SPC56 MCU family
Software components for AUTOSAR-enabled systems

Fast, professional AUTOSAR solutions for developing advanced automotive systems with SPC56 family MCUs

AUTomotive Open System ARchitecture (AUTOSAR) is a worldwide development partnership of car manufacturers, suppliers and other companies from the electronics, semiconductor and software industries that facilitates the exchange and update of software and hardware over the service life of the vehicle.

ST is an AUTOSAR Premium Member, and committed to supporting the development of standardized software infrastructure for automotive applications.
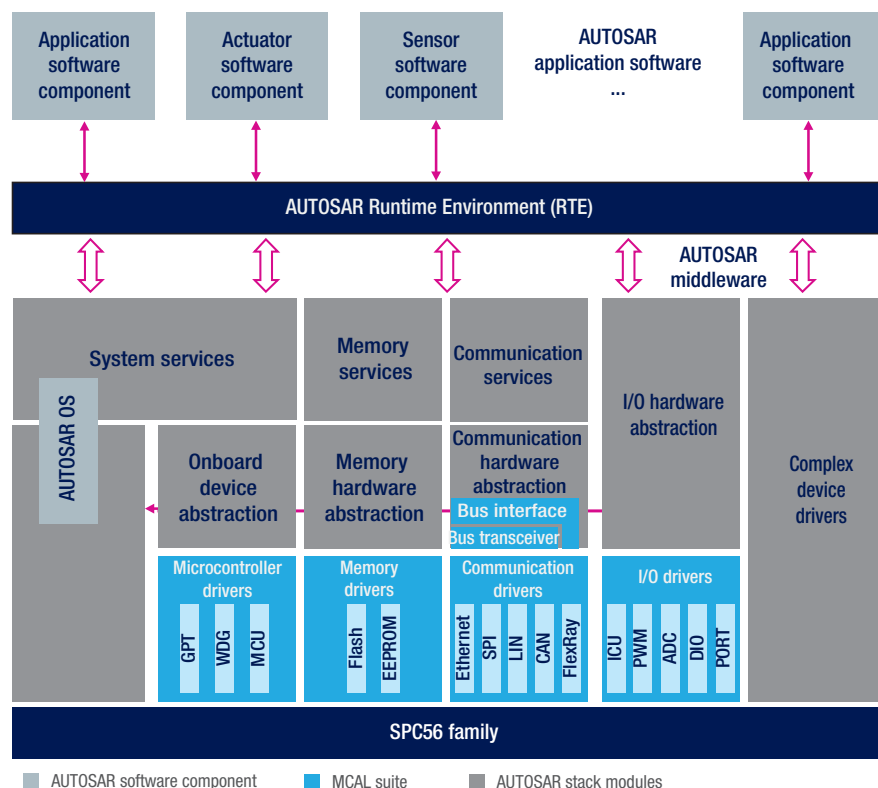
MCAL SUITE

- ST's proprietary MCAL suite is an optimized and comprehensive set of AUTOSAR-compliant drivers featuring top performance with lowest memory footprints
- Full compatibility with AUTOSAR specifications
- Developed and validated in accordance with CMMI and AUTOMOTIVE SPICE Level 3 framework to guarantee high quality
- Complemented by complex device drivers and libraries, to support SPC56 standard and non-standard microcontroller peripherals
- Customers requiring additional services such as production frozen branches, driver customization and MCAL module extension should contact ST sales representatives

FULL AUTOSAR SOLUTIONS

- ST's MCAL suite and Elektrobit's EB tresos products form a complete AUTOSAR solution for SPC56 family MCUs
- Customers can order a starter package from ST, including both the MCAL suite and the EB tresos studio, for a cost-sensitive high-quality and high-performance development solution
- A comprehensive set of releases (V3.0/3.1, and 4.0) are available for all SPC56 family MCUs; release V3.2 is available for B, C and D line MCUs only
- Customers requiring an AUTOSAR customization and extensive support services should contact Elektrobit

AUTOSAR SUITE SCHEMATIC

Application software component | Actuator software component | Sensor software component | AUTOSAR application software ... | Application software component

AUTOSAR Runtime Environment (RTE)

AUTOSAR middleware

System services | AUTOSAR OS | Memory services | Communication services | I/O hardware abstraction | Complex device drivers

Onboard device abstraction | Memory hardware abstraction | Communication hardware abstraction

Bus interface
Bus transceiver

Microcontroller drivers — GPT, WDG, MCU
Memory drivers — Flash, EEPROM
Communication drivers — Ethernet, SPI, LIN, CAN, FlexRay
I/O drivers — ICU, PWM, ADC, DIO, PORT

SPC56 family

■ AUTOSAR software component   ■ MCAL suite   ■ AUTOSAR stack modules

LICENSING SCHEME

The MCAL suite and full AUTOSAR solutions can be purchased with multiple licensing options (evaluation, development and production licenses; project, product and company licenses) to meet challenging technical and cost targets.

This offer is complemented by standard and dedicated maintenance services to support customers across product life.

SOFTWARE OFFER SUMMARY

Software solutions	Order code	Description	Licensing
MCAL suite	SPC56MCAL-A30 SPC56MCAL-A32 SPC56MCAL-A40	AUTOSAR-compliant drivers	- Free trial license available from ST - Commercial licenses available for development and production, on a per project, per product or per company basis
AUTOSAR starter packages	SW_ASR_S-KIT_1	MCAL suite EB tresos studio for MCAL	
	SW_ASR_S-KIT_2	MCAL suite AUTOSAR OS (V3.0/3.1/3.2/V4.0)	
	SW_ASR_S-KIT_3	MCAL suite AUTOSAR OS (V3.0/3.1/3.2/V4.0) HW independent BSW service layers EB tresos studio	

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