SPECIFICATION FOR APPROVAL

DESCRIPTION: Pitch 0.50mm Non-ZII	F FPC Connector, R/A, SMT Type Dual Contact	
CUSTOMER PROD.NO/DWG.NO:		
E&T PROD.NO:	7082K-XXXN-00X	
APPROVAL SHEET NO:		
E&T DWG. NO./DOCUMENT:	7082K-XXXN-00X	
		DEW: A2

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

APPROVED S	SIGNATURES	



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

Title: Pitch 0.50mm Non-ZIF FPC Connector, R/A, SMT Type Dual Contact

	ELEASE IISTORY	Title: Pitch 0.50	omm Non-ZIF	FPC Connector, R/A, S	БМТ Туре	Dual Contact
A3	08,08,2011'	This Do	cument Conta	ins Information That I	s Propriet	ary To
Rev	Description	E&T Aı	nd Should Not	Be Used Without Wri	tten Perm	ission
Documer	nt No.	I	Prepared By: J	uno Chen	Date: 0	8,15,2008
7	082K-XXX	N-00X	Checked By:	Jackson. C	Date:	8.11,2011
3. 5 (OUZIR TRIKIN		Approved By:	· Tilban Co	Date:	Qil vall

GROUP AND TEST SEQUENCE

	Test of Examination				,	Test	Gr	oup)			
	lest of Examination	A	В	C	D	Е	F	G	Н	I	J	K
1	Examination of Product	1,9	1,6	1,5	1,5	1,5	1,3	1,5	1,3	1,3	1,5	
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	FPC Retention 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	

PRODUCT SPECIFICATION

1. SCOPE:

This specification covers the pitch 0.5 mm Non-ZIF FPC connector series.

2. PRODUCT NAME AND PART NUMBER:

Product Name	E&T Part Number
0.50mm Non-ZIF FPC Connector, R/A, SMT Type Dual Contact	7082K-XXXN-00X

3. RATINGS:

Item	S	tandard
Rated Voltage (MAX.)	50 V	AC/DC
Rated Current (MAX.)	0.4A	AC/DC
Operating Temperature Range	-55°	C ~ +85 ⁰ C

^{*}Including terminal temperature rise

4.PERFORMANCE:

4- 1 Electrical Performance

	Item	Test Condition	Requirement
4-1-1	Contact Resistance	Test Current: 10 mA Max. Test Voltage: 20mV Max	30 mΩ MAX.
4-1-2	Insulation Resistance	Test Voltage: 500V DC. Test Duration: 1 minutes. Test Method: MIL-STD-202, method 302,condition B	100 MΩ Min
4-1-3	Dielectric Strength	Test Voltage: 250V AC rms. Test Time: 60 sec. Test Method: MIL-STD-202, Method 301.	No Breakdown

4-2 Mechanical Performance

	Item	Test Condition	Requirement
4-2-1	FPC/FFC Insertion Force And Withdrawal Force	·	Insertion Force Max: 0.08kgf X total terminals Withdrawal Force(Min): 0.03kgf X total terminals
4-2-2	Terminal / Housing Retention Force	Test Speed: 25±3 mm/min.	0.1kgf (Min)

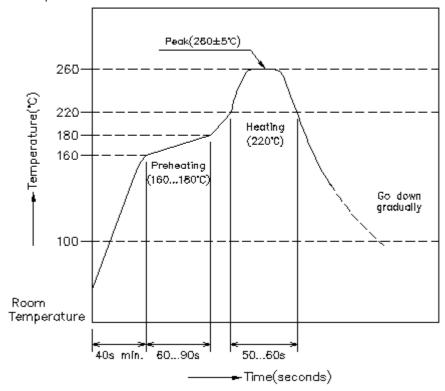
4-3 Environmental Performance and Others

	Item	Test Condition	Require	ment
		Insert and withdraw actuator up to 20cycles at the speed rate of less than 10 cycles/	Contact Re	sistance
4-3-1	Durability	minute.	Initial Value	\leq 30 m Ω
			Final Value	≦50 mΩ
		Amplitude : 1.5 mm Frequency range: 10~55~10 Hz in 1 minute	Appearance	No Damage
4-3-2	Vibration	Duration: 2 hours in each X.Y.Z axes Current: 100mA. Test Method: MIL-STD-202F, Method 201	Contact Resistance	≤50 mΩ
		Test Method: MIL-31D-202F, Method 201	Discontinuity	1μ sec
4-3-3	Heat	Temperature: 85±2℃ Duration: 96 hours	Appearance	No Damage
4-0-0	Resistance	Test Method: MIL-STD-202, Method 108.	Contact Resistance	≦50 mΩ
4-3-4	Cold	Temperature: -55±2°C Duration: 96 hours Test Method: JIS C60068-2-1	Appearance	No Damage
4-3-4	Resistance	Test Method. 313 Coodoo-2-1	Contact Resistance	≤50 mΩ
		Temperature: 40±2℃ Relative Humidity: 90~95%	Appearance	No Damage
4-3-5	Humidity	Duration: 96 hours Test Method: MIL-STD-202F , Method 103	Contact Resistance	≦50 mΩ
	riaiiliaity		Insulation Resistance	50ΜΩ
			Dielectric Strength	Must meet 4-1-3

	Item	Test Condition	Requii	rement
4-3-6	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
4-3-7	Resistance To Soldering Heat	Soldering Time : 10±0.5 sec Solder Temperature : 260±5 Test Method: MIL-STD-202F , Method 210A (See Paragraph 4-4)	Appearance	No Damage
		Steam Aging Temperature : 98±2 Duration: 8 hours Solder Temperature : 235±5	Appearance	No Damage
4-3-8	Steam Aging	Soldering Time : 3±0.5 sec Test Method: MIL-STD-202F , Method 208	Solder Wetting	95% Of Immersed Area Must Show No Voids, Pin Holes
4-3-9	Salt Spray	Chamber Temperature : 35±2 Air Tank Temperature : 47±1 Salt Solution : 5 ± 0.5% Duration : 48 hours	Appearance	No Damage
400	Out Opray	Test Method: MIL-STD-202, Method 101D	Contact Resistance	\leq 50 m Ω
4-3-10	Temperature	5 cycles of : a) - 55 ±3 30 minutes b) +25 ±3 30 minutes	Appearance	No Damage
4-3-10	Cycling	c)+ 85 ±2 30 minutes Test Method: JIS C0025	Contact Resistance	\leq 50 m Ω

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.



Non-ZIF FPC /FFC Connector 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 Non-ZIF FPC/FFC 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 Non-ZIF FPC/FFC 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 add a stiffener on the flexible printed circuit (FPC/FFC) when you mount the connector onto FPC in order to prevent deformation of the FPC/FFC.
- 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).

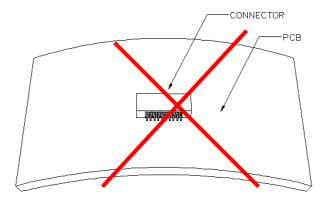


Figure 1.

3. Precautions When Inserting or Withdrawal FPC/FFC

• FPC/FFC to be insertion and withdrawal at an angle of about 15°, and the FPC/FFC should be inserted firmly all the way to the back. (see figure 2).

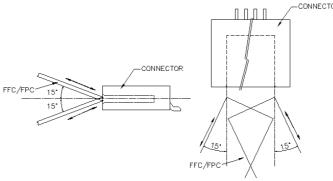
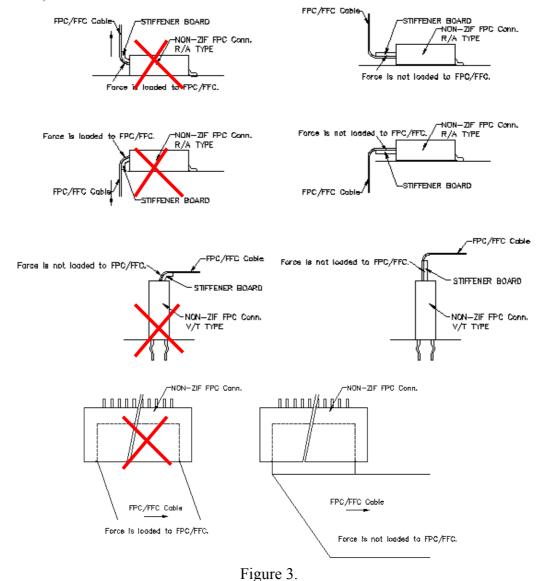


Figure 2.

- Do not apply any forces affecting soldered joints. Do not apply upward pull-force to the FPC/FFC close to the connector. (see figure 3).
- If necessary, please fix the FPC/FFC directly on the chassis. Also, please avoid pulling the FPC/FFC vertically or twisting the FPC back and force horizontally while it is inserted in the connector(see figure 3).
- Forming processing is conducted to FPC so as not to load force to connector. (see figure 3).



RELEASE HISTORY

Rev.	Revisions	Date	Executor	Description
A3	RE201108011	AUG-08-2011	KAZ	ADD Handling Precautions

ev.	Revisions	Date	Executor	Description
13	RE201108011	AUG-08-2011	KAZ	ADD Handling Precautions