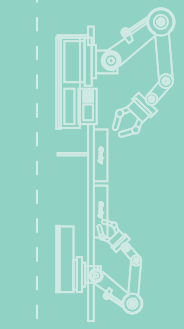
Geehy
SEMICONDUCTOR

Product Selection Guide



Content

Geehy 32-bit MCU—Arm® Cortex®-M Cores

A diverse portfolio catering to varied customer needs.

Automotive & Industrial | Functional Safety& Security | Motor Control | Connectivity | Ultra-Low Power | Touch

Arm® Cortex®-M0+/M3/M4F...

High-Performance MCU
APM32F417
APM32F411
APM32F407/405
Cortex-M4F

Mainstream MCU
APM32E103
APM32F107/105
APM32F103
Cortex-M3

Basic MCU
APM32F091
APM32F072
APM32F051
APM32F030
APM32F003
Cortex-M0+

Motor-Dedicated MCU
APM32F035
Cortex-M0+

Wireless MCU
GW8811 (BLE4.2)
GW3323 (BLE5.2)
Cortex-M0 RISC-V

Automotive MCU
APM32A407
APM32A103
APM32A091
APM32F103RCT7
APM32F072RBT7
APM32F072CBT7
Cortex-M4F/M3/M0+

Cortex
Intelligent Processors by Arm®
Arm POWERED

Product Selection Guide

AP/G	M/W	32	F	103	T	4	T	6	s

Brand
Geehy

M/W
M:MCU
W:Wireless

Family
32:32-bit MCU
33:BLE5.2
88:BLE4.2

Product type
A Auto grade
E Enhanced
F Foundation
L Ultra-low-power
S Standard
23 BLE5.2 SoC
11 BLE4.2 SoC

Specific features (3 digits)
0xx Entry-level
10x Mainstream
4xx High-performance

Pin count (pins)
D 14
F 20
E 24
G 28
K 32
T 36
H 40
S 44
C 48
U 63
R 64
J 72
M 80
O 90
V 100
Q 132
Z 144
A 169
I 176

Code size (Kbytes)
4 16
6 32
7 48
8 64
9 72
A 96
B 128
Z 192
C 256
D 384
E 512
F 768
G 1024

Packaging
H LFBGA/TFBGA
I UFBGA Pitch 0.5
J UFBGA Pitch 0.8
K UFBGA Pitch 0.65
M SOP
P TSSOP
T LQFP/QFP
U QFN
Y WLCSP

Temp range
6 and A:-40~85℃
7 and B:-40~105℃
3 and C:-40~125℃
D:-40~150℃

SiP type
S:SiP 2MB SDRAM
Blank=Non-SiP

Packages

- LQFP176/144/100/64/48/32
- QFN48/36/32/28
- TSSOP20
- SOP20
- BGA176


32-pin LQFP 7x7mm


48-pin LQFP 7x7mm


64-pin LQFP 10x10mm


176-pin BGA 10x10mm


100-pin LQFP 14x14mm


144-pin LQFP 20x20mm


176-pinLQFP 24x24mm


20-pin TSSOP 6.5x4.4mm


20-pin SOP 12.8x7.5mm


20-pin QFN 3x3mm


28-pin QFN 4x4mm


32-pin QFN 5x5mm


36-pin QFN 6x6mm


48-pin QFN 6x6mm


48-pin QFN 7x7mm

APM32F4 Series- Arm® Cortex®-M4F High-Performance MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/O	Voltage(V)	Timer								Analog Interface			Connectivity													Security			Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Channels	SPI	QSPI	I2S	I2C	U(S)ART	CAN	SDIO	USB OTG_FS	USB OTG_HS	DCI	SMC	DMC	Ethernet	RNG	AES/DES/TDES	BN/SM3/SM4	
APM32F405RGT6	168	1024	192+4	✓	51	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	-	-	-	0	✓	-	-	LQFP64
APM32F405VGT6	168	1024	192+4	✓	82	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	-	✓	-	0	✓	-	-	LQFP100
APM32F405ZGT6	168	1024	192+4	✓	114	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	-	✓	-	0	✓	-	-	LQFP144
APM32F407IGH6	168	1024	192+4	✓	140	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	✓	1	✓	-	✓	BGA176
APM32F407RET6	168	512	192+4	✓	51	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	-	-	-	0	✓	-	✓	LQFP64
APM32F407RGT6	168	1024	192+4	✓	51	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	-	-	-	0	✓	-	✓	LQFP64
APM32F407VET6	168	512	192+4	✓	82	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	-	✓	LQFP100
APM32F407VGT6	168	1024	192+4	✓	82	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	-	✓	LQFP100
APM32F407ZET6	168	512	192+4	✓	114	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	-	✓	LQFP144
APM32F407ZGT6	168	1024	192+4	✓	114	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	-	✓	LQFP144
APM32F407IGT6	168	1024	192+4	✓	140	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	✓	1	✓	-	✓	LQFP176
APM32F411CCU6	120	256	128	✓	36	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	10	0	3	0	3	3	3+1	2	1	1	0	-	-	-	0	✓	-	-	QFN48
APM32F411CEU6	120	512	128	✓	36	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	10	0	3	0	3	3	3+1	2	1	1	0	-	-	-	0	✓	-	-	QFN48
APM32F411CCT6	120	256	128	✓	36	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	10	0	3	0	3	3	3+1	2	1	1	0	-	-	-	0	✓	-	-	LQFP48
APM32F411CET6	120	512	128	✓	36	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	10	0	3	0	3	3	3+1	2	1	1	0	-	-	-	0	✓	-	-	LQFP48
APM32F411RCT6	120	256	128	✓	50	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	16	0	5	1	5	3	4+2	2	1	1	0	-	-	-	0	✓	-	-	LQFP64
APM32F411RET6	120	512	128	✓	50	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	16	0	5	1	5	3	4+2	2	1	1	0	-	-	-	0	✓	-	-	LQFP64
APM32F411VCT6	120	256	128	✓	81	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	16	0	5	1	5	3	4+2	2	1	1	0	-	✓	-	0	✓	-	-	LQFP100
APM32F411VET6	120	512	128	✓	81	1.7~3.6	8	2	2	0	✓	✓	✓	✓	2	16	0	5	1	5	3	4+2	2	1	1	0	-	✓	-	0	✓	-	-	LQFP100
APM32F417VGT6	168	1024	192+4	✓	82	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	✓	✓	LQFP100
APM32F417ZGT6	168	1024	192+4	✓	114	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	-	1	✓	✓	✓	LQFP144
APM32F417IGT6	168	1024	192+4	✓	140	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	3	0	2	3	4+2	2	1	1	1+1	✓	✓	✓	1	✓	✓	✓	LQFP176

APM32F1 Series- Arm® Cortex®-M3 Mainstream MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage(V)	Timer								Analog Interface					Connectivity											Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	USB OTG_FS	SMC	DMC	Ethernet	
APM32F103T8U6	96	64	20	-	26	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	1	0	1	2	1	0	1	0	0	-	-	0	QFN36
APM32F103TBU6	96	128	20	✓	26	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	1	0	1	2	1	0	1	0	0	-	-	0	QFN36
APM32F103TBU7	96	128	20	✓	26	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	1	0	1	2	1	0	1	0	0	-	-	0	QFN36
APM32F103C8T6	96	64	20	-	37	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP48
APM32F103CBT6	96	128	20	✓	37	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP48
APM32F103CBT7	96	128	20	✓	37	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP48
APM32F103R8T6	96	64	20	-	51	2~3.6	3	0	1	0	✓	✓	✓	✓	2	16	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP64
APM32F103RBT6	96	128	20	✓	51	2~3.6	3	0	1	0	✓	✓	✓	✓	2	16	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP64
APM32F103RBT7	96	128	20	✓	51	2~3.6	3	0	1	0	✓	✓	✓	✓	2	16	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP64
APM32F103VBT6	96	128	20	✓	80	2~3.6	3	0	1	0	✓	✓	✓	✓	2	16	0	0	0	2	0	2	3	1	0	1	0	0	-	-	0	LQFP100
APM32F103CCT6	96	256	64	-	37	2~3.6	4	0	1	1	✓	✓	✓	✓	2	10	2	2	0	3	2	2	3	2	0	1	0	0	-	-	0	LQFP48
APM32F103RCT6	96	256	64	-	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	-	-	0	LQFP64
APM32F103RCT7	96	256	64	-	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	-	-	0	LQFP64
APM32F103VCT6	96	256	64	-	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	✓	-	0	LQFP100
APM32F103RET6	96	512	128	✓	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	1	1	1	0	0	-	-	0	LQFP64
APM32F103VET6	96	512	128	✓	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	1	1	1	0	0	✓	-	0	LQFP100
APM32F103VET7	96	512	128	✓	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	1	1	1	0	0	✓	-	0	LQFP100
APM32F103ZET6	96	512	128	✓	112	2~3.6	4	0	2	2	✓	✓	✓	✓	3	21	2	2	0	3	2	2	3+2	1	1	1	0	0	✓	✓	0	LQFP144
APM32E103CCU6	120	256	64	✓	37	2~3.6	4	0	1	2	✓	✓	✓	✓	2	10	2	2	0	3	2	2	3	2	0	1	0	0	-	-	0	QFN48
APM32E103CEU6	120	512	128	✓	37	2~3.6	4	0	1	2	✓	✓	✓	✓	2	10	2	2	0	3	2	2	3	2	0	1	0	0	-	-	0	QFN48
APM32E103CCT6	120	256	64	✓	37	2~3.6	4	0	1	2	✓	✓	✓	✓	2	10	2	2	0	3	2	2	3	2	0	1	0	0	-	-	0	LQFP48

APM32F1 Series- Arm® Cortex®-M3 Mainstream MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage(V)	Timer								Analog Interface					Connectivity											Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	USB OTG_FS	SMC	DMC	Ethernet	
APM32E103CET6	120	512	128	✓	37	2~3.6	4	0	1	2	✓	✓	✓	✓	2	10	2	2	0	3	2	2	3	2	0	1	0	0	-	-	0	LQFP48
APM32E103RCT6	120	256	64	✓	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	-	-	0	LQFP64
APM32E103RET6	120	512	128	✓	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	-	-	0	LQFP64
APM32E103VCT6	120	256	64	✓	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	✓	-	0	LQFP100
APM32E103VET6	120	512	128	✓	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	3	2	2	3+2	2	1	1	0	0	✓	-	0	LQFP100
APM32E103ZET6	120	512	128	✓	112	2~3.6	4	0	2	2	✓	✓	✓	✓	3	21	2	2	0	3	2	2	3+2	2	1	1	0	0	✓	✓	0	LQFP144
APM32F105RBT6	96	128	64	-	51	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	2	3+2	2	0	0	0	1	-	-	0	LQFP64
APM32F105RCT6	96	256	64	-	51	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	2	3+2	2	0	0	0	1	-	-	0	LQFP64
APM32F105VBT6	96	128	64	-	80	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	2	3+2	2	0	0	0	1	-	-	0	LQFP100
APM32F105VCT6	96	256	64	-	80	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	2	3+2	2	0	0	0	1	-	-	0	LQFP100
APM32F107RBT6	96	128	64	-	51	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	1	3+2	2	0	0	0	1	-	-	1	LQFP64
APM32F107RCT6	96	256	64	-	51	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	1	3+2	2	0	0	0	1	-	-	1	LQFP64
APM32F107VBT6	96	128	64	-	80	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	1	3+2	2	0	0	0	1	-	-	1	LQFP100
APM32F107VCT6	96	256	64	-	80	2~3.6	4	0	1	2	✓	✓	✓	✓	2	16	2	2	0	3	2	1	3+2	2	0	0	0	1	-	-	1	LQFP100

APM32F0 Series- Arm® Cortex®- M0+ Basic MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage(V)	Timer								Analog Interface						Connectivity								Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	TSC (Channels)	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	
APM32F003F4P6	48	16	2	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP20
APM32F003F6P6	48	32	4	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP20
APM32F003F6P7	48	32	4	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP20
APM32F003F4M6	48	16	2	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	SOP20
APM32F003F6M6	48	32	4	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	SOP20
APM32F003F4U6	48	16	2	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN20
APM32F003F6U6	48	32	4	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN20
APM32F003F6U7	48	32	4	-	16	2~5.5	1	0	2	1	✓	✓	✓	-	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN20
APM32F030F4P6	48	16	8	-	15	2~3.6	4	0	1	0	✓	✓	✓	✓	1	9	0	0	0	0	1	0	0	1	0	0	0	0	TSSOP20
APM32F030F6P6	48	32	8	-	16	2~3.6	4	0	1	0	✓	✓	✓	✓	1	9	0	0	0	0	1	0	0	1	0	0	0	0	TSSOP20
APM32F030F8P6	48	64	8	-	15	2~3.6	4	0	1	0	✓	✓	✓	✓	1	9	0	0	0	0	1	0	0	1	0	0	0	0	TSSOP20
APM32F030G4U6	48	16	8	-	23	2~3.6	4	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	QFN28
APM32F030G6U6	48	32	8	-	23	2~3.6	4	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	2	0	0	0	0	QFN28
APM32F030G8U6	48	64	8	-	23	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	2	0	2	2	0	0	0	0	QFN28
APM32F030K6U6	48	32	8	-	26	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	QFN32
APM32F030K6T6	48	32	8	-	26	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP32
APM32F030K6T7	48	32	8	-	26	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP32
APM32F030K8T6	48	64	8	-	26	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP32
APM32F030C6U6	48	32	8	-	39	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	QFN48

APM32F0 Series- Arm® Cortex®- M0+ Basic MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage(V)	Timer								Analog Interface						Connectivity								Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	TSC (Channels)	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	
APM32F030C8U6	48	64	8	-	39	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	2	0	2	2	0	0	0	0	QFN48
APM32F030C6T6	48	32	8	-	39	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP48
APM32F030C8T6	48	64	8	-	39	2~3.6	5	0	1	1	✓	✓	✓	✓	1	10	0	0	0	0	2	0	2	2	0	0	0	0	LQFP48
APM32F030R8T6	48	64	8	-	55	2~3.6	5	0	1	1	✓	✓	✓	✓	1	16	0	0	0	0	2	0	2	2	0	0	0	0	LQFP64
APM32F030CCT6	48	256	32	-	37	2~3.6	5	0	1	2	✓	✓	✓	✓	1	10	0	0	0	0	2	0	2	6	0	0	0	0	LQFP48
APM32F030RCT6	48	256	32	-	51	2~3.6	5	0	1	2	✓	✓	✓	✓	1	16	0	0	0	0	2	0	2	6	0	0	0	0	LQFP64
APM32F051K6U6	48	32	8	-	27	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN32
APM32F051K8U6	48	64	8	-	27	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN32
APM32F051C6U6	48	32	8	-	39	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN48
APM32F051C8U6	48	64	8	-	39	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	2	1	2	2	0	0	0	1	QFN48
APM32F051K6T6	48	32	8	-	25	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP32
APM32F051K8T6	48	64	8	-	25	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP32
APM32F051C6T6	48	32	8	-	39	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP48
APM32F051C8T6	48	64	8	-	39	2~3.6	5	1	1	1	✓	✓	✓	✓	1	10	1	1	2	18	2	1	2	2	0	0	0	1	LQFP48
APM32F051R6T6	48	32	8	-	55	2~3.6	5	1	1	1	✓	✓	✓	✓	1	16	1	1	2	18	2	1	2	2	0	0	0	1	LQFP64
APM32F051R8T6	48	64	8	-	55	2~3.6	5	1	1	1	✓	✓	✓	✓	1	16	1	1	2	18	2	1	2	2	0	0	0	1	LQFP64
APM32F070CBT6	48	128	16	-	37	2.4~3.6	5	0	1	2	✓	✓	✓	✓	1	10	0	0	0	0	2	0	2	4	0	0	1	0	LQFP48
APM32F070RBT6	48	128	16	-	51	2.4~3.6	5	0	1	2	✓	✓	✓	✓	1	16	0	0	0	0	2	0	2	4	0	0	1	0	LQFP64
APM32F071CBU6	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	0	0	0	1	QFN48

APM32F0 Series- Arm® Cortex®- M0+ Basic MCUs

Part No.	Frequency(MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage(V)	Timer								Analog Interface						Connectivity								Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	TSC (Channels)	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	
APM32F071CBT6	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	0	0	0	1	LQFP48
APM32F071V8T6	48	64	16	-	87	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	4	0	0	0	1	LQFP100
APM32F072C8U6	48	64	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN48
APM32F072CBU6	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN48
APM32F072C8T6	48	64	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP48
APM32F072CBT6	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP48
APM32F072CBT7	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP48
APM32F072R8T6	48	64	16	-	51	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP64
APM32F072RBT6	48	128	16	-	51	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP64
APM32F072V8T6	48	64	16	-	87	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	4	1	0	1	1	LQFP100
APM32F072VBT6	48	128	16	-	87	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	4	1	0	1	1	LQFP100
APM32F091CBU6	48	128	32	-	38	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	24	2	2	2	6	1	0	0	1	QFN48
APM32F091CCU6	48	256	32	-	38	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	24	2	2	2	6	1	0	0	1	QFN48
APM32F091CBT6	48	128	32	-	38	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	24	2	2	2	6	1	0	0	1	LQFP48
APM32F091CCT6	48	256	32	-	38	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	24	2	2	2	6	1	0	0	1	LQFP48
APM32F091RBT6	48	128	32	-	52	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	8	1	0	0	1	LQFP64
APM32F091RCT6	48	256	32	-	52	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	8	1	0	0	1	LQFP64
APM32F091VBT6	48	128	32	-	88	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	8	1	0	0	1	LQFP100
APM32F091VCT6	48	256	32	-	88	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	8	1	0	0	1	LQFP100

APM32 Motor-Dedicated MCUs

Part No.	Core	Frequency(MHz)	MOCP Coprocessor	FLASH(KB)	SRAM(KB)	I/Os	Voltage(V)	Timer								Analog Interface							Connectivity								Package
								GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	Operational Amplifier	TSC (Channels)	SPI	I2S	I2C	USART	CAN	SDIO	USB Device	CEC	
APM32F035K8T7	Cortex-M0+	72	1	64	10	27	2.0~3.6	2	1	1	2	✓	✓	✓	✓	1	12	0	0	2	2	0	1	1	1	2	1	0	0	0	LQFP32
APM32F035C8T7	Cortex-M0+	72	1	64	10	42	2.0~3.6	2	1	1	2	✓	✓	✓	✓	1	16	0	0	2	4	0	1	1	1	2	1	0	0	0	LQFP48

APM32 Automotive MCUs

Part No.	Frequency (MHz)	FLASH(KB)	SRAM(KB)	FPU	I/Os	Voltage	Timer								Analog Interface						Connectivity												Security			Package
							GPTMR(16bit)	GPTMR(32bit)	Advanced TMR(16bit)	Basic TMR	Systick(24bit)	IWDT	WWDT	RTC	ADC 12-bit Cell	ADC 12-bit Channels	DAC 12-bit Cell	DAC 12-bit Channels	Analog Comparator	TSC (Channels)	SPI	I2S	I2C	U(S)ART	CAN	SDIO	USB Device	CEC	USB OTG_FS	USB OTG_HS	DCI	SMC	DMC	Ethernet	RNG	AES/DES/TDES	BN/SM3/SM4	
APM32F072RBT7	48	128	16	-	51	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	18	2	2	2	4	1	0	1	1	0	0	-	-	-	0	-	-	-	LQFP64
APM32F072CBT7	48	128	16	-	37	2~3.6	5	1	1	2	✓	✓	✓	✓	1	10	1	2	2	17	2	2	2	4	1	0	1	1	0	0	-	-	-	0	-	-	-	LQFP48
APM32A091RCT7	48	256	32	-	52	2~3.6	5	1	1	2	✓	✓	✓	✓	1	16	1	2	2	24	2	2	2	8	1	0	0	1	0	0	-	-	-	0	-	-	-	LQFP64
APM32F103RCT7	96	256	64	-	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	0	0	-	-	-	0	-	-	-	LQFP64
APM32A103VET7	120	512	128	✓	80	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	0	3	2	2	3+2	2	1	1	0	0	0	-	✓	-	0	-	-	-	LQFP100
APM32A103RET7	120	512	128	✓	51	2~3.6	4	0	2	2	✓	✓	✓	✓	3	16	2	2	0	0	3	2	2	3+2	2	1	1	0	0	0	-	-	-	0	-	-	-	LQFP64
APM32A103CBT7	96	128	20	✓	37	2~3.6	3	0	1	0	✓	✓	✓	✓	2	10	0	0	0	0	2	0	2	3	2	0	1	0	0	0	-	-	-	0	-	-	-	LQFP48
APM32A407VGT7	168	1024	192+4	✓	82	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	16	2	2	0	0	3	2	3	4+2	2	1	0	0	1	1+1	✓	✓	-	1	✓	-	✓	LQFP100
APM32A407ZGT7	168	1024	192+4	✓	114	1.8~3.6	8	2	2	2	✓	✓	✓	✓	3	24	2	2	0	0	3	2	3	4+2	2	1	0	0	1	1+1	✓	✓	-	1	✓	-	✓	LQFP144

GW Series Ultra-low-power Bluetooth MCUs

Part No.	CPU	Frequency (MHz)	FLASH (KB)	SRAM (KB)	I/Os	Voltage(V)	Max. TX Power(dBm)	RX Sensitivity(dBm)	TX Current (mA@0dBm)	RX Current (mA@0dBm)	Sleep Mode Current (μA)	Deep Sleep Mode Current (μA)	Operating Temperature (°C), Tj	Timer				Analog Interface		Connectivity									Package
														Low Speed TM(32bit)	High Speed TM(16bit)	WDT(16bit)	RTC	GPADC 10bit Cell	GPADC 10bit Channels	SPI(Master)	I2C(Master)	USART	PWM	Quadrature Decoder	ISO7816	Infrared Emitting & Receiving	Keyscan Decoder (Rows & Columns)	AES Encryption Engine	
GW8811KEU6	Cortex-M0	64	512	24	21	1.8~3.6	+4	-94	4.8	2.8	2.7	1	-40~+85	4	1	1	1	1	4+1	2	2	2	6	Yes	Yes	Yes	8 x 20	128 bit	QFN32
GW8811CEU6	Cortex-M0	64	512	32	32	1.8~3.6	+4	-94	4.8	2.8	2.7	1	-40~+85	4	1	1	1	1	8+1	2	2	2	6	Yes	Yes	Yes	8 x 20	128 bit	QFN48
GW3323HGU6	RISC-V	160	1024	256	24	3~4.5	+9	-94	18.7	28	500	4	-40~+85	6	0	1	1	1	16	2	1	3	9	0	0	0	0	0	QFN40

Geehy Ecosystem

With a comprehensive ecosystem, Geehy offers an abundance of software and hardware development tools, empowering engineers to expedite product development, reduce costs, and optimize performance.

Development & Design

IDE

arm KEIL · IAR SYSTEMS · RT · eclipse

MCAL

SDK

Reliability Test

Security Library

SIL ASIL Class B

Official Tools

Programmer

Debugger

MINI Board

EVAL Board

TINY Board

DFU

ISP

PROG

Technical Support

Selection Tools	Technical Doc	Samples	Services Support
Product Selection Guide Online Selection Tool	Datasheet User Manuals AN/FAQ	Chips Demo Boards	Sales AE FAE

Partner Tools

Geehy Community · Github · Hackster

Eco Platform

MaxWiz Technology · ELNEC · SEGGER The Embedded Experts · PE micro

Training & Promotion

Webinar	Live Streaming	Offline Training

Campus Ecology

Graduate Training	Campus Presentation	Student Design Competition

Software & Hardware Tools

GEEHY-LINK Debugger

It is an all-in-one debugger and programmer specifically designed for in-circuit debugging and emulation of the full APM32 series MCUs within the Keil development environment.

APM32 Programmer

It effortlessly connects with various interfaces on your computer and collaborates with PC software to enable efficient and reliable program writing on the MCUs.

Real-Time System

- FreeRTOS
- RT-Thread

Development Tools

- Keil MDK-Arm
- IAR Embedded Workbench
- Visual Studio Code
- Eclipse

Technical Support

- User Manuals
- Diagram

MINI Board

TINY Board

EVAL Board

Abbreviations & Packages

ADC	Analog-to-digital converter
ART	Auto-reload timer
CAN	Controller area network
CC	Capture compare
CEC	Consumer electronic controller
COMP	Analog comparators
CRC	cyclic redundancy check
CSS	Clock security system
DAC	Digital-to-Analog Converter
DCI	Digital Camera Interface
DMA	Direct memory access
EMMC	External Memory Controller
DMC	Dynamic memory Controller
SMC	Static Memory Controller
FPU	Float Point Unit
GPTMR	General-Purpose Timer
IC/OC	Input capture/output compare
PG	programming
IR	Infrared
IrDA	Infrared data association
ISP	In-situ programming
I²C	Inter-integrated circuit
I²S	Inter-IC sound
LCD	Liquid crystal display controller
LIN	Local interconnect network
LVD	Low voltage detection
M0CP	Coprocessor
MMC	MultiMediaCard
NMI	Non-maskable interrupt
PDR	Power down reset
PLL	Phase locked loop
POR	Power-on reset
PVD	Programmable voltage detector
PWM	Pulse width modulation
RTC	Peal-time clock timer
SAI	Serial Audio Interface
SC	Smartcard
SDIO	Secure digital input/output interface
SD/MMC	Secure Digital / Multi Media Card
TMR	Timer
SPI	Serial peripheral interface
QSPI	Quad Serial Peripheral Interface
UART	Universal asynchronous receiver transmitter
USART	Universal sync/async receiver transmitter
USB	Universal Seria Bus
WUPT	Auto Wakeup
WDG	Watchdog timer
IWDT	Independent Watchdog Timer
WWDT	Windows Watchdog Timer

LFBGA	Low Profile Fine Pitch Ball Grid Array
TFBGA	Thin Profile Fine Pitch Ball Grid Array
UFBGA	Ultra Thin Profile Fine Pitch Ball Grid Array
SOP	Small Outline package
TSSOP	Thin Small Outline Package
LQFP	Low Profile Quad Flat Package
QFN	Quad Flat No-lead
WLCSP	Wafer-Level Chip-Scale Package

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