

STM32G4 Series Mainstream MCUs



STM32G4 mixed-signal MCUs shaped for analog-rich applications

The STM32G4 series combines powerful Arm® Cortex®-M4 plus FPU and DSP capability with rich and advanced analog peripherals. It introduces two new mathematical accelerators (Cordic and Filtering), CAN-FD (Flexible Datarate), USB-C Power Delivery 3.0 and advanced security and safety features. Its new high-resolution timer V2.0 continues the Digital Power success story.

KEY FEATURES

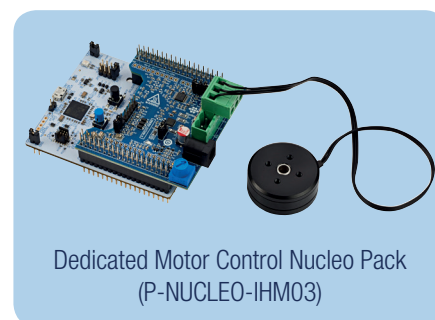
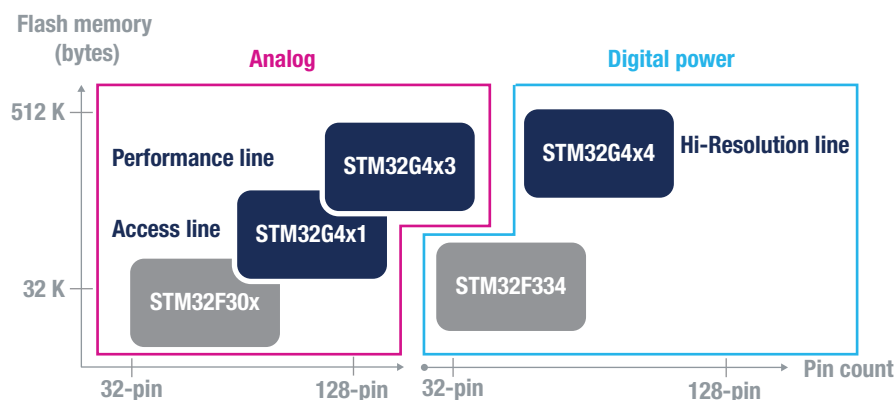
- Performance
 - Arm® Cortex®-M4 with FPU
 - Up to 170 MHz CPU frequency
 - Up to 213 DMIPS and 550 CoreMark® results
- Rich and advanced analog peripherals
- Safety and security focus
- Complete portfolio
 - 32- to 128-pin packages
 - 32 to 512 Kbytes of Flash memory
 - Full set of development and evaluation boards
 - Code examples and software tools

KEY BENEFITS

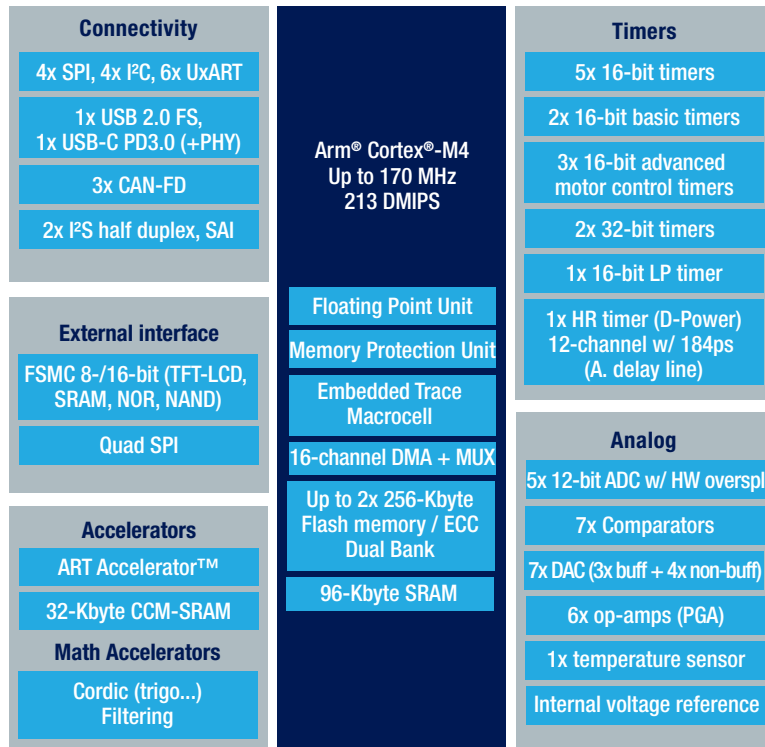
- Reduced PCB size and BOM cost
- Mixed-signal SoC for a wide variety of applications
- Designed for motor control applications

KEY APPLICATIONS

- Home appliances and E-bikes
- Air conditioning
- Industrial equipment
- Rechargeable devices, drones and toys
- Servers, telecom equipment, and EV charging stations
- Instrumentation and measurement equipment



STM32G474 BLOCK DIAGRAM



HARDWARE TOOLS

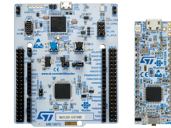
A full set of evaluation boards enables flexible prototyping as well as full STM32G4 evaluation.



Discovery kits
B-G474E-DPOW1
B-G431B-ESC1



Evaluation boards
STM32G474E-EVAL
STM32G484E-EVAL



Nucleo boards
NUCLEO-G431KB (32-pin)
NUCLEO-G431RB (64-pin)
NUCLEO-G474RE (64-pin)

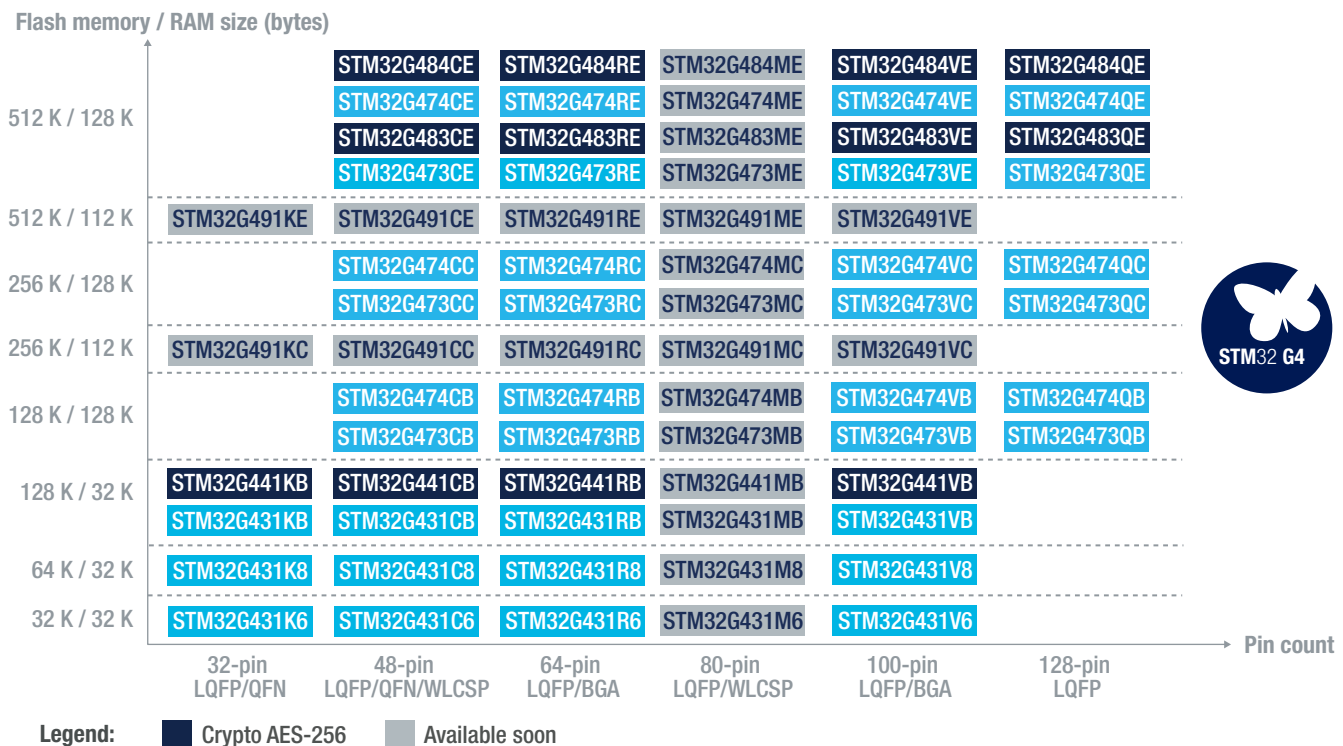
SOFTWARE TOOLS

STM32CubeMX enables fast development thanks to its MCU clock configurator, power consumption calculator and code generation tools.

EMBEDDED SOFTWARE

The STM32CubeG4 embedded software solution, featuring HAL, Low-Layer APIs and CMSIS (CORE, DSP, RTOS), USB, file system, RTOS, and graphics, comes with real-life example code for all boards.

STM32G4 PORTFOLIO



STM32G4 ON-LINE TRAINING

www.st.com/stm32g4-online-training

