

IPC-9257
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**Requirements for Electrical Testing
of Flexible Printed Electronics**

An international standard developed by IPC



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Requirements for Electrical Testing of Flexible Printed Electronics

Developed by the Printed Electronics Performance Specification Test Methods Task Group (D-65a) of the Printed Electronics Committee (D-60) of IPC

Users of this publication are encouraged to participate in the development of future revisions.

Contact:

IPC
3000 Lakeside Drive, Suite 105N
Bannockburn, Illinois
60015-1249
Tel 847 615.7100
Fax 847 615.7105

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Printed Electronics Committee

Chair
Neil Bolding
MacDermid Alpha Electronics Solutions

Vice-Chair
Jeff Shubrooks
Raytheon

Printed Electronics Performance Specification Test Methods Task Group

Chair
Jeff Shubrooks
Raytheon

Technical Liaison of the IPC Board of Directors

Bob Neves
Microtek (Changzhou) Laboratories

Printed Electronics Performance Specification Test Methods Task Group

Evan Albertson, TTM Technologies, Inc.

Zainab Ali, Honda Research & Development, Inc.

Sai Avuthu, Jabil Circuit, Inc.

Neil Bolding, MacDermid Alpha Automotive

Michael Carano, RBP Chemical Technology, Inc.

Maarten Cauwe, imec-CMST

Stephen Chavez, UTC Aerospace Systems

Zhiman Chen, ZHUZHOU CRRC TIMES ELECTRIC CO., LTD.

Mahendra Gandhi, Northrop Grumman Space Systems

Mary Herndon, Raytheon Company

Robert Hopkins, Yuasa System CO., LTD.

Constantin Hudon, Varitron Technologies Inc.

Michael Jawitz, Raytheon Company

Dana Korf, Korf Consultancy LLC

Mike Mastropietro, ACI Materials

Robert Neves, Microtek Laboratories China

Michael Pomfret, Washington Clean Energy Testbeds

Outi Rusanen, Tactotek

Haridoss Sarma, GO 2 Scout 4 R&T

Jeff Shubrooks, Raytheon Company

Xing Tong, SAIC

Steve Watt, Zuken USA

Martin Wickham, National Physical Laboratory

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Requirements for Electrical Testing of Flexible Printed Electronics

1 SCOPE

This document is intended to assist in selecting the test equipment, test parameters, test data and fixturing required to perform electrical test(s) on flexible printed electronics.

1.1 Purpose Electrical testing verifies that the conductive networks on the flexible printed electronics are interconnected according to the design requirements.

Electrical testing does not ensure that the flexible printed electronics can be assembled or that the flexible printed electronic meets all of the customer's requirements. Many physical characteristics of the conductors (e.g., dimensional accuracy, conductor geometry and registration, presence of holes) can't be determined by electrical test. Other checks should be employed to confirm these characteristics.

1.1.1 Introduction Electrical testing of flexible printed electronics ensures conformance to the electrical design requirements. This document defines different levels of testing available to achieve this purpose. In selecting the appropriate test level, technology, equipment and associated fixturing, a suitable compromise between productivity, features and costs can be found.

1.1.2 Costs The costs associated with electrical testing can vary dramatically. Costs alone, however, should never be the only criteria for selecting the appropriate test level and equipment. As shown in Figure 1-1, many other important areas require consideration. For example, spacing and density of a printed electronic design may be of paramount importance to one user, while another may be concerned with testing parameters and service reliability. Therefore, a careful examination of all areas of concern and how they may affect each other, not just how they perform individually, is significant. Whatever the selection criteria may be, qualifying benchmarks should be performed on known product.

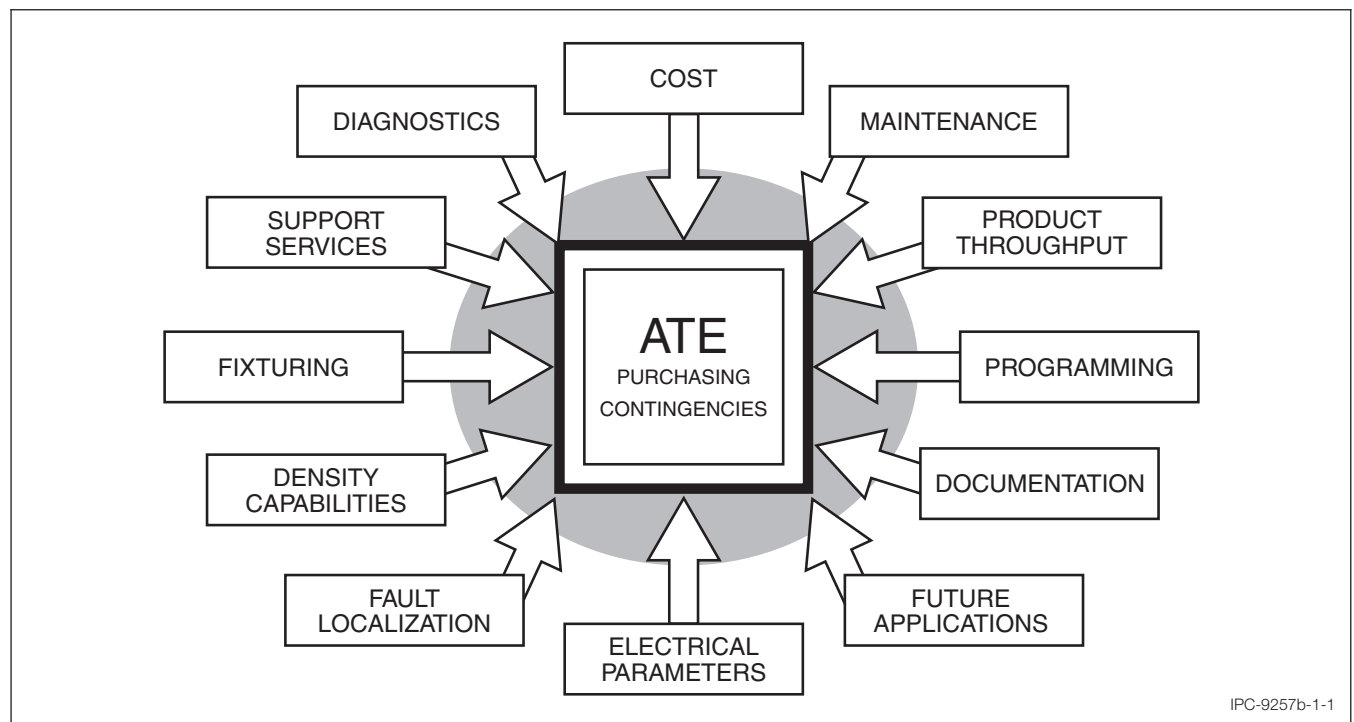


Figure 1-1 Automatic Test Equipment (ATE) Selection Criteria