CH32V002 Datasheet https://wch-ic.com

# **Series Product Naming Rules**

Example:	CH32	V	303	R	8	T	6
Device family							

F = Arm core, general-purpose MCU

V = QingKe RISC-V core, general-purpose MCU

L = QingKe RISC-V core, low-power MCU

X = QingKe RISC-V core, dedicated or special peripherals MCU

M = QingKe RISC-V core, built-in pre-drive motor MCU

Product type (\*) + product subseries (\*)

Product type	Product subseries
0 = QingKe V2/V4 core,	02 = 16K Flash memory super value general-purpose
Super value version, system	03 = 16K Flash basic general-purpose, OPA
frequency <=48M	05 = 32K Flash enhanced general-purpose, OPA, dual
	serial port
	06 = 64K Flash versatile, OPA, dual serial port, TKey
	07 = Basic motor application, OPA+CMP
	35 = Connection, USB, USB PD/Type-C
	33 = Connection, USB
1 = M3/QingKe V3/V4 core,	03 = Connection, USB
Basic version, system	05 = Connection, USB HS, SDIO, CAN
frequency<=96M	07 = Interconnected, USB HS, CAN, Ethernet, SDIO,
2 = M3/QingKe V4 non-	FSMC
floating-point core,	08 = Wireless, BLE5.x, CAN, USB, Ethernet
Enhanced, system frequency	17 = Interconnected, USB HS, CAN, Ethernet (built-in
<=144M	PHY), SDIO, FSMC
3 = QingKe V4F floating-	
point core, Enhanced,	

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system frequency <=144M

#### Pin number

$$J = 8 pins$$

$$D = 12 pins$$

$$A = 16 pins$$

$$F = 20 \text{ pins}$$

$$E = 24 pins$$

$$G = 28 pins$$

$$K = 32 pins$$

$$T = 36 \text{ pins}$$

$$C = 48 pins$$

$$R = 64 \text{ pins}$$

$$W = 68 pins$$

$$V = 100 \text{ pins}$$

$$Z = 144 \text{ pins}$$

# Flash memory size

$$6 = 32K$$
 Flash memory

$$7 = 48K$$
 Flash memory

$$8 = 64K$$
 Flash memory

$$B = 128K$$
 Flash memory

$$C = 256K$$
 Flash memory

## Package

$$T = LQFP$$

$$U = QFN$$

$$R = QSOP$$

$$P = TSSOP$$

$$M = SOP$$

### Temperature range

$$6 = -40$$
°C~85°C (industrial-grade)

$$7 = -40$$
°C $\sim 105$ °C (automotive-grade 2)

$$3 = -40$$
°C $\sim 125$ °C (automotive-grade 1)

$$D = -40^{\circ}C \sim 150^{\circ}C$$
 (automotive-grade 0)