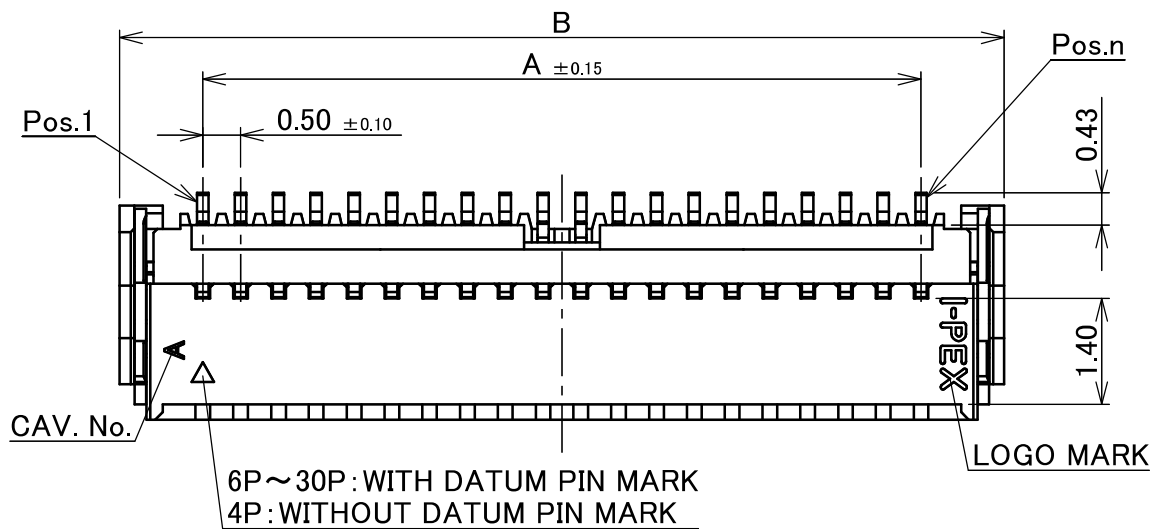




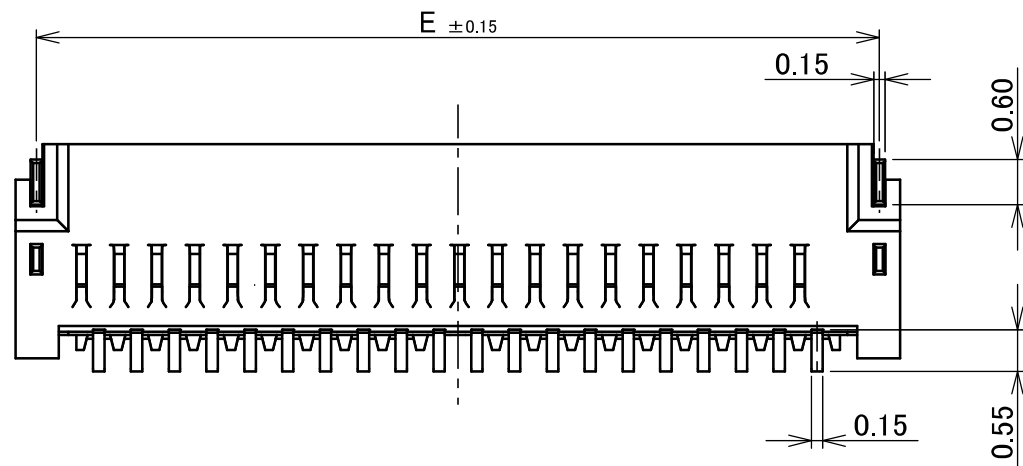
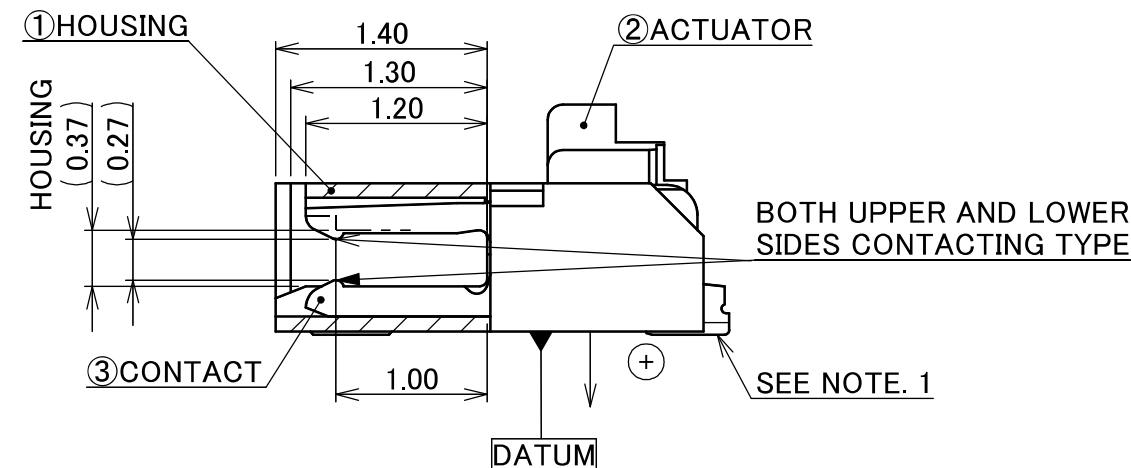
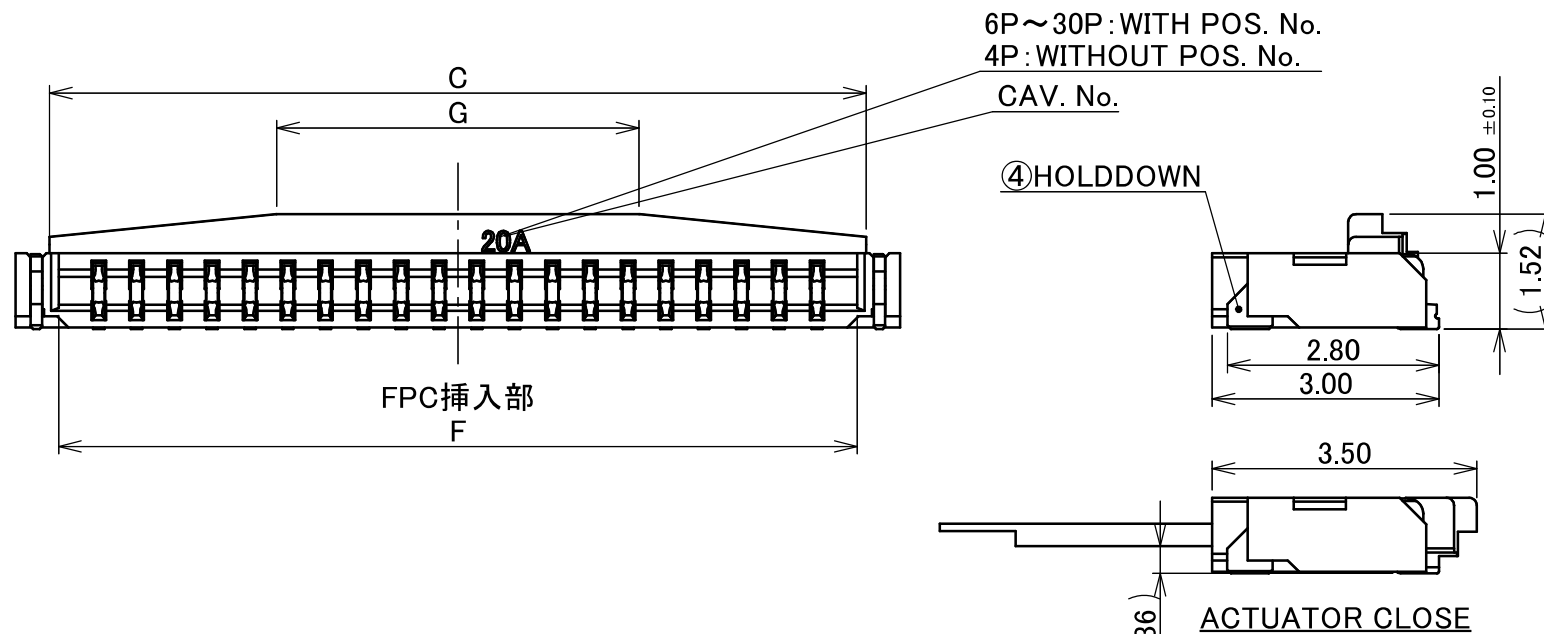
Halogen Free



RoHS Compliant

IATF 16949 CERTIFIED

| PART No.      | POS. | A     | B     | C     | D     | E     | F     | G    |
|---------------|------|-------|-------|-------|-------|-------|-------|------|
| 20542-004E-01 | 4    | 1.50  | 3.70  | 2.80  | 2.50  | 3.15  | 2.56  | 1.80 |
| 20542-006E-01 | 6    | 2.50  | 4.70  | 3.80  | 3.50  | 4.15  | 3.56  | 2.80 |
| 20542-008E-01 | 8    | 3.50  | 5.70  | 4.80  | 4.50  | 5.15  | 4.56  | 3.80 |
| 20542-010E-01 | 10   | 4.50  | 6.70  | 5.80  | 5.50  | 6.15  | 5.56  | 4.80 |
| 20542-012E-01 | 12   | 5.50  | 7.70  | 6.80  | 6.50  | 7.15  | 6.56  | 5.80 |
| 20542-014E-01 | 14   | 6.50  | 8.70  | 7.80  | 7.50  | 8.15  | 7.56  | 6.80 |
| 20542-016E-01 | 16   | 7.50  | 9.70  | 8.80  | 8.50  | 9.15  | 8.56  | 2.80 |
| 20542-018E-01 | 18   | 8.50  | 10.70 | 9.80  | 9.50  | 10.15 | 9.56  | 3.80 |
| 20542-020E-01 | 20   | 9.50  | 11.70 | 10.80 | 10.50 | 11.15 | 10.56 | 4.80 |
| 20542-022E-01 | 22   | 10.50 | 12.70 | 11.80 | 11.50 | 12.15 | 11.56 | 5.80 |
| 20542-024E-01 | 24   | 11.50 | 13.70 | 12.80 | 12.50 | 13.15 | 12.56 | 6.80 |
| 20542-026E-01 | 26   | 12.50 | 14.70 | 13.80 | 13.50 | 14.15 | 13.56 | 7.80 |
| 20542-028E-01 | 28   | 13.50 | 15.70 | 14.80 | 14.50 | 15.15 | 14.56 | 8.80 |
| 20542-030E-01 | 30   | 14.50 | 16.70 | 15.80 | 15.50 | 16.15 | 15.56 | 9.80 |



|     |                 |             |                                                                                                               |
|-----|-----------------|-------------|---------------------------------------------------------------------------------------------------------------|
| 4   | PHOSPHOR BRONZE | HOLD DOWN   | Sn 2~6 μ m MIN.OVER Ni 1.00 μ m MIN.                                                                          |
| 3   | PHOSPHOR BRONZE | CONTACT     | CONTACT AREA : Au 0.1 μ m MIN. OVER Ni 1.0 μ m MIN.<br>SOLDERING AREA : Au 0.03 μ m MIN. OVER Ni 1.0 μ m MIN. |
| 2   | LCP             | ACTUATOR    | UL94V-0, BEIGE                                                                                                |
| 1   | LCP             | HOUSING     | UL94V-0, BEIGE                                                                                                |
| NO. | MATERIAL        | DISCRIPTION | FINISH , REMARKS                                                                                              |

CAUTION VISIT OUR WEBSITE FOR LATEST VERSIONS OF INSTRUCTION MANUAL NO. HIM-12019 TO HANDLE THE PRODUCT PROPERLY AND SAFELY.

NOTES

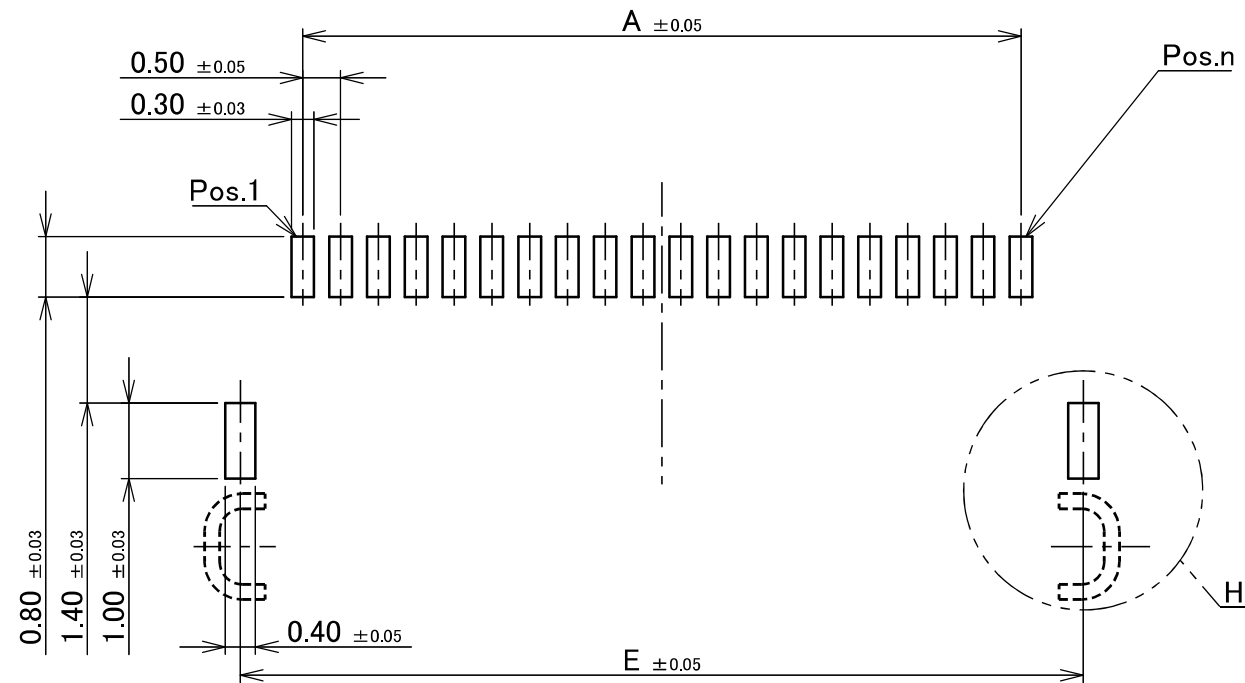
1. CONTACT TAIL IS PROJECTION FROM HOUSING IN THE + DIRECTION. (0~0.06)

|      |         |      |              |      |                    |            |                  |            |                    |            |               |
|------|---------|------|--------------|------|--------------------|------------|------------------|------------|--------------------|------------|---------------|
| 10   | ZC00376 | Mino | Dec./23/'25  | T.M  | ANGLE              | ±2°        | 6 OVER 30 MAX.   | ±0.3       | PROJECTION         | SERIES No. | CUSTOMER COPY |
| 9    | Z240574 | S.Sh | May/14/'24   | H.I  | 6 MAX.             | ±0.2       | 30 OVER 120 MAX. | ±0.5       | MINIFLEX® 5-BFN II | R5         |               |
| 8    | Z191264 | R.F  | Sept./30/'19 | H.I  | GENERAL TOLERANCE. |            |                  |            | TITLE              | SCALE      |               |
| 7    | Z181426 | K.T  | Nov./01/'18  | Y.S  | DWG.               | K.Inomae   | DATE             | 2012/11/20 | MINIFLEX® 5-BFN II | 10:1       |               |
| 6    | Z181192 | K.T  | Sept./12/'18 | Y.S  | CHK.               | J.Tateishi | DATE             |            |                    | UNIT       |               |
| 5    | Z160717 | H.A  | June/24/'16  | Y.S  | APP.               | T.Harada   | DATE             |            |                    | mm         |               |
| REV. | ECN     | BY   | DATE         | APP. | DATE               | DATE       | DATE             | DATE       | DWG. No.           | SIZE       |               |
|      |         |      |              |      |                    |            |                  |            | 20542              | A3         |               |
|      |         |      |              |      |                    |            |                  |            |                    | SHEET      |               |
|      |         |      |              |      |                    |            |                  |            |                    | 1/5        |               |
|      |         |      |              |      |                    |            |                  |            |                    | REV.       |               |
|      |         |      |              |      |                    |            |                  |            |                    | 10         |               |

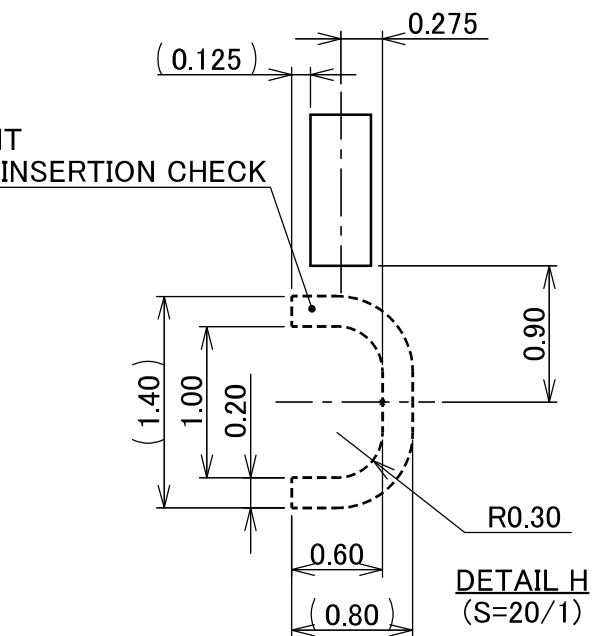
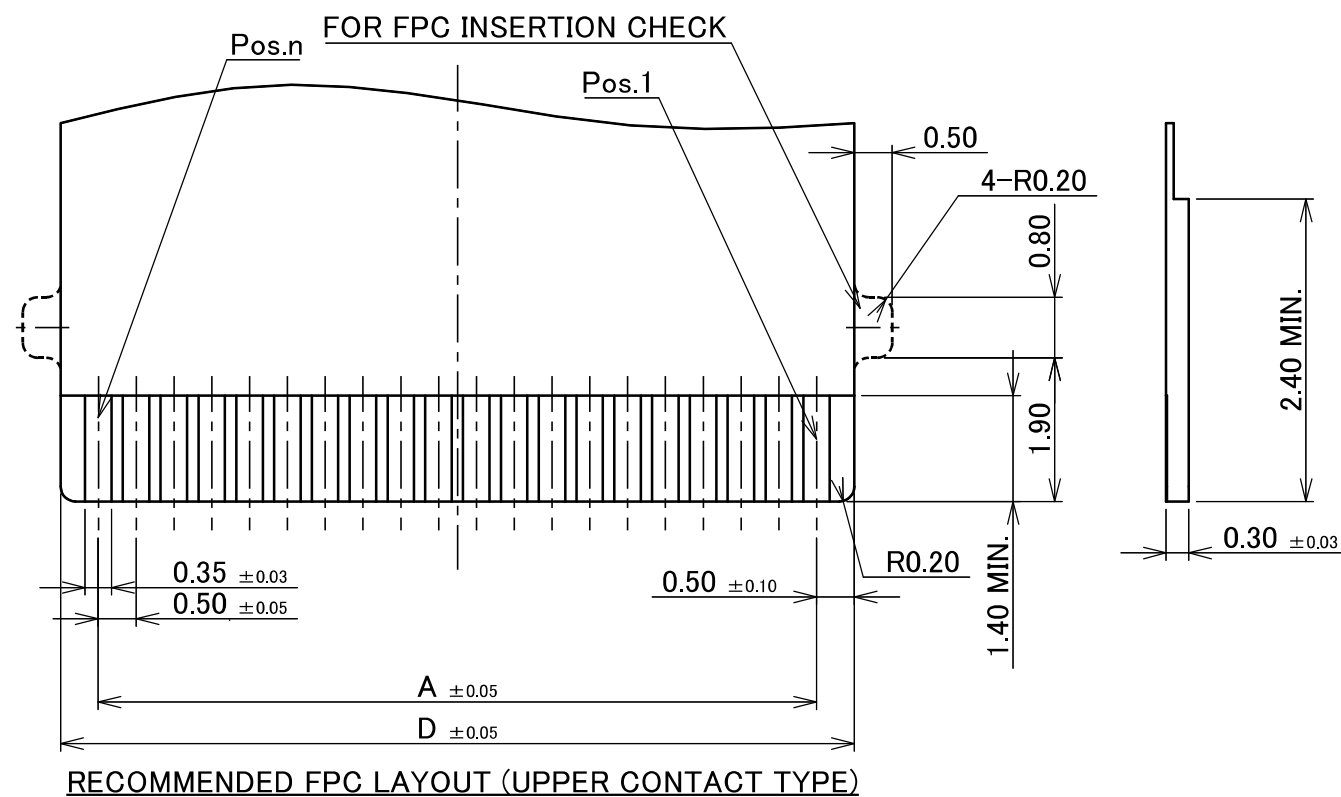
| ITEMS                                            | SPECIFICATION                                                |
|--------------------------------------------------|--------------------------------------------------------------|
| RATING VOLTAGE                                   | 50V AC (PER CONTACT PIN)                                     |
| RATING AMPERAGE                                  | 0.5A DC (PER CONTACT PIN)<br>7.0A DC (PER CONNECTOR)         |
| OPERATING TEMPERATURE                            | 233~398K(-40℃~125℃)                                          |
| OPERATING HUMIDITY                               | 80% MAX.(NON-CONDENSING)                                     |
| CONTACT RESISTANCE                               | INITIAL : 40mohm MAX. / AFTER TEST : $\triangle$ 20mohm MAX. |
| INSULATION RESISTANCE                            | 100Mohm MIN.                                                 |
| DIELECTRIC WITHSTANDING VOLTAGE                  | AC200V 1min                                                  |
| DURABILITY                                       | 20TH CYCLES                                                  |
| ACTUATOR LOCKING FORCE (INITIAL / 20TH CYCLES)   | INITIAL / 20TH CYCLES : 0.6N(61gf) × n MAX.                  |
| ACTUATOR UNLOCKING FORCE (INITIAL / 20TH CYCLES) | INITIAL / 20TH CYCLES : 0.05N(5gf) × n MIN.                  |
| FPC RETENTION FORCE (INITIAL / AFTER TEST)       | INITIAL / AFTER TEST : 0.15N(15gf) × n MIN.                  |
| COPLANARITY                                      | 0.08 MAX.                                                    |
| PRODUCT SPECIFICATION                            | PRS-1619                                                     |
| TEST REPORT                                      | TR-12124                                                     |
| PACKING STANDARD                                 | 300-963                                                      |
| INSTRUCTION MANUAL                               | HIM-12019                                                    |
| APPEARANCE CRITERIA No.                          | QLS-A***                                                     |

※ “n” IS THE NUMBER OF PIN

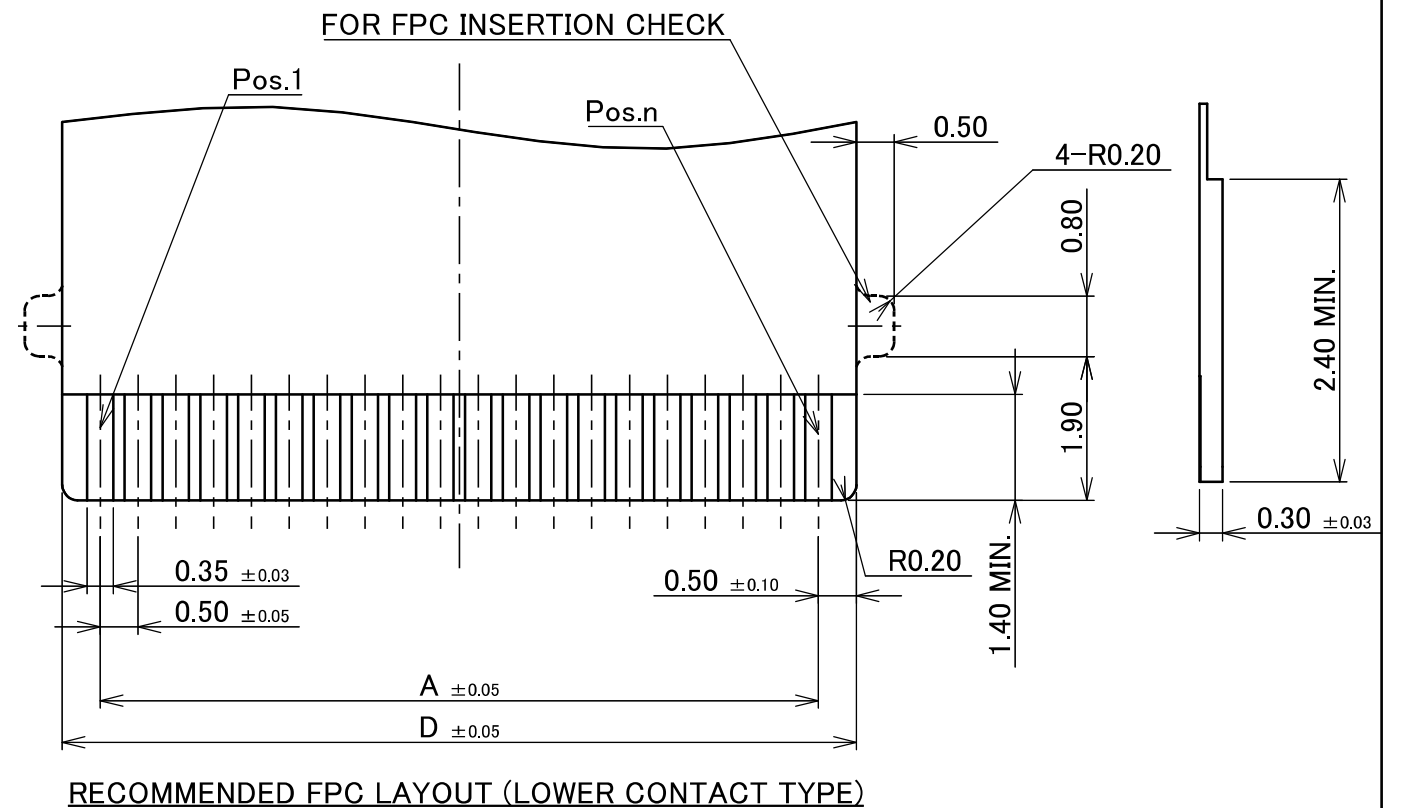
|                    |      |                  |      |                             |                  |               |       |      |
|--------------------|------|------------------|------|-----------------------------|------------------|---------------|-------|------|
| ANGLE              | ±2°  | 6 OVER 30 MAX.   | ±0.3 | PROJECTION<br>              | SERIES No.<br>R5 | CUSTOMER COPY |       |      |
| 6 MAX.             | ±0.2 | 30 OVER 120 MAX. | ±0.5 |                             |                  |               |       |      |
| GENERAL TOLERANCE. |      |                  |      | TITLE<br>MINIFLEX® 5-BFN II |                  | SCALE         |       |      |
| DWG.               | DATE |                  |      |                             |                  | UNIT          |       |      |
| CHK.               |      |                  |      |                             |                  | mm            |       |      |
| APP.               |      |                  |      |                             |                  | SIZE          | SHEET | REV. |
|                    |      |                  |      | DWG. No.<br>20542           |                  | A3            | 2/5   | 10   |



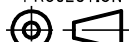
RECOMMENDED PCB LAYOUT & METAL MASK LAYOUT  
METAL MASK THICKNESS : t=0.12mm

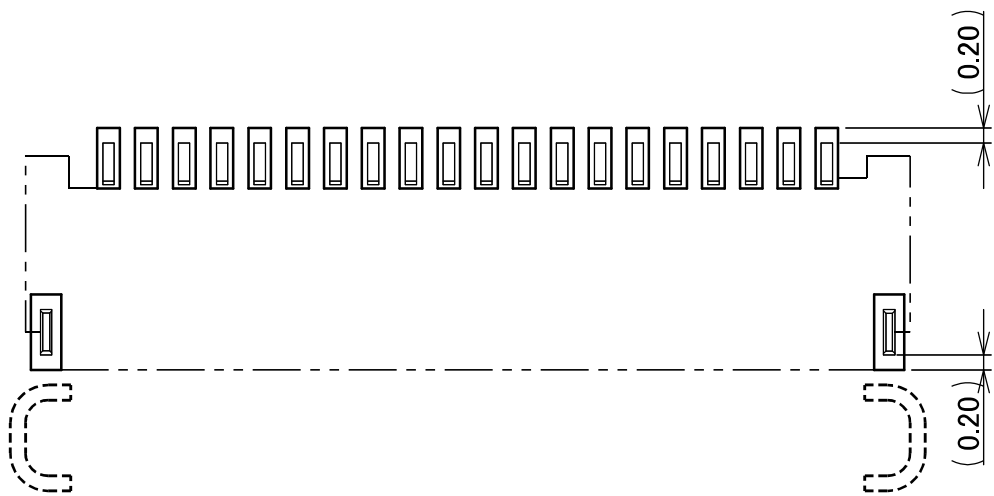


| PART No.      | POS. | A     | D     | E     |
|---------------|------|-------|-------|-------|
| 20542-004E-01 | 4    | 1.50  | 2.50  | 3.15  |
| 20542-006E-01 | 6    | 2.50  | 3.50  | 4.15  |
| 20542-008E-01 | 8    | 3.50  | 4.50  | 5.15  |
| 20542-010E-01 | 10   | 4.50  | 5.50  | 6.15  |
| 20542-012E-01 | 12   | 5.50  | 6.50  | 7.15  |
| 20542-014E-01 | 14   | 6.50  | 7.50  | 8.15  |
| 20542-016E-01 | 16   | 7.50  | 8.50  | 9.15  |
| 20542-018E-01 | 18   | 8.50  | 9.50  | 10.15 |
| 20542-020E-01 | 20   | 9.50  | 10.50 | 11.15 |
| 20542-022E-01 | 22   | 10.50 | 11.50 | 12.15 |
| 20542-024E-01 | 24   | 11.50 | 12.50 | 13.15 |
| 20542-026E-01 | 26   | 12.50 | 13.50 | 14.15 |
| 20542-028E-01 | 28   | 13.50 | 14.50 | 15.15 |
| 20542-030E-01 | 30   | 14.50 | 15.50 | 16.15 |

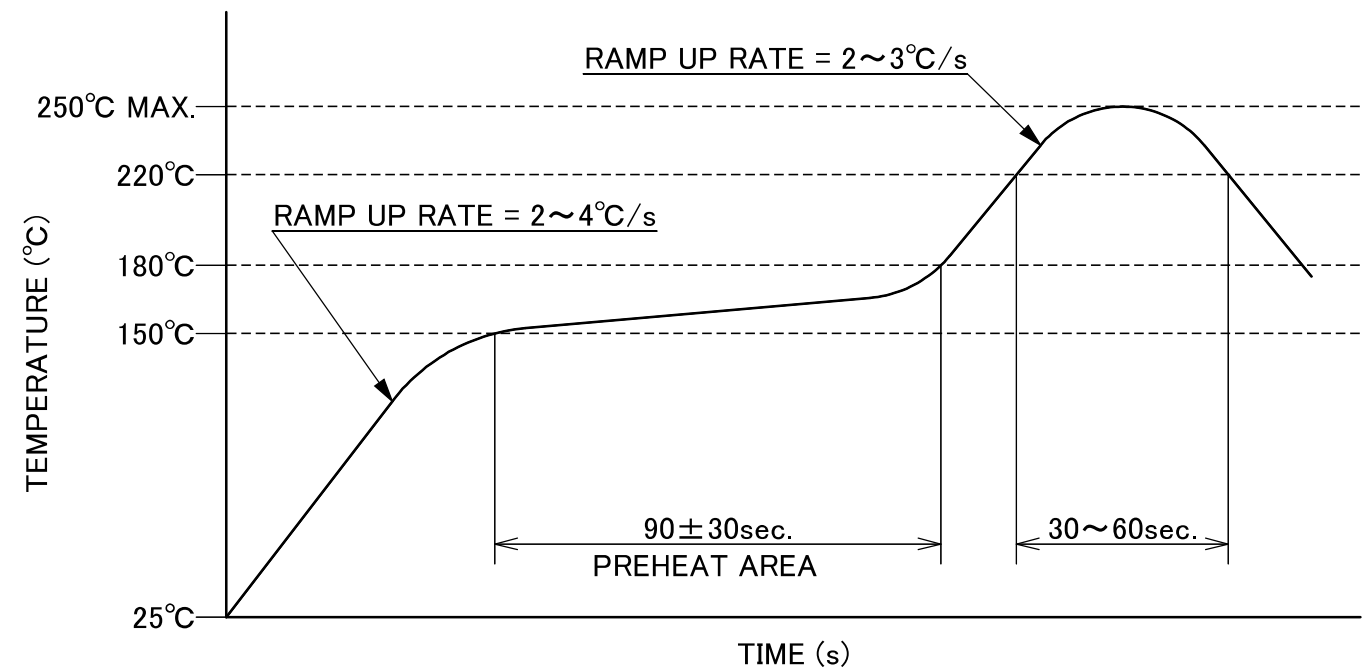


NOTES  
2.MATERIAL  
COVER FILM : PI  
CONDUCTOR : COPPER(RARE)  
BASE FILM : PI  
STIFFENER : PI  
ADHESIVE : THERMOSETTING ADHESIVE  
3.FINISH  
Au OVER Ni PLATING.

|                    |      |                  |      |                                                                                                             |            |                  |       |      |
|--------------------|------|------------------|------|-------------------------------------------------------------------------------------------------------------|------------|------------------|-------|------|
| ANGLE              | ±2°  | 6 OVER 30 MAX.   | ±0.3 | <div>PROJECTION</div>  | SERIES No. | CUSTOMER COPY    |       |      |
| 6 MAX.             | ±0.2 | 30 OVER 120 MAX. | ±0.5 |                                                                                                             | R5         |                  |       |      |
| GENERAL TOLERANCE. |      |                  |      | <div>TITLE</div> <div>MINIFLEX® 5-BFN II</div>                                                              | SCALE      | <div>I-PEX</div> |       |      |
| DWG.               |      | DATE             |      |                                                                                                             | 10:1       |                  |       |      |
| CHK.               |      |                  |      |                                                                                                             | UNIT       |                  |       |      |
|                    |      |                  |      |                                                                                                             | mm         |                  |       |      |
| APP.               |      |                  |      |                                                                                                             | DWG. No.   | SIZE             | SHEET | REV. |
|                    |      |                  |      |                                                                                                             | 20542      | A3               | 3/5   | 10   |
|                    |      |                  |      |                                                                                                             |            |                  |       |      |



CONNECTOR ON RECOMMENDED FOOTPRINT PATTERN

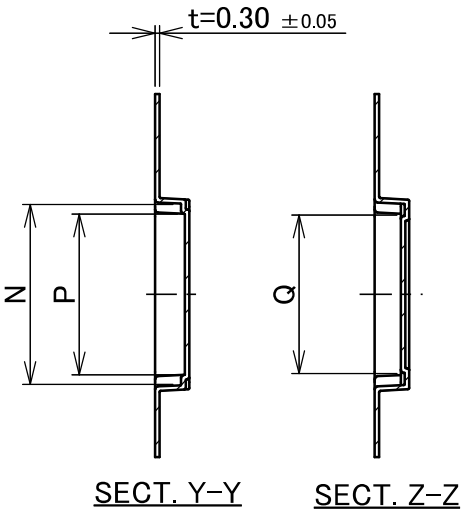
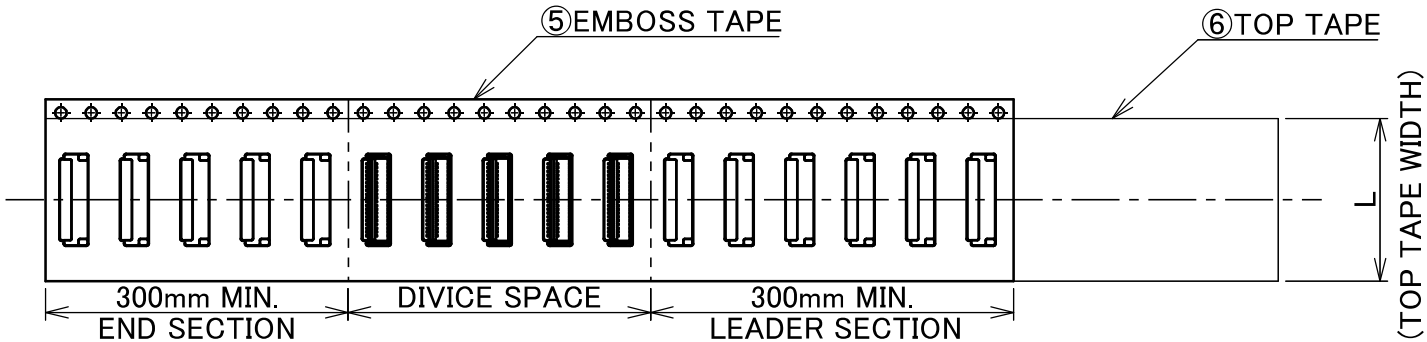
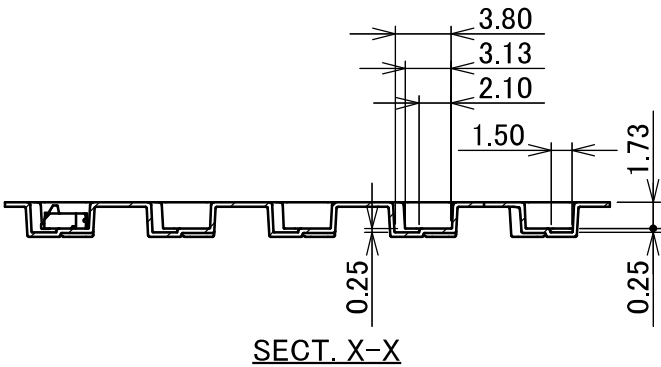
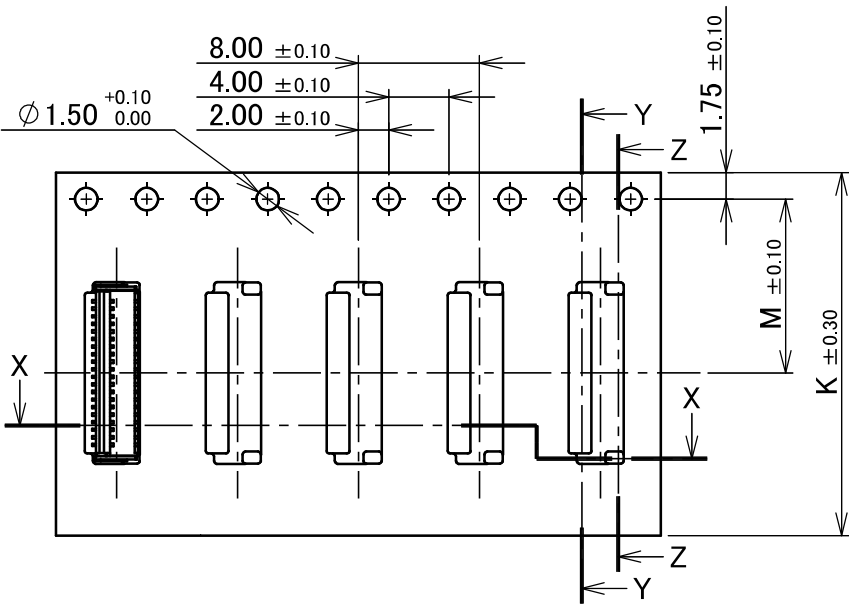
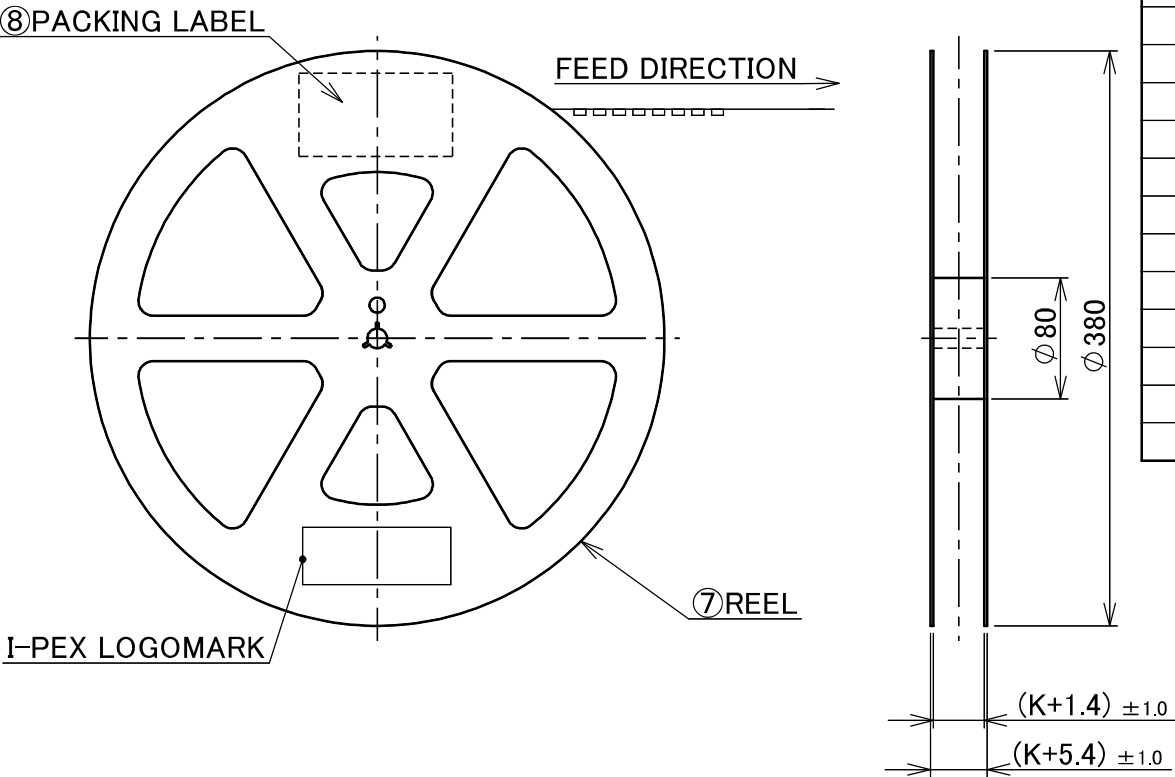


REFLOW TEMPERATURE PROFILE  
SENJU METAL INDUSTRY CO., LTD. : M705-SHF(Sn96.5 Ag3.0 Cu0.5)

|                    |      |                  |      |          |                      |               |       |      |
|--------------------|------|------------------|------|----------|----------------------|---------------|-------|------|
| ANGLE              | ±2°  | 6 OVER 30 MAX.   | ±0.3 |          | SERIES No.<br><br>R5 | CUSTOMER COPY |       |      |
| 6 MAX.             | ±0.2 | 30 OVER 120 MAX. | ±0.5 |          |                      |               |       |      |
| GENERAL TOLERANCE. |      |                  |      |          |                      | SCALE         |       |      |
| DWG.               | DATE |                  |      |          |                      | 10:1          |       |      |
| CHK.               |      |                  |      |          |                      | UNIT          |       |      |
| APP.               |      |                  |      |          |                      | mm            |       |      |
|                    |      |                  |      | DWG. No. | 20542                | SIZE          | SHEET | REV. |
|                    |      |                  |      |          |                      | A3            | 4/5   | 10   |

| PART No.      | K    | L    | M    | N    | P    | Q    | QTY. PER EMBOSS REEL<br>(PIECES / REEL) | QTY. PER PACKING CARTON<br>(REELS / CARTON)   |
|---------------|------|------|------|------|------|------|-----------------------------------------|-----------------------------------------------|
| 20542-004E-01 | 12.0 | 9.5  | 5.5  | 4.0  | 2.5  | 2.0  | 5000 PIECES / REEL                      | 8 REELS / CARTON<br>( 40000 PIECES / CARTON ) |
| 20542-006E-01 |      |      |      | 5.0  | 3.5  | 3.0  |                                         |                                               |
| 20542-008E-01 | 16.0 | 13.5 | 7.5  | 6.0  | 4.5  | 4.0  | 5000 PIECES / REEL                      | 7 REELS / CARTON<br>( 35000 PIECES / CARTON ) |
| 20542-010E-01 |      |      |      | 7.0  | 5.5  | 5.0  |                                         |                                               |
| 20542-012E-01 |      |      |      | 8.0  | 6.5  | 6.0  |                                         |                                               |
| 20542-014E-01 |      |      |      | 9.0  | 7.5  | 7.0  |                                         |                                               |
| 20542-016E-01 | 24.0 | 21.5 | 11.5 | 10.0 | 8.5  | 8.0  | 5000 PIECES / REEL                      | 5 REELS / CARTON<br>( 25000 PIECES / CARTON ) |
| 20542-018E-01 |      |      |      | 11.0 | 9.5  | 9.0  |                                         |                                               |
| 20542-020E-01 |      |      |      | 12.0 | 10.5 | 10.0 |                                         |                                               |
| 20542-022E-01 |      |      |      | 13.0 | 11.5 | 11.0 |                                         |                                               |
| 20542-024E-01 |      |      |      | 14.0 | 12.5 | 12.0 |                                         |                                               |
| 20542-026E-01 |      |      |      | 15.0 | 13.5 | 13.0 |                                         |                                               |
| 20542-028E-01 |      |      |      | 16.0 | 14.5 | 14.0 |                                         |                                               |
| 20542-030E-01 |      |      |      | 17.0 | 15.5 | 15.0 |                                         |                                               |

- NOTES.
4. TAPING SPECIFICATION FOLLOWS JIS C 0806 (IEC 60286-3).
5. MAKE EMPTY SECTION OF LEADER AND END ON EACH END OF THE TAPE.
6. TOP TAPE SHALL NOT STICK OUT FROM EMBOSS TAPE.
7. TOP TAPE SHALL NOT COVER FEED HOLE.



|     |               |                     |                                       |
|-----|---------------|---------------------|---------------------------------------|
| 8   | PACKING LABEL | -                   | -                                     |
| 7   | REEL          | PS                  | BLACK                                 |
| 6   | TOP TAPE      | PET<br>TRANSPARENCY | ANTI-STATIC TYPE<br>HEAT WELDING TYPE |
| 5   | EMBOSS TAPE   | PS<br>TRANSPARENCY  | ANTI-STATIC TYPE                      |
| NO. | DISCRIPTION   | MATERIAL            | FINISH , REMARKS                      |

|                    |      |                  |      |                                                                                       |            |               |       |      |
|--------------------|------|------------------|------|---------------------------------------------------------------------------------------|------------|---------------|-------|------|
| ANGLE              | ±2°  | 6 OVER 30 MAX.   | ±0.3 | PROJECTION                                                                            | SERIES No. | CUSTOMER COPY |       |      |
| 6 MAX.             | ±0.2 | 30 OVER 120 MAX. | ±0.5 |  | R5         |               |       |      |
| GENERAL TOLERANCE. |      |                  |      | TITLE<br>MINIFLEX® 5-BFN II                                                           |            | SCALE         | I-PEX |      |
| DWG.               | DATE |                  |      |                                                                                       |            | 1:X           |       |      |
| CHK.               |      |                  |      |                                                                                       |            | UNIT          |       |      |
| APP.               |      |                  |      |                                                                                       |            | mm            |       |      |
|                    |      |                  |      | DWG. No.                                                                              | 20542      | SIZE          | SHEET | REV. |
|                    |      |                  |      |                                                                                       |            | A3            | 5/5   | 10   |