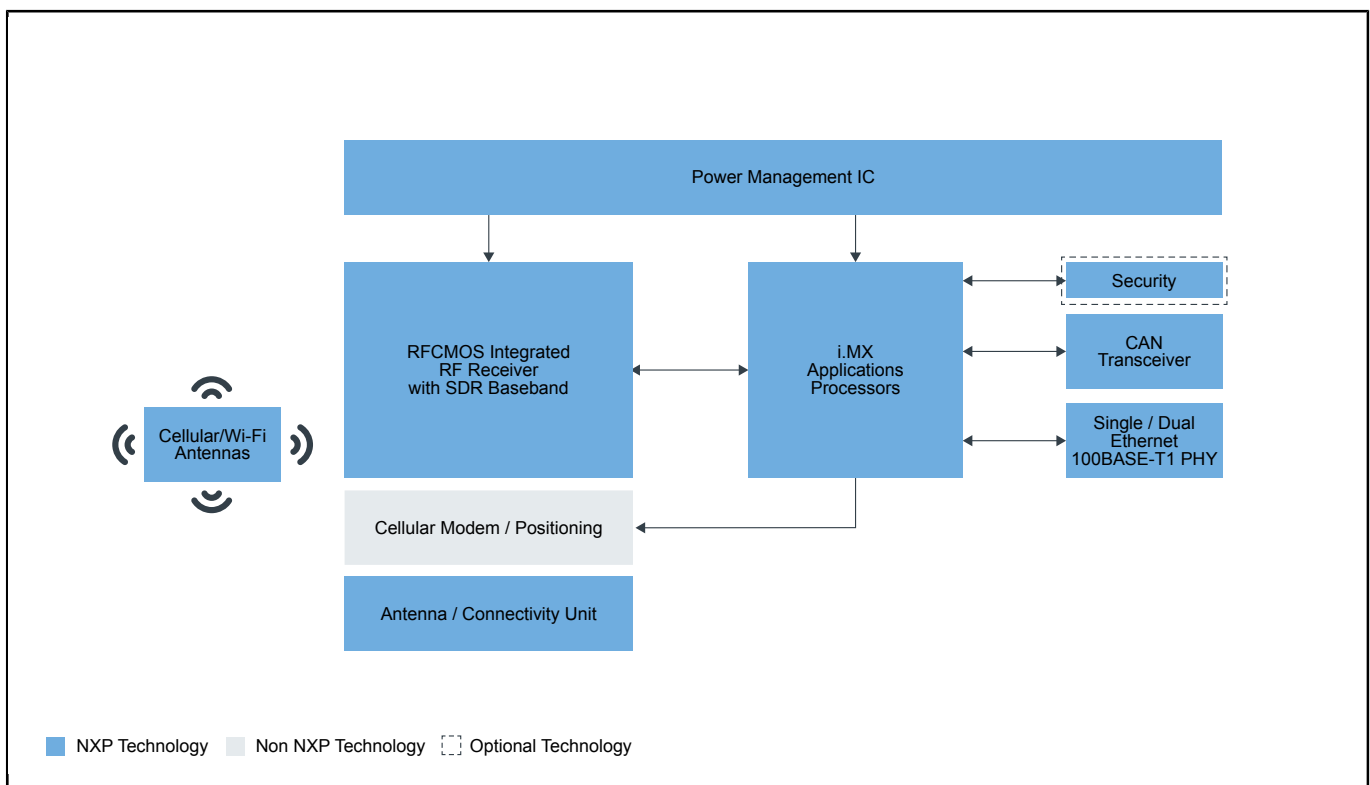# V2X Communications

Last Updated: Jan 10, 2022

Vehicle-to-Everything (V2X) technology enables cars to communicate with their surroundings and makes driving safer and more efficient for everyone. By making the invisible visible, V2X warns the driver of road hazards, helping reduce traffic injuries and fatalities. In addition to improving safety, V2X helps to optimize traffic flow, reduce traffic congestion and lessen the environmental impact of transportation.

We provide a complete solution for Vehicle-to-Vehicle (V2V) and Vehicle-to-Infrastructure (V2I) communications for active safety systems and intelligent transport system (ITS) management.

V2X Communications Block Diagram

Recommended Products for V2X Communications	
i.MX Applications Processors	• i.MX6SX: i.MX 6SoloX Processors - Heterogeneous Processing with Arm® Cortex®-A9 and Cortex-M4 Cores • i.MX 8X Family – Arm® Cortex®-A35, 3D Graphics, 4K Video, DSP, Error Correcting Code on DDR
Automotive Ethernet	• TJA1101/TJA1101B: Robust, Low Power 100BASE-T1 PHY Transceiver • TJA1103: ASIL B Compliant 100BASE-T1 Ethernet PHY
CAN Transceiver	• TJA144x: Automotive CAN FD Transceiver Family • TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode • TJA1043: High-speed CAN Transceiver with Standby and Sleep Mode • TJA1463: CAN Signal Improvement Capability Transceiver with Sleep Mode
Dual RF Transceiver	• TEF5100: V2X RF Transceiver
Power Management IC	• FS86: Safety System Basis Chip For Domain Controller, Fit For ASIL B and D • FS5600: Automotive Dual Buck Regulator and Controller with Voltage Monitors and Watchdog Timer • PF8100-PF8200: 12-Channel Power Management Integrated Circuit (PMIC) for High-Performance Processing Applications • VR5500: High Voltage PMIC with Multiple SMPS • PF7100: 7-Channel Power Management Integrated Circuit for High Performance Applications, Fit for ASIL B Safety Level • VR5510: Multi-Channel (9) PMIC for S32G Processor – 8 High Power, 1 Low Power, Fit for ASIL D Safety Level • PF5020: Multi-Channel (5) PMIC for Automotive Applications – 4 High Power and 1 Low Power, Fit for ASIL-B Safety Level
Security	• SXF1800: Secure Element IC for V2X Communication
Software Defined Radio Baseband	• SAF5100: Software Defined Radio Processor for V2X Communication • RoadLINK® SAF5400 Single Chip Modem for V2X
Wi-Fi / Antennas	• 88Q9098: 2.4/5 GHz Dual-Band 2x2 Wi-Fi® 6 (802.11ax) + Bluetooth® 5.3 Automotive Solution
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View our complete solution for V2X Communications.

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