i.MX 8ULP Applications Processor Family

i.MX8ULP

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The i.MX 8ULP applications processor family brings ultra-low power processing and advanced integrated security with EdgeLock® secure enclave to the intelligent edge.

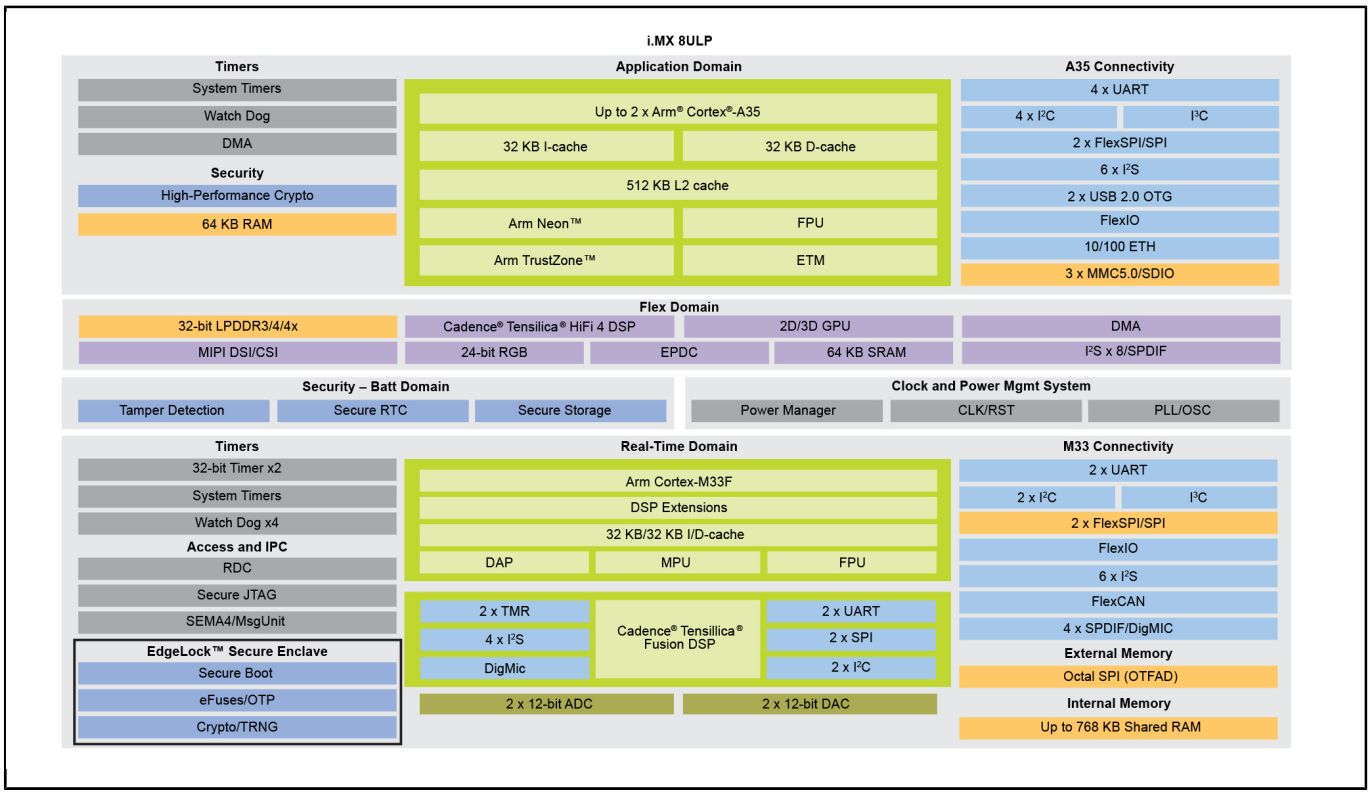
Optimizing energy at the chip level is becoming increasingly crucial for designing energy-efficient edge systems. NXP’s innovative Energy Flex architecture implementation in i.MX 8ULP processors uniquely combines heterogeneous domain computing, design techniques and process technology. A dedicated power management subsystem offers more than 20 power mode combinations to deliver exceptional efficiency across a range of applications.

Building on our strong history of security solutions, NXP’s EdgeLock secure enclave is pre-configured to simplify complex security implementations for faster time to market and help designers avoid costly configuration errors. The i.MX 8ULP processor has also achieved PSA and SESIP Level 2 certifications, enabling security for device manufactures at the design stage.

The i.MX 8ULP family features up to two Arm® Cortex®-A35 running at 800 MHz, an Arm Cortex-M33 core, 3D/2D Graphics Processing Units (GPUs) and a Cadence® Tensilica® HiFi 4 DSP and Fusion DSP for low-power audio/voice and edge AI/ML processing.

i.MX 8 applications processors are part of NXP's EdgeVerse™ edge computing platform.

i.MX 8ULP Applications Processors Block Diagram



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