VECTOR >

MICROSAR E2E

Document Information

History

Author	Date	Version	Remarks
	- -		
	- -		
	- -		

Reference Documents

No.	Source	Title	Version

Contents

Illustrations

Tables

1 Component History

Component Version	New Features

-

2 Introduction

Supported AUTOSAR Release*:		
Supported Configuration Variants:	-	
Vendor ID:		-
Module ID:		

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2.1 Architecture Overview

composite structure Interfaces

SW-C / RTE / E2E Transformer / E2E Protection Wrapper

E2E

- E2E__PXXProtect
- E2E__PXXProtectInit
- E2E__PXXCheck
- E2E__PXXCheckInit
- E2E__PXXMapStatusToSM
- E2E__SMCheck
- E2E__SMCheckInit

Crc

- Crc__CalculateCRC64
- Crc__CalculateCRC32P4
- Crc__CalculateCRC16
- Crc__CalculateCRC8H2F
- Crc__CalculateCRC8

-

PXX
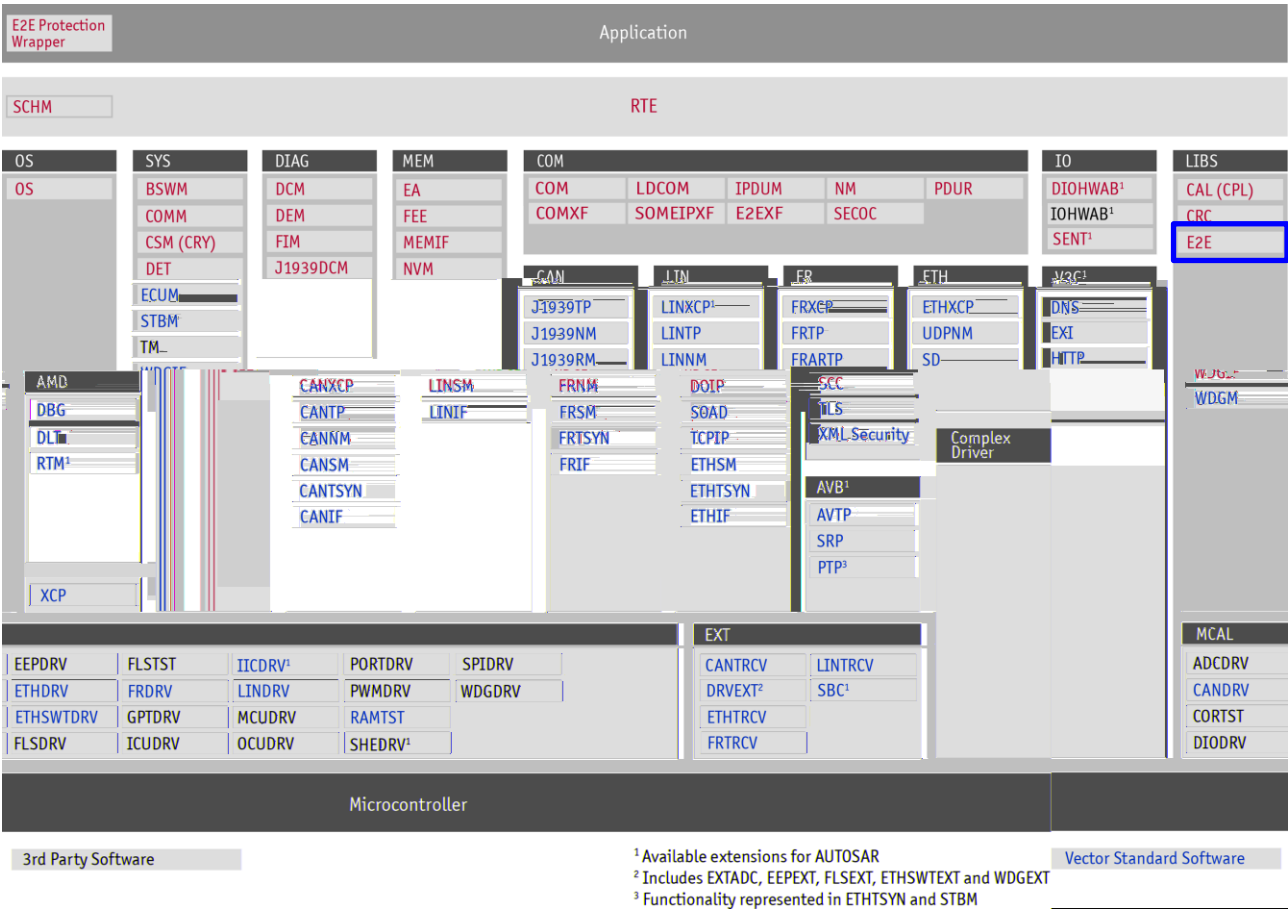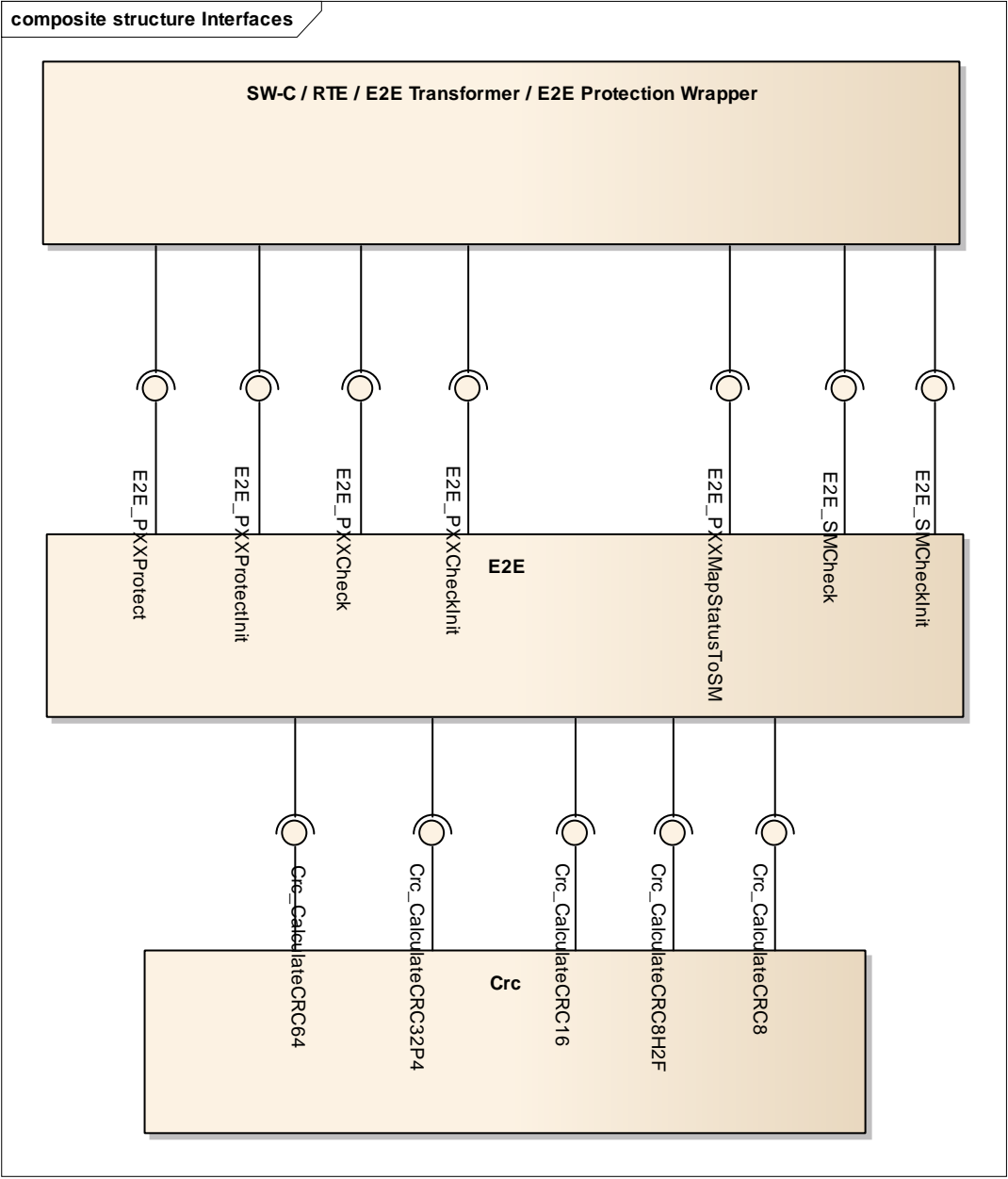
   PXX   **P01**
  P02   **P04**   **P05**   **P06**
  P07   **PJLR**

3 Functional Description

3.1 Features

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>   -

Supported AUTOSAR Standard Conform Features

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Features Provided Beyond the AUTOSAR Standard

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3.2 E2E Communication Protection

3.2.1 Communication Faults

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3.2.2 Fault Model

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3.2.3 Protection mechanisms

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E2E Mechanism	Description
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3.2.4 Detected Communication Faults

E2E Mechanism	Detected communication faults
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3.3 Initialization

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3.4 States

stm State Machine

E2E_SM_DEINIT [E2E_SMCheckInit()] → **E2E_SM_NODATA** [1st Data with no ERROR] → **E2E_SM_INIT**

[NOT (too many ERRORs or too few OKs)] → **E2E_SM_VALID**

[too many ERRORs or too few OKs]

[too many ERRORs] → **E2E_SM_INVALID**

[NOT (too many ERRORs or too few OKs)]

-
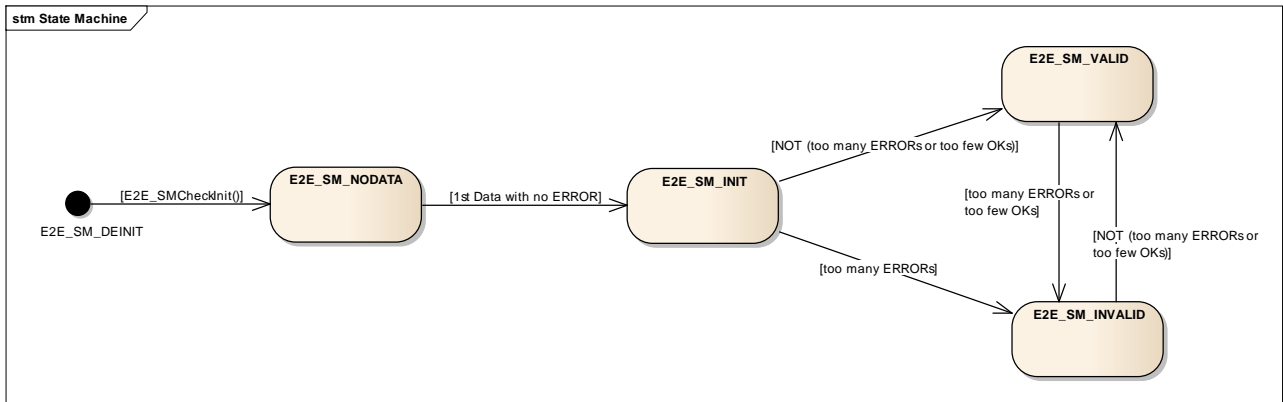
3.5   Main Functions

3.6   Error Handling

4 Integration

4.1 Scope of Delivery

4.1.1 Static Files

File Name	Description

-

4.1.2 Dynamic Files

4.2   Include Structure

-

-

4.3   Make

-

```
E2E_USE_PROFILEX   1
```
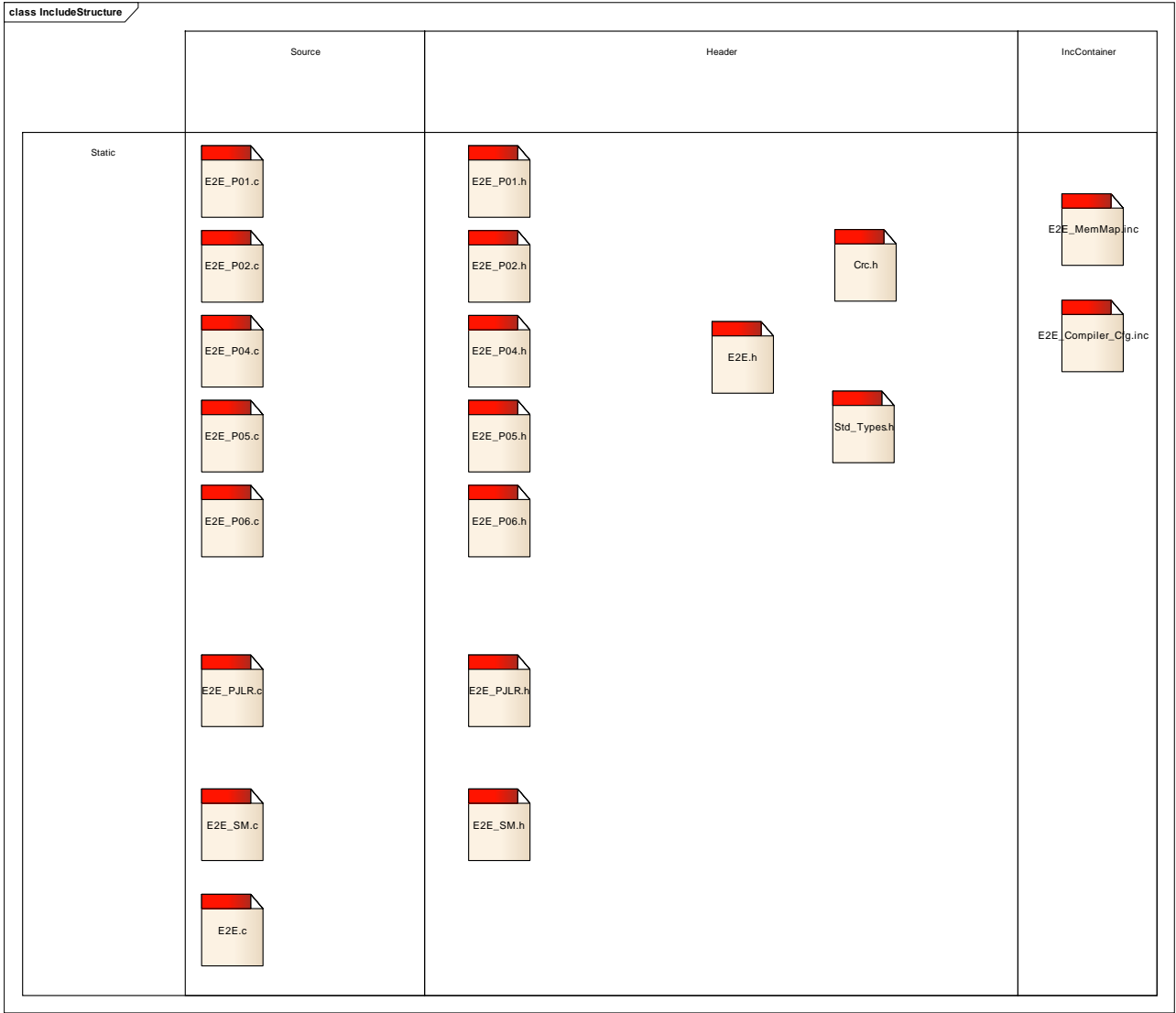
Setting Profile 1 in E2E_cfg.mak

```
E2E_USE_PROFIL1 = 1
```

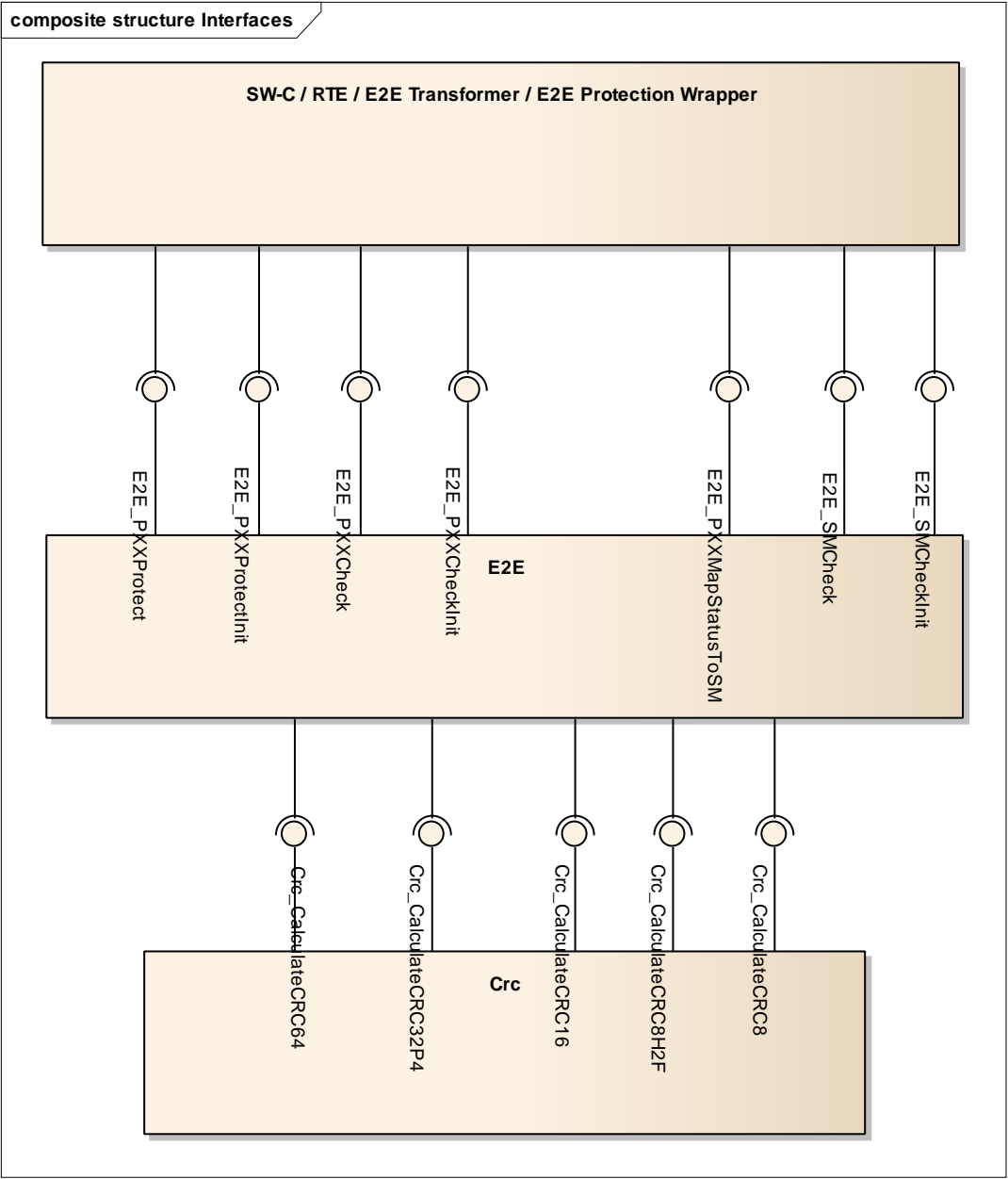## 4.4   Critical Sections

4.5   Invocation of Protect and Check service

>   E2E_PXXProtect   E2E_P01Protect

>   E2E_PXXCheck   E2E_P01Check

5 API Description

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5.1 Type Definitions

Type Name	C-Type	Description

Type Name	C-Type	Description
		-

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5.2 Services provided by E2E

5.2.1 E2E_PXXProtect

Prototype
`Std_ReturnType          ( E2E_PXXConfigType* ConfigPtr, E2E_PXXProtectStateType* StatePtr, uint8* DataPtr, uint16 Length)`

Parameter	
`ConfigPtr`	
`StatePtr`	
`DataPtr`	
`Length`	**(only supported in Profile 4, 5 and 6)** **Profile 7**

Return code	
Std_ReturnType	>
	>
	>
	>
Functional Description	
Particularities and Limitations	
>	
>	
>	

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5.2.2 E2E_PXXProtectInit

Prototype	
Std_ReturnType	(E2E_PXXProtectStateType* StatePtr)
Parameter	
StatePtr	
Return code	
Std_ReturnType	>
	>
Functional Description	
Particularities and Limitations	
>	
>	

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5.2.3 E2E_PXXCheck

Prototype
`Std_ReturnType          ( E2E_PXXConfigType* ConfigPtr,` `E2E_PXXProtectStateType* StatePtr, uint8* DataPtr, uint16 Length)`

Parameter	
`ConfigPtr`	
`StatePtr`	
`DataPtr`	
`Length`	**(only supported in Profile 4, 5 and 6)** **Profile 7**

Return code	
`Std_ReturnType`	**>**
	>
	>
	>

Functional Description

Particularities and Limitations
>
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5.2.4 E2E_PXXCheckInit

Prototype
`Std_ReturnType                (E2E_PXXCheckStateType* StatePtr)`

Parameter	
`StatePtr`	

Return code	
`Std_ReturnType`	**>**
	>

Functional Description

Particularities and Limitations
>
>

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5.2.5   E2E_PXXMapStatusToSM

Prototype
E2E_PCheckStatusType   (Std_ReturnType CheckReturn, E2E_PXXCheckStatusType* Status, Boolean profileBehavior)

Parameter	
CheckReturn	
Status	
profileBehavior	> > **This parameter is only supported in Profile 1, 2 and JLR.**

Return code	
E2E_PCheckStatusType	

Functional Description
-

Particularities and Limitations
>
>

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5.2.6   E2E_SMCheck

Prototype
Std_ReturnType   (E2E_PCheckStatusType ProfileStatus, E2E_SMConfigType* ConfigPtr, E2E_SMCheckStateType* StatePtr)

Parameter	
ProfileStatus	
ConfigPtr	
StatePtr	

Return code	
Std_ReturnType	>
	>
	>
	>
	>

Functional Description	
-	

Particularities and Limitations	
>	
>	

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5.2.7 E2E_SMCheckInit

Prototype	
Std_ReturnType (E2E_SMCheckStateType* StatePtr, E2E_SMConfigType* ConfigPtr)	

Parameter	
StatePtr	
ConfigPtr	

Return code	
Std_ReturnType	>
	>

Functional Description	

Particularities and Limitations	
>	
>	

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5.3 Services used by E2E

Component	API
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5.4 Callback Functions

5.5 Configurable Interfaces

6 Configuration

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<tr><td>⚠</td><td>**Caution**</td></tr>
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7 Glossary and Abbreviations

7.1 Glossary

Term	Description

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7.2 Abbreviations

Abbreviation	Description

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8 Contact

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