SEMI SMT-ELS: SMT Equipment Link Standards - The Standards Suite to Make SMT Assembly Line Smarter -

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“SEMI SMT-ELS (Equipment Link Standards)” is the Standards suite for SMT assembly line that replaces SMEMA and adds data communication capabilities to make assembly line smarter. SEMI SMT-ELS Standards suite uses the advanced general purpose M2M interface “SEMI A1/A1.1 PESCI (Production Equipment Smart Connection Interface)” for equipment interface tier and uses “SEMI A2 SMASH (Surface Mount Assembler Smart Hookup, which was proposed by major SMT assembly equipment suppliers)” for SMT assembly line control tier. SEMI Standards are global standards that have been supporting semiconductor and related manufacturing lines for many years and its development process is open for those who are interested.

Benefits of SEMI SMT-ELS
SEMI SMT-ELS provides higher level of connectivity and control capabilities of SMT assembly line including:

- Host-equipment Communication
  - M2M Network setting
  - Production route setting
- Inter-equipment Communication
  Direct communication between equipment which performs:
  - Immediate product change
  - Panel Data usage mode setting
- Panel and Panel Data Transfer
  Object Oriented panel transfer which simultaneously transfers a panel with its data.
  - On Demand product change
  - Panel handoff exception handlings (Pause – Recovery)

SEMI SMT-ELS is highly extendable in its structure for the future requirements.

SEMI Standards used for SEMI SMT-ELS Standards suite
SEMI SMT-ELS consists of the following SEMI Standards.

- SEMI A2 Specification for Surface Mount Assembler Smart Hookup (SMASH)
- SEMI A1 Specification for Production Equipment Smart Connection Interface (PESCI)
- SEMI A1.1 Specification for TCP/IP Interface for PESCI

SEMI SMT-ELS Freeze Version 0 is available now.

How to purchase the SEMI Standards for SEMI SMT-ELS Standards suite
The Standards are available through “SEMIViews” the license to access those documents. Please ask SEMI Staff in your locale for SEMIViews.
For more up-to-date information on implementation or revisions
Please join the following SEMI activities.

SEMI Flow Manufacturing (FM) Forum
SEMI FM Forum is the place to collaboratively works on implementation knowhow, interoperability testing, feedback, etc. The forum is open for any users and suppliers of SEMI SMT-ELS Standards suite. Please ask SEMI Staff for the registration.

SEMI Standards Automation Technology Committee
SEMI Standards Automation Technology (AT) committee is responsible for development and improvement of SEMI SMT-ELS Standards suite, and task forces under the committee are responsible to each document. This activity is open for everyone with free Program Member registration. Please ask SEMI Staff for the registration.

Endorsement
The application of SEMI SMT-ELS has been endorsed by the following companies and association.

Companies

Association

Homepage
For more information, please visit:
http://www1.semi.org/jp/SEMI_SMT-ELS

About SEMI
SEMI connects over 2,000 member companies and 1.3 million professionals worldwide to advance the technology and business of electronics manufacturing. SEMI members are responsible for the innovations in materials, design, equipment, software, devices, and services that enable smarter, faster, more powerful, and more affordable electronic products. FlexTech and the MEMS & Sensors Industry Group (MSIG) are SEMI Strategic Association Partners, defined communities within SEMI focused on specific technologies. Since 1970, SEMI has built connections that have helped its members prosper, create new markets, and address common industry challenges together. SEMI maintains offices in Bangalore, Berlin, Brussels, Grenoble, Hsinchu, Seoul, Shanghai, Silicon Valley (Milpitas, Calif.), Singapore, Tokyo, and Washington, D.C. For more information, visit www.semi.org and follow SEMI on LinkedIn and Twitter.

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