TO

SPECIFICATION FOR APPROVAL

DESCRIPTION: Pitch 1.0mm Wire To Board Connector, R/A ,SMT Type , Header

CUSTOMER PROD.NO/DWG.NO:

E&T PROD.NO: 3707K-XXXX-XXX

APPROVAL SHEET NO:

E&T DWG. NO./DOCUMENT: 3707K-XXXX-XXX

REV: A8

PLEASE RETURN TO US ONE COPY OF"SPECIFICATION FOR APPROVAL"WITH YOUR APPROVED SIGNATURES.

APPROVED SIGNATURES			

The Quality Connection

ENTERY INDUSTRIAL CO., LTD.
E&T ELECTRONICS (DONG GUAN) CO., LTD.
E&T ELECTRONICS (SU ZHOU) CO., LTD.

ENTERY INDUSTRIAL CO., LTD.

Title :Pitch 1.0mm Wire To Board Connector, R/A,SMT Type Header

RE201404017	**Title: Pitch 1.0mm Wire To Board Connector, R/A,SMT Type,Header**	
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Rev **Description**		
Document No. **3707K-XXXX-XXX**	Prepared By: Juno Chen	Date: 03,25'2010
	Checked By:	Date: 05,13,2014
	Approved By:	Date:

ENTERY INDUSTRIAL CO., LTD.

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GROUP AND TEST SEQUENCE

Test of Examination		Test Group											
		A	B	C	D	E	F	G	H	I	J	K	L
1	Examination of Product	1,9	1,6	1,5	1,5	1,5	1,3	1,3	1,3	1,5	1,5		1,3
2	Contact Resistance	2,6	2,5	2,4	2,4	2,4				2,4	2,4		
3	Insulation Resistance	3,7											
4	Dielectric Strength	4,8											
5	Insertion Force And Withdrawal Force Locking Force		3										
6	Terminal / Housing Retention Force											1	
7	Durability		4										
8	Vibration			3									
9	Heat Resistance				3								
10	Cold Resistance					3							
11	Humidity	5											
12	Solder Ability						2						
13	Resistance To Soldering Heat							2					
14	Steam Aging								2				
15	Salt Spray									3			
16	Temperature Cycling										3		
17	Temperature Rise Test												2

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PRODUCT SPECIFICATION

1. SCOPE :

This specification covers the 1.0mm pitch Wire To Board Connector, R/A,SMT Type series.

2. PRODUCT NAME AND PART NUMBER :

Product Name	E&T Part Number
1.00mm Wire To Board Connector, R/A,SMT Type,Header	3707K-XXXX-XXX

3. RATINGS :

Item	Standard	
Rated Voltage (MAX.)	125 V	AC/DC
Rated Current (MAX.)	1.0 A (AWG#28)	
Ambient Temperature Range	-40℃ ~ +105℃	

*Including temperature rise in applying electrical current

4.PERFORMANCE :

4- 1 Electrical Performance

Item		Test Condition	Requirement
4-1-1	Contact Resistance	Test Current: 10 mA Max. Test Voltage: 20mV Max Test Method: MIL-STD-202F, Method 303	20 mΩ MAX.
4-1-2	Insulation Resistance	Test Voltage: 500V DC. Test Duration: 1 minutes. Test Method: MIL-STD-202, method 302	Initial: 100 MΩ Min. Final: 100 MΩ Min.
4-1-3	Dielectric Strength	Test Voltage: 500 V AC. Test Time: 60 sec. Test Method: MIL-STD-202, Method 301.	No Breakdown

4-2 Mechanical Performance

Item		Test Condition	Requirement	
4-2-1	Insertion Force And Withdrawal Force	Test Speed: 25±3 mm/min. Test Method: MIL-STD-1344A, Method 2016.	See-5-1	
4-2-2	Terminal / Housing Retention Force	Test Speed: 25mm/min.	0.5kgf (Min)	
4-2-3	Durability	Insert and withdraw actuator up to 30cycles at the speed rate of less than 10 cycles per minute. (Housong lock shall be removed before the test.)	Contact Resistance	
			Initial Value	≦ 20 mΩ
			Final Value	≦ 40 mΩ

4-3 Environmental Performance and Others

Item		Test Condition	Requirement	
4-3-1	Vibration	Amplitude : 1.5 ㎜ Frequency range: 10~55~10 Hz in 1 minute Duration: 2 hours in each X.Y.Z axes Current: 100mA. Test Method: MIL-STD-202F, Method 201	Appearance	No Damage
			Contact Resistance	≦40 mΩ
			Discontinuity	1μsec
4-3-2	Heat Resistance	Temperature: 85±2℃ Duration: 96 hours Test Method: MIL-STD-202, Method 108.	Appearance	No Damage
			Contact Resistance	≦ 40 mΩ
4-3-3	Cold Resistance	Temperature: -40±2℃ Duration: 96 hours Test Method: JIS C60068-2-1	Appearance	No Damage
			Contact Resistance	≦ 40 mΩ
4-3-4	Humidity	Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours Test Method: MIL-STD-202F , Method 103	Appearance	No Damage
			Contact Resistance	≦ 40 mΩ
			Insulation Resistance	≧100MΩ
			Dielectric Strength	Must meet 4-1-3

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Item		Test Condition	Requirement	
4-3-5	Solder Ability	Soldering Time : 3±0.5 sec Solder Temperature : 245±5℃ Test Method: MIL-STD-202F , Method 208	Solder Wetting	95% Of Immersed Area Must Show No Voids, Pin Holes
4-3-6	Resistance To Soldering Heat	Soldering Time : 10±0.5 sec Solder Temperature : 260±5℃	Appearance	No Damage
4-3-7	Steam Aging	Steam Aging Temperature : 98±2℃ Duration: 8 hours Solder Temperature : 235±5℃ Soldering Time : 3±0.5 sec Test Method: MIL-STD-202F , Method 208	Appearance	No Damage
			Solder Wetting	95% Of Immersed Area Must Show No Voids, Pin Holes
4-3-8	Salt spray	Chamber Temperature : 35±2℃ Air Tank Temperature : 47±1℃ Salt Solution：5 ± 0.5% Duration : 48 hours Test Method: MIL-STD-202 , Method 101D	Appearance	No Damage
			Contact Resistance	≦ 40 mΩ
4-3-9	Temperature Cycling	5 cycles of : a) - 40 ±3℃ 30 minutes b) +25 ±3℃ 30 minutes c)+ 85 ±2℃ 30 minutes Test Method: JIS C0025	Appearance	No Damage
			Contact Resistance	≦ 40 mΩ
4-3-10	Temperature Rise Test	Carrying rated current load. EIA-364-70B	Temperature Rise	30 ℃ (MAX)

5-1 (Housong lock shall be removed before the test.) Unit:kgf

Pin No.	At Initial		At 30th
	I.F(MAX)	W.F(Min)	W.F(Min)
2	2	0.2	0.2
3	2	0.2	0.2
4	2	0.2	0.2
5	3	0.3	0.3
6	3	0.3	0.3
7	3	0.3	0.3
8	4	0.4	0.4
9	4	0.4	0.4
10	4	0.4	0.4
11	5	0.5	0.5
12	5	0.5	0.5

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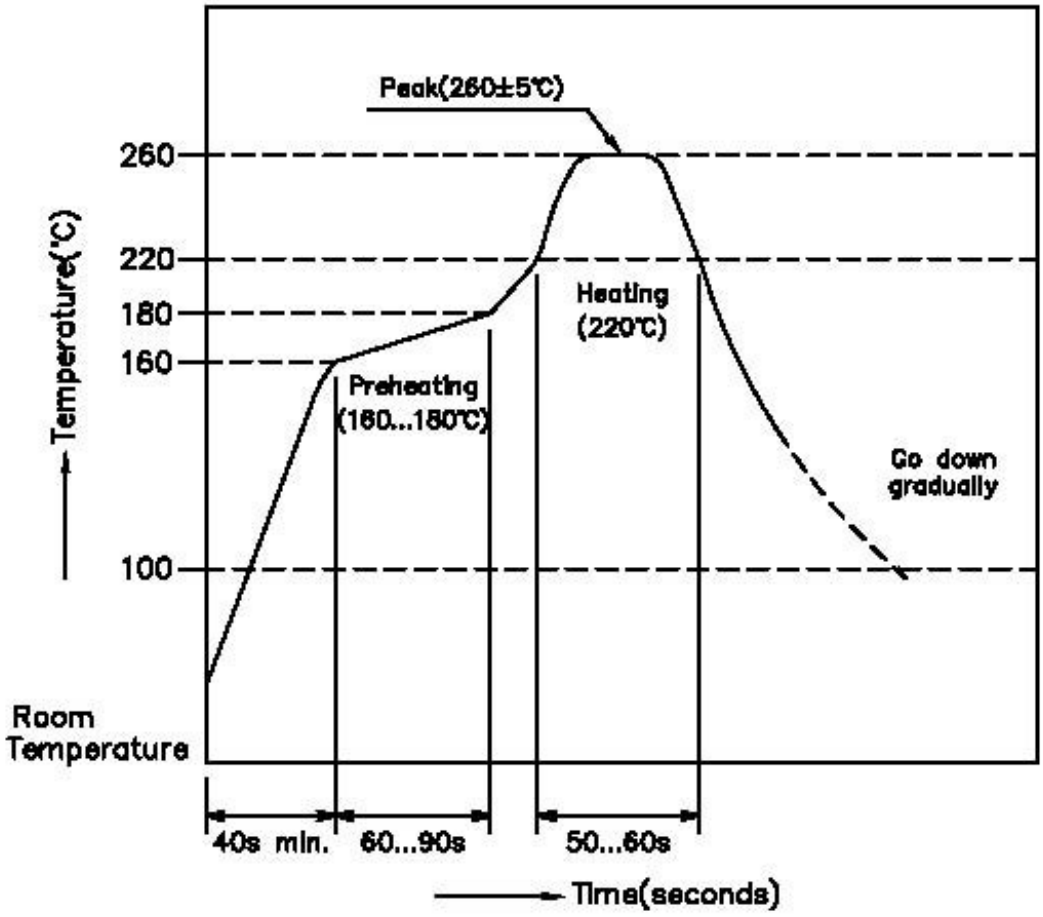
INFRARED REFLOW CONDITION

1) Ascending time to preheating temperature 170℃ shall be 40 seconds minimum.
2) Preheating shall be fixed at 160...180℃ for 60...90 seconds.
3) Heating shall be fixed at 220℃ for 50...60 seconds.
4) At 260±5℃ peak shall be 10 seconds maximum.



Wire To Board
Handling Precautions

This manual is to describe basic precautions. When there are doubtful points in use of, please contact E&T.

1. Common Handling Precautions

- Do not expose E&T's wire to board connector, processing process product and processing product to corrosive substance, corrosive gas, high temperature and high humidity and direct sunshine. It causes corrosion of contact and deterioration of insulation performance of housing, etc., so that it causes motion defect of appliances.
- Do not apply external load to E&T's wire to board connector, processing process product and processing product . Deformation and breakage, etc. occur, and it causes performance defect of.
- There may be slight differences in the housing coloring, but there will be no influence on the product's performance.
- Please do not conduct any "washing process" on the connector because it may damage the product's function.
- E&T's wire to board connector is not designed for the mating and unmating of the connectors to be performed under the condition of an active electrical circuit. It may cause a spark and product defect if the connectors are mated and unmated in this way.

2. PC Board Precautions

- Exercise caution when handling boards with the connectors installed. Do not apply any forces affecting soldered joints. (see figure 1).
- The mounting specification for coplanarity does not include the influence of warpage of the printed circuit board. (see figure 1).
- Changing recommended pattern causes problems.

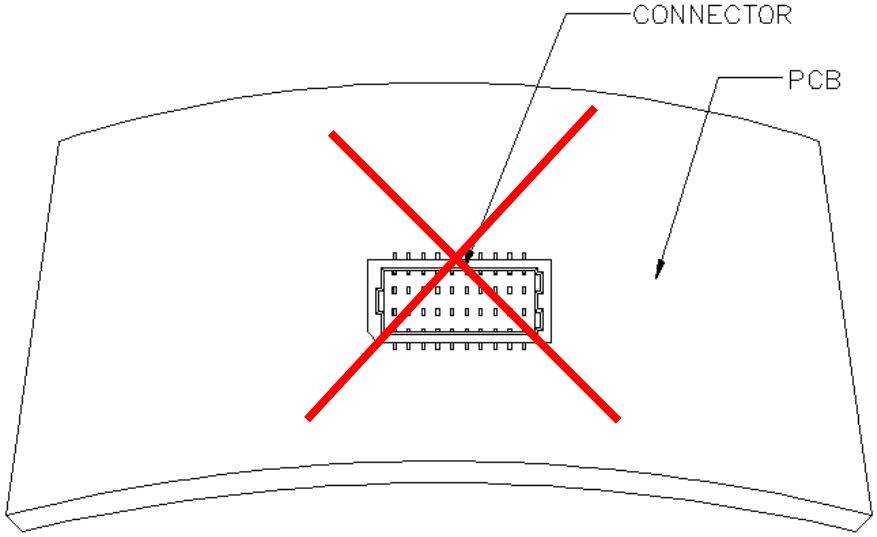


Figure 1.

3. Precautions Crimped Terminal Insertion

- Terminal must be inserted horizontally oriented (see figure 2).
- Do not attempt to insert crimped terminal in any other direction. (see figure 2).

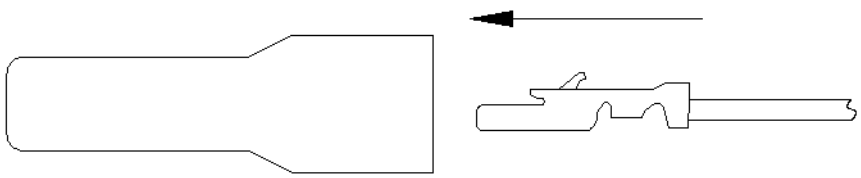


Figure 2.

4. Precautions When Inserting or Withdrawal Wire To Board

- Do not insert and remove at an angle of 25° or greater. Doing so will cause contact deformation or case damage. (see figure 3).
- Push the wire side connector until firmly closed. At this time, confirm that the wire side connector is mated securely.
- When mounting of connectors, its slant or aberration shall be 3° max.
- Do not insert and remove the connectors when the board side connector is not mounted on the PC board.
- Used Lock type, when removed to connectors, please released positive locks.

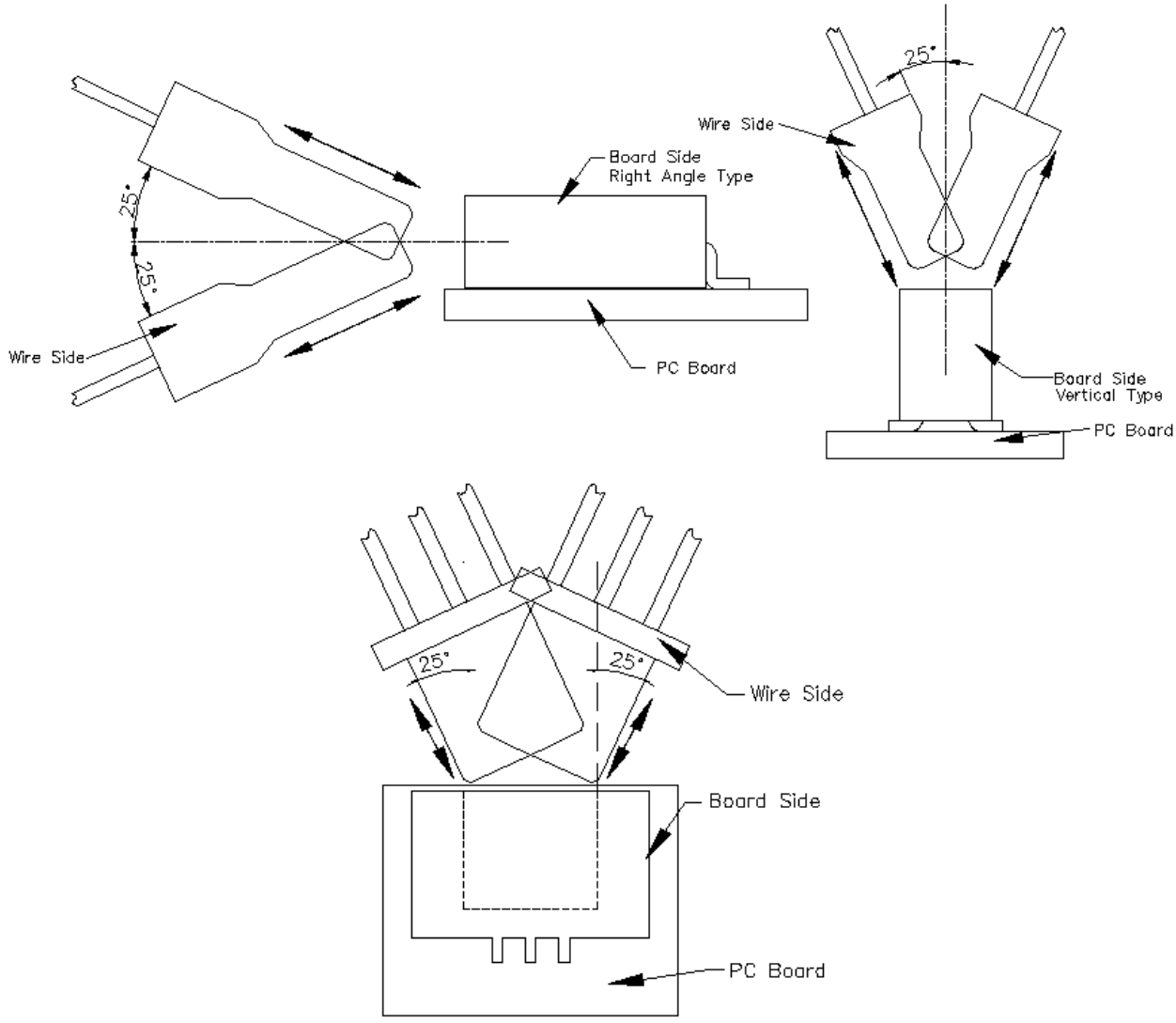


Figure 3.

5. Precautions Cable Assembly

- The cable assembly should not have a constant stress or pulling force applied on it when it is in the mated condition. Therefore, when designing the wire positioning, please ensure that there is enough length of wire to avoid stress on the connector. (see figure 4).

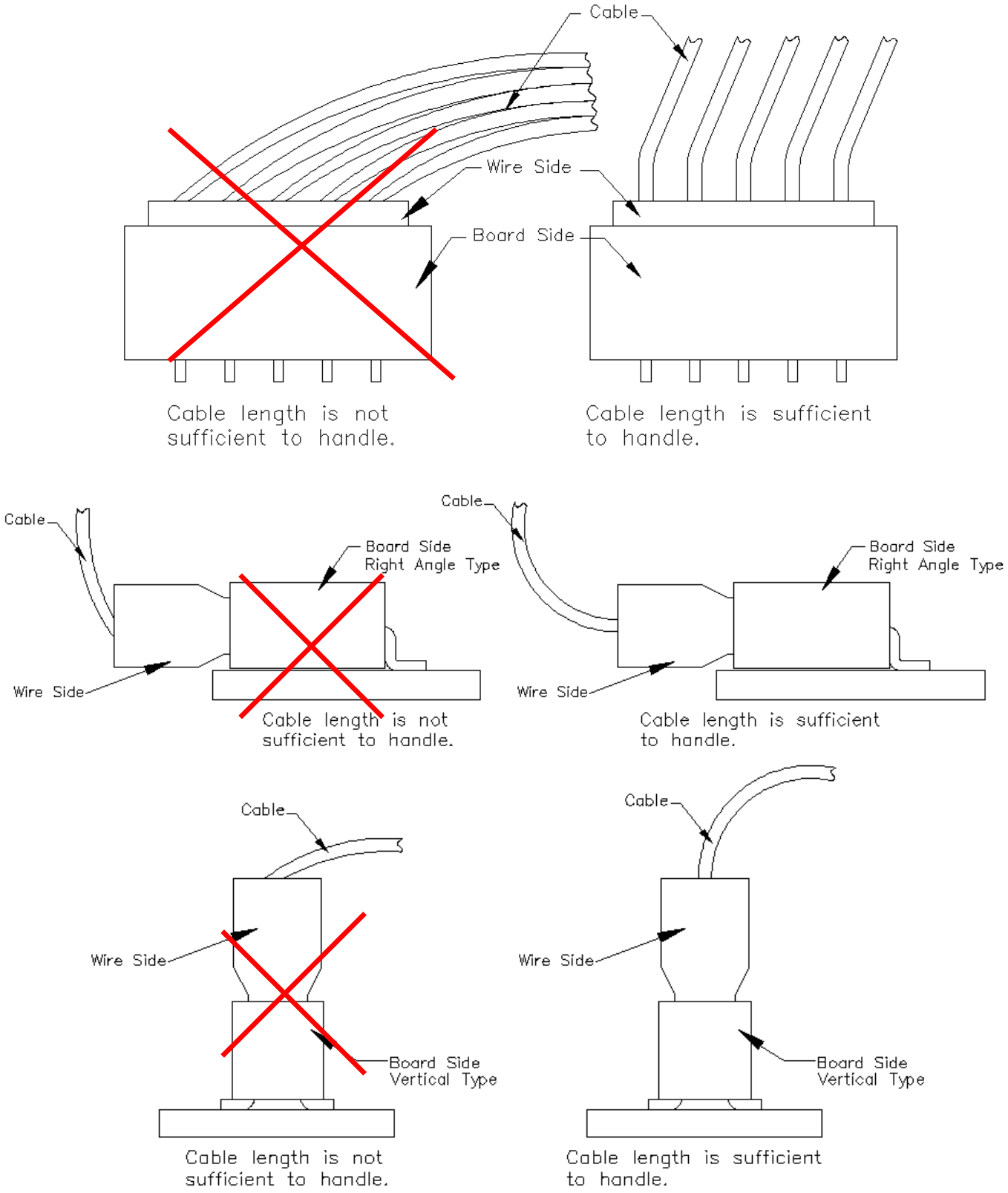


Figure 4.

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RELEASE HISTORY

Rev.	Revisions	Date	Executor	Description
A5	RE201110012 RE201111028	OCT-28-2011	JIMMY	ADD Handling Precautions Cancel Packaging Spec
A6	REN130411	APR-22-2013	JUNO	Modify UL Card
A7	REN131101	NOV-05-2013	JOSH	ADD Temperature Rise Test
A8	RE201404017	MAY-05-2014	Juno	Remove Locking Force SPEC