

DIN EN ISO 14906:2019-03 (E)

Electronic fee collection - Application interface definition for dedicated short-range communication (ISO 14906:2018); English version EN ISO 14906:2018

Contents		Page
Foreword		v
Introduction		vi
1 Scope		1
2 Normative references		2
3 Terms and definitions		2
4 Abbreviated terms		4
5 EFC application interface architecture		5
5.1 Relation to the DSRC communication architecture.....		5
5.2 Usage of DSRC application layer by the EFC application interface.....		7
5.3 Addressing of EFC attributes.....		7
5.3.1 Basic mechanism.....		7
5.3.2 Role of the EID.....		8
5.3.3 Multiple Instances of Attributes.....		8
5.4 Addressing of components.....		9
6 EFC Transaction Model		10
6.1 General.....		10
6.2 Initialisation Phase.....		10
6.2.1 Overview.....		10
6.2.2 EFC application-specific contents of the BST.....		11
6.2.3 EFC application-specific contents of the VST.....		12
6.3 Transaction phase.....		13
7 EFC functions		14
7.1 Overview and general concepts.....		14
7.1.1 EFC functions and service primitives.....		14
7.1.2 Overview of EFC functions.....		15
7.1.3 Handling of multiple instances.....		16
7.1.4 Security.....		18
7.2 EFC functions.....		21
7.2.1 General.....		21
7.2.2 GET_STAMPED.....		21
7.2.3 SET_STAMPED.....		22
7.2.4 GET_SECURE.....		23
7.2.5 SET_SECURE.....		24
7.2.6 GET_INSTANCE.....		25
7.2.7 SET_INSTANCE.....		25
7.2.8 GET_NONCE.....		26
7.2.9 SET_NONCE.....		27
7.2.10 TRANSFER_CHANNEL.....		27
7.2.11 COPY.....		28
7.2.12 SET_MMI.....		29
7.2.13 SUBTRACT.....		29
7.2.14 ADD.....		30
7.2.15 DEBIT.....		30
7.2.16 CREDIT.....		31
7.2.17 ECHO.....		32

8	EFC Attributes	33
8.1	General.....	33
8.2	Data group CONTRACT.....	35
8.3	Data group RECEIPT.....	38
8.4	Data group VEHICLE.....	44
8.5	Data group EQUIPMENT.....	51
8.6	Data group DRIVER.....	53
8.7	Data group PAYMENT.....	55
	Annex A (normative) EFC data type specifications	57
	Annex B (informative) CARDME transaction	58
	Annex C (informative) Examples of EFC transaction types	92
	Annex D (normative) Mapping table from LatinAlphabetNo2 & 5 to LatinAlphabetNo1	104
	Annex E (informative) Mapping table between EFC Vehicledata attribute and European registration certificate	105
	Annex F (normative) Security calculations for DES	108
	Annex G (informative) Security computation examples for DES	113
	Annex H (normative) Security calculations for AES	116
	Annex I (informative) Security computation examples for AES	121
	Bibliography	123