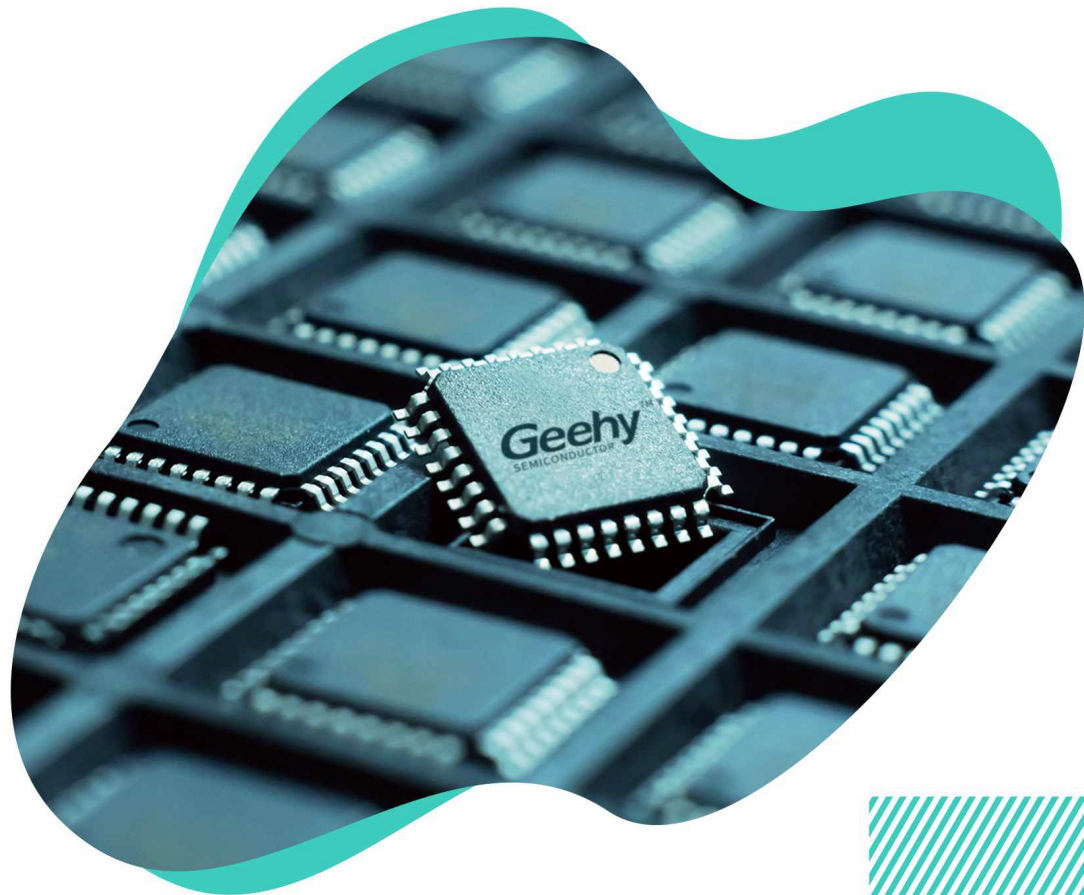


PRODUCT SELECTION GUIDE

32-bit APM32 General Microcontroller GW88 Series Low Energy BLE SoC

Based on ARM® Cortex®-M0+/M3/M4 and T-head CPU



APM32 Series MCU Based on 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
									GTMR (16-bit)	GTMR (32-bit)	Advanced TMR (16-bit)	Basic TMR	Systemic (24-bit)	WWDG	IWDG	RTC	ADC 12-bit Cell	ADC 12-bit channels	DAC 12-bit Cell	DAC 12-bit channels	Analog Comparator	TSC (Channels)	SPI	I ² S	I ² C	USART	CAN	SDIO	USB	
APM32F091CBT6	48	128	32	0	0	38	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	24	2	2	2	6	1	0	1	1	LQFP48
APM32F091CBU6	48	128	32	0	0	38	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	24	2	2	2	6	1	0	1	1	QFN48
APM32F091CCT6	48	256	32	0	0	38	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	24	2	2	2	6	1	0	1	1	LQFP48
APM32F091CCU6	48	256	32	0	0	38	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	24	2	2	2	6	1	0	1	1	QFN48
APM32F091RBT6	48	128	32	0	0	52	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	24	2	2	2	8	1	0	1	1	LQFP64
APM32F091RCT6	48	256	32	0	0	52	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	24	2	2	2	8	1	0	1	1	LQFP64
APM32F091VBT6	48	128	32	0	0	88	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	24	2	2	2	8	1	0	1	1	LQFP100
APM32F091VCT6	48	256	32	0	0	88	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	24	2	2	2	8	1	0	1	1	LQFP100
APM32F072VBT6	48	128	16	0	0	87	2	3.6	4	1	1	2	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	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	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP 64
APM32F072R8T6	48	64	16	0	0	51	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	18	2	2	2	4	1	0	1	1	LQFP 64
APM32F072C8U6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN 48
APM32F072C8U6	48	64	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	QFN 48
APM32F072CBT6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP 48
APM32F072C8T6	48	64	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	17	2	2	2	4	1	0	1	1	LQFP 48
APM32F071V8T6	48	64	16	0	0	87	2	3.6	5	1	1	2	1	1	1	1	16	1	2	2	24	2	2	2	4	0	0	0	1	LQFP 100
APM32F071C8U6	48	128	16	0	0	37	2	3.6	5	1	1	2	1	1	1	1	10	1	2	2	17	2	2	2	4	0	0	0	1	QFN 48
APM32F071CBT6	48	128	16	0	0	37	2	3.6	5	1	1	2	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	16	0	0	0	0	2	0	2	4	0	0	1	0	LQFP 64
APM32F070CBT6	48	128	16	0	0	37	2.4	3.6	5	0	1	2	1	1	1	1	10	0	0	0	0	2	0	2	4	0	0	1	0	LQFP 48
APM32F051K6T6	48	32	8	0	0	25	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP32
APM32F051K6U6	48	32	8	0	0	27	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN32
APM32F051K8T6	48	64	8	0	0	25	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP32
APM32F051K8U6	48	64	8	0	0	27	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN32
APM32F051C6T6	48	32	8	0	0	39	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	LQFP48
APM32F051C6U6	48	32	8	0	0	39	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	1	1	1	2	0	0	0	1	QFN48
APM32F051C8T6	48	64	8	0	0	39	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	2	1	2	2	0	0	0	1	LQFP48
APM32F051C8U6	48	64	8	0	0	39	2	3.6	5	1	1	1	1	1	1	1	10	1	1	2	18	2	1	2	2	0	0	0	1	QFN48
APM32F051R6T6	48	32	8	0	0	55	2	3.6	5	1	1	1	1	1	1	1	16	1	1	2	18	2	1	2	2	0	0	0	1	LQFP64
APM32F051R8T6	48	64	8	0	0	55	2	3.6	5	1	1	1	1	1	1	1	16	1	1	2	18	2	1	2	2	0	0	0	1	LQFP64
APM32F030K6T6	48	32	4	0	0	26	2	3.6	4	0	1	0	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	10	0	0	0	0	1	0	1	1	0	0	0	0	QFN 32
APM32F030K8T6	48	64	8	0	0	26	2	3.6	4	0	1	0	1	1	1	1	10	0	0	0	0	1	0	1	1	0	0	0	0	LQFP 32
APM32F030C6T6	48	32	4	0	0	39	2	3.6	4	0	1	0	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	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	16	0	0	0	0	2	0	2	2	0	0	0	0	LQFP 64
APM32F030CCT6	48	256	32	0	0	37	2	3.6	5	0	1	2	1	1	1	1	10	0	0	0	0	2	0	2	6	0	0	0	0	LQFP 48
APM32F030RCT6	48	256	32	0	0	51	2	3.6	5	0	1	2	1	1	1	1	16	0	0	0	0	2	0	2	6	0	0	0	0	LQFP 64
APM32F003F4P6	48	16	2	0	0	16	2	5.5	1	0	2	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	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	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	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	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	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	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	0	1	8	0	0	0	0	1	0	1	3	0	0	0	0	QFN20

APM32 Series MCU Based on ARM® Cortex® -M3

Part No.	Frequency (MHz)	FLASH (KB)	RAM (KB)	EMMC (SDRAM)	FPU	I/Os	V _{min} (V)	V _{max} (V)	Timer							Analog Interface					Connectivity						Package				
									GPWMR (16-bit)	GPWMR (32-bit)	Advanced PWM (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	I ² S	I ² C	USART		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
APM32F103CCT6	96	256	64	0	0	37	2	3.6	4	0	1	2	1	1	1	1	2	10	2	2	0	0	3	2	2	3	2	0	1	0	LQFP64
APM32F103RCT6	96	256	64	0	0	51	2	3.6	4	0	1	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	2	1	1	0	LQFP64
APM32F103VCT6	96	256	64	1	0	80	2	3.6	4	0	1	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	2	1	1	0	LQFP100
APM32F103RDT6	96	384	64	0	1	51	2	3.6	4	0	1	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	1	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP64
APM32F103VDT6	96	384	64	0	1	80	2	3.6	4	0	1	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	1	2	1	1	1	1	3	16	2	2	0	0	3	2	2	3+2	1	1	1	0	LQFP100
APM32F103ZDT6	96	384	64	1	1	112	2	3.6	4	0	1	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	1	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	1	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	1	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	1	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	1	2	1	1	1	1	1	16	2	2	0	0	3	0	2	3+2	0	0	0	0	LQFP100

APM32 Series MCU Based on 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)	Advanced TMR (16-bit)	Basic TM (16-bit)	Systick (24-bit)	WWDG	WWDG	RTC	ADC 12-bit Cell	ADC 12-bit channels	DAC 12-bit Cell	DAC 12-bit channels	Analog Comparator	TSC (Channels)	SPI	I ² S	I ² C	US/UART		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

GW88 Series BLE 4.2 SoC

Part No.	Frequency (MHz)	FLASH (KB)	Data RAM (KB)	I/Os	Vmin (V)	Vmax (V)	Max. TX Power (dBm)	FX Sensitivity (dbm)	TX Current (mA@0dbm)	RX Current (mA@0dbm)	Sleep Mode Current (uA)	Deep Sleep Mode Current (uA)	Operating Temperature (°C, T)	Timer			Analog Interface			Connectivity							Package		
														Low Speed TM(32bit)	High Speed TM(6bit)	WDT(6bit)	RTC	GPADC 10bit Cell	GPADC 10bit channels	SPI(master)	I2C(master)	US/UART	PWM	Quadrature Decoder	ISO7816	Infrared emitting & receiving		Infrared emitting & receiving	Keypad decoder (rows & columns)
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

Product Selection Guide

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	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	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
			22 Specific features 11 BLE 4.2 22 BLE 5.1		Auto grade 8 48 9 64 A 80			