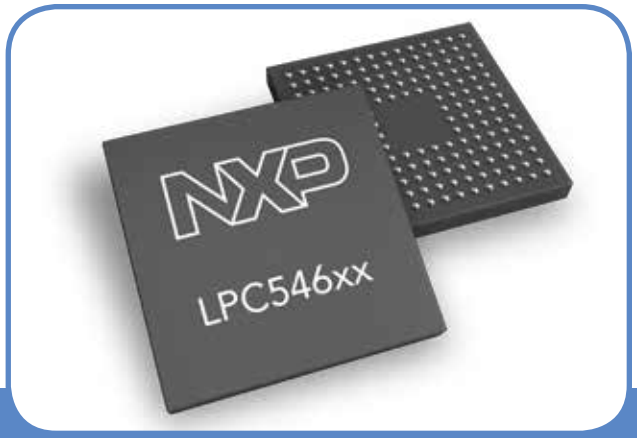


Scalable and Power-Efficient Broad Market MCUs

LPC546xx MCU Family

Offering the ultimate in flexibility and performance scalability, the LPC546xx MCU family provides up to 180 MHz performance while retaining power-efficiency as low as 120 uA / MHz. Its 21 communication interfaces makes it ideal for HMI and connectivity needs of next-generation IoT applications.

TARGET APPLICATIONS

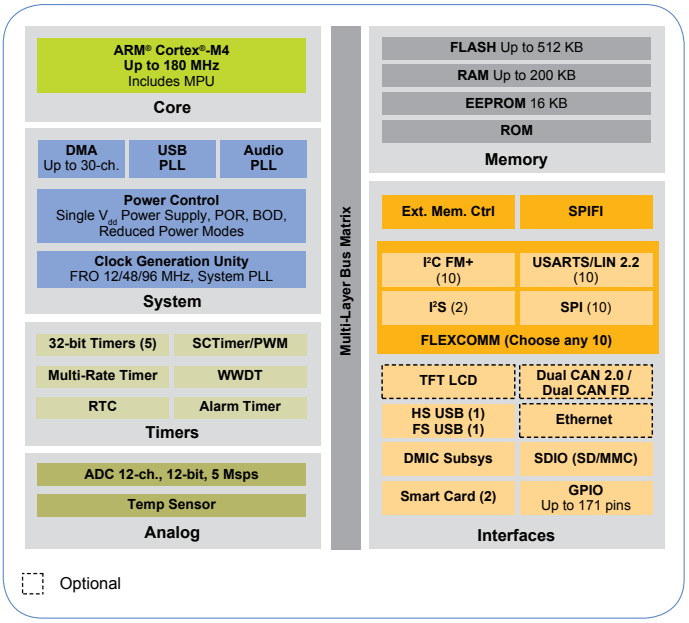
- Building control and automation
- Diagnostic equipment
- Multi-node/multi-protocol communication hubs
- HMI/GUI applications
- Data collectors, infotainment/navigation
- Telematics/fleet management

OVERVIEW

The LPC546xx MCU family builds on the industry-leading power efficiency introduced with the LPC54000 series. This new family enables continued growth in the connected smart world through new feature integration.

The LPC546xx MCU family, powered by the ARM® Cortex®-M4 core, offers Ethernet support, a TFT LCD controller and two CAN FD modules, while striking the right balance between feature integration and power efficiency with the Cortex-M4 achieving an active mode current of 120 µA/MHz.

LPC546XX MCU FAMILY BLOCK DIAGRAM



ENABLING NEXT-GENERATION CONNECTED DEVICES

The LPC546xx MCU family is architected to be power efficient for applications that require data aggregation from several different inputs. This MCU family provides a variety of wake-up sources including the FlexComm peripherals. Once the MCU becomes active, application use cases are endless with 10 FlexComm interfaces for sensors and HMI, options for cloud connectivity, and a graphics display to interact with the information.

LPCXpresso54608 (OM13092) Development Board

COMPREHENSIVE ENABLEMENT SOLUTIONS

- MCUXpresso SDK
  - Extensive suite of robust peripheral drivers, stacks, and middleware
  - Software examples demonstrating use of peripheral drivers and middleware
- Integrated Development Environments (IDE)
  - MCUXpresso IDE
  - IAR® Embedded Workbench
  - ARM Keil® Microcontroller Development Kit
- ROM
  - Common bootloader for the LPC54000 series
  - In-system flash programming over serial connection: erase, program, verify
  - ROM or flash-based bootloader with open-source software and host-side programming utilities
- Development Hardware
  - LPCXpresso development boards
    - o Low-cost evaluation
    - o Two PMod expansion headers
    - o Arduino™ R3 compatible shields

LPC546XX MCU FAMILY OPTIONS

Family	Flash (KB)	SRAM (KB)	FS USB	HS USB	Ethernet	CAN 2.0	CAN FD	LCD	Package
LPC54605	Up to 512	Up to 200	X	X					BGA180
LPC54606	Up to 512	Up to 200	X	X	X	X			BGA100, BGA180, LQFP100, LQFP208
LPC54607	Up to 512	Up to 200	X	X				X	BGA180, LQFP208
LPC54608	512	200	X	X	X	X		X	BGA180, LQFP208
LPC54616	Up to 512	Up to 200	X	X	X		X		BGA100, BGA180, LQFP100, LQFP208
LPC54618	Up to 512	Up to 200	X	X	X		X	X	BGA180, LQFP208

www.nxp.com/LPC546xx

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