

PROCESSOR FOR CAR RADIOS



and display audio



One-chip solution with turnkey software for media, smartphone connectivity and enhanced graphics

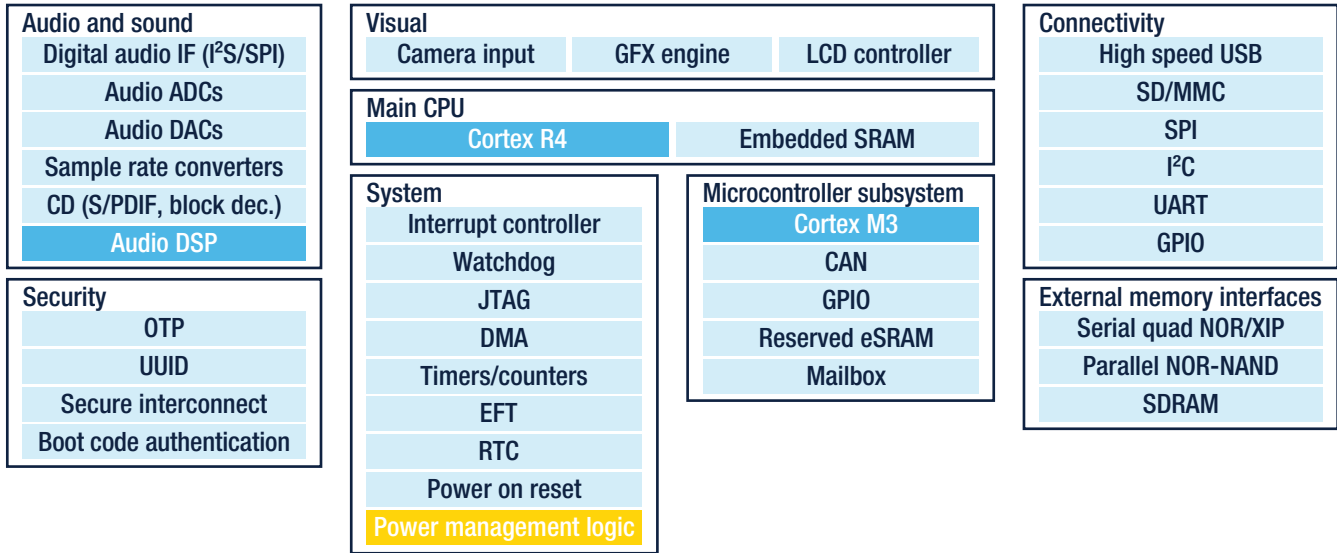
Car radio and display audio markets require a combination of audio handling, connectivity support and smartphone mirroring features. ST's Accordo2 processor offers compact, innovative, cost-effective solutions for these markets, as well as automotive sound systems.

Accordo2 offers a smart combination of processing efficiency, fully-integrated audio capabilities and secure coprocessor for real-time automotive network tasks.

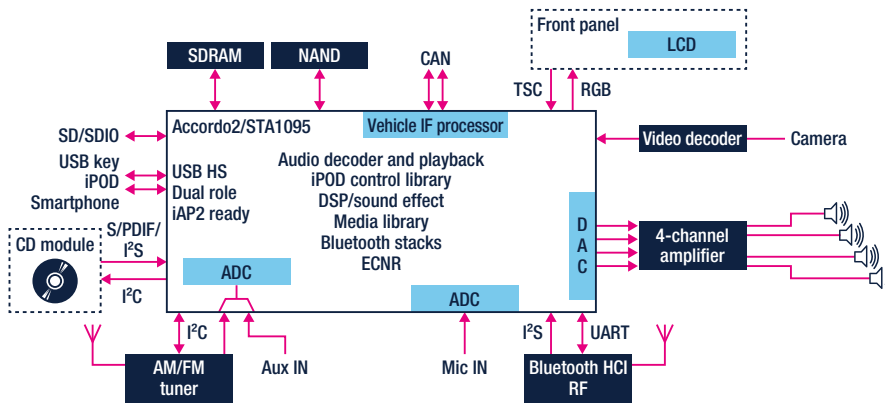
KEY FEATURES & BENEFITS

- Cortex-R4 core at 450+ MHz, with integrated eSRAM for infotainment and connectivity tasks
- Secure Cortex-M3 coprocessor for CAN management
- Large integrated eSRAM bank for DRAM-less operation (XIP with SQI)
- Powerful audio subsystem
- 450+ MIPs DSP capability
- Analog inputs (ADCs) and outputs (DACs)
- Hardware sample rate converters
- Flexible hardware audio routing
- Visual interfaces
- 2D accelerator graphics engine
- Video input port (ITU601/656)
- LCD display + touchscreen controllers
- Fully-integrated connectivity set: HS USB 2.0 Host and Device, SD/SDIO, CAN, SPI, I2C, UART, and more
- Integrated power management
- "One chip solution" for BT car radio and display audio
- Optimized bill of materials
- Reduced system complexity
- Powerful system architecture resulting in minimal CPU load
- Support of smartphone mirroring feature for safe and smooth in-car operation
- Several pin-to-pin compatible versions for scalability with single PCB design
- Booting from multiple sources for flexibility of implementation and ease of firmware upgrades

Accordo2 block diagram



Example of OEM Display Audio implementation



SOFTWARE OFFERING

- For fast, robust, small footprint operations
- Sound effects
- Audio Codecs
- Media Player
- Media Library
- Control Library
- Tuner Control Libraries

Device summary

Part number	CAN microcontroller support	Visual interfaces
STA1080	No	No
STA1085	Yes	No
STA1090	No	Yes
STA1095	Yes	Yes

PACKAGE INFORMATION

LFBGA 361 balls, 16 x 16 x 1.7 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



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