



# Statement of Compliance for use of XML Schema in Eclipse Titan

Adrien Kirjak

Version 10.1.1, 2024-06-05

# Table of Contents

1. Description .....	2
2. References .....	3
2.1. Normative references .....	3
2.2. Informative references .....	3
3. Definitions and abbreviations .....	4
3.1. Definitions .....	4
3.2. Abbreviations .....	4
4. Instructions for completing the ICS proforma .....	6
4.1. Other information .....	6
4.2. Identification of the implementation .....	7
5. ICS proforma tables .....	9
5.1. Global statement of conformance .....	9
5.2. Mapping XML Schemas .....	9
5.3. Namespaces .....	9
5.4. Includes .....	10
5.5. Imports .....	10
5.6. Attributes of the XSD schema element .....	10
5.7. Name conversion rules .....	12
5.8. Order of the mapping .....	15
5.9. Built-in data types .....	15
5.10. Length .....	16
5.11. Enumeration .....	16
5.12. MinInclusive .....	17
5.13. MaxInclusive .....	18
5.14. MinExclusive .....	18
5.15. MaxExclusive .....	19
5.16. Total digits .....	20
5.17. Fraction digits .....	21
5.18. Not specifically mapped facets .....	21
5.19. String .....	21
5.20. Name .....	21
5.21. Any URI .....	22
5.22. Integer .....	22
5.23. Positive integer .....	22
5.24. Non-positive integer .....	23
5.25. Negative integer .....	23
5.26. Non-negative integer .....	23
5.27. Long .....	23

5.28. Unsigned long	24
5.29. Int	24
5.30. Unsigned int	24
5.31. Short	25
5.32. Unsigned Short	25
5.33. Byte	25
5.34. Unsigned byte	25
5.35. Decimal	26
5.36. Float	26
5.37. Double	26
5.38. Date and time	27
5.39. Date	27
5.40. Gregorian year and month	28
5.41. Gregorian year	29
5.42. Boolean type	30
5.43. AnyType and anySimpleType types	31
5.44. Id	31
5.45. MinOccurs and maxOccurs	32
5.46. Default and Fixed	33
5.47. Form	34
5.48. Type	36
5.49. Use	36
5.50. Final	37
5.51. Element component	37
5.52. Attribute element definitions	37
5.53. Attribute group definitions	38
5.54. Derivation by restriction	38
5.55. Derivation by list	38
5.56. Derivation by union	39
5.57. Extending simple content	40
5.58. Restricting simple content	41
5.59. Complex content derived by extension	41
5.60. Complex content derived by restriction	43
5.61. Referencing group components	43
5.62. All content	45
5.63. Choice content	45
5.64. Choice with nested elements	46
5.65. Choice with nested group	46
5.66. Choice with nested choice	46
5.67. Choice with nested sequence	47
5.68. Choice with nested any	47

5.69. Sequence with nested element content .....	48
5.70. Sequence with nested group content .....	48
5.71. Sequence with nested choice content .....	48
5.72. Sequence with nested sequence content .....	48
5.73. Sequence with nested any content.....	49
5.74. Effect of the minOccurs and maxOccurs attributes on the mapping.....	49
5.75. Attribute definitions, attribute and attributeGroup references .....	50
5.76. Mixed content .....	51
5.77. The any element .....	52
5.78. The anyAttribute element .....	53
5.79. Annotation .....	54
5.80. Group components.....	54
5.81. Identity-constraint definition schema components.....	55
5.82. Head elements of substitution groups.....	55
5.83. TTCN-3 module XSD.....	56
6. Notes .....	67

## **Abstract**

The present document provides the Implementation Conformance Statement (ICS) proforma for the conformance test suite for the Eclipse Titan TTCN-3 implementation.

## **Copyright**

Copyright (c) 2000-2024 Ericsson Telecom AB

All rights reserved. This program and the accompanying materials are made available under the terms of the Eclipse Public License v2.0 that accompanies this distribution, and is available at

<https://www.eclipse.org/org/documents/epl-2.0/EPL-2.0.html>

## **Disclaimer**

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. Ericsson shall have no liability for any error or damage of any kind resulting from the use of this document.

# Chapter 1. Description

The present document provides the Implementation Conformance Statement (ICS) proforma for the conformance test suite for using XML Schema with TTCN-3 as defined in [ETSI ES 201 873-1](#).

In the present document only XML related features, specified in [ETSI ES 201 873 9](#) have been considered but not

- the core language features (see [ETSI ES 201 873-1](#)), nor
- tool implementation (see [ETSI ES 201 873-5](#) and [ETSI ES 201 873-6](#)),
- language mapping (see [ETSI ES 201 873-7](#) and [ETSI ES 201 873-8](#)) and language extension (see e.g. [ETSI ES 202 781](#), [ETSI ES 202 784](#) and [ETSI ES 202 785](#)) aspects.

# Chapter 2. References

## 2.1. Normative references

The following referenced documents are necessary for the application of the present document.

1. [ETSI ES 201 873-9 \(V4.6.1\): "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3"](#).
2. [ISO/IEC 9646-7 \(1994\): "Conformance testing methodology and framework – Part 7: Implementation Conformance Statement"](#).
3. [ISO/IEC 9646-1 \(1992\): "Information Technology – Open Systems Interconnection – Conformance Testing Methodology and Framework – Part 1: General concepts"](#).
4. [ETSI ES 202 785: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Behaviour Types"](#).

## 2.2. Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

5. [ETSI ES 201 873-1: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language"](#).
6. [ETSI ES 201 873-5: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 5: TTCN-3 Runtime Interface \(TRI\)"](#).
7. [ETSI ES 201 873-6: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 6: TTCN-3 Control Interface \(TCI\)"](#).
8. [ETSI ES 201 873-7: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 7: Using ASN.1 with TTCN-3"](#).
9. [ETSI ES 201 873-8: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; Part 8: The IDL to TTCN-3 Mapping"](#).
10. [ETSI ES 202 781: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Configuration and Deployment Support"](#).
11. [ETSI ES 202 784: "Methods for Testing and Specification \(MTS\); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Advanced Parameterization"](#).

# Chapter 3. Definitions and abbreviations

## 3.1. Definitions

### **Abstract Test Suite (ATS):**

Test suite composed of abstract test cases

### **Implementation Conformance Statement (ICS):**

Statement made by the supplier of an implementation claimed to conform to a given specification, stating which capabilities have been implemented

### **ICS proforma:**

Document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

### **Implementation eXtra Information for Testing (IXIT):**

Statement made by a supplier or implementor of an IUT which contains or references all of the information related to the IUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the IUT

### **IXIT proforma:**

Document, in the form of a questionnaire, which when completed for the IUT becomes the IXIT

### **Implementation Under Test (IUT):**

Implementation of one or more OSI protocols in an adjacent user/provider relationship, being part of a real open system which is to be studied by testing

## 3.2. Abbreviations

### **ASCI**

American Standard Code for Information Interchange

### **ATS**

Abstract Test Suite

### **BNF**

Backus Naur Form

### **ICS**

Implementation Conformance Statement

### **IUT**

Implementation under Test

### **IXIT**

Implementation eXtra Information for Testing



**SUT**

System Under Test

**TC**

Test Case

**TCI**

TTCN-3 Control Interface

**TP**

Test Purpose

**TRI**

TTCN-3 Runtime Interface

**TS**

Test System

**TSS**

Test Suite Structure

**TSS&TP**

Test Suite Structure and Test Purposes

**TTCN**

Testing and Test Control Notation

**TTCN-3**

Testing and Test Control Notation edition 3

**URI**

Uniform Resource Identifier

**URL**

Uniform Resource Locator

**XML**

eXtensible Markup Language

**XSD**

W3C XML Schema Definition

# Chapter 4. Instructions for completing the ICS proforma

## 4.1. Other information

More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

The supplier of the implementation shall complete the ICS proforma in each of the spaces provided. If necessary, the supplier may provide additional comments separately in Clause A.4.

### 4.1.1. Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a TTCN-3 tool vendor of the [TTCN-3 core language](#) may provide information about the implementation in a standardized manner.

The ICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;
- identification of the implementation;
- ICS proforma tables (containing the global statement of conformance).

### 4.1.2. Conventions

The ICS proforma is composed of information in tabular form in accordance with the guidelines presented in [ISO/IEC 96467](#).

#### Item column

It contains a number that identifies the item in the table.

#### Item description column

It describes each respective item (e.g. parameters, timers, etc.).

#### Reference column

It gives reference to the [TTCN-3 core language](#), except where explicitly stated otherwise.

#### Status column

The following notations, defined in [ISO/IEC 96467](#), are used for the status column:

- m mandatory - the capability is required to be supported.
- n/a not applicable - in the given context, it is impossible to use the capability. No answer in the support column is required.
- u undecided
- o optional - the capability may be supported or not.
- o.i qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer

which identifies a unique group of related optional items and the logic of their selection which is defined immediately following the table.

- ci conditional - the requirement on the capability ("m", "o" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression that is defined immediately following the table. For nested conditional expressions, the syntax **IF ... THEN (IF ... THEN ... ELSE...)** **ELSE ...** shall be used to avoid ambiguities. If an ELSE clause is omitted, **ELSE n/a** shall be implied.

#### NOTE

Support of a capability means that the capability is implemented in conformance to the [TTCN-3 core language](#).

### Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in [ISO/IEC 96467](#), are used for the support column:

- Y or y supported by the implementation.
- N or n not supported by the implementation.
- N/A or n/a or "no answer required" (allowed only if the status is N/A, directly or after evaluation of a conditional status).

### Values allowed column

This column contains the values or the ranges of values allowed.

### Values supported column

The support column shall be filled in by the supplier of the implementation. In this column the values or the ranges of values supported by the implementation shall be indicated.

### References to items

For each possible item answer (answer in the support column) within the ICS proforma, a unique reference exists. It is defined as the table identifier, followed by a slash character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.) respectively.

EXAMPLE: 5/4 is the reference to the answer of item 4 in Table 5.

## 4.2. Identification of the implementation

Identification of the Implementation under Test (IUT) and the system in which it resides - the System Under Test (SUT) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

#### 4.2.1. Date of the statement

Date of the statement:	2016.07.19
------------------------	------------

#### 4.2.2. Implementation under Test (IUT) identification

IUT name:	Eclipse Titan
IUT version:	CRL 113 200/5 R5B

#### 4.2.3. ICS contact person

Name:	Elemer Lelik
Telephone number:	
Facsimile number:	
E-mail address:	<a href="mailto:Elemer.Lelik@ericsson.com">Elemer.Lelik@ericsson.com</a>
Additional information:	

# Chapter 5. ICS proforma tables

## 5.1. Global statement of conformance

	(Yes/No)
Are all mandatory capabilities implemented?	

## 5.2. Mapping XML Schemas

Table 1. Mapping XML Schemas

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Neg_05_top_level_001	Verify that error is generated for missing XSD language tag in import clause	Clause 5	m	n

## 5.3. Namespaces

Table 2. Namespaces

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_050_101_namespaces_001	Verify that schema with target namespace is correctly translated into single module	Clause 5.1.1	m	y
2	Pos_050_101_namespaces_002	Verify schema with no target namespace is correctly translated into single module	Clause 5.1.1	m	y
3	Pos_050_101_namespaces_003	Verify that two schemas with the same target namespace are correctly translated	Clause 5.1.1	m	y
4	Pos_050_101_namespaces_004	Verify that two schemas with no target namespace are correctly translated	Clause 5.1.1	m	y

## 5.4. Includes

Table 3. Includes

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_050 102_includes_001	Test inclusion of a schema with the same namespace	Clause 5.1.2	m	y
2	Pos_050 102_includes_002	Verify that included schema with no target namespace is transformed twice (inclusion)	Clause 5.1.2	m	y
3	Pos_050 102_includes_003	Verify that included schema with no target namespace is transformed twice (no namespace)	Clause 5.1.2	m	y

## 5.5. Imports

Table 4. Imports

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Neg_050 103_imports_001	Verify that it is not allowed to import imports from XSD schemas	Clause 5.1.3	m	y
2	Pos_050 103_imports_001	Verify that XSD import statement is handled correctly	Clause 5.1.3	m	y

## 5.6. Attributes of the XSD schema element

Table 5. Attributes of the XSD schema element

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_001	Verify that qualified default element form is correctly processed (no namespace prefix)	Clause 5.1.4	m	y
2	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_002	Verify that qualified default element form is correctly processed (namespace prefix used)	Clause 5.1.4	m	y
3	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_003	Verify that unqualified default element form is correctly processed	Clause 5.1.4	m	y
4	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_004	Verify that qualified default attribute form is correctly processed (no namespace prefix)	Clause 5.1.4	m	y
5	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_005	Verify that qualified default attribute form is correctly processed (namespace prefix used)	Clause 5.1.4	m	y
6	Pos_050 104_attri butes_of _the_xsd _schema _elemen t_006	Verify that unqualified default attribute form is correctly processed	Clause 5.1.4	m	y

## 5.7. Name conversion rules

Table 6. Name conversion rules

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_050 202_name_conversion_rules_001	Verify conversion of symbols into U+005f (low line)	Clause 5.2.2	m	y
2	Pos_050 202_name_conversion_rules_002	Verify that non-ASCII letters are not present in transforming identifiers	Clause 5.2.2	m	y
3	Pos_050 202_name_conversion_rules_003	Verify that multiple "_" are simplified in transforming identifiers	Clause 5.2.2	m	y
4	Pos_050 202_name_conversion_rules_004	Verify that leading and trailing low lines are removed	Clause 5.2.2	m	y
5	Pos_050 202_name_conversion_rules_005	Verify that type names are capitalized	Clause 5.2.2	m	y
6	Pos_050 202_name_conversion_rules_006	Verify that prefixing type names with "X" works correctly	Clause 5.2.2	m	y
7	Pos_050 202_name_conversion_rules_007	Verify that names of field of structure types are uncapitalized	Clause 5.2.2	m	y



<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
8	Pos_050 202_na me_conv ersion_r ules_008	Verify that names of enumerated items are uncapitalized	Clause 5.2.2	m	y
9	Pos_050 202_na me_conv ersion_r ules_009	Verify that prefixing field names of structured types with "x" works correctly	Clause 5.2.2	m	y
10	Pos_050 202_na me_conv ersion_r ules_010	Verify that prefixing enumerated items with "x" works correctly	Clause 5.2.2	m	y
11	Pos_050 202_na me_conv ersion_r ules_011	Check transformation of empty type identifier into "X"	Clause 5.2.2	m	y
12	Pos_050 202_na me_conv ersion_r ules_012	Check transformation of empty structured field identifier into "x"	Clause 5.2.2	m	y
13	Pos_050 202_na me_conv ersion_r ules_013	Check transformation of empty enumerated value into "x"	Clause 5.2.2	m	y
14	Pos_050 202_na me_conv ersion_r ules_014	Verify that additional suffices are attached in case of name clashes between types	Clause 5.2.2	m	y
15	Pos_050 202_na me_conv ersion_r ules_015	Verify that suffix is attached in case of name clash between types and local module	Clause 5.2.2	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
16	Pos_050 202_na me_conv ersion_r ules_016	Verify that suffix is attached in case of name clash between types and imported module	Clause 5.2.2	m	y
17	Pos_050 202_na me_conv ersion_r ules_017	Verify that suffix is attached in case of name clash between field names	Clause 5.2.2	m	y
18	Pos_050 202_na me_conv ersion_r ules_018	Verify that suffix is attached in case of name clash between field name and keyword	Clause 5.2.2	m	y
19	Pos_050 202_na me_conv ersion_r ules_019	Verify that suffix is attached in case of name clash between field name and predefined function	Clause 5.2.2	m	y
20	Pos_050 202_na me_conv ersion_r ules_020	Verify that suffix is attached in case of name clash between enumerated items	Clause 5.2.2	m	y
21	Pos_050 202_na me_conv ersion_r ules_021	Verify that suffix is attached in case of name clash between enumerated item and keyword	Clause 5.2.2	m	y
22	Pos_050 202_na me_conv ersion_r ules_022	Verify that suffix is attached in case of name clash between enumerated item and predefined function	Clause 5.2.2	m	y
23	Pos_050 202_na me_conv ersion_r ules_023	Verify that name clash between module names is resolved using suffix	Clause 5.2.2	m	y

## 5.8. Order of the mapping

Table 7. Order of the mapping

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_050203_order_of_the_mapping_001	Verify order of top-level schema components	Clause 5.2.3	m	y
2	Pos_050203_order_of_the_mapping_002	Verify that alphabetical sorting is based on character ordinal numbers	Clause 5.2.3	m	y
3	Pos_050203_order_of_the_mapping_003	Verify that alphabetical sorting is done only inside sets of items	Clause 5.2.3	m	y
4	Pos_050203_order_of_the_mapping_004	Assure that namespaces are ordered lexically	Clause 5.2.3	m	y
5	Pos_050203_order_of_the_mapping_005	Assure that namespaces are ordered lexically	Clause 5.2.3	m	y

## 5.9. Built-in data types

Table 8. Built-in data types

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_06_top_level_001	Verify conversion of simpleType based on built-in XSD type	Clause 6	m	y

## 5.10. Length

Table 9. Length

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 101_leng th_001	Verify that a length-restricted XSD type shall be mapped to a corresponding length restricted TTCN-3 type.	Clause 6.1.1	m	y
2	Pos_060 101_leng th_001	Verify that a length-restricted XSD type shall be mapped to a corresponding length restricted TTCN-3 type.	Clause 6.1.1	m	y
3	Pos_060 101_leng th_002	Verify that a length-restricted XSD type shall be mapped to a corresponding length restricted TTCN-3 type.	Clause 6.1.1	m	y

## 5.11. Enumeration

Table 10. Enumeration

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 105_enu meratio n_001	Verify if tool rejects validation in case of restricted value due xsd type declaration.	Clause 6.1.5	m	y
2	Neg_060 105_enu meratio n_002	Verify if tool rejects validation in case of restricted enumerated value length due xsd type declaration.	Clause 6.1.5	m	y
3	Neg_060 105_enu meratio n_003	Verify if tool rejects validation in case of restricted value due xsd type declaration.	Clause 6.1.5	m	y
4	Neg_060 105_enu meratio n_004	Disallow enumeration values removed by restriction	Clause 6.1.5	m	y
5	Pos_060 105_enu meratio n_001	Verify mapping of simple type definition that is a restriction of string type with an enumeration facet	Clause 6.1.5	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
6	Pos_060 105_enu meratio n_002	Verify mapping of simple type definition that is a restriction of integer type with an enumeration facet	Clause 6.1.5	m	y
7	Pos_060 105_enu meratio n_003	Verify mapping of simple type definition that is a restriction of integer type with a minInclusive and a maxInclusive facet	Clause 6.1.5	m	y
8	Pos_060 105_enu meratio n_004	Verify mapping of simple type definition that is a restriction of another simple type of definition, derived by restriction from integer type with the addition of a minInclusive and a maxInclusive facet	Clause 6.1.5	m	y
9	Pos_060 105_enu meratio n_005	Verify mapping of simple type definition that is a restriction of another type definition, derived by restriction from string with the addition of an enumeration facet	Clause 6.1.5	m	y
10	Pos_060 105_enu meratio n_006	Verify mapping of simple type definition that is a restriction of another simple type definition, derived by restriction from string with the addition of an enumeration facet	Clause 6.1.5	m	y

## 5.12. MinInclusive

Table 11. MinInclusive

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 107_min inclusiv e_001	Verify mapping of an integer element with a minInclusive facet	Clause 6.1.7	m	y
2	Pos_060 107_min inclusiv e_002	Verify mapping of a float element with a numeric minInclusive value	Clause 6.1.7	m	y
3	Pos_060 107_min inclusiv e_003	Verify mapping of a float element with special minInclusive values	Clause 6.1.7	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
4	Pos_060 107_min inclusiv e_004	Verify mapping of a float element with special minInclusive values	Clause 6.1.7	m	y
5	Pos_060 107_min inclusiv e_005	Verify mapping of a float element with special minInclusive values	Clause 6.1.7	m	y

## 5.13. MaxInclusive

Table 12. MaxInclusive

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 108_max inclusiv e_001	Verify mapping of elements of type integer with maxInclusive facet	Clause 6.1.8	m	y
2	Pos_060 108_max inclusiv e_002	Verify mapping of a float type with a numeric maxInclusive facet	Clause 6.1.8	m	y
3	Pos_060 108_max inclusiv e_003	Verify mapping of a float type with a numeric maxInclusive facet	Clause 6.1.8	m	y
4	Pos_060 108_max inclusiv e_004	Verify mapping of a float type with a numeric maxInclusive facet	Clause 6.1.8	m	y

## 5.14. MinExclusive

Table 13. MinExclusive

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 109_min exclusiv e_001	Verify if tool rejects validation in case of restricted value due xsd type declaration.	Clause 6.1.9	m	y
2	Neg_060 109_min exclusiv e_002	Verify if tool rejects validation in case of restricted value due xsd type declaration.	Clause 6.1.9	m	y
3	Pos_060 109_min exclusiv e_001	Verify if tool accepts values restricted by xsd type declaration.	Clause 6.1.9	m	y
4	Pos_060 109_min exclusiv e_002	Verify if tool accepts values restricted by xsd type declaration.	Clause 6.1.9	m	y

## 5.15. MaxExclusive

Table 14. MaxExclusive

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 110_max exclusiv e_001	Verify that INF (negative infinity) or NaN (not-a-number), this type shall not be translated to TTCN-3	Clause 6.1.10	m	y
2	Pos_060 110_max exclusiv e_001	Verify mapping of a maxExclusive facet applied to a type, which is derivative of integer	Clause 6.1.10	m	y
3	Pos_060 110_max exclusiv e_002	Verify mapping of a maxExclusive facet applied to the float type	Clause 6.1.10	m	y
4	Pos_060 110_max exclusiv e_003	Verify mapping of a maxExclusive facet applied to the float type	Clause 6.1.10	m	y

## 5.16. Total digits

Table 15. Total digits

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 111_tota l_digits_ 001	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
2	Neg_060 111_tota l_digits_ 002	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
3	Neg_060 111_tota l_digits_ 003	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
4	Neg_060 111_tota l_digits_ 004	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
5	Pos_060 111_tota l_digits_ 001	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
6	Pos_060 111_tota l_digits_ 002	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
7	Pos_060 111_tota l_digits_ 003	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
8	Pos_060 111_tota l_digits_ 004	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y
9	Pos_060 111_tota l_digits_ 005	Check that totalDigits are converted to value boundaries	Clause 6.1.11	m	y



## 5.17. Fraction digits

Table 16. Fraction digits

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060112_fraction_digits_001	Check that floats having same accuracy as fractionDigits are converted correctly	Clause 6.1.12	m	y
2	Pos_060112_fraction_digits_002	Check that floats having higher accuracy than fractionDigits are converted correctly	Clause 6.1.12	m	y

## 5.18. Not specifically mapped facets

Table 17. Not specifically mapped facets

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060113_not_mapped_001	Handle not mapped facets to transparent	Clause 6.1.13	m	n

## 5.19. String

Table 18. String

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060201_string_001	Verify mapping of a string type	Clause 6.2.1	m	y

## 5.20. Name

Table 19. Name

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060204_name_001	Verify mapping of a Name type	Clause 6.2.4	m	y

## 5.21. Any URI

Table 20. Any URI

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Neg_060212_any_uri_001	Verify mapping of an anyURI type	Clause 6.2.12	m	y
2	Neg_060212_any_uri_002	Verify mapping of an anyURI type	Clause 6.2.12	m	y
3	Pos_060212_any_uri_001	Verify mapping of an anyURI type	Clause 6.2.12	m	y

## 5.22. Integer

Table 21. Integer

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060301_integer_001	Verify that the integer type shall be translated to TTCN-3 as a plain integer	Clause 6.3.1	m	y

## 5.23. Positive integer

Table 22. Positive integer

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060302_positive_integer_001	Verify that the integer type shall be translated to TTCN-3 as the range-restricted integer	Clause 6.3.2	m	y

## 5.24. Non-positive integer

Table 23. Non-positive integer

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060303_non_positive_integer_001	Verify that the non positive integer type shall be translated to TTCN-3 as the range-restricted integer	Clause 6.3.3	m	y

## 5.25. Negative integer

Table 24. Negative integer

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060304_negative_integer_001	Verify that the negative integer type shall be translated to TTCN-3 as the range-restricted integer	Clause 6.3.4	m	y

## 5.26. Non-negative integer

Table 25. Non-negative integer

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060305_non_negative_integer_001	Verify that the non negative integer type shall be translated to TTCN-3 as the range-restricted integer	Clause 6.3.5	m	y

## 5.27. Long

Table 26. Long

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 306_long _001	Verify that long type (64bit) shall be translated to TTCN-3 as a plain long	Clause 6.3.6	m	y

## 5.28. Unsigned long

Table 27. Unsigned long

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 307_unsi gned_lo ng_001	Verify that unsigned long type (64bit) shall be translated to TTCN-3 as a plain unsigned long	Clause 6.3.7	m	y

## 5.29. Int

Table 28. Int

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 308_int_ 001	Verify that int type (32 bit) shall be translated to TTCN-3 as a plain long as defined in clause 6.3.8 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3</a>	Clause 6.3.8	m	y

## 5.30. Unsigned int

Table 29. Unsigned int

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_060 309_unsi gned_int _001	Verify that unsigned int type (32 bit) shall be translated to TTCN-3 as a plain unsigned long as defined in clause 6.3.9 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3</a>	Clause 6.3.9	m	y

## 5.31. Short

Table 30. Short

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060310_short_001	Verify that short type (16 bit) shall be translated to TTCN-3 as a plain short as defined in clause 6.3.10 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS)</a> ; <a href="#">The Testing and Test Control Notation version 3</a> ; Part 9: Using XML schema with TTCN-3	Clause 6.3.10	m	y

## 5.32. Unsigned Short

Table 31. Unsigned Short

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060311_unsigned_short_001	Verify that unsigned short type (16 bit) shall be translated to TTCN-3 as a plain unsigned short as defined in clause 6.3.11 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS)</a> ; <a href="#">The Testing and Test Control Notation version 3</a> ; Part 9: Using XML schema with TTCN-3	Clause 6.3.11	m	y

## 5.33. Byte

Table 32. Byte

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060312_byte_001	Verify that byte type (8 bit) shall be translated to TTCN-3 as a plain byte as defined in clause 6.3.12 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS)</a> ; <a href="#">The Testing and Test Control Notation version 3</a> ; Part 9: Using XML schema with TTCN-3	Clause 6.3.12	m	y

## 5.34. Unsigned byte

Table 33. Unsigned byte

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060313_unsigned_byte_001	Verify that unsigned byte type (8 bit) shall be translated to TTCN-3 as a plain unsigned byte as defined in clause 6.3.13 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3</a>	Clause 6.3.13	m	y

## 5.35. Decimal

Table 34. Decimal

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060401_decimal_001	Verify that decimal type shall be translated to TTCN-3 as a plain float	Clause 6.4.1	m	y

## 5.36. Float

Table 35. Float

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060402_float_001	Verify conversion of XSD float type	Clause 6.4.2	m	y

## 5.37. Double

Table 36. Double

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_060403_double_001	Verify that double type shall be translated to TTCN-3 as an IEEE754double as defined in clause 6.4.3 of ETSI ES 201 873 9 <a href="#">Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3</a>	Clause 6.4.3	m	y

## 5.38. Date and time

Table 37. Date and time

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 502_date _and_ti me_001	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
2	Neg_060 502_date _and_ti me_002	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
3	Neg_060 502_date _and_ti me_003	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
4	Neg_060 502_date _and_ti me_004	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
5	Pos_060 502_date _and_ti me_001	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
6	Pos_060 502_date _and_ti me_002	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
7	Pos_060 502_date _and_ti me_003	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y
8	Pos_060 502_date _and_ti me_004	Verify that the dateTime type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.2	m	y

## 5.39. Date

Table 38. Date

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 504_date _001	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
2	Neg_060 504_date _002	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
3	Neg_060 504_date _003	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
4	Neg_060 504_date _004	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
5	Pos_060 504_date _001	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
6	Pos_060 504_date _002	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
7	Pos_060 504_date _003	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y
8	Pos_060 504_date _004	Verify that the date type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.4	m	y

## 5.40. Gregorian year and month

Table 39. Gregorian year and month

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_060 505_greg orian_ye ar_and_ month_0 01	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y



<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
2	Neg_060 505_greg orian_ye ar_and_ month_0 02	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y
3	Neg_060 505_greg orian_ye ar_and_ month_0 03	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y
4	Neg_060 505_greg orian_ye ar_and_ month_0 04	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y
5	Pos_060 505_greg orian_ye ar_and_ month_0 01	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y
6	Pos_060 505_greg orian_ye ar_and_ month_0 02	Verify that the gYearMonth type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.5	m	y

## 5.41. Gregorian year

Table 40. Gregorian year

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Neg_06 0506_g regoria n_year _001	Verify that the gYear type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.6	m	y
2	Pos_06 0506_g regoria n_year _001	Verify that the gYear type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.6	m	y
3	Pos_06 0506_g regoria n_year _002	Verify that the gYear type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.6	m	y
4	Pos_06 0506_g regoria n_year _003	Verify that the gYear allows year 0	Clause 6.5.6	m	y
5	Pos_06 0506_g regoria n_year _004	Verify that the gYear type shall be translated to TTCN-3 using the pattern-restricted charstring	Clause 6.5.6	m	y
6	Pos_06 0506_g regoria n_year _005	Verify that the gYear accepts negative years	Clause 6.5.6	m	y
7	Pos_06 0506_g regoria n_year _006	Verify that the gYear allows negative year with more than 4 digits	Clause 6.5.6	m	y

## 5.42. Boolean type

Table 41. Boolean type

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_0607_boolean_type_001	Verify that the XSD boolean type shall be mapped to the TTCN-3 boolean type	Clause 6.7	m	y
2	Pos_0607_boolean_type_002	Verify that the XSD boolean type shall be mapped to the TTCN-3 boolean type	Clause 6.7	m	y

## 5.43. AnyType and anySimpleType types

Table 42. AnyType and anySimpleType types

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_0608_anytype_and_anysimpletype_types_001	Verify conversion of anySimpleType	Clause 6.8	m	y
2	Pos_0608_anytype_and_anysimpletype_types_002	Verify conversion of anyType	Clause 6.8	m	y

## 5.44. Id

Table 43. Id

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_070101_id_001	Verify conversion of id attribute of global element	Clause 7.1.1	m	n

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
2	Pos_070101_id_002	verify conversion of id attribute of local element	Clause 7.1.1	m	n

## 5.45. MinOccurs and maxOccurs

Table 44. MinOccurs and maxOccurs

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Neg_070104_minOccurs_and_maxOccurs_001	a list with minOccurs 0 should not be mapped optional in TTCN-3	Clause 7.1.4	m	y
2	Neg_070104_minOccurs_and_maxOccurs_002	A restricted length list [5, 10] should not allow less than 5 elements	Clause 7.1.4	m	y
3	Neg_070104_minOccurs_and_maxOccurs_003	A restricted length list [5, 10] should not allow more than 10 elements	Clause 7.1.4	m	y
4	Pos_070104_minOccurs_and_maxOccurs_001	Optional field defined by minOccurs has to be mapped as optional in TTCN-3	Clause 7.1.4	m	y
5	Pos_070104_minOccurs_and_maxOccurs_002	Optional field defined by minOccurs has to exist in TTCN-3 and match the value	Clause 7.1.4	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
6	Pos_070 104_min occurs_a nd_max occurs_0 03	a list with minOccurs 0 should allow zero elements	Clause 7.1.4	m	y
7	Pos_070 104_min occurs_a nd_max occurs_0 04	A restricted length list (0, unbounded) should allow elements	Clause 7.1.4	m	y
8	Pos_070 104_min occurs_a nd_max occurs_0 05	A restricted length list [5, 10] should allow 5 elements	Clause 7.1.4	m	y
9	Pos_070 104_min occurs_a nd_max occurs_0 06	A restricted length list [5, 10] should allow 10 elements	Clause 7.1.4	m	y
10	Pos_070 104_min occurs_a nd_max occurs_0 07	A restricted length list [5, 10] should allow 7 elements	Clause 7.1.4	m	y

## 5.46. Default and Fixed

*Table 45. Default and Fixed*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_070 105_defa ult_and_ fixed_00 1	Verify constraint of type based on XSD definition with fixed attribute	Clause 7.1.5	m	y
2	Pos_070 105_defa ult_and_ fixed_00 1	Verify conversion of fixed attribute	Clause 7.1.5	m	y
3	Pos_070 105_defa ult_and_ fixed_00 2	Verify conversion of default attribute	Clause 7.1.5	m	y
4	Pos_070 105_defa ult_and_ fixed_00 3	Verify that default value is automatically assigned to empty element by decoder	Clause 7.1.5	m	y
5	Pos_070 105_defa ult_and_ fixed_00 4	Verify that fixed value is automatically assigned to empty element by decoder	Clause 7.1.5	m	y

## 5.47. Form

Table 46. Form

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_070 106_for m_001	check correct namespace prefix encoding for elementFormDefault	Clause 7.1.6	m	n
2	Neg_070 106_for m_002	check correct namespace prefix encoding for elementFormDefault	Clause 7.1.6	m	n

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
3	Neg_070 106_for m_003	check correct namespace prefix encoding for attributeFormDefault	Clause 7.1.6	m	n
4	Neg_070 106_for m_004	check correct namespace prefix encoding for attributeFormDefault	Clause 7.1.6	m	n
5	Pos_070 106_for m_001	Verify that unqualified attribute form is correctly converted (unqualified attributeFormDefault)	Clause 7.1.6	m	y
6	Pos_070 106_for m_002	Verify that unqualified attribute form is correctly converted (qualified attributeFormDefault)	Clause 7.1.6	m	y
7	Pos_070 106_for m_003	Verify that qualified attribute form is correctly converted (unqualified attributeFormDefault)	Clause 7.1.6	m	y
8	Pos_070 106_for m_004	Verify that qualified attribute form is correctly converted (qualified attributeFormDefault)	Clause 7.1.6	m	y
9	Pos_070 106_for m_005	Verify that unqualified element form is correctly converted (unqualified elementFormDefault)	Clause 7.1.6	m	y
10	Pos_070 106_for m_006	Verify that unqualified element form is correctly converted (qualified elementFormDefault)	Clause 7.1.6	m	y
11	Pos_070 106_for m_007	Verify that qualified element form is correctly converted (unqualified elementFormDefault)	Clause 7.1.6	m	y
12	Pos_070 106_for m_008	Verify that qualified element form is correctly converted (qualified elementFormDefault)	Clause 7.1.6	m	y
13	Pos_070 106_for m_009	check correct namespace prefix encoding for elementFormDefault	Clause 7.1.6	m	y
14	Pos_070 106_for m_010	check correct namespace prefix encoding for elementFormDefault	Clause 7.1.6	m	y
15	Pos_070 106_for m_011	check correct namespace prefix encoding for attributeFormDefault	Clause 7.1.6	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
16	Pos_070 106_for m_012	check correct namespace prefix encoding for attributeFormDefault	Clause 7.1.6	m	y

## 5.48. Type

Table 47. Type

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 107_type _001	Verify conversion of type attribute referencing global simpleType	Clause 7.1.7	m	y
2	Pos_070 107_type _002	Verify conversion of type attribute referencing global complexType	Clause 7.1.7	m	y
3	Pos_070 107_type _003	Verify conversion of type attribute referencing built-in type	Clause 7.1.7	m	y

## 5.49. Use

Table 48. Use

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_070 112_use_ 001	Verify that attribute with required use cannot be omitted	Clause 7.1.12	m	y
2	Pos_070 112_use_ 001	Verify that attribute with required use is correctly converted	Clause 7.1.12	m	y
3	Pos_070 112_use_ 002	Verify that attribute with optional use is correctly converted	Clause 7.1.12	m	y
4	Pos_070 112_use_ 003	Verify that attribute with prohibited use is not converted	Clause 7.1.12	m	y



## 5.50. Final

Table 49. Final

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_070114_final_001	Verify conversion of elements with final attribute	Clause 7.1.14	m	y

## 5.51. Element component

Table 50. Element component

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_0703_element_component_001	Verify conversion of global element of simple type	Clause 7.3	m	y
2	Pos_0703_element_component_002	Verify conversion of global element of user defined type	Clause 7.3	m	y
3	Pos_0703_element_component_003	Verify conversion of global element of locally defined complex type	Clause 7.3	m	y
4	Pos_0703_element_component_004	Verify conversion of local elements defined by reference with different namespace	Clause 7.3	m	y

## 5.52. Attribute element definitions

Table 51. Attribute element definitions

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 401_attri bute_ele ment_de finitions _001	Verify mapping of a globally defined attribute	Clause 7.4.1	m	y

## 5.53. Attribute group definitions

*Table 52. Attribute group definitions*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 402_attri bute_gro up_defin itions_00 1	Verify mapping of a globally defined attribute group	Clause 7.4.2	m	y

## 5.54. Derivation by restriction

*Table 53. Derivation by restriction*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 501_deri vation_b y_restric tion_001	Verify that it is possible to convert anonymously	Clause 7.5.1	m	y

## 5.55. Derivation by list

*Table 54. Derivation by list*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_070 502_derivation_b y_list_00 1	Verify length constraint imposed on type derived by list	Clause 7.5.2	m	y
2	Neg_070 502_derivation_b y_list_00 2	Verify constraint imposed on inner type defined inside XSD list	Clause 7.5.2	m	y
3	Pos_070 502_derivation_b y_list_00 1	Verify that derivation by list is converted to record of	Clause 7.5.2	m	y
4	Pos_070 502_derivation_b y_list_00 2	Verify mapping of facets connected applied to derivation by list	Clause 7.5.2	m	y
5	Pos_070 502_derivation_b y_list_00 3	Verify conversion of facets defined inside XSD list	Clause 7.5.2	m	y
6	Pos_070 502_derivation_b y_list_00 4	Verify transformation of derivation by list with enumerated facets inside	Clause 7.5.2	m	y
7	Pos_070 502_derivation_b y_list_00 5	Verify transformation of list containing union content	Clause 7.5.2	m	y

## 5.56. Derivation by union

Table 55. Derivation by union

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_070503_derivation_by_union_001	Verify transformation of union with memberTypes attribute	Clause 7.5.3	m	y
2	Pos_070503_derivation_by_union_002	Verify transformation of union with unnamed member types	Clause 7.5.3	m	y
3	Pos_070503_derivation_by_union_003	Verify transformation of union with memberTypes attribute and unnamed member types	Clause 7.5.3	m	y
4	Pos_070503_derivation_by_union_004	Verify transformation of union with memberTypes attribute and unnamed enumeration	Clause 7.5.3	m	y
5	Pos_070503_derivation_by_union_005	Verify transformation of union content containing enumeration facets	Clause 7.5.3	m	y
6	Pos_070503_derivation_by_union_006	Verify transformation of union containing list content	Clause 7.5.3	m	y

## 5.57. Extending simple content

Table 56. Extending simple content

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60101_e xtending _simple_ content_ 001	Verify extension of a built-in type by adding an attribute	Clause 7.6.1.1	m	y

## 5.58. Restricting simple content

*Table 57. Restricting simple content*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_070 60102_re stricting _simple_ content_ 001	Verify restriction of a base type	Clause 7.6.1.2	m	y
2	Pos_070 60102_re stricting _simple_ content_ 001	Verify restriction of a base type	Clause 7.6.1.2	m	y

## 5.59. Complex content derived by extension

*Table 58. Complex content derived by extension*

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60201_d erived_b y_extens ion_001	Verify mapping of complex type where both the base and the extending types have the compositor sequence	Clause 7.6.2.1	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
2	Pos_070 60201_d erived_b y_extens ion_002	Verify mapping of complex type where both the base and the extending types have the compositor sequence and multiple occurrences are allowed	Clause 7.6.2.1	m	y
3	Pos_070 60201_d erived_b y_extens ion_003	Verify mapping of complex type where both the base and the extending types have the compositor sequence and multiple occurrences are allowed	Clause 7.6.2.1	m	y
4	Pos_070 60201_d erived_b y_extens ion_004	Verify mapping of complex type where both the base and the extending types have the compositor sequence and multiple occurrences are allowed	Clause 7.6.2.1	m	y
5	Pos_070 60201_d erived_b y_extens ion_005	Verify mapping of complex type where both the base and the extending types have the compositor sequence and multiple occurrences are allowed	Clause 7.6.2.1	m	y
6	Pos_070 60201_d erived_b y_extens ion_006	Verify mapping of complex type where both the base and the extending types have the compositor choice	Clause 7.6.2.1	m	y
7	Pos_070 60201_d erived_b y_extens ion_007	Verify mapping of complex type where extension of a sequence base type by a choice model group	Clause 7.6.2.1	m	y
8	Pos_070 60201_d erived_b y_extens ion_008	Verify mapping of complex type: extending of a base type with choice model group by a sequence model group	Clause 7.6.2.1	m	y
9	Pos_070 60201_d erived_b y_extens ion_009	Verify mapping of complex type: Recursive extension of an anonymous inner type is realized using the TTCN-3 dot notation (starts from the name of the outmost type)	Clause 7.6.2.1	m	y

## 5.60. Complex content derived by restriction

Table 59. Complex content derived by restriction

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060202_derived_by_restriction_001	Verify mapping of complex content derived by restriction	Clause 7.6.2.2	m	y

## 5.61. Referencing group components

Table 60. Referencing group components

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_070603_referencing_group_components_001	Verify conversion of group reference occurring as child of complex type (sequence, one occurrence)	Clause 7.6.3	m	y
2	Pos_070603_referencing_group_components_002	Verify conversion of group reference occurring inside sequence	Clause 7.6.3	m	y
3	Pos_070603_referencing_group_components_003	Verify conversion of group reference occurring as child of complex type (sequence, optional occurrence)	Clause 7.6.3	m	y

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
4	Pos_070_603_referencing_group_components_004	Verify conversion of group reference occurring as child of complex type (sequence, 0..N)	Clause 7.6.3	m	y
5	Pos_070_603_referencing_group_components_005	Verify conversion of group reference occurring as child of complex type (all, one occurrence)	Clause 7.6.3	m	y
6	Pos_070_603_referencing_group_components_006	Verify conversion of group reference occurring as child of complex type (all, 0..1)	Clause 7.6.3	m	y
7	Pos_070_603_referencing_group_components_007	Verify conversion of group reference occurring as child of complex type (choice, one occurrence)	Clause 7.6.3	m	y
8	Pos_070_603_referencing_group_components_008	Verify conversion of group reference occurring as child of complex type (choice, 0..1)	Clause 7.6.3	m	y
9	Pos_070_603_referencing_group_components_009	Verify conversion of group reference occurring as child of complex type (choice, 0..N)	Clause 7.6.3	m	y



<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
10	Pos_070 603_refe rencing_ group_c ompone nts_010	Verify conversion of group reference occurring inside choice	Clause 7.6.3	m	y

## 5.62. All content

Table 61. All content

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Su pp ort</b>
1	Pos_070 604_all_ content_ 001	Verify conversion of all content containing mandatory fields	Clause 7.6.4	m	y
2	Pos_070 604_all_ content_ 002	Verify conversion of all content with minOccurs="0"	Clause 7.6.4	m	y
3	Pos_070 604_all_ content_ 003	Verify transformation of elements with minOccurs attribute occurring inside all content	Clause 7.6.4	m	y
4	Pos_070 604_all_ content_ 004	Verify transformation of all content containing attributes	Clause 7.6.4	m	y

## 5.63. Choice content

Table 62. Choice content

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 605_top_ level_00 1	Verify that choice content with minOccurs different than 1 is correctly transformed	Clause 7.6.5	m	y

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
2	Pos_070605_top_level_002	Verify that choice content with maxOccurs larger than 1 is correctly transformed	Clause 7.6.5	m	y

## 5.64. Choice with nested elements

Table 63. Choice with nested elements

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_07060501_choice_with_nested_elements_001	Verify that choice content with nested elements is correctly transformed	Clause 7.6.5.1	m	y

## 5.65. Choice with nested group

Table 64. Choice with nested group

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_07060502_choice_with_nested_group_001	Verify that choice content with nested group is correctly transformed	Clause 7.6.5.2	m	y

## 5.66. Choice with nested choice

Table 65. Choice with nested choice

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_07060503_choice_with_nested_choice_001	Verify that choice content with nested choice is correctly transformed	Clause 7.6.5.3	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60503_c hoice_wi th_neste d_choice _001	Verify that choice content with nested choice is correctly transformed	Clause 7.6.5.3	m	y

## 5.67. Choice with nested sequence

Table 66. Choice with nested sequence

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60504_c hoice_wi th_neste d_seque nce_001	Verify that choice content with nested sequence is correctly transformed	Clause 7.6.5.4	m	y
2	Pos_070 60504_c hoice_wi th_neste d_seque nce_002	Verify that choice content with multiple nested sequences is correctly transformed	Clause 7.6.5.4	m	y

## 5.68. Choice with nested any

Table 67. Choice with nested any

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60505_c hoice_wi th_neste d_any_0 01	Verify that choice content with nested any is correctly transformed	Clause 7.6.5.5	m	y

## 5.69. Sequence with nested element content

Table 68. Sequence with nested element content

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060601_sequence_with_nested_element_001	Verify that sequence content with nested elements is correctly transformed	Clause 7.6.6.1	m	y

## 5.70. Sequence with nested group content

Table 69. Sequence with nested group content

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060602_sequence_with_nested_group_001	Verify that sequence content with group reference is correctly transformed	Clause 7.6.6.2	m	y

## 5.71. Sequence with nested choice content

Table 70. Sequence with nested choice content

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060603_sequence_with_nested_choice_001	Verify that sequence content with nested choice is correctly transformed	Clause 7.6.6.3	m	y

## 5.72. Sequence with nested sequence content

Table 71. Sequence with nested sequence content

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060604_sequence_with_nested_sequence_001	Verify that sequence content with sequence is correctly transformed	Clause 7.6.6.4	m	y
2	Pos_07060604_sequence_with_nested_sequence_002	Verify that sequence content with various nested particles is correctly transformed	Clause 7.6.6.4	m	y

## 5.73. Sequence with nested any content

Table 72. Sequence with nested any content

Item	TC/TP reference	Purpose	Reference in ETSI ES 201 8739	Status	Support
1	Pos_07060605_sequence_with_nested_any_content_001	Verify that sequence content with nested any content is correctly transformed	Clause 7.6.6.5	m	y

## 5.74. Effect of the minOccurs and maxOccurs attributes on the mapping

Table 73. Effect of the minOccurs and maxOccurs attributes on the mapping

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in <a href="#">ETSI ES 201 8739</a></b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 60606_ef fect_of_ minoccu rs_and_ maxocc urs_001	Verify that sequences with minOccurs=0 are correctly converted to optional fields	Clause 7.6.6.6	m	y
2	Pos_070 60606_ef fect_of_ minoccu rs_and_ maxocc urs_002	Verify that nested sequences are correctly converted to optional fields	Clause 7.6.6.6	m	y
3	Pos_070 60606_ef fect_of_ minoccu rs_and_ maxocc urs_003	Verify that sequences with minOccurs=unbounded are correctly converted to record of fields	Clause 7.6.6.6	m	y
4	Pos_070 60606_ef fect_of_ minoccu rs_and_ maxocc urs_004	Verify that nested sequences are correctly converted to record of fields	Clause 7.6.6.6	m	y

## 5.75. Attribute definitions, attribute and attributeGroup references

*Table 74. Attribute definitions, attribute and attributeGroup references*

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_070607_attribute_definitions_attribute_and_attributegroup_references_001	Verify referencing an attributeGroup in a complexType	Clause 7.6.7	m	y
2	Pos_070607_attribute_definitions_attribute_and_attributegroup_references_002	Verify mapping of a local attributes, attribute references and attribute group references without a target namespace	Clause 7.6.7	m	y
3	Pos_070607_attribute_definitions_attribute_and_attributegroup_references_003	Verify mapping of a local attributes, attribute references and attribute group references with a target namespace	Clause 7.6.7	m	y

## 5.76. Mixed content

Table 75. Mixed content

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_070608_mixed_content_001	Verify transformation of complex type with sequence constructor and mixed content type	Clause 7.6.8	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
2	Pos_070 608_mix ed_conte nt_002	Verify transformation of complex type definition with sequence constructor of multiple occurrences and mixed content type	Clause 7.6.8	m	n
3	Pos_070 608_mix ed_conte nt_003	Verify transformation of complex type definition with all constructor and mixed content type	Clause 7.6.8	m	y
4	Pos_070 608_mix ed_conte nt_004	Verify transformation of complex type definition with all constructor, optional elements and mixed content type	Clause 7.6.8	m	n
5	Pos_070 608_mix ed_conte nt_005	Verify transformation of complex type definition with all constructor, optional elements and mixed content type	Clause 7.6.8	m	y

## 5.77. The any element

Table 76. The any element

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_070 701_the_ any_ele ment_00 1	Verify conversion of the any element without namespace attribute	Clause 7.7.1	m	y
2	Pos_070 701_the_ any_ele ment_00 2	Verify conversion of the any element with ##any namespace	Clause 7.7.1	m	y
3	Pos_070 701_the_ any_ele ment_00 3	Verify conversion of the any element with ##local namespace	Clause 7.7.1	m	y



<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
4	Pos_070701_the_any_element_004	Verify conversion of the any element with ##other namespace	Clause 7.7.1	m	y
5	Pos_070701_the_any_element_005	Verify conversion of the any element with ##targetNamespace namespace	Clause 7.7.1	m	y
6	Pos_070701_the_any_element_006	Verify conversion of the any element with URL as namespace into record of	Clause 7.7.1	m	y

## 5.78. The anyAttribute element

Table 77. The anyAttribute element

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_070702_the_anyattribute_element_001	Verify conversion of anyAttribute element	Clause 7.7.2	m	y
2	Pos_070702_the_anyattribute_element_002	Verify that anyAttribute is converted into optional field	Clause 7.7.2	m	y
3	Pos_070702_the_anyattribute_element_003	Verify that the naming rules apply to converted anyAttribute field	Clause 7.7.2	m	y

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
4	Pos_070702_the_anyattribute_element_004	Verify that conversion of anyAttribute present both in extended type and extension base	Clause 7.7.2	m	y
5	Pos_070702_the_anyattribute_element_005	Verify that converted anyAttribute field is in correct place	Clause 7.7.2	m	y

## 5.79. Annotation

Table 78. Annotation

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_0708_annotation_001	Verify that XSD annotation can be processed	Clause 7.8	m	y

## 5.80. Group components

Table 79. Group components

<b>Item</b>	<b>TC/TP reference</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Status</b>	<b>Support</b>
1	Pos_0709_group_components_001	Verify conversion of group definition with sequence compositor	Clause 7.9	m	y
2	Pos_0709_group_components_002	Verify transformation of group definition with sequence compositor	Clause 7.9	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
3	Pos_070 9_group _compo nents_00 3	Verify conversion of group definition with all compositor	Clause 7.9	m	y

## 5.81. Identity-constraint definition schema components

Table 80. Identity-constraint definition schema components

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_071 0_identi ty_constr aint_defi nition_sc hema_co mponen ts_001	Verify that unique elements (and nested selector and field) are ignored during conversion	Clause 7.10	m	y
2	Pos_071 0_identi ty_constr aint_defi nition_sc hema_co mponen ts_002	Verify that key elements (and nested selector and field) are ignored during conversion	Clause 7.10	m	y
3	Pos_071 0_identi ty_constr aint_defi nition_sc hema_co mponen ts_003	Verify that keyRef elements (and nested selector and field) are ignored during conversion	Clause 7.10	m	y

## 5.82. Head elements of substitution groups

Table 81. Head elements of substitution groups

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Pos_080 101_hea d_eleme nts_of_s ubstituti on_grou ps_001	Generic substitution group example	Clause 8.1.1	m	y
2	Pos_080 101_hea d_eleme nts_of_s ubstituti on_grou ps_002	Show effect of the block and abstract attributes on element substitution	Clause 8.1.1	m	y
3	Neg_080 101_hea d_eleme nts_of_s ubstituti on_grou ps_002	Show effect of the block and abstract attributes on element substitution	Clause 8.1.1	m	y
4	Pos_080 101_hea d_eleme nts_of_s ubstituti on_grou ps_003	Blocking substitution	Clause 8.1.1	m	y
5	Neg_080 101_hea d_eleme nts_of_s ubstituti on_grou ps_003	Blocking substitution	Clause 8.1.1	m	y

## 5.83. TTCN-3 module XSD

Table 82. TTCN-3 module XSD

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
1	Neg_A_tt cn3_mo dule_xsd _001	Ensure the builtin XSD type AnySimpleType allows only valid values	Annex A	m	y
2	Neg_A_tt cn3_mo dule_xsd _002	Ensure the builtin XSD type AnyType allows only valid values	Annex A	m	y
3	Neg_A_tt cn3_mo dule_xsd _003	Ensure the builtin XSD type String allows only valid values	Annex A	m	y
4	Neg_A_tt cn3_mo dule_xsd _004	Ensure the builtin XSD type NormalizedString allows only valid values	Annex A	m	y
5	Neg_A_tt cn3_mo dule_xsd _005	Ensure the builtin XSD type Token allows only valid values	Annex A	m	y
6	Neg_A_tt cn3_mo dule_xsd _006	Ensure the builtin XSD type Name allows only valid values	Annex A	m	y
7	Neg_A_tt cn3_mo dule_xsd _007	Ensure the builtin XSD type NMTOKEN allows only valid values	Annex A	m	y
8	Neg_A_tt cn3_mo dule_xsd _008	Ensure the builtin XSD type NCName allows only valid values	Annex A	m	y
9	Neg_A_tt cn3_mo dule_xsd _009	Ensure the builtin XSD type ID allows only valid values	Annex A	m	y
10	Neg_A_tt cn3_mo dule_xsd _010	Ensure the builtin XSD type IDREF allows only valid values	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
11	Neg_A_tt cn3_mo dule_xsd _011	Ensure the builtin XSD type ENTITY allows only valid values	Annex A	m	y
12	Neg_A_tt cn3_mo dule_xsd _012	Ensure the builtin XSD type HexBinary allows only valid values	Annex A	m	y
13	Neg_A_tt cn3_mo dule_xsd _013	Ensure the builtin XSD type Base64Binary allows only valid values	Annex A	m	y
14	Neg_A_tt cn3_mo dule_xsd _014	Ensure the builtin XSD type AnyURI allows only valid values	Annex A	m	y
15	Neg_A_tt cn3_mo dule_xsd _015	Ensure the builtin XSD type Language allows only valid values	Annex A	m	y
16	Neg_A_tt cn3_mo dule_xsd _016	Ensure the builtin XSD type Integer allows only valid values	Annex A	m	y
17	Neg_A_tt cn3_mo dule_xsd _017	Ensure the builtin XSD type PositiveInteger allows only valid values	Annex A	m	y
18	Neg_A_tt cn3_mo dule_xsd _018	Ensure the builtin XSD type NonPositiveInteger allows only valid values	Annex A	m	y
19	Neg_A_tt cn3_mo dule_xsd _019	Ensure the builtin XSD type NegativeInteger allows only valid values	Annex A	m	y
20	Neg_A_tt cn3_mo dule_xsd _020	Ensure the builtin XSD type NonNegativeInteger allows only valid values	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
21	Neg_A_tt cn3_mo dule_xsd _021	Ensure the builtin XSD type Long allows only valid values	Annex A	m	y
22	Neg_A_tt cn3_mo dule_xsd _022	Ensure the builtin XSD type UnsignedLong allows only valid values	Annex A	m	y
23	Neg_A_tt cn3_mo dule_xsd _023	Ensure the builtin XSD type Int allows only valid values	Annex A	m	y
24	Neg_A_tt cn3_mo dule_xsd _024	Ensure the builtin XSD type UnsignedInt allows only valid values	Annex A	m	y
25	Neg_A_tt cn3_mo dule_xsd _025	Ensure the builtin XSD type Short allows only valid values	Annex A	m	y
26	Neg_A_tt cn3_mo dule_xsd _026	Ensure the builtin XSD type UnsignedShort allows only valid values	Annex A	m	y
27	Neg_A_tt cn3_mo dule_xsd _027	Ensure the builtin XSD type Byte allows only valid values	Annex A	m	y
28	Neg_A_tt cn3_mo dule_xsd _028	Ensure the builtin XSD type UnsignedByte allows only valid values	Annex A	m	y
29	Neg_A_tt cn3_mo dule_xsd _029	Ensure the builtin XSD type Decimal allows only valid values	Annex A	m	y
30	Neg_A_tt cn3_mo dule_xsd _030	Ensure the builtin XSD type Float allows only valid values	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
31	Neg_A_tt cn3_mo dule_xsd _031	Ensure the builtin XSD type Double allows only valid values	Annex A	m	y
32	Neg_A_tt cn3_mo dule_xsd _032	Ensure the builtin XSD type Duration allows only valid values	Annex A	m	y
33	Neg_A_tt cn3_mo dule_xsd _033	Ensure the builtin XSD type DateTime allows only valid values	Annex A	m	y
34	Neg_A_tt cn3_mo dule_xsd _034	Ensure the builtin XSD type Time allows only valid values	Annex A	m	y
35	Neg_A_tt cn3_mo dule_xsd _035	Ensure the builtin XSD type Date allows only valid values	Annex A	m	y
36	Neg_A_tt cn3_mo dule_xsd _036	Ensure the builtin XSD type GYearMonth allows only valid values	Annex A	m	y
37	Neg_A_tt cn3_mo dule_xsd _037	Ensure the builtin XSD type GYear allows only valid values	Annex A	m	y
38	Neg_A_tt cn3_mo dule_xsd _038	Ensure the builtin XSD type GMonthDay allows only valid values	Annex A	m	y
39	Neg_A_tt cn3_mo dule_xsd _039	Ensure the builtin XSD type GDay allows only valid values	Annex A	m	y
40	Neg_A_tt cn3_mo dule_xsd _040	Ensure the builtin XSD type GMonth allows only valid values	Annex A	m	y



<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
41	Neg_A_tt cn3_mo dule_xsd _041	Ensure the builtin XSD type NMTOKENS allows only valid values	Annex A	m	y
42	Neg_A_tt cn3_mo dule_xsd _042	Ensure the builtin XSD type IDREFS allows only valid values	Annex A	m	y
43	Neg_A_tt cn3_mo dule_xsd _043	Ensure the builtin XSD type ENTITIES allows only valid values	Annex A	m	y
44	Neg_A_tt cn3_mo dule_xsd _044	Ensure the builtin XSD type QName allows only valid values	Annex A	m	y
45	Neg_A_tt cn3_mo dule_xsd _045	Ensure the builtin XSD type Boolean allows only valid values	Annex A	m	y
46	Neg_A_tt cn3_mo dule_xsd _046	Ensure the builtin XSD type XMLCompatibleString allows only valid values	Annex A	m	y
47	Neg_A_tt cn3_mo dule_xsd _047	Ensure the builtin XSD type XMLStringWithNoWhitespace allows only valid values	Annex A	m	y
48	Neg_A_tt cn3_mo dule_xsd _048	Ensure the builtin XSD type XMLStringWithNoCRLFHT allows only valid values	Annex A	m	y
49	Pos_A_tt cn3_mo dule_xsd _001	Ensure the module XSD is available and contains the builtin XSD type AnySimpleType	Annex A	m	y
50	Pos_A_tt cn3_mo dule_xsd _002	Ensure the module XSD is available and contains the builtin XSD type AnyType	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
51	Pos_A_tt cn3_mo dule_xsd _003	Ensure the module XSD is available and contains the builtin XSD type String	Annex A	m	y
52	Pos_A_tt cn3_mo dule_xsd _004	Ensure the module XSD is available and contains the builtin XSD type NormalizedString	Annex A	m	y
53	Pos_A_tt cn3_mo dule_xsd _005	Ensure the module XSD is available and contains the builtin XSD type Token	Annex A	m	y
54	Pos_A_tt cn3_mo dule_xsd _006	Ensure the module XSD is available and contains the builtin XSD type Name	Annex A	m	y
55	Pos_A_tt cn3_mo dule_xsd _007	Ensure the module XSD is available and contains the builtin XSD type NMTOKEN	Annex A	m	y
56	Pos_A_tt cn3_mo dule_xsd _008	Ensure the module XSD is available and contains the builtin XSD type NCName	Annex A	m	y
57	Pos_A_tt cn3_mo dule_xsd _009	Ensure the module XSD is available and contains the builtin XSD type ID	Annex A	m	y
58	Pos_A_tt cn3_mo dule_xsd _010	Ensure the module XSD is available and contains the builtin XSD type IDREF	Annex A	m	y
59	Pos_A_tt cn3_mo dule_xsd _011	Ensure the module XSD is available and contains the builtin XSD type ENTITY	Annex A	m	y
60	Pos_A_tt cn3_mo dule_xsd _012	Ensure the module XSD is available and contains the builtin XSD type HexBinary	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
61	Pos_A_tt cn3_mo dule_xsd _013	Ensure the module XSD is available and contains the builtin XSD type Base64Binary	Annex A	m	y
62	Pos_A_tt cn3_mo dule_xsd _014	Ensure the module XSD is available and contains the builtin XSD type AnyURI	Annex A	m	y
63	Pos_A_tt cn3_mo dule_xsd _015	Ensure the module XSD is available and contains the builtin XSD type Language	Annex A	m	y
64	Pos_A_tt cn3_mo dule_xsd _016	Ensure the module XSD is available and contains the builtin XSD type Integer	Annex A	m	y
65	Pos_A_tt cn3_mo dule_xsd _017	Ensure the module XSD is available and contains the builtin XSD type PositiveInteger	Annex A	m	y
66	Pos_A_tt cn3_mo dule_xsd _018	Ensure the module XSD is available and contains the builtin XSD type NonPositiveInteger	Annex A	m	y
67	Pos_A_tt cn3_mo dule_xsd _019	Ensure the module XSD is available and contains the builtin XSD type NegativeInteger	Annex A	m	y
68	Pos_A_tt cn3_mo dule_xsd _020	Ensure the module XSD is available and contains the builtin XSD type NonNegativeInteger	Annex A	m	y
69	Pos_A_tt cn3_mo dule_xsd _021	Ensure the module XSD is available and contains the builtin XSD type Long	Annex A	m	y
70	Pos_A_tt cn3_mo dule_xsd _022	Ensure the module XSD is available and contains the builtin XSD type UnsignedLong	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
71	Pos_A_tt cn3_mo dule_xsd _023	Ensure the module XSD is available and contains the builtin XSD type Int	Annex A	m	y
72	Pos_A_tt cn3_mo dule_xsd _024	Ensure the module XSD is available and contains the builtin XSD type UnsignedInt	Annex A	m	y
73	Pos_A_tt cn3_mo dule_xsd _025	Ensure the module XSD is available and contains the builtin XSD type Short	Annex A	m	y
74	Pos_A_tt cn3_mo dule_xsd _026	Ensure the module XSD is available and contains the builtin XSD type UnsignedShort	Annex A	m	y
75	Pos_A_tt cn3_mo dule_xsd _027	Ensure the module XSD is available and contains the builtin XSD type Byte	Annex A	m	y
76	Pos_A_tt cn3_mo dule_xsd _028	Ensure the module XSD is available and contains the builtin XSD type UnsignedByte	Annex A	m	y
77	Pos_A_tt cn3_mo dule_xsd _029	Ensure the module XSD is available and contains the builtin XSD type Decimal	Annex A	m	y
78	Pos_A_tt cn3_mo dule_xsd _030	Ensure the module XSD is available and contains the builtin XSD type Float	Annex A	m	y
79	Pos_A_tt cn3_mo dule_xsd _031	Ensure the module XSD is available and contains the builtin XSD type Double	Annex A	m	y
80	Pos_A_tt cn3_mo dule_xsd _032	Ensure the module XSD is available and contains the builtin XSD type Duration	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
81	Pos_A_tt cn3_mo dule_xsd _033	Ensure the module XSD is available and contains the builtin XSD type DateTime	Annex A	m	y
82	Pos_A_tt cn3_mo dule_xsd _034	Ensure the module XSD is available and contains the builtin XSD type Time	Annex A	m	y
83	Pos_A_tt cn3_mo dule_xsd _035	Ensure the module XSD is available and contains the builtin XSD type Date	Annex A	m	y
84	Pos_A_tt cn3_mo dule_xsd _036	Ensure the module XSD is available and contains the builtin XSD type GYearMonth	Annex A	m	y
85	Pos_A_tt cn3_mo dule_xsd _037	Ensure the module XSD is available and contains the builtin XSD type GYear	Annex A	m	y
86	Pos_A_tt cn3_mo dule_xsd _038	Ensure the module XSD is available and contains the builtin XSD type GMonthDay	Annex A	m	y
87	Pos_A_tt cn3_mo dule_xsd _039	Ensure the module XSD is available and contains the builtin XSD type GDay	Annex A	m	y
88	Pos_A_tt cn3_mo dule_xsd _040	Ensure the module XSD is available and contains the builtin XSD type GMonth	Annex A	m	y
89	Pos_A_tt cn3_mo dule_xsd _041	Ensure the module XSD is available and contains the builtin XSD type NMTOKENS	Annex A	m	y
90	Pos_A_tt cn3_mo dule_xsd _042	Ensure the module XSD is available and contains the builtin XSD type IDREFS	Annex A	m	y

<b>Ite m</b>	<b>TC/TP referen ce</b>	<b>Purpose</b>	<b>Reference in ETSI ES 201 8739</b>	<b>Sta tus</b>	<b>Sup por t</b>
91	Pos_A_tt cn3_mo dule_xsd _043	Ensure the module XSD is available and contains the builtin XSD type ENTITIES	Annex A	m	y
92	Pos_A_tt cn3_mo dule_xsd _044	Ensure the module XSD is available and contains the builtin XSD type QName	Annex A	m	y
93	Pos_A_tt cn3_mo dule_xsd _045	Ensure the module XSD is available and contains the builtin XSD type Boolean	Annex A	m	y
94	Pos_A_tt cn3_mo dule_xsd _046	Ensure the module XSD is available and contains the builtin XSD type XMLCompatibleString	Annex A	m	y
95	Pos_A_tt cn3_mo dule_xsd _047	Ensure the module XSD is available and contains the builtin XSD type XMLStringWithNoWhitespace	Annex A	m	y
96	Pos_A_tt cn3_mo dule_xsd _048	Ensure the module XSD is available and contains the builtin XSD type XMLStringWithNoCRLFHT	Annex A	m	y

# Chapter 6. Notes