

An abstract graphic of a smiling face is positioned on the left side of the slide. The face is composed of a dense grid of lines that form its features. The top half of the face, including the eyes and forehead, is rendered in shades of blue and cyan. The bottom half, including the mouth and chin, is rendered in shades of magenta and red. The overall effect is a stylized, digital representation of a human face.

TECHNOLOGICAL
INNOVATIONS
FOR A BETTER LIFE

BS32

比亚迪半导体工业MCU产品介绍

工业32位通用MCU

车规MCU团队顶力打造

✓ 高可靠性

车规级工艺设计
IO端口滤毛刺
ESD : $\pm 8\text{KV}$
宽温度范围-40~105°C
符合IEC60730标准

✓ 高性能

168M高主频
12位高精度ADC
USB_HS

✓ 高品质与供货保证

不良率<5ppm
供货时长 $\geq 10\text{year}$
多家战略合作晶圆厂商

✓ 高效的开发工具

IDE支持KEIL,IAR
开发工具Ulink, Jlink
BLink等
应用笔记, 开发手册

BS32F030X

- ARM Cortex-M0+内核
- 110nm先进工艺
- Flash:128K RAM: 8K
- UART,IIC,SPI等丰富的外设

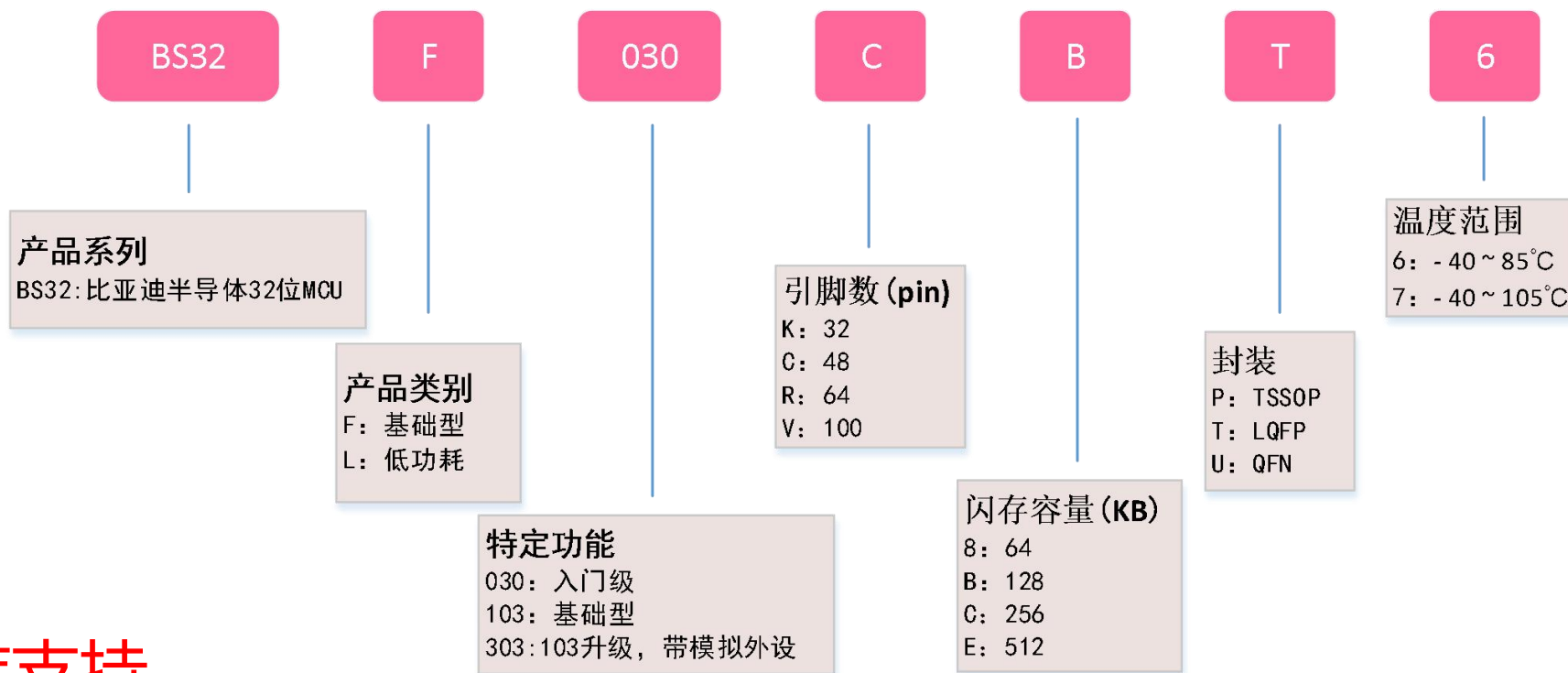
BS32F103X

- ARM Cortex-M4F内核
- 110nm先进工艺
- Flash:128K RAM: 32K
- IIC,SPI,CAN等丰富的外设

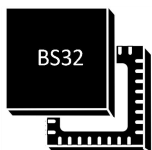
BS32F303X

- ARM Cortex-M4F内核
- 40nm先进工艺
- Flash:512K RAM: 96K
- ADC,CAN,USB等丰富的外设

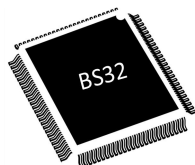
BS32命名规则



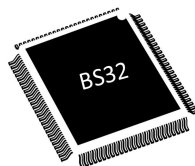
BS32封装支持



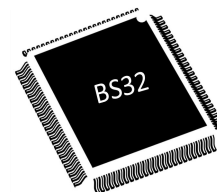
32-pin QFN 5 x 5 mm



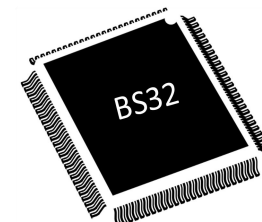
32-pin LQFP 7 x 7 mm



48-pin LQFP 7 x 7 mm



64-pin LQFP 10 x 10 mm



100-pin LQFP 14 x 14 mm

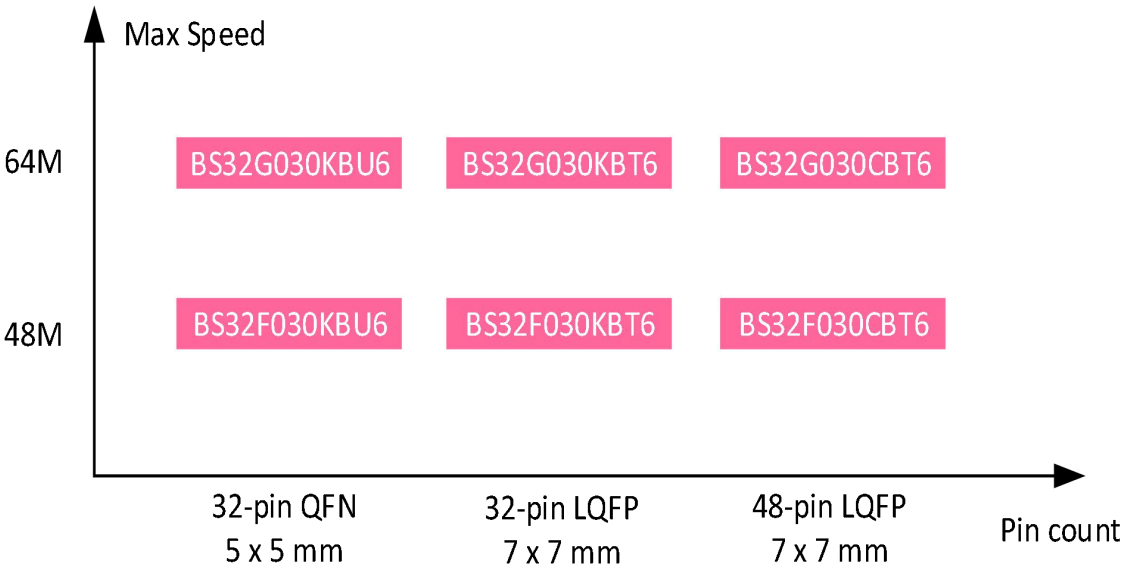


BS32x030系列

主频：48/64MHz

工作电压：2.0-5.5V

工作温度：- 40 ~ 85℃



Series	Part No.	FRQ(MHz)	Core	Memory(KB ytes)		I/O	Timer						Connectivity				Supply voltage	Analog Interface		Package
				Flash	SRAM		Adv TM(16bit)	GPTM (16bit)	Basic TM(20bit)	SysTick (24bit)	WDG	RTC	UART	I²C	SPI	CAN2.0		12bit ADCUnits (CHs)	12bit DACUnits (CHs)	
F030	BS32F030CBT6	48	Cortex-M0+	128	8	up to 39	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(39+2)	0	LQFP48
	BS32F030KBT6	48	Cortex-M0+	128	8	up to 25	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(25+2)	0	LQFP32
	BS32F030KBU6	48	Cortex-M0+	128	8	up to 27	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(27+2)	0	QFN32
G030	BS32G030CBT6	64	Cortex-M0+	128	8	up to 43	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(39+2)	0	LQFP48
	BS32G030KBT6	64	Cortex-M0+	128	8	up to 29	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(25+2)	0	LQFP32
	BS32G030KBU6	64	Cortex-M0+	128	8	up to 29	1	5	1	1	2	1	2	2	2	0	2.0-5.5V	1(27+2)	0	QFN32

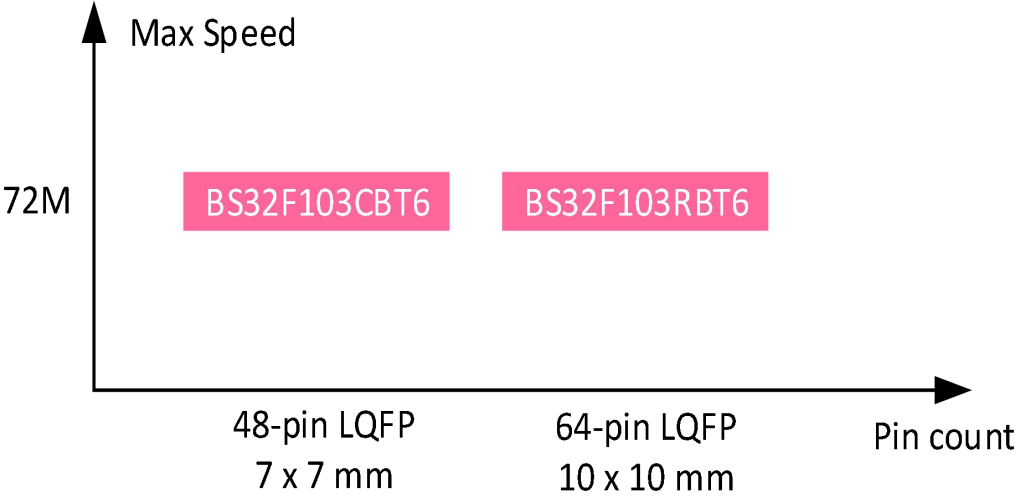


BS32F103系列

主频：72MHz

工作电压：2.0-5.5V

工作温度：- 40 ~ 85℃



Series	Part No.	FRQ(MHz)	Core	Memory(KBytes)		I/O	Timer						Connectivity				Supply voltage	Analog Interface		Package
				Flash	SRAM		Adv TM (16bit)	GPTM(16bit)	Basic TM (20bit)	SysTick(24bit)	WDG	RTC	UART	I²C	SPI	CAN2.0		12bit ADCUnits (CHs)	12bit DACUnits (CHs)	
F103	BS32F103CBT6	72	Cortex-M4	128	32	up to 37	1	3	1	1	2	1	3	2	2	1	2.0-5.5V	2(16+2)	0	LQFP48
	BS32F103RBT6	72	Cortex-M4	128	32	up to 51	1	3	1	1	2	1	3	2	2	1	2.0-5.5V	2(10+2)	0	LQFP64

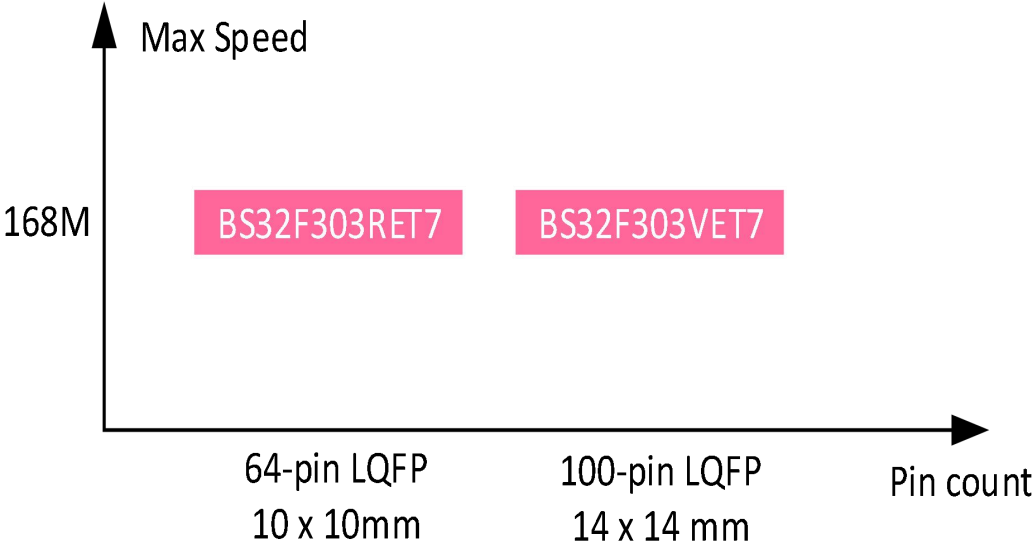


BS32F303系列

主频：168MHz

工作电压：2-3.6V

工作温度：- 40 ~ 105℃



Series	Part No.	FRQ (MHz)	Core	Memory(K Bytes)		I/O	Timer							Connectivity									Supply voltage	Analog Interface		Packag e
				Flash	SRA M		AdvTM (16bit)	GPTM (16bit)	GPTM (32bit)	Basic TM (20bit)	SysTick (24bit)	WDG	RTC	UART	I ² C	SPI	CANFD	USB2.0 FS	SDIO	COMP	OPAM P	FSM C		12bit ADCUnits (CHs)	12bit DACUnit s(CHs)	
F303	BS32F303RET7	168	Cortex-M4F	512	96	up to 51	3	5	1	2	1	2	1	5	3	4	1	1	1	7	4	1	2-3.6V	3(16+2)	1(2)	LQFP64
	BS32F303VET7	168	Cortex-M4F	512	96	up to 86	3	5	1	2	1	2	1	5	3	4	1	1	1	7	4	1	2-3.6V	3(16+2)	1(2)	LQFP100



BS32产品对标

品牌	型号	品牌	型号		BYD型号		
ST	STM32F103RCT6	GD	GD32F303RCT6	✓			BS32F303RET7
	STM32F103C8T6		GD32F103C8T6	✓		BS32F103CBT6	
	STM32F103VET6		GD32F103VET6	✓			BS32F303VET7
	STM32F030C8T6		GD32F130C8T6	✓	BS32F030CBT6		
	STM32F103RBT6		GD32F303RBT6	✓		BS32F103RBT6	
	STM32F103RET6		GD32F303RET6	✓			BS32F303RET7
	STM32F407VET6		GD32F407VET6				
	STM32F103VCT6		GD32F303VCT6	✓			BS32F303VET7
	STM32F407VGT6		GD32F407VGT6				
	STM32F103CBT6			✓		BS32F103CBT6	
	STM32F405RGT6						
	STM32F030K6T6			✓	BS32F030KBT6		
	STM32F103ZET6						
	STM32F407ZGT6						

BS32开发生态

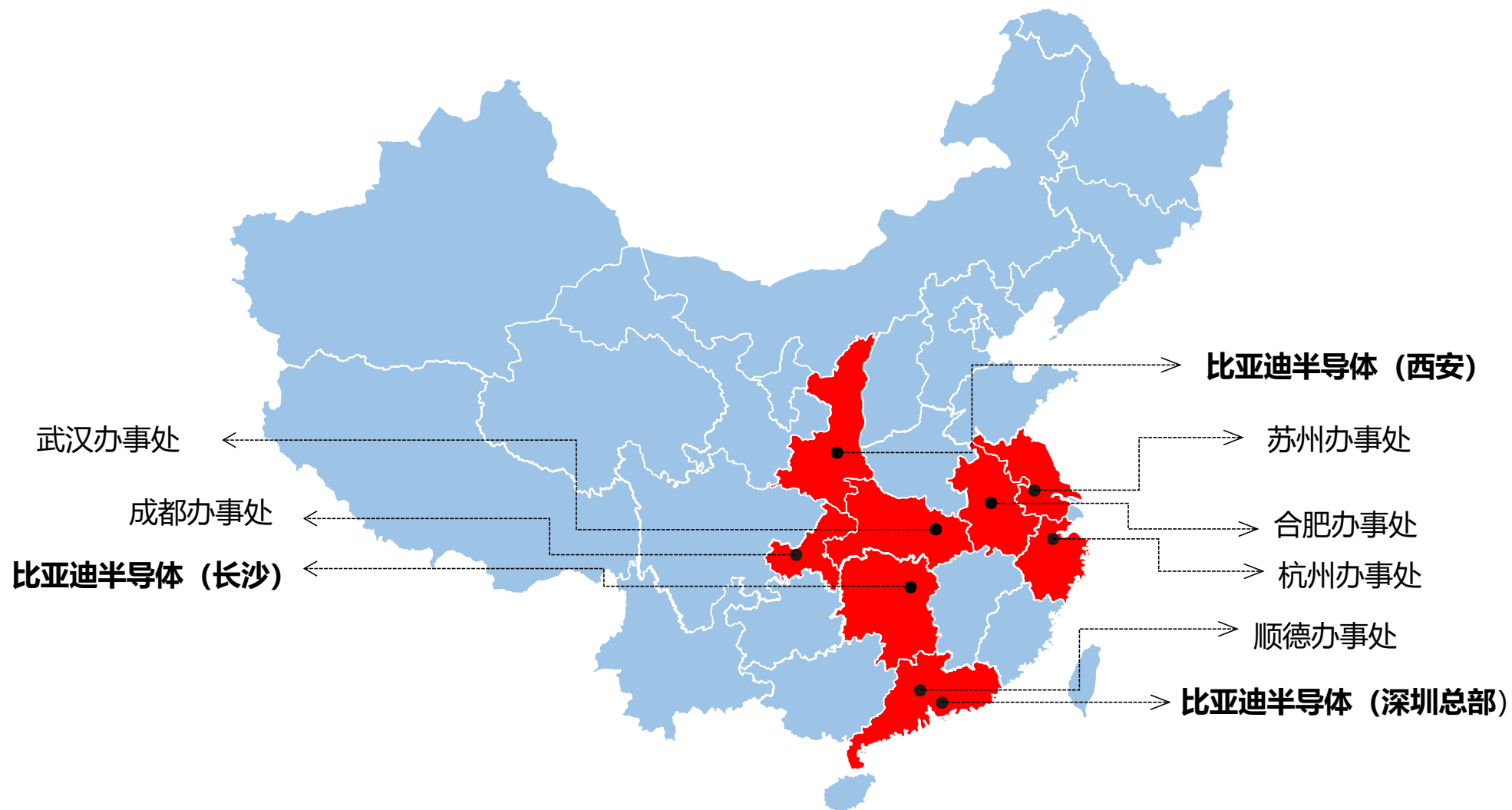
◆ BS32支持IDE



◆ BS32支持软件系统



BS32技术支持



THANK YOU

