

SEMI E40.1-1218 (Reapproved 0324) SPECIFICATION FOR SECS-II PROTOCOL FOR PROCESSING MANAGEMENT

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1 Purpose

1.1 This Standard maps the services and data of SEMI E40 to SECS-II streams and functions and data definitions.

2 Scope

2.1 This is the standard way to implement the Processing Management, which provides remote control of wafer processing, using the SECS-II message protocol.

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Referenced Standards and Documents

3.1 SEMI Standards and Safety Guidelines

SEMI E5 — Specification for SEMI Equipment Communications Standard 2 Message Content (SECS-II)

SEMI E30 — Specification for the Generic Model for Communications and Control of Manufacturing Equipment (GEM)

SEMI E39 — Specification for Object Services: Concepts, Behavior, and Services

SEMI E39.1 — Specification for SECS-II Protocol for Object Services (OSS)

SEMI E40 — Specification for Processing Management

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

4 Terminology

4.1 None.

5 Mapping of Processing Services

Table 1 Processing Management Messages Mapping

<i>Service Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
PRJobCreate request	S16F3,F4	Process Job Create Request/Acknowledge
PrJobCommand request	S16F5,F6	Process Job Command Request/Acknowledge
PRJobAlert notify	If E30 style events: S6F11,F12 If E40 style alerts: S16F7,F8	If E30 style events: Event Report Send/Acknowledge If E40 style alerts: Process Job Alert Notify/Confirm
PRJobEvent notify	If E30 style events: S6F11,F12 If E40 style events: S16F9,F10	If E30 style events: Event Report Send/Acknowledge If E40 style events: Process Job Event Notify/Confirm
PRSetMtrlOrder request	S16F29,30	Process Job Set Material Order
PRJobCreateEnh	S16F11/F12	PRJobCreateEnh

<i>Service Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
PRJobMultiCreate	S16F15/F16	PRJobMultiCreate
PRJobDequeue	S16F17/F18	PRJobDequeue
PRGetAllJobs	S16F19/F20	PRGetAllJobs
PRGetSpace	S16F21/F22	PRGetSpace
PRJobSetRecipeVariable	S16F23/F24	PRJobSetRecipeVariable
PRJobSetStartMethod	S16F25/F26	PRJobSetStartMethod

6 Mapping of Processing Parameter

Table 2 Data Item Mapping

<i>Service Parameter</i>	<i>SECS-II Data Item</i>
PrJobID	PRJOBID
PRMtlType	MF
PRMtlName	MID
PRAck	ACKA
PRRecipeMethod	PRRECIPEMETHOD
RecID	RCPSPEC or PPID; only in ASCII (20) format ^{#1}
RecipeVarName	RCPPARNM
RecipeVarValue	RCPPARVAL
PRProcessStart	PRPROCESSSTART
PRCmdName	PRCMDNAME
PRJobMilestone	If E30 style events: CEID If E40 style alerts: PRJOBMILESTONE
PRJobState	PRSTATE
Timestamp	TIMESTAMP
PREventID	If E30 style events: CEID If E40 style events: PREVENTID
CmdParmName	CPNAME
CmdParmVal	CPVAL
PRMtrlOrder	PRMTRLORDER
ErrorCode	ERRCODE
ErrorText	ERRTEXT
PREventData	V (SV, ECV, DVVAL)
PRJobSpace	PRJOBSPACE
PRPauseEvent	PRPAUSEEVENT

^{#1} If an implementer uses PPID for RecID, the format of PPID shall be ASCII because RecID is defined as the text in SEMI E40.