

Application Specification

114-5104

AMP Common Termination (CT) Connector Termination of 2mm Pitch MT

1. Scope:

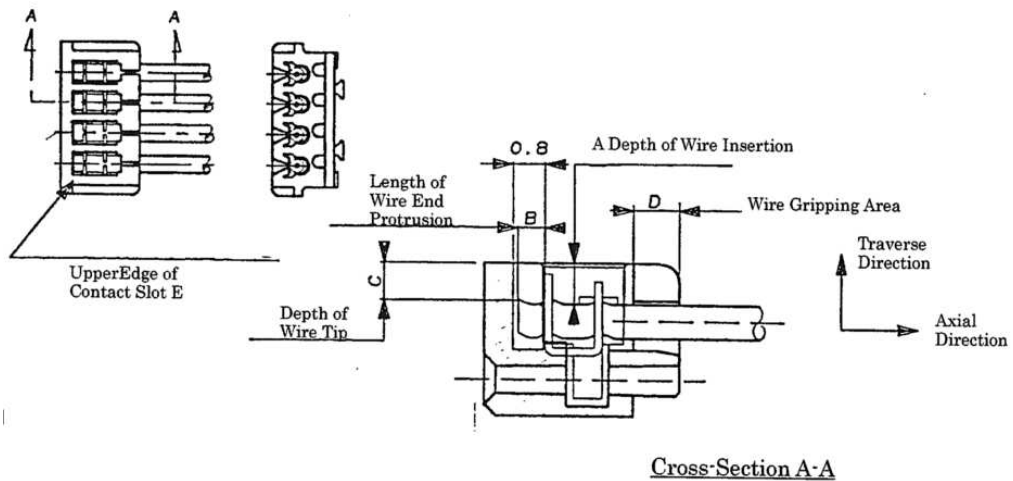
1.1 Contents:

This specification covers the requirements for termination of common Termination Connector, performed by automatic machine (DECAM) and manual tool (Mini-press).


2. Applicable Documents:

Nomenclature	Catalog No.	Applicable Wire
Receptacle Housing Assembly	□-173977-□	UL-1061, UL-1571 AWG #28-#26 Insulation Diameter 0.83mm-1.05mm
Receptacle Housing Assembly	□-179694-□	UL-1728 AWG #24 Insulation Diameter 0.95mm-1.05mm

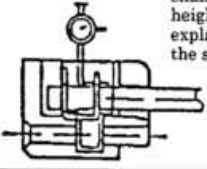
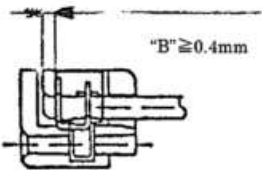
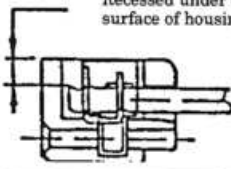
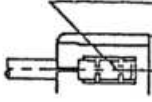
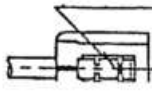
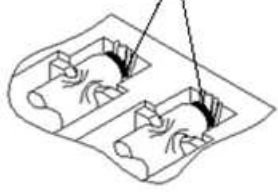
3. Details of Nomenclatures:

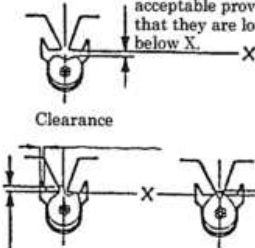
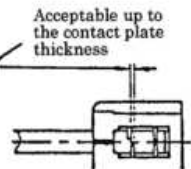
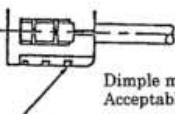
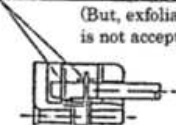
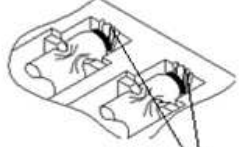


THIS INFORMATION IS CONFIDENTIAL AND IS DISCLOSED TO YOU ON CONDITION THAT NO FURTHER DISCLOSURE IS MADE BY YOU TO OTHER THAN AMP PERSONNEL WITHOUT WRITTEN AUTHORIZATION FROM AMP SHANGHAI LTD

K2	REVISED	T.Q	09MAR 12	DR	WY Lee	 TE Connectivity.	NO	114-5104	REV K2	LOC ES
				CHK	WL Choo					
K1	D20081208015457_325121	C.Z	08DEC 08	APP	SF Leong					
K	REVISED D20051225211313_409506	C.Z	20DEC 05							
LTR	REVISION RECORD	DR	DATE							
				PAGE	TITLE					
				1 of 6	AMP Common Termination (CT) Termination of 2mm Pitch MT					

4. Termination Condition and Inspection
Criteria:

No	Item	Terminating Condition	Inspection Criteria
1.	Depth of Wire Insertion (Fig -A)	Regardless of wire sizes and insulation diameter, depth of wire insertion into contact slot shall be 1.3mm (+0.1, -0.15) when measured from upper surface of the housing to the tool marked insulation surface of the wire as shown in Figs. 1 and 2.	 <p>Measurement shall be done by height gauge, etc as explained in the sketch.</p>
2.	Length of Wire End Protrusion (Fig -B)	Length of wire end protrusion after termination shall be such that dimension "B" between contact slot and wire end shown in Figs. 1 and 2 shall be 0.4mm min. Excessive dimension is not acceptable.	 <p>"B" \geq 0.4mm</p>
3.	Depth of Wire End Insertion (Fig -C)	A slight flow-up of the wire end from the housing bottom is allowable on condition that it is not tipping out over the housing upper surface.	 <p>Tip of wire shall be Recessed under top surface of housing</p>
4.	Exposure of Wire Conductor	Any evidence of cut on wire insulation and/or exposure of strands is not acceptable.	<p>Termination appearing normal without sign of damage is acceptable</p>  <p>GOOD</p> <p>Termination with conductor exposing between the slot is not acceptable</p>  <p>NO GOOD</p> <p>Exposed on the top is acceptable</p> 

No	Item	Terminating Condition	Inspection Criteria
5.	Wire Retention in the Insulation Support: (Fig -D)	Terminated wire shall be perfectly inserted into the wire support hole of the housing shown in Figs. 1 and 2. Elongation of wire insulation is acceptable if it does not adversely affect the required function.	<p>Wire shall be Located below X. (Crumples on wire are acceptable provided that they are located below X.)</p>  <p>One side of crumple is located below X. OK. The ones whose crumples are located above X must be checked for tensile strength of wire.</p>
6.	Position of Upper Edge of Contact Slot.	After termination, all positions shall be aligned at the upper edge of the contact slot. Misalignment of smaller than 0.2mm (contact plate thickness) at upper edge of contact is acceptable.	
7.	Damage of Contact and Housing	After termination, any evidence of tooled mark damage at the housing and contact slot areas is not acceptable except scratch mark by wire conductor as right fig.	<p>(Housing)</p>  <p>(However, it shall be free from crack, bulge.,etc.)</p> <p>(Contact)</p> <p>Scratch is acceptable. (But, exfoliation of plating is not acceptable)</p>  

No	Item	Terminating Condition	Inspection Criteria
8.	Misalignment of Wire Conductor in Contact Slot.	<p>Terminated wire shall be located at the center of the contact. After termination, four (4) places at upper edge of the contact slot shall appear symmetrical.</p> <p><u>Normal Termination Condition:</u></p>	<p><u>Acceptance Criteria</u> Visible tooled mark (w/2 min)</p>
9.	Others	Any housings once used for termination shall not be reused.	

5. Wire Retention Force: (All of the actual measurement shall conform to the requirements.)

The requirements for the tensile strength, when the pull-off load is applied in the directions, traverse and along the contact axis, are shown in the table shown below.

Discrete Wires

Wire size	Traverse Direction	Parallel Direction
AWG #28	11. 8N (1. 2kgf) Min.	14. 7N (1. 5kgf) Min.
AWG #26 (UL-10272)	11. 8N (1. 2kgf) Min.	19. 6N (2. 0kgf) Min.
AWG #26 (except UL-10272) & #24	14. 7N (1. 5kgf) Min.	19. 6N (2. 0kgf) Min.

For shielded wires & 2mm pitch ribbon cables.

Wire size	Traverse Direction	Parallel Direction
AWG #28	7. 8N (0. 8kgf) Min.	14. 7N (1. 5kgf) Min.
AWG #26		19. 6N (2. 0kgf) Min.



TE Connectivity.

PAGE
4 of 6

Document No.
114-5104

REV
K2

LOC
ES

6. Applicable Wire Sizes:

Applicability of the respective wire should be evaluated before use.

6.1 General Wire Specification:

Applicable Wire Specification	Wire Size (Nominal)	Number of Strands / Diameter of Strands	Calculated Cross-Sectional Area (mm ²)	Diameter of Insulation (mm)
Discrete UL 1571 UL 1061	AWG #26	AWG #26 : (7/0.16)	AWG #26 : (0.14)	AWG #26 : (0.93~1.05)
Ribbon Cable UL 2651 UL 20058				
Flat Shilde Cable UL 1533 UL 2547 UL 1691 UL 2791				
Discrete UL 1728	AWG #24	AWG #24 : (7 / 0.203)	AWG #24 : (0.22)	AWG #24 : (0.95~1.05)

Note: The compatibility and applicability of the terminating wires are to be evaluated by AMP engineering, respectively according to the types and manufacture's product name, before starting production run.

6.2 2mm Pitch Ribbon Cables:

Flexible flat ribbon cables in 2mm centreline spacing must be pretreated for applying "U" cut slitting in the dimensions as shown below, before applying to termination.

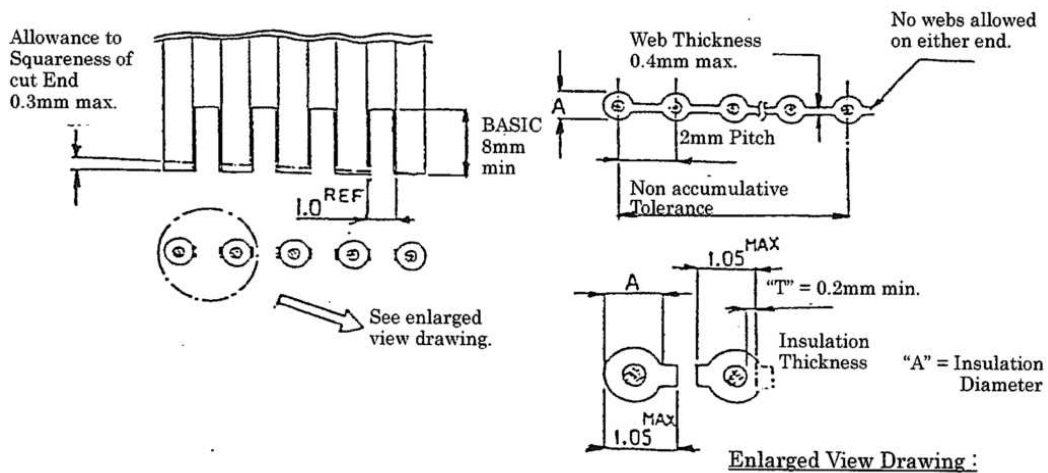


Fig.2 "U" cut Slitting on Flexible Flat Ribbon Cables.

6.3 Aluminum Shielded, Flat Cables:

Termination Cable Condition: The terminated condition of the cable shall be conforming to Fig.3, for the cables conforming to UL-2547 and UL-1533 Types.

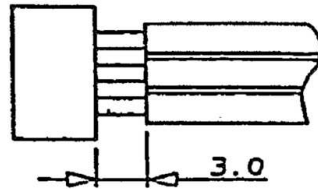


Fig.3 Terminated Condition for Flat Shield Cables

6.4 Copper Shielded, Flat Cables:

Termination Cable Condition: The terminated condition of the cable shall be conforming to Fig.4, for the cables conforming to UL-2791 and UL-1691 Types.

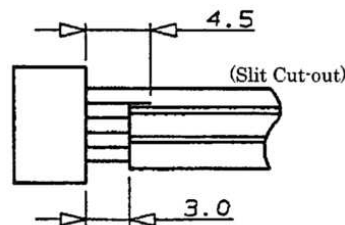


Fig.4 Terminated Condition for Copper-Shielded, Flat Cables

6.5 Requirements for General Purpose Ribbon Cables:

Terminated Cable Condition:

Preparation : Slit cut-outs shall be made between the conductors to the length as specified in Fig.5.

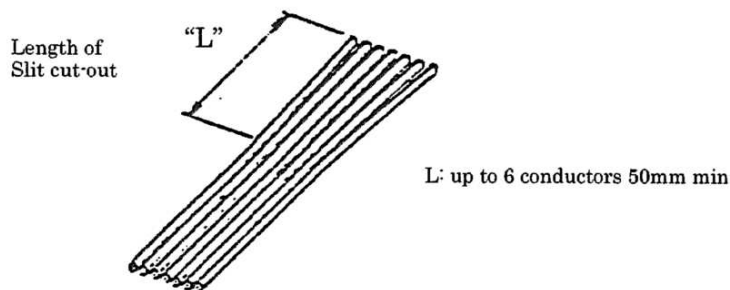


Fig.5 Terminated Condition for General Purpose Ribbon Cables.