



# Automotive Ethernet Audio Video Bridging (AVB)

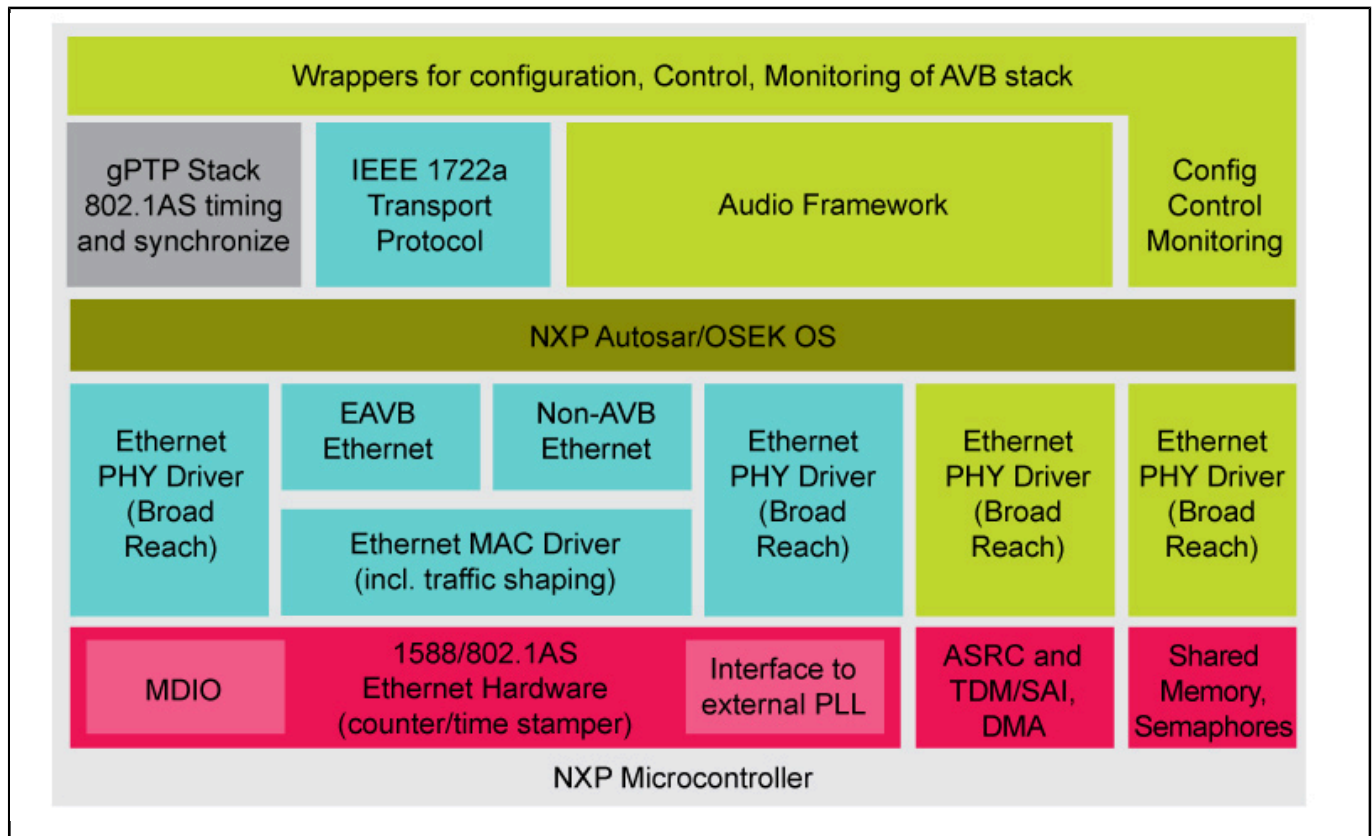
## AUTO-AUDIO-VBS

Last Updated: Dec 6, 2024

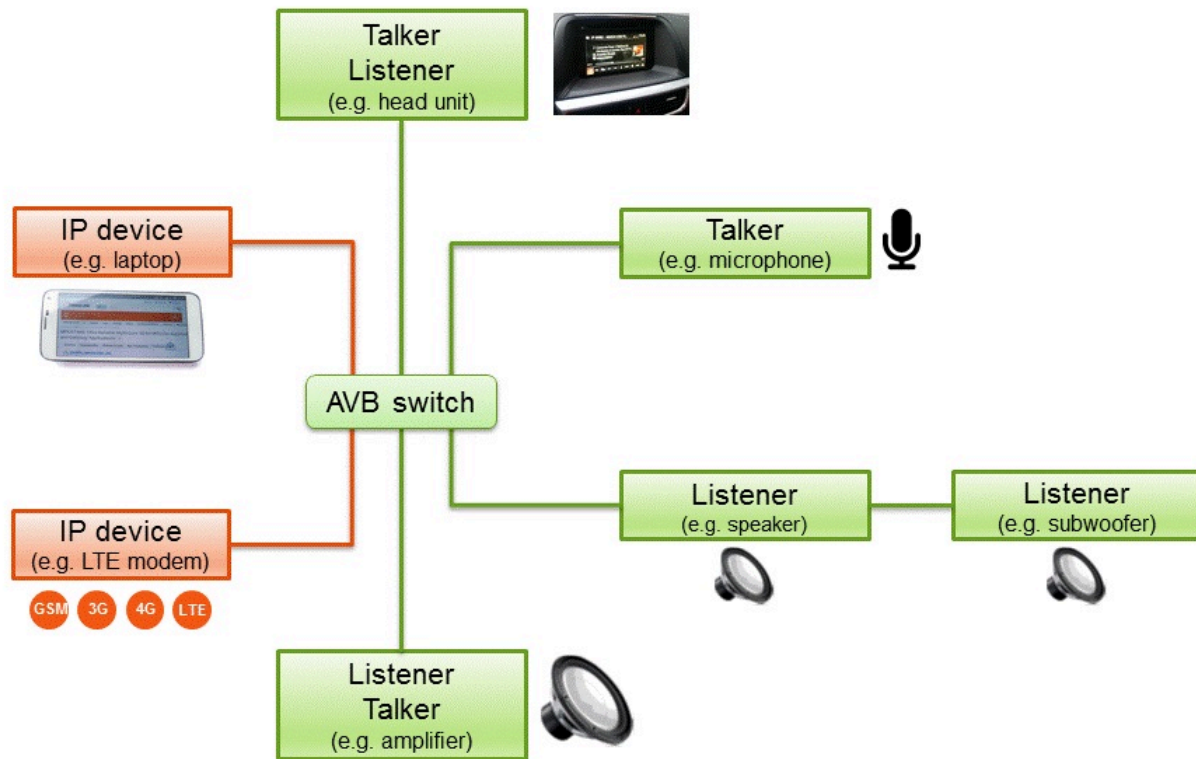
NXP Automotive audio video bridging (AVB) software provides a complex AVB solution for multi-channel audio streaming and synchronized audio playback over multiple audio end nodes. It is optimized for the NXP Power Architecture® and Arm® Processors with minimal resource usage due to a "zero-copy" approach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

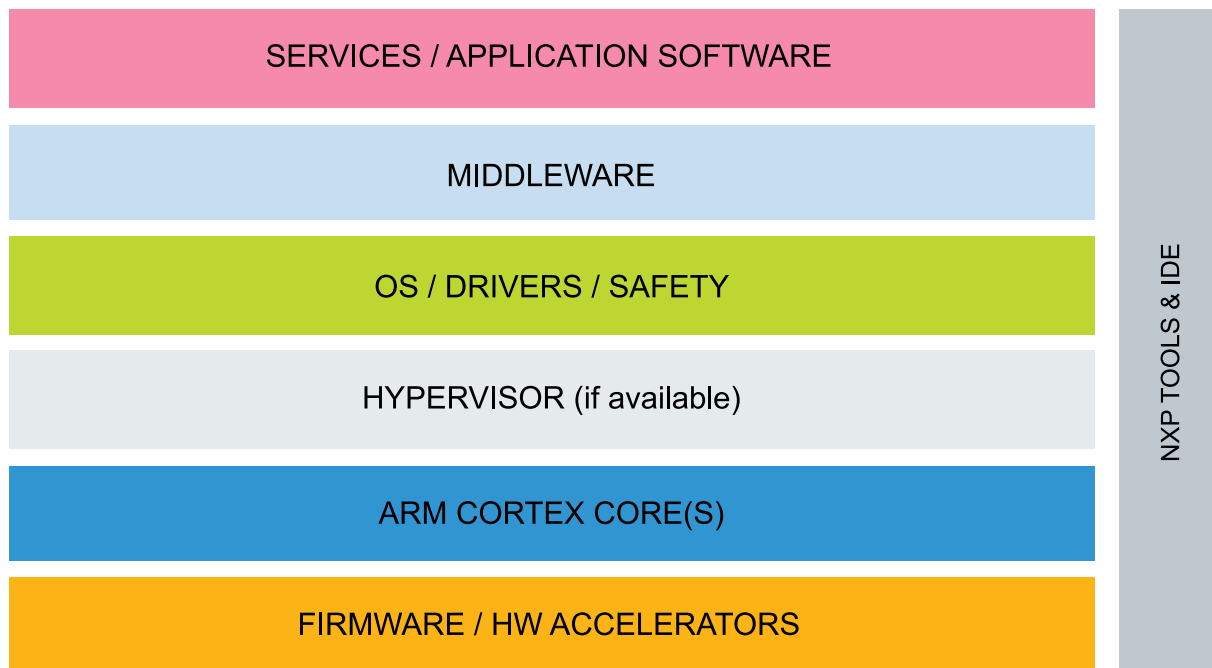


## Our Automotive Audio Video Bridging Software Block Diagram



Example of AVB Network

## Automotive General Block Diagram Block Diagram



View additional information for [Automotive Ethernet Audio Video Bridging \(AVB\)](#).

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

---

**[www.nxp.com](http://www.nxp.com)**

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.