GoldBox for Vehicle Networking Development Platform
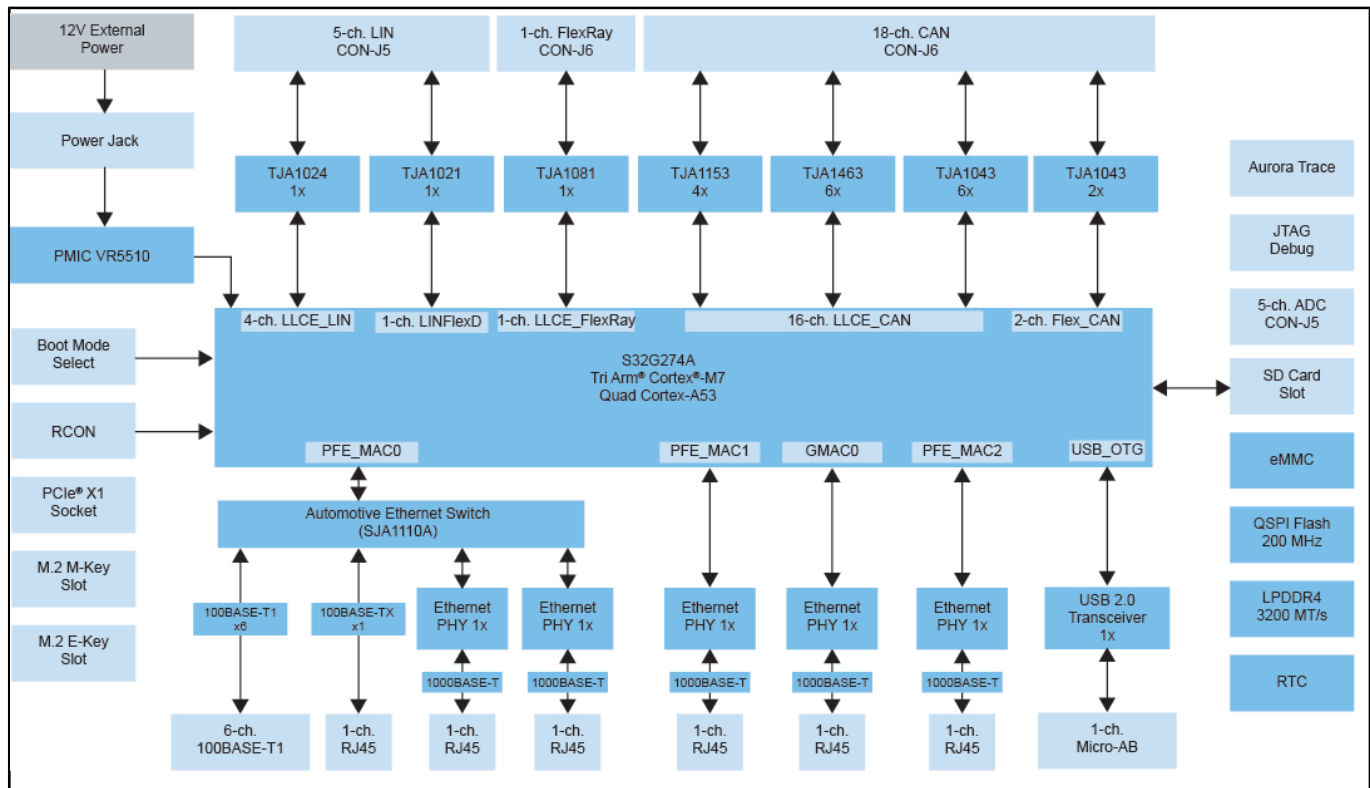
GOLDBOX

Last Updated: Jun 6, 2024

We recommend using GOLDBOX-3 for new designs.

The NXP GoldBox is a compact, highly optimized and integrated reference design engineered for vehicle service-oriented gateway (SoG), domain control applications, high-performance processing, safety and security applications.

The NXP GoldBox offers high-performance computing capacity, real-time network performance, multi-Gigabit packet acceleration and security, as well as rich input/output (I/O) targeting central gateway, domain controller, FOTA, secure key management, smart antenna and high-performance central compute nodes.

S32G2 Vehicle Networking Reference Design System Architecture Block Diagram

12V External Power	5-ch. LIN CON-J5	1-ch. FlexRay CON-J6	18-ch. CAN CON-J6	
Power Jack	TJA1024 1x	TJA1021 1x	TJA1081 1x	TJA1153 4x	TJA1463 6x	TJA1043 6x	TJA1043 2x	Aurora Trace

Power Jack

PMIC VR5510

Boot Mode Select

RCON

PCIe® X1 Socket

M.2 M-Key Slot

M.2 E-Key Slot

TJA1024 1x — TJA1021 1x — TJA1081 1x — TJA1153 4x — TJA1463 6x — TJA1043 6x — TJA1043 2x

Aurora Trace

JTAG Debug

5-ch. ADC CON-J5

SD Card Slot

eMMC

QSPI Flash 200 MHz

LPDDR4 3200 MT/s

RTC

4-ch. LLCE_LIN — 1-ch. LINFlexD — 1-ch. LLCE_FlexRay — 16-ch. LLCE_CAN — 2-ch. Flex_CAN

S32G274A
Tri Arm® Cortex®-M7
Quad Cortex-A53

PFE_MAC0 — PFE_MAC1 — GMAC0 — PFE_MAC2 — USB_OTG

Automotive Ethernet Switch (SJA1110A)

100BASE-T1 x6 — 100BASE-TX x1 — Ethernet PHY 1x — Ethernet PHY 1x — Ethernet PHY 1x — Ethernet PHY 1x — Ethernet PHY 1x — USB 2.0 Transceiver 1x

1000BASE-T — 1000BASE-T — 1000BASE-T — 1000BASE-T — 1000BASE-T

6-ch. 100BASE-T1 — 1-ch. RJ45 — 1-ch. RJ45 — 1-ch. RJ45 — 1-ch. RJ45 — 1-ch. RJ45 — 1-ch. RJ45 — 1-ch. Micro-AB

View additional information for GoldBox for Vehicle Networking Development Platform.

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