

GEEHY'S FULL SERIES OF MCUS AND APPLICATIONS

Based on Cortex-M0+/M3/M4F/M52

March, 2026



www.geehy.com

Geehy Semiconductor Co., Ltd.

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◆ ABOUT GEEHY

20+ ^{Year}

IC Design
Experience

560+ ^{Millions}

Annual Shipments

\$198+ ^{Millions}

Revenue

- Geehy Semiconductor is a subsidiary of NINESTAR Group.
- Focused on industrial and automotive-grade MCUs, high-performance analog & mixed-signal ICs, and SoCs.
- Provides competitive and reliable semiconductor products that enable accurate sensing, safe and secure transmission, and real-time control.

Multi-field Applications

Smart Homes

Industrial Controls

Grid & Energy

Consumer Electronics

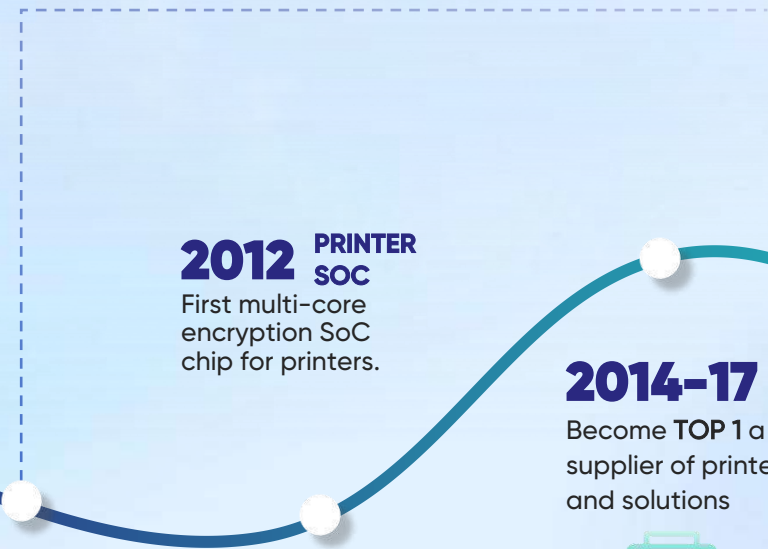
Automotive





STARTS FROM 2004, CONTINUE TO EXPAND THE SCOPE OF BUSINESS

2004 ~ 2017, FOCUS ON SECURE IC
 Capture the market in GRID SECURITY and PRINTER INFORMATION SECURITY.



2004 SECURE ASICS
 Established in Zhuhai, developing encrypted security ASIC chips.

2012 PRINTER SOC
 First multi-core encryption SoC chip for printers.

2014-17 TOP 1
 Become TOP 1 a leading supplier of printer SECURE IC and solutions



2018 EXPAND PRODUCT LINE
 Licensed for Arm® Cortex®-M0+/M3/M4F CPU, and release the first industrial-grade 32-bit general-purpose MCU.



2019 ENTERING INDUSTRIAL
 Release APM32 MCUs, successfully entering the field of industrial automation.



2022 ENTERING AUTOMOTIVE
 Obtained TÜV ISO 26262 FSMS certification, 9 MCUs have passed SGS AEC-Q100

2023 LAUNCH ANALOG IC
 • G32A new auto MCU Released.
 • Ultrasonic sensor Released.

2024 EXPAND THE SCOPE OF BUSINESS

- 1ST G32R5 real-time MCU based on Cortex-M52 core with Helium™
- GHD3440 motor gate drive released.
- AUTO headlamp LED matrix controller released.

2019 ~ FUTURE, COVERING 32-BIT MCU/DSP, MIX-SIGNAL ANALOG ICS
 Expand in the fields of industrial automation, consumer electronics, automotive electronics, and new energy.



◆ GEEHY "MCU + DRIVER + SENSOR" INTEGRATED CHIP SOLUTIONS



◀ Product Matrix ▶

Industrial-Grade MCUs	Real-Time DSP/MCUs	Motor Dedicated Chips	Automotive Chips	Secure Cryptographic SoC/ASIC
<ul style="list-style-type: none"> High-performance CM4F Mainstream CM3 Basic CM0+ 	<ul style="list-style-type: none"> High-performance Dual-core CM52 Mainstream CM52 Encoder Dedicated CM52 	<ul style="list-style-type: none"> Motor Control MCU/SoC Motor Gate Driver Intelligent Power Module 	<ul style="list-style-type: none"> Automotive GP MCU Ultrasonic Sensor Automotive Headlamp LED driver 	<ul style="list-style-type: none"> Ultra-large-scale SoC High-end Industrial/consumer ASIC Custom SoC/ASIC Design Services



IEC 61508



IEC 60730



AEC-Q100



ISO 26262

◀ Applications ▶



Industrial Automation



Smart Energy



Robot



Smart Vehicle



Consumer Electronic

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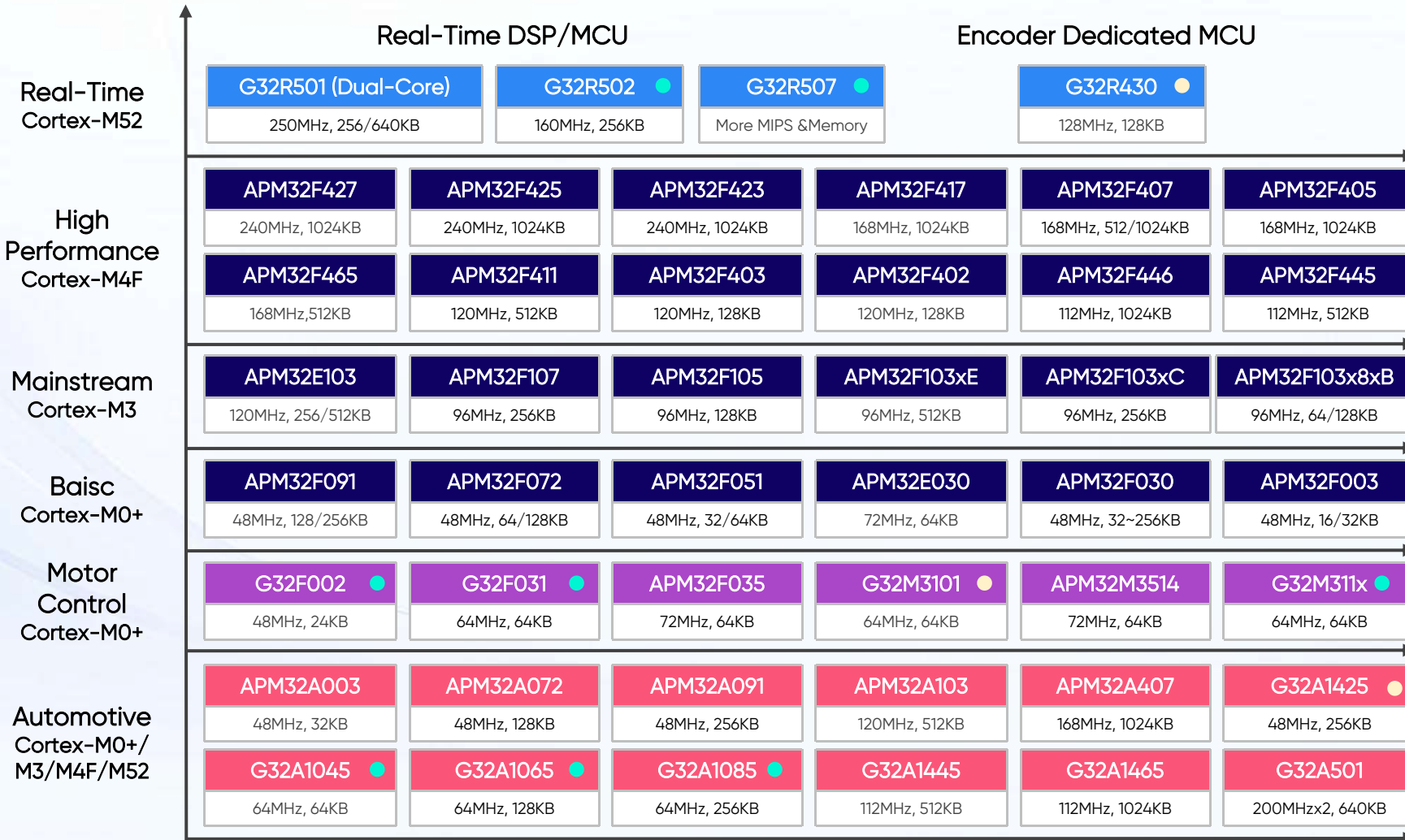
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GEEHY MCU+ FAMILY TREE



● New ● Coming



AFE

BMP561 (CM0+)
16-bit C-ADC/V-ADC

GMO01
Constant Current Source
Direct Drive RGB

Industrial Sensor

GMP01 (AK1)
Distance Measurement
Range 0.1m~7m

50+ Product Series

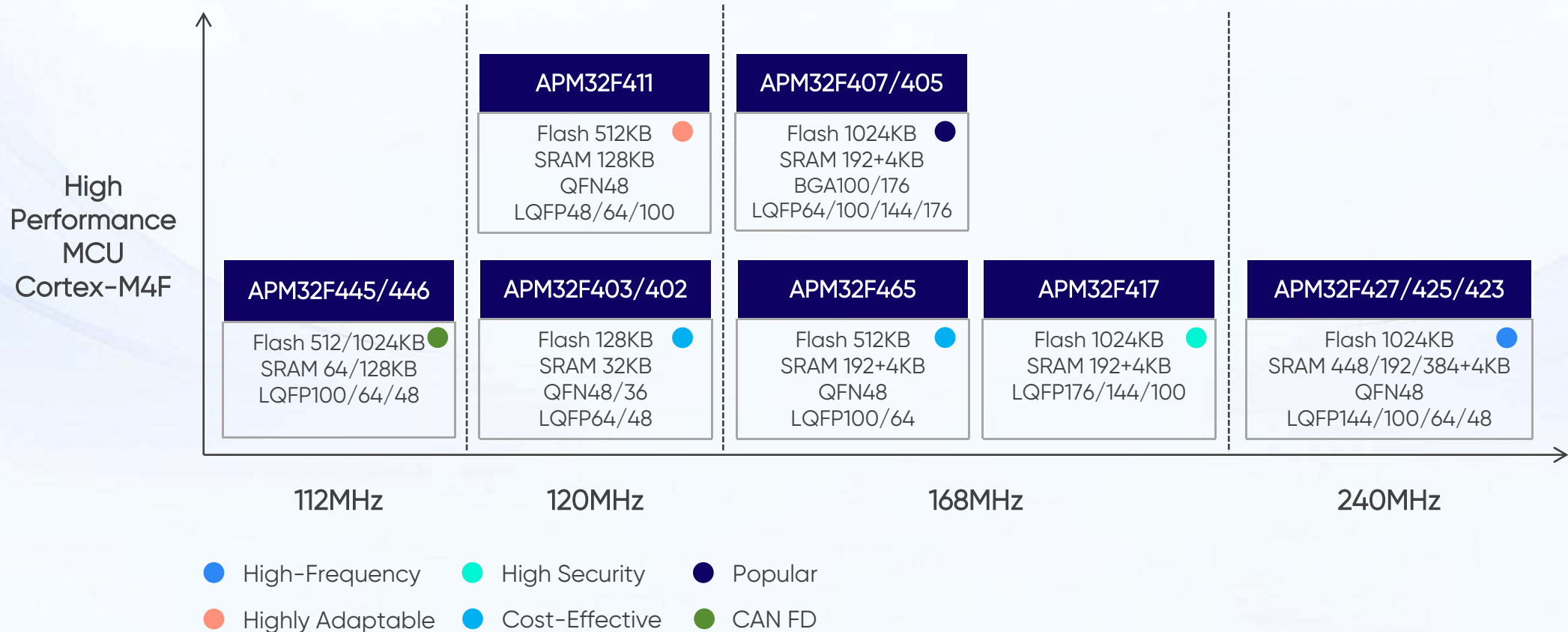
260+ Product Models

APM32F4 MCU SERIES— PRODUCT ROADMAP



Based on Arm® Cortex®-M4F Core

Equipped with 55nm process technology platform, this series integrates processing, control, and networking, considering the characteristics of high computing, high real-time, large storage, and ease of use. It adds a variety of international standard algorithms to effectively protect user data security.



◆ APM32F4 MCU SERIES— PRODUCT RESOURCES

APM32F427/425/423 High-Frequency

- Cortex-M4F@192/240MHz
- Flash 1024KB, SRAM 448/384/192+4KB
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx6, SPIx3, I2Cx3, QSPIx1, CANx1, USB OTG_FSx2, SDIOx1, Ethernet MACx1
- Package: LQFP144/100/64/48, BGA100, QFN48



APM32F417 High Security

- Cortex-M4F@168MHz
- Flash 1024KB, SRAM 192+4KB
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx6, SPIx3, I2Cx3, CANx2, USB OTGx3, SDIOx1, DCIx1, EMMC, Ethernet MACx1
- High Security: AES/DES/TDES, HASH, RNG, BN/SM3/SM4
- Package: LQFP176/144/100



APM32F407/405 Popular

- Cortex-M4F@168MHz,
- Flash 512/1024KB, SRAM 192+4KB
- Analog: 12-bit ADCx3, 12-bit DACx1
- Communication: U(S)ARTx6, SPIx3, I2Cx3, CANx2, USB OTGx3, SDIOx1, EMMC, Ethernet MACx1
- High Security: BN/SM3/SM4
- Package: LQFP176/144/100/64, BGA100/176



APM32F465 Cost-Effective

- Cortex-M4F@168MHz
- Flash 512KB, SRAM 192+4KB, SMC
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx6, SPIx3, I2Cx2, CANx2, USB OTGx2, SDIOx1
- Package: LQFP100/64, QFN48

APM32F411 Highly Adaptable

- Cortex-M4F@120MHz
- Flash 512KB, SRAM 128KB
- Analog: 12-bit ADCx2, COMPx2
- Communication: U(S)ARTx6, SPIx5, QSPIx1, I2Cx3, CANx2, USB OTGx1, SDIOx1
- Package: LQFP100/64/48, QFN48

APM32F403/402 Cost-Effective

- Cortex-M4F@120MHz
- Flash 128KB, SRAM 32KB
- Analog: 12-bit ADCx2
- Communication: U(S)ARTx4, SPIx2, I2Cx1, CANx2, USB OTG_FSx1
- Package: LQFP64/48, QFN48/36

APM32F445/446 Support CAN FD

- Cortex-M4F@112MHz,
- Flash 512/1024KB, SRAM 64/128KB
- Analog: 12-bit ADCx2, COMPx1, PDUx2
- Communication: LPUARTx3, LPI2Cx1, LPSPi3, CANx3 (support CAN FD)
- High Security: CSEc, MPU, Flash and SRAM with ECC
- Package: LQFP100/64/48

◆ APM32F4 MCU SERIES— TYPICAL APPLICATIONS



Industrial Electronics

- Servo controllers, PLCs, VFDs
- Stepper motors, encoders, industrial control boards
- HMI, elevator communication/display boards
- Digital power supplies, industrial sewing machines
- BMS energy storage, generators, machine tools
- Welding machines, LED power supplies, charging stations



Electric Energy

- Charging station
- Power cabinet
- Inverter
- BMS Energy Storage
- Power monitoring instrument



Humanoid Robot

- Rotary joint
- Linear joint
- Battery module
- Controller
- Dexterous hand



IoT & Medical

- Smart healthcare and agriculture
- Smart cities and buildings
- Vending machines, fingerprint locks
- IoT modules, gateways.
- Environmental monitoring instruments, ventilators



Consumer Electronics

- Cameras, drone gimbals
- Walkie-talkies, coffee machines, IPC
- Audio, microphones, robot vacuum cleaners
- 3D printers, tax control machines, balance cars
- TFT (8080) displays



Fire Safety & Consumer Products

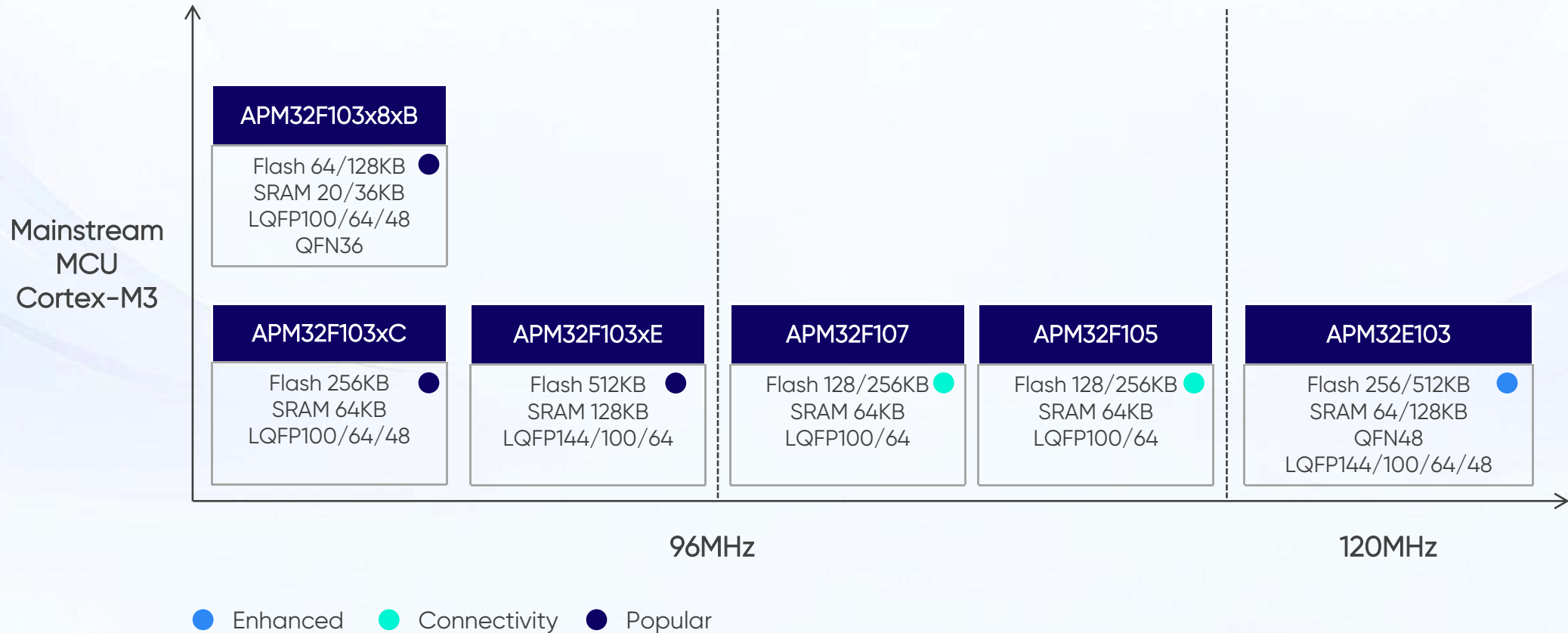
- Balance cars
- Fresh air systems
- RFID readers
- Alarms, firepower supplies
- E-bikes (dual motors)

◆ APM32F/E1 MCU Series— Product Roadmap



Based on Arm® Cortex®-M3 Core

With characteristics of low power consumption, high performance, large capacity, good consistency, fast Flash erasing/writing speed, and rich peripheral resources, this MCU series has been widely used in various industries and unanimously recognized by customers.



◆ APM32F/E1 MCU Series— Product Resources

APM32E103 Enhanced

- Cortex-M3@120MHz
- Flash 256/512KB, SRAM 64/128KB, **SRAM 2MB**
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx5, SPIx3, I2Cx2, CANx2, SDIOx1, **USBDx1, EMMC**
- Package: LQFP144/100/64/48, QFN48



APM32F107 Connectivity

- Cortex-M3@96MHz
- Flash 128/256KB, SRAM 64KB
- Analog: 12-bit ADCx2, 12-bit DACx2
- Communication: U(S)ARTx5, SPIx3, I2Cx1, CANx2, **USB OTG_FSx1, Ethernet MACx1**
- Package: LQFP100/64



APM32F105 Connectivity

- Cortex-M3@96MHz
- Flash 128/256KB, SRAM 64KB
- Analog: 12-bit ADCx2, 12-bit DACx2
- Communication: U(S)ARTx5, SPIx3, I2Cx2, CANx2, **USB OTG_FSx1**
- Package: LQFP100/64



APM32F103xE Popular

- Cortex-M3@96MHz
- Flash 512KB, SRAM 128KB
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx5, SPIx3, I2Cx2, CANx1, SDIOx1, **USBDx1, SMC, DMC**
- Package: LQFP144/100/64



APM32F103xC Popular

- Cortex-M3@96MHz
- Flash 256KB, SRAM 64KB
- Analog: 12-bit ADCx3, 12-bit DACx2
- Communication: U(S)ARTx5, SPIx3, I2Cx2, CANx2, SDIOx1, **USBDx1, SMC, DMC**
- Package: LQFP100/64/48



APM32F103x8xB Popular

- Cortex-M3@96MHz
- Flash 64/128KB, SRAM 20/36KB
- Analog: 12-bit ADCx2
- Communication: **USARTx3**, SPIx2, I2Cx2, CANx2, **USBDx1**
- Package: LQFP100/64/48, QFN36



◆ APM32F/E1 MCU Series— Typical Applications



Industrial Electronics

- VFDs, encoders, HMIs
- PLCs, industrial monitoring equipment, paint sprayers
- Industrial control instruments, inverters, CNC machines
- Testing machines, welding machines, industrial computers
- Industrial sewing machines, stepper motor drivers
- Smart robots, robotic arms, industrial monitoring



Electric Energy

- Power sensor
- Electricity DTU/FTU
- Power collection concentrator
- Power monitoring circuit breaker
- Charging station, energy storage BMS



Humanoid Robot

- Rotary joint
- Linear joint
- Battery module



IoT/Medical/Fire Protection

- Wireless communication modules, sensors
- Smart buildings, communication base stations
- Ventilators, medical monitoring oximeters
- Intelligent warehousing, smart parking medical equipment
- Fire alarm, fire fighting panel, card reader



Consumer Electronics

- Stage lighting, smart lighting
- Printers, scanning guns, POS machines
- Consumer BMS, GPS positioning, keyboard
- Fingerprint door lock, handheld PTZ, moped instrument
- Laser rangefinder, meter, digital mixer



Home Appliances

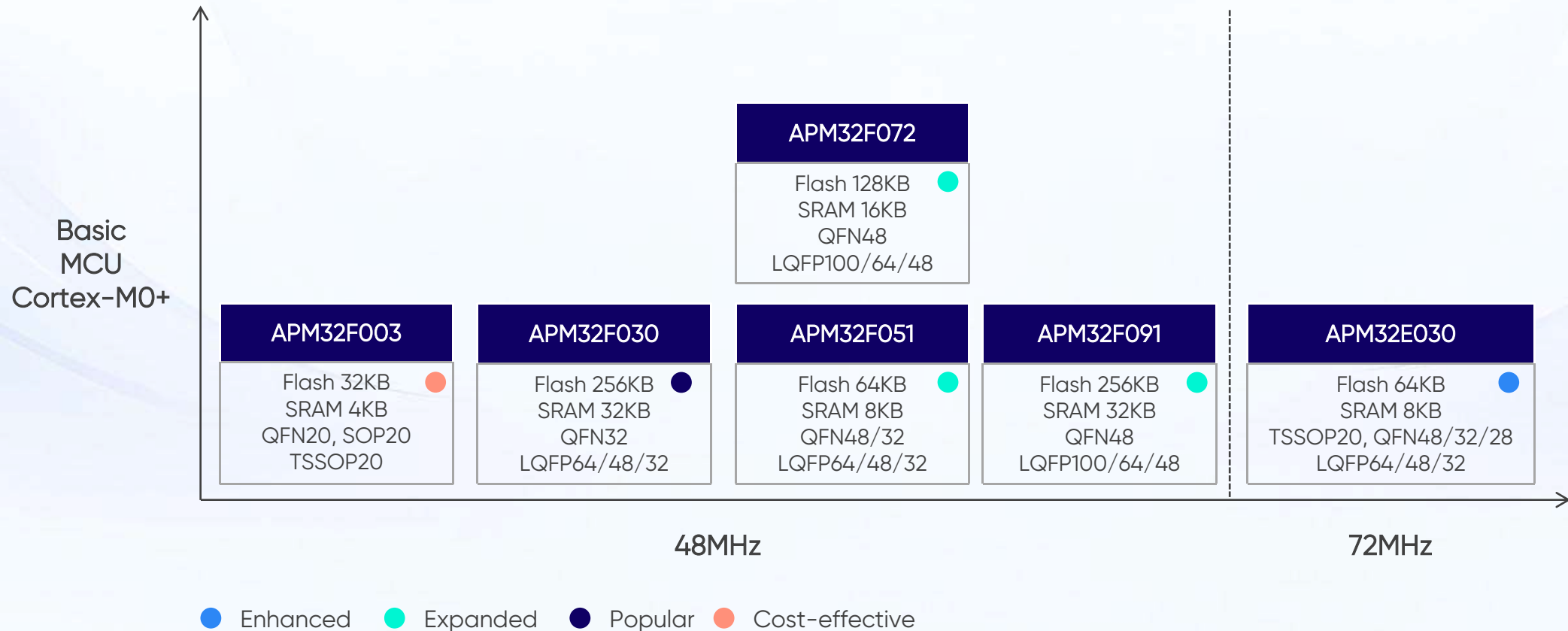
- Electric curtains, LED lighting
- Smart water dispenser, dishwasher
- Sweeping robot, thermostat
- Wall breaker, air purifier
- Oven, coffee maker, refrigerator control panel

◆ APM32F/E0 MCU Series— Product Roadmap



Based on Arm® Cortex®-M0+ Core

With low power consumption, wide temperature range, high performance, and high stability, this series can provide more flexible options for cost-sensitive applications, helping customers to obtain more complex and innovative product features at a more economical cost.



◆ APM32F/E0 MCU Series— Product Resources

APM32E030 Enhanced

- Cortex-M0+@72MHz
- Flash 64KB, SRAM 8KB
- Analog: 12-bit ADCx1
- Communication: USARTx2, SPIx2, I2Cx2
- Package: LQFP64/48/32, QFN48/32/28, TSSOP20



APM32F091 Expanded

- Cortex-M0+@48MHz
- Flash 128/256KB, SRAM 32KB
- Analog: 12-bit ADCx1, 12-bit DACx1, T-sensorx24, COMPx2
- Communication: USARTx8, SPIx2, I2Cx2, CANx1, HDMI CECx1
- Package: LQFP100/64/48, QFN48



APM32F072 Expanded

- Cortex-M0+@48MHz
- Flash 64/128KB, SRAM 16KB
- Analog: 12-bit ADCx1, 12-bit DACx1, T-sensorx24, COMPx2
- Communication: USARTx4, SPIx2, I2Cx2, CANx1, USB2.0x1, HDMI CECx1
- Package: LQFP100/64/48, QFN48



APM32F051 Expanded

- Cortex-M0+@48MHz
- Flash 32/64KB, SRAM 8KB
- Analog: 12-bit ADCx1, 12-bit DACx1, T-sensorx18, COMPx2
- Communication: USARTx2, SPIx2, I2Cx2, HDMI CECx1
- Package: LQFP64/48/32, QFN48/32



APM32F030 Popular

- Cortex-M0+@48MHz
- Flash 32~256KB, SRAM 4~32KB
- Analog: 12-bit ADCx1
- Communication: USARTx6, SPIx2, I2Cx2
- Package: LQFP64/48/32, QFN32



APM32F003 Cost-effective

- Cortex-M0+@48MHz
- Flash 16/32KB, SRAM 2/4KB
- Analog: 12-bit ADCx1, support differential inputs
- Communication: USARTx3, SPIx1, I2Cx1
- HBM>8KV, CDM>2KV
- Package: QFN20, SOP20, TSSOP20



◆ APM32F/E0 MCU Series— Typical Applications



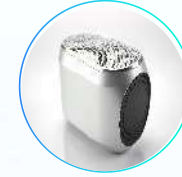
Industrial Electronics

- Encoder, stage lighting
- Stepping motor, welding machine
- Fans, water pumps, industrial lighting
- HMI, PLC, industrial instruments
- UPS, digital power supply, card reader



Electric Energy

- Electricity DTU, FTU
- Energy storage BMS, charging gun
- Power sensors, circuit breakers
- Power monitoring, power instrumentation



Consumer Electronics

- Electric vehicle instrument/controller/BMS
- GPS navigation system, laser rangefinder
- Printer, mouse, keyboard, gamepad
- Interphone, credit card machine, cash register, bill detector
- Shared charging treasure, model aircraft controller, scooter
- Smart toys, smart speakers, microphones



Security Equipment

- Fire emergency light
- Fire explosion-proof lamp
- Fire alarm
- Fire panel



IoT & Medical

- Stage lighting, smart lighting
- Printers, scanning guns, POS machines
- Consumer BMS, GPS positioning, keyboard
- Fingerprint door lock, handheld PTZ, moped instrument
- Laser rangefinder, meter, digital mixer



Home Appliances

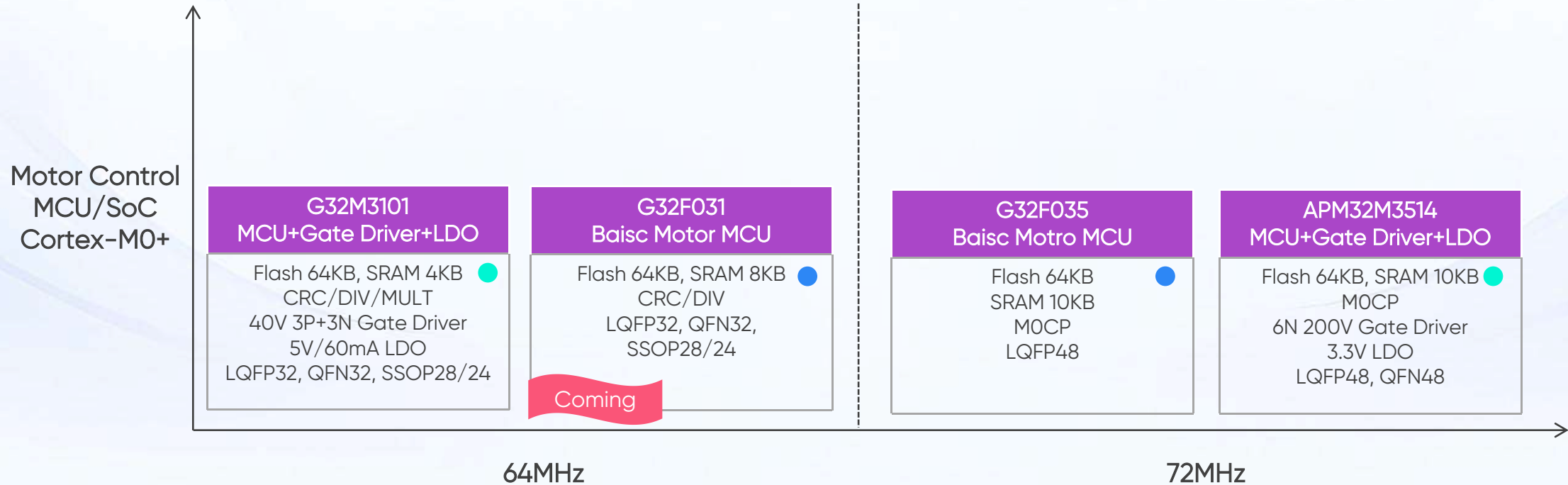
- Electric curtains, refrigerator control panel
- Range hood, microwave oven, induction cooker
- Coffee maker, blender, electric water heater
- Smart toilets, air purifiers, sweaters
- Temperature controller, LED power supply

Motor Control MCU/SoC – Product Roadmap



Based on Arm® Cortex®-M0+ Core

Empowering motor system design with a single chip solution to provide customers with highly integrated, high-performance, and energy-efficient motor control MCU/SoC. The product has built-in dedicated hardware accelerators and self-developed motor control algorithms to provide reliable support for efficient, smooth and safe operation of motor applications.



◆ Motor Control MCU/SoC – Product Resources

APM32M3514 Motor Control SoC

- Cortex-M0+@72MHz
- M0CP co-processor
- Flash 64KB, SRAM 10KB
- 6N 200V Gate Driver, 3.3V LDO
- Analog: 12-bit ADCx1, COMPx2, Op-Ampx4, T-Sensorx1
- Communication: U(S)ARTx2, SPIx1, I2Cx1, CANx1
- Package: LQFP48, QFN48



G32M3101 Motor Control SoC

- Cortex-M0+@64MHz
- CRC/DIV/MULT
- Flash 64KB, SRAM 8KB
- 40V 3P+3N Gate Driver, 5V/60mA LDO
- Analog: 12-bit ADCx1, COMPx2, Op-Ampx2
- Communication: UARTx2, SPIx1
- Package: LQFP32, QFN32, SSOP28/24



APM32F035 Motor Control MCU

- Cortex-M0+@72MHz
- M0CP co-processor
- Flash 64KB, SRAM 10KB
- Analog: 12-bit ADCx1, COMPx2, Op-Ampx4, T-Sensorx1
- Communication: U(S)ARTx2, SPIx1, I2Cx1, CANx1
- Package: LQFP48



G32F031 Motor Control MCU

- Cortex-M0+@64MHz
- CRC/DIV
- Flash 64KB, SRAM 8KB
- Analog: 12-bit ADCx1, COMPx4, Op-Ampx2
- Communication: USARTx1, SPIx1, I2Cx1
- Package: LQFP32, QFN32, SSOP28/24



Smart Home Appliances

- Fan/vacuum cleaner/air purifier
- Sweeping robot/high-speed hair dryer
- Refrigerator/air conditioner/washing machine/dryer
- Range hood/wall breaker/dishwasher/water heater



Power Tools

- Electric drill
- Electric wrench
- Angle grinder
- Garden tools



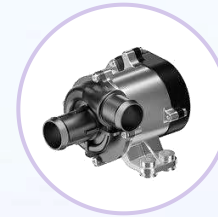
Smart Travel Tools

- Electric bicycle
- Treadmill
- Balance car
- Drone



Communications Equipment

- Cooling fan
- Server cooling
- Charging station thermal management
- Energy storage thermal management



Industrial & Automotive

- Industrial fan
- Industrial water pump
- Automobile air conditioning
- Car refrigerator



Servo Drive

- Robot joint
- Robotic arm
- AGV dual motors
- New energy vehicles

◆ G32R501 REAL TIME MCU/DSP--CORTEX-M52 DUAL CORE



Efficient Arithmetic Processing

Cortex-M52x2 @ 250MHz
 Arm Helium™
 Zidian Math Instruction Extension

Sensitive Signal Acquisition

3.45Msps 12-bit ADC
 Σ - Δ filter module SDF
 High-resolution CAP
 Enhanced QEP

Precise Control Output

150ps HPWM
 Comparator with DAC
 FLB logical block

Rich Storage Resources

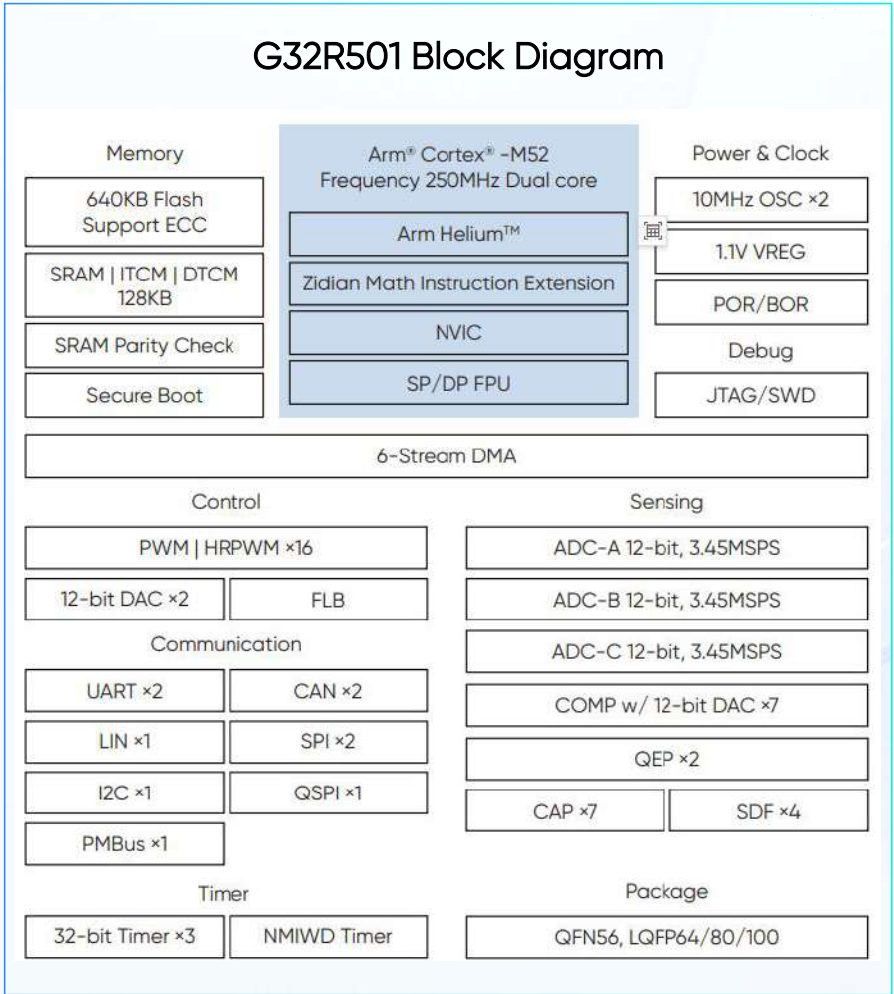
Flash 640KB SRAM 128KB
 Better than competing products
 Customer project code maintenance is easier

Certification & Security

Code security/encrypted bootIEC 61508 SIL2
 AEC-Q100 Grade1

Excellent Compatibility

Hardware PIN to PIN replacement
 Software 5%~10% code changes
 Low customer migration costs



High Reliability

- ESD HBM >8000V
- CDM > 2000V
- Latchup > 200mA

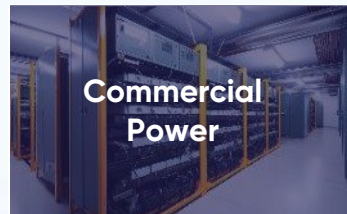
* Measured data

Surging Computing Power

- Single-core 2 to 2.5 times closed-loop performance improvement
- "Dual Core +Helium+ Zidian" provides powerful computing power

Independent & Controllable

- The architecture and core IP are independently designed by Geehy



◆ G32R430 ENCODER DEDICATED MCU--CORTEX-M52



Efficient Arithmetic Processing

Cortex-M52 @ 128MHz
Compared to Cortex-M33/M4
significant improvement in
processing performance

Support TCM Expansion

Support ITCM & DTCM expansion
No need for bus access
Instructions and data "zero" waiting
for access

Built-in Hardware TMU

Support self-developed ATAN
electric angle command
Hardwareization of complex
trigonometric function
operations

Rich Storage Resources

Flash 128KB
DTCM 16KB
ITCM 32KB

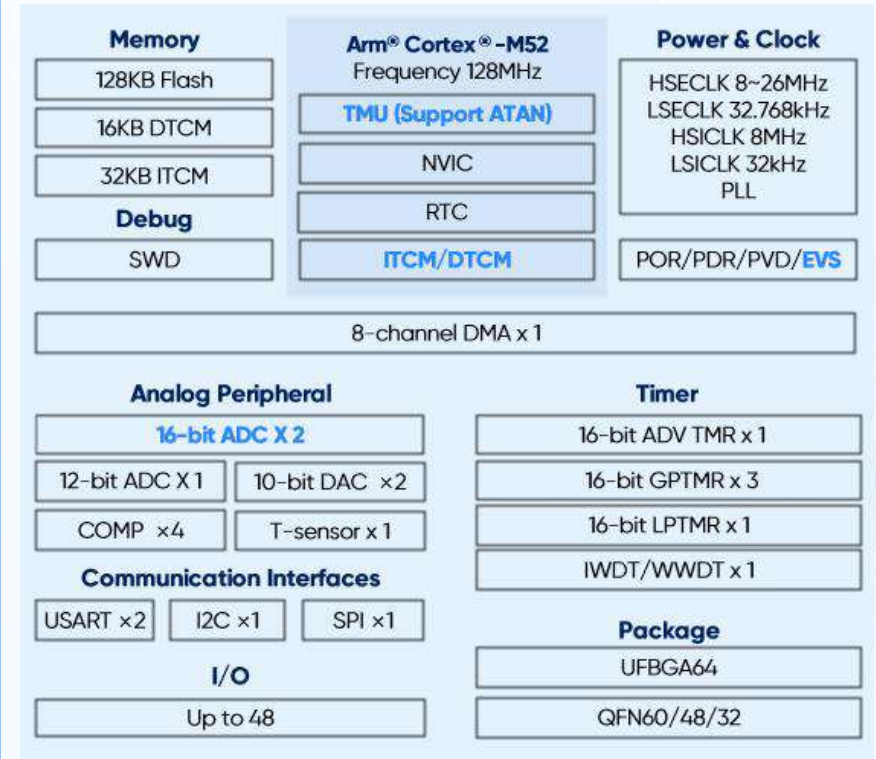
High-precision Analog peripherals

12-bit/16-bit ADC
10-bit DAC
COMP/T-Sensor

High Reliability

HBM 4kV
CDM 1kV
Comply with IEC 61508

G32R430 Block Diagram



Servo Control System

- magnetolectric encoder
- photoelectric encoder
- inductive encoder

Humanoid Robot

- Robot joint
- Dexterous hand

Automation Equipment

- Elevator control
- Automatic production line
- AGV car

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REALIZE THE EFFECTIVE BREAKTHROUGH OF THE CHIPS IN THE FIELD OF INDUSTRIAL AUTOMATION

Geehy

Industrail-grade GP MCU

- Cortex-M0+/M3/M4F
- ESD up to 8KV
- Certified by IEC 61508 SIL3

Real-time DSP/MCU

- Cortex-M52 dual core
- Arm Helium™
- Zidian Mathematical instruction expansion unit

Encoder Dedicated MCU

- Cortex-M52
- 16-bit high-precision ADC
- ATAN electric angle calculation extended Instructions

Typical Applications and Solutions

Servo Controller

- Dual-core parallel processing design architecture
- 1 μ s current loop on a single chip
- Open universal servo full-function design

Encoders

- 16-bit high-precision ADC sampling
- 17-bit true resolution
- Support Tamagawa/BiSS-C/SSI/SPI and others

Grid Power Terminal

- Highly efficient processing power and scalability
- Highly reliable anti-interference, reduce the risk of system failure
- Low power consumption, high integration, support software and hardware customization

VFD

- High-performance vector control technology, low speed and high torque output
- Support zero-speed switching, instant stop and stop
- Support dynamic/static parameter identification, PI self-tuning

PLC

- Scalable processing and industrial networking solutions
- Functional safety-ready, stable EMI/EMC performance
- Abundant IO for processing data from input devices and controlling output

Industrial Power

- Single-phase AC input voltage can be converted to DC output voltage
- Full digital control, support CAN communication/voltage and current adjustment function
- Flexible development and expandability

Stepper Motor Driver

- Up to 1024 subdivided micro-step controls
- Support full-stream/half-stream locking
- Support SPI encoder signal input

Industrial BMS

- High-precision ADC, supporting multiple channels
- Integrated UART/SPI/I2C/CAN, etc.
- Functional safety ready, EMI/EMC performance stable

Low voltage FOC dual motor

- 4Hz is the target frequency, full torque closed-loop start
- GEAST algorithm library, 1Hz closed-loop frequency conversion
- Parameter identification, PI self-tuning



EXPLORING THE MARKET OF NEW ENERGY FIELD



Automotive MCUs

- Arm® Cortex®-M0+/M3/M4F
- High security: CSEc, MPU, Secure Boot
- AEC-Q100 Grade1/2, ISO 26262 ASIL-B certified

Ultrasonic Sensors & Signal Processors

- China's first domestic chip, breaking through the patent monopoly
- High-precision positioning, excellent distance measurement performance
- AEC-Q100 Grade2 certified

Typical Applications and Solutions

PV Inverter

- Support two photovoltaic inputs
- staggered CRM/CCM control
- Support grid-connected operation mode

AC Charging Station

- Support over-voltage/short-circuit/overload/leakage protection functions.
- Supports operation/fault status monitoring, charging time-sharing measurement, historical data recording and storage, etc.
- Mainstream control chip (Cortex-M3)

Portable Power

- Rated output power 500W, rated output current 2.5A, output frequency 50Hz±0.1Hz
- Inverter main control chip
- BMS analog front-end chip

Energy Storage BMS

- Total voltage ≤60V, supporting 15-16 series lithium battery packs
- Support charge/discharge overcurrent alarm and short circuit protection functions
- Supports CAN/485/RS232, LED battery status, SOC indication and other functions

Bidirectional power supply

- Comply with 80Plus Titanium energy efficiency standards
- Maximum efficiency ≥96.5%
- Dual-stage PFC and LLC control on a single chip

E-bicycle/tricycle BMS

- Up to 16 strings for Li-ion battery pack applications, supports 5-way NTC temperature sensors
- BMS analog front-end chip
- Low power M0+/M3 control chip



PROVIDING RELIABLE CHIPS COMPLY WITH FUNCTIONAL SAFETY

Automotive MCUs

- Cortex-M0+/M3/M4F/m52
- High security: CSEc, MPU, Secure Boot
- AEC-Q100 Grade1/2, ISO 26262 ASIL-B certified

Ultrasonic Sensors

- China's first domestic chip, breaking through the patent monopoly
- High-precision positioning, excellent distance measurement performance
- AEC-Q100 Grade2 certified

Automotive Headlamp LED Driver

- Fill the blank of china's market
- Pixel-level LED independent control, full dynamic adaptive lighting
- AEC-Q100 Grade1 certified

Typical Applications and Solutions

Body Control System

- Sound Simulation
- Lighting Control
- Power Tailgate
- Body Domain Controller
- Central door locking
- Window Remote Control

Infotainment System

- Bluetooth Communication
- Car Audio
- GPS Navigation
- T-Box/HUD
- Center Control Panel
- Dashboard

Intelligent Comfort System

- Electronic Horn
- In-car refrigerator
- Heated steering wheel
- HVAC heating and air conditioning
- Smart seats (ventilated/massage/heated)

Intelligent Assisted Driving

- Reversing Radar
- Automatic Parking
- Intelligent Light Control
- 360 Around View

Safety Systems

- EDR/OBD
- CarLog
- Airbag

Power Systems

- Chassis Control
- Engine Controls
- BMS Control Board



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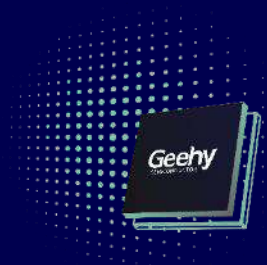
01 About Geehy

02 Introduction of MCU

03 Introduction of Typical Applications

04 Ecosystem

Why Should We Choose Geehy Industrail-Grade MCU?



Strong Supply Chain Advantage

- Listed company background
- Strategic cooperation with leading domestic wafer and mature packaging plants
- Cumulative wafer shipments of approximately 100,000

Rich MCU Roadmap

- Cortex-M0+/M3/M4F/M52
- Meet customer requirements for low, medium, and high-end product designs

High Reliability

- Full series industrial & automotive-grade designs
- High anti-interference performance with factory test specifications
- Operating temp: -40°C to +125°C

Functional Safety

- IEC 61058
- IEC 60730
- AEC-Q100
- ISO 26262

Customer Support

- Serve more than 10000+ end customers
- Comprehensive after-sales service process
- Abundant technical support for customer design

Mature and Reliable Chip Design

- 20 years of IC chip design experience
- Mature and stable IP support

Quality Assurance

- High-consistency design philosophy
- Multi-level quality control system
- Full lifecycle quality control
- With over 10 years of supply duration

Comprehensive Ecosystem

- Diverse development environments
- Rich software and hardware development and batch tools
- Solutions, reference designs, and code support
- Forums, technical articles, application notes, and code libraries



Market Oriented



Successful stories Geehy has already achieved

Automotive Electronics

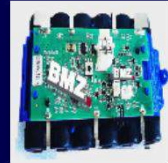


Car Headlight Control Card (F103RCT7)



FRIWO

Motor Control Unit (F407VGT6)



BMZ
THE INNOVATION GROUP

EV BMS (F072CBT6)



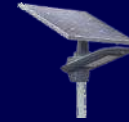
TELTONIKA | Telematics

Tracker (F072CBT6)



Midea

Gas Stove (F030K6T6)



HAVELLS

Solar Inverter (F030K6T6)



HUAYI

Fridge Compressor (F030K6T6)



NESPRESSO

Coffee Machine (F030RCT6)



BOSCH

eBike Charger (F103CBT6)

Industrial Control



FAULHABER

Low Voltage Servo (F407VGT6)



TECO

PLC (F103RCT6)



KONE

Elevator Board (F103CBT6)



CURTISS-WRIGHT

Power Distribution (F407VGT6)



ABB

AC Charger (F407VGT6)



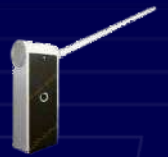
INOVANCE

Absolute Encoder (F103TBU7)



SPECTRA Technologies

POS Terminal (F103C8T6)



KEY AUTOMATION

Road Barrier (F072VBT6)

PROFESSIONAL TEAM

All-round Support

Senior Algorithm Engineer

+

Software Engineer

+

Hardware Engineer



IC

Efficiency & Reliable Quality

MCU

SoC

Gate Driver

DSP

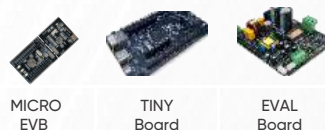
ASICs



HARDWARE

Shorten Development Cycle

General Hardware Platform



PCBA for Dedicated Applications



SOFTWARE

Motor Control Algorithm Platform

Square Wave FOC IPD MTPA
Single/Dual Resistance Sampling Windward/Leeward Start

SDK

Software Package

Motors Software packages

Battery Software packages

Develop Tools



Debugging Tools

Jscope

APM32 PROG

Geehy Link

APPLICATION

Applicable for Wide-Range Scenarios



Water Pump

Handheld Drill

Industrial Fan



Laboratory Centrifuge

Magnetic Stirrer

Electric Two-wheeler



Low Voltage Servo

HMI

Encoder



Photovoltaic Inverter

LLC Power

EtherCAT

Mass Production Applications

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LinkedIn



Youtube



Wechat



Official Community



Hackster



Github