ISO 14907-1:2020-03 (E)

Electronic fee collection - Test procedures for user and fixed equipm ent - Part 1: Description of test procedures

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 2

3 Terms and definitions 2

4 Abbreviated terms 6

5 Test parameters and test procedures for EFC 7
5.1 Tests overview 7
5.1.1 General 7
5.1.2 Functionality tests 8
5.1.3 Quality tests 9
5.1.4 Referenced pre-tests 9
5.2 Parameter overview 9
5.3 Test plan 15
5.4 Required documentation 15

6 Inspection and tests 16
6.1 Functionality tests 16
6.1.1 Communication 16
6.1.2 EFC application 16
6.1.3 Traffic conditions 20
6.1.4 Vehicle characteristics 21
6.1.5 Environmental influences 23
6.2 Quality tests 23
6.2.1 Quality management 23
6.2.2 Reliability and availability 24
6.3 Referenced pre-tests 24
6.3.1 DSRC 24
6.3.2 Environment 25
6.3.3 EMC 25

7 Evaluation and certification 25
7.1 Evaluation 25
7.2 Certification 26

Annex A (informative) How to use this document 27

Annex B (informative) Traffic, vehicle, and other performance tests 29

Annex C (informative) Reliability/availability tests 50

Annex D (informative) Classes of equipment 56

Annex E (informative) Examples for statistical calculations 58

Annex F (informative) Examples of referenced pre-tests based on European test procedures 62

Annex G (informative) Test methods and tools 67

Annex H (informative) Examples of EFC scenarios 74

Annex I (informative) Examples of referenced pre-tests based on Japanese test procedures 81

Bibliography 84