Document Title	List of Basic Software Modules
Document Owner	AUTOSAR
Document Responsibility	AUTOSAR
Document Id No	150
Document Classification	Auxiliary
Document Status	Final
Part of AUTOSAR Standard	Classic Platform
Part of Standard Release	4.3.0

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

Date	Revision	Changed by	Change Description
2013-03-15	4.1.1	AUTOSAR Administration	• Corrected prefix for module "Dlt" and "CorTst" • 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 "TcpIp", "Sd", "DoIP" • Added new Timer Services "Tm" • Prepared new HW-Test Interface/Manager • Added MemMap as special file
2011-12-22	4.0.3	AUTOSAR Administration	• Changed "FlexRay Transport Layer" into "FlexRay ISO Transport Layer" • Added FlexRay AUTOSAR Transport Layer • Layer assignment of module "Flash Test" (FlsTst) corrected • Added page "Special Files"
2011-04-15	4.0.2	AUTOSAR Administration	• Abbreviations list completely redone • Added comment about the OS prefix • Added second specification document to the EcuM entry • Beautification of file names
2009-12-18	4.0.1	AUTOSAR Administration	• Added new R4.0 modules like "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 • Legal disclaimer revised
2009-02-04	3.0.4	AUTOSAR Administration	Correction of LinNM classification
2008-06-09	3.0.3	AUTOSAR Administration	Legal Disclaimer revised

Date	Revision	Changed by	Change Description
2007-12-21	3.0.1	AUTOSAR Administration	• FlexRay, CAN and LIN State manager short name Camelcase adjusted • Complex Device Driver module ID set to 255 • ICC2 clustering updated • Release assignment column updated for R3.0 release • Autosar Service column updated for consistency
2007-01-24	2.1.15	AUTOSAR Administration	• ICC2 cluster overview and cluster variant added • Add modules: Generic NM and Lin Transceiver Driver • Change name: Generic NM to CAN Generic NM • Add columns • Mapping to other releases • Legal disclaimer revised • "Advice for users" revised
2006-05-16	2.0.1	AUTOSAR	Initial release

Disclaimer

This specification and the material contained in it, as released by AUTOSAR, is for the purpose of information only. AUTOSAR and the companies that have contributed to it shall not be liable for any use of the specification.

The material contained in this specification is protected by copyright and other types of Intellectual Property Rights. The commercial exploitation of the material contained in this specification requires a license to such Intellectual Property Rights.

This specification may be utilized or reproduced without any modification, in any form or by any means, for informational purposes only.
For any other purpose, no part of the specification may be utilized or reproduced, in any form or by any means, without permission in writing from the publisher.

The AUTOSAR specifications have been developed for automotive applications only. They have neither been developed, nor tested for non-automotive applications.

The word AUTOSAR and the AUTOSAR logo are registered trademarks.

Advice for users

AUTOSAR specifications may contain exemplary items (exemplary reference models, "use cases", and/or references to exemplary technical solutions, devices, processes or software).

Any such exemplary items are contained in the specifications for illustration purposes only, and they themselves are not part of the AUTOSAR Standard. Neither their presence in such specifications, nor any later documentation of AUTOSAR conformance of products actually implementing such exemplary items, imply that intellectual property rights covering such exemplary items are licensed under the same rules as applicable to the AUTOSAR Standard.

List of Basic Software Modules

Module short name	Module abbreviation (API service prefix)	Module ID (uint16)	Specification document	AUTOSAR SW 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 Drivers
CAN Interface	Canlf	060	AUTOSAR_SWS_CANInterface.pdf	Communication HW Abstraction
CAN Network Management	CanNm	031	AUTOSAR_SWS_CANNetworkManagement.pdf	Communication Services
CAN State Manager	CanSM	140	AUTOSAR_SWS_CANStateManager.pdf	Communication Services
CAN Tranceiver Driver	CanTrcv	070	AUTOSAR_SWS_CANTransceiverDriver.pdf	Communication HW Abstraction
CAN Transport Layer	CanTp	035	AUTOSAR_SWS_CANTransportLayer.pdf	Communication Services
COM	Com	050	AUTOSAR_SWS_COM.pdf	Communication Services
COM Based Transformer	ComXf	175	AUTOSAR_SWS_COMBasedTransformer.pdf	Communication Services
COM Manager	ComM	012	AUTOSAR_SWS_COMManager.pdf	System Services
Complex Drivers	no prefix (AUTOSAR interface)	255	not applicable	Complex Drivers
Core Test	CorTst	103	AUTOSAR_SWS_CoreTest.pdf	Microcontroller Drivers
Crypto Driver	Cry	114	AUTOSAR_SWS_CryptoDriver.pdf	Crypto Drivers
Crypto Interface	Crylf	112	AUTOSAR_SWS_CryptoInterface.pdf	Crypto HW 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 Manager	Dcm	053	AUTOSAR_SWS_DiagnosticCommunicationManager.pdf	Communication Services
Diagnostic Event Manager	Dem	054	AUTOSAR_SWS_DiagnosticEventManager.pdf	System Services
Diagnostic Log and Trace	Dlt	055	AUTOSAR_SWS_DiagnosticLogAndTrace.pdf	Communication Services
Diagnostic over IP	DoIP	173	AUTOSAR_SWS_DiagnosticOverIP.pdf	Communication Services
DIO Driver	Dio	120	AUTOSAR_SWS_DIODriver.pdf	I/O Drivers
E2E Transformer	E2EXf	176	AUTOSAR_SWS_E2ETransformer.pdf	Communication Services
ECU State Manager	EcuM	010	AUTOSAR_SWS_ECUStateManager.pdf / AUTOSAR_SWS_ECUStateManagerFixed.pdf	System Services
EEPROM Abstraction	Ea	040	AUTOSAR_SWS_EEPROMAbstraction.pdf	Memory HW Abstraction

- AUTOSAR confidential -

List of Basic Software Modules

Module short name	Module abbreviation (API service prefix)	Module ID (uint16)	Specification document	AUTOSAR SW Layer
EEPROM Driver	Eep	090	AUTOSAR_SWS_EEPROMDriver.pdf	Memory Drivers
Ethernet Driver	Eth	088	AUTOSAR_SWS_EthernetDriver.pdf	Communication Drivers
Ethernet Interface	EthIf	065	AUTOSAR_SWS_EthernetInterface.pdf	Communication HW Abstraction
Ethernet State Manager	EthSM	143	AUTOSAR_SWS_EthernetStateManager.pdf	Communication Services
Ethernet Switch Driver	EthSwt	089	AUTOSAR_SWS_EthernetSwitchDriver.pdf	Communication HW Abstraction
Ethernet Transceiver Driver	EthTrcv	073	AUTOSAR_SWS_EthernetTransceiverDriver.pdf	Communication HW Abstraction
Flash Driver	Fls	092	AUTOSAR_SWS_FlashDriver.pdf	Memory Drivers
Flash EEPROM Emulation	Fee	021	AUTOSAR_SWS_FlashEEPROMEmulation.pdf	Memory HW Abstraction
Flash Test	FlsTst	104	AUTOSAR_SWS_FlashTest.pdf	Memory Drivers
FlexRay AUTOSAR Transport Layer	FrArTp	038	AUTOSAR_SWS_FlexRayARTransportLayer.pdf	Communication Services
FlexRay Driver	Fr	081	AUTOSAR_SWS_FlexRayDriver.pdf	Communication Drivers
FlexRay Interface	FrIf	061	AUTOSAR_SWS_FlexRayInterface.pdf	Communication HW Abstraction
FlexRay ISO Transport Layer	FrTp	036	AUTOSAR_SWS_FlexRayISOTransportLayer.pdf	Communication Services
FlexRay Network Management	FrNm	032	AUTOSAR_SWS_FlexRayNetworkManagement.pdf	Communication Services
FlexRay State Manager	FrSM	142	AUTOSAR_SWS_FlexRayStateManager.pdf	Communication Services
FlexRay Tranceiver Driver	FrTrcv	071	AUTOSAR_SWS_FlexRayTransceiverDriver.pdf	Communication HW Abstraction
Function Inhibition Manager	FiM	011	AUTOSAR_SWS_FunctionInhibitionManager.pdf	System Services
GPT Driver	Gpt	100	AUTOSAR_SWS_GPTDriver.pdf	Microcontroller Drivers
ICU Driver	Icu	122	AUTOSAR_SWS_ICUDriver.pdf	I/O Drivers
IO HW Abstraction	no prefix (AUTOSAR interface)	254	AUTOSAR_SWS_IOHardwareAbstraction.pdf	I/O HW Abstraction
IPDU Multiplexer	IpduM	052	AUTOSAR_SWS_IPDUMultiplexer.pdf	Communication Services
Large Data COM	LdCom	049	AUTOSAR_SWS_LargeDataCOM.pdf	Communication Services
LIN Driver	Lin	082	AUTOSAR_SWS_LINDriver.pdf	Communication Drivers
LIN Interface	LinIf	062	AUTOSAR_SWS_LINInterface.pdf	Communication HW Abstraction
LIN Network Management	LinNm	063	AUTOSAR_SWS_LINNetworkManagement.pdf	Communication Services
LIN State Manager	LinSM	141	AUTOSAR_SWS_LINStateManager.pdf	Communication Services

List of Basic Software Modules

Module short name	Module abbreviation (API service prefix)	Module ID (uint16)	Specification document	AUTOSAR SW Layer
LIN Transceiver Driver	LinTrcv	064	AUTOSAR_SWS_LINTransceiverDriver.pdf	Communication HW Abstraction
MCU Driver	Mcu	101	AUTOSAR_SWS_MCUDriver.pdf	Microcontroller Drivers
Memory Abstraction Interface	MemIf	022	AUTOSAR_SWS_MemoryAbstractionInterface.pdf	Memory Services
Network Management Interface	Nm	029	AUTOSAR_SWS_NetworkManagementInterface.pdf	Communication Services
NVRAM Manager	NvM	020	AUTOSAR_SWS_NVRAMManager.pdf	Memory Services
OCU Driver	Ocu	125	AUTOSAR_SWS_OCUDriver.pdf	I/O Drivers
OS	Os (not used as API prefix)	001	AUTOSAR_SWS_OS.pdf	System Services - OS
PDU Router	PduR	051	AUTOSAR_SWS_PDURouter.pdf	Communication 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 Communication Manager	J1939Dcm	058	AUTOSAR_SWS_SAEJ1939DiagnosticCommunicationManager.pdf	Communication Services
SAE J1939 Network Management	J1939Nm	034	AUTOSAR_SWS_SAEJ1939NetworkManagement.pdf	Communication Services
SAE J1939 Request Manager	J1939Rm	059	AUTOSAR_SWS_SAEJ1939RequestManager.pdf	Communication Services
SAE J1939 Transport Layer	J1939Tp	037	AUTOSAR_SWS_SAEJ1939TransportLayer.pdf	Communication Services
Secure Onboard Communication	SecOC	150	AUTOSAR_SWS_SecureOnboardCommunication.pdf	Communication Services
Service Discovery	Sd	171	AUTOSAR_SWS_ServiceDiscovery.pdf	Communication Services
Socket Adaptor	SoAd	056	AUTOSAR_SWS_SocketAdaptor.pdf	Communication Services
SOME/IP Transformer	SomeIpXf	174	AUTOSAR_SWS_SOMEIPTransformer.pdf	Communication Services
SOME/IP Transport Protocol	SomeIpTp	177	AUTOSAR_SWS_SOMEIPTransportProtocol.pdf	Communication Services
SPI Handler Driver	Spi	083	AUTOSAR_SWS_SPIHandlerDriver.pdf	Communication Drivers
Synchronized Time-Base Manager	StbM	160	AUTOSAR_SWS_SynchronizedTimeBaseManager.pdf	System Services
TCP/IP Stack	TcpIp	170	AUTOSAR_SWS_TcpIp.pdf	Communication Services
Time Service	Tm	014	AUTOSAR_SWS_TimeService.pdf	System Services
Time Sync Over CAN	CanTSyn	161	AUTOSAR_SWS_TimeSyncOverCAN.pdf	Communication Services

List of Basic Software Modules

Module short name	Module abbreviation (API service prefix)	Module ID (uint16)	Specification document	AUTOSAR SW Layer
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 Drivers
TTCAN Interface	TtcanIf	066	AUTOSAR_SWS_TTCANInterface.pdf	Communication 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. Services
Vehicle-2-X Facilities	V2xFac	184	AUTOSAR_SWS_V2XFacilities.pdf	Off-board Comm. Services
Vehicle-2-X GeoNetworking	V2xGn	182	AUTOSAR_SWS_V2XGeoNetworking.pdf	Off-board Comm. Services
Vehicle-2-X Management	V2xM	185	AUTOSAR_SWS_V2XManagement.pdf	Off-board Comm. Services
Watchdog Driver	Wdg	102	AUTOSAR_SWS_WatchdogDriver.pdf	Microcontroller Drivers
Watchdog Interface	WdgIf	043	AUTOSAR_SWS_WatchdogInterface.pdf	Onboard Device Abstraction
Watchdog Manager	WdgM	013	AUTOSAR_SWS_WatchdogManager.pdf	System Services
Wireless Ethernet Driver	WEth	087	AUTOSAR_SWS_WirelessEthernetDriver.pdf	Wireless Comm. Drivers
Wireless Ethernet Transceiver Driver	WEthTrcv	074	AUTOSAR_SWS_WirelessEthernetTransceiverDriver.pdf	Wireless Comm. HW Abstraction
XCP	Xcp	212	AUTOSAR_SWS_XCP.pdf	Communication Services

List of libraries

Libraries short name	Libraries abbreviation (API service prefix)	Libraries (Module) ID (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	Ifl	209	AUTOSAR_SWS_IFLLibrary.pdf
MFI Library	Mfl	210	AUTOSAR_SWS_MFLLibrary.pdf
MFx Library	Mfx	211	AUTOSAR_SWS_MFXLibrary.pdf
IFx Library	Ifx	213	AUTOSAR_SWS_IFXLibrary.pdf

List of special files

AUTOSAR name	Short name (API service prefix)	File name	Module 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