Automotive Ethernet Audio Video Bridging (AVB)

AUTO-AUDIO-VBS

Last Updated: Jul 12, 2022

NXP Automotive audio video bridging (AVB) software provides a complex AVB solution for multi-channel audio streaming and syntonized audio playback over multiple audio end nodes. It is optimized for the NXP Power Architecture® and Arm® Processors with minimal resource usage due to a "zero-copy" approach with advanced DMA support.

The AVB stack supports single-core and multi-core designs with different partitioning options. It implements synchronous data stream playback (accurate frequency and phase) for multi-channel audio streams received via Ethernet, an external source or memory. It further features audio sample rate conversion with correctly maintained data order within the TDM, a virtual Autosar Ethernet driver, an inter-core communication module, diagnostic data output (Ethernet/UART) and extended functions like audio output muting and locking.
Our Automotive Audio Video Bridging Software Block Diagram
Example of AVB Network

Automotive General Block Diagram

SERVICES / APPLICATION SOFTWARE

MIDDLEWARE

OS / DRIVERS / SAFETY

HYPervisor (if available)

ARM CORTEX CORE(S)

FIRMWARE / HW ACCELERATORS

NXP TOOLS & IDE
View additional information for Automotive Ethernet Audio Video Bridging (AVB).

Note: The information on this document is subject to change without notice.