

**32-Bit Cortex®-M4 MCU**
**32-Bit M4 USB MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	DMA	ADC	DAC	Timer	RTC	USB	CAN	Interface	Others	Max. I/O	Package
HT32F49153*	150MHz	2.4V~3.6V	128KB	48KB	7CH×2	5.33Msps 12-bit×24	12-bit×2	WWDT×1, BTMR×2 GPTMR×9, ACTMR×1	√	FS OTG	2	USART×8, SPI×3 I²S×3, I²C×3	CRC, XMC, IRTMR	87	32QFN 48/64/100LQFP
HT32F49163*			256KB	48KB											
HT32F49365	240MHz	2.6V~3.6V	256KB	224KB	7CH×2	2Msps 12-bit×16×3	12-bit×2	WWDT×1, BTMR×2 GPTMR×10, ACTMR×2	√	FS Device	2	USART×4, UART×4 SPI/I²S×4, I²C×3	CRC, SPIM, XMC, SDIO	80	48QFN 48/64/100LQFP
HT32F49395			1024KB												

\* Under development, available in 4Q, 2023.  
Operating Temperature: -40°C ~ 105°C

Note:

WWDT: Window Watchdog Timer  
ACTMR: Advanced Control Timer  
IRTMR: Infrared Transmitter

BTMR: Basic Timer  
SPIM: External SPI Flash Memory Extension  
SDIO: Secure Digital Input Output

GPTMR: General Purpose Timer  
XMC: External Memory Controller.

**32-Bit Cortex®-M3 MCU**
**32-Bit M3 USB MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	Timer	RTC	USB	Interface	Others	Max. I/O	Package
HT32F12345	96MHz	2.0V~3.6V	64KB	16KB	12CH	1Msps 12-bit×12	2	BFTM×2, GPTM×2 MCTM×2	√	√	USART×2, UART×2 SPI×2, I²C×2, I²S×1	CRC, EBI SDIO	51	46QFN 48/64LQFP
HT32F12365	96MHz	2.0V~3.6V	256KB	64KB	12CH	1Msps 12-bit×16	2	BFTM×2, GPTM×2 MCTM×2	√	√	USART×2, UART×2 SPI×2, I²C×2, I²S×1	CRC, SCI EBI, AES, SDIO	80	46QFN 48/64/100LQFP
HT32F12366			256KB	128KB										
HT32F22366	96MHz	2.0V~3.6V	256KB	128KB	12CH	1Msps 12-bit×16	2	BFTM×2, GPTM×2 MCTM×2	√	√	USART×2, UART×2 SPI×2, I²C×2, I²S×1	CRC, SCI, EBI AES, SDIO, CSIF	80	46QFN 48/64/100LQFP
HT32F12364	72MHz	1.65V~3.6V	256KB	128KB	6CH	1Msps 12-bit×8	—	BFTM×2, SCTM×2 PWM×1, GPTM×1	√	√	USART×1, UART×2 SPI×2, I²C×2	CRC, SCI EBI, AES	52	40QFN 48/64LQFP

Note:

BFTM: Basic Function Timer  
GPTM: General Purpose Timer  
AES: Advanced Encryption Standard

SCTM: Single Channel Timer  
MCTM: Motor Control Timer  
SDIO: Secure Digital Input Output

PWM: Pulse Width Modulation  
SCI: Smart Card Interface  
CSIF: CMOS Sensor Interface

**32-Bit Cortex®-M0+ MCU**
**32-Bit M0+ MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	DAC	Timer	RTC	Interface	Others	Max. I/O	Package
HT32F52220	40MHz	2.0V~3.6V	16KB	4KB	—	1Msps 12-bit×8	—	BFTM×1, SCTM×2 GPTM×1	—	USART×1, UART×1 SPI×1, I²C×1	—	23	24/28SSOP 33QFN
HT32F52230			32KB	4KB									
HT32F52231	40MHz	2.0V~3.6V	32KB	4KB	—	1Msps 12-bit×12	—	BFTM×2, SCTM×4 GPTM×1, MCTM×1	√	USART×1, UART×2 SPI×2, I²C×2	CRC	40	24/28SSOP 33QFN, 48LQFP
HT32F52241			64KB	8KB									
HT32F52234*	60MHz	1.65V~3.6V	32KB	4KB	6CH	1Msps 12-bit×12	500ksps 12-bit×4	BFTM×2, SCTM×2 PWM×1	√	USART×1, UART×1 SPI×1, I²C×3	CRC, DIV	40	24/28SSOP 24/32/46QFN, 48LQFP
HT32F52244*			64KB	8KB									
HT32F52243	40MHz	2.0V~3.6V	64KB	8KB	6CH	1Msps 12-bit×12	—	BFTM×2, SCTM×4 GPTM×1, MCTM×1	√	USART×2, UART×4 SPI×2, I²C×3	CRC, DIV	52	33/46QFN 48/64LQFP
HT32F52253			128KB	16KB									

\* Under development, available in 4Q, 2023.

HT32F52234/HT32F52244 Operating Temperature: -40°C ~ 105°C

**32-Bit M0+ USB MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	DAC	Timer	RTC	USB	Interface	Others	Max. I/O	Package
HT32F52331	48MHz	2.0V~3.6V	32KB	4KB	—	1Msps 12-bit×12	—	—	BFTM×2, SCTM×4 GPTM×1, MCTM×1	√	√	USART×1, UART×2 SPI×2, I²C×2	CRC, SCI	38	33QFN 48LQFP
HT32F52341			64KB	8KB											
HT32F52342	48MHz	2.0V~3.6V	64KB	8KB	6CH	1Msps 12-bit×12	2	—	BFTM×2, SCTM×2 GPTM×2, MCTM×1	√	√	USART×2, UART×2 SPI×2, I²C×2, I²S×1	CRC, SCI	51	33QFN 48/64LQFP
HT32F52352			128KB	16KB											
HT32F52344	60MHz	1.65V~3.6V	64KB	8KB	6CH	1Msps 12-bit×12	2	—	BFTM×2, SCTM×2 GPTM×1, MCTM×1	√	√	UART×2, SPI×2 I²C×1	CRC, DIV EBI	54	33/46QFN 48/64LQFP
HT32F52354			128KB	8KB											
HT32F52357	60MHz	1.65V~3.6V	128KB	16KB	6CH	1Msps 12-bit×12	2	500ksps 12-bit×2	BFTM×2, SCTM×2 PWM×2, GPTM×1 MCTM×1	√	√	USART×2, UART×4, SPI×2 QSPI×1, I²C×2, I²S×1	CRC, DIV SCI, EBI, AES	67	46QFN 48/64/80LQFP
HT32F52367			256KB	32KB											

**32-Bit Cortex®-M0+ MCU**

**32-Bit M0+ USB LCD MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	DAC	Timer	RTC	USB	LCD	Interface	Others	Max. I/O	Package
HT32F57331	60MHz	1.65V~3.6V	32KB	4KB	—	1Msps 12-bit×10	—	—	BFTM×2, PWM×2 GPTM×1	√	√	29×4~25×8	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV SCI	53	46QFN 48/64LQFP
HT32F57341			64KB	8KB												
HT32F57342	60MHz	1.65V~3.6V	64KB	8KB	6CH	1Msps 12-bit×10	2	500ksps 12-bit×2	BFTM×2, SCTM×2 PWM×2, GPTM×1	√	√	37×4~33×8	USART×1, UART×2 SPI×2, I²C×2, I²S×1	CRC, DIV SCI, AES	67	46QFN 48/64/80LQFP
HT32F57352			128KB	16KB												

**32-Bit M0+ 5V MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	Timer	RTC	Interface	Others	Max. I/O	Package
HT32F50020	16MHz	2.5V~5.5V	16KB	2KB	—	500ksps 12-bit×12	—	BFTM×1, SCTM×3	√	UART×2, SPI×1 I²C×1	LEDC	42	24/28SSOP 24/32/46QFN, 48LQFP
HT32F50030			32KB	2KB									
HT32F50220	20MHz	2.5V~5.5V	16KB	4KB	—	1Msps 12-bit×12	—	BFTM×1, PWM×2 GPTM×1	√	UART×2, SPI×2 I²C×1	DIV	40	24/28SSOP 24/33/46QFN, 48LQFP
HT32F50230			32KB	4KB									
HT32F50231	20MHz	2.5V~5.5V	32KB	4KB	—	1Msps 12-bit×12	—	BFTM×2, PWM×2 GPTM×1, MCTM×1	√	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV	40	24/28SSOP, 24/33/46QFN, 48LQFP
HT32F50241			64KB	8KB									
HT32F50431*	60MHz	2.5V~5.5V	32KB	4KB	6CH	2Msps 12-bit×12	—	BFTM×2, PWM×1 GPTM×1, MCTM×1	√	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV LEDC	40	32/46QFN 48LQFP
HT32F50441*			64KB	8KB									
HT32F50442*	60MHz	2.5V~5.5V	64KB	8KB	6CH	2Msps 12-bit×12	2	BFTM×2, PWM×2 GPTM×1, MCTM×1	√	USART×2, UART×2 SPI×2, I²C×2	CRC, DIV LEDC, EBI	54	32/46QFN 48/64LQFP
HT32F50452*			128KB	16KB									

\* Under development, available in 4Q, 2023.  
HT32F504xx Operating Temperature: -40°C ~ 105°C

**32-Bit M0+ 5V USB MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	Timer	RTC	USB	Interface	Others	Max. I/O	Package
HT32F50343	60MHz	2.5V~5.5V	64KB	12KB	6CH	1Msps 12-bit×12	BFTM×2, SCTM×2 8-PWM×3, GPTM×1	√	√	UART×2, SPI×2 I²C×2, SLED×2	CRC, DIV	51	32/46QFN 48/64LQFP

**32-Bit M0+ 5V CAN MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	Timer	RTC	CAN	Interface	Others	Max. I/O	Package
HT32F53231*	60MHz	2.5V~5.5V	32KB	4KB	6CH	2Msps 12-bit×12	—	BFTM×2, PWM×1 GPTM×1, MCTM×1	√	√	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV LEDC	40	32/46QFN 48LQFP
HT32F53241*			64KB	8KB										
HT32F53242*	60MHz	2.5V~5.5V	64KB	8KB	6CH	2Msps 12-bit×12	2	BFTM×2, PWM×2 GPTM×1, MCTM×1	√	√	USART×2, UART×2 SPI×2, I²C×2	CRC, DIV LEDC, EBI	54	32/46QFN 48/64LQFP
HT32F53252*			128KB	16KB										

\* Under development, available in 4Q, 2023.  
Operating Temperature: -40°C ~ 105°C

**32-Bit M0+ 5V Touch MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	PDMA	ADC	CMP	Timer	RTC	Touch Key	Interface	Others	Max. I/O	Package
HT32F54231	60MHz	2.5V~5.5V	32KB	4KB	—	1Msps 12-bit×10	—	BFTM×2, SCTM×2 GPTM×1, MCTM×1	√	24	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV LEDC	40	28SSOP, 32/46QFN 48LQFP
HT32F54241			64KB	8KB										
HT32F54243	60MHz	2.5V~5.5V	64KB	8KB	6CH	1Msps 12-bit×10	2	BFTM×2, SCTM×4 GPTM×1, MCTM×1	√	28	USART×2, UART×4 SPI×2, I²C×3	CRC, DIV LEDC	54	32/46QFN 48/64LQFP
HT32F54253			128KB	16KB										

**32-Bit M0+ 24-Bit A/D MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	ADC		Timer	RTC	Interface	Others	Max. I/O	Package
HT32F59041	20MHz	2.5V~5.5V	64KB	8KB	SAR ADC 1Msps 12-bit×12	Delta Sigma ADC 24-bit×4	BFTM×2, PWM×2 GPTM×1, MCTM×1	√	USART×1, UART×2 SPI×1, I²C×1	CRC, DIV	30	48LQFP

**32-Bit M0+ 24-Bit A/D LCD MCU**

Part No.	Max. Freq.	VDD	Flash	SRAM	ADC		Timer	RTC	USB	LCD	Interface	Others	Max. I/O	Package
HT32F59741	60MHz	1.65V~3.6V	64KB	8KB	SAR ADC 1Msps 12-bit×10	Delta Sigma ADC 24-bit×4	BFTM×2, PWM×2 GPTM×1	√	√	29×4~25×8	USART×1, UART×2 SPI×2, I²C×2	CRC, DIV SCI	53	64/80LQFP

Note:  
 BFTM: Basic Function Timer  
 GPTM: General Purpose Timer  
 QSPI: Quad serial peripheral interface  
 SCI: Smart Card Interface  
 AES: Advanced Encryption Standard  
 SCTM: Single Channel Timer  
 MCTM: Motor Control Timer  
 SLED: Strip LED Controller  
 LEDC: LED controller  
 PWM: Pulse Width Modulation  
 USB: 2.0 Full Speed device  
 DIV: Hardware Divider  
 EBI: External Bus Interface for NOR Flash/SRAM/LCD