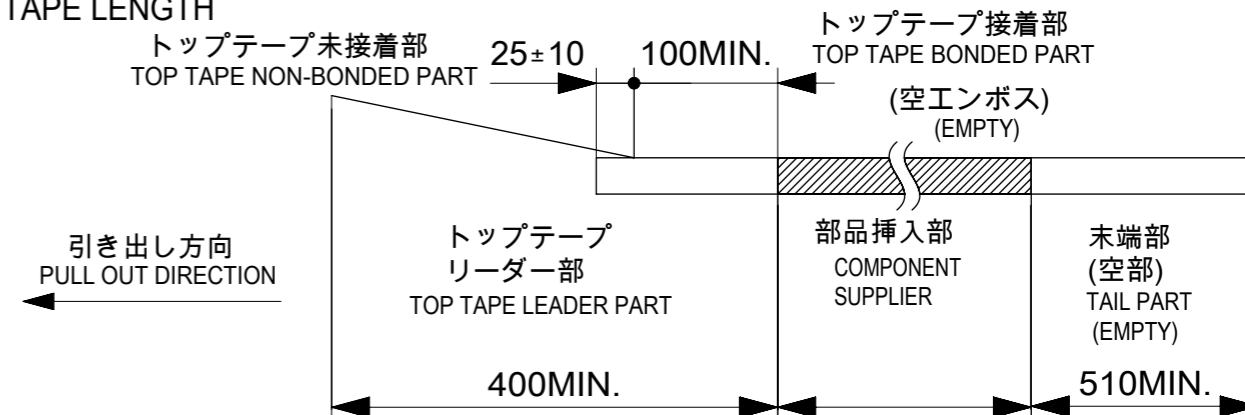


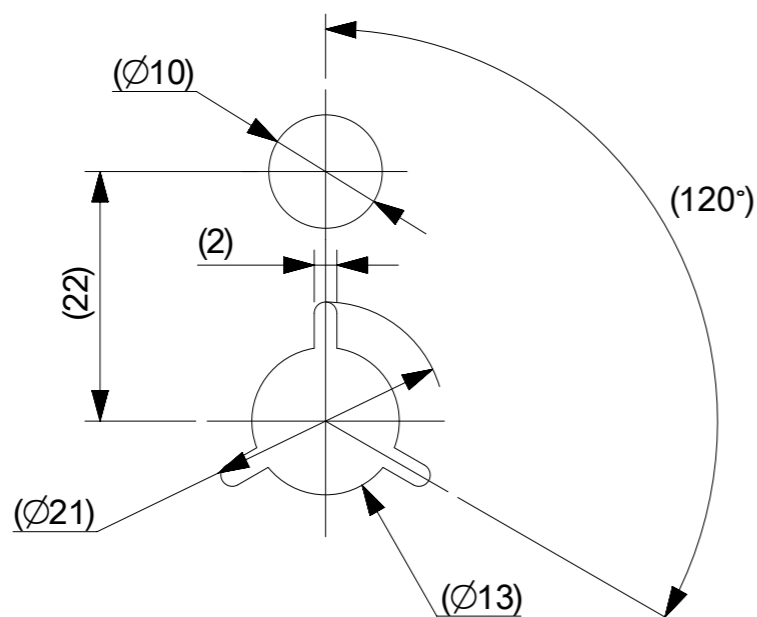
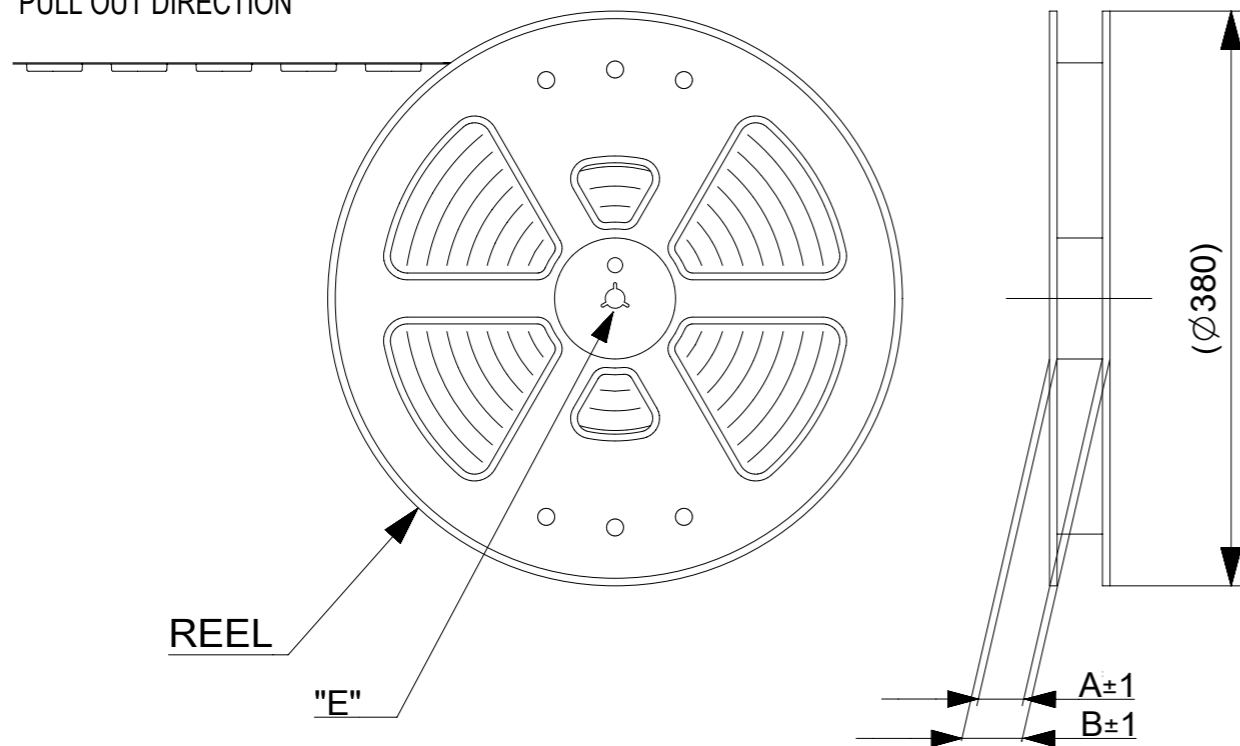
NOTES

- 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781191001をご参照ください。  
REFER TO THE 781191001 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.

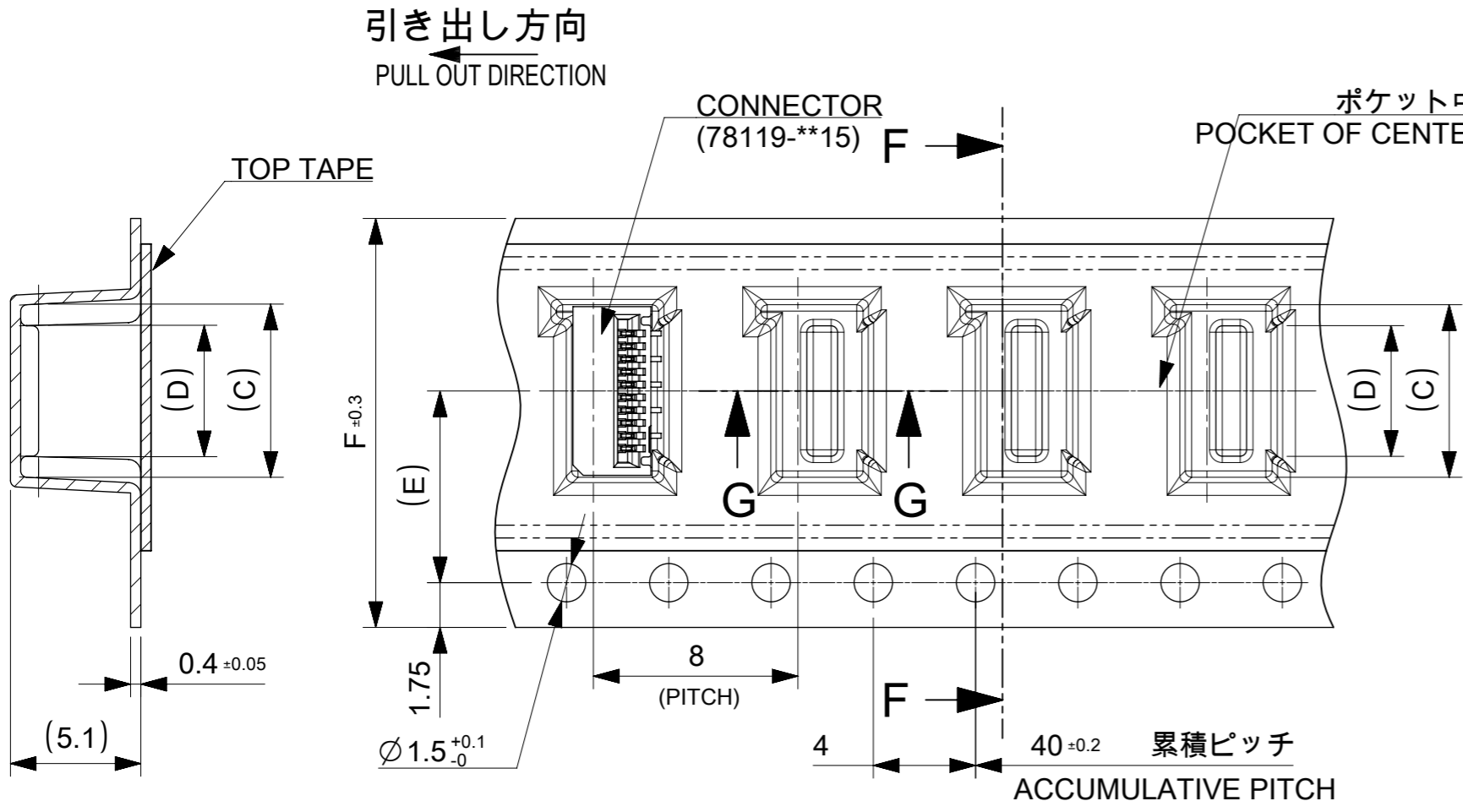
引き出し方向  
PULL OUT DIRECTION



DETAIL "E"

CONNECTOR SERIES NO. 78119\*\*15

|   |         |                        |            |   |                 |
|---|---------|------------------------|------------|---|-----------------|
| 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 SNBI 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 | 781190001                               |                 |
| 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         | 2016/04/19 | 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                                   | CUSTOMER        |
|   |         |                        |            | SHEET NUMBER                            |                 |
|   |         |                        |            | 1 OF 3                                  |                 |



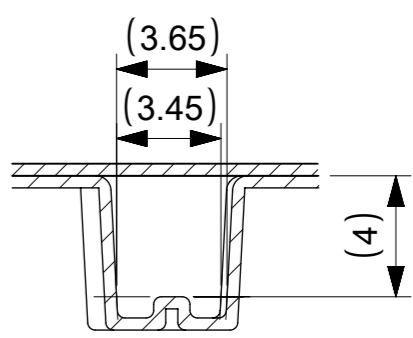
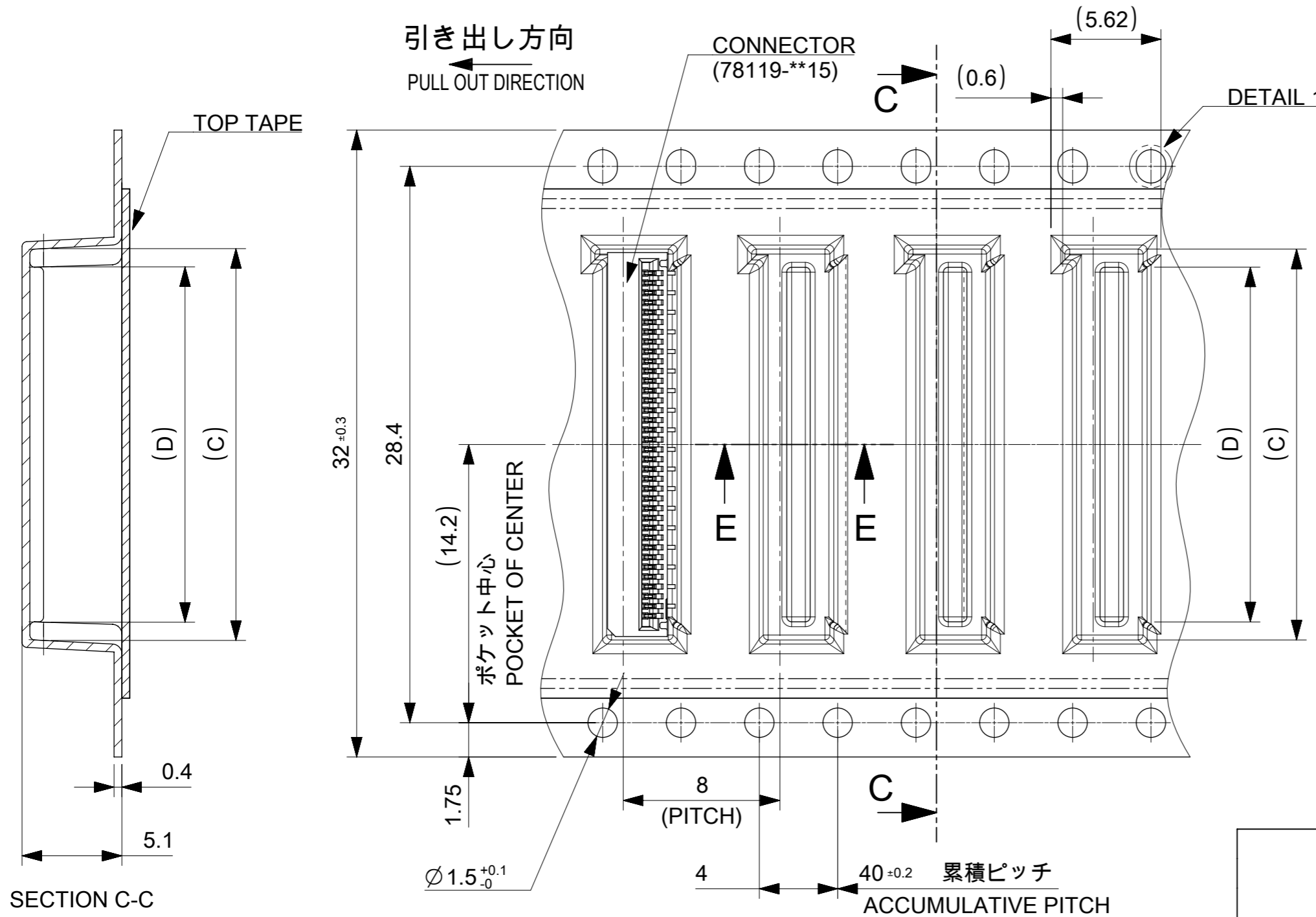
|                 |      |           |      |      |      |                                     |         |
|-----------------|------|-----------|------|------|------|-------------------------------------|---------|
| 24              | 11.5 | 14.1      | 15.8 | 29.4 | 25.4 | 781192810                           | 28      |
|                 |      | 13.6      | 15.3 |      |      | 781192710                           | 27      |
|                 |      | 13.1      | 14.8 |      |      | 781192610                           | 26      |
|                 |      | 12.6      | 14.3 |      |      | 781192510                           | 25      |
|                 |      | 12.1      | 13.8 |      |      | 781192410                           | 24      |
|                 |      | 11.6      | 13.3 |      |      | 781192310                           | 23      |
|                 |      | 11.1      | 12.8 |      |      | 781192210                           | 22      |
|                 |      | 10.6      | 12.3 |      |      | 781192110                           | 21      |
|                 |      | 10.1      | 11.8 |      |      | 781192010                           | 20      |
|                 |      | 9.6       | 11.3 |      |      | 781191910                           | 19      |
|                 |      | 9.1       | 10.8 |      |      | 781191810                           | 18      |
|                 |      | 8.6       | 10.3 |      |      | 781191710                           | 17      |
| 8.1             | 9.8  | 781191610 | 16   |      |      |                                     |         |
| 7.6             | 9.3  | 781191510 | 15   |      |      |                                     |         |
| 16              | 7.5  | 7.1       | 8.8  | 21.4 | 17.4 | 781191410                           | 14      |
|                 |      | 6.6       | 8.3  |      |      | 781191310                           | 13      |
|                 |      | 6.1       | 7.8  |      |      | 781191210                           | 12      |
|                 |      | 5.6       | 7.3  |      |      | 781191110                           | 11      |
|                 |      | 5.1       | 6.8  |      |      | 781191010                           | 10      |
|                 |      | 4.6       | 6.3  |      |      | 781190910                           | 9       |
|                 |      | 4.1       | 5.8  |      |      | 781190810                           | 8       |
|                 |      | 3.6       | 5.3  |      |      | 781190710                           | 7       |
| 3.1             | 4.8  | 781190610 | 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

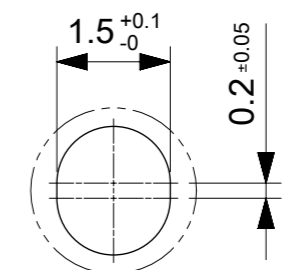
## 16mm, 24mm WIDTH CARRIER TAPE

CONNECTOR SERIES NO. 78119\*\*15

|   |        |                        |         |                                       |       |   |
|---|--------|------------------------|---------|---------------------------------------|-------|---|
| 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          |         |                                       |       | 0.5 FPC CONN. N-ZIF ST SNBI EMBS TP PKG |
| mm  | 4:1    | DRWN: NARENC           |         | 2021/09/07                            |       |   |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |        | CHK'D: TKON            |         | 2021/09/13                            |       |   |
| ANGULAR TOL   | ± 1.0° | APPR: SHOSHIKAWA       |         | 2021/09/16                            |       |   |
| 4 PLACES  | ± 0.1  | INITIAL REVISION:      |         | DOCUMENT NUMBER                       |       |   |
| 3 PLACES  | ± 0.1  | DRWN: NASANUMA         |         | 781190001                             |       |   |
| 2 PLACES  | ± 0.1  | APPR: KMORIKAWA        |         | PSD 000 B                             |       |   |
| 1 PLACE   | ± 0.1  | 2016/04/19             |         | DOC TYPE DOC PART REVISION            |       |   |
| 0 PLACES  | ± 0.1  | 2016/08/02             |         | MATERIAL NUMBER CUSTOMER SHEET NUMBER |       |   |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |        | THIRD ANGLE PROJECTION | DRAWING | SERIES                                | 78119 |   |



SECTION E-E



DETAIL 1 SCALE 10:1

|            |      |      |      |      |                                     |         |
|------------|------|------|------|------|-------------------------------------|---------|
| 32         | 18.1 | 19.8 | 37.4 | 33.4 | 781193610                           | 36      |
|            | 17.6 | 19.3 |      |      | 781193510                           | 35      |
|            | 17.1 | 18.8 |      |      | 781193410                           | 34      |
|            | 16.6 | 18.3 |      |      | 781193310                           | 33      |
|            | 16.1 | 17.8 |      |      | 781193210                           | 32      |
|            | 15.6 | 17.3 |      |      | 781193110                           | 31      |
|            | 15.1 | 16.8 |      |      | 781193010                           | 30      |
|            | 14.6 | 16.3 |      |      | 781192910                           | 29      |
| TAPE WIDTH | D    | C    | B    | A    | EMBOSSED PACKAGE<br>オーダー番号 ORDER NO | CIRCUIT |

CONNECTOR SERIES NO. 78119\*\*15

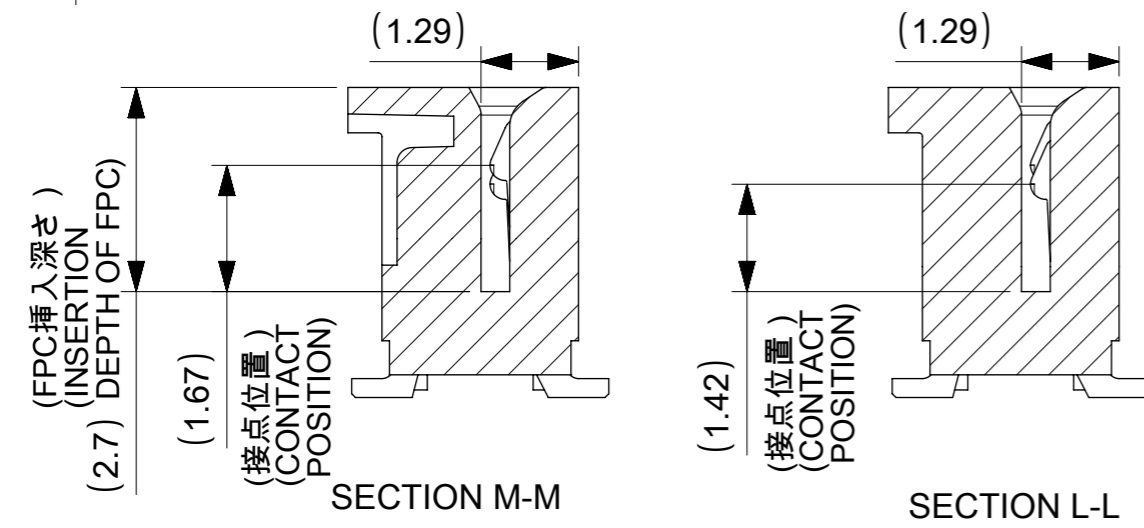
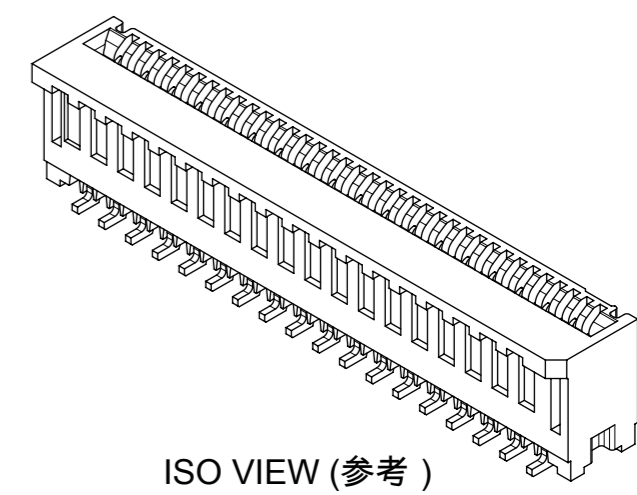
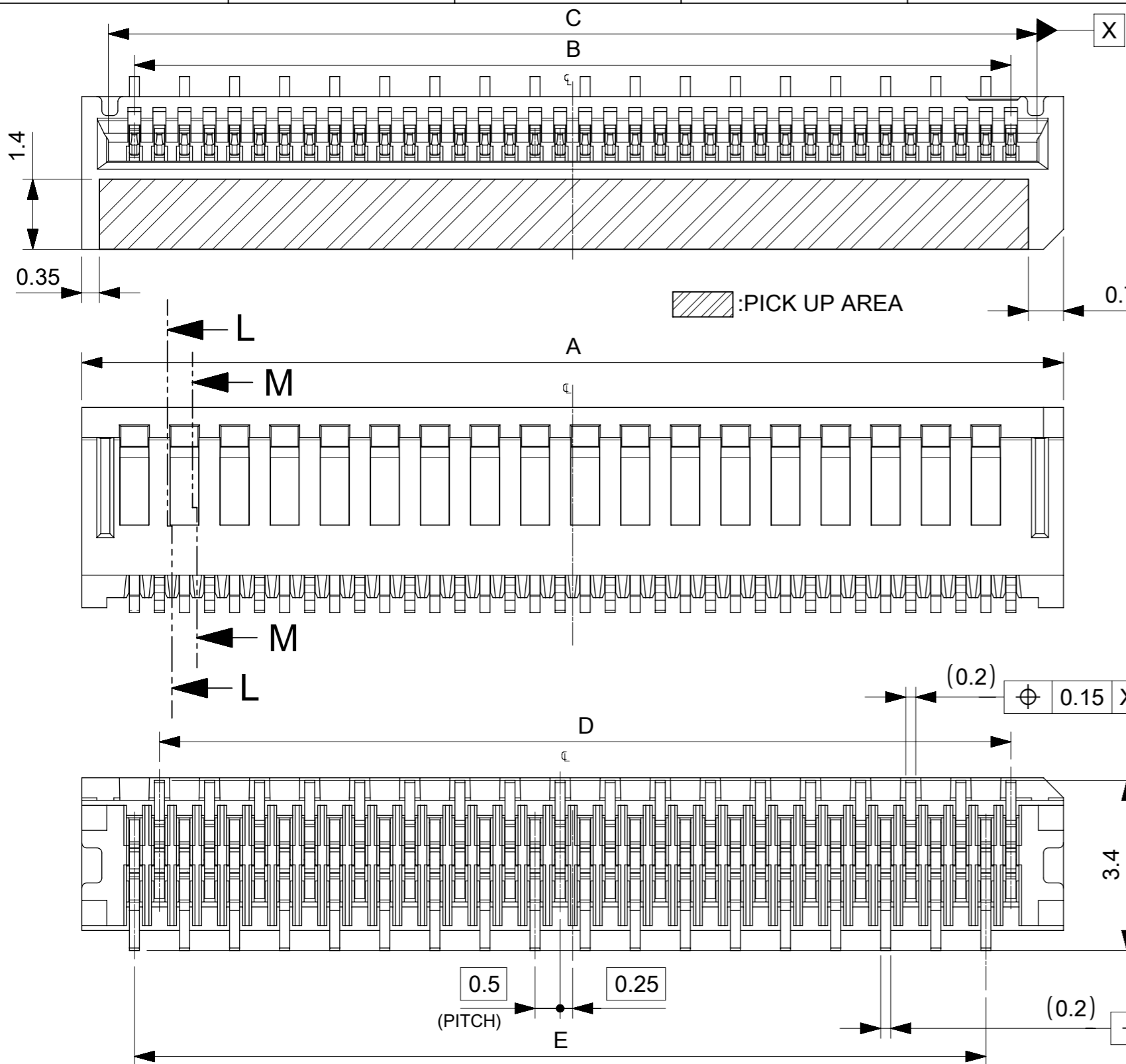
# 32mm幅キャリアテープ

## 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 SNBI EMBS TP PKG</p> <p>PRODUCT CUSTOMER DRAWING</p> <p>DOCUMENT NUMBER: 781190001   DOC TYPE: PSD   DOC PART: 000   REVISION: B</p> <p>MATERIAL NUMBER: 78119   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  |                 |          | 3 OF 3       |  |  |

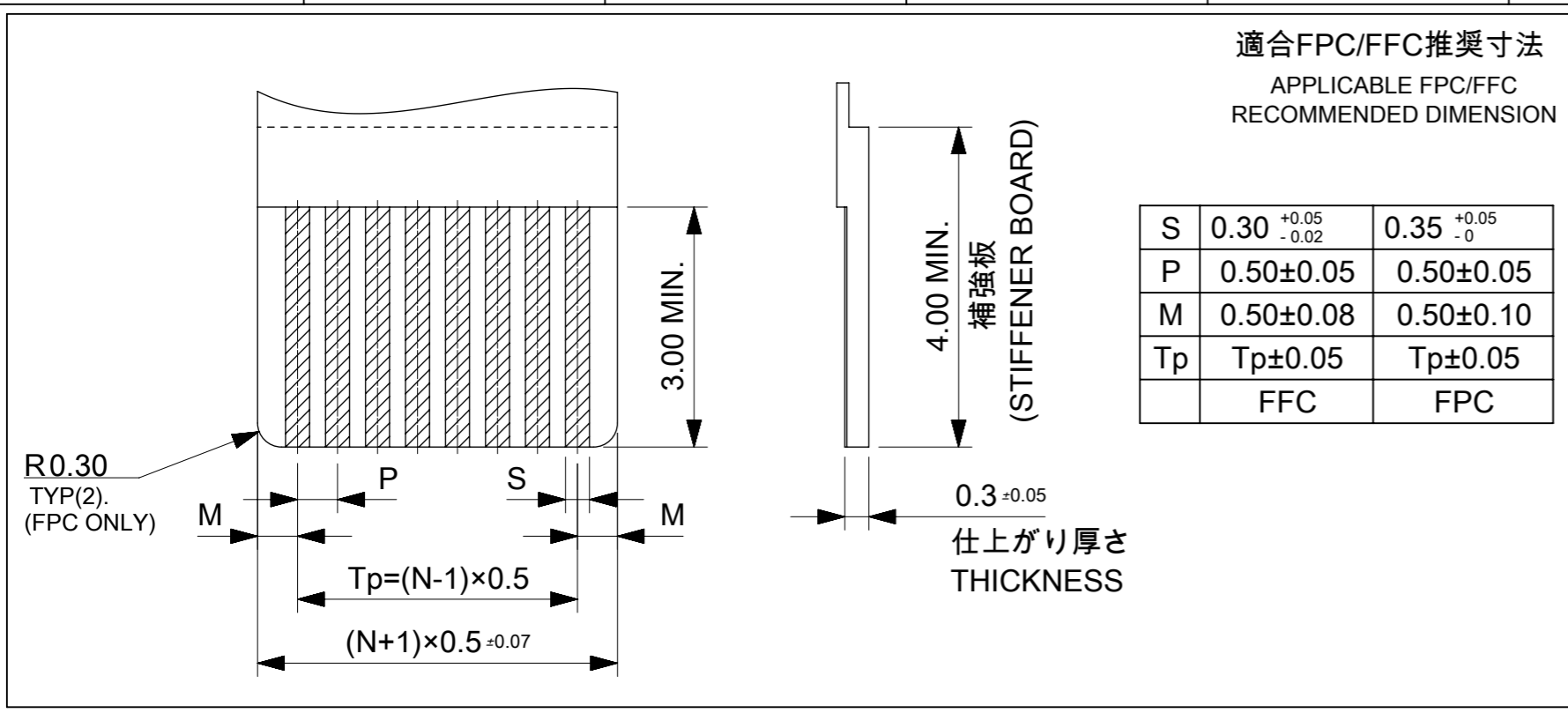
NOTES

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  
 錫ビスマスマッキ 1.0µm以上  
 下地 : ニッケルメッキ 1.0µm以上  
 SnBi PLATING 1.0 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\*\*15

|   |                 |                     |                        |
|---|-----------------|---------------------|------------------------|
| 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        |
| 2016/01/25  | 2016/08/01      | 2016/08/02          |                        |
| GENERAL TOLERANCES (UNLESS SPECIFIED)   |                 | DIMENSION UNITS     | SCALE                  |
| ANGULAR TOL ± 1.0 °   |                 | MM                  | 10:1                   |
| 4 PLACES ± 0.1  | 3 PLACES ± 0.1  | DRWN BY             | DATE                   |
| 2 PLACES ± 0.1  | 1 PLACE ± 0.1   | NASANUMA            | 2016/01/25             |
| 0 PLACES ± 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                  |                        |
|   |                 | <b>molex</b>        |                        |
| 0.5 PITCH NON-ZIF CONN. SMT ST ASSY   |                 |                     |                        |
| PRODUCT CUSTOMER DRAWING  |                 |                     |                        |
| SERIES  | MATERIAL NUMBER | CUSTOMER            |                        |
| 78119   |                 |                     |                        |
| DOCUMENT NUMBER   | DOC TYPE        | DOC PART            | SHEET NUMBER           |
| 781191001   | PSD             | 000                 | 1 OF 3                 |



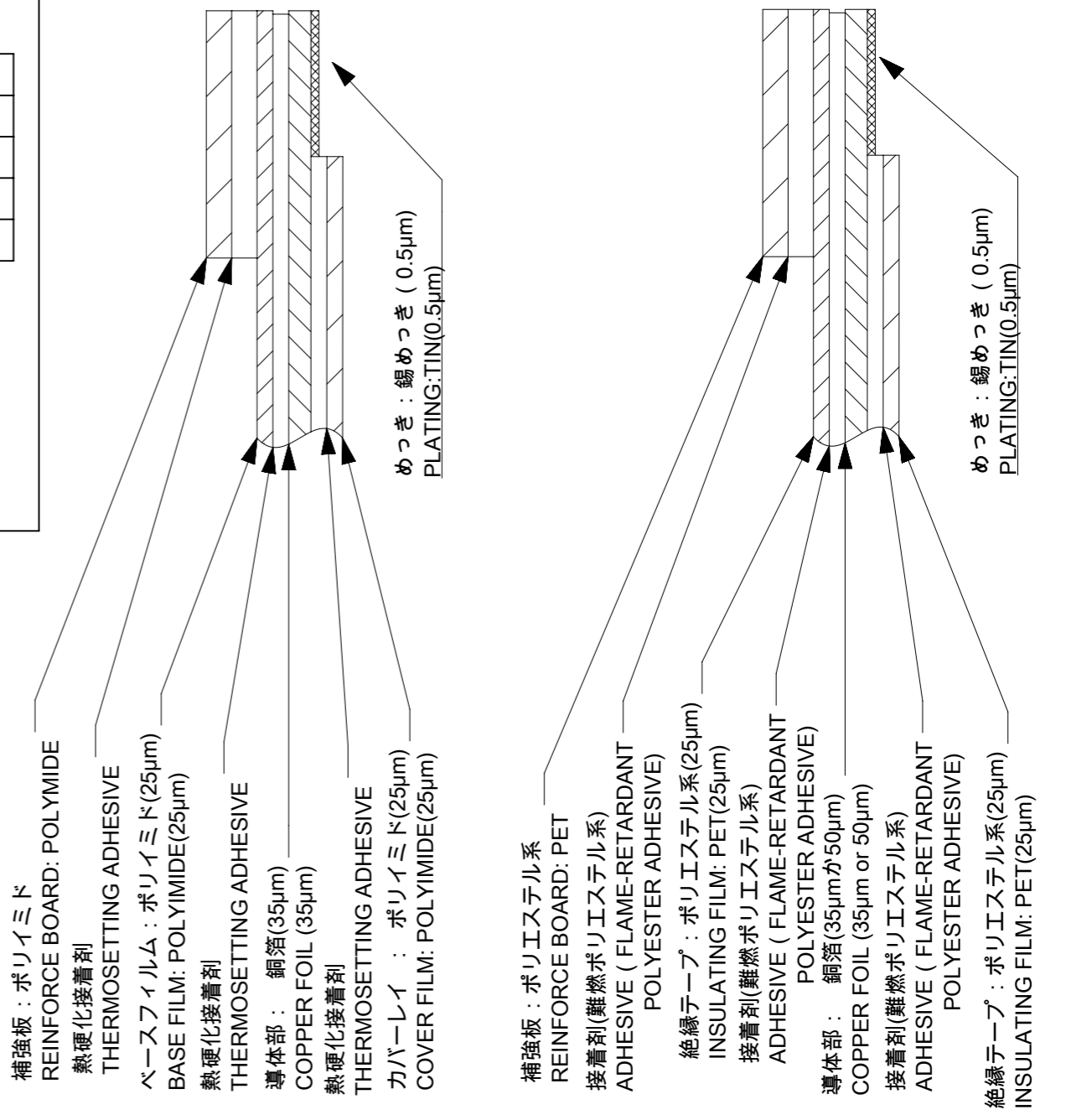
ELV & RoHS COMPLIANT

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.

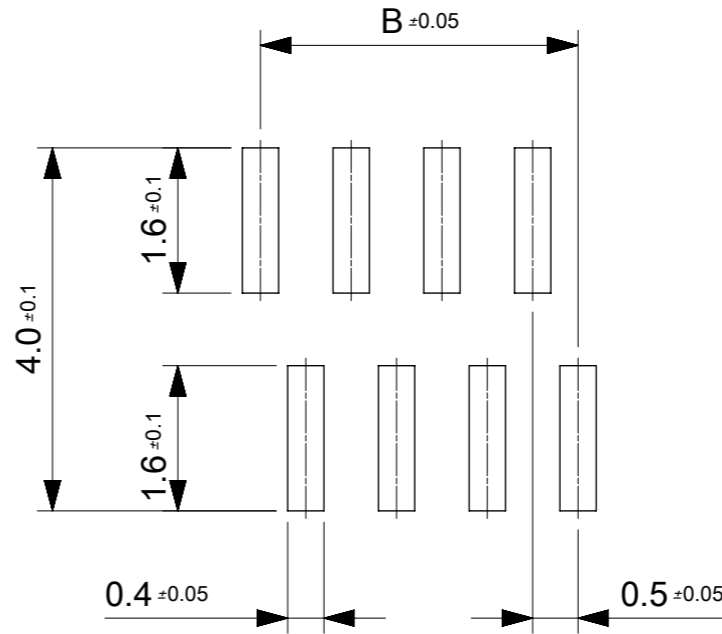


FPC構成推奨仕様  
STRUCTURE OF FPC

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   | 2016/01/25<br>2016/08/01<br>2016/08/02 | GENERAL TOLERANCES (UNLESS SPECIFIED) |              | DIMENSION UNITS | SCALE      | <br>0.5 PITCH NON-ZIF CONN. SMT ST ASSY<br>PRODUCT CUSTOMER DRAWING<br>SERIES: 78119 MATERIAL NUMBER: CUSTOMER: 781191001 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 2 OF 3 |  |  |  |  |  |
|   |  | ANGULAR TOL ± 1.0 °                   |              | MM              | 12:1       |  |  |  |  |  |  |
|   |  | 4 PLACES ± 0.1                        | DRWN BY      |                 | DATE       |  |  |  |  |  |  |
|   |  | 3 PLACES ± 0.1                        | NASANUMA     |                 | 2016/01/25 |  |  |  |  |  |  |
|   |  | 2 PLACES ± 0.1                        | CHK'D BY     |                 | DATE       |  |  |  |  |  |  |
|   |  | 1 PLACE ± 0.1                         | YKOBAYASHI02 |                 | 2016/08/01 |  |  |  |  |  |  |
| 0 PLACES ± 0.1  | APPR BY                                |                                       | DATE         | DRAWING SIZE    |            | THIRD ANGLE PROJECTION   |  |  |  |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  | KMORIKAWA                             |              | 2016/08/02      |            | A3   |  |  |  |  |  |

|    |    |      |      |      |                                      |         |
|----|----|------|------|------|--------------------------------------|---------|
| 17 | 17 | 18.6 | 17.5 | 19.6 | 781193610                            | 36      |
| 16 | 17 | 18.1 | 17   | 19.1 | 781193510                            | 35      |
| 16 | 16 | 17.6 | 16.5 | 18.6 | 781193410                            | 34      |
| 15 | 16 | 17.1 | 16   | 18.1 | 781193310                            | 33      |
| 15 | 15 | 16.6 | 15.5 | 17.6 | 781193210                            | 32      |
| 14 | 15 | 16.1 | 15   | 17.1 | 781193110                            | 31      |
| 14 | 14 | 15.6 | 14.5 | 16.6 | 781193010                            | 30      |
| 13 | 14 | 15.1 | 14   | 16.1 | 781192910                            | 29      |
| 13 | 13 | 14.6 | 13.5 | 15.6 | 781192810                            | 28      |
| 12 | 13 | 14.1 | 13   | 15.1 | 781192710                            | 27      |
| 12 | 12 | 13.6 | 12.5 | 14.6 | 781192610                            | 26      |
| 11 | 12 | 13.1 | 12   | 14.1 | 781192510                            | 25      |
| 11 | 11 | 12.6 | 11.5 | 13.6 | 781192410                            | 24      |
| 10 | 11 | 12.1 | 11   | 13.1 | 781192310                            | 23      |
| 10 | 10 | 11.6 | 10.5 | 12.6 | 781192210                            | 22      |
| 9  | 10 | 11.1 | 10   | 12.1 | 781192110                            | 21      |
| 9  | 9  | 10.6 | 9.5  | 11.6 | 781192010                            | 20      |
| 8  | 9  | 10.1 | 9    | 11.1 | 781191910                            | 19      |
| 8  | 8  | 9.6  | 8.5  | 10.6 | 781191810                            | 18      |
| 7  | 8  | 9.1  | 8    | 10.1 | 781191710                            | 17      |
| 7  | 7  | 8.6  | 7.5  | 9.6  | 781191610                            | 16      |
| 6  | 7  | 8.1  | 7    | 9.1  | 781191510                            | 15      |
| 6  | 6  | 7.6  | 6.5  | 8.6  | 781191410                            | 14      |
| 5  | 6  | 7.1  | 6    | 8.1  | 781191310                            | 13      |
| 5  | 5  | 6.6  | 5.5  | 7.6  | 781191210                            | 12      |
| 4  | 5  | 6.1  | 5    | 7.1  | 781191110                            | 11      |
| 4  | 4  | 5.6  | 4.5  | 6.6  | 781191010                            | 10      |
| 3  | 4  | 5.1  | 4    | 6.1  | 781190910                            | 9       |
| 3  | 3  | 4.6  | 3.5  | 5.6  | 781190810                            | 8       |
| 2  | 3  | 4.1  | 3    | 5.1  | 781190710                            | 7       |
| 2  | 2  | 3.6  | 2.5  | 4.6  | 781190610                            | 6       |
| E  | D  | C    | B    | A    | EMBOSSED PACKAGE<br>オーダー番号 ORDER NO. | CIRCUIT |



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\*\*15

|   |                                       |              |                        |  |   |  |  |  |  |
|---|---------------------------------------|--------------|------------------------|--|---|--|--|--|--|
| 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   | GENERAL TOLERANCES (UNLESS SPECIFIED) |              | DIMENSION UNITS        | SCALE                                    | <b>molex</b><br>0.5 PITCH NON-ZIF CONN. SMT ST ASSY<br>PRODUCT CUSTOMER DRAWING |  |  |  |  |
|   | ANGULAR TOL ± 1.0 °                   |              | MM                     | 12:1                                     |   |  |  |  |  |
|   | 4 PLACES ± 0.1                        | DRWN BY      | DATE                   |  |   |  |  |  |  |
|   | 3 PLACES ± 0.1                        | NASANUMA     | 2016/01/25             |  |   |  |  |  |  |
|   | 2 PLACES ± 0.1                        | CHK'D BY     | DATE                   |  |   |  |  |  |  |
|   | 1 PLACE ± 0.1                         | YKOBAYASHI02 | 2016/08/01             |  |   |  |  |  |  |
| 0 PLACES ± 0.1  | APPR BY                               | DATE         |                        |  |   |  |  |  |  |
|   | KMORIKAWA                             | 2016/08/02   |                        | SERIES: 78119 MATERIAL NUMBER: CUSTOMER: |   |  |  |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |                                       | DRAWING SIZE | THIRD ANGLE PROJECTION |  | DOCUMENT NUMBER: 781191001 DOC TYPE: PSD DOC PART: 000 SHEET NUMBER: 3 OF 3     |  |  |  |  |
| A   | REV                                   | A3           |                        |  |   |  |  |  |  |