

ISO 16787:2017-12 (E)

Intelligent transport systems - Assisted parking system (APS) - Performance requirements and test procedures

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Definition of APS type and common requirements	3
4.1	Basic system functionality	3
4.2	APS types	3
4.3	Common requirements	3
4.3.1	Maximum speed during operation	3
4.3.2	APS exit conditions	3
4.3.3	Advisory note	3
5	Functional and performance requirements of APS type 1	4
5.1	Basic system functionality	4
5.1.1	General	4
5.1.2	Parking slot type 1 parallel	4
5.1.3	Parking slot type 1 perpendicular	5
5.1.4	APS operation sequence	5
5.1.5	Basic operation procedure of APS	5
5.1.6	Quiescent mode	6
5.1.7	Slot search	6
5.1.8	Slot found	6
5.1.9	Target parking slot recognition	6
5.1.10	Assisted parking mode	6
5.1.11	End of assisted parking mode	6
5.1.12	APS diagram of operating modes (APS type 1)	6
5.2	Driver interface and information strategy	7
5.2.1	General information presentation	7
5.2.2	Information in the slot search mode	7
5.2.3	Information during "slot found" until "start of assisted parking"	8
5.2.4	Driver request	8
5.2.5	Information during assisted parking	8
5.2.6	Information at "end of assisted parking"	8
5.3	Minimum performance requirements	8
5.3.1	Performance requirements during slot search mode	8
5.3.2	Performance requirements during assisted parking mode	8
5.4	Performance test requirements (APS type 1)	11
5.4.1	Test objects	11
5.4.2	Ambient conditions -- General	11
5.4.3	Test criteria	11
5.4.4	Slot search tests	11
5.4.5	Test of supported speed during assisted parking	12
5.4.6	End position tests	12
6	Functional and performance requirements APS type 2	13

6.1	Basic system functionality	13
6.1.1	Basic function	13
6.1.2	Geometric requirements	14
6.1.3	APS diagram of operating modes (APS type 2)	15
6.2	Driver interface and information strategy	16
6.2.1	Operation procedure	16
6.2.2	Basic operation procedure of APS	16
6.3	Minimum performance requirements	17
6.3.1	Defined parking slot	17
6.3.2	Target slot recognition	18
6.3.3	Maximum speed during operation	18
6.3.4	Performance requirements for the end position	18
6.4	Performance test requirements	21
6.4.1	Performance test conditions	21
6.4.2	Parking slot recognition test	21
6.4.3	Environmental conditions -- General	23
6.4.4	Test criteria	23
6.4.5	End position tests	23
	Annex A (informative) Example of APS operation sequence	25
	Bibliography	28