

# STM32G4 SERIES

## High Performance 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 Data Rate), USB Type-C interface with Power Delivery including physical layer (PHY) and advanced security with safety features. Its new high-resolution timer V2.0 continues the Digital Power success story.



Designed for Motor Control applications

[www.st.com/stm32-motor-control](http://www.st.com/stm32-motor-control)

#### 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
  - ADCs, op-amps, comparators, DACs
- Safety and security focus

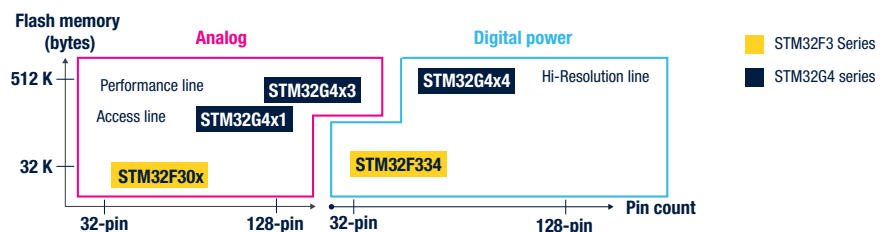
- Full set of development and evaluation boards
- Code examples and software tools

#### KEY BENEFITS

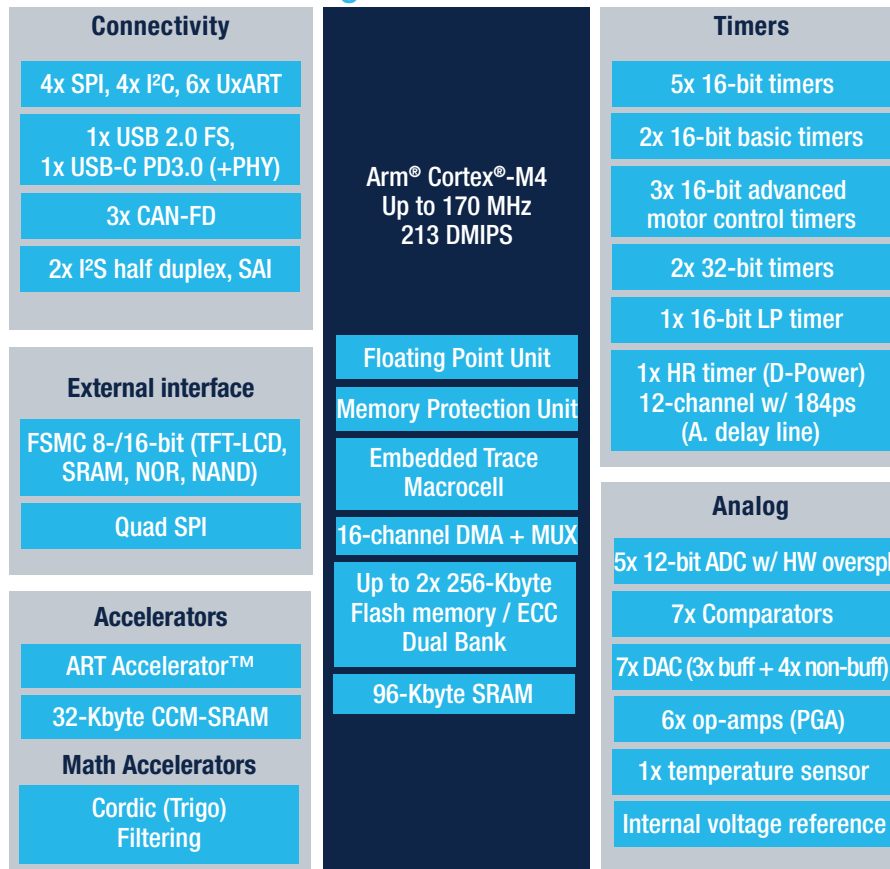
- Reduced PCB size and BOM cost
- Mixed-signal SoC for a wide variety of control applications
- Dynamic energy efficiency

#### KEY APPLICATIONS

- Control applications
- Home appliances and E-bikes
- Air conditioning
- Industrial equipments
- Motor control applications (low end, high end)
- Servers, telecom equipment, and EV charging stations
- Instrumentation and measurement equipment



## STM32G474 block diagram

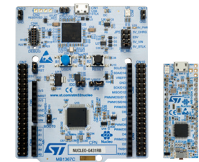


## Hardware tools

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



**Evaluation boards**  
STM32G474E-EVAL  
STM32G484E-EVAL



**Nucleo boards**  
Nucleo-64 : NUCLEO-G431RB, NUCLEO-G474RE and NUCLEO-G491RE  
Nucleo-32 : NUCLEO-G431KB



**Discovery kits**  
B-G474E-DPOW1 (Digital Power)  
B-G431B-ESC1 (Motor Control)

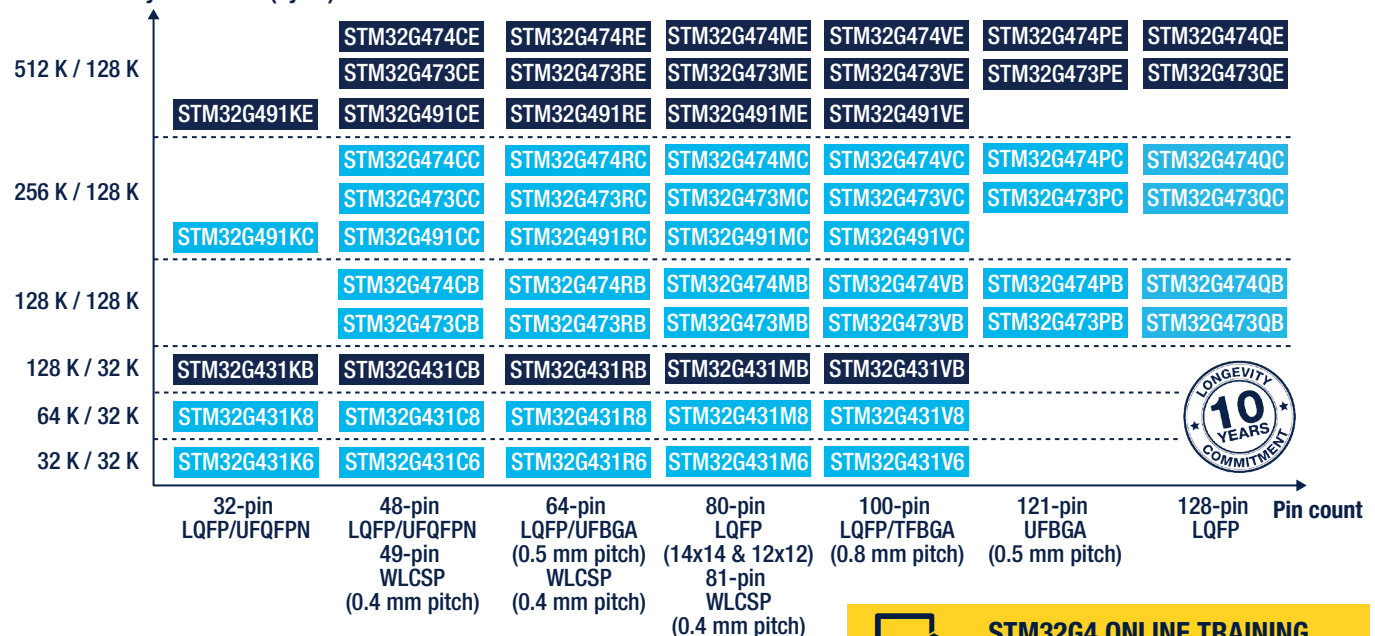
## STM32G4

### Solutions & Ecosystem

- Motor Control applications  
[www.st.com/stm32-motor-control](http://www.st.com/stm32-motor-control)
- Digital power applications  
[www.st.com/stm32-digital-power](http://www.st.com/stm32-digital-power)
- STM32CubeG4  
[www.st.com/stm32cubeg4](http://www.st.com/stm32cubeg4)

## STM32G4 portfolio

Flash memory / RAM size (bytes)



Legend: ■ Crypto AES-256 version is available on this package



**STM32G4 ONLINE TRAINING**

[www.st.com/stm32g4-online-training](http://www.st.com/stm32g4-online-training)



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Order code: FL2204STM32G4

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