



ALPS RELATED STANDARDS

SEMICONDUCTOR EQUIPMENT AND MATERIALS INTERNATIONAL (SEMI)

[Semiconductor Equipment and Materials International \(SEMI\)](#) is a global trade association that represents the semiconductor and flat panel display equipment and materials industries. Among other things it is the organization responsible for setting standards for the industry. The standards used in Kinesys products are listed below.

SEMI E142-0706 - SPECIFICATION FOR SUBSTRATE MAPPING

This document unifies and extends the G81, G84 and G85 standards. It is expected that SEMI E142 will, in time, replace these earlier standards. New features in SEMI E142 are:

- More substrate types (multi-project wafers, MCP, SiP, stacked packages, burn in tray, etc.)
- New data types to support single device tracking (XY Transfer, DeviceId)
- Supply chain integration using web services

- XML Schema – A rigorous and executable definition of the structure and content of the map data

SEMI E142 was prepared by the sort map task force and was approved in October, 2004. For more information contact the [Sort Map Task Force leader](#).

SEMI G81-1101 - SPECIFICATION FOR MAP DATA ITEMS

A predecessor to SEMI E142 that is targeted primarily at wafer bin code maps and is limited to simple 2D array of device. This standard forms the basis for SEMI G84 and

SEMI G84-1101 - SPECIFICATION FOR STRIP MAP PROTOCOL

SEMI G84 depends on the definitions in SEMI G81 and defines how strip maps may be exchanged between factory host and equipment using the SECS II protocol. It is limited to bin code maps for a simple 2D array of devices on a strip.

SEMI G85-1101 - SPECIFICATION FOR MAP DATA FORMAT

This document describes how the data items that relate to electronic mapping are to be represented in eXtensible Markup Language (XML). This was the first SEMI standard to be based on XML. This standard lacks a formal XML schema definition of the format because the XML schema had not been approved at the time. This has been remedied in SEMI E142.

SEMI E37-0298 - HIGH-SPEED SECS MESSAGE SERVICES (HSMS) GENERIC SERVICES

HSMS provides a means for independent manufacturers to produce implementations which can be connected and interoperate without requiring specific knowledge of one another.

SEMI E30-1000 - GENERIC MODEL FOR COMMUNICATIONS AND CONTROL OF MANUFACTURING EQUIPMENT (GEM)

The scope of the GEM standard is limited to defining the behavior of semiconductor equipment as viewed through a communications link.

SEMI E5-1000 - SEMI EQUIPMENT COMMUNICATIONS STANDARD 2 MESSAGE CONTENT (SECS-II)

The SEMI Equipment Communications Standard Part 2 (SECS-II) defines the details of the interpretation of messages exchanged between intelligent equipment and a host.

SEMI E4-0699 - SEMI EQUIPMENT COMMUNICATIONS STANDARD 1 MESSAGE TRANSFER (SECS-I)

The SECS-I standard defines a communication interface suitable for the exchange of messages between semiconductor processing equipment and a host.