

TO

SPECIFICATION FOR APPROVAL

DESCRIPTION: Pitch 1.2 mm Wire To Board Connector,V/T ,SMT Type

CUSTOMER PROD.NO/DWG.NO:

E&T PROD.NO: 4280K-FXXN-XXX

APPROBAL SHEET NO:

E&T DWG. NO./DOCUMENT: 4280K-FXXN-XXX

REV: A9

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

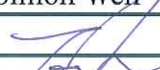

APPROVED SIGNATURES			



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

ENTERY INDUSTRIAL CO., LTD.

**Title :Pitch 1.2 mm Wire To Board Connector,
V/T,SMT Type**

Juno Chen		Title: Pitch 1.2mm Wire To Board Connector, V/T,SMT Type	
A9	2014/11/18	This Document Contains Information That Is Proprietary To E&T And Should Not Be Used Without Written Permission	
Rev	Description		
Document No.		Prepared By: Simon Wen	Date: 08,05'2010
4280K-FXXN-XXX		Checked By: 	Date: 11,18,2010
		Approved By: 	Date:

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GROUP AND TEST SEQUENCE

[illegible]

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PRODUCT SPECIFICATION

1. SCOPE :

This specification covers the 1.00 mm pitch Wire To Board connector series.

2. PRODUCT NAME AND PART NUMBER :

Product Name	E&T Part Number
1.2mm Wire To Board Connector, V/T,SMT Type	4280K-FXXN-XXX

3. RATINGS :

Item	Standard	
Rated Voltage (MAX.)	50 V	AC/DC
Rated Current (M.)	1.5 A	
Ambient Temperature Range	-25 ⁰ C ~ +85 ⁰ C	

*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:EIA-364-06B	20 mΩ MAX.
4-1-2	Insulation Resistance	Test Voltage: 500V DC. Test Duration: 1 minutes. Test Method: EIA-364-21C	100 MΩ Min.
4-1-3	Dielectric Strength	Test Voltage: 500 V AC. Test Time: 60 sec. Test Method: EIA-364-20B	No Breakdown

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4-2 Mechanical Performance

Item		Test Condition	Requirement
4-2-1	Insertion Force And Withdrawal Force	Test Speed: 25±3 mm/min. Test Method: EIA-364-13B	See 5-1
4-2-2	Terminal / Housing Retention Force	Test Speed: 25mm/min.	0.10kgf (Min)
4-2-3	Fitting Nail/ Housing Retention Force	Apply axial pull out force at the speed rate of 25±3 mm/minute on the fitting nail assembled in the housing. EIA-364-29C	0.15kgf (Min)
4-2-4	Durability	The contacts of connector shall be subject to 30 cycles of mating and unmating. Test Method: EIA-364-09C	Contact Resistance
			≤ 20 mΩ

4-3 Environmental Performance and Others

Item		Test Condition	Requirement	
4-3-1	Vibration	Amplitude : 1.5 mm Frequency range: 10~55~10 Hz in 1 minute Duration: 2 hours in each X.Y.Z axes Current: 100mA. Test Method: EIA-364-28D	Appearance	No Damage
			Contact Resistance	≤ 20 mΩ
			Discontinuity	1μsec
4-3-2	Heat Resistance	Temperature: 85±3℃ Duration: 96 hours	Appearance	No Damage
			Contact Resistance	≤ 20 mΩ
4-3-3	Cold Resistance	Temperature: -40±2℃ Duration: 96 hours	Appearance	No Damage
			Contact Resistance	≤ 20 mΩ
4-3-4	Humidity	Temperature: 40±2℃ Relative Humidity: 90~95% Duration: 96 hours Test Method: EIA-364-31B	Appearance	No Damage
			Contact Resistance	≤ 20 mΩ
			Insulation Resistance	≥ 100MΩ
			Dielectric Strength	Must meet 4-1-3
4-3-5	Solder Ability	Soldering Time : 3±0.5 sec Solder Temperature : 245±5℃ Test Method: EIA-364-52	Solder Wetting	95% Of Immersed Area Must Show No Voids, Pin Holes

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Item		Test Condition		Requirement	
4-3-6	Resistance To Soldering Heat	Soldering Time : 10±0.5 sec Solder Temperature : 260±5°C Test Method: EIA-364-56C		Appearance	No Damage
4-3-7	Steam Aging	Steam Aging Temperature : 98±2°C Duration: 8 hours Solder Temperature : 245±5°C Soldering Time : 3±0.5 sec Test Method: EIA-364-17B		Appearance	No Damage
				Solder Wetting	95% Of Immersed Area Must Show No Voids, Pin Holes
4-3-8	Salt Spray	Chamber Temperature : 35±2°C Air Tank Temperature : 47±1°C Salt Solution : 5 ± 0.5% Duration : 48 hours Test Method: EIA-364-26B		Appearance	No Damage
				Contact Resistance	≤ 20 mΩ
4-3-9	Temperature Cycling	5 cycles of : a) - 40 ±3°C 30 minutes		Appearance	No Damage
		b) +25 ±3°C 30 minutes c)+ 85 ±2°C 30 minutes Test Method: EIA-364-31B		Contact Resistance	≤ 20 mΩ

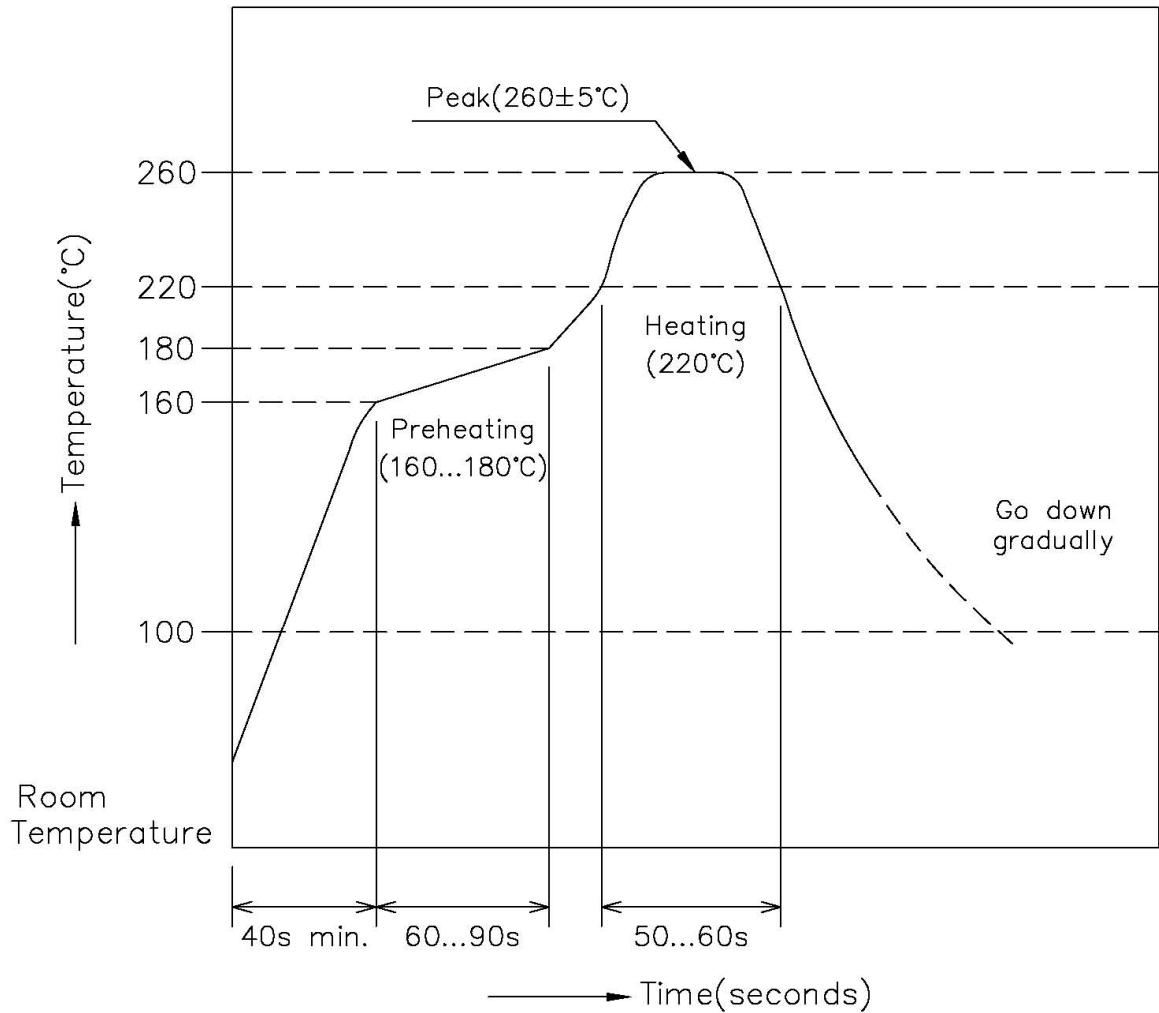
5-1: Mating & Unmating Force Requirement(Unit: Kg)

Pin No.	Insertion Force (MAX)	Withdrawal Force (Min)
2	2.00	0.10
3	2.10	0.15
4	2.20	0.20
5~10	2.30	0.25

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INFRARED REFLOW CONDITION

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



Wire-to-Board Connectors

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.

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).

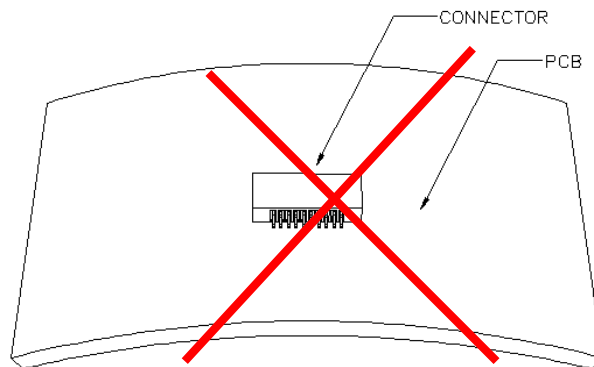
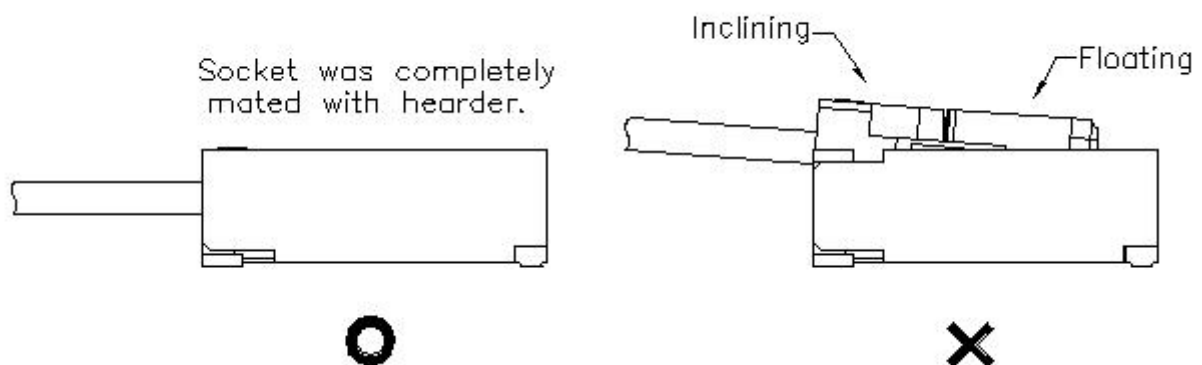
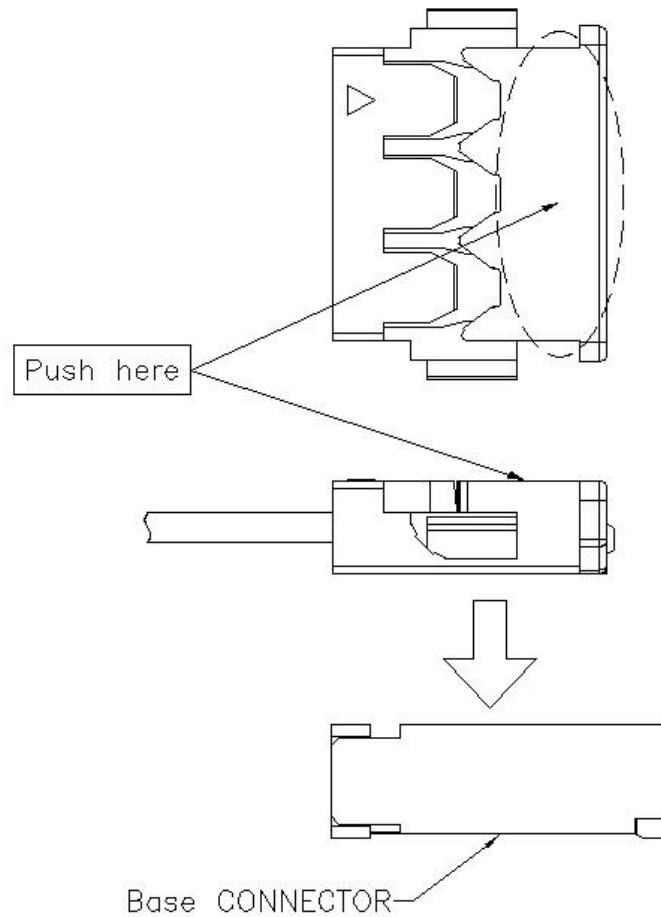


Figure 1.

3. Operation

- Mating Method of Connector

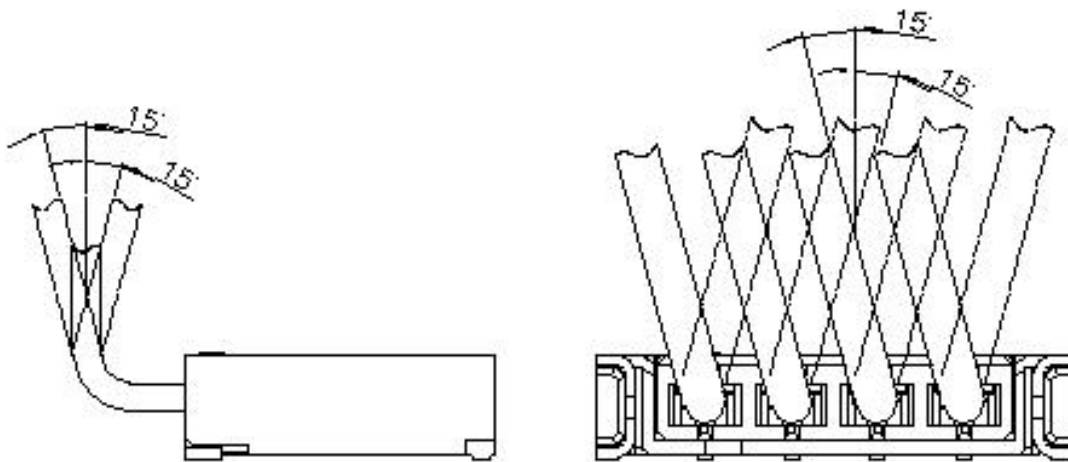
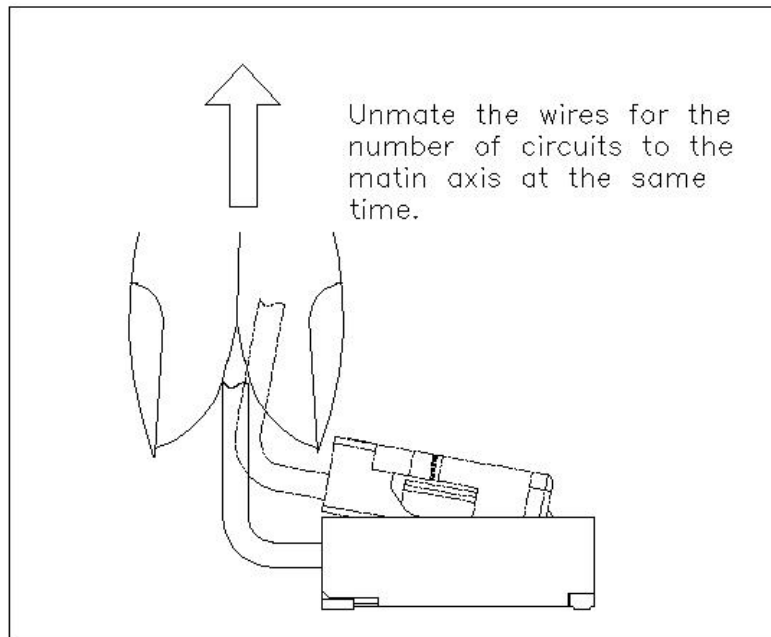
1. Mate a socket connector on the mating axis to a base connector.
2. Confirm that the socket housing is pushed and it mates securely.



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- Un mating Method of Connector

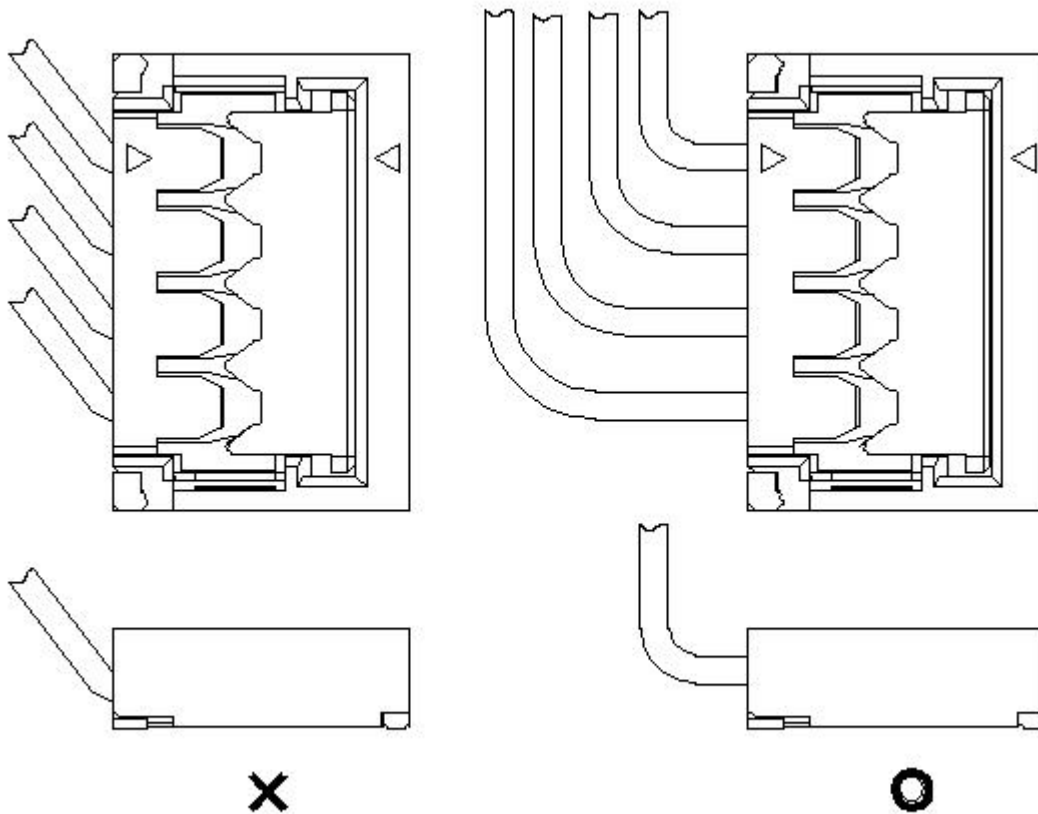
Un mating the connector by holding wires in a bundle within 15 degrees to the mating axis.



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make allowance so that power of more than the tension by the bending wire is not applied to the connector when you handle the wire.

(Provide space above the connector in order to form wire by bending and do not apply tension to the connector as below.)



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RELEASE HISTORY

Rev.	Revisions	Date	Executor	Description
A0	RB100410	2010/08/05	Simon	First Release
A1	RB100410	2010/10/15	Simon	4-3-4 $\geq 1000M\Omega$ Modify $\geq 100M\Omega$
A2	RB100410	2010/12/07	Simon	R/A,SMT Type Modify V/T,SMT Type
A3	RB101202	2010/12/15	Simon	4-2-2 0.30kgf (Min) Modify 0.25kgf (Min)
A4	RB101202	2011/01/12	Simon	4280K-FXXN-XXR Modify 4280K-FXXN-XXX
A5	RB101202	2011/03/08	Simon	4-2-2 0.25kgf (Min) Modify 0.15kgf (Min)
A6	RB101202	2011/05/10	Simon	4-2-3 Modify Fitting Nail/ Housing Retention Force
A7	RB101202	2011/05/25	Simon	4-2-2 0.15kgf (Min) Modify 0.10kgf (Min)
A8	REN111012	2011/10/14	Juno	Add Handling Precautions
A9	REN141107	2014/11/18	Juno	Modify CR