

### Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Symbols and abbreviated terms
4.1	Symbols
4.2	Abbreviated terms
5	Conventions
6	APP — Application
6.1	APP — Device model
6.2	APP — Node kinds
6.2.1	APP — MOST nodes
6.2.2	APP — Remote-controlled nodes
6.2.3	APP — Listen-only nodes
6.3	APP — Function block
6.3.1	APP — General
6.3.2	APP — FBlock library
6.3.3	APP — Controller and FBlock
6.4	APP — Functions
6.4.1	APP — Overview
6.4.2	APP — Methods
6.4.2.1	APP — Execution of methods
6.4.2.2	APP — Using methods with SenderHandle
6.4.2.3	APP — Using methods without SenderHandle
6.4.3	APP — Properties
6.4.3.1	APP — General
6.4.3.2	APP — Writing a property
6.4.3.3	APP — Reading a property
6.5	APP — Events and notification
6.5.1	APP — Events
6.5.2	APP — Notification
6.6	APP — Notification mechanisms
6.6.1	APP — General
6.6.2	APP — Notification function
6.6.3	APP — Implicit notification
6.6.4	APP — Automatic notification
6.6.5	APP — Errors in the context of the notification function
6.6.6	APP — No valid values or property failure
6.6.7	APP — Reactions on Configuration.Status events
6.7	APP — Requesting FBlock information
6.7.1	APP — Function FBlockIDs
6.7.2	APP — Function FktIDs
6.7.3	APP — Extended FBlock identification
6.8	APP — Registry management
6.8.1	APP — General

- 6.8.1.1 APP — Purpose
- 6.8.1.2 APP — Initialisation
- 6.8.1.2.1 APP — Configuration
- 6.8.1.2.2 APP — Initialisation of the central registry
- 6.8.1.2.3 APP — Initialisation on application level
- 6.8.1.3 APP — General operation — MOST network monitoring
- 6.8.2 APP — Central registry state
- 6.8.2.1 APP — Distribution of the central registry state
- 6.8.2.2 APP — Central registry state NotOK
- 6.8.2.3 APP — Central registry state OK
- 6.8.3 APP — NetworkMaster
- 6.8.3.1 APP — Overview
- 6.8.3.2 APP — Network change event
- 6.8.3.3 APP — Setting the central registry state
- 6.8.3.3.1 APP — Distributing the central registry state
- 6.8.3.3.2 APP — Setting the central registry state to OK
- 6.8.3.3.3 APP — Setting the central registry state to NotOK
- 6.8.3.4 APP — Central registry
- 6.8.3.4.1 APP — Overview
- 6.8.3.4.2 APP — Purpose
- 6.8.3.4.3 APP — Contents
- 6.8.3.4.4 APP — Responsibility
- 6.8.3.4.5 APP — Responding to requests for information from the central registry
- 6.8.3.5 APP — Specific behaviour after ev\_Init\_Ready
- 6.8.3.5.1 APP — Validity of logical node addresses
- 6.8.3.5.2 APP — Valid logical node address not available
- 6.8.3.5.3 APP — Valid logical node address available
- 6.8.3.6 APP — Scanning the MOST network
- 6.8.3.6.1 APP — FBlock scan
- 6.8.3.6.2 APP — Configuration request description
- 6.8.3.6.3 APP — NetworkMaster performs initial FBlock scan
- 6.8.3.6.4 APP — NetworkMaster performs rescan during central registry state OK
- 6.8.3.6.5 APP — Addressing
- 6.8.3.6.6 APP — Non-responding NetworkSlaves
- 6.8.3.6.7 APP — Duration of FBlock scanning
- 6.8.3.6.8 APP — Reporting the results of an FBlock scan
- 6.8.3.7 APP — Invalid announcements — Node address
- 6.8.3.8 APP — Invalid announcements — InstID
- 6.8.3.9 APP — Updates to the central registry
- 6.8.3.9.1 APP — Changes in central registry state OK
- 6.8.3.9.2 APP — Disappearing FBlocks in central registry state OK
- 6.8.3.9.2.1 APP — NetworkMaster reaction
- 6.8.3.9.2.2 APP — Own configuration invalid handling (optional)
- 6.8.3.9.3 APP — Appearing FBlocks in central registry state OK
- 6.8.3.9.4 APP — FBlock scan without any change in central registry
- 6.8.3.9.5 APP — Non-responding nodes in central registry state OK
- 6.8.3.10 APP — Miscellaneous NetworkMaster requirements
- 6.8.3.10.1 APP — Network change event (NCE)
- 6.8.3.10.2 APP — Positioning of the FBlock NetworkMaster in the MOST network
- 6.8.4 APP — NetworkSlave
- 6.8.4.1 APP — General
- 6.8.4.2 APP — Decentral registry
- 6.8.4.2.1 APP — General
- 6.8.4.2.2 APP — Building a decentral registry
- 6.8.4.2.3 APP — Updating the decentral registry
- 6.8.4.2.4 APP — Deleting the decentral registry
- 6.8.4.3 APP — Specific behaviour after ev\_Init\_Ready
- 6.8.4.3.1 APP — Initialisation
- 6.8.4.3.2 APP — Valid logical node address not available
- 6.8.4.3.3 APP — Valid logical node address available
- 6.8.4.3.4 APP — Deriving the logical node address of the NetworkMaster
- 6.8.4.4 APP — Normal operation of the NetworkSlave
- 6.8.4.4.1 APP — Behaviour in central registry state OK
- 6.8.4.4.2 APP — Behaviour in central registry state NotOK

- 6.8.4.4.3 APP — Configuration requests and configuration changes
- 6.8.4.4.3.1 APP — General
- 6.8.4.4.3.2 APP — Responding to Configuration Requests by the NetworkMaster
- 6.8.4.4.3.3 APP — Reporting Configuration Changes to the NetworkMaster
- 6.8.4.4.4 APP — Unknown central registry state
- 6.8.4.4.5 APP — Determining the central registry state
- 6.8.4.4.6 APP — Reaction to Configuration.Status(OK) when in central registry state NotOK
- 6.8.4.4.7 APP — Reaction to Configuration.Status(OK) when in central registry state OK
- 6.8.4.4.8 APP — Reaction to Configuration.Status(NotOK) when in central registry state NotOK
- 6.8.4.4.9 APP — Reaction to Configuration.Status(NotOK) when in central registry state OK
- 6.8.4.4.10 APP — Reaction to Configuration.Status(NewExt)
- 6.8.4.4.11 APP — Reaction to Configuration.Status(Invalid)
- 6.8.4.4.12 APP — “Own configuration invalid” handling (optional)
- 6.9 APP — Network wake-up, startup, and shutdown
- 6.9.1 APP — General
- 6.9.2 APP — Network wake-up and startup
- 6.9.3 APP — Network shutdown
- 6.9.3.1 APP — General
- 6.9.3.2 APP — Error shutdown
- 6.9.3.3 APP — Emergency shutdown
- 6.9.3.4 APP — Normal shutdown
- 6.9.3.5 APP — Normal shutdown — Request stage
- 6.9.3.6 APP — Normal shutdown — Execution stage
- 6.9.4 APP — Device shutdown
- 6.9.4.1 APP — General
- 6.9.4.2 APP — Performing device shutdown
- 6.9.4.2.1 APP — Device shutdown stages
- 6.9.4.2.2 APP — Request stage (optional)
- 6.9.4.2.3 APP — Execution stage
- 6.9.4.3 APP — Exiting device shutdown
- 6.9.4.3.1 APP — General
- 6.9.4.3.2 APP — Exit due to PowerMaster
- 6.9.4.3.3 APP — Exit due to local condition
- 6.9.4.4 APP — Persistence of device shutdown
- 6.9.4.5 APP — Response when device shutdown is unsupported
- 6.10 APP — Connection management for streaming data
- 6.10.1 APP — Service for streaming data
- 6.10.1.1 APP — Streaming data
- 6.10.1.2 APP — Access to synchronous or isochronous data
- 6.10.1.3 APP — Differentiating synchronous data and isochronous data
- 6.10.1.4 APP — Synchronous data
- 6.10.1.5 APP — Isochronous data
- 6.10.2 APP — Source and sink information
- 6.10.2.1 APP — StreamDataInfo function
- 6.10.2.2 APP — Source functions
- 6.10.2.2.1 APP — SourceInfo function
- 6.10.2.2.2 APP — SourceName function
- 6.10.2.2.3 APP — SourceActivity function
- 6.10.2.3 APP — Sink functions
- 6.10.2.3.1 APP — SinkInfo function
- 6.10.2.3.2 APP — SinkName function
- 6.10.3 APP — Streaming connections
- 6.10.3.1 APP — Source functions
- 6.10.3.1.1 APP — Allocate function
- 6.10.3.1.2 APP — DeAllocate function
- 6.10.3.2 APP — Sink functions
- 6.10.3.2.1 APP — Connect function
- 6.10.3.2.2 APP — Disconnect function
- 6.10.3.2.3 APP — Mute function
- 6.10.3.3 APP — Connection manager
- 6.10.3.3.1 APP — General
- 6.10.3.3.2 APP — Deadlock prevention
- 6.10.3.4 APP — Establishing streaming connections
- 6.10.3.5 APP — Removing streaming connections

- 6.10.3.6 APP — Establishing DiscreteFrame isochronous streaming connections
- 6.10.3.7 APP — Removing DiscreteFrame isochronous streaming connections
- 6.10.3.8 APP — Monitoring streaming connections
- 6.10.3.9 APP — Handling of duplicate commands
- 6.10.3.9.1 APP — General
- 6.10.3.9.2 APP — Source behaviour
- 6.10.3.9.2.1 APP — Allocate
- 6.10.3.9.2.2 APP — DeAllocate
- 6.10.3.9.3 APP — Sink behaviour
- 6.10.3.9.3.1 APP — Connect
- 6.10.3.9.3.2 APP — Disconnect
- 6.10.4 APP — Compensating MOST network delay
- 6.11 APP — Diagnosis
- 6.11.1 APP — FBlock configuration status information
- 6.11.2 APP — Shutdown reason
- 6.11.3 APP — Shutdown reason analysis
- 6.11.4 APP — Ring break diagnosis
- 6.11.4.1 APP — Starting ring break diagnosis
- 6.11.4.2 APP — Ring break diagnosis result
- 6.11.5 APP — Network diagnosis
- 6.12 APP — Error handling
- 6.12.1 APP — General
- 6.12.2 APP — Handling overload in a message receiver
- 6.12.3 APP — Over-temperature management
- 6.12.3.1 APP — General over-temperature behaviour
- 6.12.3.2 APP — Mandatory over-temperature behaviour
- 6.12.3.3 APP — Optional over-temperature behaviour
- 6.12.3.3.1 APP — Common over-temperature behaviour
- 6.12.3.3.2 APP — Optional PowerMaster behaviour
- 6.12.3.3.3 APP — Optional PowerSlave behaviour
- 6.12.3.3.3.1 APP — Shutdown temperature level
- 6.12.3.3.3.2 APP — Restart temperature level
- 6.12.3.3.3.3 APP — Restart
- 6.13 APP — Timing definitions
- 6.13.1 APP — Definitions
- 6.13.1.1 APP — Exceptions to timing restrictions
- 6.13.1.2 APP — Timers
- 6.13.1.3 APP — Timing constraints
- 6.13.2 APP — NetworkMaster communication
- 6.13.2.1 APP — Overview
- 6.13.2.2 APP — Constraint tWaitBeforeScan
- 6.13.2.2.1 APP — Purpose
- 6.13.2.2.2 APP — Validity conditions
- 6.13.2.2.3 APP — Violation consequences
- 6.13.2.3 APP — Constraint tConfigurationAnnounce
- 6.13.2.3.1 APP — Purpose
- 6.13.2.3.2 APP — Validity conditions
- 6.13.2.3.3 APP — Violation consequences
- 6.13.2.4 APP — Timer tWaitForAnswer
- 6.13.2.4.1 APP — Purpose
- 6.13.2.4.2 APP — Start and Stop conditions
- 6.13.2.4.3 APP — Timer expiration
- 6.13.2.5 APP — Timer tDelayCfgRequest1
- 6.13.2.5.1 APP — Purpose
- 6.13.2.5.2 APP — Start and Stop conditions
- 6.13.2.5.3 APP — Timer expiration
- 6.13.2.6 APP — Timer tDelayCfgRequest2
- 6.13.2.6.1 APP — Purpose
- 6.13.2.6.2 APP — Start and Stop conditions
- 6.13.2.6.3 APP — Timer expiration
- 6.13.3 APP — PowerMaster communication
- 6.13.3.1 APP — Overview
- 6.13.3.2 APP — Timer tWaitSuspend
- 6.13.3.2.1 APP — Purpose

- 6.13.3.2.2 APP — Start and Stop conditions
- 6.13.3.2.3 APP — Timer expiration
- 6.13.3.3 APP — Timer tShutdownWait
- 6.13.3.3.1 Purpose
- 6.13.3.3.2 APP — Start and Stop conditions
- 6.13.3.3.3 APP — Timer expiration
- 6.13.3.4 APP — Timer tRetryShutdown
- 6.13.3.4.1 APP — Purpose
- 6.13.3.4.2 APP — Start and Stop conditions
- 6.13.3.4.3 APP — Timer expiration
- 6.13.3.5 APP — Timer tSlaveShutdown
- 6.13.3.5.1 APP — Purpose
- 6.13.3.5.2 APP — Start and Stop conditions
- 6.13.3.5.3 APP — Timer expiration

7

AL — Application layer

- 7.1 AL — Structure of MOST messages
- 7.2 AL — Addressing
- 7.2.1 AL — Overview
- 7.2.2 AL — 16-bit addressing
- 7.2.2.1 AL — Node position address
- 7.2.2.2 AL — Logical node address
- 7.2.2.3 AL — Dynamic logical node address
- 7.2.2.4 AL — Static logical node address
- 7.2.2.5 AL — Group address
- 7.2.2.6 AL — Blocking broadcast address
- 7.2.2.7 AL — Non-blocking broadcast address
- 7.2.2.8 AL — 16-bit address mapping
- 7.2.3 AL — 48-bit addressing (Ethernet MAC address)
- 7.3 AL — Function block identifier (FBlockID)
- 7.4 AL — Instance identifier (InstID)
- 7.4.1 AL — Distinction of FBlock instances
- 7.4.2 AL — Uniqueness of functional addresses
- 7.4.3 AL — Assigning InstID
- 7.4.4 AL — InstID of NetBlock FBlock
- 7.4.5 AL — InstID of NetworkMaster FBlock
- 7.4.6 AL — InstID of FBlock EnhancedTestability
- 7.4.7 AL — Wildcard values for InstID
- 7.5 AL — Function identifier (FktID)
- 7.6 AL — Operation type (OPType)
- 7.6.1 AL — Overview
- 7.6.2 AL — Set, Get and SetGet
- 7.6.3 AL — Increment and Decrement
- 7.6.4 AL — Status
- 7.6.5 AL — Start and StartAck
- 7.6.6 AL — StartResult and StartResultAck
- 7.6.7 AL — Result and ResultAck
- 7.6.8 AL — Processing and ProcessingAck
- 7.6.9 AL — Abort and AbortAck
- 7.6.10 AL — Error and ErrorAck
- 7.6.11 AL — Parameters
- 7.7 AL — Timing definitions
- 7.7.1 AL — Definitions
- 7.7.1.1 AL — Exceptions to timing restrictions
- 7.7.1.2 AL — Timers
- 7.7.1.3 AL — Timing constraints
- 7.7.2 AL — General communication
- 7.7.2.1 AL — Overview
- 7.7.2.2 AL — Constraint tProperty
- 7.7.2.2.1 AL — Purpose
- 7.7.2.2.2 AL — Validity conditions
- 7.7.2.2.3 AL — Violation consequences
- 7.7.2.3 AL — Constraint tNotificationProperty
- 7.7.2.3.1 Purpose

- 7.7.2.3.2 AL — Validity conditions
  - 7.7.2.3.3 AL — Violation consequences
  - 7.7.2.4 AL — Timer tWaitForProperty
  - 7.7.2.4.1 AL — Purpose
  - 7.7.2.4.2 AL — Start and Stop conditions
  - 7.7.2.4.3 AL — Timer expiration
  - 7.7.2.5 AL — Timer tCM\_DeadlockPrev
  - 7.7.2.5.1 AL — Purpose
  - 7.7.2.5.2 AL — Start and Stop conditions
  - 7.7.2.5.3 AL — Timer expiration
- 8 PL — Presentation layer
- 8.1 PL — Data and basic data types
    - 8.1.1 PL — General
    - 8.1.2 PL — Boolean
    - 8.1.3 PL — Enum
    - 8.1.4 PL — Numeric data types
      - 8.1.4.1 PL — FBlock library attributes for numeric data types
      - 8.1.4.2 PL — Integer data types
        - 8.1.4.2.1 PL — Attributes for integer data types
        - 8.1.4.2.2 PL — Fixed-point representation of integers
        - 8.1.4.2.3 PL — Bit-oriented representation of unsigned integers
        - 8.1.4.2.4 PL — Unsigned Byte
        - 8.1.4.2.5 PL — Signed Byte
        - 8.1.4.2.6 PL — Unsigned Word
        - 8.1.4.2.7 PL — Signed Word
        - 8.1.4.2.8 PL — Unsigned Long
        - 8.1.4.2.9 PL — Signed Long
        - 8.1.4.2.10 PL — Unsigned Long Long
        - 8.1.4.2.11 PL — Signed Long Long
      - 8.1.4.3 PL — Floating-point data types
        - 8.1.4.3.1 PL — Float
        - 8.1.4.3.2 PL — Double
    - 8.1.5 PL — Length-coded String
    - 8.1.6 PL — Array Type
    - 8.1.7 PL — Record Type
    - 8.1.8 PL — Stream
      - 8.1.8.1 PL — Attributes and values
      - 8.1.8.2 PL — Stream parameter repetition
      - 8.1.8.3 PL — Stream signals
      - 8.1.8.4 PL — Stream cases
    - 8.1.9 PL — BitField
    - 8.1.10 PL — String
    - 8.1.11 PL — Short Stream
    - 8.1.12 PL — Classified Stream
  - 8.2 PL — Function classes
    - 8.2.1 PL — Purpose
    - 8.2.2 PL — Properties with a single parameter
      - 8.2.2.1 PL — Overview
      - 8.2.2.2 PL — Function class Switch
      - 8.2.2.3 PL — Function class Number
      - 8.2.2.4 PL — Function class Text
      - 8.2.2.5 PL — Function class Enumeration
      - 8.2.2.6 PL — Function class Container
      - 8.2.2.7 PL — Function class BoolField
      - 8.2.2.8 PL — Function class BitSet
    - 8.2.3 PL — Properties with multiple parameters
      - 8.2.3.1 PL — Overview
      - 8.2.3.2 PL — Function class DynamicArray
        - 8.2.3.2.1 PL — General
        - 8.2.3.2.2 PL — Editing in DynamicArrays
        - 8.2.3.2.3 PL — Insertion of elements
        - 8.2.3.2.4 PL — Deletion of elements
        - 8.2.3.2.5 PL — Notification on DynamicArrays

- 8.2.3.3 PL — Function class LongArray
- 8.2.3.3.1 PL — General
- 8.2.3.3.2 PL — MotherArray
- 8.2.3.3.3 PL — ArrayWindow
- 8.2.3.3.4 PL — Inserting and deleting lines
- 8.2.3.3.5 PL — Positioning an ArrayWindow on a MotherArray
- 8.2.3.3.5.1 PL — MoveArrayWindow function
- 8.2.3.3.5.2 PL — Top and Bottom
- 8.2.3.3.5.3 PL — Up and Down
- 8.2.3.3.5.4 PL — Absolute
- 8.2.3.3.6 PL — Re-synchronization of ArrayWindows
- 8.2.3.4 PL — Function class Sequence Property
- 8.2.3.5 PL — Function class Collection
- 8.2.3.6 PL — Function class Record
- 8.2.3.7 PL — Function class Array
- 8.2.3.8 PL — Function class Map
- 8.2.3.8.1 PL — General
- 8.2.3.8.2 PL — Status transmission for function class Map
- 8.2.3.8.3 PL — Editing in function class Map: MapIns
- 8.2.3.8.4 PL — Editing in function class map: MapDel
- 8.2.4 PL — Function classes for methods
- 8.2.4.1 PL — Overview
- 8.2.4.2 PL — Function class Trigger Method
- 8.2.4.3 PL — Function class Sequence Method

9 Service interface definition to transport layer and network layer

Page count: 136