

Processor for Telematics and Connectivity



Cost-effective Automotive-grade Solution for In-vehicle Connected Services

Telematics has become a key segment due to rising demand for connectivity and safety features, such as emergency call and remote vehicle diagnostics.

ST's Telemaco2 dual core offers a powerful application processor and a secure, independent subsystem for CAN vehicle control. Telemaco2 is a cost effective, high performance automotive grade solution.

KEY FEATURES

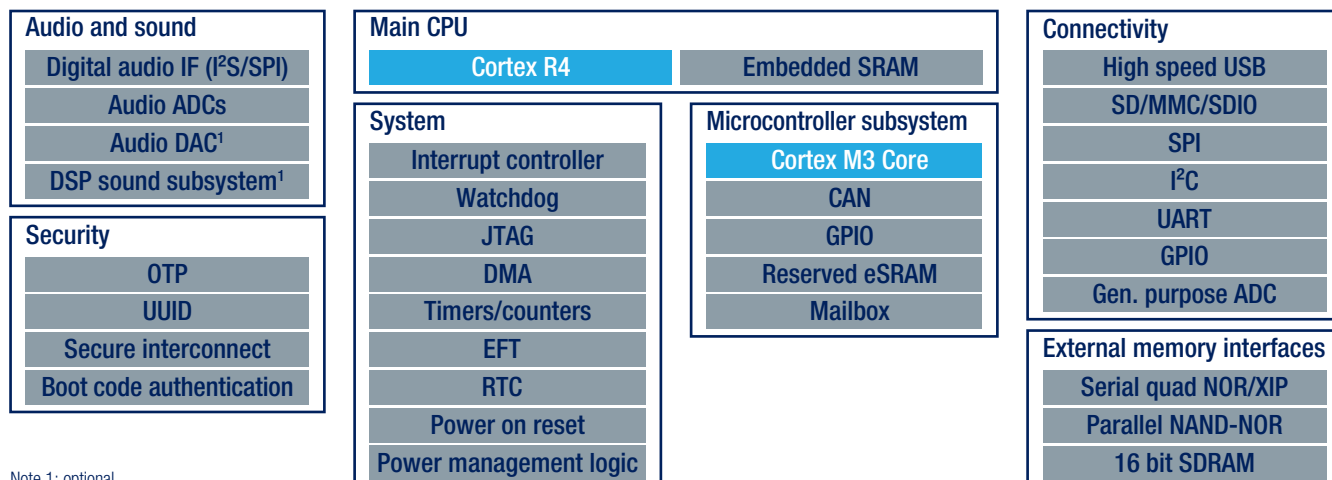
- Cortex-R4 application core at 450+ MHz (700+ MIPS)
- Dedicated/secure CAN subsystem on embedded Cortex M3 with reserved SRAM, running its dedicated RTOS
- Multiple USB 2.0, SD/SDIO, CAN, SPI, I²C, UART
- Optional sound subsystem for connectivity applications
- Integrated power management logic
- Support of external connectivity: WiFi over SDIO, BT
- Boot code authentication and security
- Stand-by power ~50 μ A
- Wake-up time < 50 ms
- Optimized system BOM
- AUTOSAR-ready hardware

SOFTWARE OFFERING

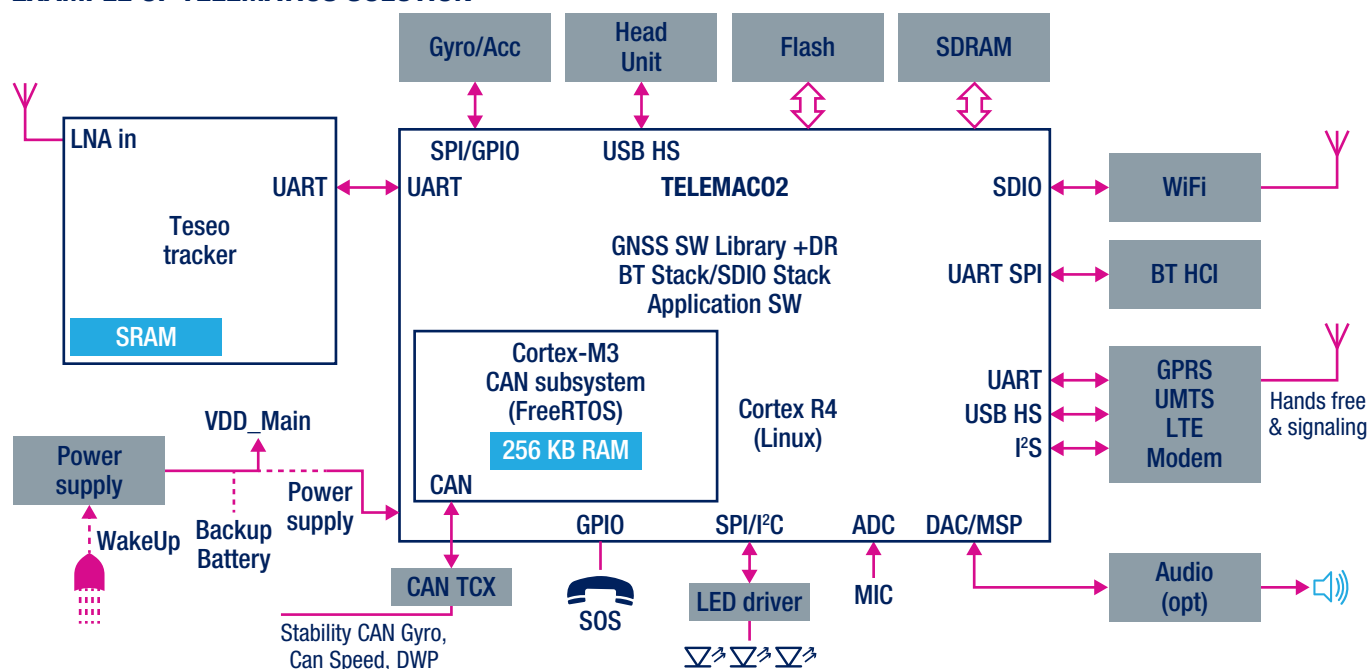
- Linux OS kernel + bsp
- Pre-integrated open-source & 3rd party MW for easy implementation
 - reference WLAN stack
 - Positioning & Dead Reckoning SW for ST GNSS Tracker
- FreeRTOS kernel for independent Cortex M3 subsystem
- Distributed RPMSG framework for secure inter process communication
- Bootloader toolset for custom/smart boot implementations



TELEMAC02 BLOCK DIAGRAM FOR TELEMATICS AND CONNECTIVITY



EXAMPLE OF TELEMATICS SOLUTION



Part number	CAN	DSP Sound Subsystem	Package information
STA1074	No	Yes	TFBGA 256 11x11x1.2 mm 0.65 mm pitch
STA1078	2x	No	TFBGA 256 11x11x1.2 mm 0.65 mm pitch
STA1079	1x	Yes	TFBGA 256 11x11x1.2 mm 0.65 mm pitch
STA1088	2x	Yes	LFBGA 361 16x16x1.7 mm 0.8 mm pitch

OPERATING CONDITIONS

- VDD: 1.14 V – 1.26 V
- VDDIO: 3.3 V ±10%
- VDDIOON: 3.3 V ±10%
- Operating Temperature Range: -40/+85 °C
- Automotive Grade

