DIN EN 15876-1:2011-10 (E)

Electronic fee collection - Evaluation of on-board and roadside equipment for conformity to EN 15509 - Part 1: Test suite structure and test purposes; English version EN 15876-1:2010

Inhalt

Seite

Foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 5

4 Abbreviations 9

5 Test Suite Structure 10
5.1 Structure 10
5.2 Reference to Conformance Specifications 10
5.3 Test Purposes 11
5.3.1 TP Definition Conventions 11
5.3.2 TP Naming Conventions 11

Annex A (normative) Test Purposes for On Board Units 13
A.1 Introduction 13
A.2 Physical Layer 13
A.2.1 BV Test Purposes 13
A.2.2 BI Test Purposes 14
A.3 MAC 15
A.3.1 BV Test Purposes 15
A.3.2 BI Test Purposes 16
A.4 LLC 20
A.4.1 BV Test Purposes 20
A.4.2 BI Test Purposes 21
A.5 Application Layer 22
A.5.1 Introduction and general conventions 22
A.5.2 Structure of BST and VST 23
A.5.3 PDUs Parameters 27
A.5.4 Application I-kernel test purposes for On Board Unit, security level 0 (AP-0BAS) 30
A.5.5 Application T-kernel test purposes for On Board Unit, security level 0 (AP-0FUN) 35
A.5.6 Application data attributes test purposes, security level 0 (AP-0DAT) 40
A.5.7 Application security test purposes, security level 0 (AP-0SEC) 56
A.5.8 Application transaction test purposes, security level 0 (AP-0TRA) 58
A.5.9 Application I-kernel test purposes, security level 1 (AP-1BAS) 59
A.5.10 Application T-kernel test purposes, security level 1 (AP-1FUN) 60
A.5.11 Application data attributes test purposes, security level 1 (AP-1DAT) 63
A.5.12 Application security test purposes, security level 1 (AP-1SEC) 66
A.5.13 Application transaction test purposes, security level 1 (AP-1TRA) 67

Annex B (normative) Test Purposes for Roadside Equipment 68
B.1 Introduction 68
B.2 Physical layer 68
B.2.1 BV test purposes 68
B.2.2 BI test purposes 70
B.3 MAC Sublayer 70
B.3.1 BV test purposes 70
B.3.2 BI test purposes 71
B.4 LLC Sublayer 75
B.4.1 BV test purposes 75

B.4.2 BI test purposes **76**
B.5 Application Layer Test Purposes **77**
B.5.1 Introduction and general conventions **77**
B.5.2 Application initialization phase test purposes, security level 0 (AP-0BAS) **78**
B.5.3 Application GET-rq PDU test purposes, security level 0 (AP-0GET) **80**
B.5.4 Application SET-rq PDU test purposes, security level 0 (AP-0SET) **81**
B.5.5 Application GET-STAMPED-rq PDU test purposes, security level 0 (AP-0STA) **85**
B.5.6 Application SET-MMI-rq PDU test purposes, security level 0 (AP-0MMI) **88**
B.5.7 Application ECHO-rq PDU test purposes, security level 0 (AP-0ECH) **89**
B.5.8 Application EVENT-REPORT-rq PDU test purposes, security level 0 (AP-0REL) **90**
B.5.9 Application initialization phase test purposes, security level 1 (AP-1BAS) **91**
B.5.10 Application GET-rq PDU test purposes, security level 1 (AP-1GET) **93**
B.5.11 Application SET-rq PDU test purposes, security level 1 (AP-1SET) **94**
B.5.12 Application GET-STAMPED-rq PDU test purposes, security level 1 (AP-1STA) **95**
B.5.13 Application SET-MMI-rq PDU test purposes, security level 1 (AP-1MMI) **96**
B.5.14 Application ECHO-rq PDU test purposes, security level 1 (AP-1ECH) **96**

Annex C (normative) **PCTR Proforma for On Board Units** **98**
C.1 Identification summary **98**
C.1.1 Protocol conformance test report **98**
C.1.2 DUT identification **98**
C.1.3 Testing environment **99**
C.1.4 Limits and reservation **99**
C.1.5 Comments **99**
C.2 DUT Conformance status **100**
C.3 Static conformance summary **100**
C.4 Dynamic conformance summary **100**
C.5 Static conformance review report **101**
C.6 Test campaign report **102**
C.7 Observations **106**

Annex D (normative) **PCTR Proforma for Roadside Equipment** **107**
D.1 Identification summary **107**
D.1.1 Protocol conformance test report **107**
D.1.2 DUT identification **107**
D.1.3 Testing environment **108**
D.1.4 Limits and reservation **108**
D.1.5 Comments **108**
D.2 DUT Conformance status **109**
D.3 Static conformance summary **109**
D.4 Dynamic conformance summary **109**
D.5 Static conformance review report **110**
D.6 Test campaign report **111**
D.7 Observations **113**

Bibliography **114**