

ISO 11783-2:2002-04 (E)

Tractors and machinery for agriculture and forestry - Serial control and communications data network - Part 2: Physical layer

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	General Description	1
3.1	Network physical layer	1
3.2	Physical media	1
3.3	Differential voltage	2
3.4	Bus	2
3.5	Resistance and Capacitance	3
3.6	Bit Time	4
3.7	AC parameters	5
4	Functional description	6
5	Electrical Specifications	7
5.1	Electrical data	7
5.2	Physical media parameters	9
5.3	TBC parameters	12
5.4	Connectors	13
6	Conformance tests	25
6.1	General requirements	25
6.2	Internal resistance	26
6.3	Internal differential resistance	27
6.4	ECU recessive input threshold	27
6.5	ECU dominant input threshold	28
6.6	ECU dominant output	28
6.7	ECU internal delay time	29
7	Bus failure and fault confinement	30
7.1	General	30
7.2	Loss of network connection	30
7.3	Node power or ground loss	30
7.4	Open and short failures	31
Annex A (informative) Protocol controller timing and naming		34
Annex B (informative) Examples of physical layer circuits		37
Bibliography		48