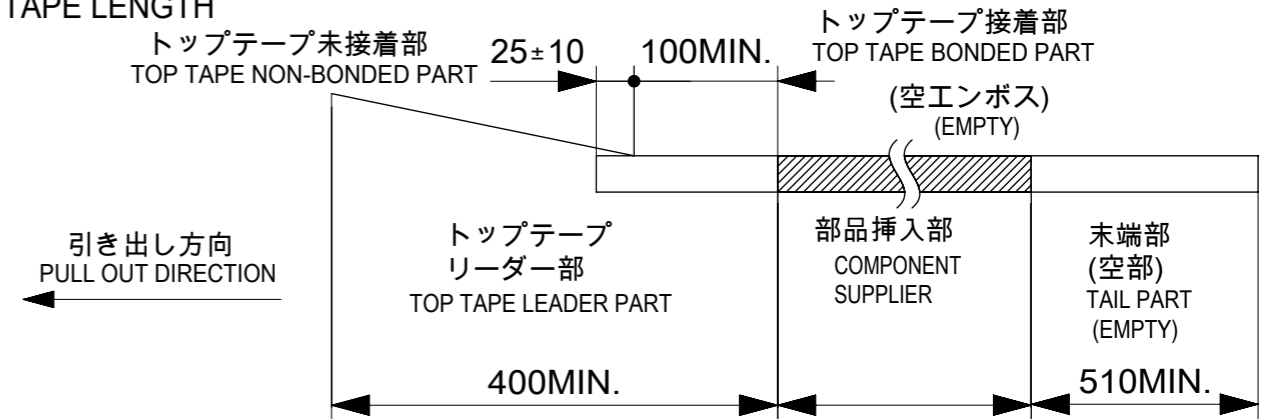


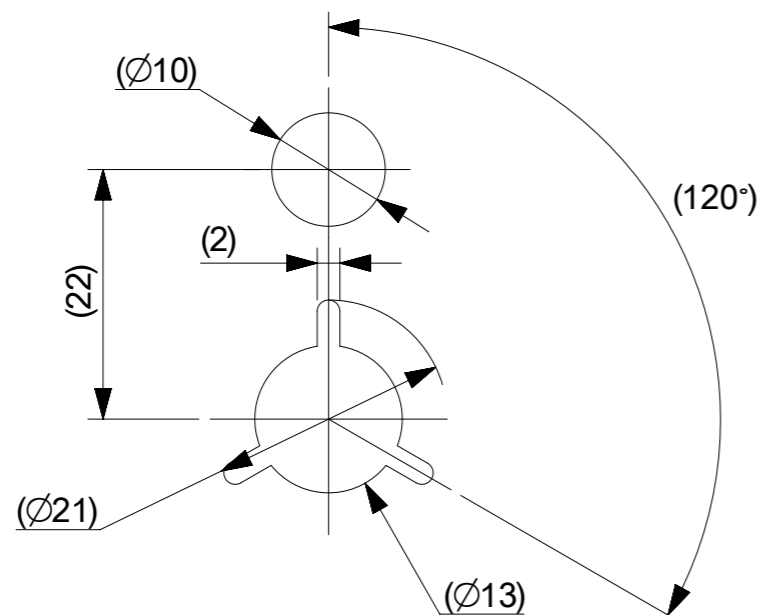
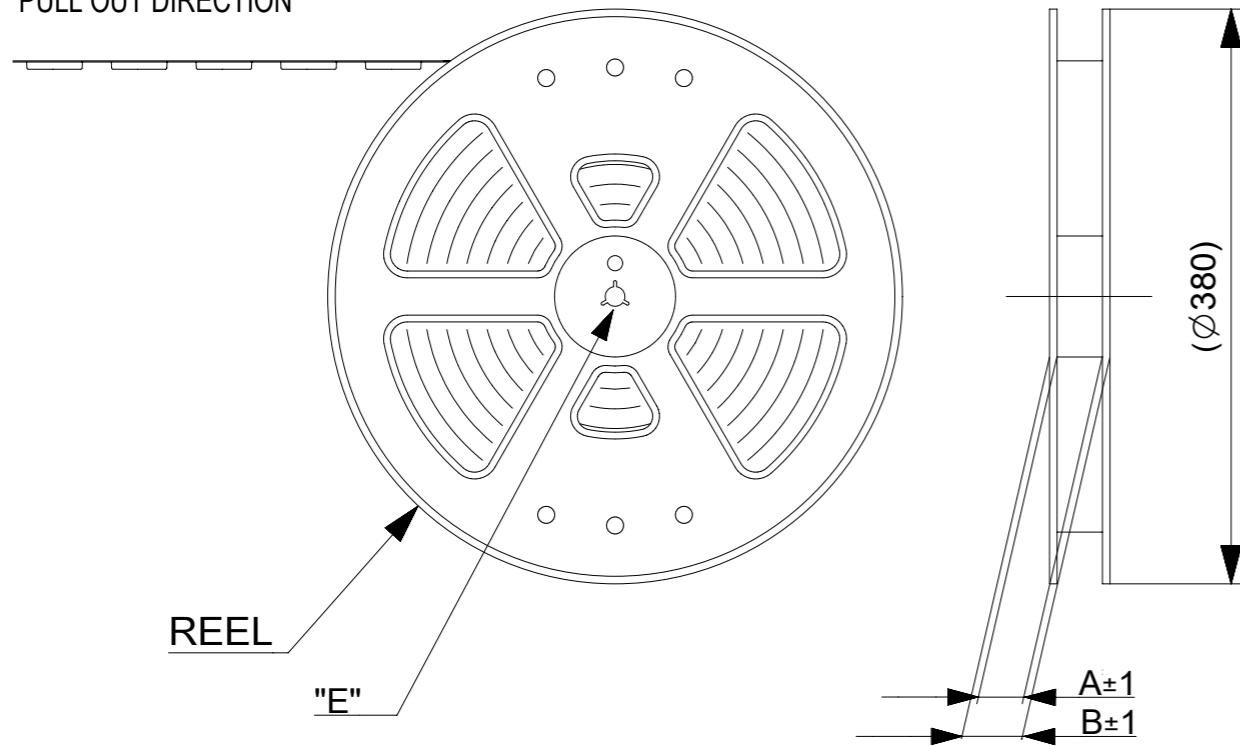
NOTES

- 梱包数量 : 2000個 / リール  
NUMBER OF CONNECTORS : 2000 PCS/REEL
- リードテープ長さ  
LEAD TAPE LENGTH



- トップテープの剥離強度については、IEC60286-3に準拠。  
TOP TAPE PEEL FORCE IS DEFINED BY IEC60286-3.
- 製品詳細寸法については、図面781191002をご参照ください。  
REFER TO THE 781191002 ABOUT DIMENSIONS IN DETAIL.
- 材料  
 キャリアテープ : ポリスチレン(PS)  
 トップテープ : PET, OTHER  
 リール : ポリスチレン(PS)(リサイクル材を含む)  
 MATERIAL  
 CARRIER TAPE : POLYSTYRENE(PS)  
 TOP TAPE : PET, OTHER  
 REEL : POLYSTYRENE(PS) (RECYCLE MATERIAL CONTAINED)
- 環境負荷物質の管理のため「化学物質ガイドライン」の内容を満足すること。  
"CHEMICAL SUBSTANCES GUIDELINE" SHALL BE APPLIED FOR MANAGEMENT OF ENVIRONMENTAL HAZARDOUS MATERIALS.

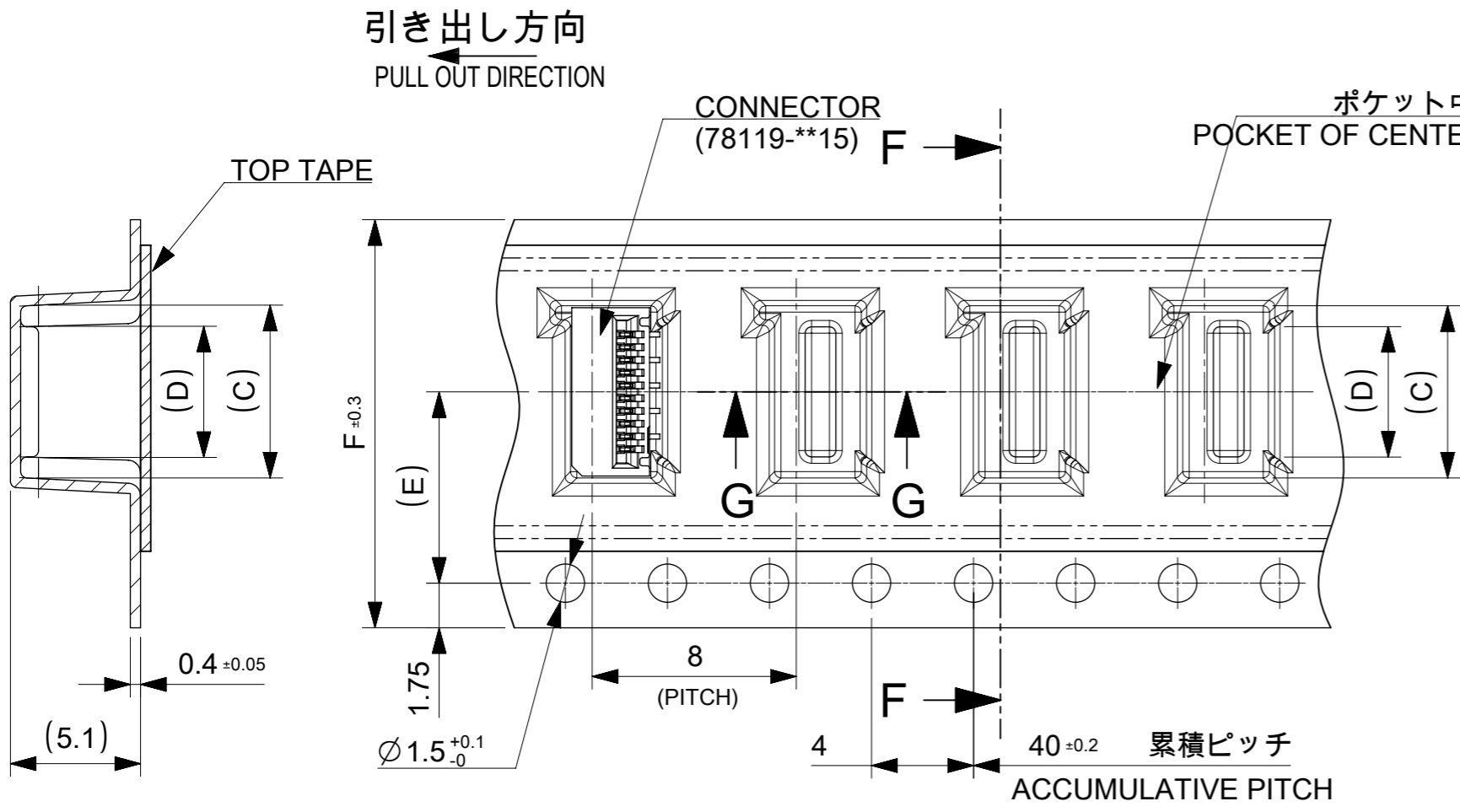
引き出し方向  
PULL OUT DIRECTION



DETAIL "E"

CONNECTOR SERIES NO. 78119\*\*25

|   |         |                        |            |                                       |                 |
|---|---------|------------------------|------------|---------------------------------------|-----------------|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |         | CURRENT REV DESC:      |            | <b>molex</b>                          |                 |
| DIMENSION UNITS   | SCALE   |                        |            |                                       |                 |
| mm  | 2:1     |                        |            | 0.5 FPC CONN. N-ZIF ST AU EMBS TP PKG |                 |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |         | EC NO: 677105          |            | PRODUCT CUSTOMER DRAWING              |                 |
| ANGULAR TOL   | ± 1.0 ° | DRWN: NARENC           | 2021/09/07 | DOCUMENT NUMBER                       |                 |
| 4 PLACES  | ± 0.1   | CHK'D: TKON            | 2021/09/13 | 781190002                             |                 |
| 3 PLACES  | ± 0.1   | APPR: SHOSHIKAWA       | 2021/09/16 | DOC TYPE                              | DOC PART        |
| 2 PLACES  | ± 0.1   | INITIAL REVISION:      |            | PSD                                   | 000             |
| 1 PLACE   | ± 0.1   | DRWN: NASANUMA         | 2016/04/26 | REVISION                              |                 |
| 0 PLACES  | ± 0.1   | APPR: KMORIKAWA        | 2016/08/02 | B                                     |                 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | THIRD ANGLE PROJECTION | DRAWING    | SERIES                                | MATERIAL NUMBER |
|   |         |                        | A3-SIZE    | 78119                                 | SEE TABLE       |
|   |         |                        |            | CUSTOMER                              | SHEET NUMBER    |
|   |         |                        |            |                                       | 1 OF 3          |



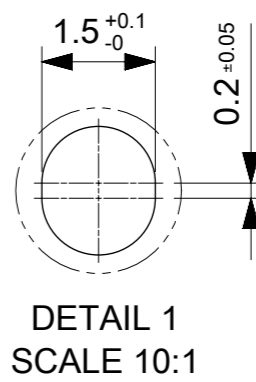
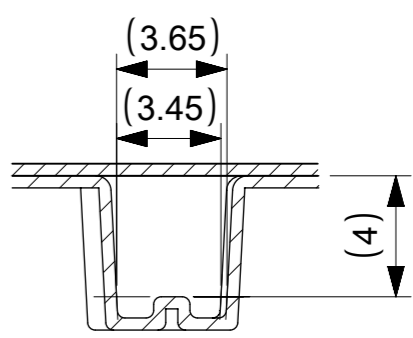
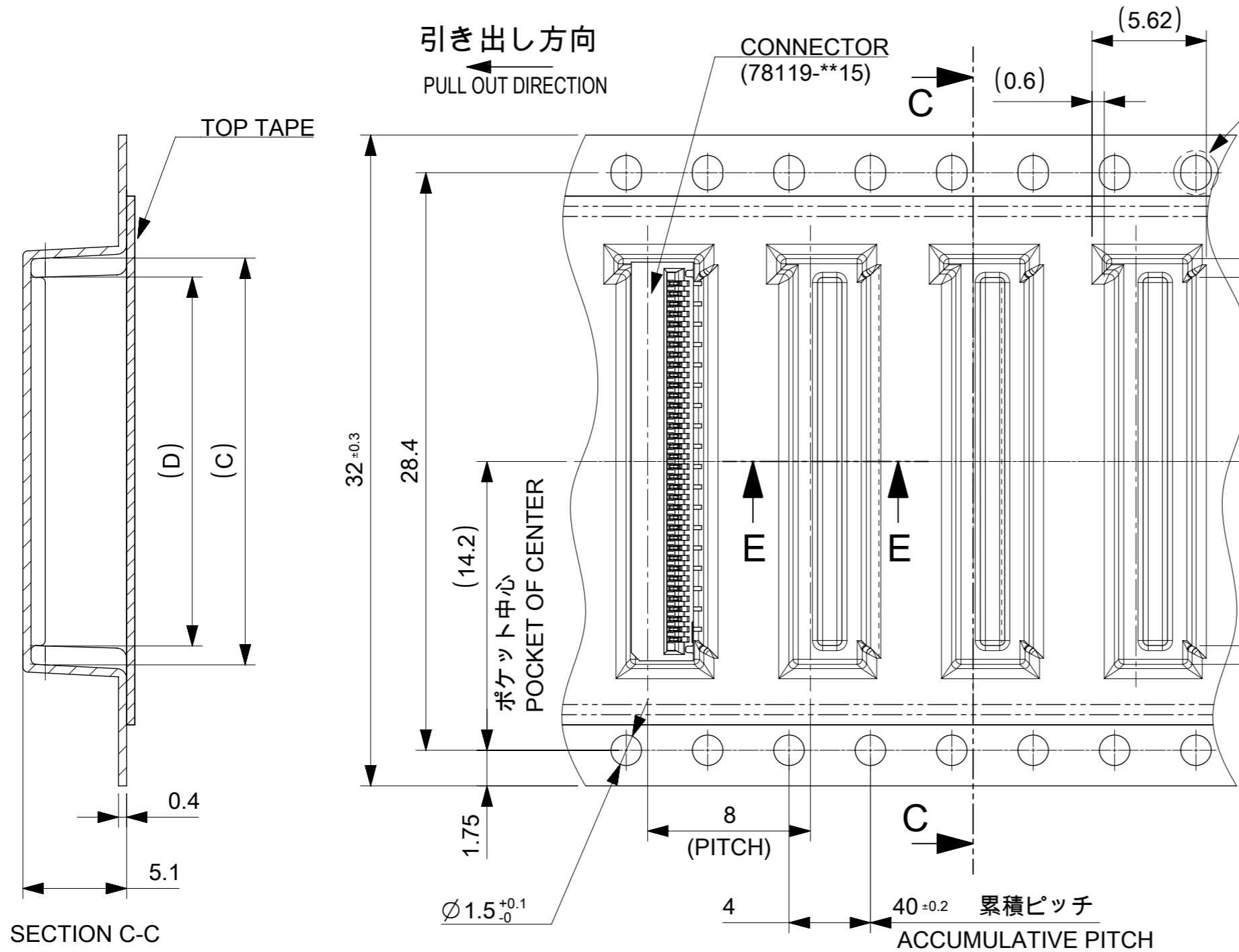
|                 |      |           |      |      |      |                                     |         |
|-----------------|------|-----------|------|------|------|-------------------------------------|---------|
| 24              | 11.5 | 14.1      | 15.8 | 29.4 | 25.4 | 781192820                           | 28      |
|                 |      | 13.6      | 15.3 |      |      | 781192720                           | 27      |
|                 |      | 13.1      | 14.8 |      |      | 781192620                           | 26      |
|                 |      | 12.6      | 14.3 |      |      | 781192520                           | 25      |
|                 |      | 12.1      | 13.8 |      |      | 781192420                           | 24      |
|                 |      | 11.6      | 13.3 |      |      | 781192320                           | 23      |
|                 |      | 11.1      | 12.8 |      |      | 781192220                           | 22      |
|                 |      | 10.6      | 12.3 |      |      | 781192120                           | 21      |
|                 |      | 10.1      | 11.8 |      |      | 781192020                           | 20      |
|                 |      | 9.6       | 11.3 |      |      | 781191920                           | 19      |
|                 |      | 9.1       | 10.8 |      |      | 781191820                           | 18      |
|                 |      | 8.6       | 10.3 |      |      | 781191720                           | 17      |
| 8.1             | 9.8  | 781191620 | 16   |      |      |                                     |         |
| 7.6             | 9.3  | 781191520 | 15   |      |      |                                     |         |
| 16              | 7.5  | 7.1       | 8.8  | 21.4 | 17.4 | 781191420                           | 14      |
|                 |      | 6.6       | 8.3  |      |      | 781191320                           | 13      |
|                 |      | 6.1       | 7.8  |      |      | 781191220                           | 12      |
|                 |      | 5.6       | 7.3  |      |      | 781191120                           | 11      |
|                 |      | 5.1       | 6.8  |      |      | 781191020                           | 10      |
|                 |      | 4.6       | 6.3  |      |      | 781190920                           | 9       |
|                 |      | 4.1       | 5.8  |      |      | 781190820                           | 8       |
|                 |      | 3.6       | 5.3  |      |      | 781190720                           | 7       |
| 3.1             | 4.8  | 781190620 | 6    |      |      |                                     |         |
| F<br>TAPE WIDTH | E    | D         | C    | B    | A    | EMBOSSED PACKAGE<br>オーダー番号 ORDER NO | CIRCUIT |

# 16mm, 24mm幅キャリアテープ

## 16mm, 24mm WIDTH CARRIER TAPE

CONNECTOR SERIES NO. 78119\*\*25

|   |  |                             |                 |                          |              |
|---|--|-----------------------------|-----------------|--------------------------|--------------|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  | CURRENT REV DESC:           |                 | <b>molex</b>             |              |
| DIMENSION UNITS   | SCALE  | EC NO: 677105               |                 |                          |              |
| mm  | 4:1  | DRWN: NARENC 2021/09/07     |                 | PRODUCT CUSTOMER DRAWING |              |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |  | CHK'D: TKON 2021/09/13      |                 | DOCUMENT NUMBER          |              |
| ANGULAR TOL ± 1.0°  |  | APPR: SHOSHIKAWA 2021/09/16 |                 | 781190002                |              |
| 4 PLACES ± 0.1  | INITIAL REVISION:                                    |                             | DOC TYPE        |                          | DOC PART     |
| 3 PLACES ± 0.1  | DRWN: NASANUMA 2016/04/26                            |                             | PSD             |                          | 000          |
| 2 PLACES ± 0.1  | APPR: KMORIKAWA 2016/08/02                           |                             | REVISION        |                          | B            |
| 1 PLACE ± 0.1   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                             | MATERIAL NUMBER |                          | CUSTOMER     |
| 0 PLACES ± 0.1  | THIRD ANGLE PROJECTION                               | DRAWING                     | SERIES          | SEE TABLE                | SHEET NUMBER |
|   |  | A3-SIZE                     | 78119           |                          | 2 OF 3       |



|            |      |      |      |      |                                     |         |
|------------|------|------|------|------|-------------------------------------|---------|
| 32         | 18.1 | 19.8 | 37.4 | 33.4 | 781193620                           | 36      |
|            | 17.6 | 19.3 |      |      | 781193520                           | 35      |
|            | 17.1 | 18.8 |      |      | 781193420                           | 34      |
|            | 16.6 | 18.3 |      |      | 781193320                           | 33      |
|            | 16.1 | 17.8 |      |      | 781193220                           | 32      |
|            | 15.6 | 17.3 |      |      | 781193120                           | 31      |
|            | 15.1 | 16.8 |      |      | 781193020                           | 30      |
|            | 14.6 | 16.3 |      |      | 781192920                           | 29      |
| TAPE WIDTH | D    | C    | B    | A    | EMBOSSED PACKAGE<br>オーダー番号 ORDER NO | CIRCUIT |

CONNECTOR SERIES NO. 78119\*\*25

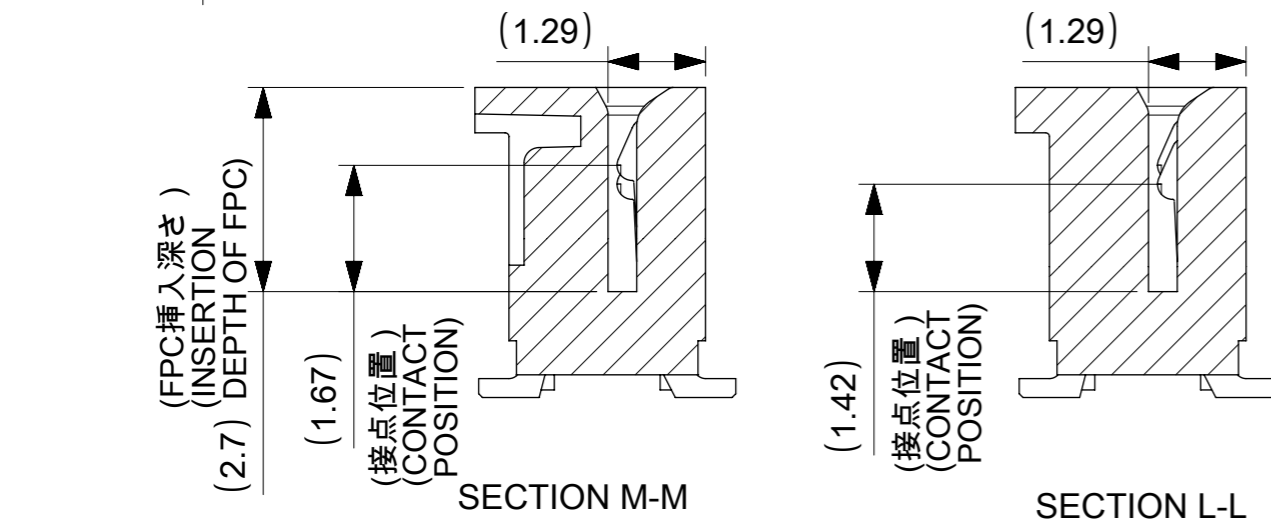
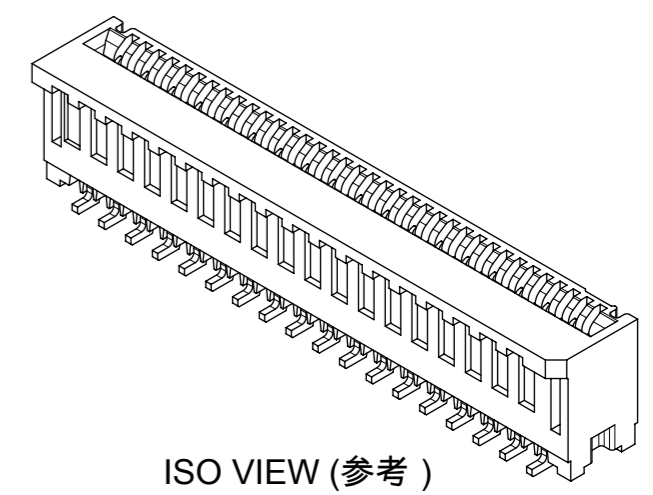
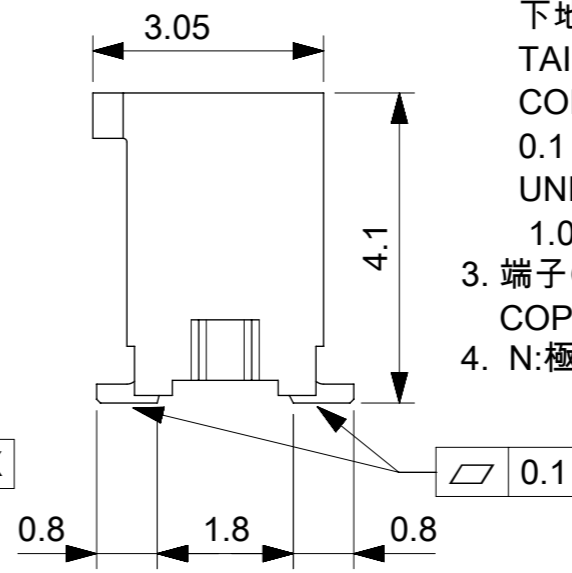
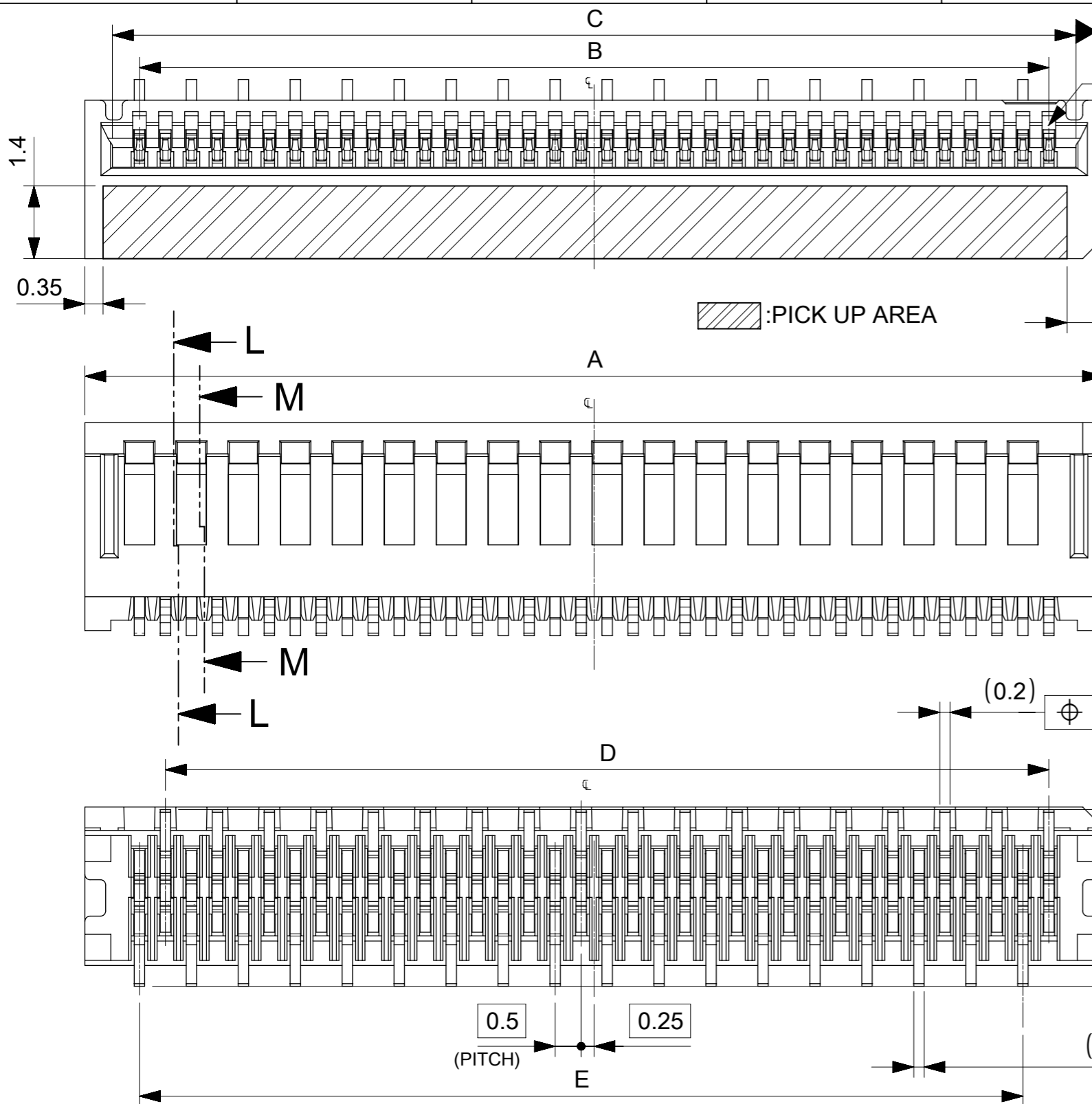
# 32mm幅キャリアテープ

## 32mm WIDTH CARRIER TAPE

|   |         |  |         |        |                 |          |              |  |  |
|---|---------|--|---------|--------|-----------------|----------|--------------|--|--|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |         |  |         |        |                 |          |              |  |  |
| DIMENSION UNITS   | SCALE   | CURRENT REV DESC:  |         |        |                 |          |              |  |  |
| mm  | 4:1     | <p><b>molex</b></p> <p>0.5 FPC CONN. N-ZIF ST AU EMBS TP PKG</p> <p>PRODUCT CUSTOMER DRAWING</p> <p>DOCUMENT NUMBER: 781190002    DOC TYPE: PSD    DOC PART: 000    REVISION: B</p> <p>MATERIAL NUMBER: SEE TABLE    CUSTOMER:    SHEET NUMBER: 3 OF 3</p> |         |        |                 |          |              |  |  |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |         |  |         |        |                 |          |              |  |  |
| ANGULAR TOL   | ± 1.0 ° |  |         |        |                 |          |              |  |  |
| 4 PLACES  | ± 0.1   |  |         |        |                 |          |              |  |  |
| 3 PLACES  | ± 0.1   |  |         |        |                 |          |              |  |  |
| 2 PLACES  | ± 0.1   |  |         |        |                 |          |              |  |  |
| 1 PLACE   | ± 0.1   |  |         |        |                 |          |              |  |  |
| 0 PLACES  | ± 0.1   |  |         |        |                 |          |              |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |         | THIRD ANGLE PROJECTION   | DRAWING | SERIES | MATERIAL NUMBER | CUSTOMER | SHEET NUMBER |  |  |
|   |         |  | A3-SIZE | 78119  | SEE TABLE       |          | 3 OF 3       |  |  |

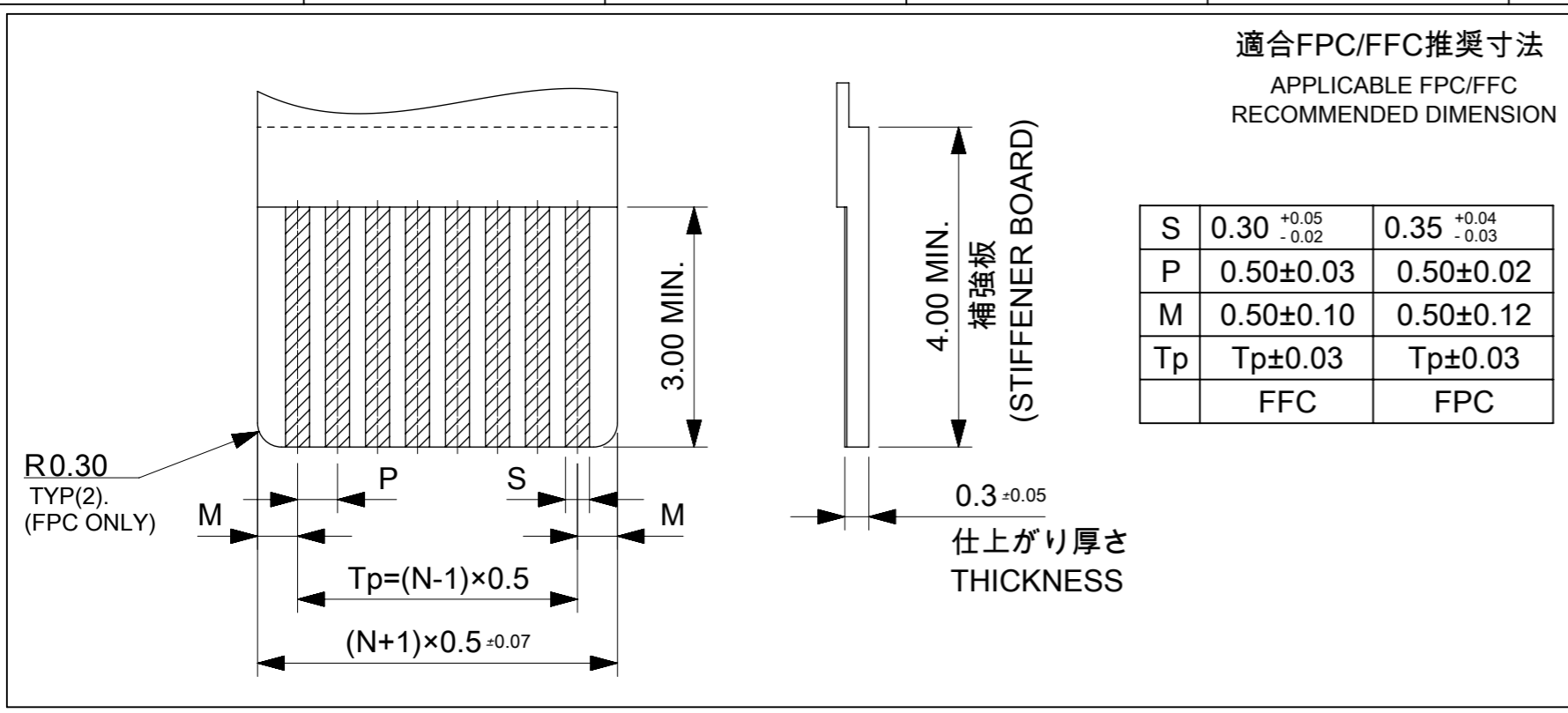
NOTES

1. 使用材料 MATERIALS  
 ハウジング : 液晶ポリマー (LCP)  
 ガラス充填、UL94 V-0、黒色  
 端子 : リン青銅 t=0.2mm  
 HOUSING : LIQUID CRYSTAL POLYMER(LCP)  
 GLASS FILLED, UL94 V-0, BLACK  
 TERMINAL: PHOSPHOR BRONZE t=0.2mm
2. メッキ仕様 PLATING  
 端子 TERMINAL  
 テール部 : 金メッキ  
 接点部 : 金メッキ 0.1μm以上  
 下地 : ニッケルメッキ 1.0μm以上  
 TAIL AREA : GOLD PLATING  
 CONTACT AREA : GOLD PLATING  
 0.1 MICROMETER MINIMUM  
 UNDER PLATING: Nickel PLATING  
 1.0 MICROMETER MINIMUM
3. 端子の平坦度はテール部にて0.1mm以下とする。  
 COPLANALITY OF SOLDER TAILS: 0.1mm MAX.
4. N: 極数 N: CIRCUIT



CONNECTOR SERIES NO. 78119\*\*25

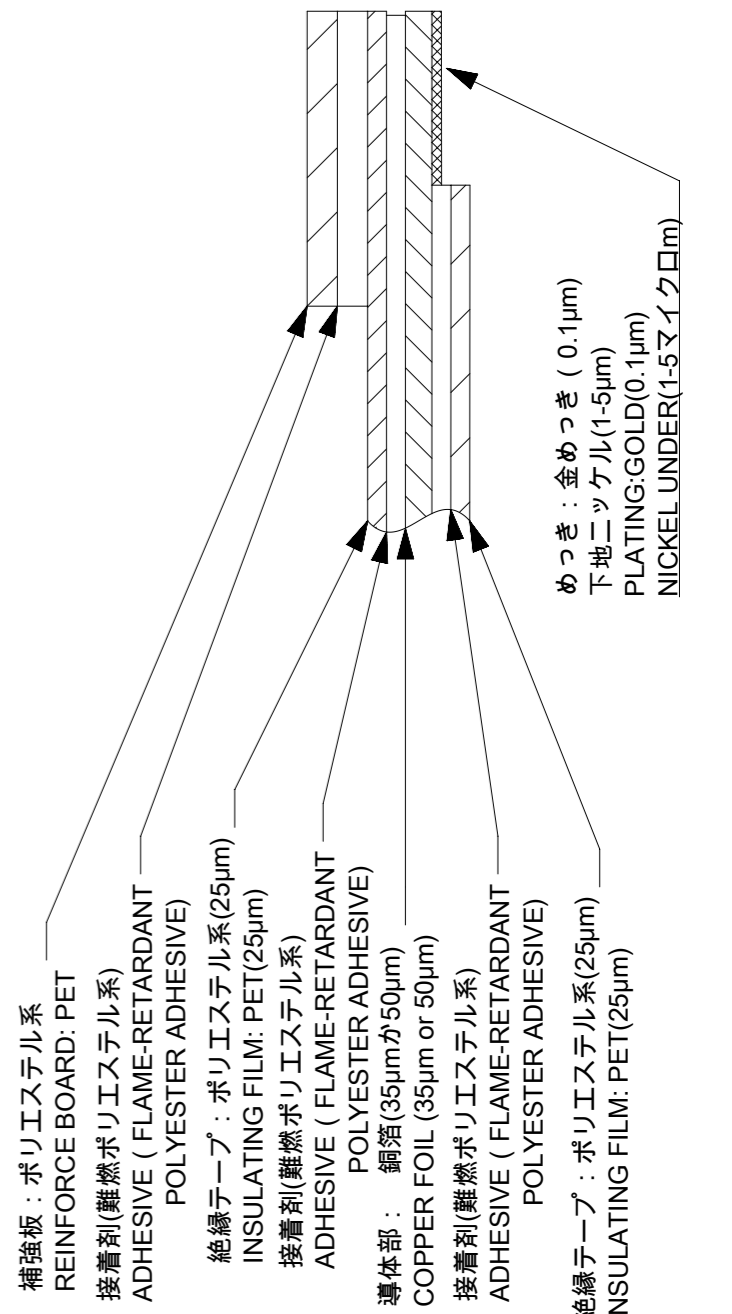
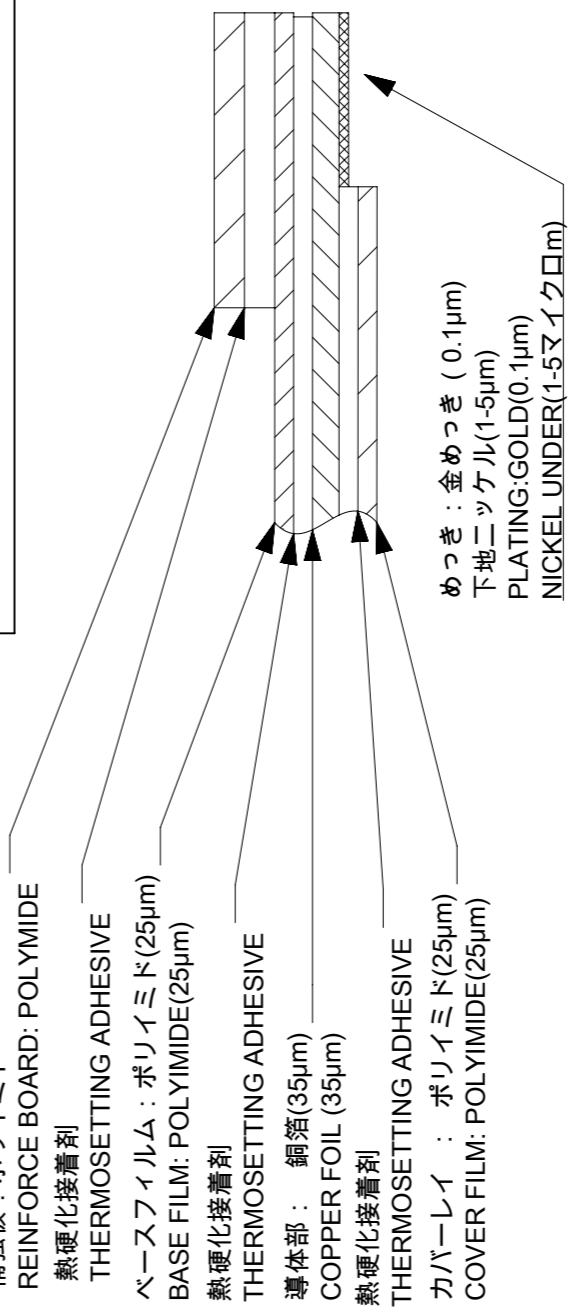
|   |                    |                          |                        |
|---|--------------------|--------------------------|------------------------|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                    |                          |                        |
| EC NO: 107065   | DRWN: NASANUMA     | CHK'D: YKOBAYASHI02      | APPR: KMORIKAWA        |
| 2016/02/17  | 2016/08/01         | 2016/08/02               |                        |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |                    | DIMENSION UNITS          | SCALE                  |
| ANGULAR TOL $\pm 1.0^\circ$   |                    | MM                       | 10:1                   |
| 4 PLACES $\pm 0.1$  | 3 PLACES $\pm 0.1$ | DRWN BY                  | DATE                   |
| 2 PLACES $\pm 0.1$  | 1 PLACE $\pm 0.1$  | NASANUMA                 | 2016/02/17             |
| 0 PLACES $\pm 0.1$  |                    | CHK'D BY                 | DATE                   |
|   |                    | YKOBAYASHI02             | 2016/08/01             |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                    | APPR BY                  | DATE                   |
|   |                    | KMORIKAWA                | 2016/08/02             |
|   |                    | DRAWING SIZE             | THIRD ANGLE PROJECTION |
|   |                    | A3                       |                        |
|   |                    | PRODUCT CUSTOMER DRAWING |                        |
|   |                    | SERIES                   | MATERIAL NUMBER        |
|   |                    | 78119                    |                        |
|   |                    | CUSTOMER                 |                        |
|   |                    | DOCUMENT NUMBER          | DOC TYPE               |
|   |                    | 781191002                | PSD                    |
|   |                    | DOC PART                 | SHEET NUMBER           |
|   |                    | 000                      | 1 OF 3                 |



適合FPC/FFC推奨寸法  
APPLICABLE FPC/FFC  
RECOMMENDED DIMENSION

|    |  |  |
|----|--|--|
| S  | 0.30 <sup>+0.05</sup> / <sub>-0.02</sub> | 0.35 <sup>+0.04</sup> / <sub>-0.03</sub> |
| P  | 0.50±0.03                                | 0.50±0.02                                |
| M  | 0.50±0.10                                | 0.50±0.12                                |
| Tp | Tp±0.03                                  | Tp±0.03                                  |
|    | FFC                                      | FPC                                      |

ELV & RoHS COMPLIANT



FPC/FFCについて  
打抜き方向は導体側から補強版側を推奨します。  
導体部については軟箔銅35μmまたは、50μmを推奨いたします。  
接着剤の接点部への付着は導通不良の原因になりますので、染み出し無きことを推奨いたします。  
FPC/FFCに規定された定格温度が、FPC/FFC単体前提である場合が御座います。  
コネクタと組み合わせての実使用において、接着層が劣化する等の信頼性を満足できないケースを回避する為、  
実機での評価 / 確認をお願い致します。

ABOUT FPC/FFC  
RECOMMENDED PUNCHING DIRECTION: FROM CONDUCTOR SIDE TO STIFFENER SIDE.  
RECOMMENDED CONDUCTOR SPEC: SOFT COPPER FOIL.  
RECOMMENDED CONDUCTOR THICKNESS: 35 MICROMETER OR 50 MICROMETER.  
RECOMMENDED PUT APPROPRIATE AMOUNT OF ADHESIVE ON ADHEREND BECAUSE THERE IS  
A POSSIBILITY THAT EXTRA ADHESIVE CAUSES THE DEFECT IN ELECTRICAL CONTINUITY.  
THE HEAT RESISTANCE OF FPC/FFC IS ONLY FPC/FFC SPEC.  
TO PREVENT THE CASE THAT RELIABILITY CANNOT BE SATISFIED (THE ADHESIVE IS  
DETERIORATED etc.) PLEASE DO THE EVALUATION AND THE CONFIRMATION  
WITH ACTUAL CONNECTOR.

FPCについて  
補強フィルム材は、ポリイミドを推奨します。ベースフィルムは25μmを推奨します。  
接着剤は熱硬化接着剤を推奨します。

ABOUT FPC  
RECOMMENDED STIFFENER MATERIAL: POLYIMIDE.  
RECOMMENDED BASE FILM THICKNESS: 25 MICROMETER.  
RECOMMENDED ADHESIVE: THERMOSETTING ADHESIVE.

FPC構成推奨仕様  
STRUCTURE OF FPC

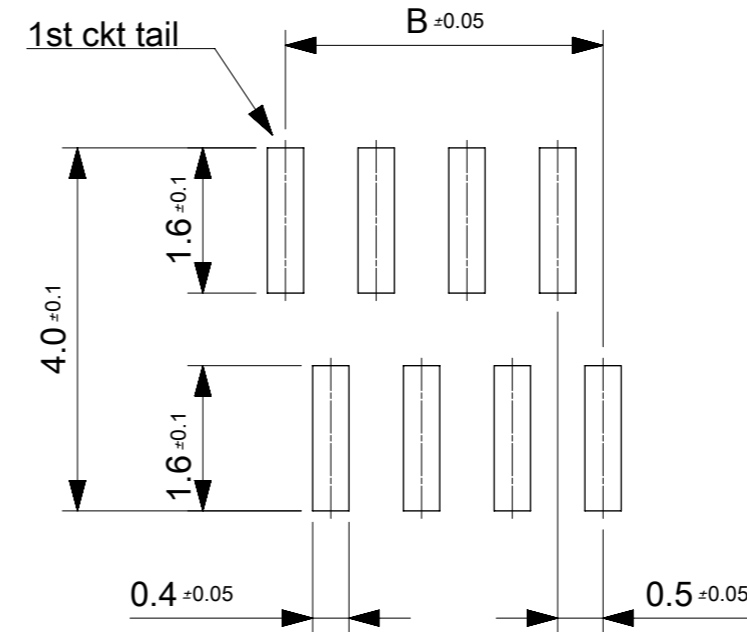
FFC構成推奨仕様  
STRUCTURE OF FFC

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

|   |                |  |          |                 |                        |  |
|---|----------------|--|----------|-----------------|------------------------|--|
| EC NO: 107065<br>DRWN: NASANUMA<br>CHK'D: YKOBAYASHI02<br>APPR: KMORIKAWA | 2016/02/17     | GENERAL TOLERANCES (UNLESS SPECIFIED)                |          | DIMENSION UNITS | SCALE                  |  |
|   | 2016/08/01     | ANGULAR TOL ± 1.0 °                                  |          | MM              | 12:1                   |  |
|   | 2016/08/02     | 4 PLACES ± 0.1                                       | NASANUMA | DATE            | 2016/02/17             |  |
|   |                | 3 PLACES ± 0.1                                       | CHK'D BY | DATE            | 2016/08/01             |  |
|   |                | 2 PLACES ± 0.1                                       | APPR BY  | DATE            | 2016/08/02             |  |
|   | 1 PLACE ± 0.1  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |          | DRAWING SIZE    | THIRD ANGLE PROJECTION | PRODUCT CUSTOMER DRAWING<br>SERIES: 78119<br>MATERIAL NUMBER: 781191002<br>CUSTOMER: |
|   | 0 PLACES ± 0.1 | A3   |          |                 | DOC TYPE: PSD          |  |
|   |                |  |          | DOC PART: 000   | SHEET NUMBER: 2 OF 3   |  |

|    |    |      |      |      |           |    |
|----|----|------|------|------|-----------|----|
| 17 | 17 | 18.6 | 17.5 | 19.6 | 781193620 | 36 |
| 16 | 17 | 18.1 | 17   | 19.1 | 781193520 | 35 |
| 16 | 16 | 17.6 | 16.5 | 18.6 | 781193420 | 34 |
| 15 | 16 | 17.1 | 16   | 18.1 | 781193320 | 33 |
| 15 | 15 | 16.6 | 15.5 | 17.6 | 781193220 | 32 |
| 14 | 15 | 16.1 | 15   | 17.1 | 781193120 | 31 |
| 14 | 14 | 15.6 | 14.5 | 16.6 | 781193020 | 30 |
| 13 | 14 | 15.1 | 14   | 16.1 | 781192920 | 29 |
| 13 | 13 | 14.6 | 13.5 | 15.6 | 781192820 | 28 |
| 12 | 13 | 14.1 | 13   | 15.1 | 781192720 | 27 |
| 12 | 12 | 13.6 | 12.5 | 14.6 | 781192620 | 26 |
| 11 | 12 | 13.1 | 12   | 14.1 | 781192520 | 25 |
| 11 | 11 | 12.6 | 11.5 | 13.6 | 781192420 | 24 |
| 10 | 11 | 12.1 | 11   | 13.1 | 781192320 | 23 |
| 10 | 10 | 11.6 | 10.5 | 12.6 | 781192220 | 22 |
| 9  | 10 | 11.1 | 10   | 12.1 | 781192120 | 21 |
| 9  | 9  | 10.6 | 9.5  | 11.6 | 781192020 | 20 |
| 8  | 9  | 10.1 | 9    | 11.1 | 781191920 | 19 |
| 8  | 8  | 9.6  | 8.5  | 10.6 | 781191820 | 18 |
| 7  | 8  | 9.1  | 8    | 10.1 | 781191720 | 17 |
| 7  | 7  | 8.6  | 7.5  | 9.6  | 781191620 | 16 |
| 6  | 7  | 8.1  | 7    | 9.1  | 781191520 | 15 |
| 6  | 6  | 7.6  | 6.5  | 8.6  | 781191420 | 14 |
| 5  | 6  | 7.1  | 6    | 8.1  | 781191320 | 13 |
| 5  | 5  | 6.6  | 5.5  | 7.6  | 781191220 | 12 |
| 4  | 5  | 6.1  | 5    | 7.1  | 781191120 | 11 |
| 4  | 4  | 5.6  | 4.5  | 6.6  | 781191020 | 10 |
| 3  | 4  | 5.1  | 4    | 6.1  | 781190920 | 9  |
| 3  | 3  | 4.6  | 3.5  | 5.6  | 781190820 | 8  |
| 2  | 3  | 4.1  | 3    | 5.1  | 781190720 | 7  |
| 2  | 2  | 3.6  | 2.5  | 4.6  | 781190620 | 6  |

|                  |   |   |   |   |                  |         |
|------------------|---|---|---|---|------------------|---------|
| E                | D | C | B | A | EMBOSSED PACKAGE | CIRCUIT |
| オーダー番号 ORDER NO. |   |   |   |   |                  |         |



参考マスク厚:100μm  
 参考開口率:100%  
 REFERENCE SCREEN THICKNESS:100  
 REFERENCE SCREEN OPEN RATIO:100%

推奨基板レイアウト  
 RECOMMENDED PCB LAYOUT

CONNECTOR SERIES NO. 78119\*\*25

|   |  |                 |                |          |                |          |                                       |              |                         |       |
|---|--|-----------------|----------------|----------|----------------|----------|---------------------------------------|--------------|-------------------------|-------|
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                 |                |          |                |          |                                       |              |                         |       |
| EC NO: 107065<br>DRWN: NASANUMA<br>CHK'D: YKOBAYASHI02<br>APPR: KMORIKAWA   | 2016/02/17   |                 | 2016/08/01     |          | 2016/08/02     |          | GENERAL TOLERANCES (UNLESS SPECIFIED) |              | DIMENSION UNITS         | SCALE |
|   | ANGULAR TOL ± 1.0 °                                  |                 | 4 PLACES ± 0.1 |          | 3 PLACES ± 0.1 |          | 2 PLACES ± 0.1                        |              | MM                      | 12:1  |
|   | 1 PLACE ± 0.1  |                 | 0 PLACES ± 0.1 |          | DRWN BY        |          | DATE                                  |              | NASANUMA 2016/02/17     |       |
|   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                 | A3             |          | CHK'D BY       |          | DATE                                  |              | YKOBAYASHI02 2016/08/01 |       |
|   | THIRD ANGLE PROJECTION                               |                 | DRAWING SIZE   |          | APPR BY        |          | DATE                                  |              | KMORIKAWA 2016/08/02    |       |
|   | A  |                 | REV            |          | DRAWING SIZE   |          | THIRD ANGLE PROJECTION                |              | 78119                   |       |
| <b>molex</b>  |  |                 |                |          |                |          |                                       |              |                         |       |
| 0.5 PITCH NON-ZIF CONN. SMT AU ST ASSY  |  |                 |                |          |                |          |                                       |              |                         |       |
| PRODUCT CUSTOMER DRAWING  |  |                 |                |          |                |          |                                       |              |                         |       |
| SERIES  |  | MATERIAL NUMBER |                |          | CUSTOMER       |          |                                       |              |                         |       |
| 78119   |  |                 |                |          |                |          |                                       |              |                         |       |
| DOCUMENT NUMBER   |  |                 |                | DOC TYPE |                | DOC PART |                                       | SHEET NUMBER |                         |       |
| 781191002   |  |                 |                | PSD      |                | 000      |                                       | 3 OF 3       |                         |       |