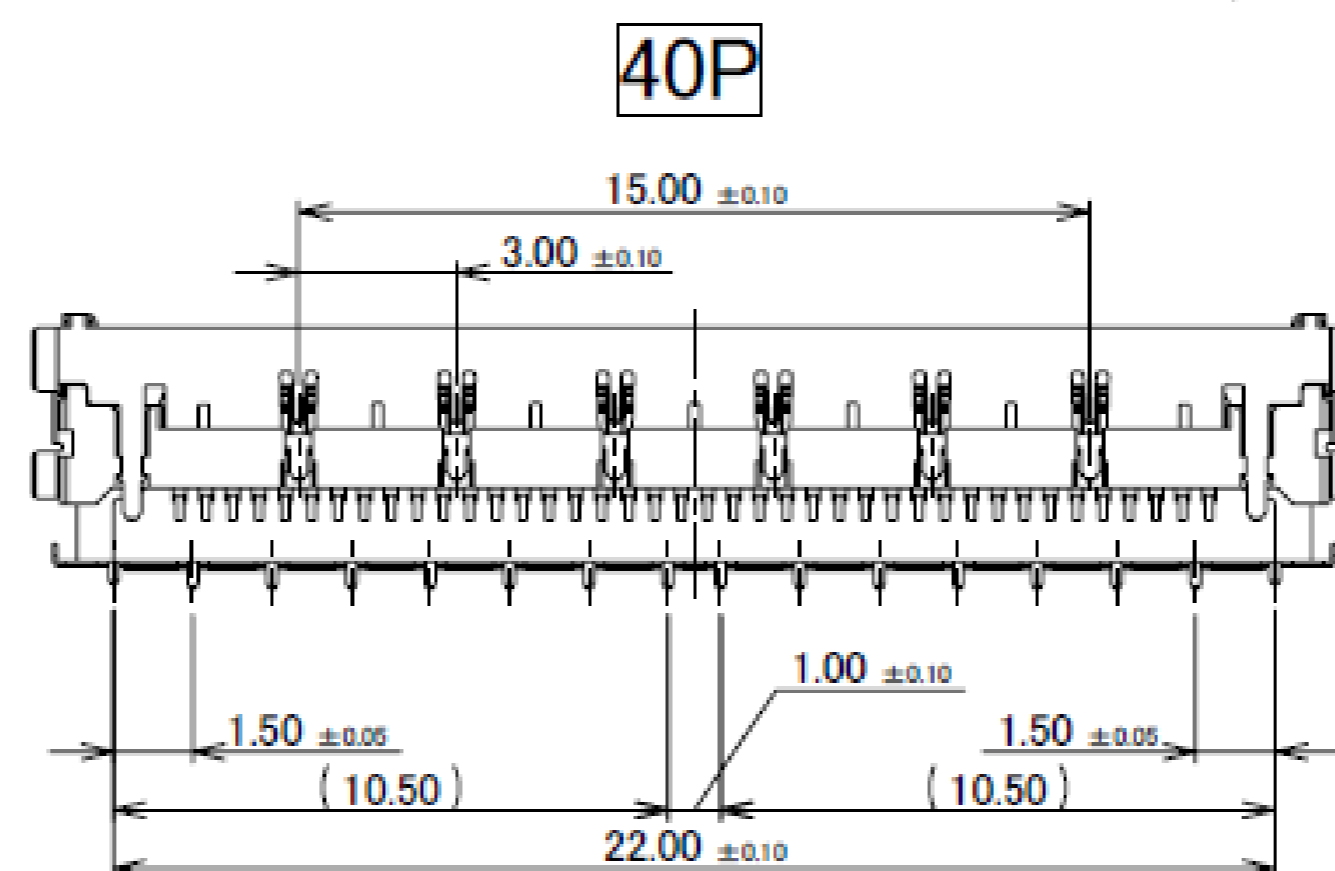
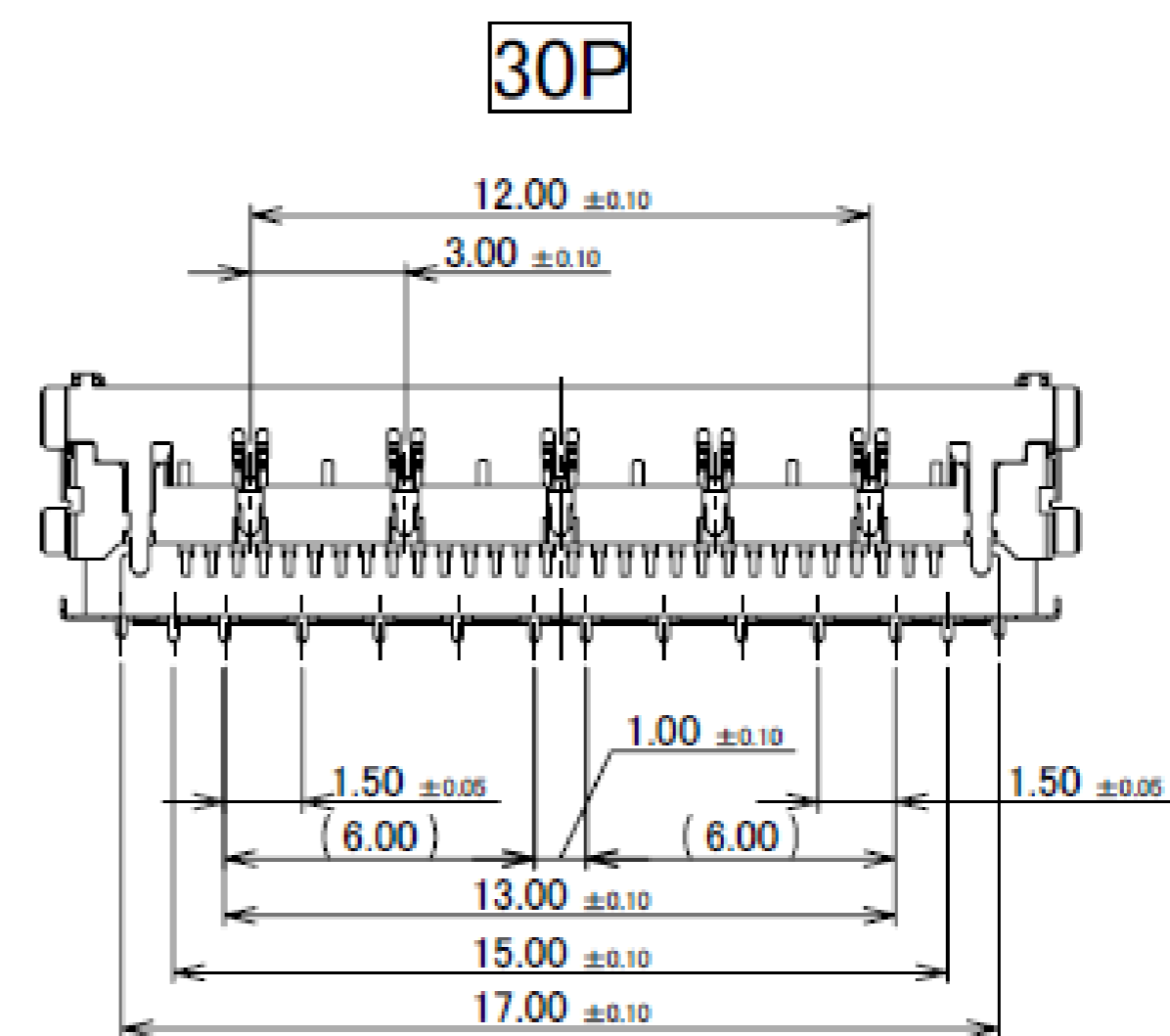
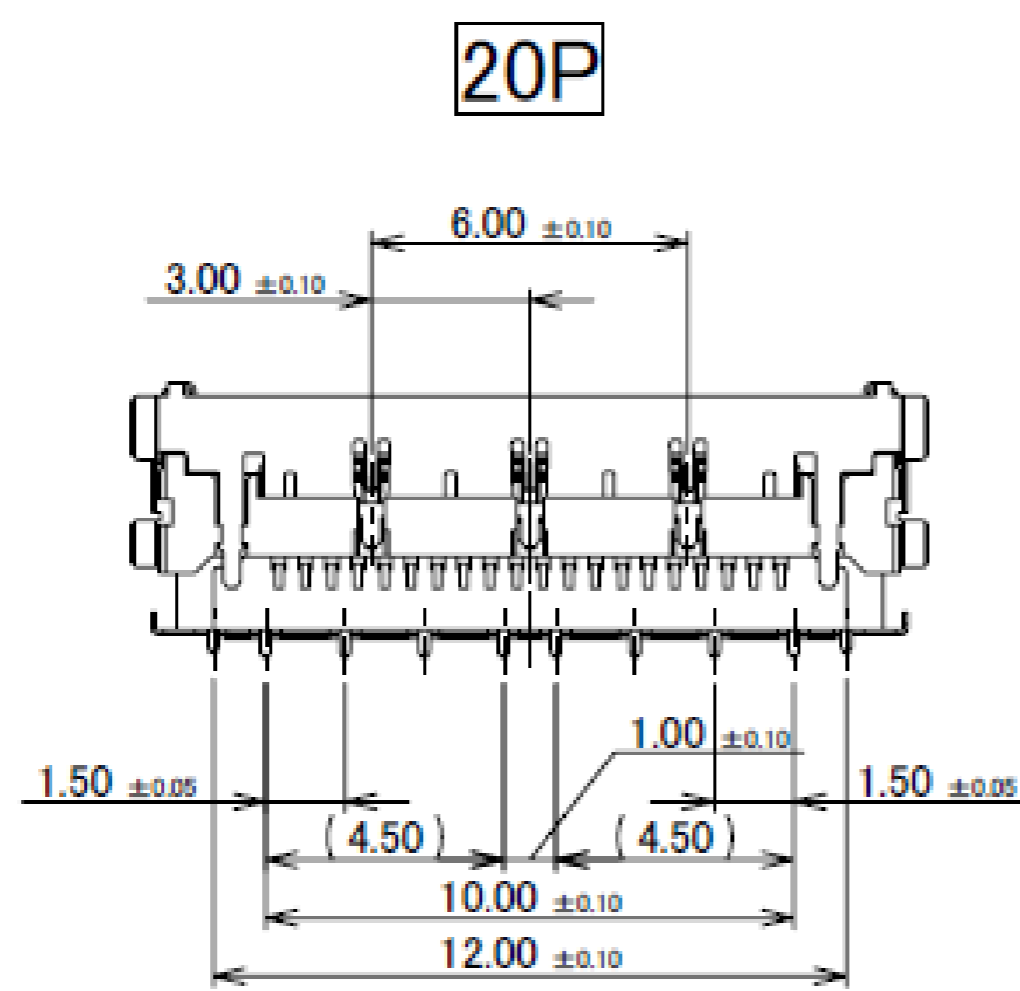


TABLE 1

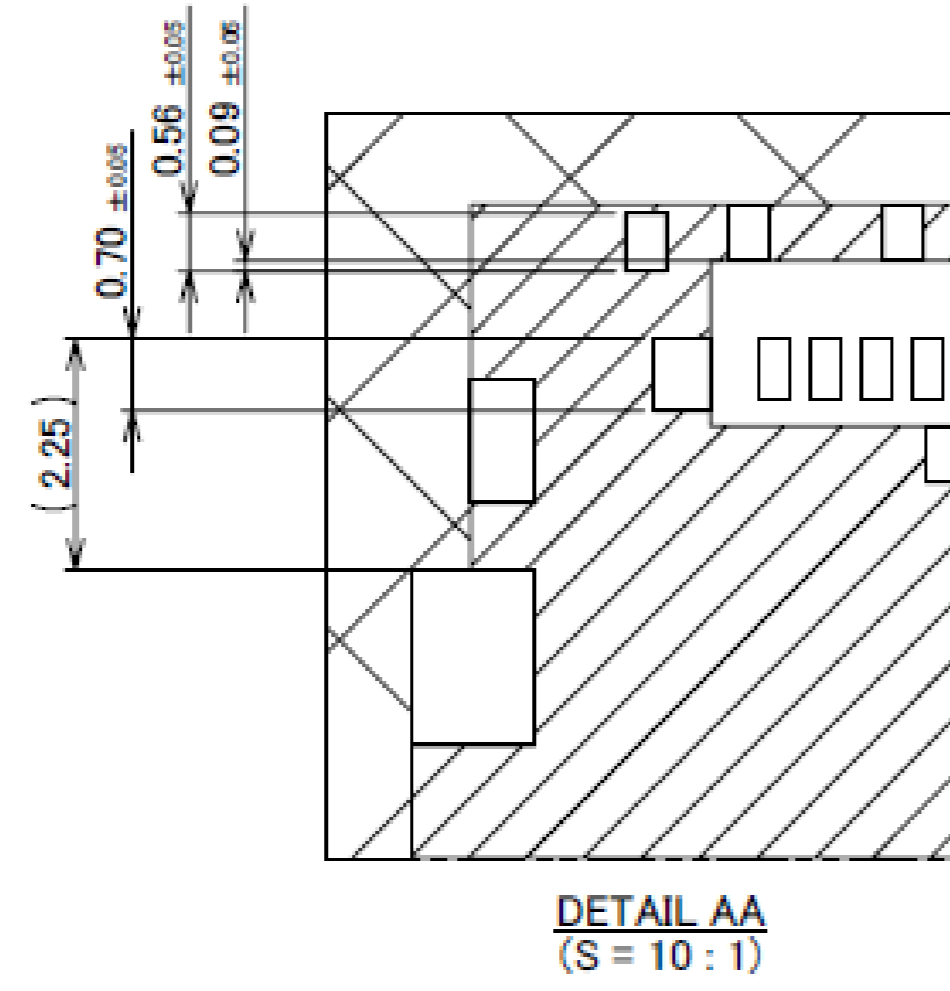
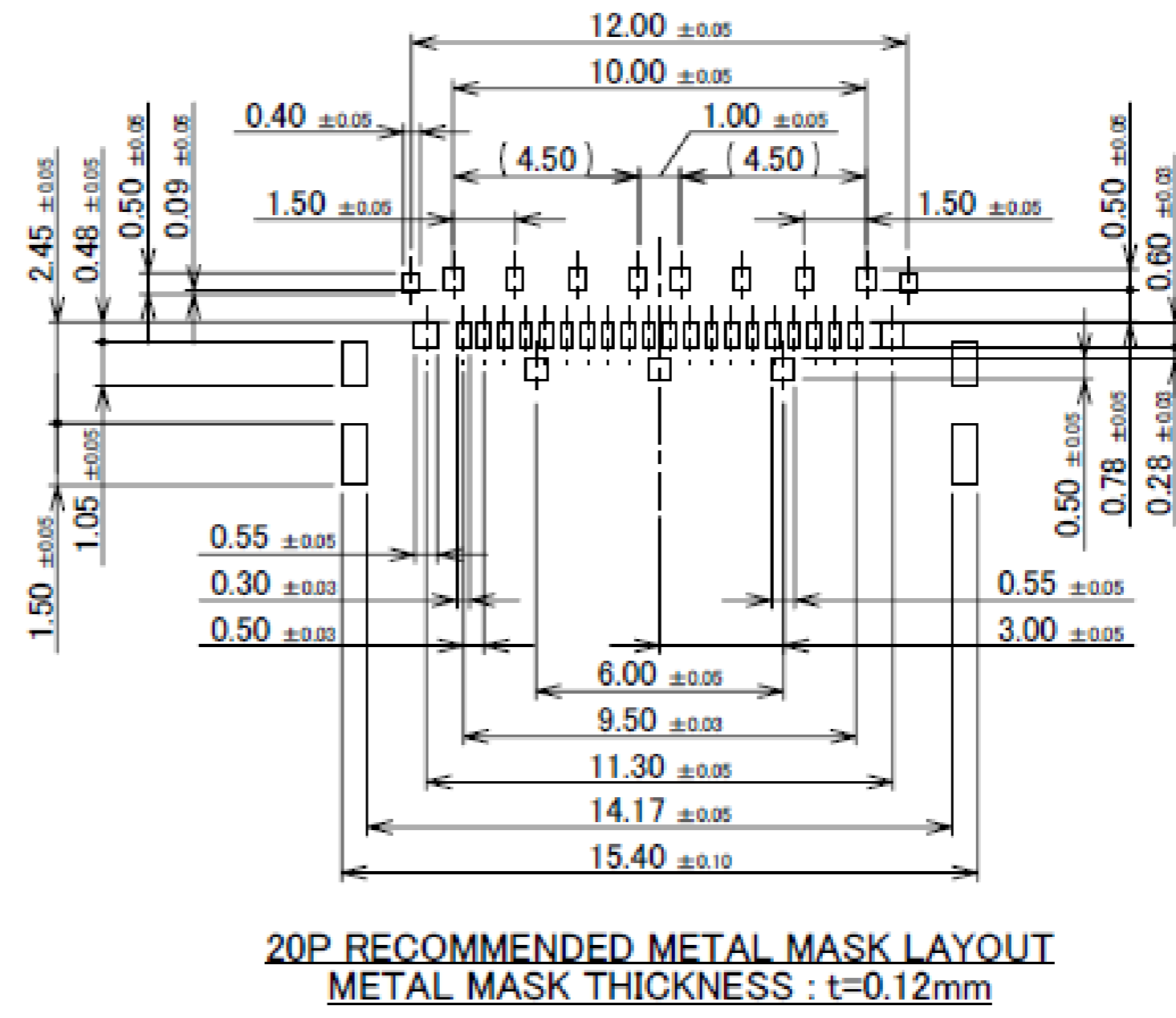
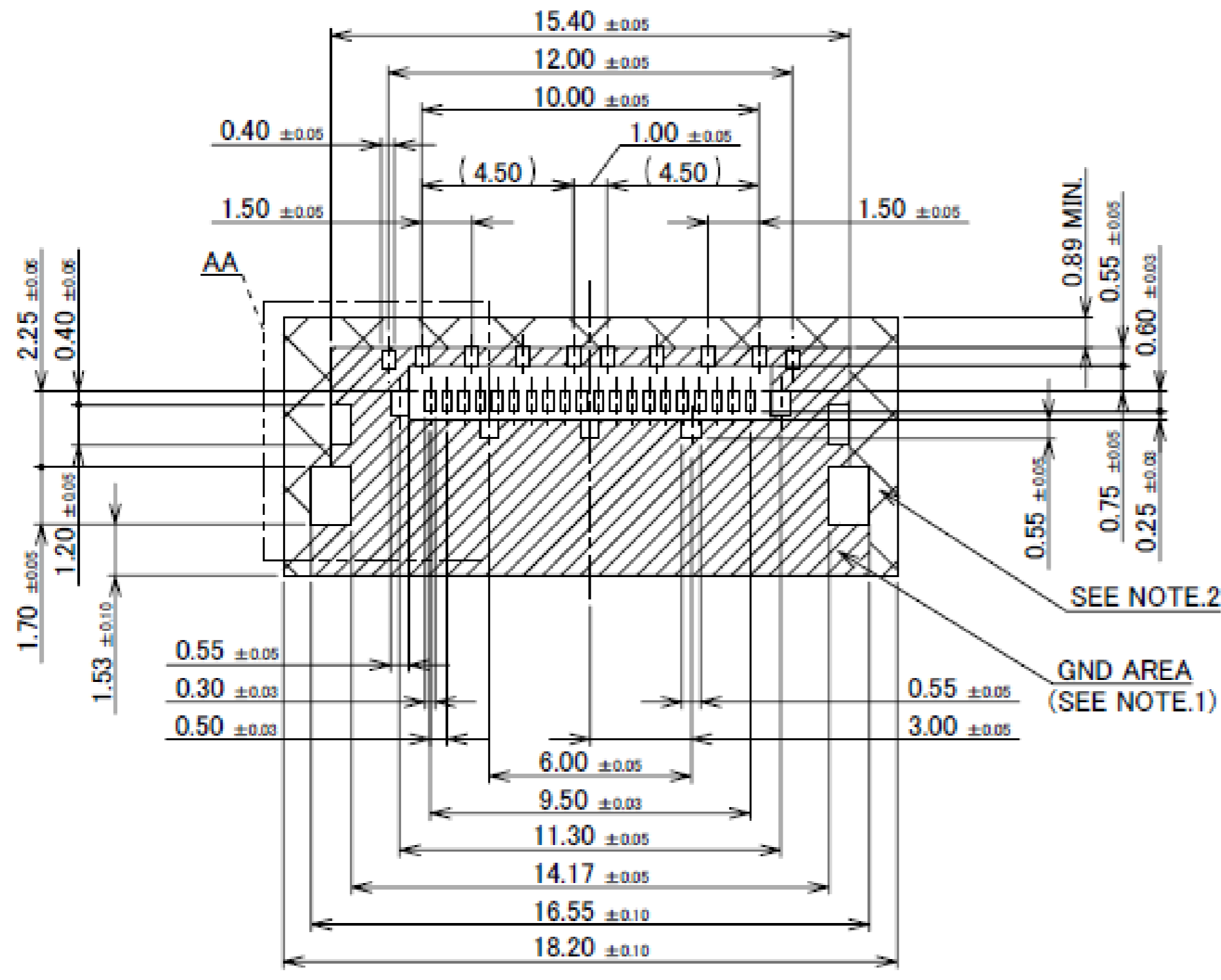
| PART NO. | CONTACT FINISH | SHELL FINISH | |
|---------------|--|--|-----------------|
| 20849-0**E-01 | CONTACT & SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN. | ALL OVER Ni 1.00 μm MIN. SOLDERING AREA : Au 0.02 μm MIN. | |
| 20849-0**E-02 | CONTACT AREA : Au 0.38 μm MIN. OVER Ni 1.27 μm MIN. SOLDERING AREA : Au 0.03 μm MIN. OVER Ni 1.00 μm MIN. | | |
| 3 SHELL | PHOSPHOR BRONZE | SEE TABLE 1 | |
| 2 CONTACT | PHOSPHOR BRONZE | SEE TABLE 1 | |
| 1 HOUSING | LCP | UL94V-0, BLACK | |
| NO. | DISCRIPTION | MATERIAL | FINISH, REMARKS |

| PART NO. | Pos. |
|---------------|------|
| 20849-020E-0# | 20 |
| 20849-030E-0# | 30 |
| 20849-040E-0# | 40 |

BOTTOM VIEW

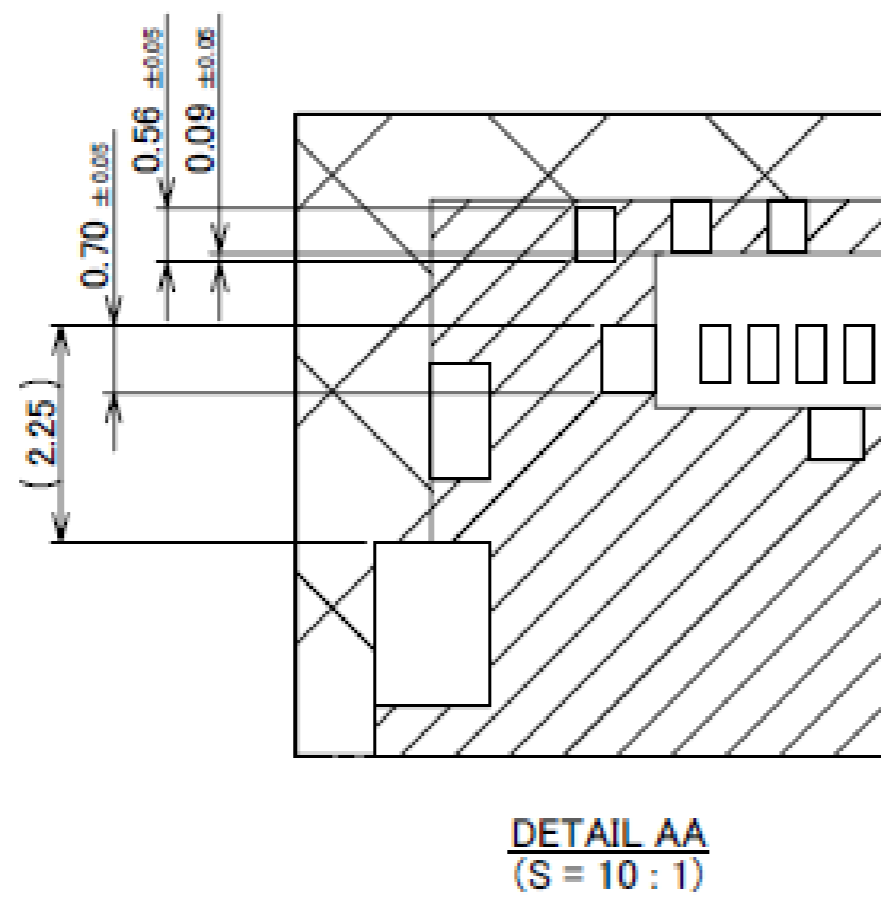
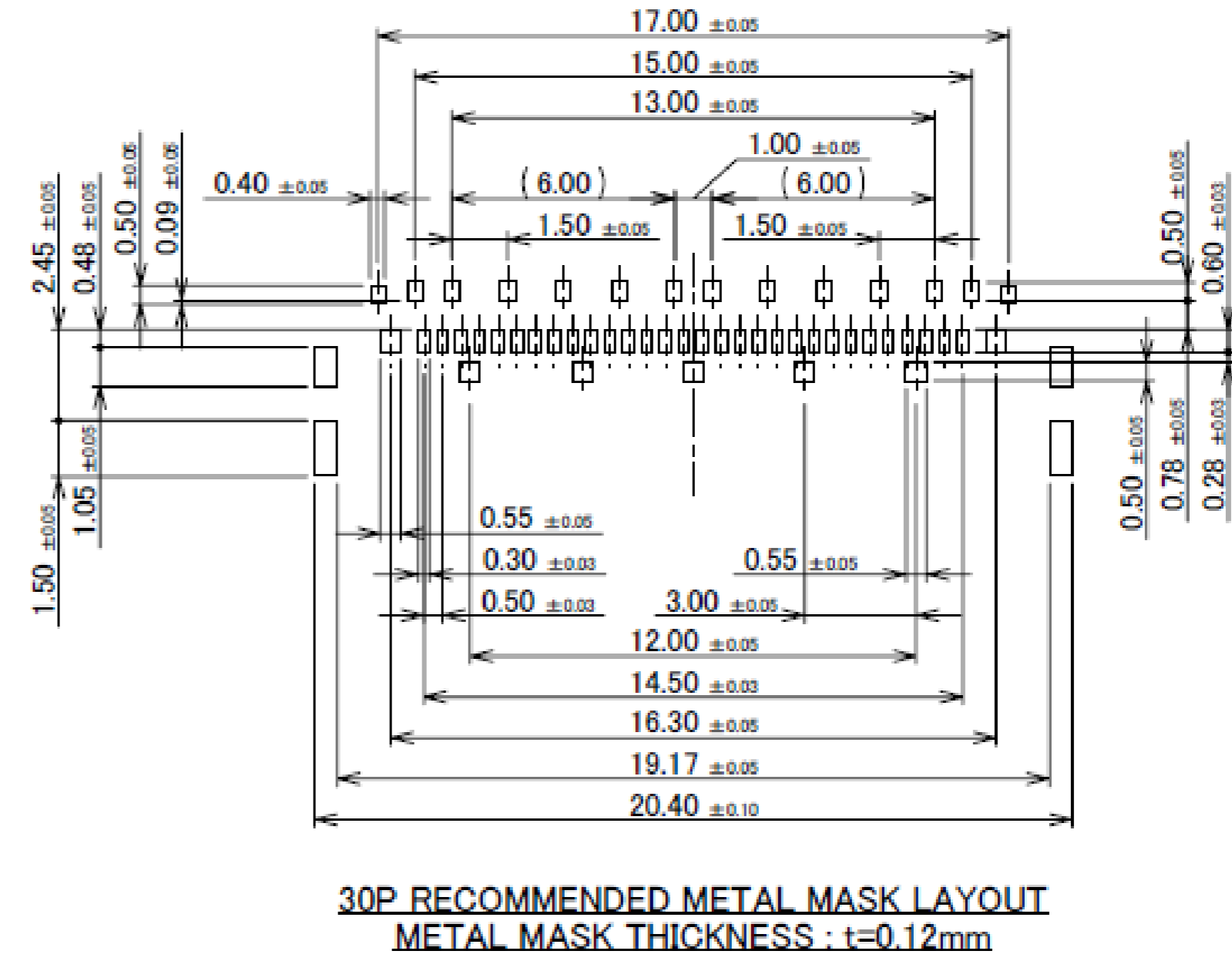
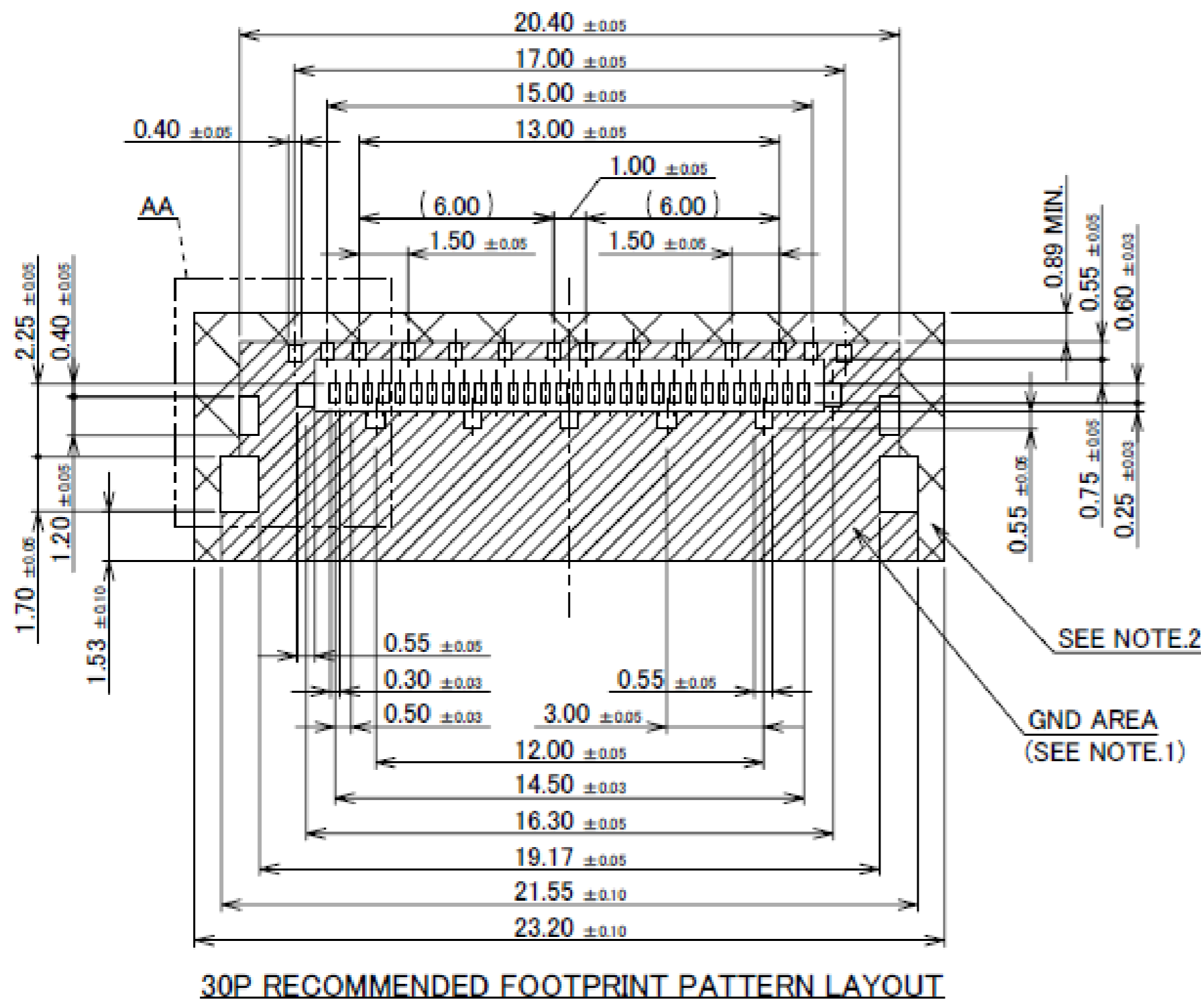


Receptacle Assembly



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

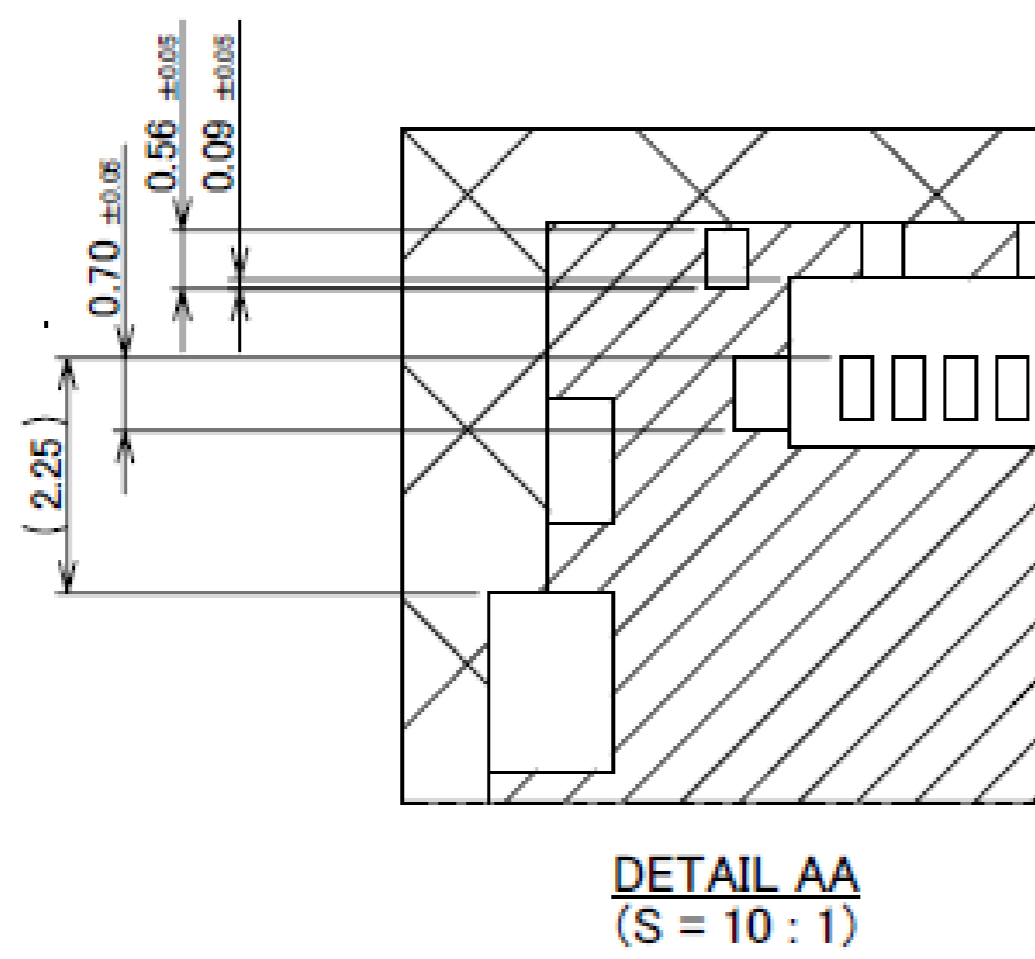
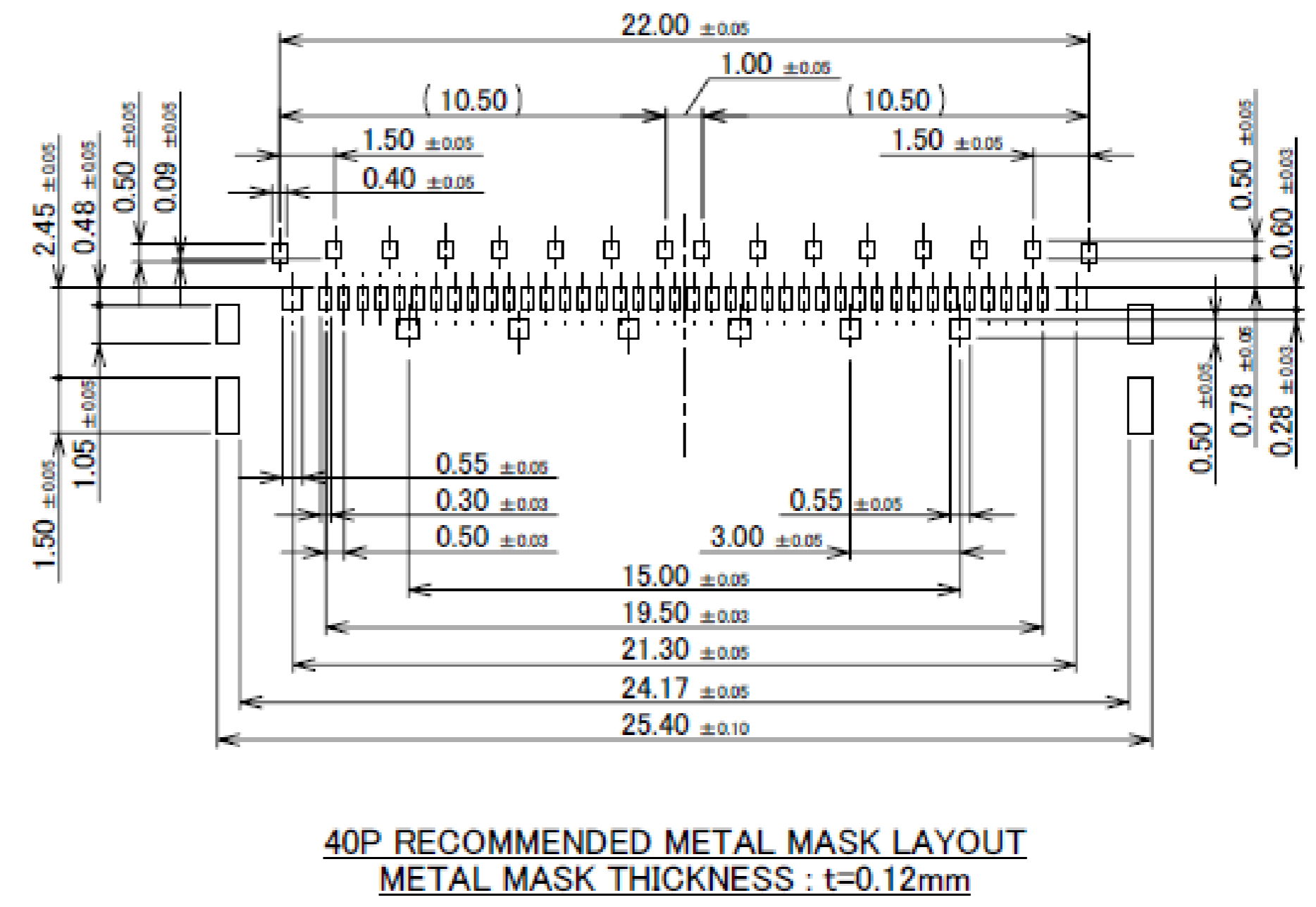
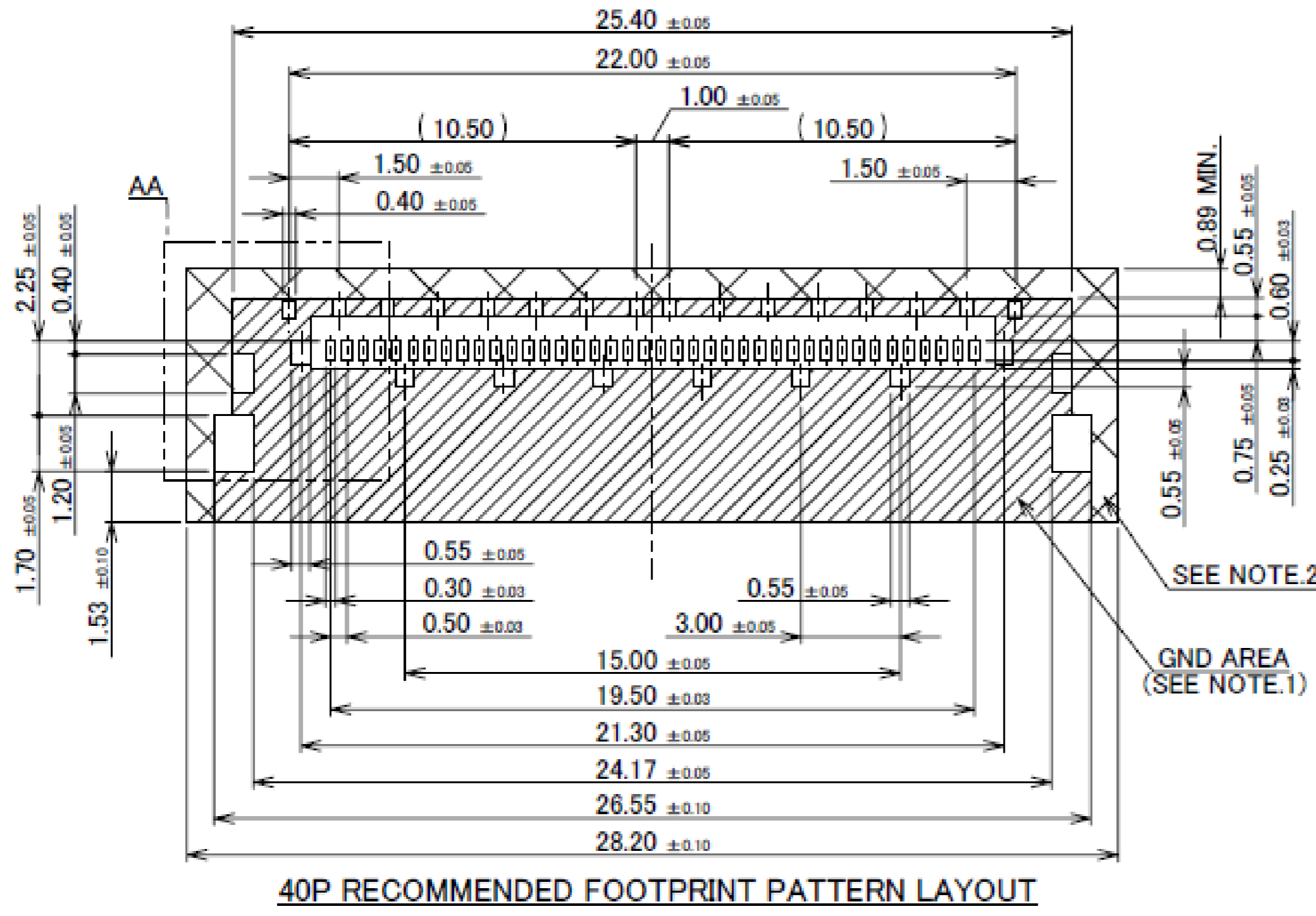
Rev.10



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

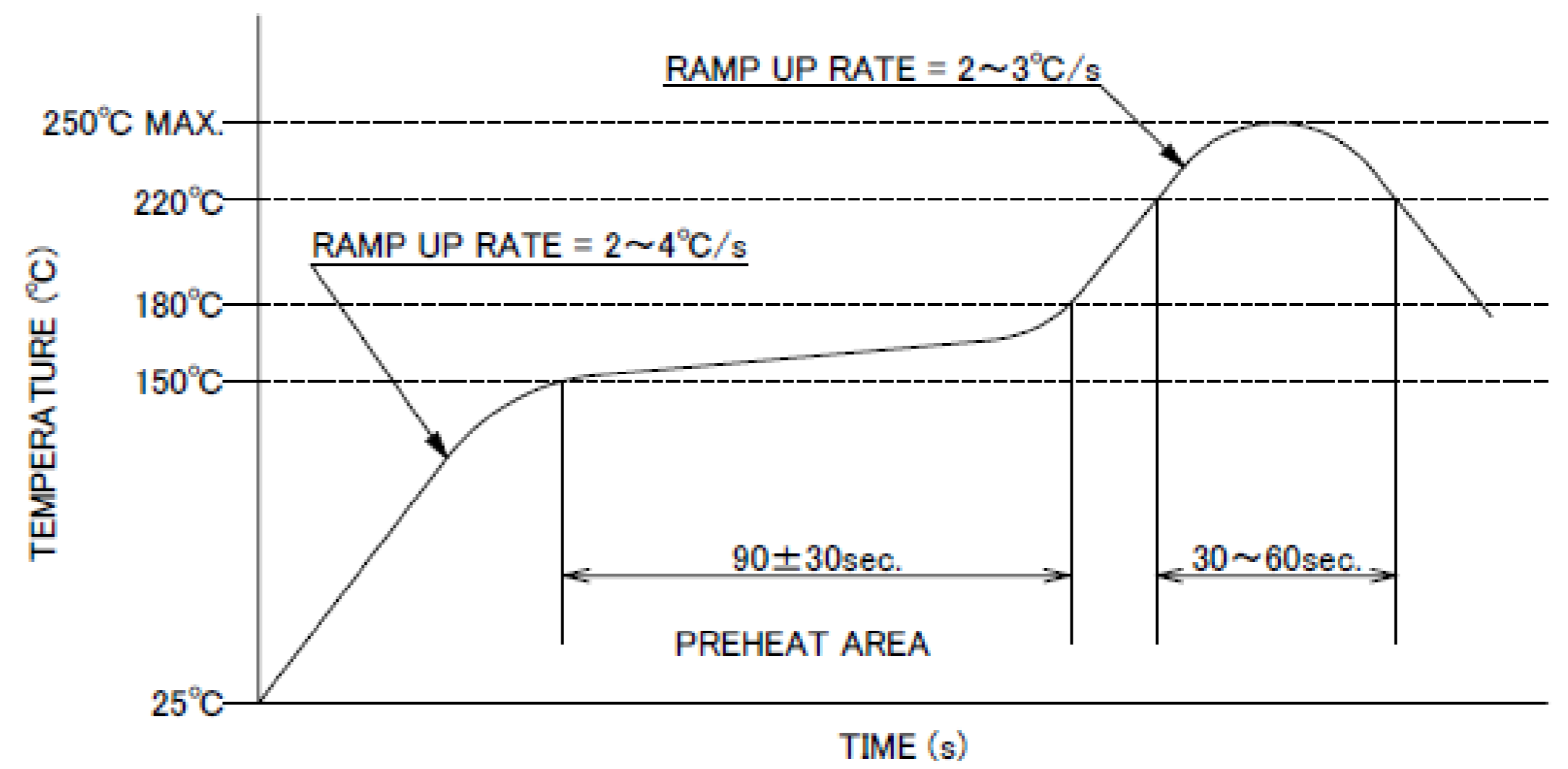
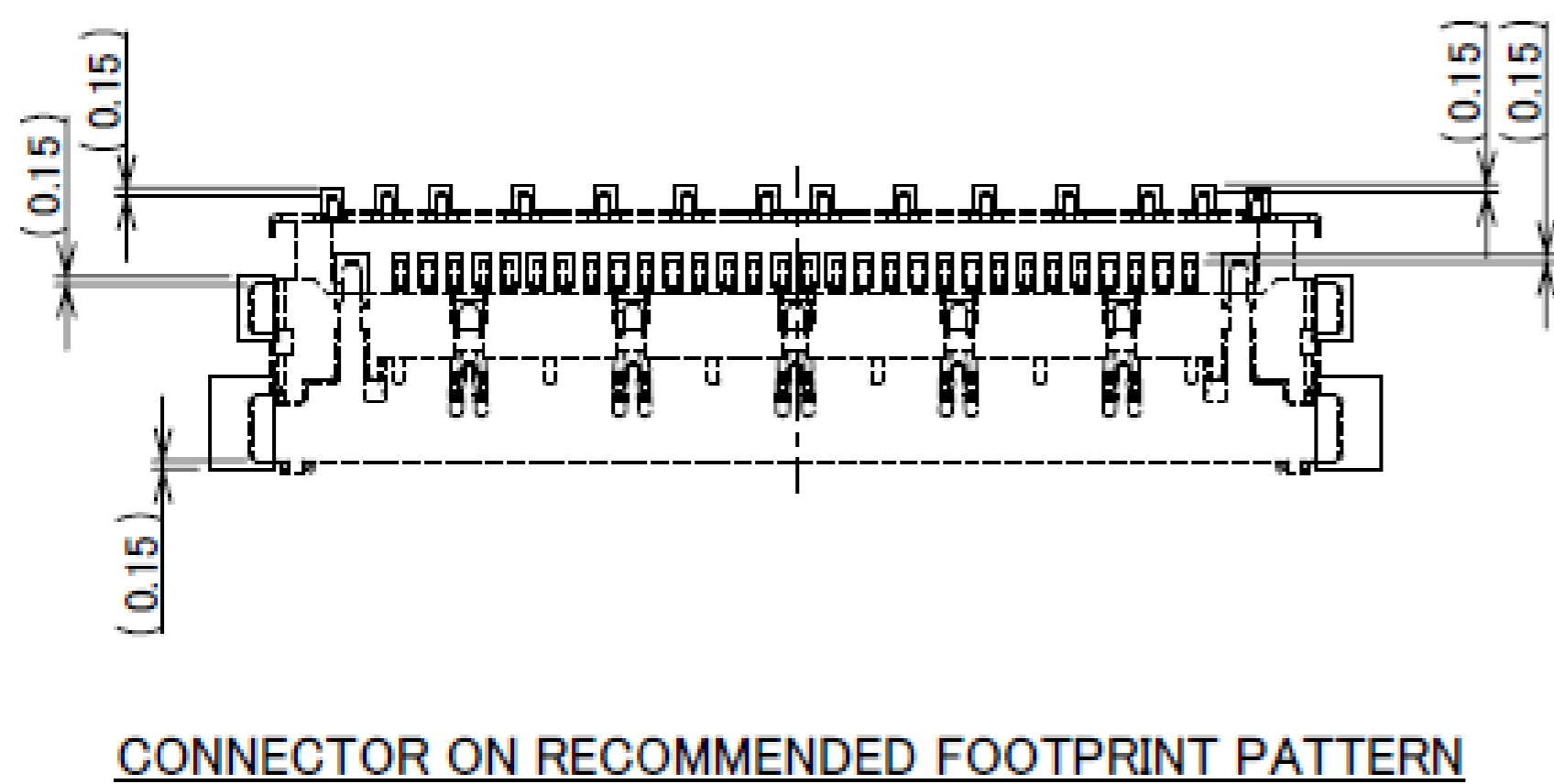
Rev.10

Receptacle Assembly



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

Rev.10



Rev.10

| 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 : 13.50N MAX. 40P : 18.00N MAX. |
| UNMATING FORCE (INITIAL / AFTER TEST) | 30P : 1.44N MIN. 40P : 1.92N MIN. |
| PRODUCT SPECIFICATION | PRS-2430 |
| TEST REPORT | TR-17086 |
| PACKING STANDARD | PST-17134 |
| INSTRUCTION MANUAL | HIM-17039 |
| ASSEMBLY MANUAL | ASM-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

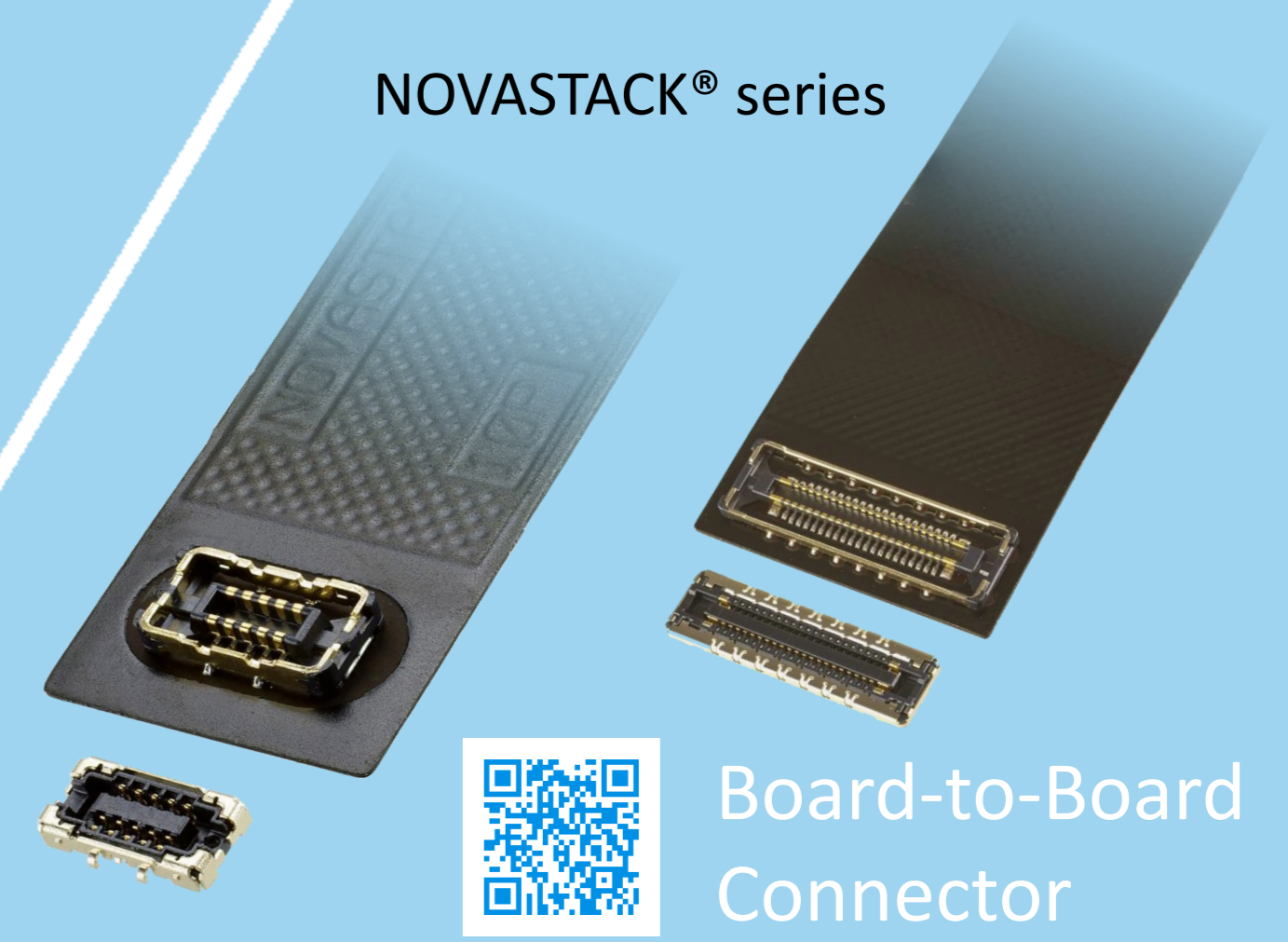
LIGHTPASS® series



NOVASTACK® series



Board-to-Board Connector



Power Connector/
Terminal

AP series

ISH® series



MINIFLEX® series

EVAFLEX® series



FPC FFC Connector



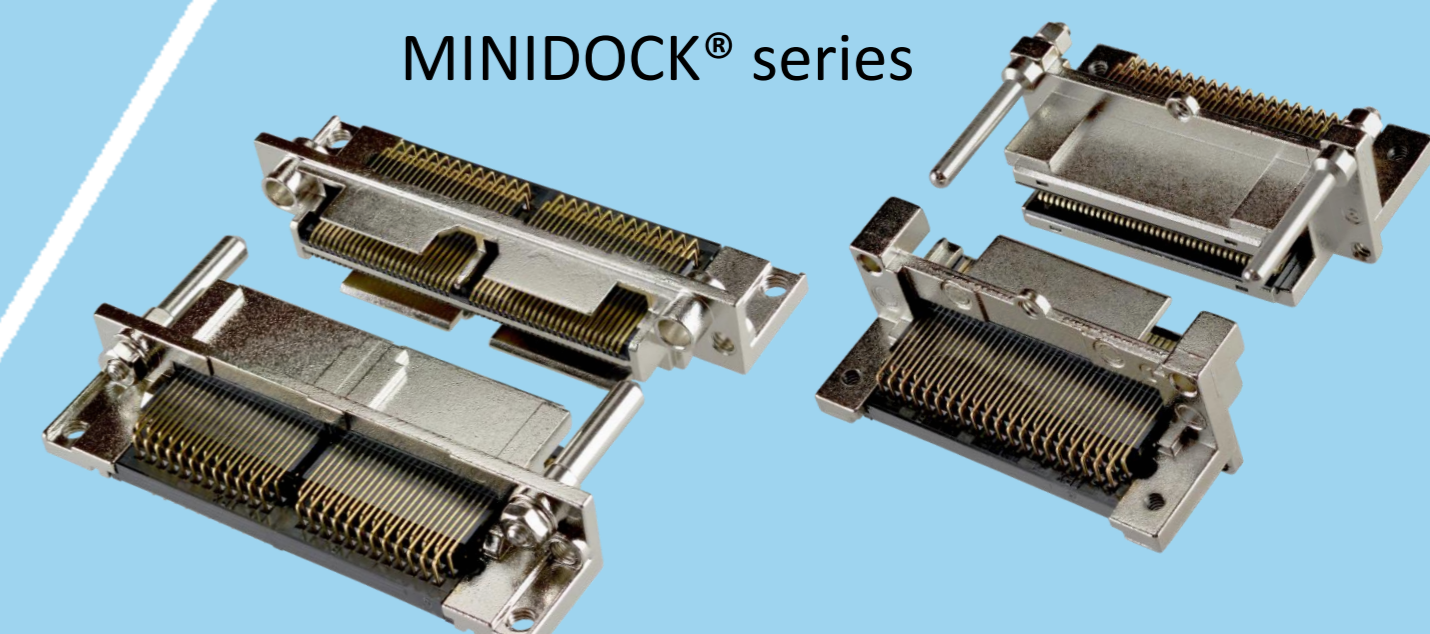
Inquiry



MINIDOCK® series



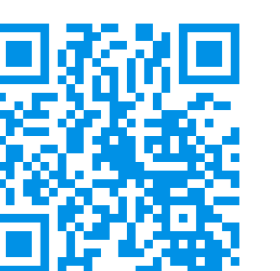
I/O Connector



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Contact your sales representative or more detailed information.

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