

ISO 11783-3:2026-03 (E)

Tractors and machinery for agriculture and forestry - Serial control and communications data network - Part 3: Application layer, transport layer and network layer

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Abbreviated terms	3
5	Technical requirements	3
5.1	Mapping of messages to CAN data frames	3
5.1.1	General requirements and recommendations	3
5.1.2	Mapping of ISO 11783 messages to CAN data frames in CEFF	4
5.1.3	Parameter group numbers (PGN)	6
5.1.4	ISO 11783 support of ISO 11898-1 data frames in CBFF	7
5.2	Protocol data unit (PDU)	7
5.2.1	General	7
5.2.2	Priority (P)	8
5.2.3	Extended data page (EDP)	8
5.2.4	Data page (DP)	8
5.2.5	PDU format (PF)	9
5.2.6	PDU specific (PS)	9
5.2.7	Source address (SA)	9
5.2.8	PG data field	9
5.3	Protocol data unit (PDU) formats	10
5.3.1	General	10
5.3.2	PDU1 format	10
5.3.3	PDU2 format	11
5.4	Message types	12
5.4.1	General	12
5.4.2	PG command	13
5.4.3	Request	13
5.4.4	Broadcast/response	17
5.4.5	Acknowledgement	17
5.4.6	Group functions	19
5.4.7	Transfer	21
5.5	Message priority	22
5.6	Bus access	22
5.7	Contention-based arbitration	22
5.8	Error detection	23
5.9	Transport protocol functions	23
5.9.1	General	23
5.9.2	“Packetization” and reassembly	23
5.9.3	Transport protocol — connection management	24
5.9.4	Transport protocol — connection management messages (TP.CM)	26
5.9.5	Transport protocol — data transfer messages (TP.DT)	30
5.9.6	Transport protocol connection constraints	31
5.10	Extended transport protocol functions	32
5.10.1	Overview	32
5.10.2	General	32

5.10.3	Message size	32
5.10.4	Extended transport protocol — connection management.....	32
5.10.5	Extended transport protocol — connection management messages (ETP.CM)	34
5.10.6	Extended transport protocol — data transfer messages (ETP.DT)	37
5.10.7	Extended transport protocol — connection constraints.....	38
5.11	PDU processing requirements.....	38
5.12	Miscellaneous provisions.....	38
5.12.1	Request scheduling	38
5.12.2	Controller response time and timeout defaults.....	38
5.12.3	Required responses.....	39
5.12.4	Transmission of PGs to specific or global destinations	39
5.12.5	CTS number of packet recommendation.....	40
Annex A (normative) Assignment process for SA, PG and PGN		41
Annex B (informative) Network bandwidth utilization.....		44
Annex C (informative) Transport protocol transfer sequences — Examples of connection mode data transfer.....		45
Annex D (informative) Communication mode examples.....		53
Bibliography.....		55