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EIA-364-32G

EIA STANDARD

TP-32G

Thermal Shock (Temperature Cycling) Test Procedure for Electrical Connectors and Sockets

EIA-364-32G

(Revision of EIA-364-32F)

August 2014



Electronic Components Industry Association

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This standard is based upon the major technical content of International Electrotechnical Commission standard 60512-11-4 (was IEC 512-6, test 11d), Rapid Change of Temperature, 2002-02, first edition. There are known differences between this standard and the IEC standard.

This Standard does not purport to address all safety problems associated with its use or all applicable regulatory requirements. It is the responsibility of the user of this Standard to establish appropriate safety and health practices and to determine the applicability of regulatory limitations before its use.

(From Standards Proposal No. 5332 and reaffirmed by 5440.04, formulated under the cognizance of the CE-2.0 Committee on EIA National Connector and Sockets Standards.)

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TEST PROCEDURE No. 32G

THERMAL SHOCK (TEMPERATURE CYCLING) TEST PROCEDURE FOR ELECTRICAL CONNECTORS AND SOCKETS

(From EIA Standards Proposal No. 5332, formulated under the cognizance EIA CE-2.0 Committee on National Connector and Socket Standards, and previously published in EIA-364-32F.)

1 Introduction

1.1 Scope

This test is conducted for the purpose of determining the resistance of a given electrical connector or socket to exposure at extremes of high and low temperatures and to the shock of alternate exposures to these extremes, simulating the worst probable conditions of storage, transportation and application.

NOTE — This procedure includes the provision for testing at cryogenic temperatures. Cryogenic temperatures should only be used with specimens specifically designed to be compatible with such temperatures.

1.2 Test designation

This test procedure contains 2 test methods, as indicated by the current designations in table 1.

1.2.1 Method A is for air-to-air thermal shock, see table 3.

1.2.2 Method B is for air-to-liquid nitrogen (cryogenic) thermal shock, see table 4.

Table 1 – Test designation

Current designation	Previous designation
Method A, test condition I	Table 2, test condition I
Method A, test condition II	Table 2, test condition II
Method A, test condition III	Table 2, test condition III
Method A, test condition IV	Table 2, test condition IV
Method A, test condition V	Table 2, test condition V
Method A, test condition VI	Table 2, test condition VI
Method A, test condition VII	Table 2, test condition VII
Method A, test condition VIII	Table 2, test condition VIII
Method B, test condition I	Table 3, test condition I
Method B, test condition II	Table 3, test condition II
Method B, test condition III	Table 3, test condition III
Method B, test condition IV	Table 3, test condition IV
Method B, test condition V	Table 3, test condition V
Method B, test condition VI	Table 3, test condition VI
NOTE — For cross reference to previous MIL-STD-1344 designations see Annex A.	