

| Document Title             | List of Basic Software<br>Modules |
|----------------------------|-----------------------------------|
| Document Owner             | AUTOSAR                           |
| Document Responsibility    | AUTOSAR                           |
| Document Identification No | 150                               |
|                            |                                   |
| Document Status            | Final                             |
| Part of AUTOSAR Standard   | Classic Platform                  |
| Part of Standard Release   | 4.3.1                             |

|            | Document Change History |                                  |   |  |  |  |  |
|------------|-------------------------|----------------------------------|---|--|--|--|--|
| Date       | Revision Changed by     |                                  | Change Description  |  |  |  |  |
| 2017-12-08 | 4.3.1                   | AUTOSAR<br>Release<br>Management | Corrected prefix for Crypto Driver  |  |  |  |  |
| 2016-11-30 | 4.3.0                   | AUTOSAR<br>Release<br>Management | <ul> <li>Corrected DLT layer assignment after DLT rework</li> <li>Deprecated Debugging module removed</li> <li>Added SOME/IP-Transport Protocol</li> <li>Introduced modules for Vehicle-2-X communication</li> <li>Introduced modules for new Crypto stack</li> </ul>     |  |  |  |  |
| 2015-07-31 | 4.2.2                   | AUTOSAR<br>Release<br>Management | Adopted name for "DefaultErrorTracer"   |  |  |  |  |
| 2014-10-31 | 4.2.1                   | AUTOSAR<br>Release<br>Management | <ul> <li>Added COMBased-Transformer</li> <li>Added E2E-Transformer</li> <li>Added SOME/IP-Transformer</li> <li>Added Ethernet Switch Driver</li> <li>Added Large Data COM</li> <li>Added Secure Onboard Communication</li> <li>Added Global Time Synch Modules</li> </ul> |  |  |  |  |



| 2017-12-08 | 4.3.1 | AUTOSAR                | Corrected prefix for Crypto Driver                                       |
|------------|-------|------------------------|--|
| 2017-12-00 | 4.5.1 | Release                | Corrected prefix for Crypto Driver                                       |
|            |       | Management             |  |
| 2013-03-15 | 4.1.1 | AUTOSAR                | Corrected prefix for module "DIt" and                                    |
| 2010 00 10 |       | Administration         | "CorTst"   |
|            |       | / tarriir ii stratiori | Layer assignment of module "Flash  |
|            |       |                        | EEPROM Emulation" (Fee) corrected  |
|            |       |                        | • List of abbreviations removed (please                                  |
|            |       |                        | refer to AUTOSAR_TR_Glossary instead)                                    |
|            |       |                        | • Added J1939Dcm, J1939Nm, J1939Rm                                       |
|            |       |                        | Added new Output Compare Unit Driver                                     |
|            |       |                        | "Ocu"  |
|            |       |                        | • Added new Eth. Modules "Tcplp", "Sd",                                  |
|            |       |                        | "DoIP"   |
|            |       |                        | Added new Timer Services "Tm"  |
|            |       |                        | Prepared new HW-Test   |
|            |       |                        | Interface/Manager  |
|            |       |                        | Added MemMap as special file   |
|            |       |                        | · ·  |
| 0044 40 00 | 4.0.0 | ALITOOAD               | Oleman IIII De Terrescotte de III de                                     |
| 2011-12-22 | 4.0.3 | AUTOSAR                | Changed "FlexRay Transport Layer" into     "FlexPay 100 Transport Layer" |
|            |       | Administration         | "FlexRay ISO Transport Layer"  |
|            |       |                        | Added FlexRay AUTOSAR Transport     Layer                                |
|            |       |                        | Layer assignment of module "Flash Test"                                  |
|            |       |                        | (FIsTst) corrected   |
|            |       |                        | Added page "Special Files"   |
| 2011-04-15 | 4.0.2 | AUTOSAR                | Abbreviations list completely redone                                     |
|            | -     | Administration         | <ul> <li>Added comment about the OS prefix</li> </ul>                    |
|            |       |                        | Added second specification document to                                   |
|            |       |                        | the EcuM entry   |
|            |       |                        | Beautification of file names   |
| 2009-12-18 | 4.0.1 | AUTOSAR                | <ul> <li>Added new R4.0 modules like</li> </ul>                          |
|            |       | Administration         | "Diagnostic Log and Trace" or "Ethernet                                  |
|            |       |                        | Driver"  |
|            |       |                        | • The BSW Scheduler Module (SchM)  |
|            |       |                        | became part of the RTE   |
|            |       |                        | Removed Cluster and Cluster Variants                                     |
|            |       |                        | Simplified the Module List   |
|            |       |                        | Added new list for libraries   |
| 2009-02-04 | 3.0.4 | AUTOSAR                | Legal disclaimer revised     Correction of LinNM classification          |
| 2000 02-04 | 0.0.7 | Administration         | Correction of Elinativi diagonication                                    |
| 2008-06-09 | 3.0.3 | AUTOSAR                | Legal Disclaimer revised   |
|            | 2.0.0 | Administration         |  |



|            |        | T = =          | T  |
|------------|--------|----------------|--|
| 2017-12-08 | 4.3.1  | AUTOSAR        | <ul> <li>Corrected prefix for Crypto Driver</li> </ul> |
|            |        | Release        |  |
|            |        | Management     |  |
| 2007-12-21 | 3.0.1  | AUTOSAR        | <ul> <li>FlexRay, CAN and LIN State manager</li> </ul> |
|            |        | Administration | short name Camelcase adjusted                          |
|            |        |                | Complex Device Driver module ID set to                 |
|            |        |                | 255  |
|            |        |                | ICC2 clustering updated                                |
|            |        |                | Release assignment column updated for                  |
|            |        |                | R3.0 release   |
|            |        |                | <ul> <li>Autosar Service column updated for</li> </ul> |
|            |        |                | consistency  |
| 2007-01-24 | 2.1.15 | AUTOSAR        | ICC2 cluster overview and cluster variant              |
|            |        | Administration | added  |
|            |        |                | Add modules: Generic NM and Lin                        |
|            |        |                | Transceiver Driver                                     |
|            |        |                | <ul> <li>Change name: Generic NM to CAN</li> </ul>     |
|            |        |                | Generic NM   |
|            |        |                | Add columns  |
|            |        |                | Mapping to other releases                              |
|            |        |                | 5  |
|            |        |                | Legal disclaimer revised                               |
|            |        |                | "Advice for users" revised                             |
| 2006-05-16 | 2.0.1  | AUTOSAR        | Initial release  |



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| Module short name                   | Module<br>abbreviation<br>(API service<br>prefix) | Module<br>ID<br>(uint16) | Specification document   | AUTOSAR SW<br>Layer             |
|-------------------------------------|---|--------------------------|--|---------------------------------|
| ADC Driver                          | Adc   | 123                      | AUTOSAR_SWS_ADCDriver.pdf  | I/O Drivers                     |
| BSW Mode Manager                    | BswM  | 042                      | AUTOSAR_SWS_BSWModeManager.pdf   | System Services                 |
| BSW Scheduler Module                | SchM  | 130                      | "since Rel. 4.0 part of RTE"   | System Services                 |
| CAN Driver                          | Can   | 080                      | AUTOSAR_SWS_CANDriver.pdf  | Communication<br>Drivers        |
| CAN Interface                       | Canlf   | 060                      | AUTOSAR_SWS_CANInterface.pdf   | Communication<br>HW Abstraction |
| CAN Network Management              | CanNm   | 031                      | AUTOSAR_SWS_CANNetworkManagement.pdf                                   | Communication<br>Services       |
| CAN State Manager                   | CanSM   | 140                      | AUTOSAR_SWS_CANStateManager.pdf  | Communication<br>Services       |
| CAN Tranceiver Driver               | CanTrcv   | 070                      | AUTOSAR_SWS_CANTransceiverDriver.pdf                                   | Communication<br>HW Abstraction |
| CAN Transport Layer                 | CanTp   | 035                      | AUTOSAR_SWS_CANTransportLayer.pdf                                      | Communication<br>Services       |
| СОМ                                 | Com   | 050                      | AUTOSAR_SWS_COM.pdf  | Communication<br>Services       |
| COM Based Transformer               | ComXf   | 175                      | AUTOSAR_SWS_COMBasedTransformer.pdf                                    | Communication<br>Services       |
| COM Manager                         | ComM  | 012                      | AUTOSAR_SWS_COMManager.pdf   | System Services                 |
| Complex Drivers                     | no prefix<br>(AUTOSAR<br>interface)               | 255                      | not applicable   | Complex Drivers                 |
| Core Test                           | CorTst  | 103                      | AUTOSAR_SWS_CoreTest.pdf   | Microcontroller<br>Drivers      |
| Crypto Driver                       | Crypto  | 114                      | AUTOSAR_SWS_CryptoDriver.pdf   | Crypto Drivers                  |
| Crypto Interface                    | Crylf   | 112                      | AUTOSAR_SWS_CryptoInterface.pdf  | Crypto HW<br>Abstraction        |
| Crypto Service Manager              | Csm   | 110                      | AUTOSAR_SWS_CryptoServiceManager.pdf                                   | Crypto Services                 |
| Default Error Tracer                | Det   | 015                      | AUTOSAR_SWS_DefaultErrorTracer.pdf                                     | System Services                 |
| Diagnostic Communication<br>Manager | Dcm   | 053                      | AUTOSAR_SWS_DiagnosticCommunicationManager.pdf                         | Communication<br>Services       |
| Diagnostic Event Manager            | Dem   | 054                      | AUTOSAR_SWS_DiagnosticEventManager.pdf                                 | System Services                 |
| Diagnostic Log and Trace            | Dlt   | 055                      | AUTOSAR_SWS_DiagnosticLogAndTrace.pdf                                  | Communication<br>Services       |
| Diagnostic over IP                  | DoIP  | 173                      | AUTOSAR_SWS_DiagnosticOverIP.pdf                                       | Communication<br>Services       |
| DIO Driver                          | Dio   | 120                      | AUTOSAR_SWS_DIODriver.pdf  | I/O Drivers                     |
| E2E Transformer                     | E2EXf   | 176                      | AUTOSAR_SWS_E2ETransformer.pdf   | Communication<br>Services       |
| ECU State Manager                   | EcuM  | 010                      | AUTOSAR_SWS_ECUStateManager.pdf / AUTOSAR_SWS_ECUStateManagerFixed.pdf | System Services                 |



| Module short name                  | Module<br>abbreviation<br>(API service<br>prefix) | Module<br>ID<br>(uint16) | Specification document                    | AUTOSAR SW<br>Layer             |
|------------------------------------|---|--------------------------|---|---------------------------------|
| EEPROM Abstraction                 | Ea  | 040                      | AUTOSAR_SWS_EEPROMAbstraction.pdf         | Memory HW<br>Abstraction        |
| EEPROM Driver                      | Еер   | 090                      | AUTOSAR_SWS_EEPROMDriver.pdf              | Memory Drivers                  |
| Ethernet Driver                    | Eth   | 088                      | AUTOSAR_SWS_EthernetDriver.pdf            | Communication<br>Drivers        |
| Ethernet Interface                 | Ethlf   | 065                      | AUTOSAR_SWS_EthernetInterface.pdf         | Communication<br>HW Abstraction |
| Ethernet State Manager             | EthSM   | 143                      | AUTOSAR_SWS_EthernetStateManager.pdf      | Communication<br>Services       |
| Ethernet Switch Driver             | EthSwt  | 089                      | AUTOSAR_SWS_EthernetSwitchDriver.pdf      | Communication<br>HW Abstraction |
| Ethernet Transceiver Driver        | EthTrcv   | 073                      | AUTOSAR_SWS_EthernetTransceiverDriver.pdf | Communication<br>HW Abstraction |
| Flash Driver                       | Fls   | 092                      | AUTOSAR_SWS_FlashDriver.pdf               | Memory Drivers                  |
| Flash EEPROM Emulation             | Fee   | 021                      | AUTOSAR_SWS_FlashEEPROMEmulation.pdf      | Memory HW<br>Abstraction        |
| Flash Test                         | FlsTst  | 104                      | AUTOSAR_SWS_FlashTest.pdf                 | Memory Drivers                  |
| FlexRay AUTOSAR Transport<br>Layer | FrArTp  | 038                      | AUTOSAR_SWS_FlexRayARTransportLayer.pdf   | Communication<br>Services       |
| FlexRay Driver                     | Fr  | 081                      | AUTOSAR_SWS_FlexRayDriver.pdf             | Communication<br>Drivers        |
| FlexRay Interface                  | Frlf  | 061                      | AUTOSAR_SWS_FlexRayInterface.pdf          | Communication<br>HW Abstraction |
| FlexRay ISO Transport Layer        | FrTp  | 036                      | AUTOSAR_SWS_FlexRayISOTransportLayer.pdf  | Communication<br>Services       |
| FlexRay Network Management         | FrNm  | 032                      | AUTOSAR_SWS_FlexRayNetworkManagement.pdf  | Communication<br>Services       |
| FlexRay State Manager              | FrSM  | 142                      | AUTOSAR_SWS_FlexRayStateManager.pdf       | Communication<br>Services       |
| FlexRay Tranceiver Driver          | FrTrcv  | 071                      | AUTOSAR_SWS_FlexRayTransceiverDriver.pdf  | Communication<br>HW Abstraction |
| Function Inhibition Manager        | FiM   | 011                      | AUTOSAR_SWS_FunctionInhibitionManager.pdf | System Services                 |
| GPT Driver                         | Gpt   | 100                      | AUTOSAR_SWS_GPTDriver.pdf                 | Microcontroller<br>Drivers      |
| ICU Driver                         | lcu   | 122                      | AUTOSAR_SWS_ICUDriver.pdf                 | I/O Drivers                     |
| IO HW Abstraction                  | no prefix<br>(AUTOSAR<br>interface)               | 254                      | AUTOSAR_SWS_IOHardwareAbstraction.pdf     | I/O HW<br>Abstraction           |
| IPDU Multiplexer                   | IpduM   | 052                      | AUTOSAR_SWS_IPDUMultiplexer.pdf           | Communication Services          |
| Large Data COM                     | LdCom   | 049                      | AUTOSAR_SWS_LargeDataCOM.pdf              | Communication<br>Services       |
| LIN Driver                         | Lin   | 082                      | AUTOSAR_SWS_LINDriver.pdf                 | Communication<br>Drivers        |
| LIN Interface                      | LinIf   | 062                      | AUTOSAR_SWS_LINInterface.pdf              | Communication<br>HW Abstraction |
| LIN Network Management             | LinNm   | 063                      | AUTOSAR_SWS_LINNetworkManagement.pdf      | Communication<br>Services       |



| Module short name                             | Module<br>abbreviation<br>(API service<br>prefix) | Module<br>ID<br>(uint16) | Specification document                                  | AUTOSAR SW<br>Layer             |
|---|---|--------------------------|---|---------------------------------|
| LIN State Manager                             | LinSM   | 141                      | AUTOSAR_SWS_LINStateManager.pdf                         | Communication<br>Services       |
| LIN Transceiver Driver                        | LinTrcv   | 064                      | AUTOSAR_SWS_LINTransceiverDriver.pdf                    | Communication<br>HW Abstraction |
| MCU Driver                                    | Mcu   | 101                      | AUTOSAR_SWS_MCUDriver.pdf                               | Microcontroller<br>Drivers      |
| Memory Abstraction Interface                  | MemIf   | 022                      | AUTOSAR_SWS_MemoryAbstractionInterface.pdf              | Memory Services                 |
| Network Management Interface                  | Nm  | 029                      | AUTOSAR_SWS_NetworkManagementInterface.pd f             | Communication<br>Services       |
| NVRAM Manager                                 | NvM   | 020                      | AUTOSAR_SWS_NVRAMManager.pdf                            | Memory Services                 |
| OCU Driver                                    | Ocu   | 125                      | AUTOSAR_SWS_OCUDriver.pdf                               | I/O Drivers                     |
| os  | Os<br>(not used as<br>API prefix)                 | 001                      | AUTOSAR_SWS_OS.pdf                                      | System Services -<br>OS         |
| PDU Router                                    | PduR  | 051                      | AUTOSAR_SWS_PDURouter.pdf                               | Communication<br>Services       |
| Port Driver                                   | Port  | 124                      | AUTOSAR_SWS_PortDriver.pdf                              | I/O Drivers                     |
| PWM Driver                                    | Pwm   | 121                      | AUTOSAR_SWS_PWMDriver.pdf                               | I/O Drivers                     |
| RAM Test                                      | RamTst  | 093                      | AUTOSAR_SWS_RAMTest.pdf                                 | Memory Drivers                  |
| RTE   | Rte   | 002                      | AUTOSAR_SWS_RTE.pdf                                     | RTE                             |
| SAE J1939 Diagnostic<br>Communication Manager | J1939Dcm  | 058                      | AUTOSAR_SWS_SAEJ1939DiagnosticCommunica tionManager.pdf | Communication<br>Services       |
| SAE J1939 Network Management                  | J1939Nm   | 034                      | AUTOSAR_SWS_SAEJ1939NetworkManagement. pdf              | Communication<br>Services       |
| SAE J1939 Request Manager                     | J1939Rm   | 059                      | AUTOSAR_SWS_SAEJ1939RequestManager.pdf                  | Communication<br>Services       |
| SAE J1939 Transport Layer                     | J1939Tp   | 037                      | AUTOSAR_SWS_SAEJ1939TransportLayer.pdf                  | Communication<br>Services       |
| Secure Onboard Communication                  | SecOC   | 150                      | AUTOSAR_SWS_SecureOnboardCommunication.p                | Communication<br>Services       |
| Service Discovery                             | Sd  | 171                      | AUTOSAR_SWS_ServiceDiscovery.pdf                        | Communication<br>Services       |
| Socket Adaptor                                | SoAd  | 056                      | AUTOSAR_SWS_SocketAdaptor.pdf                           | Communication<br>Services       |
| SOME/IP Transformer                           | SomelpXf  | 174                      | AUTOSAR_SWS_SOMEIPTransformer.pdf                       | Communication<br>Services       |
| SOME/IP Transport Protocol                    | SomelpTp  | 177                      | AUTOSAR_SWS_SOMEIPTransportProtocol .pdf                | Communication<br>Services       |
| SPI Handler Driver                            | Spi   | 083                      | AUTOSAR_SWS_SPIHandlerDriver.pdf                        | Communication<br>Drivers        |
| Synchronized Time-Base Manager                | StbM  | 160                      | AUTOSAR_SWS_SynchronizedTimeBaseManager. pdf            | System Services                 |
| TCP/IP Stack                                  | ТсрІр   | 170                      | AUTOSAR_SWS_Tcplp.pdf                                   | Communication<br>Services       |
| Time Service                                  | Tm  | 014                      | AUTOSAR_SWS_TimeService.pdf                             | System Services                 |



| Module short name                       | Module<br>abbreviation<br>(API service<br>prefix) | Module<br>ID<br>(uint16) | Specification document                             | AUTOSAR SW<br>Layer              |
|---|---|--------------------------|--|----------------------------------|
| Time Sync Over CAN                      | CanTSyn   | 161                      | AUTOSAR_SWS_TimeSyncOverCAN.pdf                    | Communication<br>Services        |
| Time Sync Over Ethernet                 | EthTSyn   | 164                      | AUTOSAR_SWS_TimeSyncOverEthernet.pdf               | Communication Services           |
| Time Sync Over FlexRay                  | FrTSyn  | 163                      | AUTOSAR_SWS_TimeSyncOverFlexRay.pdf                | Communication Services           |
| TTCAN Driver                            | Ttcan   | 084                      | AUTOSAR_SWS_TTCANDriver.pdf                        | Communication<br>Drivers         |
| TTCAN Interface                         | Ttcanlf   | 066                      | AUTOSAR_SWS_TTCANInterface.pdf                     | Communication<br>HW Abstraction  |
| UDP Network Management                  | UdpNm   | 033                      | AUTOSAR_SWS_UDPNetworkManagement.pdf               | Communication Services           |
| Vehicle-2-X Basic Transport             | V2xBtp  | 183                      | AUTOSAR_SWS_V2XBasicTransport.pdf                  | Off-board Comm.<br>Services      |
| Vehicle-2-X Facilities                  | V2xFac  | 184                      | AUTOSAR_SWS_V2XFacilities.pdf                      | Off-board Comm.<br>Services      |
| Vehicle-2-X GeoNetworking               | V2xGn   | 182                      | AUTOSAR_SWS_V2XGeoNetworking.pdf                   | Off-board Comm.<br>Services      |
| Vehicle-2-X Management                  | V2xM  | 185                      | AUTOSAR_SWS_V2XManagement.pdf                      | Off-board Comm.<br>Services      |
| Watchdog Driver                         | Wdg   | 102                      | AUTOSAR_SWS_WatchdogDriver.pdf                     | Microcontroller<br>Drivers       |
| Watchdog Interface                      | Wdglf   | 043                      | AUTOSAR_SWS_WatchdogInterface.pdf                  | Onboard Device<br>Abstraction    |
| Watchdog Manager                        | WdgM  | 013                      | AUTOSAR_SWS_WatchdogManager.pdf                    | System Services                  |
| Wireless Ethernet Driver                | WEth  | 087                      | AUTOSAR_SWS_WirelessEthernetDriver.pdf             | Wireless Comm.<br>Drivers        |
| Wireless Ethernet Transceiver<br>Driver | WEthTrcv  | 074                      | AUTOSAR_SWS_WirelessEthernetTransceiverDriv er.pdf | Wireless Comm.<br>HW Abstraction |
| XCP                                     | Хср   | 212                      | AUTOSAR_SWS_XCP.pdf                                | Communication Services           |



## **List of libraries**

| Libraries short name | Libraries<br>abbreviation<br>(API service<br>prefix) | Libraries<br>(Module) ID<br>(uint16) | Specification document     |
|----------------------|--|--------------------------------------|----------------------------|
| CRC Library          | Crc  | 201                                  | AUTOSAR_SWS_CRCLibrary.pdf |
| BFx Library          | Bfx  | 205                                  | AUTOSAR_SWS_BFXLibrary.pdf |
| E2E Library          | E2E  | 207                                  | AUTOSAR_SWS_E2ELibrary.pdf |
| EFx Library          | Efx  | 208                                  | AUTOSAR_SWS_EFXLibrary.pdf |
| IFI Library          | lfl  | 209                                  | AUTOSAR_SWS_IFLLibrary.pdf |
| MFI Library          | Mfl  | 210                                  | AUTOSAR_SWS_MFLLibrary.pdf |
| MFx Library          | Mfx  | 211                                  | AUTOSAR_SWS_MFXLibrary.pdf |
| IFx Library          | lfx  | 213                                  | AUTOSAR_SWS_IFXLibrary.pdf |



# List of special files

| AUTOSAR name              | Short name<br>(API service<br>prefix) | File name         | Module<br>ID | Specification document                  |
|---------------------------|---------------------------------------|-------------------|--------------|---|
| Platform Types            | Platform                              | Platform_Types.h  | 199          | AUTOSAR_SWS_PlatformTypes.pdf           |
| Compiler Abstraction      | Compiler                              | Compiler.h        | 198          | AUTOSAR_SWS_CompilerAbstraction.pdf     |
| Standard Types            | Std                                   | Std_Types.h       | 197          | AUTOSAR_SWS_StandardTypes.pdf           |
| Communication Stack Types | Comtype                               | ComStack_Types.h  | 196          | AUTOSAR_SWS_CommunicationStackTypes.pdf |
| Memory Mapping            | MemMap                                | (Prefix_)MemMap.h | 195          | AUTOSAR_SWS_MemoryMapping.pdf           |