

ISO/IEC 18046-4:2015-12 (E)

Information technology - Radio frequency identification device performance test methods - Part 4: Test methods for performance of RFID gates in libraries

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and abbreviated terms	6
4.1	Symbols	6
4.2	Abbreviated terms	7
5	Conditions applicable to the test methods	7
5.1	Number of interrogators to be tested	7
5.2	Test environment	7
5.3	RF environment	7
5.4	Pre-conditioning	7
5.5	Default tolerance	8
5.6	Total measurement uncertainty	8
5.7	Test result reporting	8
5.8	Test communication parameters	8
5.9	Test equipment limits	8
5.10	Human exposure to EMF	8
6	Required auxiliary means for performance tests	8
6.1	Movement apparatus	8
6.2	PC with test software	8
6.3	Reference blocks	9
6.3.1	General	9
6.3.2	Tags	9
6.3.3	Tag block	9
6.3.4	Tag bundle	10
6.3.5	Media stack	11
6.4	Active interferer	13
6.5	Passive Interferer	14
7	Performance tests	14
7.1	General remarks	14
7.2	Measurement of transmitter carrier H-field level	14
7.3	Detection field homogeneity	17
7.4	Reliability of detection	18
7.4.1	General	18
7.4.2	Procedure (on the basis of AFI)	19
7.4.3	Procedure with increased walking speed	19
7.4.4	Procedure with 6 tags and read data of 34 bytes, walking speed (only on the basis of AFI)	20
7.4.5	Procedure with 6 tags and read data of 34 bytes, increased walking speed (only on the basis of AFI)	20
7.5	Stack performance	20

7.6	Immunity to interferences	22
7.6.1	General	22
7.6.2	Analysis 1 (active interferer)	23
7.6.3	Analysis 2 (passive metallic interferer)	25
8	Assessment of the complete product test	26
9	Certificate	26
	Annex A (normative) Test Record (AFI)	27
	Annex B (informative) Media stack	41
	Bibliography	42