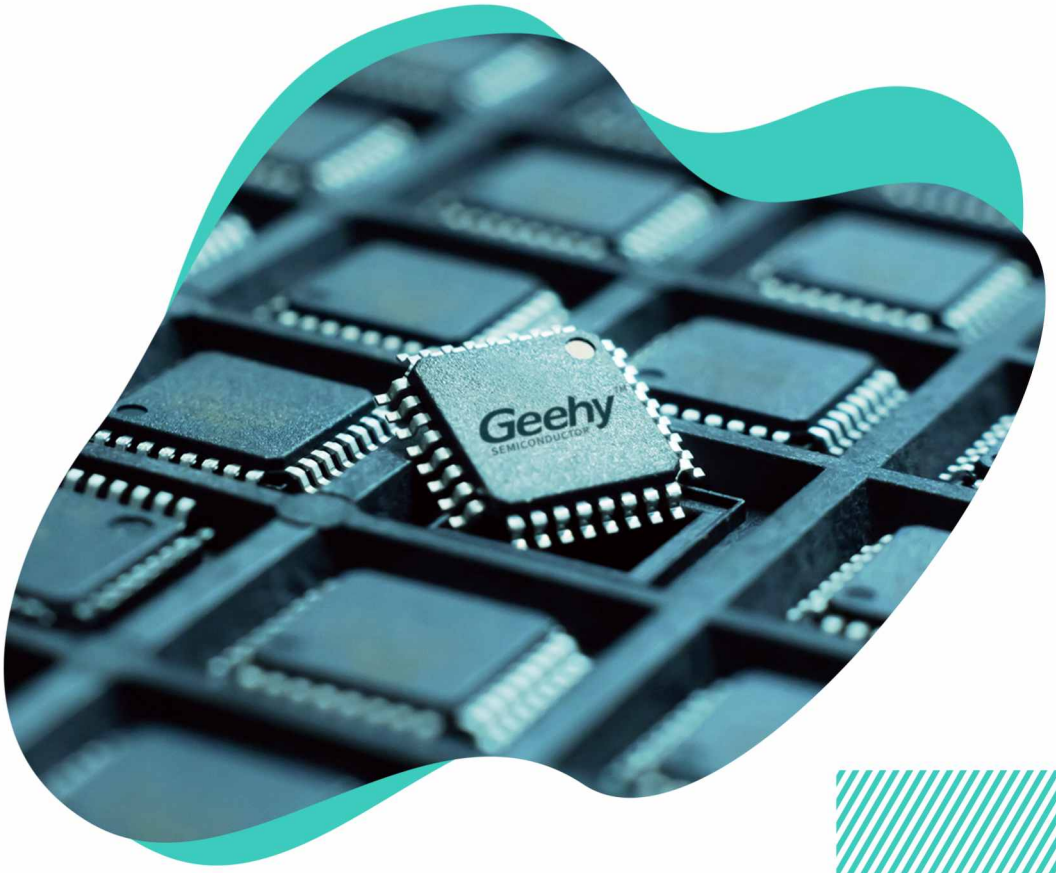
Geehy™ SEMICONDUCTOR 极海半导体

选型表&型号指南

32位APM32工业级通用MCU
GW88系列低功耗蓝牙芯片

基于ARM®Cortex®M0+/M3/M4+国产平头哥玄铁CPU



APM32系列MCU-ARM® Cortex®-M3

Part No.	Frequency (MHZ)	FLASH (KB)	RAM (KB)	EMMC (SDRAM)	FPU	I/Os	Vmin (V)	Vmax (V)	Timer								Analog Interface						Connectivity								Package
									GPTMR (16-bit)	GPTMR (32-bit)	Advanced TMR (16-bit)	Basic TMR (16-bit)	Systick (24-bit)	IWDG	WWDG	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	CEC	
APM32F103T4U6	96	16	6	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	QFN36
APM32F103T6U6	96	32	10	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	QFN36
APM32F103T8U6	96	64	20	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	QFN36
APM32F103TBU6	96	128	20	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	QFN36
APM32F103C4T6	96	16	6	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	LQFP48
APM32F103C6T6	96	32	10	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	1	0	1	0	LQFP48
APM32F103C8T6	96	64	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	1	0	1	0	LQFP48
APM32F103CBT6	96	128	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	1	0	1	0	LQFP48
APM32F103R4T6	96	16	6	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	1	0	1	2	1	0	1	0	LQFP64
APM32F103R6T6	96	32	10	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	1	0	1	2	1	0	1	0	LQFP64
APM32F103R8T6	96	64	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	1	0	1	0	LQFP64
APM32F103RBT6	96	128	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	1	0	1	0	LQFP64
APM32F103V8T6	96	64	20	0	1	80	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	1	0	1	0	LQFP100
APM32F103VBT6	96	128	20	0	1	80	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	1	0	1	0	LQFP100
APM32F103RCT6	96	256	64	0	1	51	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP64
APM32F103RDT6	96	384	64	0	1	51	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP64
APM32F103RET6	96	512	128	0	1	51	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP64
APM32F103VCT6	96	256	64	0	1	80	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP100
APM32F103VDT6	96	384	64	0	1	80	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP100
APM32F103VET6	96	512	128	0	1	80	2	3.6	4	0	2	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP100
APM32F103ZCT6	96	256	64	1	1	112	2	3.6	4	0	2	2	1	1	1	1	3	21	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP144
APM32F103ZDT6	96	384	64	1	1	112	2	3.6	4	0	2	2	1	1	1	1	3	21	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP144
APM32F103ZET6	96	512	128	1	1	112	2	3.6	4	0	2	2	1	1	1	1	3	21	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP144
APM32F102C4T6	48	16	6	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	1	0	LQFP48
APM32F102C6T6	48	32	10	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	1	0	LQFP48
APM32F102C8T6	48	64	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	1	0	LQFP48
APM32F102CBT6	48	128	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	1	0	LQFP48
APM32F102R4T6	48	16	6	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	0	0	1	0	LQFP64
APM32F102R6T6	48	32	10	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	0	0	1	0	LQFP64
APM32F102R8T6	48	64	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	0	0	1	0	LQFP64
APM32F102RBT6	48	128	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	16	0	0	0	0	2	0	2	3	0	0	1	0	LQFP64
APM32F101T4U6	36	16	6	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	0	0	0	0	QFN36
APM32F101T6U6	36	32	10	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	0	0	0	0	QFN36
APM32F101T8U6	36	64	20	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	0	0	0	0	QFN36
APM32F101TBU6	36	128	20	0	1	26	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	1	0	1	2	0	0	0	0	QFN36
APM32F101C4T6	36	16	6	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP48
APM32F101C6T6	36	32	10	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP48
APM32F101C8T6	36	64	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP48
APM32F101CBT6	36	128	20	0	1	37	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP48
APM32F101R4T6	36	16	6	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP64
APM32F101R6T6	36	32	10	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP64
APM32F101R8T6	36	64	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP64
APM32F101RBT6	36	128	20	0	1	51	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP64
APM32F101V8T6	36	64	20	0	1	80	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP100
APM32F101VBT6	36	128	20	0	1	80	2	3.6	3	0	1	0	1	1	1	1	2	10	0	0	0	0	2	0	2	3	0	0	0	0	LQFP100
APM32F101RCT6	36	256	32	0	1	51	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP64
APM32F101RDT6	36	384	48	0	1	51	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP64
APM32F101RET6	36	512	48	0	1	51	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP64
APM32F101VCT6	36	256	32	0	1	80	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP100

APM32系列MCU-ARM® Cortex®-M3

Part No.	Frequency (MHZ)	FLASH (KB)	RAM (KB)	EMMC (SDRAM)	FPU	I/Os	Vmin (V)	Vmax (V)	Timer								Analog Interface						Connectivity								Package
									GPTMR (16-bit)	GPTMR (32-bit)	Advanced TMR (16-bit)	Basic TM (16-bit)	Systick (24-bit)	IWDG	WWDG	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	CEC	
APM32F101VDT6	36	384	48	0	1	80	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP100
APM32F101VET6	36	512	48	0	1	80	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP100
APM32F101ZCT6	36	256	32	1	1	112	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP144
APM32F101ZDT6	36	384	48	1	1	112	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP144
APM32F101ZET6	36	512	48	1	1	112	2	3.6	4	0	2	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP144

APM32系列MCU-ARM® Cortex®-M0+

Part No.	Frequency (MHZ)	FLASH (KB)	RAM (KB)	EMMC (SDRAM)	FPU	I/Os	Vmin (V)	Vmax (V)	Timer								Analog Interface						Connectivity								Package
									GPTMR (16-bit)	GPTMR (32-bit)	Advanced TMR (16-bit)	Basic TMR	Systick (24-bit)	IWDG	WWDG	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	CEC	
APM32F072VBT6	48	128	16	0	0	87	2	3.6	4	1	1	2	1	1	1	1	1	16	1	2	2	24	2	2	2	4	1	0	1	1	LQFP 100
APM32F072V8T6	48	64	16	0	0	87	2	3.6	4	1	1	2	1	1	1	1	1	16	1	2	2	24	2	2	2	4	1	0	1	1	LQFP 100
APM32F072RBT6	48	128	16	0	0	51	2	3.6	4	1	1	2	1	1	1	1	1	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP 100
APM32F072R8T6	48	64	16	0	0	51	2	3.6	5	1	1	2	1	1	1	1	1	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP 64
APM32F072CBU6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP 64
APM32F072C8U6	48	64	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP 64
APM32F072CBT6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN 48
APM32F072C8T6	48	64	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN 48
APM32F071V8T6	48	64	16	0	0	87	2	3.6	5	1	1	2	1	1	1	1	1	16	1	2	2	24	2	2	2	4	0	0	0	1	QFN 48
APM32F071CBU6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	0	0	0	1	LQFP 48
APM32F071CBT6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	1	10	1	2	2	17	2	2	2	4	0	0	0	1	LQFP 48
APM32F070RBT6	48	128	16	0	0	51	2.4	3.6	5	0	1	2	1	1	1	1	1	16	0	0	0	0	2	0	2	4	0	0	1	0	LQFP 48
APM32F070CBT6	48	128	16	0	0	37	2.4	3.6	5	0	1	2	1	1	1	1	1	10	0	0	0	0	2	0	2	4	0	0	1	0	LQFP 48
APM32F030K8T6	48	64	8	0	0	26	2	3.6	4	0	1	0	1	1	1	1	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP 32
APM32F030K6T6	48	32	4	0	0	26	2	3.6	4	0	1	0	1	1	1	1	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP 32
APM32F030K6U6	48	32	4	0	0	26	2	3.6	4	0	1	0	1	1	1	1	1	10	0	0	0	0	1	0	1	1	0	0	0	0	QFN 32
APM32F030C6T6	48	32	4	0	0	39	2	3.6	4	0	1	0	1	1	1	1	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP 48
APM32F030C8T6	48	64	8	0	0	39	2	3.6	5	0	1	1	1	1	1	1	1	10	0	0	0	0	2	0	2	2	0	0	0	0	LQFP 48
APM32F030R8T6	48	64	8	0	0	55	2	3.6	5	0	1	1	1	1	1	1	1	10	0	0	0	0	2	0	2	2	0	0	0	0	LQFP 64
APM32F003F4P6	48	16	2	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP 20
APM32F003F6P6	48	32	4	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP 20
APM32F003F4U6	48	16	2	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN 20
APM32F003F6U6	48	32	4	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN 20
APM32F003F4M6	48	16	2	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	SOP 20
APM32F003F6M6	48	32	4	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	SOP 20
APM32F003F6P7	48	32	4	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	TSSOP20
APM32F003F6U7	48	32	4	0	0	16	2	5.5	1	0	2	1	1	1	1	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN20

GW88系列蓝牙芯片— BLE4.2

Part No.	Frequency (MHZ)	FLASH (KB)	Data RAM (KB)	I/Os	Vmin (V)	Vmax (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)	UI)UART	PWM	Quadrature Decoder	ISO7816	Infrared emitting & receiving	Keyscan (decoder for rows & columns)	AES Encryption Engine	
GW8811KEU6	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*20	128bit	QFN32
GW8811CEU6	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*20	128bit	QFN48

型号指南

AP/G M 32 F 103 T 4 T 6

Brand
Geehy

M:MCU
W:Wireless

Family
32:32 bit
88:BLE Soc

F
Product type
A Auto grade
E Enhanced
F Foundation
L Ultra-low-power
S Standard
T Touch sensing
W Wireless

22
Specific features

11	BLE 4.2
22	BLE 5.1

Specific features (3 digits)

030	Entry-level
103	Foundation
407	High-performance and DSP with FPU
L072	Ultra-low-power

Pin count (pins)

D	14
Y	20
F	20
E	24&25
G	28
K	32
T	36
H	40
S	44
C	48&49
U	63
R	64&66
J	72
M	80
O	90
V	100
Q	132
Z	144

A	169
I	176&201
B	208
N	216
X	256

Auto grade

8	48
9	64
A	80

Code size (Kbytes)

0	1
1	2
2	4
3	8
4	16&8
5	24
6	32
7	48
8	64
9	72
A	96 or 128*
B	128
Z	192
C	256
D	384
E	512
F	768
G	1024

Packaging
B Plastic DIP*
D Ceramic DIP*
G Ceramic QFP
H LFBGA/TFBGA
I UFBGA Pitch 0.5**
J UFBGA Pitch 0.8**
k UFBGA Pitch 0.65**
M Plastic S0
P TSSOP
Q Plastic QFP
T QFP
U QFN
Y WLCSP

Temperature range

6 and A	-40 to +85°C
7 and B	-40 to +105°C
3 and C	-40 to +125°C
D	-40 to +150°C

Geehy SEMICONDUCTOR
珠海极海半导体有限公司
GEEHY SEMICONDUCTOR CO.,LTD.
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