

【1. 適用範囲 SCOPE】

\_\_\_\_\_ 殿 に納入する  
 0.4 mm ピッチ 基板対基板用 コネクタの取り扱いについて規定する。  
 This specification covers handling of the 0.4 mm PITCH BOARD TO BOARD CONNECTOR series.

【2. 製品名称及び型番 PRODUCT NAME AND PART NUMBER】

製品名称 Product Name	製品型番 Part Number
リセプタクル ハウジング アッセンブリ Receptacle Housing Assembly	5 0 3 7 7 2 - * * * 9
5 0 3 7 7 2 - * * * 9 エンボス梱包品 Embossed Tape Package For 503772-***9	5 0 3 7 7 2 - * * * 0
プラグ ハウジング アッセンブリ Plug Housing Assembly	5 0 3 7 7 6 - * * * 9
5 0 3 7 7 6 - * * * 9 エンボス梱包品 Embossed Tape Package For 503776-***9	5 0 3 7 7 6 - * * * 0

\*\*\* : 図面参照 Refer to the Product Drawings.

注記)

この取扱い説明書はリセプタクル（以下リセ）側が基板（硬質基板）、プラグ側がFPCに実装された場合を想定して作成していますが、リセ側がFPC、プラグ側が基板（硬質基板）の場合にも適用します。  
 リセは変形しやすいばね端子を内蔵しておりますので、FPCに実装する場合は、特に抜去作業にご注意ください。  
 Notes)

This specification is written based on the supposition that the receptacle is mounted on PWB (Hard PWB) and the plug is mounted on FPC. In the case of the receptacle is mounted on FPC and the plug is mounted on PWB (Hard PWB) is also covered. Receptacle contains formable terminal. Please pay attention to un-mating process of connectors if you mount Receptacle on FPC.

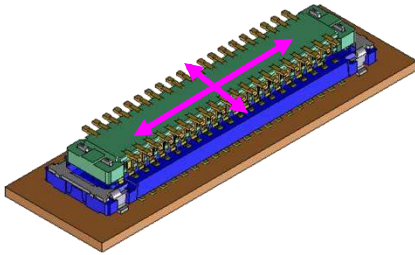
REV.	0	A							
SHEET	1~8	1~8							
REVISE ON PC ONLY					TITLE:				
A					0.4 BOARD TO BOARD CONNECTOR (Hgt=0.8mm)				
REVISED J2016-0532 '15/11/26 M.ITO01					<b>CONFIDENTIAL アプリケーション仕様書</b>				
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REV.	DESCRIPTION								
DESIGN CONTROL J			STATUS		WRITTEN BY: K.SASAKI	CHECKED BY: R.TAKEUCH	APPROVED BY: M.SASAO	DATE: YR/MO/DAY 2011/03/29	
DOCUMENT NUMBER <b>AS-503772-001</b>								FILE NAME AS503772001.docx	SHEET 1 OF 8
EN-037(2015-11 rev.1)									

### 【3. 嵌合に関して MATING】

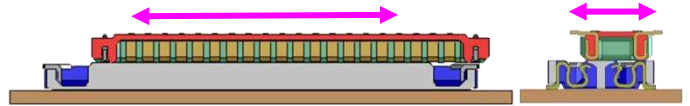
#### 3-1. 嵌合方法（挿入方法）HOW TO MATE (INSERTION)

嵌合時（挿入時）は正しく位置合わせを行ってください。正しく位置合わせすると、基板間が約1.1mmになります。その後、プラグ側をリセ側と平行に保ったまま挿入して頂けます様、宜しくお願い致します。  
After positioning correctly for mating, then the distance between PWB and FPC is about 1.1mm, insert the plug to the receptacle in parallel with each other.

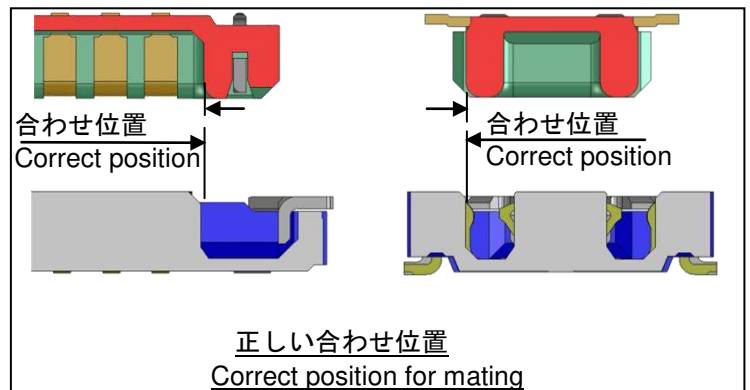
#### STEP 1



正しい位置合わせは右図の様に、リセ内壁とプラグ内壁で行ってください。  
Please find correct position at inside wall of receptacle and inside wall of plug.

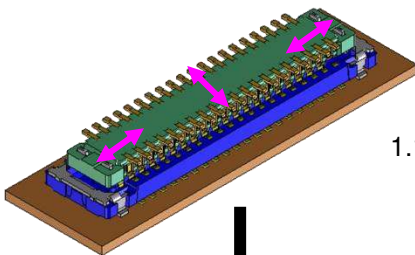


プラグ側をリセ側と平行にして位置合わせをしてください。  
Positioning the plug correctly in parallel with the receptacle.

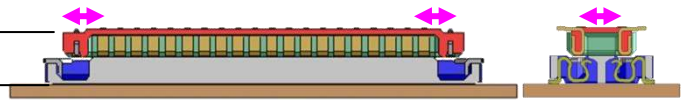


正しい合わせ位置  
Correct position for mating

#### STEP 2

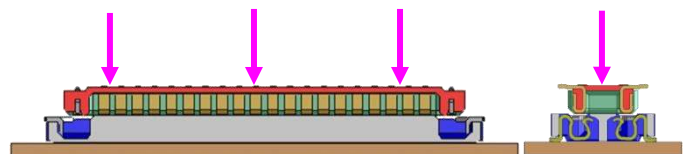
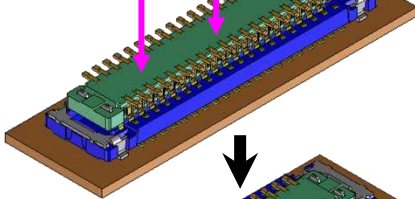


1.1mm



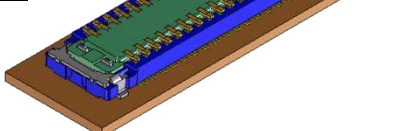
プラグ側を軽く動かし、位置合わせが正しいか確認してください。  
Position the plug correct by adjusting back or forth.

#### STEP 3



プラグ側をリセ側と平行に押し込んで下さい。  
Insert the plug in parallel with the receptacle until fully seated.

#### STEP 4



REVISE ON PC ONLY

**A**

SEE SHEET 1 OF 8

REV.

DESCRIPTION

TITLE:

0.4 BOARD TO BOARD CONNECTOR  
(Hgt=0.8mm)

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**AS-503772-001**

FILE NAME

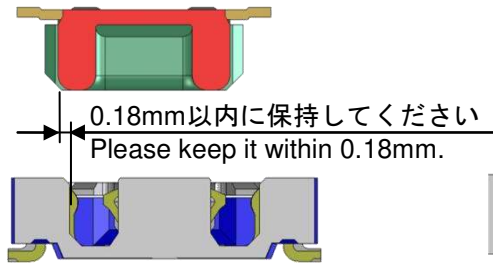
AS503772001.docx

SHEET

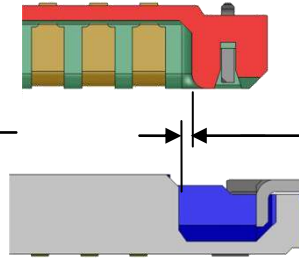
2 OF 8

## 3-2. 嵌合時位置合わせ方法（平行な位置合わせが困難な場合） MATING POSITIONING WITH SLIGHTLY INCLINED

### 3-2-1. 長手方向に自由度がある場合 When operated in "a" Direction (lengthways)

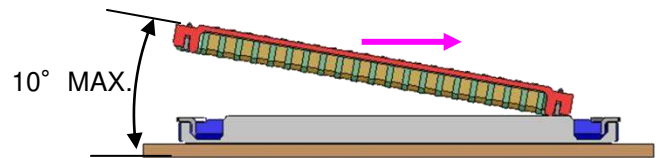
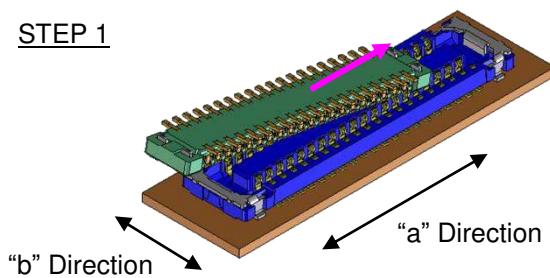


短手方向 "b" Direction



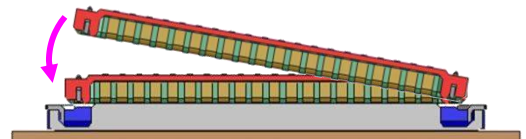
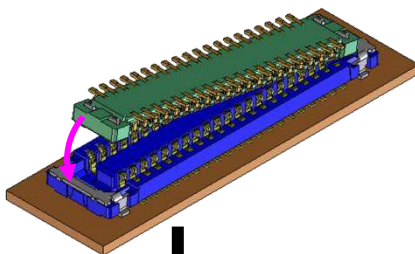
長手方向 "a" Direction (lengthways)

#### STEP 1



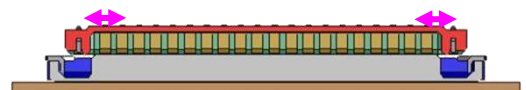
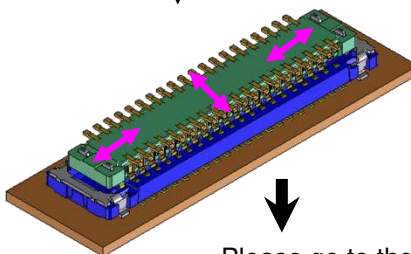
嵌合時の位置合わせは、プラグ側を少し傾けて（10°以下）行ってください。  
Position for mating by inclining the plug to the receptacle approximately less than 10°.

#### STEP 2



位置合わせを行った後、プラグ側とリセ側を平行にしてください。  
Once the plug is positioned over the receptacle, move it to the parallel position.

#### STEP 3

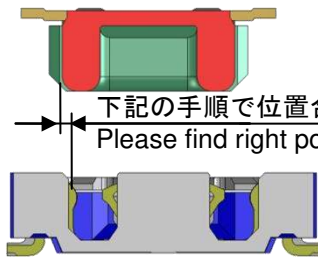


プラグ側を軽く動かし、位置合わせが正しいか確認してください。  
Position the plug correct by adjusting back or forth.

Please go to the STEP3 in sheet 2 of 8.

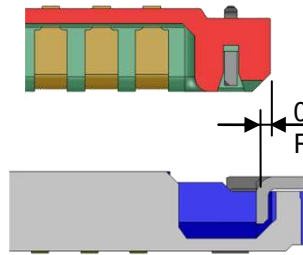
REVISE ON PC ONLY		TITLE:	
<b>A</b>	SEE SHEET 1 OF 8	0.4 BOARD TO BOARD CONNECTOR (Hgt=0.8mm)	
	REV.	DESCRIPTION	<b>CONFIDENTIAL アプリケーション仕様書</b>
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EN-037(2015-11 rev.1)			

## 3-2-2. 短手方向に自由度がある場合 When operated in "b" Direction



下記の手順で位置合わせして下さい  
Please find right position regarding to procedure below.

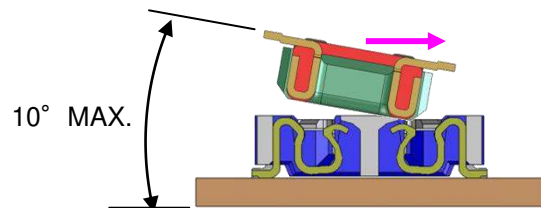
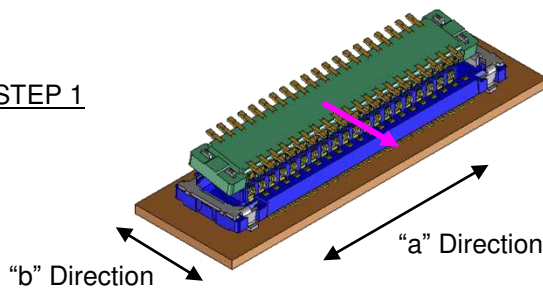
短手方向 "b" Direction



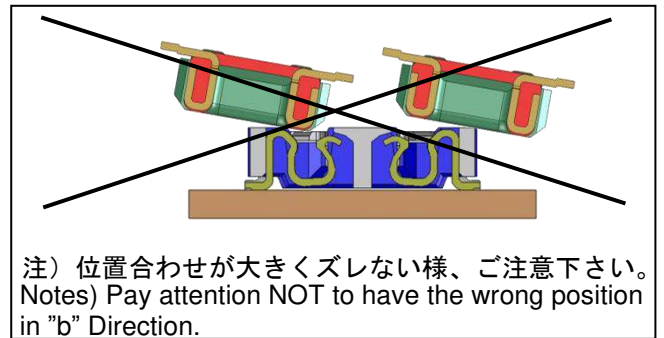
0.235mm以内に保持してください  
Please keep it within 0.235mm.

長手方向 "a" Direction (lengthways)

STEP 1

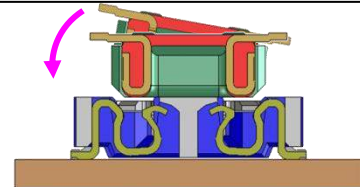
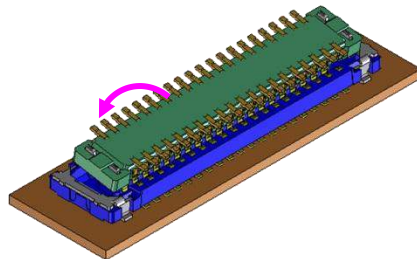


嵌合時の位置合わせは、プラグ側を少し傾けて (10° 以下) 行ってください。  
Position for mating by inclining the plug to the receptacle approximately less than 10°



注) 位置合わせが大きくズレない様、ご注意ください。  
Notes) Pay attention NOT to have the wrong position in "b" Direction.

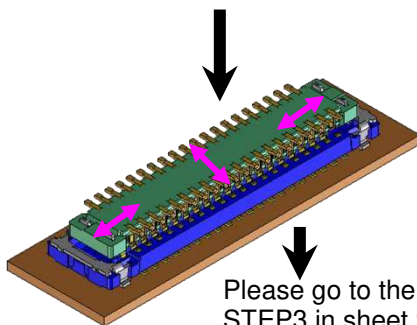
STEP 2



位置合わせを行った後、プラグ側とリセ側を平行にしてください。

Once the plug is positioned over the receptacle, move to the parallel position.

STEP 3



Please go to the STEP3 in sheet 2 of 8.

プラグ側を軽く動かし、位置合わせが正しいか確認してください。

Position the plug correct by adjusting back or forth.

REVISE ON PC ONLY

**A**

SEE SHEET 1 OF 8

TITLE:

0.4 BOARD TO BOARD CONNECTOR  
(Hgt=0.8mm)

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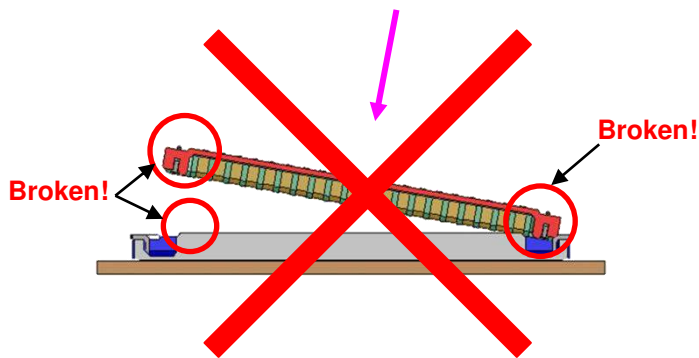
4 OF 8



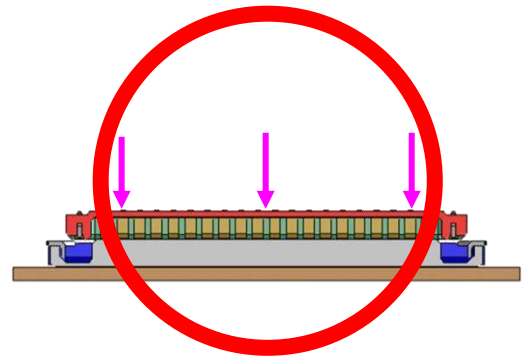
3-3. 嵌合時 取り扱い注意点 CONNECTOR HANDLING WHEN MATING

コネクタ同士は平行にして嵌合してください。コネクタ同士を平行に嵌合せず、斜めにしたまま嵌合すると、ハウジング同士が干渉し、ハウジングが破損する恐れがあります。

Please **DO NOT** apply force while mating the receptacle or plug at an angle in the “a” direction (lengthways). It may cause damage to the connector.



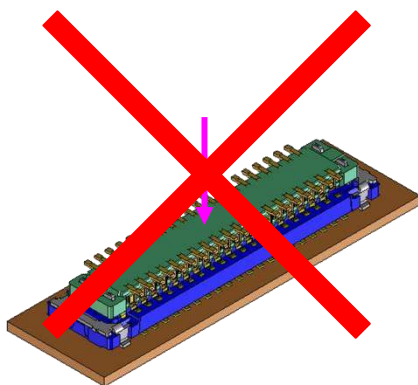
コネクタ斜め嵌合  
Mating with angle (Wrong Handling)



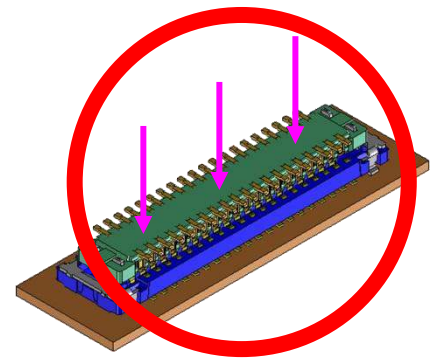
コネクタ平行嵌合  
Mating with Parallel (Correct Handling)

当該製品は既存製品に比べ小型化した製品であり、コネクタ単体の強度（ハウジング強度）は低下しています。嵌合（挿入）の際は、コネクタ中央部のみの押し込みではなく、全体を平行に押し込んで頂けます様、お願い致します。FPC補強板の強度が十分でない場合、コネクタ中央部のみを押し込むと、コネクタが折れる可能性があります。

This product is downsized comparing with the current products and needs to be handled more carefully. When mating (inserting), do NOT push the only center of connector but the whole connector in parallel with the receptacle. When pushed only the center of connector, it may cause damage to the connector.



コネクタ中央部のみの押し込み  
Pushing Only Center (Wrong Handling)



コネクタ全体 平行押し込み  
Pushing Whole Paralleled (Correct Handling)

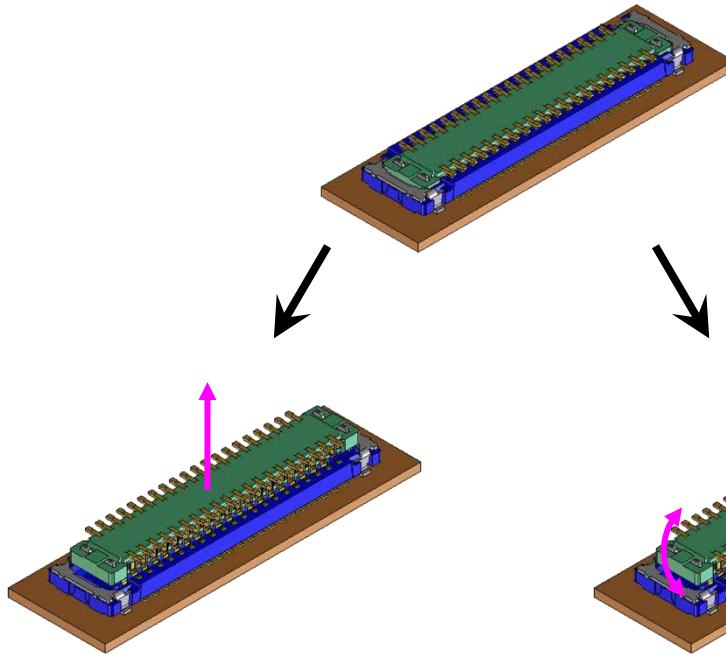
REVISE ON PC ONLY		TITLE:	
<b>A</b>	SEE SHEET 1 OF 8	0.4 BOARD TO BOARD CONNECTOR (Hgt=0.8mm)	
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DOCUMENT NUMBER <b>AS-503772-001</b>		FILE NAME AS503772001.docx	SHEET 5 OF 8
EN-037(2015-11 rev.1)			

【4. 抜去に関して UN-MATING】

4-1. 抜去方法 HOW TO WITHDRAW

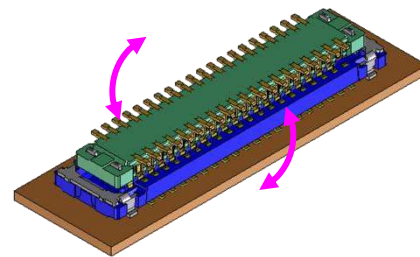
極力嵌合軸に沿って平行に抜去して頂くか、左右に少しずつ振りながら抜去して頂けます様、宜しくお願い致します。

The plug shall be released from the receptacle paralleled to the mated axis or by moving the plug slowly.



嵌合軸に沿って平行に抜く  
Releasing the plug paralleled to the mated axis

左右に少しずつ振りながら抜く（長手方向）  
Releasing the plug by moving slowly in "a" direction.  
(lengthways)

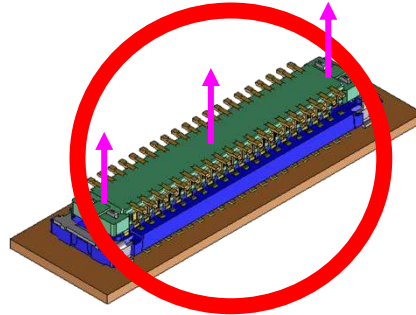


左右に少しずつ振りながら抜く（短手方向）  
Release the plug by moving slowly in "b" direction.

REVISE ON PC ONLY		TITLE:	
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		FILE NAME AS503772001.docx	SHEET 6 OF 8
EN-037(2015-11 rev.1)			

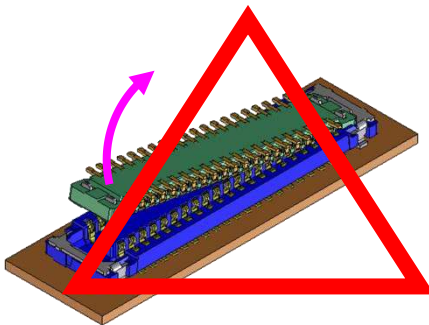
4-2. 抜去時 取り扱い注意点 CONNECTOR HANDLING WHEN WITHDRAWING

当該製品は既存製品に比べ小型化されている製品であり、コネクタ単体の強度（ハウジング強度）は低下しています。抜去の際に、過度のこじり抜去（斜め抜去）を行うとコネクタが破壊する可能性があります。  
This product is downsized comparing with the current products and needs to be handled more carefully. When un-mating (withdrawing), do NOT twist the plug to release. It may cause damage to the connector.



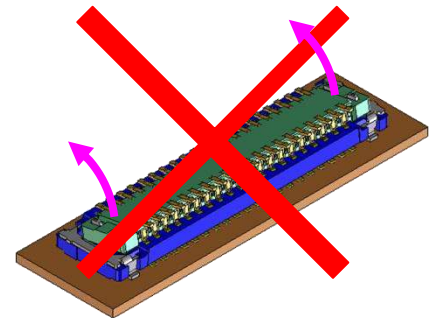
平行抜去

Releasing the plug paralleled to the mated axis



長手方向の斜め抜去

Slant releasing in "a" Direction (lengthways)



短手方向の斜め抜去

Slant releasing in "b" Direction

尚、長手方向の斜め抜去と短手方向の斜め抜去では以下のメリット・デメリットがあります。  
Merit and demerit for slant releasing are below.

	長手方向斜め抜去 Slant releasing in "a" Direction (lengthways)	短手方向斜め抜去 Slant releasing in "b" Direction
メリット Merit	<ul style="list-style-type: none"> <li>端子変形が起こりにくい Not easily cause the damage to the terminals.</li> <li>抜去力が低い Hard to be withdrawn.</li> </ul>	<ul style="list-style-type: none"> <li>特にありません None</li> </ul>
デメリット Demerit	<ul style="list-style-type: none"> <li>多極の場合、コネクタが折れる可能性がある Multiple connector can be damaged in its plug.</li> </ul>	<ul style="list-style-type: none"> <li>端子が変形し不導通になる可能性がある The continuity defect can be caused by the damage to the terminals.</li> </ul>

REVISE ON PC ONLY		TITLE:	
<b>A</b>	SEE SHEET 1 OF 8	0.4 BOARD TO BOARD CONNECTOR (Hgt=0.8mm)	
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EN-037(2015-11 rev.1)			

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0	RELEASED	'11/03/29	J2011-1279	K.SASAKI	R.TAKEUCHI
A	REVISED page 3, 3-2-1	'15/11/26	J2016-0532	M.ITO01	T.ASAKAWA

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