

SEMI T12.2-0704

SPECIFICATION FOR XML PROTOCOL FOR TRACKING JIGS AND IMPLEMENTS

This specification was technically approved by the Global Traceability Committee and is the direct responsibility of the Japanese Traceability Committee. Current edition approved by the Japanese Regional Standards Committee on April 30, 2004. Initially available at www.semi.org June 2004; to be published July 2004.

1 Purpose

1.1 The purpose of this document is to map Services and data in Specification of Tracking Jig and Implements into XML protocol.

2 Scope

2.1 This document is applied to XML implementation of Jigs and Implements traceability with some interoperability with Surface Mount Technology (SMT) equipment.

NOTICE: This standard does not purport to address safety issues, if any, associated with its use. It is the responsibility of the users of this standard to establish appropriate safety and health practices and determine the applicability of regulatory or other limitations prior to use.

3 Limitations

3.1 This protocol mapping has a consideration being interoperable with SMT manufacturing it may be used in such area, using this specification on such manufacturing area is not guaranteed because this specification is originally planned to be working on semiconductor manufacturing systems including equipment.

4 Referenced Standards

4.1 SEMI Standards

SEMI T12 — Specification for Tracing Jigs and Implements

4.2 Association Connecting Electronics Industries (IPC)/National Electronics Manufacturing Initiative (NEMI)/American National Standard institute (ANSI)¹

IPC-2501 — Definition for Web-Based Exchange of XML data; (July, 2003)

IPC-2541 — Generic Requirements for Electronics Manufacturing Shop-Floor Equipment Communication (CAMX); (October, 2001 / ANSI Approved November, 2001)

4.3 World Wide Web Consortium (W3C)²

REC-xml-20001006 — Extensible Markup Language (XML) 1.0 (Second Edition)

NOTE-SOAP-20000508 — Simple Object Access Protocol (SOAP) 1.1

4.4 Internet Engineering Task Force³

RFC2045 — Multipurpose Internet Message Extensions (MIME) Part 1: Format of Internet Message Bodies

RFC2616 — Hyper Text Transfer Protocol – HTTP/1.1

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

¹ <http://www.ipc.org>, <http://www.nemi.org>, <http://www.ansi.org>. The original developer is IPC with NEMI cooperation, ANSI ends up with authorizing approval.

² <http://www.w3c.org>.

³ <http://www.ietf.org>.

5 Terminology

5.1 Acronyms and Abbreviations

5.1.1 MIME — Multipurpose Internet Message Extensions

5.1.2 SOAP — Simple Object Access Protocol

5.1.3 XML — eXtensible Markup Language

6 Base Requirements

6.1 Base Protocol Mapping — This XML protocol specification adopts Simple Object Access Protocol (SOAP) over Hyper Text Transfer Protocol (HTTP) on Transmission Control Protocol/Internet Protocol (TCP/IP). Some equipment users produce not only semiconductor devices but also Print Circuit Boards (PCBs). It is convenient for such users to have common messaging protocol with standard messaging for Surface Mount Technology (SMT). For this purpose, this protocol mapping extension standard specifies the messaging mechanism conformant to IPC-2501 “Definition for Web-Based Exchange of XML Data” as one of mapping means. Also this extension standard document follows IPC-2541 “Generic Requirements for Electronics Manufacturing Shop-Floor Equipment Communication Messages” and IPC-2551 “Sectional Requirements for Manufacturing Execution System” for that reason. The following subsections describe a part of these specifications for introduction. Refer to these documents for detail reference.

6.2 SOAP Structure — A HTTP message in this specification has an envelope to contain a couple of MIME blocks. One is for SOAP Envelope and the other is for message detail to be able to mix with such non-XML information as binary data. The service message specified in “Specification for Tracking Jigs and Implements” is contained in latter one. SOAP standard envelop MIME Block contains SOAP Header which has message information and SOAP Body which contains SOAP Faults. Outlined diagram is shown in Related Information. Official definitions are given in referenced documents.

6.3 Messaging Mechanism — Message Broker, that is logical middle ware server to handle and relay messages, is assumed somewhere on communication network. While the broker behaves as communication server, the other logical nodes are message clients. Every message starts with a client and responded by the server. Messages communicated between clients are exchanged through the server. The server keeps posted messages from clients in a queue for each individual client. Expecting recipient client asks the server for messages and a topmost message in the queue for the client is responded if the queue is not empty. The recipient client posts acknowledge back to the server. When the recipient replies back a message to the original sender client, same thing happens with switched roles between sender and recipient clients. Explanatory diagrams for this outline are shown in Related Information. Official specification is given in referenced documents.

6.4 Issues Specific to this Messaging — A few issues for IPC based communication protocol for Jigs and Implements Tracking are introduced here.

6.4.1 Domain Configuration — Message Broker has domain configuration information to make sure all acting entities, possible messages with related publisher, recipient and subscriber clients. Also it has other detail characteristics of the domain of communication. Every client needs to look up the information before the first messaging.

6.4.2 Message Information — This is an element contained in SOAP Header. This information provides time of transaction, sender, destination, message identification and schema type used for service message detail in the second MIME block.

6.4.3 Attributes in Service Message Element — The top element of each service message has date/time of the message, session ID or session reference, request ID or request reference, and optional values. Some of the optional values are extended for Jigs and Implements Tracking communication: linkId, linkCnt and linkExp. The extension may be used for delayed reply message and multiple divided replies to keep conformance of related messages.

7 Requirements

7.1 Service Mapping — Services defined in “Specification for Tracking Jigs and Implement” are mapped on the following table.

7.1.1 *Capitalized Service Message Element Name Base* — Each service message is mapped into an XML element with capitalized heading letter to prevent collision with XML or XML Schema native words.

7.1.2 *Service Message Element Name Suffix* — Because of symmetry of message broker communication and for XML element naming convention, suffix of ‘Request’ or ‘Response’ is added to each service message element name for request or response respectively: for example, AddEventRequest to request service and AddEventResponse for its response message.

Table 1 Service Instruction Mapping

<i>Service Message Name</i>	<i>Supporting Class</i>	<i>Service Message Element Name Base</i>	<i>Remarks</i>
addEvent	HistoryRecord	AddEvent	
adopt	HistoryDB	Adopt	
changeAction	Expiry	ChangeAction	
changeDescription	Expiry	ChangeDescription	
changeExpiration	Expiry	ChangeExpiration	
changeName	Attachment, PublicLocation, Secondment	ChangeName	
changeNamespace	Inventory	ChangeNamespace	
destrcut	Exception, Expiry, HistoryBuffer, HistoryRecord, Secondment	Destrct	
disown	HistoryDB	Disown	
fluctuate	HistoryRecord	Fluctuate	
install	Inventory	Install	
listEvent	HistoryRecord	ListEvent	
listRecords	HistoryDB	ListRecords	
listUp	Inventory	ListUp	
receiveInvoice	JitMachine	ReceiveInvoice	
reset	HistoryDB	Reset	
setReleaseCondition	HistoryBuffer	SetReleaseCondition	
showAction	Expiry	ShowAction	
showAttachment	HistoryBuffer	ShowAttachment	
showAttachments	Invoice, JitMachine, PublicLocation	ShowAttachments	
showAvailableSpace	PublicLocation	ShowAvailableSpace	
showCapacity	PublicLocation	ShowCapacity	
showCategory	Exception	ShowCategory	
showCode	Exception	ShowCode	
showData	Inventory	ShowData	
showDescription	Exception, Expiry	ShowDescription	
showEvent	HistoryRecord	ShowEvent	
showExeptions	JitMachine	ShowExeptions	
showExpiration	Expiry	ShowExpiration	
showHistory	Attachment, HistoryBuffer, HistoryDB, HistoryRecord, Invoice	ShowHistory	
showId	Attachment, Exception, Expiry, Invoice, JitMachine, PublicLocation, Secondment	ShowId	
showLoadports	Invoice	ShowLoadports	
showLocationType	PublicLocation	ShowLocationType	
showName	Attachment, JitMachine, PublicLocation, Secondment	ShowName	
showNamespace	Inventory	ShowNamespace	

<i>Service Message Name</i>	<i>Supporting Class</i>	<i>Service Message Element Name Base</i>	<i>Remarks</i>
showOccupancy	PublicLocation	ShowOccupancy	
showPossibleType	PublicLocation	ShowPossibleType	
showReleaseCondition	HistoryBuffer	ShowReleaseCondition	
showState	Exception, Expiry, HistoryBuffer, PublicLocation, Secondment	ShowState	
showSubject	Exception, Expiry	ShowSubject	
showType	Attachment, JitMachine, Secondment	ShowType	
showTypes	Invoice	ShowTypes	
uninstall	Inventory	Uninstall	
update	HistoryDB, Inventory	Update	
updateHistory	Attachment, Exception, HistoryBuffer	UpdateHistory	
updateState	PublicLocation	UpdateState	

7.2 *Service Parameter Mapping* — Service parameter type mapping is shown in the following table.

Table 2 Service Parameter Type Mapping

<i>Parameter Name</i>	<i>Attribute/Element</i>	<i>Type</i>	<i>Remarks</i>
Action	Element	string	
AttachmentId	Element	string	
AttachmentInfo	Element	string	
AttachmentName	Element	string	
AttachmentType	Element	anyType	Some Enumeration
Capacity	Element	unsignedInt	
Category	Element	string	
Code	Element	string	
Condition	Element	string	
DataName	Element	string	
DataValue	Element	anyType	Usually integer or float
Description	Element	string	
EventCaption	Element	anyType	Formatted Text
ExceptionId	Element	string	
Expiration	Element	string	
ExpiryId	Element	string	
GroupName	Element	string	
Handle	Element	string	
History	Element	anyType	Formatted Text
HistoryDifference	Element	anyType	Formatted Text
InvoiceId	Element	string	
Item	Element	string	maybe enumerated
LoadportId	Element	string	Usually small integer
Location	Element	string	
LocationId	Element	string	
LocationName	Element	string	
LocationType	Element	string	
MachineId	Element	string	
MachineName	Element	string	

Parameter Name	Attribute/Element	Type	Remarks
MachineType	Element	string	
Operation	Element	string	Enumerated
Occupancy	Element	int	Positive or Negative
Restriction	Element	string	regular expression or any
ServiceStatus	Element	complexType	status+Rejection
Space	Element	unsignedInt	Usually small integer
State	Element	string	Class dependent

7.3 Additional Parameters for Service Messages — Because this protocol mapping works for asynchronous HTTP server-client communication on message broker, such additional parameters to give complementary information as issued time and transaction identification are required to be attached to each message. The information may be dependent to the role of the message. Type mapping of them are shown in the following table.

Table 3 Type Mapping of Additional Parameters

Parameter Name	Attribute/Element	Type	Remarks
dateTime	Attribute	dateTime	
sessionId	Attribute	string	
sessionRef	Attribute	string	
requestId	Attribute	string	
requestRef	Attribute	string	
linkId	Attribute	string	extended for delayed response
linkCnt	Attribute	integer	extended for delayed response
linkExp	Attribute	duration	extended for delayed response

7.4 Example XML Message Fragments — The following subsections give examples of some fragments of service messages in XML. A full message is given with envelopes and headers.

7.4.1 addEvent Request — The following XML description is an example of the principal part of service request message for addEvent provided by HistoryRecord objects. Because the structure of parameter ‘History’ is dependent to event, attachment type and equipment, the standard doesn’t define it. Suppliers are required to define the structure or negotiate with specific user. Users need to discuss with suppliers or interpret their structures.

```
<AddEventRequest dateTime="2004-03-29T13:05:25.000-08:00" SessionRef="SemiJitQs-9876543210" RequestId="123456">
  <History>
    <HistoryIndex>
      <Id>120123456789</Id>
      <Type>UPXB Modl Die XYZ737</Type>
    </HistoryIndex>
    <Event>
      <Id>12345678</Id>
      <EventClass>Milestone</EventClass>
      <NamedValue>
        <SetPoint>10000</SetPoint>
        <TotalTimes>150000</TotalTimes>
      </NamedValue>
      <Machine>UPXB039</Machine>
      <TimeStamp>2004-03-29T13:05:18.000-08:00</TimeStamp>
    </Event>
  </History>
</AddEventRequest>
```

7.4.2 *showTypes Response* — The following XML description is an example of the principal part of service response message for showTypes provided by Invoice objects.

```
<ShowTypesResponse dateTime="2004-03-29T09:07:59.000-08:00" SessionRef="SemiJitQs-9876543123" RequestRef="123443" status="GRANTED">
  <AttachmentType>UPXB Modl Die XYZ737</AttachmentType>
  <ServiceStatus>
    <SvcAck>Successful</SvcAck>
  </ServiceStatus>
</ShowTypesResponse>
```

SUPERSEDED

APPENDIX 1 XML SCHEMA

NOTICE: The material in this appendix is an official part of SEMI T12.2 and was approved by full letter ballot procedures on April 30, 2004.

A1-1 XML Message Schema

A1-1.1 *XML Schema* — XML Schema is a kind of template for documents. The following XML Schemas shows how messages in this XML protocol are represented.

A1-1.1.1 *Message Schema* — Each message in T12 has one XML Schema. Parsing with the schema, application can understand what elements and attributes mean. Also it can check syntax easily.

A1-1.1.2 *Common Definitions* — Common part of the schema is separated and it is included in each message schema.

A1-1.2 *Enumeration* — Attachment specific or equipment specific enumeration may not be addressed here. Corresponding part of the schema should be extended or restricted with 'redefine' element, for example, in application schema.

XML Message Schema Name: T12ChangeNameRequestAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Change Name Request - - - - - -->
  <xsd:element name="ChangeNameRequest" type="ChangeNameRequestType"/>

  <xsd:complexType name="ChangeNameRequestType">
    <xsd:sequence>
      <xsd:element name="AttachmentName" type="xsd:string"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType></xxx>

</xsd:schema>
```

XML Message Schema Name: T12ChangeNameResponseAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Change Name Response - - - - - -->
  <xsd:element name="ChangeNameResponse" type="ChangeNameResponseType"/>

  <xsd:complexType name="ChangeNameResponseType">
    <xsd:sequence>
      <xsd:element name="AttachmentName" type="xsd:string" minOccurs="0" maxOccurs="1"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
  </xsd:complexType>
```

```

    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowHistoryRequestAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show History Request - - - - - -->
  <xsd:element name="ShowHistoryRequest" type="ShowHistoryRequestType"/>

  <xsd:complexType name="ShowHistoryRequestType">
    <xsd:sequence>
      <xsd:element name="Items" type="xsd:string" minOccurs="0" maxOccurs="unbounded"
        />
      <xsd:element name="Restriction" type="xsd:string" minOccurs="0"
maxOccurs="unbounded"/>
      <xsd:sequence>
        <xsd:attributeGroup ref="RegRequestAttr"/>
      </xsd:sequence>
    </xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowHistoryResponseAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show History Response - - - - - -->
  <xsd:element name="ShowHistoryResponse" type="ShowHistoryResponseType"/>

  <xsd:complexType name="ShowHistoryResponseType">
    <xsd:sequence>
      <xsd:element name="History" type="HistoryType" minOccurs="0"
maxOccurs="unbounded"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowIdRequestAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01

```

```

    elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show ID Request - - - - - -->
<xsd:element name="ShowIdRequest" type="ShowIdRequestType"/>

<xsd:complexType name="ShowIdRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowIdResponseAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show ID Response - - - - - -->
<xsd:element name="ShowIdResponse" type="ShowIdResponseType"/>

<xsd:complexType name="ShowIdResponseType">
  <xsd:sequence>
    <xsd:element name="AttachmentId" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowNameRequestAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Name Request - - - - - -->
<xsd:element name="ShowNameRequest" type="ShowNameRequestType"/>

<xsd:complexType name="ShowNameRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowNameResponseAtt.xsd for Attachment Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01

```

```
targetNamespace=http://www.semi.org/Traceability/T12.2-V01
elementFormDefault="qualified" attributeFormDefault="qualified">
```

```
<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Name Response - - - - - -->
<xsd:element name="ShowNameResponse" type="ShowNameResponseType"/>

<xsd:complexType name="ShowNameResponseType">
  <xsd:sequence>
    <xsd:element name="AttachmentName" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowTypeRequestAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Type Request - - - - - -->
<xsd:element name="ShowTypeRequest" type="ShowTypeRequestType"/>

<xsd:complexType name="ShowTypeRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowTypeResponseAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Type Response - - - - - -->
<xsd:element name="ShowTypeResponse" type="ShowTypeResponseType"/>

<xsd:complexType name="ShowTypeResponseType">
  <xsd:sequence>
    <xsd:element name="AttachmentType" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12UpdateHistoryRequestAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Update History Request - - - - - -->
  <xsd:element name="UpdateHistoryRequest" type="UpdateHistoryRequestType"/>

  <xsd:complexType name="UpdateHistoryRequestType">
    <xsd:sequence>
      <xsd:element name="Items" type="xsd:string"/>
      <xsd:element name="History" type="HistoryType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12UpdateHistoryResponseAtt.xsd for Attachment Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Update History Response - - - - - -->
  <xsd:element name="UpdateHistoryResponse" type="UpdateHistoryResponseType"/>

  <xsd:complexType name="UpdateHistoryResponseType">
    <xsd:sequence>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12DestructRequestExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Destruct Request - - - - - -->
  <xsd:element name="DestructRequest" type="DestructRequestType"/>

  <xsd:complexType name="DestructRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>
```

```
</xsd:complexType>
```

```
</xsd:schema>
```

XML Message Schema Name: T12DestructResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Destruct Response - - - - - -->
  <xsd:element name="DestructResponse" type="DestructResponseType"/>

  <xsd:complexType name="DestructResponseType">
    <xsd:sequence>
      <xsd:element name="State" type="ExceptionStateType"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

  <!-- - - - - - $$$ State for Exception $$$- - - - - -->
  <xsd:simpleType name="ExceptionStateType">
    <restriction base="xsd:string">
      <enumeration value="CLEARED"/>
      <enumeration value="SET"/>
      <enumeration value="NO STATE"/>
    </restriction>
  </xsd:simpleType>

</xsd:schema>
```

XML Message Schema Name: T12ShowCategoryRequestExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show Category Request - - - - - -->
  <xsd:element name="ShowCategoryRequest" type="ShowCategoryRequestType"/>

  <xsd:complexType name="ShowCategoryRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowCategoryResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
```

```

    elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Category Response - - - - - -->
<xsd:element name="ShowCategoryResponse" type="ShowCategoryResponseType"/>

<xsd:complexType name="ShowCategoryResponseType">
  <xsd:sequence>
    <xsd:element name="Category" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowCodeRequestExc.xsd for Exception Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Code Request - - - - - -->
<xsd:element name="ShowCodeRequest" type="ShowCodeRequestType"/>

<xsd:complexType name="ShowCodeRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowCodeResponseExc.xsd for Exception Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Code Response - - - - - -->
<xsd:element name="ShowCodeResponse" type="ShowCodeResponseType"/>

<xsd:complexType name="ShowCodeResponseType">
  <xsd:sequence>
    <xsd:element name="Code" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowDescriptionRequestExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show Description Request - - - - - -->
  <xsd:element name="ShowDescriptionRequest" type="ShowDescriptionRequestType"/>

  <xsd:complexType name="ShowDescriptionRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowDescriptionResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show Description Response - - - - - -->
  <xsd:element name="ShowDescriptionResponse" type="ShowDescriptionResponseType"/>

  <xsd:complexType name="ShowDescriptionResponseType">
    <xsd:sequence>
      <xsd:element name="Description" type="xsd:string"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowIdRequestExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show ID Request - - - - - -->
  <xsd:element name="ShowIdRequest" type="ShowIdRequestType"/>

  <xsd:complexType name="ShowIdRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```



XML Message Schema Name: T12ShowIdResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show ID Response - - - - - -->
  <xsd:element name="ShowIdResponse" type="ShowIdResponseType"/>

  <xsd:complexType name="ShowIdResponseType">
    <xsd:sequence>
      <xsd:element name="ExceptionId" type="xsd:string"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowStateRequestExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show State Request - - - - - -->
  <xsd:element name="ShowStateRequest" type="ShowStateRequestType"/>

  <xsd:complexType name="ShowStateRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowStateResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show State Response - - - - - -->
  <xsd:element name="ShowStateResponse" type="ShowStateResponseType"/>

  <xsd:complexType name="ShowStateResponseType">
    <xsd:sequence>
      <xsd:element name="State" type="ExeptionStateType"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>

  </xsd:complexType>
```

```

    <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

<!-- - - - - - $$$ State for Exception $$$- - - - - -->
<xsd:simpleType name="ExceptionStateType">
  <restriction base="xsd:string">
    <enumeration value="CLEARED"/>
    <enumeration value="SET"/>
    <enumeration value="NO STATE"/>
  </restriction>
</xsd:simpleType>

</xsd:schema>

```

XML Message Schema Name: T12ShowSubjectRequestExc.xsd for Exception Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show Subject Request - - - - - -->
  <xsd:element name="ShowSubjectRequest" type="ShowSubjectRequestType"/>

  <xsd:complexType name="ShowSubjectRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12ShowSubjectResponseExc.xsd for Exception Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Show Subject Response - - - - - -->
  <xsd:element name="ShowSubjectResponse" type="ShowSubjectResponseType"/>

  <xsd:complexType name="ShowSubjectResponseType">
    <xsd:sequence>
      <xsd:element name="AttachmentId" type="xsd:string"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>

```

XML Message Schema Name: T12UpdateStateRequestExc.xsd for Exception Class

```

<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01

```



```
targetNamespace=http://www.semi.org/Traceability/T12.2-V01
elementFormDefault="qualified" attributeFormDefault="qualified">
```

```
<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Update State Request - - - - - -->
<xsd:element name="UpdateStateRequest" type="UpdateStateRequestType"/>

<xsd:complexType name="UpdateStateRequestType">
  <xsd:sequence>
    <xsd:element name="State" type="ExceptionStateType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

<!-- - - - - - $$$ State for Exception $$$ - - - - - -->
<xsd:simpleType name="ExceptionStateType">
  <restriction base="xsd:string">
    <enumeration value="CLEARED"/>
    <enumeration value="SET"/>
    <enumeration value="NO STATE"/>
  </restriction>
</xsd:simpleType>

</xsd:schema>
```

XML Message Schema Name: T12UpdateStateResponseExc.xsd for Exception Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Update State Response - - - - - -->
<xsd:element name="UpdateStateResponse" type="UpdateStateResponseType"/>

<xsd:complexType name="UpdateStateResponseType">
  <xsd:sequence>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeActionRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Change Action Request - - - - - -->
<xsd:element name="ChangeActionRequest" type="ChangeActionRequestType"/>
```

```
<xsd:complexType name="ChangeActionRequestType">
  <xsd:sequence>
    <xsd:element name="Action" type="xsd:string"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeActionResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Change Action Response - - - - - -->
  <xsd:element name="ChangeActionResponse" type="ChangeActionResponseType"/>

  <xsd:complexType name="ChangeActionResponseType">
    <xsd:sequence>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeExpirationRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Change Expiration Request - - - - - -->
  <xsd:element name="ChangeExpirationRequest" type="ChangeExpirationRequestType"/>

  <xsd:complexType name="ChangeExpirationRequestType">
    <xsd:sequence>
      <xsd:element name="Expiration" type="xsd:string"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeExpirationResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">
```

```
<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Change Expiration Response - - - - - -->
<xsd:element name="ChangeExpirationResponse" type="ChangeExpirationResponseType"/>

<xsd:complexType name="ChangeExpirationResponseType">
  <xsd:sequence>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeDescriptionRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Change Description Request - - - - - -->
<xsd:element name="ChangeDescriptionRequest" type="ChangeDescriptionRequestType"/>

<xsd:complexType name="ChangeDescriptionRequestType">
  <xsd:sequence>
    <xsd:element name="Description" type="xsd:string"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ChangeDescriptionResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Change Description Response - - - - - -->
<xsd:element name="ChangeDescriptionResponse" type="ChangeDescriptionResponseType"/>

<xsd:complexType name="ChangeDescriptionResponseType">
  <xsd:sequence>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12DestructRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Destruct Request - - - - - -->
  <xsd:element name="DestructRequest" type="DestructRequestType"/>

  <xsd:complexType name="DestructRequestType">
    <xsd:attributeGroup ref="RegRequestAttr"/>
  </xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12DestructResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

  <!-- - - - - - Destruct Response - - - - - -->
  <xsd:element name="DestructResponse" type="DestructResponseType"/>

  <xsd:complexType name="DestructResponseType">
    <xsd:sequence>
      <xsd:element name="State" type="ExpiryStateType"/>
      <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
    </xsd:sequence>
    <xsd:attributeGroup ref="RegResponseAttr"/>
  </xsd:complexType>

  <!-- - - - - - $$$ State for Expiry $$$ - - - - - -->
  <xsd:simpleType name="ExpiryStateType">
    <restriction base="xsd:string">
      <enumeration value="EXPIRED"/>
      <enumeration value="VALID"/>
      <enumeration value="NO STATE"/>
    </restriction>
  </xsd:simpleType>

</xsd:schema>
```

XML Message Schema Name: T12ShowActionRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

  <xsd:include
    schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>
```



```
<!-- - - - - - Show Action Request - - - - - -->
<xsd:element name="ShowActionRequest" type="ShowActionRequestType"/>

<xsd:complexType name="ShowActionRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowActionResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Action Response - - - - - -->
<xsd:element name="ShowActionResponse" type="ShowActionResponseType"/>

<xsd:complexType name="ShowActionResponseType">
  <xsd:sequence>
    <xsd:element name="Action" type="xsd:string"/>
    <xsd:element name="ServiceStatus" type="ServiceStatusType"/>
  </xsd:sequence>
  <xsd:attributeGroup ref="RegResponseAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowDescriptionRequestExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>

<!-- - - - - - Show Description Request - - - - - -->
<xsd:element name="ShowDescriptionRequest" type="ShowDescriptionRequestType"/>

<xsd:complexType name="ShowDescriptionRequestType">
  <xsd:attributeGroup ref="RegRequestAttr"/>
</xsd:complexType>

</xsd:schema>
```

XML Message Schema Name: T12ShowDescriptionResponseExp.xsd for Expiry Class

```
<xsd:schema xmlns:xsd=http://www.w3.org/2001/XMLSchema
  xmlns:jit=http://www.semi.org/Traceability/T12.2-V01
  targetNamespace=http://www.semi.org/Traceability/T12.2-V01
  elementFormDefault="qualified" attributeFormDefault="qualified">

<xsd:include
  schemaLocation="http://www.semi.org/Traceability/T12.2-V01/CommonDefinitions"/>
```