

***MACHINE MODEL (MM)  
Electrostatic Discharge (ESD) Investigation –  
Reduction in Pulse Number  
and Delay Time***

***Authors:***

***M. Kelly, Delphi Delco Electronics***

***J. Mick, Intel Corporation***

***M. Chaine, Micron Technology***

***B. Carey, Agere Systems***

**Device Testing Working Group 5.2,  
Machine Model (MM)  
ESD Association**



*Electrostatic Discharge Association  
7900 Turin Road, Bldg 3  
Rome, NY 13440*

---

## **Caution Notice**

---

**ESD Association standards and publications are designed to serve the public interest by (i) eliminating misunderstandings between manufactures and purchasers, (ii) facilitating the interchangeability and improvement of products and (iii) assisting the purchaser in selecting and obtaining the proper**

**products for his particular needs. The existence of such standards and publications is not intended in any respect to preclude any member or nonmember of the Association from manufacturing or selling products not conforming to such standards and publications. Nor is it intended for a standard or publication published by the Association to preclude its voluntary used by non-members of the Association whether the document is to be used either domestically or internationally. Recommended standards and publications are adopted by the ESD Association without intending to infringe upon any intellectual property rights of third parties with respect to articles, materials or processes described in such standards. The Association does not assume any liability to any intellectual property owner, nor does it assume any obligation whatever to other parties following the recommended standard or publication.**

**A Technical Report is a collection of technical data or test results published as an informational reference on a specific material, product, system or process. The opinions expressed in this Technical Report are the opinions of the author(s) and may or may not be endorsed by the ESD Association.**

# **Machine Model (MM) Electrostatic Discharge (ESD) Investigation – Reduction in Pulse Number and Delay Time**

*Authors:*

*M. Kelly, J. Mick, M. Chaine, and B. Carey*

*Device Testing  
Machine Model (MM) Working Group WG-5.2*

*November 2000*