250 Terminal

1. SCOPE

1.1 Content

This specification describes the design, the characteristics, the tests and the quality requirements of the *250 Terminal*.

1.2 General Product Description

The contact system combines the features of robust construction and highest functional requirements.

The electrical contact is made by a rectangle pin with length 6.0mmx0.8mm.

1.3 Application Sector

The contact system is designed for electronic applications with shrouded connectors and pin headers in automobiles.

1.4 Qualification

When testing the 250 terminal products the following specified specifications and standards shall be used.

All tests have to be done using the applicable inspection plan and product.

2. REFERENCED DOCUMENTS

The following documents form a part of this specification to the extent specified herein.

In the case of a conflict between this specification and the specified documents, this specification has priority.

For the listed documents is valid the specification at the date of the first release of this specification.

2.1 TE Specifications

A. 109-1	General Requirements for Test Specifications
B. 114-61000	Application Specification
C. 368079	250 Tab drawing
C. 368078	250 Rec drawing

3. DESCRIPTION OF NOMENCLATURE

All design and construction data, such as dimensions, materials, wire sizes, etc., are shown in the product drawings.

4. PROPERTIES

4.1 General Requirements

The product must correspond with the drawing, concerning the design and the physical dimensions.

4.2 Technical Data - Ratings

A. Current carrying capacity	Max. 14A
B. Maximum mating cycles	10 (for tin-plated contacts)
C. Temperature range	-40 ℃ to +85 ℃ (for tin-plated contacts)
D. Voltage	14.0 ± 0.1 VDC

4.3 Performance

Product is designed to meet the electrical, mechanical and environmental performance requirements specified in Chapter 4.4

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

4.4 Test Requirements and Procedures Summary

Test Description	Requirement	Procedure
TERMINAL MECHANICAL		
1. Visual Inspection	Assure parts used for testing are free of damage and obvious defects.	Visually, dimensionally and functionally inspected per applicable qualify inspection plan.
2. Terminal/Terminal Cycling	Preconditioning	Completely mate and un-mate each connector or terminal pair 10 times for tin-plated contacts.
3. Terminal-to-Terminal Engaging Force	3.5kgf Max	Operation speed: 50mm/min. Measure the force required to mate contact Initial.
4.Terminal-to-Terminal Disengaging Force	3.5kgf Max	Operation speed: 50mm/min. Measure the force required to un-mate contact.
5. Terminal Retention Force *	Secondary lock : 10kgf min	Operation speed: 50mm/min. Fix the housing after inserting crimped terminals. Extend one line of cable in axial direction at a position 50~100 mm away from crimped part
6. Crimp Tensile Strength (for copper/copper alloy conductor)	Wire Size (mm^2) — Strength (N) 0.85 — 13kgf min 1.25 — 17kgf min	Operation speed: 50mm/min. Apply an axial pull-off load to crimped wire of contact secured on the tester.

* The test is required with applicable housing.