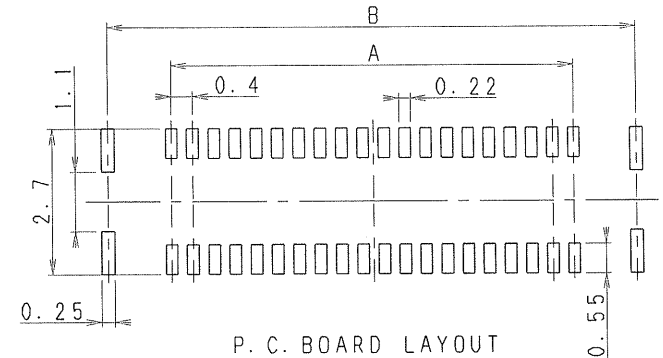
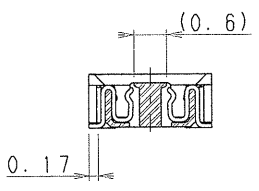
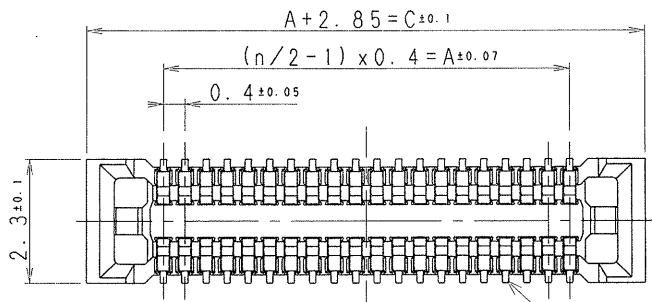
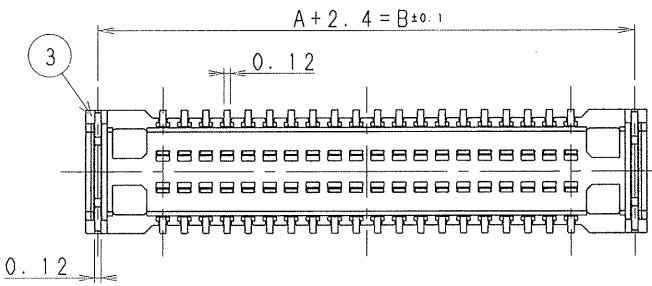
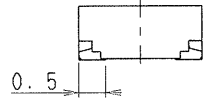
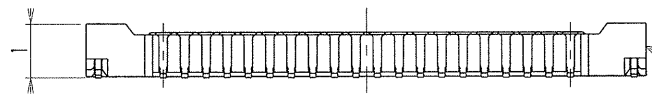


| | | | | |
|------------|----------------|-------------|------------|------------|
| MARK 記号 | REVISION 来歴 | DATE 年月日 | SIGN 担当 | APP. 承認 |
| | | | | |



P. C. BOARD LAYOUT
Tolerance: ±0.03

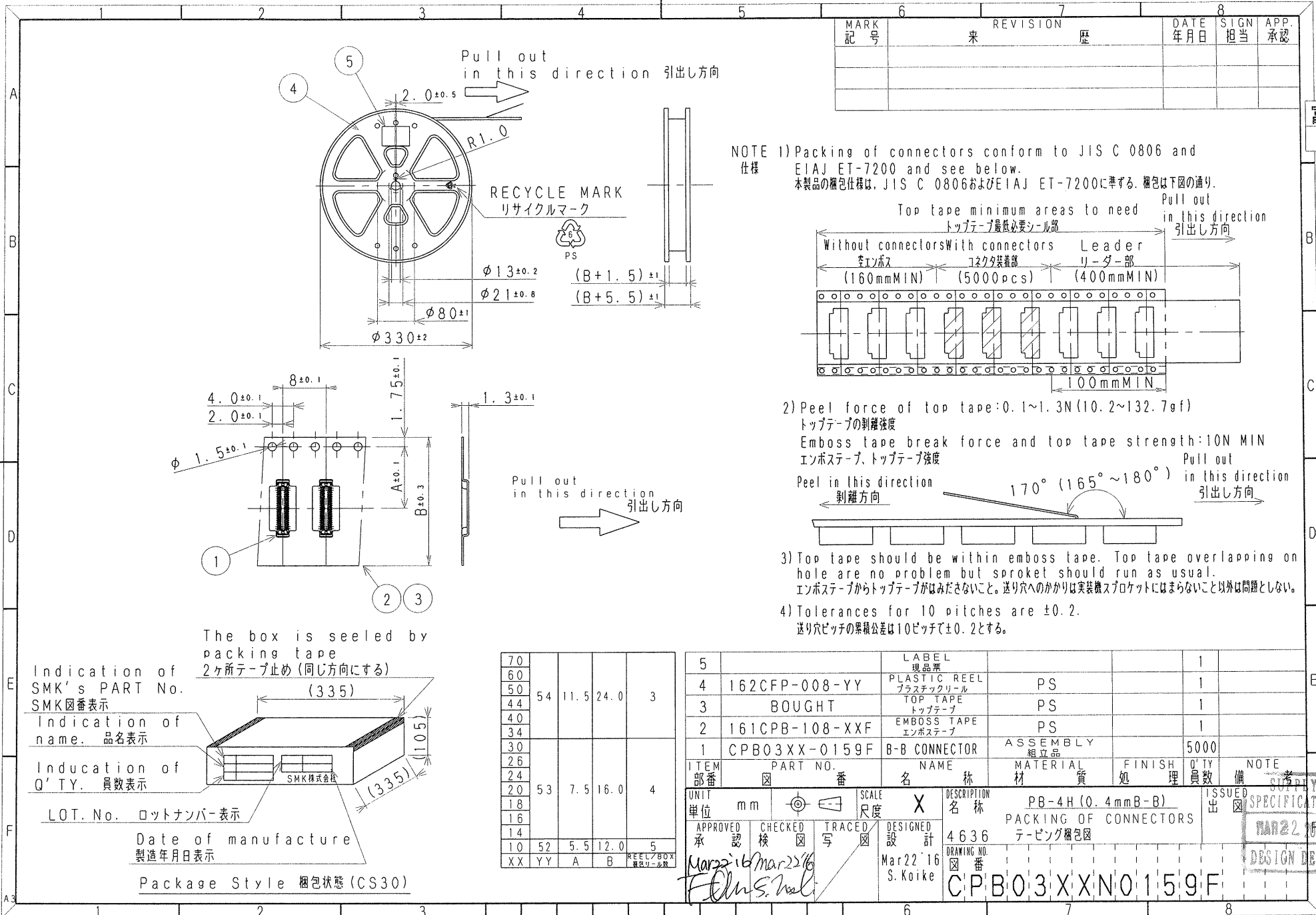


| | | | |
|--------|------|------|-------|
| 70 | 13.6 | 16.0 | 16.45 |
| 60 | 11.6 | 14.0 | 14.45 |
| 50 | 9.6 | 12.0 | 12.45 |
| 44 | 8.4 | 10.8 | 11.25 |
| 40 | 7.6 | 10.0 | 10.45 |
| 36 | 6.8 | 9.2 | 9.65 |
| 34 | 6.4 | 8.8 | 9.25 |
| 30 | 5.6 | 8.0 | 8.45 |
| 26 | 4.8 | 7.2 | 7.65 |
| 24 | 4.4 | 6.8 | 7.25 |
| 20 | 3.6 | 6.0 | 6.45 |
| 18 | 3.2 | 5.6 | 6.05 |
| 16 | 2.8 | 5.2 | 5.65 |
| 14 | 2.4 | 4.8 | 5.25 |
| 10 | 1.6 | 4.0 | 4.45 |
| XX (n) | A | B | C |

NOTE
 1. SPECIFICATION: CPB0310B0150F
 2. PACKAGE: CPB03XXN0159F
 3. COPLANARITY: 0.08max
 4. CONTACT PLATING (with Ni barrier)
 Contact point: Au0.1μmMIN
 Soldering point: Au0.03-0.2μm

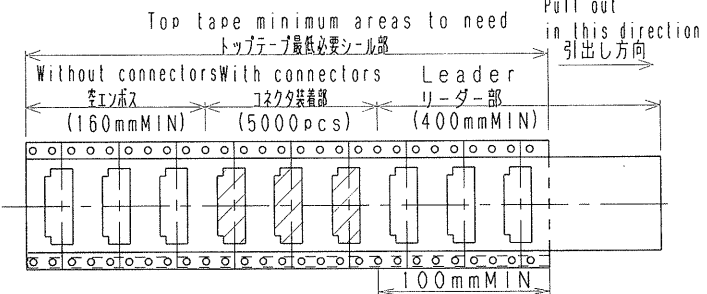
| | | | | | | |
|------------------|----------------|----------------------|----------------|-------------------|-------------------|--------------|
| 3 | 501CPB-022-90F | HOLD DOWN | Cu ALLOY | SnAsCuPLATE | 2 | |
| 2 | 415CPB-096-ZZF | CONTACT | Cu ALLOY | AuPLATE | n | n=XX |
| 1 | 101CPB-135-XXF | HOUSING | LCP (GF) | BLACK | 1 | |
| ITEM 部番 | PART NO. 番 | NAME 名称 | MATERIAL 材質 | FINISH 処理 | Q'TY 員数 | NOTE 備考 |
| UNIT 単位 | mm | SCALE 尺度 | 10:1 | DESCRIPTION 名称 | 0.4mmPITCH B-B CN | ISSUED 出 |
| APPROVED 承認 | CHECKED 検 | TRACED 写 | DESIGNED 設計 | 4306 | PB-4H SOCKET | ISSUED 出 |
| Mar22'16 Edms | | Mar22'16 S. Koike | | DRAWING NO. 番 | | DESIGN DEPT. |
| C/PB03XX-0159F | | | | | | |

| 15 DIMENSIONS RANGE | TOLERANCE UNLESS SPECIFIED |
|---------------------------|----------------------------------|
| 0-5 ≤ X < 1 | ±0.15 |
| 1 ≤ X ≤ 6 | ±0.20 |
| 6 < X ≤ 18 | ±0.30 |
| 18 < X ≤ 50 | ±0.50 |
| 50 < X ≤ 120 | ±0.70 |
| 120 < X ≤ 250 | ±0.90 |
| 250 < X ≤ 500 | ±1.20 |



| MARK 記号 | REVISION 来歴 | DATE 年月日 | SIGN 担当 | APP. 承認 |
|------------|----------------|-------------|------------|------------|
| | | | | |

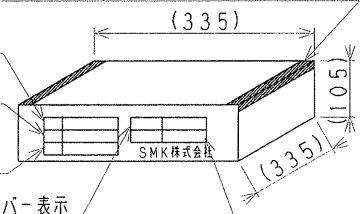
NOTE 1) Packing of connectors conform to JIS C 0806 and EIAJ ET-7200 and see below.
本製品の梱包仕様は、JIS C 0806およびEIAJ ET-7200に準ずる。梱包は下図の通り。



- 2) Peel force of top tape: 0.1~1.3N (10.2~132.7gf)
トップテープの剥離強度
Emboss tape break force and top tape strength: 10N MIN
エンボステープ、トップテープ強度
Peel in this direction
剥離方向
170° (165°~180°)
Pull out in this direction
引出し方向
- 3) Top tape should be within emboss tape. Top tape overlapping on hole are no problem but sprocket should run as usual.
エンボステープからトップテープがはみださないこと。送り穴へのかりりは実装微スプロケットにはまらないこと以外は問題としない。
- 4) Tolerances for 10 pitches are ± 0.2 .
送り穴ピッチの累積公差は10ピッチで ± 0.2 とする。

The box is sealed by packing tape
2ヶ所テープ止め (同じ方向にする)

Indication of SMK's PART No.
SMK図番表示
Indication of name.
品名表示
Indication of Q'TY.
員数表示
LOT. No.
ロットナンバー表示



Date of manufacture
製造年月日表示
Package Style 梱包状態 (CS30)

| | | | | | |
|----|----|------|------|---|-------------------|
| 70 | | | | | |
| 60 | | | | | |
| 50 | 54 | 11.5 | 24.0 | 3 | |
| 44 | | | | | |
| 40 | | | | | |
| 34 | | | | | |
| 30 | | | | | |
| 26 | | | | | |
| 24 | | | | | |
| 20 | 53 | 7.5 | 16.0 | 4 | |
| 18 | | | | | |
| 16 | | | | | |
| 14 | | | | | |
| 10 | 52 | 5.5 | 12.0 | 5 | |
| XX | YY | A | B | | REEL/BOX 組立/収納 |

| | | | | | | |
|----------------|----------------|---------------------------|----------------|-------------------|--|-----------|
| 5 | | LABEL 現品票 | | | 1 | |
| 4 | 162CFP-008-YY | PLASTIC REEL プラスチックリール | PS | | 1 | |
| 3 | BOUGHT | TOP TAPE トップテープ | PS | | 1 | |
| 2 | 161CPB-108-XXF | EMBOSS TAPE エンボステープ | PS | | 1 | |
| 1 | CPB03XX-0159F | B-B CONNECTOR 組立品 | ASSEMBLY | | 5000 | |
| ITEM 部番 | PART NO. 図番 | NAME 名称 | MATERIAL 材質 | FINISH 処理 | Q'TY 員数 | NOTE 備 |
| UNIT 単位 | mm | SCALE 尺度 | X | DESCRIPTION 名称 | PB-4H (0.4mm B-B) PACKING OF CONNECTORS テープ梱包図 | |
| APPROVED 承認 | CHECKED 検 | TRACED 写 | DESIGNED 設計 | 4636 | ISSUED 出 | |
| Mar 22 '16 | Mar 23 '16 | | Mar 22 '16 | 4636 | SPECIFICATION 仕様書 | |
| | | | S. Koike | CPB03XXN0159F | DESIGN DEPT. 設計部 | |

| | | | |
|----------------------------------|---|------------------------------|-----|
| SECTION IN CHARGE 主管 | SPECIFICATION FOR 0.4mmPitch B-B CONNECTOR | CLASSIFICATION No. | 1/8 |
| | | 分類番号 | |
| CONNECTOR DIVISION コネクタ(事)設計部 | 0.4mmPitch B-B コネクタ仕様書 | DRAWING No. CPB0310B0150F | |

富

1.Scope This specification presents the performance of 0.4mmPitch B-B connector

適用範囲 本仕様書は0.4mmピッチB-Bコネクタに適用する。

Drawing No.

適用図番 CPB03XX-YYYYY CPB04XX-YYYYY

2.Characteristics

性能

>Standard atmospheric condition

標準状態

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and tests are as follows:

特に指定がない限り、測定は以下の条件にて行う。

Ambient temperature (常温) : 5°C to 35°C
 Relative humidity (常湿) : 45%RH to 85%RH
 Air pressure (常気圧) : 86kPa to 106kPa

If there is any about the result, measurements shall be made within the following limits:

ただし、判定に疑義を生じた場合、測定は以下の条件にて行う。

Ambient temperature (常温) : 20 +/- 2°C
 Relative humidity (常湿) : 60%RH to 70%RH
 Air pressure (常気圧) : 86kPa to 106kPa

>Operating temperature range

使用温度範囲

Operating temperature range is the range of ambient temperature for the connector housing which can be operated continuously at rated voltage and rated current.

定格電圧・電流で連続して使用可能な周囲温度の範囲。

-40°C to 85°C

>Storage temperature and relative humidity range

保存温度・保存湿度範囲

Storage temperature and relative humidity range is the range of ambient temperature and which the connector housing can be stored without load.

-55°C to 85°C , 15%RH to 70%RH

>Keeping period 保管期間

6months from shipment day

出荷日から6ヶ月

3. Country of origin 生産国

JAPAN(TOYAMA) 日本(富山)

| | | | | | | | | |
|----------------|--------------------------------------|------------|----------------|------------|--------------|----------------|---------------|-------------|
| △ × 1 | Change of Insertion/Withdrawal force | Jan05'12 | Shimada | | ISSUED 発行 | APPROVED 承認 | CHECKED 照査 | DRAWN 作成 |
| | | MARK 記号 | REVISION 来歴 | DATE 日付 | | | | |
| APPROVED 承認 | EXECUTE 実施 | | | | | | | |

Jan 5 '12
 Jan 05 '12
 Jan 05 '12
 Y. Shimada

SMK

RoHS Compliant 1

2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

| 2.1 Electrical characteristics 電氣的性能 | | | |
|--------------------------------------|--|--|---|
| | ITEMS 項目 | CONDITIONS 条件 | SPECIFICATIONS 規格 |
| 1 | Rated voltage / Rated current 定格電圧 | | AC/DC 50V, 0.3A |
| 2 | Contact resistance 接触抵抗 | Connect with applicable connector, then contact resistance shall be measured between each coupled terminals. コネクタを嵌合し各端子間を測定する。 (但し、導体抵抗は除く) | 30mΩ or less 以下 |
| 3 | Insulation resistance 絶縁抵抗 | 100V DC shall be applied for 1 minute, then measurement shall be made. DC100V、1分後 | Between conductors. 導体相互間 100MΩ or more 以上 |
| 4 | Withstand voltage 耐電圧 | 100V AC shall be applied for 1 minute, then measurement shall be made. AC100V、1分後 Cut off current; 2mA 遮断電流 | Between conductors. 導体相互間 Without damages such as arc or breakdown etc. |

| 2.2 Mechanical characteristics 機械的性能 | | | |
|--------------------------------------|------------------------------------|---|---------------------|
| 1 | Insertion force 総合挿入力 | Measurement the insertion force of socket and plug. プラグとソケットを嵌合させるときの力を測定。 | Refer Table 1 |
| 2 | Withdrawal force 総合抜去力 | Measure the withdrawal force of socket and plug プラグとソケットを離脱させるときの力を測定。 | Refer Table 1 |
| 3 | Terminal retention force 端子抜け強度 | The retention force when the terminal is extracted from connector housing shall be measured. 各端子がコネクタハウジングから抜ける時の力を測定する。 | 0.5 N or more 以上 |

Table 1

| | Insertion force 総合挿入力 | Withdrawal force 総合抜去力 | |
|----|--------------------------|------------------------|----------------|
| | | First | After 10 times |
| 10 | 30 N or less | 4.0 N or more | |
| 14 | 42 N or less | 5.6 N or more | |
| 16 | 24 N or less | 4.0 N or more | |
| 20 | 30 N or less | 5.0 N or more | |
| 24 | 36 N or less | 6.0 N or more | |
| 26 | 39 N or less | 6.5 N or more | |
| 30 | 45 N or less | 7.5 N or more | |
| 34 | 34 N or less | 5.1 N or more | |
| 36 | 36 N or less | 5.4 N or more | |
| 40 | 40 N or less | 6.0 N or more | |
| 50 | 50 N or less | 7.5 N or more | |
| 60 | 60 N or less | 9.0 N or more | |
| 70 | 70 N or less | 10.5 N or more | |

SMK

2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

| 2.3 Endurance characteristics 耐久性能 | | | |
|--|--|--|--|
| Test shall be performed in mated condition with mating applicable FPC. 試験は適合FPCと組み合わせた状態にて行う。 | | | |
| ITEMS 項目 | CONDITIONS 条件 | SPECIFICATIONS 規格 | |
| 1 Cold 低温放置 | After exposing to a temperature of -55+/-3°C for 96h, the specimen shall be subjected to standard atmospheric conditions for 1h, then measurement shall be made. For other procedures, refer to JIS C 60068-2-1. -40±3°C、96時間放置後取り出し、常温常湿中に1時間放置し測定する。 その他、JIS C 60068-2-1 に準拠。 | Contact resistance 接触抵抗 60mΩ or less 以下 | |
| 2 Dry heat 高温放置 | After exposing to a temperature of +85+/-2°C for 96h, the specimen shall be subjected to standard atmospheric conditions for 1h, then measurement shall be made. For other procedures, refer to JIS C 60068-2-2. +85±2°C、96時間放置後取り出し、常温常湿中に1時間放置し測定する。 その他、JIS C 60068-2-2 に準拠。 | Contact resistance 接触抵抗 60mΩ or less 以下 | |
| 3 Damp heat 高温高湿 | After exposing to a temperature of +60+/-3°C, a humidity in the range of 90%RH to 95%RH for 96h, the specimen shall be subjected to standard atmospheric conditions for 1h, then measurement shall be made. For other procedures, refer to JIS C 60068-2-3. 60±3°C、相対湿度90~95%、96時間後に取り出し、常温常湿中に1時間放置し測定する。 その他、JIS C 60068-2-3 に準拠。 | (1)Contact resistance 接触抵抗 60mΩ or less 以下 (2)Insulation resistance 絶縁抵抗 DC 100V 1min.: 50MΩ or more (3)Withstand voltage 耐電圧 AC 100V 1min.: Without damage such as arc or breakdown etc. | |
| 4 Thermal shock 熱衝撃 | The connector shall be subjected to 5 successive change of temperature cycles each as shown in the table below. Then it shall be subjected to standard atmospheric conditions for 2h, then measurement shall be made. For other procedures, refer to JIS C 0025. 下記を1サイクルとして、5サイクル行う。 その後、常温常湿中に2時間放置し測定する。 その他、JIS C 0025 に準拠。 -55+/-3°C: 30min. Standard atmospheric condition: 5min. 85+/-3°C: 30min. Standard atmospheric condition: 5min. | Contact resistance 接触抵抗 60mΩ or less 以下 | |
| | | | |

SMK

2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

CPB0310B0150F

No.4/8

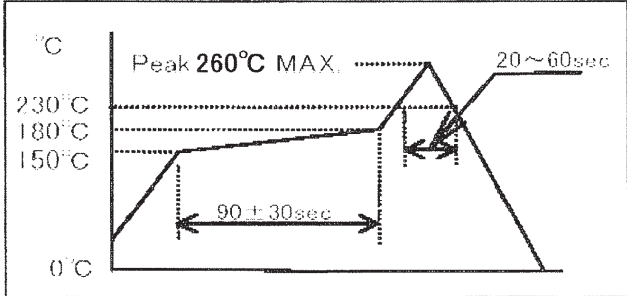
| | ITEMS 項 目 | CONDITIONS 条 件 | SPECIFICATIONS 規 格 |
|---|-----------------------------------|---|--|
| 5 | Solt Spray 塩水噴霧 | The connector shall be subjected to a fine mist solution at a temperature of $35 \pm 2^{\circ}\text{C}$ for 48h continuously. Salt solution concentration is $5 \pm 1\%$ by weight. Then it shall be subjected to standard atmospheric conditions for 1h, and so measurement shall be made. For other procedures, refer to JIS C 60068-2-11. $35 \pm 2^{\circ}\text{C}$ 、塩水濃度 $5 \pm 1\%$ (重量比)で48時間連続噴霧後、常温常湿中に1時間放置し測定する。 その他、JIS C 60068-2-11に準拠する。 | (1)Contact resistance 接触抵抗 $60\text{m}\Omega$ or less 以下 (2)Without excessive rust 著しい錆がないこと。 |
| 6 | Shock 衝撃 | Pulse shape (波形) ; half sign (半正弦波) Peak acceleration (最大加速度) ; $490 \text{ m/s}^2(50\text{G})$ Duration of the pulse (作用時間) ; 11 ms Three successive shocks shall be applied in both directions of 3 mutually perpendicular axis (total 18 shocks). X、Y、Z両方向に各3回、計18回 For other procedure, refer to JIS C 60068-2-27. その他、JIS C 60068-2-27 に準拠。 | (1)Discontinuity: 不連続導通 $1 \mu\text{s}$ or less 以下 (2)Contact resistance 接触抵抗 $60\text{m}\Omega$ or less 以下 |
| 7 | Vibration 振動 | The entire frequency range(周波数範囲) ; 10 to 55 to 10 Hz/min Amplitude (total excursion) (全振幅) ; 1.5 mm This motion shall be applied for a period of 2h in each of 3 mutually perpendicular axis (total 6h). X、Y、Z方向に各2時間、計6時間 For other procedures, refer to JIS C 60068-2-6. その他、JIS C 60068-2-6に準拠する。 | (1)Discontinuity: 不連続導通 $1 \mu\text{s}$ or less 以下 (2)Contact resistance 接触抵抗 $60\text{m}\Omega$ or less 以下 |
| 8 | Resistance to sulfuration 耐硫化性 | The connector shall be stored at a sulfuration gas ambience (H_2S $5+/-1\text{ppm}$) temperature of $40+/-2^{\circ}\text{C}$ and relative humidity of 70%RH for 96h Continuously. Then the connector shall be maintained at standard atmospheric conditions for 1h after which measurement shall be made within 1h. 温度 $40 \pm 2^{\circ}\text{C}$ 、相対湿度70%の硫化ガス雰囲気 (H_2S $5 \pm 1\text{ppm}$) 中に連続96時間放置後、常温常湿中に1時間放置し、1時間以内に測定する。 | (1)Contact resistance 接触抵抗 $60\text{m}\Omega$ or less 以下 (2)Without distinct damage in appearance. 外観に異常がないこと。 |

SMK

2012.1.16 09:16:53
109752016.12.21 16:44:50
5204

CPB0310B0150F

No.5/8

| | ITEMS 項目 | CONDITIONS 条件 | SPECIFICATIONS 規格 |
|----|--|---|---|
| 9 | Operating endurance.1 寿命耐久性.1 | The measurement shall be made after having repeated this 50 times 適合プラグとソケットを50回挿抜する。 Test Condition:ref."The note when the product is mated(No.6/8~7/8)" 条件:コネクタ嵌合時の取り扱い注意参照 (No.6/8~7/8) | Contact resistance 接触抵抗 60mΩ or less以下 |
| 10 | Operating endurance.2 寿命耐久性.2 (for test connector) Drawing Number 対象図番 CPB03XX-0190F CPB04XX-0190F | The measurement shall be made after having repeated this 1000 times 適合プラグとソケットを1000回挿抜する。 Test Condition:ref."The note when the product is mated(No.6/8~7/8)" 条件:コネクタ嵌合時の取り扱い注意参照 (No.6/8~7/8) | Contact resistance 接触抵抗 100mΩ or less以下 |
| 11 | Solderability はんだ付け性 | Solder temperature: 235+/-5°C Immersion time: 2+/-0.5sec For other procedures, JIS C 60068-2-20. はんだ温度: 235±5°C 浸漬時間 : 2±0.5秒 その他、JIS C 60068-2-20 に準拠。 | A new uniform coating of solder shall cover a minimum of 95% of the surface being immersed. はんだ浸漬面積の95%が新しいはんだで濡れていること |
| 12 | Resistance to soldering heat はんだ耐熱性 | <p>1)Reflow characteristics リフロー条件 The connector housing shall be stored at a temperature, each as shown in the chart below. 下記に示す温度にて加熱する。 TEMPERATURE OF SURFACE P.C.B.</p>  <p>2)Manual soldering using soldering iron Tip diameter: Selected to fit application Maximum tip temperature: 370°C Antistatic protection: Required Maximum exposure time: 3 sec</p> <p>3)Manual hot gas soldering Max air temperature: 285°C Max air velocity: 10m/sec Max exposure time : 30sec</p> | Without deformation of care or excessive looseness of terminals. 外観の変形及び端子などの著しいガタないこと。 Maximum number of reflow cycles: 2 cycles リフロー回数:2回MAX |

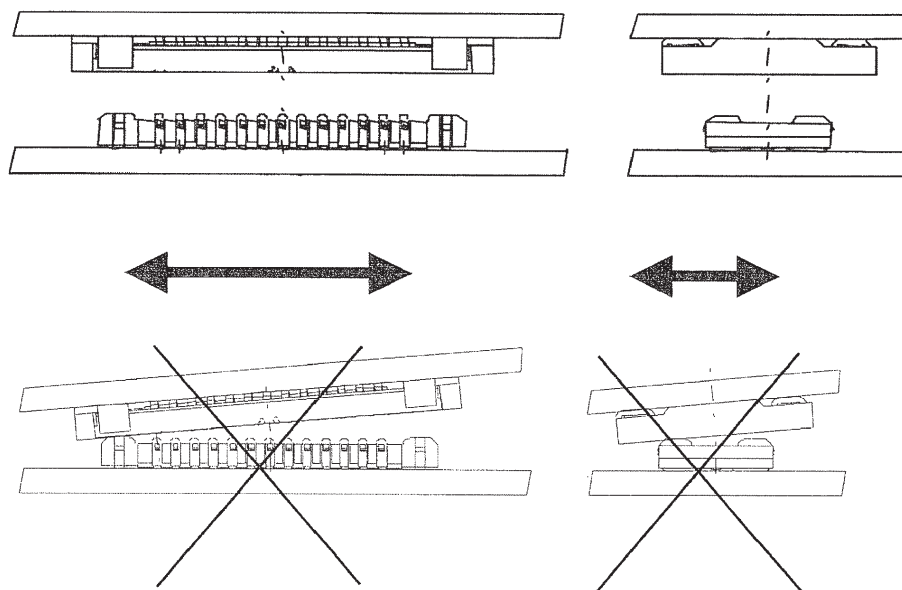
SMK

2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

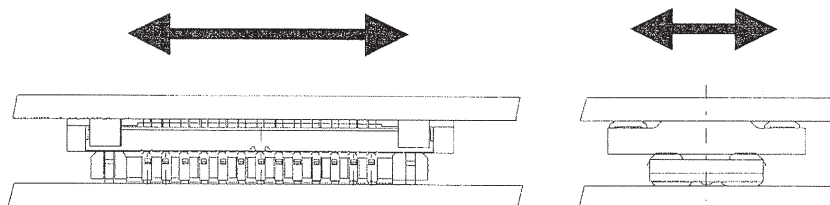
The note when the product is mated.

コネクタ嵌合時の取り扱い注意



The product shall be free from excess force and must be mated on the vertical axis. These may break the mold and cause deformation.

無理な力を入れたり、斜めにした位置合わせは、
モールドを破損させ、座屈を引き起こす原因になります。



The connectors shall be positioned parallel when being positioned to be mated.

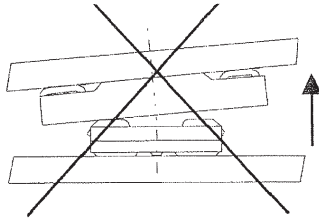
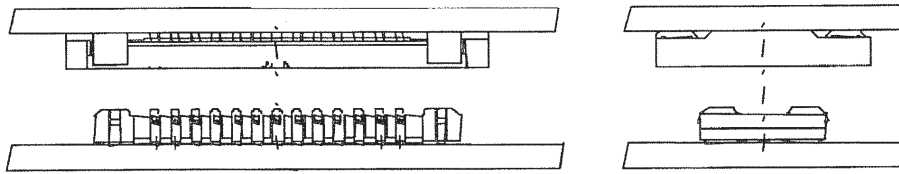
位置合わせをする際は、コネクタ同士を平行にして下さい。

SMK

2012.1.16 09:16:53
10975

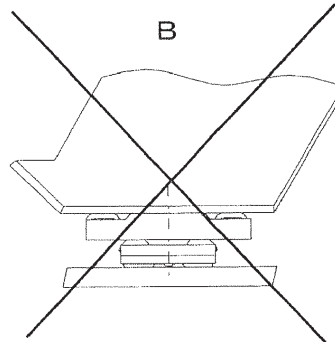
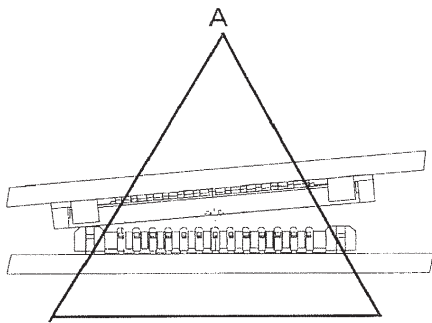
2016.12.21 16:44:50
5204

The note when the product is mated. コネクタ抜去時の取り扱い注意



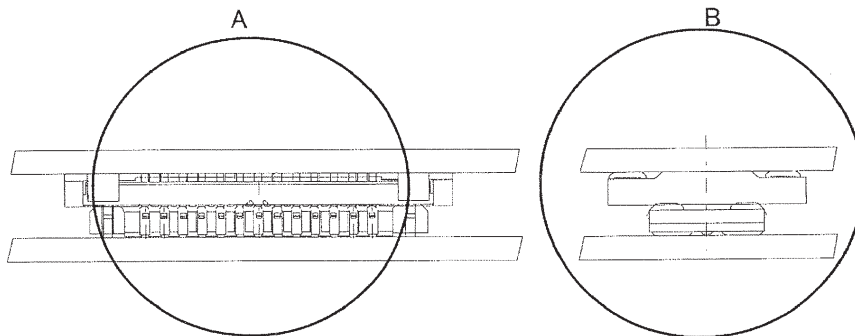
side as the drawing on left. The connectors may be impaired.

左図のように幅寸法から抜去を行うと、コネクタに損傷を与える恐れがあります。幅方向からの抜去は行わないで下さい。



Please extracted as figure. A, under the condition that the connectors cannot be extracted parallel. However, please note that the extraction as figure. A may load largely on the end of the contacts when mounting on FPC and not enough rigidity. Moreover, please do not extract as figure. B, it loads excessively on the end of the contacts.

取り扱い上、平行に抜くことが出来ない場合には、上の図Aのように抜いてください。但し、FPCに実装の場合で剛性がない場合は、端の端子に負荷が集中しますので、ご注意願います。特に上の図Bのようなコーナーからの抜去は、端の端子に大きな負荷を与えますので、行わないで下さい。



Please extract the connectors as being collimated.
コネクタを抜く際は、平行に抜いてください。

SMK

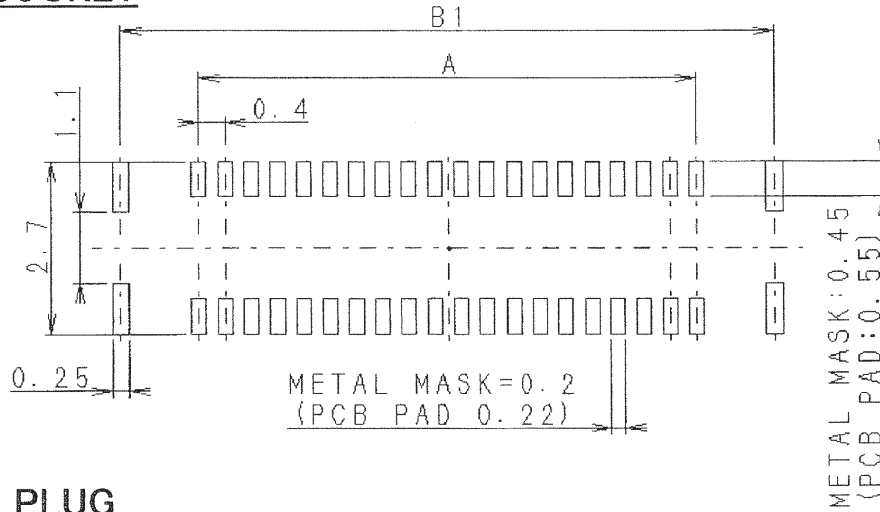
2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

Recommended metal mask opening pattern 推奨メタルマスク開口寸法

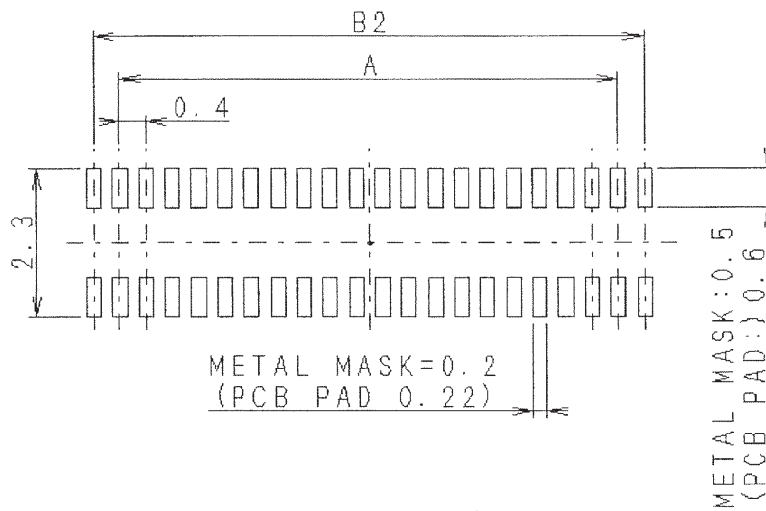
Metal mask thickness=0.10mm

SOCKET



| | | | |
|----|------|------|------|
| 70 | 13.6 | 16 | 14.4 |
| 60 | 11.6 | 14 | 12.4 |
| 50 | 9.6 | 12.0 | 10.4 |
| 40 | 7.6 | 10.0 | 8.4 |
| 36 | 6.8 | 9.2 | 7.6 |
| 34 | 6.4 | 8.8 | 7.2 |
| 30 | 5.6 | 8.0 | 6.4 |
| 26 | 4.8 | 7.2 | 5.6 |
| 24 | 4.4 | 6.8 | 5.2 |
| 20 | 3.6 | 6.0 | 4.4 |
| 16 | 2.8 | 5.2 | 3.6 |
| 14 | 2.4 | 4.8 | 3.2 |
| 10 | 1.6 | 4.0 | 2.4 |
| XX | A | B1 | B2 |

PLUG



SMK

2012.1.16 09:16:53
10975

2016.12.21 16:44:50
5204

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Board to Board & Mezzanine Connectors](#) category:

Click to view products by [SMK](#) manufacturer:

Other Similar products are found below :

[589158040000018](#) [MDF7C-18P-2.54DSA\(55\)](#) [FCN-268F036-G/BD](#) [FCN-268M012-G/0D](#) [FCN-268M024-G/1D](#) [MIS-048-01-F-D-DP-K](#)
[832-10-034-10-001000](#) [FX4C-80S-1.27DSA](#) [93696-330](#) [224393](#) [FCN-235D050-G/C](#) [210-93-314-41-105000](#) [MDF7-40DP-2.54DSA\(55\)](#)
[MIT-114-03-F-D-K](#) [55323-1519](#) [026-6203-PDB](#) [027-6203-PDB](#) [069159702701000](#) [101A10019X](#) [105061100000861+](#) [55650-0588-C](#) [75140-](#)
[7012](#) [87471-650](#) [YTW-30-07-H-Q-410-140](#) [YTT-112-01-H-Q](#) [063209](#) [10124054-515LF](#) [68685-603](#) [8-1616154-3](#) [MIS-019-01-F-D](#) [YTQ-](#)
[12103HQ](#) [541371078](#) [IL-WX-10PB-HF-B-E1000E](#) [FCN-214J100-G/0](#) [FCN-230C068-E/S](#) [354184](#) [MIT-019-04-F-D-K](#) [P50-028-DDS-TG](#)
[53309-2471](#) [54546-2071](#) [1586617-1](#) [504208-3010](#) [504208-5010](#) [504248-1010](#) [504248-1210](#) [504248-2010](#) [LST-115-07-S-D](#) [LST-105-07-G-](#)
[D](#) [9159005551906](#) [6258](#)