

SEMI E39.1-1218 (Reapproved 0124) SPECIFICATION FOR SECS-II PROTOCOL FOR OBJECT SERVICES (OSS)

This Standard was technically approved by the Information & Control Global Technical Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on December 14, 2024. Available at www.semiviews.org and www.semi.org in January 2024; originally published in 1995; previously published December 2018.

1 Purpose

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

2 Scope

2.1 This Standard applies to all implementations of Object Services that use the SECS-II message protocol (SEMI E5).

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

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

4 Mapping of Object Services

4.1 Table 1 shows the specific SECS-II streams and functions that shall be used for SECS-II implementations for the object services defined in OSS.

Table 1 Services Mapping Table

<i>Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
GetAttr.req	S14,F1	GetAttr Request
GetAttr.rsp	S14,F2	GetAttr Data
SetAttr.req	S14,F3	SetAttr Request
SetAttr.rsp	S14,F4	SetAttr Data
GetType.req	S14,F5	GetType Request
GetType.rsp	S14,F6	GetType Data
GetAttrName.req	S14,F7	GetAttrName Request
GetAttrName.rsp	S14,F8	GetAttrName Data
Create.req	S14,F9	Create Object Request
Create.rsp	S14,F10	Create Object Acknowledge
Delete.req	S14,F11	Delete Object Request
Delete.rsp	S14,F12	Delete Object Acknowledge
Attach.req	S14,F13	Object Attach Request
Attach.rsp	S14,F14	Object Attach Acknowledge
AttachSetAttr.req	S14,F15	Attached Object Action Request

<i>Message Name</i>	<i>Stream, Function</i>	<i>SECS-II Name</i>
AttachSetAttr.rsp	S14,F16	Attached Object Action Acknowledge
AttachSupervisedObject.req	S14,F17	Supervised Object Action Request
AttachSupervisedObject.rsp	S14,F18	Supervised Object Action Acknowledge
Detach.req	S14,F15	Attached Object Action Request
Detach.rsp	S14,F16	Attached Object Action Acknowledge
DetachSupervisedObject.req	S14,F17	Supervised Object Action Request
DetachSupervisedObject.rsp	S14,F18	Supervised Object Action Acknowledge
Reattach.req	S14,F13	Object Attach Request
Reattach.rsp	S14,F14	Object Attach Acknowledge
GetServiceNames.req	S14,F25	Get Service Name Request
GetServiceNames.rsp	S14,F26	Get Service Name Data
GetServiceParameters.req	S14,F27	Get Service Parameter Name Request
GetServiceParameters.rsp	S14,F28	Get Service Parameter Name Data
ObjectAction.req	S14,F19	Generic Service Request
ObjectAction.rsp	S14,F20	Generic Service Acknowledge
ObjectActionCompletion.nfy	S14,F21	Generic Service Completion Information
ObjectActionCompletion.rsp	S14,F22	Generic Service Completion Acknowledge

5 Service Parameter Mapping

5.1 Table 2 shows the mapping between message parameters defined by OSS and data items defined by SECS-II. For parameters specified in the definitions of an OSS service, either the parameters themselves, or individual elements of complex parameters, map to a specific data item.

Table 2 Service Parameters Item Mapping Table

<i>Parameter Name</i>	<i>SECS-II Data Item</i>
AttachToken	OBJTOKEN
AttrData	ATTRVAL
AttrName	ATTRID
AttrReIn	ATTRRELN
ErrCode	ERRCODE
ErrText	ERRTEXT
ObjAck	OBJACK
ObjectAction	SVCNAME
ObjectActionAcknowledgement	SVCACK
ObjectActionParameterRequest	L,2 <SPNAME> <SPVAL>
ObjectActionParameterResult	L,2 <SPNAME> <SPVAL>
ObjectActionReportStatus	DATAACK
ObjectActionStatus	L,2 <SVCACK> Status