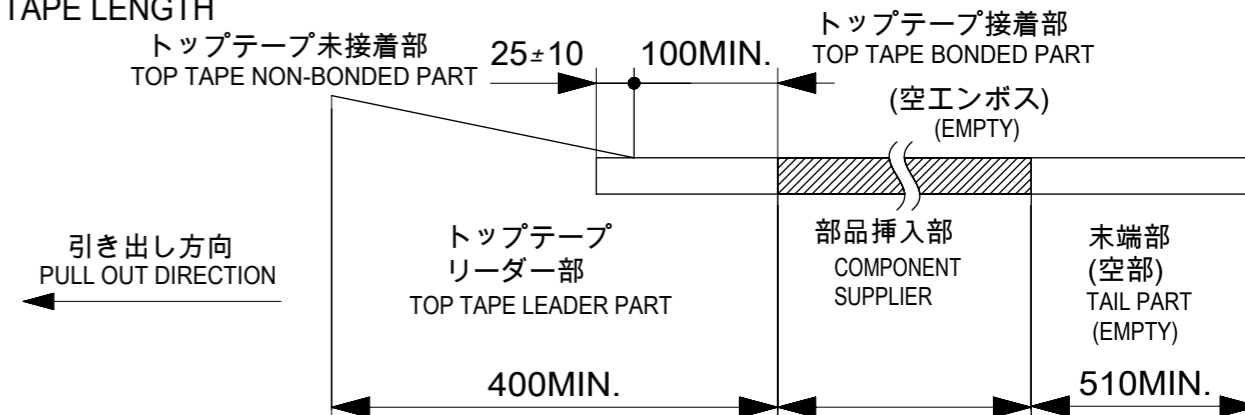


NOTES

- 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

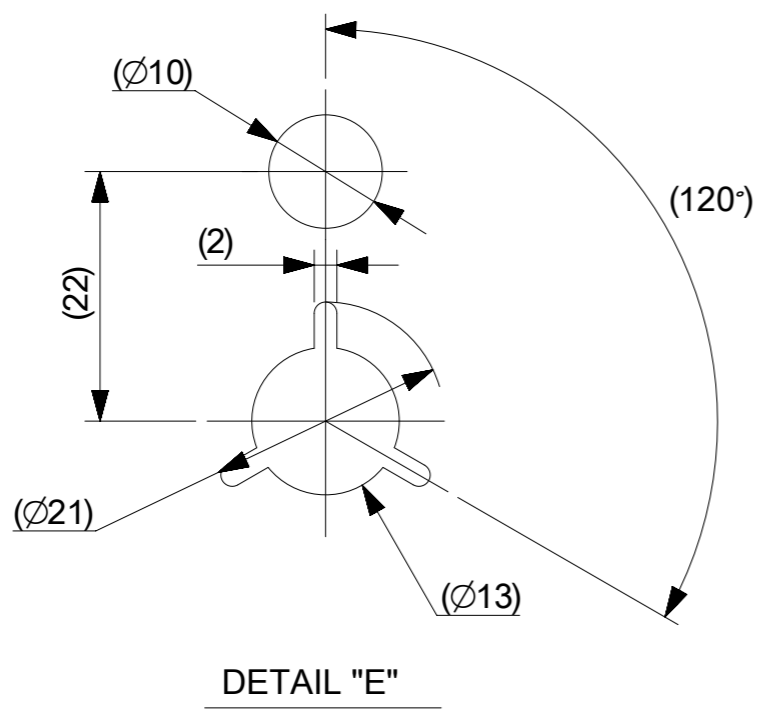
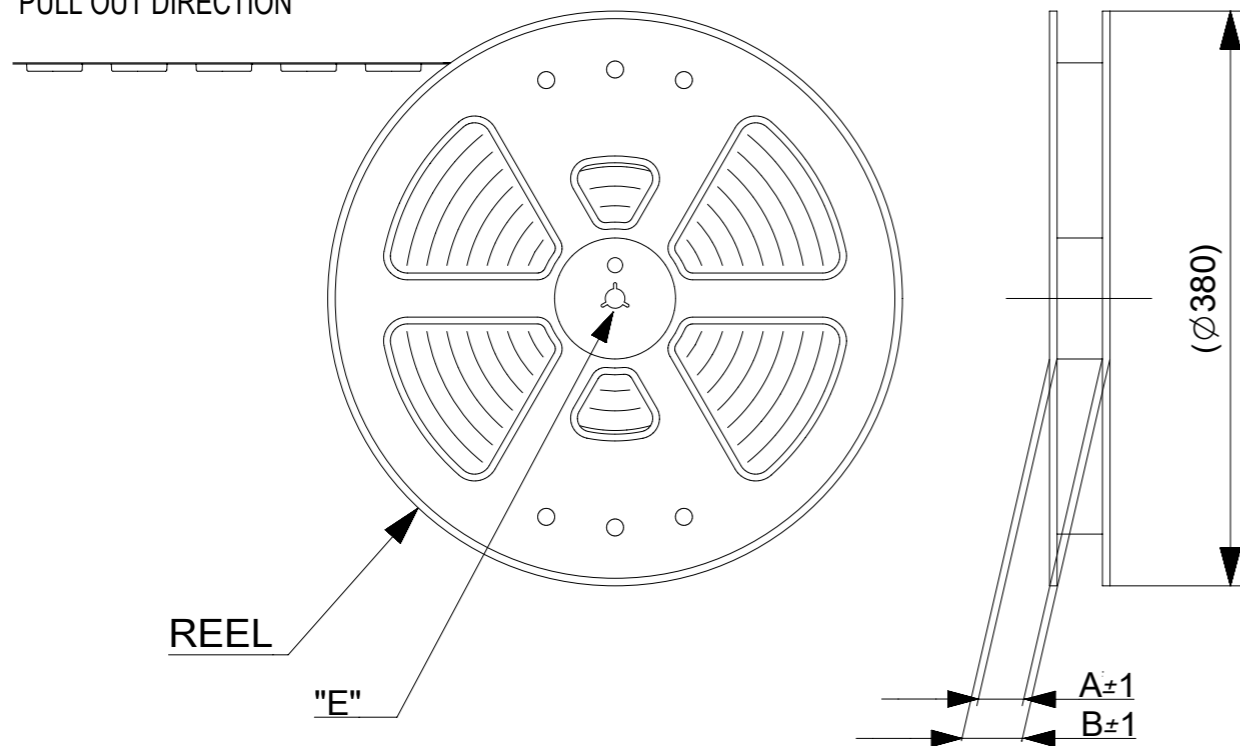


- トッptapeの剥離強度については、IEC60286-3に準拠。
TOP TAPE PEEL FORCE IS DEFINED BY IEC60286-3.
 - 製品詳細寸法については、図面781191001をご参照ください。
REFER TO THE 781191001 ABOUT DIMENSIONS IN DETAIL.
 - 材料
 キャリアテープ : ポリスチレン(PS)
 トッptape : PET, OTHER
 リール : ポリスチレン(PS)(リサイクル材を含む)
- MATERIAL
- CARRIER TAPE : POLYSTYRENE(PS)
 TOP TAPE : 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.

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 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | | DIMENSION UNITS | SCALE | | | | | |
| | ANGULAR TOL ± 1.0 ° | | | | MM | ≠± | | | | | |
| | 4 PLACES | ± | 0.1 | DRWN BY | DATE | 0.5 FPC CONN. N-ZIF ST SNBI EMBS TP PKG | | | | | |
| | 3 PLACES | ± | 0.1 | NASANUMA | 2016/04/19 | | | | | | |
| | 2 PLACES | ± | 0.1 | CHK'D BY | DATE | | | | | | |
| | 1 PLACE | ± | 0.1 | YKOBAYASHI02 | 2016/08/01 | | | | | | |
| 0 PLACES | ± | 0.1 | APPR BY | DATE | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | KMORIKAWA | 2016/08/02 | | | | PRODUCT CUSTOMER DRAWING | | |
| DRAWING SIZE | | THIRD ANGLE PROJECTION | | SERIES | | | MATERIAL NUMBER | | CUSTOMER | | |
| A3 | | | | 78119 | | | | | | | |
| A | | | | DOCUMENT NUMBER | | | DOC TYPE | DOC PART | SHEET NUMBER | | |
| | | | | 781190001 | | | PSD | 000 | 1 OF 3 | | |

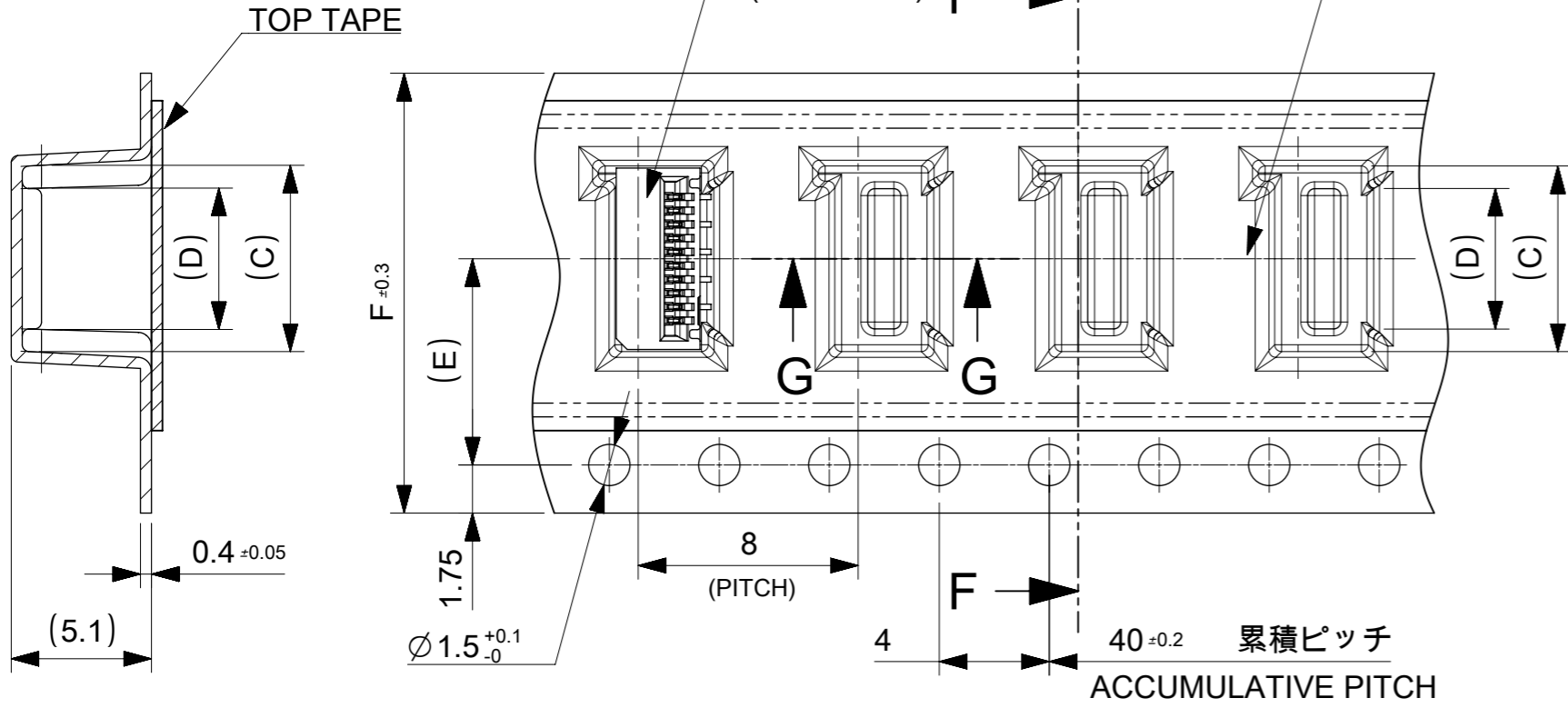
引き出し方向
PULL OUT DIRECTION



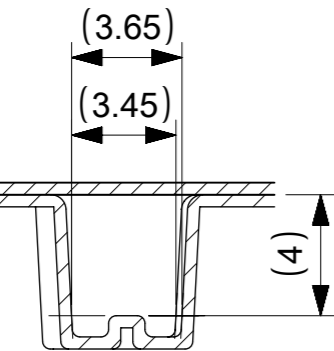
引き出し方向
PULL OUT DIRECTION

CONNECTOR
(78119-**15) F

ポケット中心
POCKET OF CENTER



SECTION F-F



SECTION G-G

| F TAPE WIDTH | E | D | C | B | A | EMBOSSED PACKAGE オーダー番号 ORDER NO | CIRCUIT |
|-----------------|------|-----------|------|------|------|-------------------------------------|---------|
| 24 | 11.5 | 29.4 | 25.4 | 14.1 | 15.8 | 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 | 21.4 | 17.4 | 7.1 | 8.8 | 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 | | | | |

CONNECTOR SERIES NO. 78119**15

16mm, 24mm幅キャリアテープ

16mm, 24mm WIDTH CARRIER TAPE

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 | 2016/04/19 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION UNITS | SCALE | | | | |
| | 2016/08/01 | ANGULAR TOL ± 1.0 ° | | MM | 4:1 | | | | |
| | 2016/08/02 | 4 PLACES | ± 0.1 | DRWN BY | DATE | | | | |
| | | 3 PLACES | ± 0.1 | NASANUMA | 2016/04/19 | | | | |
| | | 2 PLACES | ± 0.1 | CHK'D BY | DATE | | | | |
| | 1 PLACE | ± 0.1 | YKOBAYASHI02 | 2016/08/01 | PRODUCT CUSTOMER DRAWING | | | | |
| | 0 PLACES | ± 0.1 | APPR BY | DATE | | | | | |
| | | | KMORIKAWA | 2016/08/02 | SERIES | MATERIAL NUMBER | CUSTOMER | | |
| | | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | DRAWING SIZE | THIRD ANGLE PROJECTION | 78119 | | | |
| | | | | A3 | | DOCUMENT NUMBER | DOC TYPE | DOC PART | SHEET NUMBER |
| | | | | | | 781190001 | PSD | 000 | 2 OF 3 |

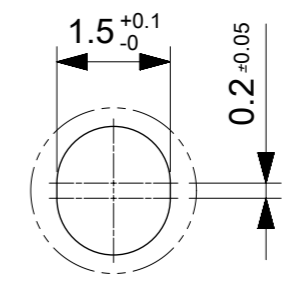
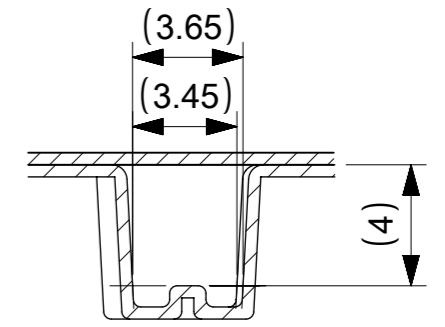
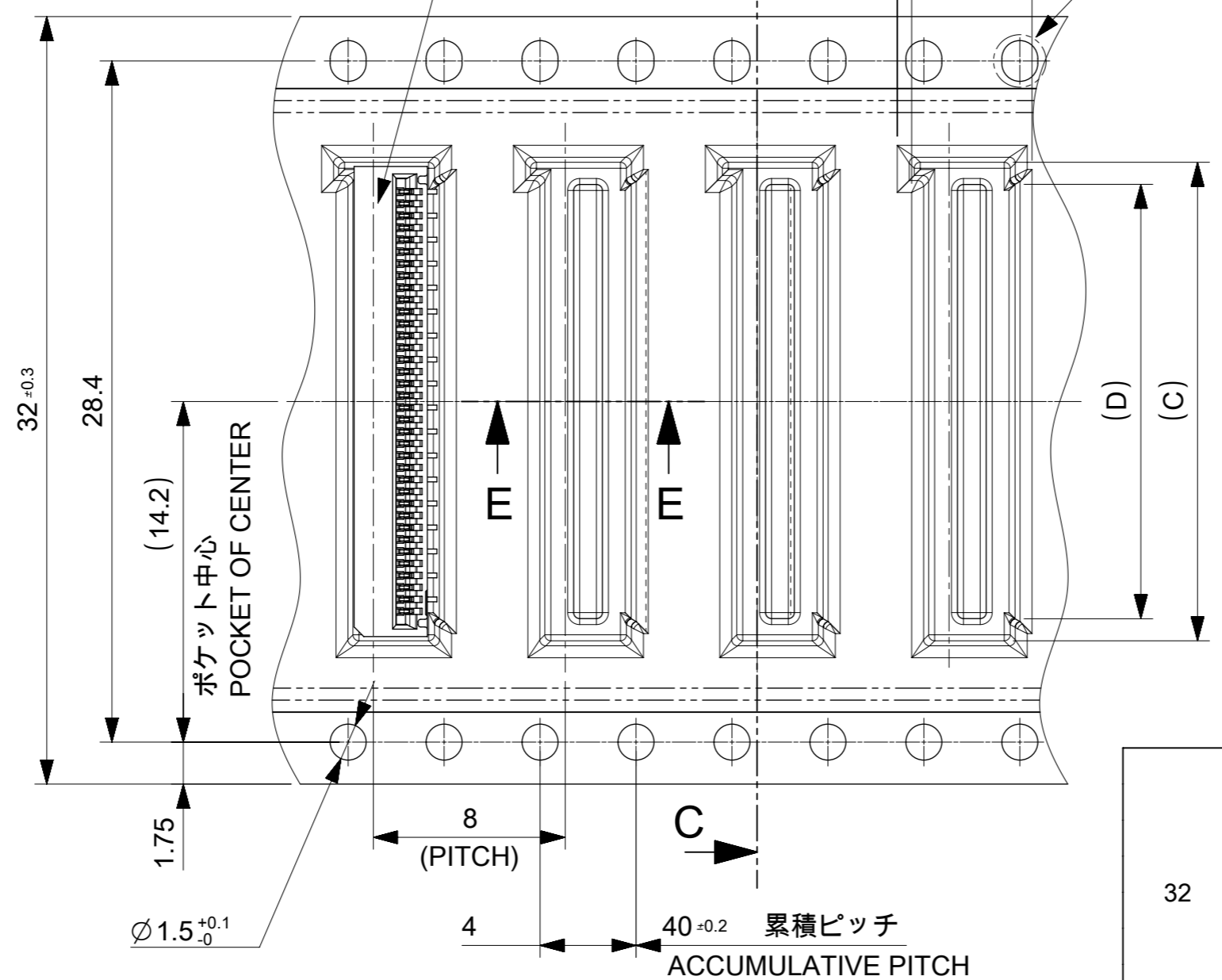
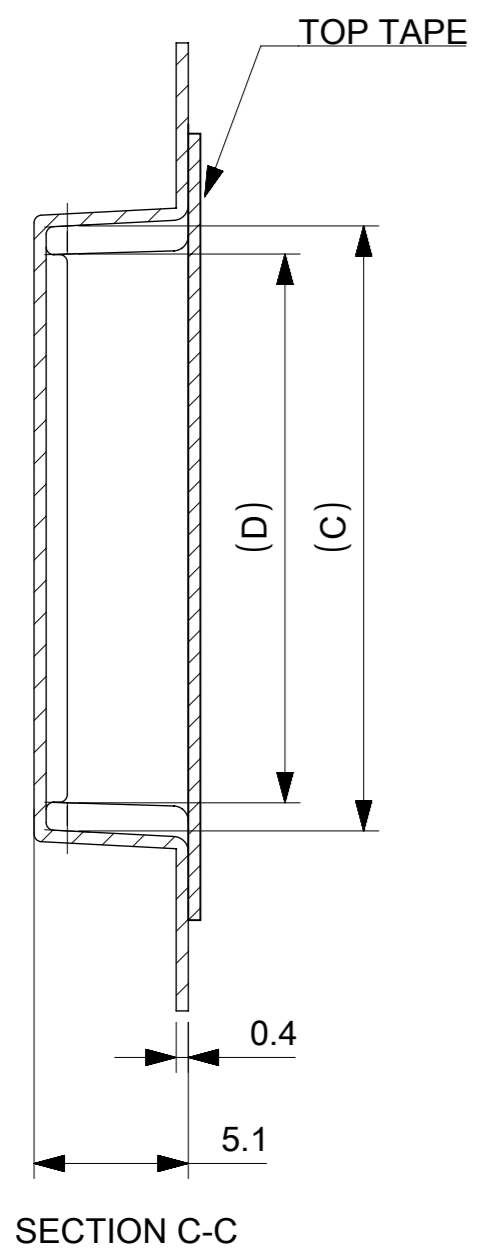
引き出し方向
PULL OUT DIRECTION

CONNECTOR
(78119-**15)

DETAIL 1

SECTION E-E

DETAIL 1
SCALE 10:1



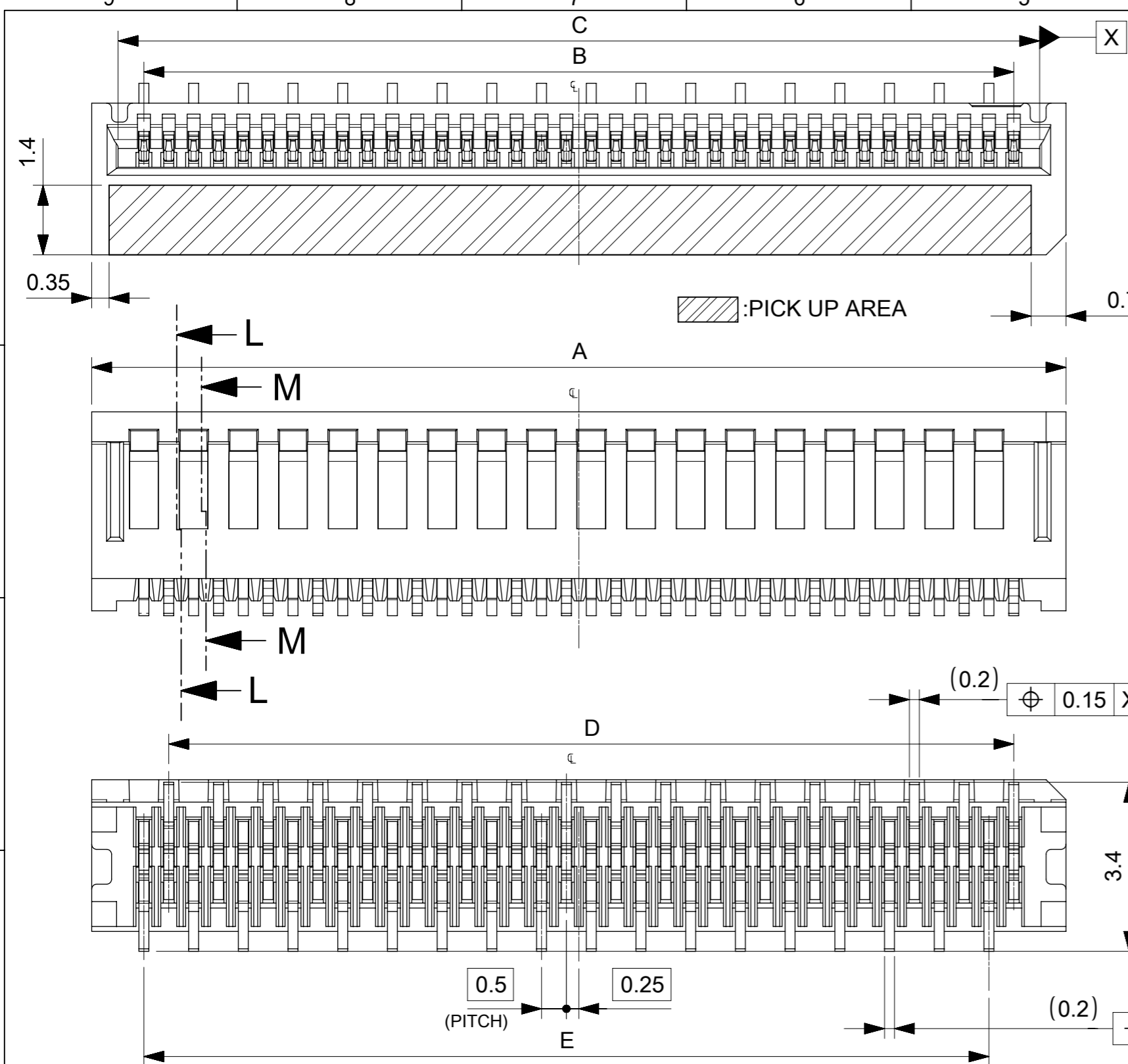
| | | | | | | |
|------------|------|------|------|------|-------------------------------------|---------|
| 32 | 19.8 | 18.1 | 37.4 | 33.4 | 781193610 | 36 |
| | 19.3 | 17.6 | | | 781193510 | 35 |
| | 18.8 | 17.1 | | | 781193410 | 34 |
| | 18.3 | 16.6 | | | 781193310 | 33 |
| | 17.8 | 16.1 | | | 781193210 | 32 |
| | 17.3 | 15.6 | | | 781193110 | 31 |
| | 16.8 | 15.1 | | | 781193010 | 30 |
| | 16.3 | 14.6 | | | 781192910 | 29 |
| TAPE WIDTH | D | C | B | A | EMBOSSED PACKAGE 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

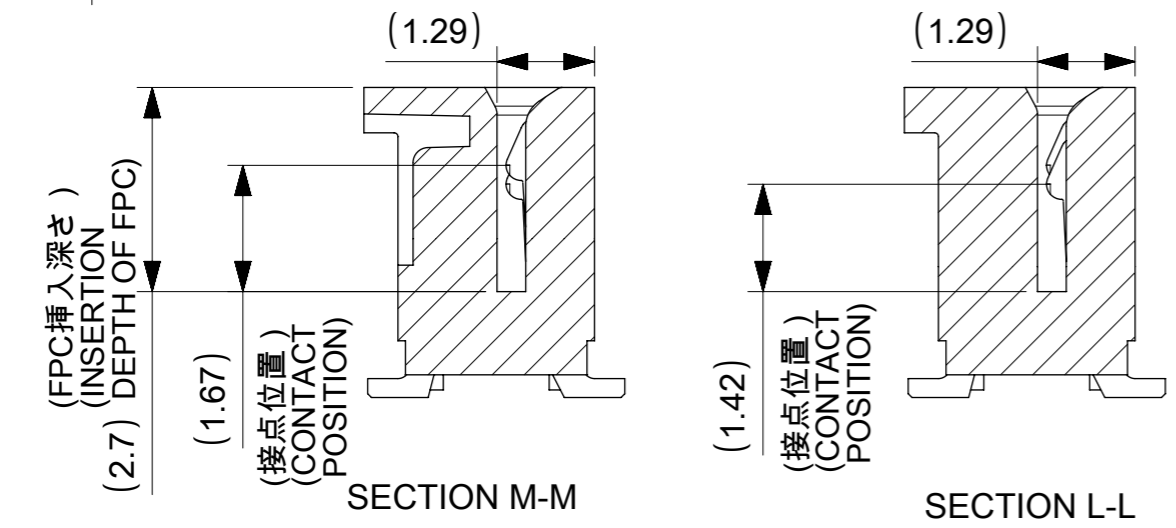
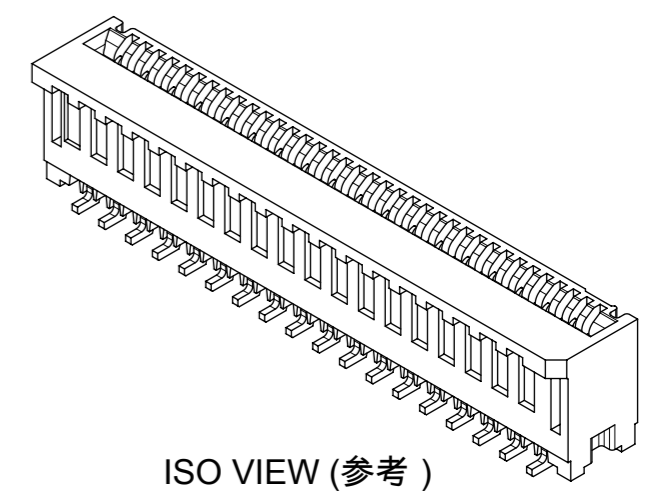
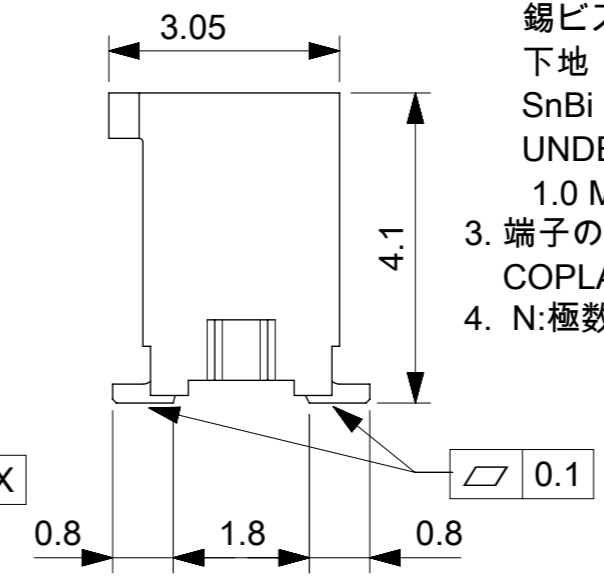
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

| | | | | | | | |
|---|------------------------|------------|--|---|-----------------|-------|--|
| EC NO: 107065 DRWN: NASANUMA CHK'D: YKOBAYASHI02 APPR: KMORIKAWA | 2016/04/19 | 2016/08/01 | 2016/08/02 | 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 | DIMENSION UNITS | SCALE | |
| | MM | | 4:1 | | | | |
| | DRWN BY | DATE | | | | | |
| | NASANUMA | 2016/04/19 | | | | | |
| | CHK'D BY | DATE | | | | | |
| YKOBAYASHI02 | 2016/08/01 | | | | | | |
| APPR BY | DATE | | PRODUCT CUSTOMER DRAWING SERIES: 78119 MATERIAL NUMBER: 781190001 CUSTOMER: | | | | |
| KMORIKAWA | 2016/08/02 | | | | | | |
| DRAWING SIZE | THIRD ANGLE PROJECTION | | | | | | |
| A3 | | | | | | | |
| DOCUMENT NUMBER | | DOC TYPE | | DOC PART | SHEET NUMBER | | |
| 781190001 | | PSD | 000 | 3 OF 3 | | | |



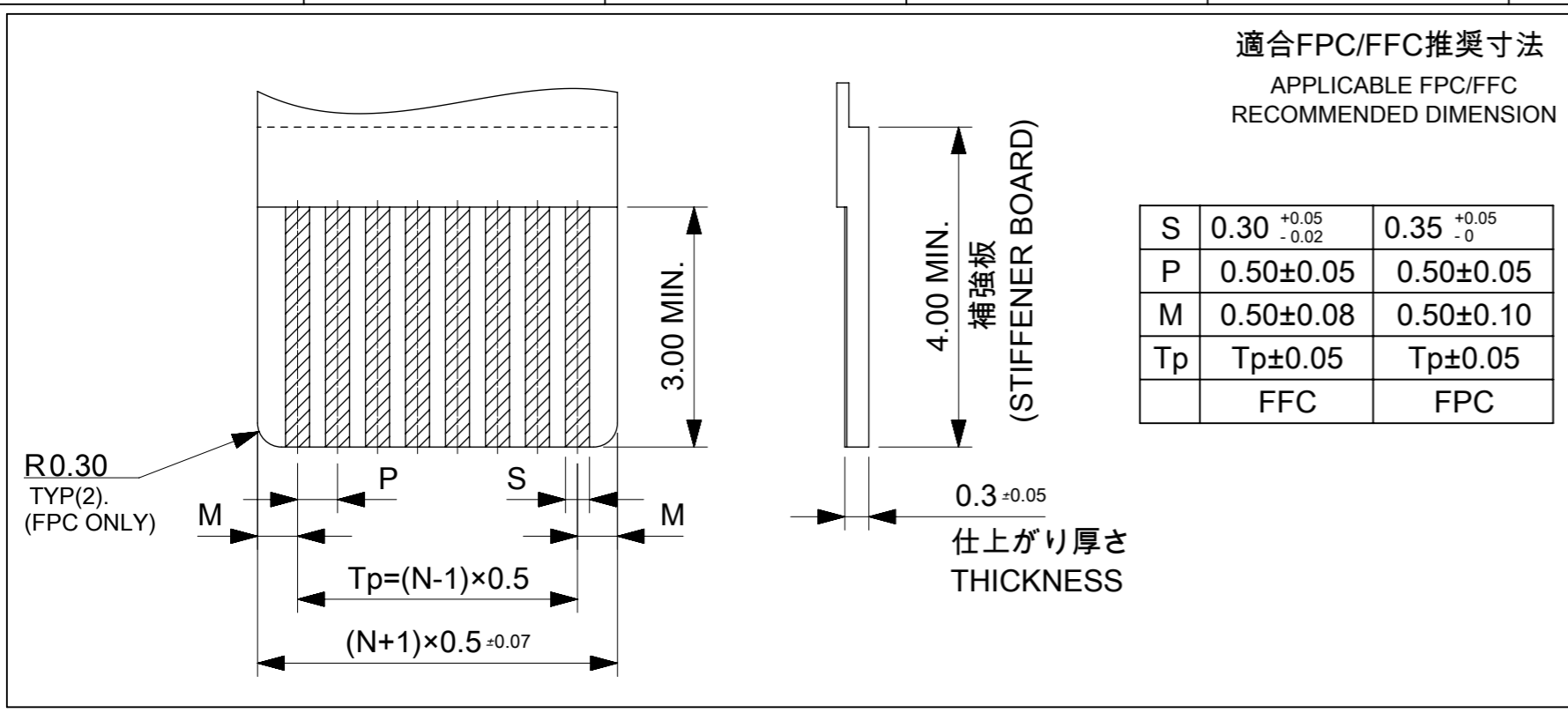
NOTES

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 | 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 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | KMORIKAWA | 2016/08/02 |
| | | DRAWING SIZE | THIRD ANGLE PROJECTION |
| | | A3 | |
| | | molex | |
| 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 |



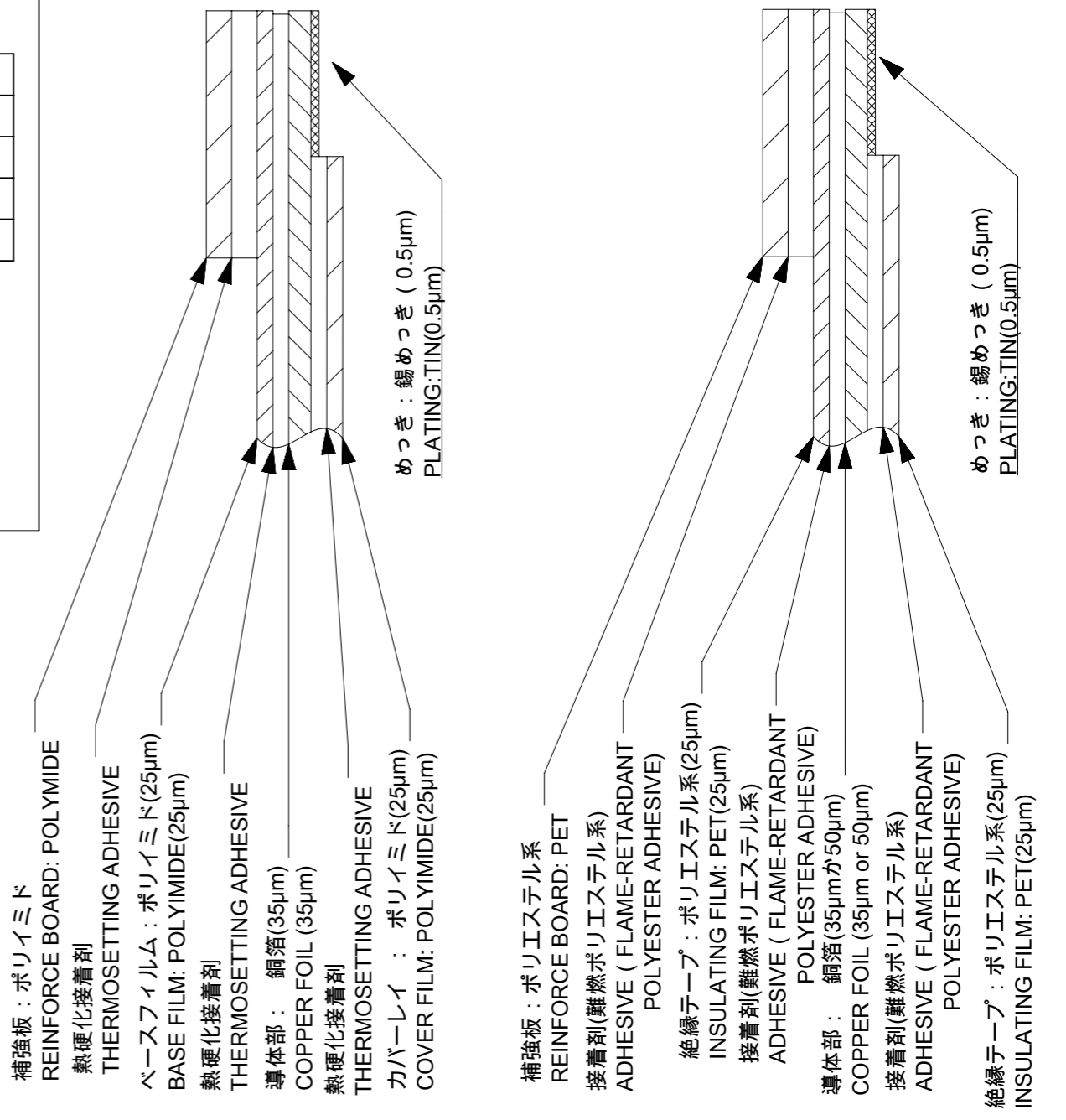
ELV & RoHS COMPLIANT

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.



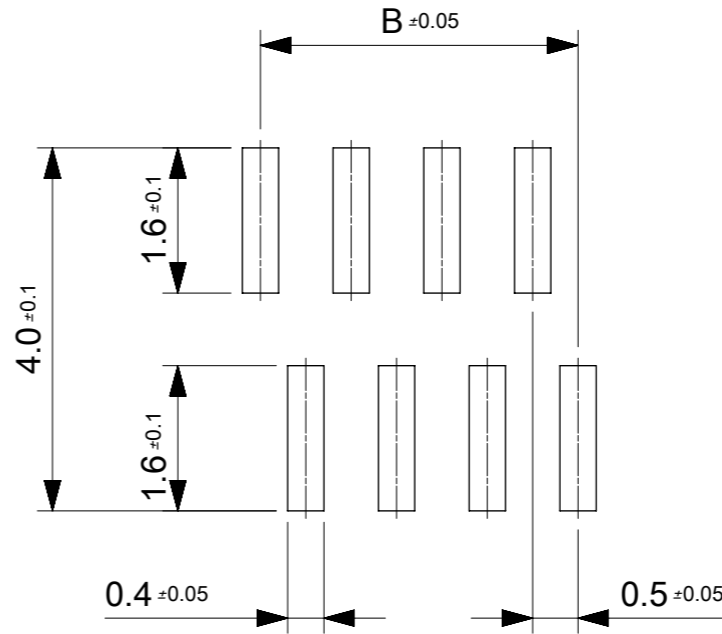
FPC構成推奨仕様
STRUCTURE OF FPC

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

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