

# 芯海科技产品选型表

— 感知世界·赋能创新 —

## F0系列32位MCU

Part No.	Core	Max Freq. MHz	Memory(Bytes)		I/O	Timer							Connectivity							Analog Interface				Security	Oper. Temp. (°C)	VDD	Package	
			Flash	SRAM		Adv.	16bit	32bit	SysTick	FWDT/WWDT	RTC	PWM	UART	SPI	I2S	I2C	PD	CC	USB	CAN	12bit ADC Units(CHs)	DAC Units(Bits)	Temp. Sensor					VBAT
CS32F030F6P6	M0	48	32K	4K	15	1	4	-	1	1/1	1	11	2	1	-	1	-	-	-	-	1(9)	-	±2°C	-	-	-40-105	2.0-5.5	TSSOP20
CS32F030K6T6	M0	48	32K	4K	25	1	4	-	1	1/1	1	11	1	1	-	1	-	-	-	-	1(10)	-	±2°C	-	-	-40-105	2.0-5.5	LQFP32
CS32F030C8T6	M0	48	64K	8K	39	1	6	-	1	1/1	1	13	2	2	-	2	-	-	-	-	1(10)	-	±2°C	-	-	-40-105	2.0-5.5	LQFP48
CS32F031G6U6	M0	48	32K	4K	23	1	4	1	1	1/1	1	15	4	1	1	1	-	-	-	-	1(10)	-	±2°C	-	-	-40-105	2.0-5.5	QFN 28L
CS32F031K6U6	M0	48	32K	4K	27	1	4	1	1	1/1	1	15	4	1	1	1	-	-	-	-	1(10)	-	±2°C	-	-	-40-105	2.0-5.5	QFN 32L
CS32F031K8U6	M0	48	64K	8K	27	1	6	1	1	1/1	1	17	5	2	1	2	-	-	-	-	1(10)	-	±2°C	-	-	-40-105	2.0-5.5	QFN 32L
CS32F031C6T6	M0	48	32K	4K	39	1	4	1	1	1/1	1	15	4	1	1	1	-	-	-	-	1(10)	-	±2°C	Y	-	-40-105	2.0-5.5	LQFP48
CS32F031C8T6	M0	48	64K	8K	39	1	6	1	1	1/1	1	17	5	2	1	2	-	-	-	-	1(10)	-	±2°C	Y	-	-40-105	2.0-5.5	LQFP48

## A0系列32位高精度 MCU

Part No.	Core	Max Freq. MHz	Memory(Bytes)		I/O	Timer							Connectivity							Analog Interface				Security	Oper. Temp. (°C)	VDD	Package			
			Flash	SRAM		Adv.	16bit	24bit	32bit	SysTick	FWDT/WWDT	RTC	PWM	UART	SPI	I2S	I2C	PD	CC	USB	CAN	12bit ADC Units(CHs)	24bit ADC Units(CHs)					OPA. PGA	12bit DAC	Temp. Sensor
CS32A060R8T6	M0	36	64K	16K	13	-	-	2	-	-	1/1	-	-	1	-	-	-	-	-	-	2(16)	-	2	2	±5°C	-	-	-40-85	2.0-5.5	LQFP64
CS32A039R8T6	M0	48	64K	8K	39	1	6	-	1	1	1/1	1	17	5	2	1	2	-	-	-	1(10)	1(5)	1	-	±2°C	Y	-	-40-105	2.0-5.5	LQFP64

## G0系列32位PD MCU

Part No.	Core	Max Freq. MHz	Memory(Bytes)		I/O	Timer							Connectivity							Analog Interface				Security	HDIV	HMUL	Oper. Temp. (°C)	VDD	Package			
			Flash	SRAM		Adv.	16bit	32bit	SysTick	FWDT/WWDT	LPWDT	RTC	PWM	UART	SPI	I2C	PD	CC	QC	VO OC	Dead Bat	12bit ADC Units(CHs)	DAC Units(Bits)							Temp. Sensor	VBAT	Comp. /OPA
CS32G020K8U6	M0	48	64K	8K	27	-	3	-	1	1/1	1	0	3	1	1	1	2	2组	2	-	Y	1(24)	1(11)	-	-	-	CRC-32	1	1	-40-85	2.5-5.5	QFN32
CS32G020E8U6	M0	48	64K	8K	19	-	3	-	1	1/1	1	0	3	1	1	2	2组	2	-	-	-	1(20)	1(11)	-	-	-	CRC-32	1	1	-40-85	2.5-5.5	QFN24
CS32G021K8U6	M0	48	64K	8K	27	-	3	-	1	1/1	1	0	3	1	1	2	2组	2	2	Y	1(24)	1(11)	-	-	-	CRC-32	1	1	-40-85	2.5-5.5	QFN32	
CS32G021E8U6	M0	48	64K	8K	19	-	3	-	1	1/1	1	0	3	1	1	2	2组	2	2	-	-	1(20)	1(11)	-	-	-	CRC-32	1	1	-40-85	2.5-5.5	QFN24

## 8位Flash MCU

Part No.	Memory				I/O Pins	Timer Modules					Connectivity					Analog Interface				OSC Mode	大驱动 IO	Special Function	VDD (V)	Package
	Type	ROM	RAM	EEPROM		8-Bit	12-Bit	16-Bit	PWM	互补 PWM	UART	SPI	I2C	PD	CC	LCD	Temp Sensor	LVD (V)	ADC (Ch*Bit)					
CSU32M10	MTP	2K*16	104	128	8	1	2	0	2	1	-	-	-	-	-	-	2.4/3.6	4*12	1/0	IRC	2	OC/恒流源	2.35~5.5	MSOP10
	MTP	2K*16	104	128	14	1	2	0	2	2	-	-	-	-	5*8	-	2.4/3.6	7*12	1/0	IRC	4	OC/恒流源	2.35~5.5	SOP16/QFN16
CSU32M11	MTP	2K*16	104	128	14	1	2	0	2	2	-	-	-	-	5*8	-	2.4/3.6	7*12	1/0	IRC	4	-	2.35~5.5	SOP16
CSU38M20	MTP	8K*16	1024	256	14	1	2	1	3	2	1	1	1	-	5*9	-	2.4/2.5/3.0/3.6	14*12	-	IRC/XT	6	-	2.3~5.5	SOP16
	MTP	8K*16	1024	256	18	1	2	1	3	1	1	1	-	5*13	-	-	18*12	-	IRC/XT	5	-	2.3~5.5	TSSOP20	
	MTP	8K*16	1024	256	18	1	2	1	3	3	1	1	1	-	5*13	-	-	18*12	-	IRC/XT	8	-	2.3~5.5	SOP20
	MTP	8K*16	1024	256	22	1	2	1	3	3	1	1	1	-	5*17	-	-	22*12	1/1	IRC/XT	8	-	2.3~5.5	QFN24/SSOP24
MTP	8K*16	1024	256	26	1	2	1	3	3	1	1	1	-	5*21	-	-	26*12	1/1	IRC/XT	8	-	2.3~5.5	SOP28/SSOP28	

## 8位 OTP MCU

Part No.	Memory				I/O Pins	Timer Modules					Connectivity					Analog Interface				OSC Mode	大驱动 IO	Special Function	VDD (V)	Package
	Type	ROM	RAM	EEPROM		8-Bit	12-Bit	16-Bit	PWM	互补 PWM	UART	SPI	I2C	PD	CC	LCD	Temp Sensor	LVD (V)	ADC (Ch*Bit)					
CSU8RP2113	OTP	1K*14	32	-	6	2	-	-	1	-	-	-	-	-	-	-	2.4/3.6	-	-	IRC	-	-	2.2~5.5	SOP8/DIP8
CSU8RP2116	OTP	1K*14	64	-	12	1	2	-	2	-	-	-	-	-	-	-	2.4	-	-	IRC	-	-	2.2~5.5	SOP14/DIP14
CSU8RP3115B	OTP	1K*14	64	-	6	1	2	0	1	-	-	-	-	-	-	-	2.4	3*12	-	IRC	1	-	2.2~5.5	SOP8/DIP8
CSU8RP3117B	OTP	1K*14	64	-	8	1	2	0	2	1	-	-	-	-	-	-	2.4	4*12	-	IRC	2	-	2.2~5.5	MSOP10
CSU8RP3119B	OTP	1K*14	64	-	12	1	2	0	2	1	-	-	-	-	-	-	2.4	5*12	-	IRC	2	-	2.2~5.5	SOP14/DIP14
CSU8RP3215	OTP	2K*16	128	-	14	1	3	0	3	1	1	-	-	-	-	-	2.4/3.6	7*12	1/0	IRC/XT/ERC	3	-	2.2~5.5	SOP16/TSSOP16
CSU8RP3216	OTP	2K*16	128	-	18	1	3	0	3	1	1	-	-	-	-	-	2.4/3.6	9*12	1/0	IRC/XT/ERC	3	-	2.2~5.5	SOP20/QFN20
CSU32P10	OTP	2K*14	64	-	6	1	2	0	1	-	-	-	-	-	-	-	2.4/3.6	3*12	-	IRC	1	-	2.4~5.5	SOP8
	OTP	2K*14	64	-	8	1	2	0	2	1	-	-	-	-	-	-	2.4/3.6	4*12	-	IRC	2	-	2.4~5.5	MSOP10
	OTP	2K*14	64	-	12	1	2	0	2	1	-	-	-	-	-	-	2.4/3.6	5*12	-	IRC	2	-	2.4~5.5	SOP14
CSU32P20	OTP	2K*16	104	-	6	1	2	0	1	-	-	-	-	-	-	-	2.4	3*12	-	IRC	1	-	2.35~5.5	SOP8
	OTP	2K*16	104	-	8	1	2	0	2	1	-	-	-	-	-	-	2.4	4*12	-	IRC	2	-	2.35~5.5	MSOP10
	OTP	2K*16	104	-	12	1	2	0	2	1	-	-	-	-	-	-	2.4	6*12	-	IRC	2	-	2.35~5.5	SOP14/TSSOP14
OTP	2K*16	104	-	14	1	2	0	2	2	-	-	-	-	5*8	-	2.4	7*12	-	IRC	2	-	2.35~5.5	SOP16/TSSOP16	

## 8位 PD MCU

Part No.	Memory				I/O Pins	Timer Modules					Connectivity					Analog Interface				OSC Mode	大驱动 IO	Special Function	VDD (V)	Package	
	Type	ROM	RAM	EEPROM		8-Bit	12-Bit	16-Bit	PWM	互补 PWM	UART	SPI	I2C	PD	CC	LCD	Temp Sensor	LVD (V)	ADC (Ch*Bit)						Comp. /OPA
CSS34P16	OTP	4K*16	232	-	14	-	3	-	3	1	-	-	-	PD2.0	2组	-	-	2.4	-	1/0	IRC	-	-	2.7~5.5	SSOP16

## 压力触控

Part No.	Force Touch Channels	Interface	Oper. Temp (°C)	VDD (V)	Package
CSU18M63	1	I2C / UART	-40~85°C	2.6~3.6	QFN16/QFN20/WLCSP16
CSA37F60	15	I2C / UART	-40~85°C	2.0~5.5	QFN40/WLCSP40
CSA37F61	8	I2C / UART	-40~85°C	2.0~5.5	WLCSP42

## 8位高精度 SOC

Part No.	Memory				I/O	Timer Modules					Connectivity			Analog Interface					Oscillation Mode	Special Function	VDD (V)	Package	
	Type	ROM	RAM	EEPROM		8-Bit	12-Bit	16-Bit	RTC	PWM	UART	SPI	I2C	LCD	LED	Temp. Sensor	LVD	ADC (Ch*Bit)					Comp./OPA
CSU8RP1186	OTP	4K*16	256	-	14	1	-	-	-	-	1	-	-	4*14	-	Y	Y	1*24	0/1	IRC	-	2.4-3.6	Die38
CSU8RP1186B	OTP	4K*16	256	-	14	1	-	-	-	-	1	-	-	4*14	-	Y	Y	1*24	0/1	IRC/XT	-	2.4-3.6	Die38
CSU8RP1001	OTP	4K*16	256	-	15/14	1	-	-	-	-	-	-	-	4*14	-	Y	Y	2*24	0/1	IRC/XT	-	2.4-3.6	Die52
CSU1181B	OTP	4K*16	256	-	16	1	-	-	-	-	-	-	-	4*18	-	Y	Y	2*24	0/1	IRC/XT	-	2.4-3.6	Die46
CSU1182B	OTP	2.5K*16	256	-	16	1	-	-	-	-	-	-	-	4*18	-	Y	Y	2*24	0/1	IRC/XT	-	2.4-3.6	Die46
CSU8RP1391	OTP	8K*16	384	-	16	2	-	2	-	3	1	-	-	4*32 6*30	-	Y	Y	2*24	0/2	IRC/XT	-	2.4-3.6	Die68
CSU8RP1381	OTP	8K*16	384	-	16	2	-	2	-	3	1	-	-	4*32 6*30	-	Y	Y	2*24	0/1	IRC/XT	-	2.4-3.6	Die68
CSU8RP1382	OTP	4K*16	384	-	12	2	-	2	-	3	1	-	-	4*20 6*18	-	Y	Y	2*24	0/1	IRC/XT	-	2.4-3.6	Die68
CSU18MB86	MTP	8K*16	488	128	10	2	-	-	-	-	-	-	-	-	7*8	Y	Y	1*24 1*10	0/1	IRC	-	2.4-3.6	SOP16
	MTP	8K*16	488	128	11	2	-	-	-	-	1	-	-	-	7*8	Y	Y	1*24 1*10	0/1	IRC	-	2.4-3.6	SSOP20
	MTP	8K*16	488	128	15	2	-	-	Y	1	1	-	-	-	7*8	Y	Y	1*24 1*10	0/1	IRC/XT	-	2.4-3.6	SSOP24
CSU18M88	MTP	8K*16	896	128	37	4	-	-	Y	3	2	1	1(S)	4*20 6*18	-	Y	Y	1*24 8*10	0/1	IRC/XT	-	2.4-3.6	LQFP48
CSU18M91	MTP	8K*16	896	128	21	4	-	-	Y	1	1	1	1(S)	4*18 6*16	4*14	Y	Y	1*24 3*10	0/1	IRC/XT	BIM MDU HRI	2.4-3.6	LQFP48
	MTP	8K*16	896	128	31	4	-	-	Y	3	2	1	1(S)	4*24 6*22	4*14	Y	Y	1*24 6*10	0/1	IRC/XT	BIM MDU HRI	2.4-3.6	LQFP64
CSU18M92	MTP	8K*16	896	128	21	4	-	-	Y	1	1	1	1(S)	4*18 6*16	4*14	Y	Y	1*24 3*10	0/1	IRC/XT	BIM MDU	2.4-3.6	LQFP48
	MTP	8K*16	896	128	31	4	-	-	Y	3	2	1	1(S)	4*24 6*22	4*14	Y	Y	1*24 6*10	0/1	IRC/XT	BIM MDU	2.4-3.6	Die68

## 高精度BLE SOC

Part No.	Memory				I/O	Timer Modules					Connectivity			Analog Interface					RF Feature				Power Consume			OSC Mode	Special Function	VDD (V)	Package
	Type	ROM	RAM	EEPROM		8-Bit	12-Bit	16-Bit	RTC	PWM	UART	SPI	I2C	LCD	LED	Temp. Sensor	LVD (V)	ADC (Ch*Bit)	Comp./OPA	BLE	RX Sensi.	TX Power	Max. Speed	TX (mA)	RX (mA)				
CST34M96	MTP	8K*16	488	128	17	1	-	-	Y	1	1	-	-	7*8	1	Y	1*24 1*10	0/1	5	-93dBm	-5~-5dBm	1Mbps	18	17	<2	IRC/XT	-	2.4-3.6	LQFP48
CST34M98	MTP	8K*16	896	128	33	4	-	-	Y	3	2	1	1(S)	4*20 6*18	-	Y	1*24 6*10	0/1	4.1	-93dBm	-5~-5dBm	1Mbps	18	17	<2	IRC/XT	-	2.4-3.6	QFN68

## BLE SOC

Part No.	内核	Max Freq. MHz	Memory(Bytes)		I/O	Timer					Connectivity				Analog Interface			RF Feature				Power Consume			Security	Temp. (°C)	VDD	Package					
			Flash	SRAM		Adv.	16bit	32bit (24bit)	SysTick	FWDT/ WWDT	RTC	PWM	UART	SPI	I2S	I2C	ADC Chs*bits	Comp./OPA	Temp. Sensor	BLE	RX Sensi.	TX Power	Max. Speed	TX (mA)					RX (mA)	Sleep (µA)			
CST92P12	-	-	-	16K+12K	10	-	2	-	-	-	-	-	2	1	1	-	1	8*10	-	-	-	-	4.2	-93dBm	-5~-5dBm	1Mbps	18	17	<2	-	-40~85	1.8~3.6	SSOP24
CST92P23	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-88dBm	-18~0dBm (-16~0dBm)	1Mbps	18.5	19.5	<4	-	-40~85	1.8~3.6	SOP8 SOP16
CST92F30	M0	48	512K	138K	20	-	-	8	1	1/0	1	6	1	2	-	2	3*12	0/1	-	5	-97dBm	-20~10dBm	1Mbps (2Mbps)	8	8	<2	AES-128	-40~105	1.8~3.6	QFN32			
	M0	48	512K	138K	34	-	-	8	1	1/0	1	6	1	2	-	2	6*12	0/1	-	5	-97dBm	-20~10dBm	1Mbps (2Mbps)	8	8	<2	AES-128	-40~105	1.8~3.6	QFN48			

## ADC

IC Part No.	Resolution(Bits)	AD Rate (Hz)	ADC Input	PGA	INL(ppm)	ENOB(Bits)	Power(mA)	Interface	VDD(V)	Package
CS1242	24	1.875/3.75/7.5/15/30	2	1/2/4/8/16/32/64/128	±15	22	2.4	5 line SPI	2.7~5.25	SSOP24
CS1243	24	1.875/3.75/7.5/15/30	4	1/2/4/8/16/32/64/128	±15	22	2.4	5 line SPI	2.7~5.25	SSOP28
CS1231	24	10/80	1	64/128	±6	21.2	3.4	2 line SPI	2.8~5.5	SOP16/TSSOP16
CS1232	24	10/80	2	1/2/64/128	±6	23.5	3.4	2 line SPI	2.8~5.5	TSSOP24
CS1237	24	10/40/640/1280	1	1/2/64/128	±15	20	2.5	2 line SerialIO	2.7~5.5	SOP8
CS1238	24	10/40/640/1280	2	1/2/64/128	±15	20.7	2.5	2 line SerialIO	2.7~5.5	SOP14
CS1233	24	10Hz~1.28kHz	3	1/2/4/8/16/32/64/128	±15	19.5	1.5	3 line SerialIO	2.4~3.6	SOP14
CS1239	24	10Hz~1.28kHz	5	1/2/4/8/16/32/64/128	±15	19.5	1.5	3 line SerialIO	2.4~3.6	SOP16

## AFE—健康测量

IC Part No.	Resolution(Bits)	AD Rate (Hz)	ADC Input (Single)	PGA	DAC(Bits)	Tetra-Polar	Dynamic Range	Interface	Special Function	VDD(V)	Package
CS1251	24	10Hz~1.28kHz	1	1/2/4/8/16/32/64/128/256	6	4	0~2*限流电阻	3 line SerialIO	HR	2.4-3.6	SOP16
CS1256	24	10Hz~1.28kHz	1	1/2/4/8/16/32/64/128/256	6	4	0~2*限流电阻	3 line SerialIO	-	2.4-3.6	SOP16/QFN16
CS1257	24	10Hz~1.28kHz	2	1/2/4/8/16/32/64/128/256	6	4	0~2*限流电阻	3 line SerialIO	-	2.4-3.6	SSOP20
CS1258	24	10Hz~1.28kHz	5	1/2/4/8/16/32/64/128/256	6	8	0~2*限流电阻	3 line SerialIO	-	2.4-3.6	LQFP32
CS1259	24	10Hz~1.28kHz	5	1/2/4/8/16/32/64/128/256	6	8	0~2*限流电阻	3 line SerialIO	HR	2.4-3.6	QFN32

## AFE—节能环保

IC Part No.	Dynamic Range	Power				Voltage			Current			Interface	Special Function	VDD(V)	Package
		Channels	Active Power	Apparent Power	Power Factor	Channels	Valid Value	Istantaneous Value	Channels	Valid Value	Istantaneous Value				
CSE7759B	1000:1	1	Y	-	-	1	Y	-	1	Y	-	UART	-	4.5~5.5	SOP8
CSE7761	5000:1	2	Y	Y	Y	1	Y	Y	2	Y	Y	UART/SPI	Leakage Detection	3.0~3.6/4.5~5.5	SSOP16

## AFE—智能称重

IC Part No.	Resolution(Bits)	AD Rate (Hz)	ADC Input	PGA	DAC(Bits)	Tetra-Polar	Dynamic Range	Interface	Special Function	VDD(V)	Package
CS1270	24	30	-	64	-	4	0~2.8Ω	SPI/I2C/UART	-	2.4-3.6	SOP16