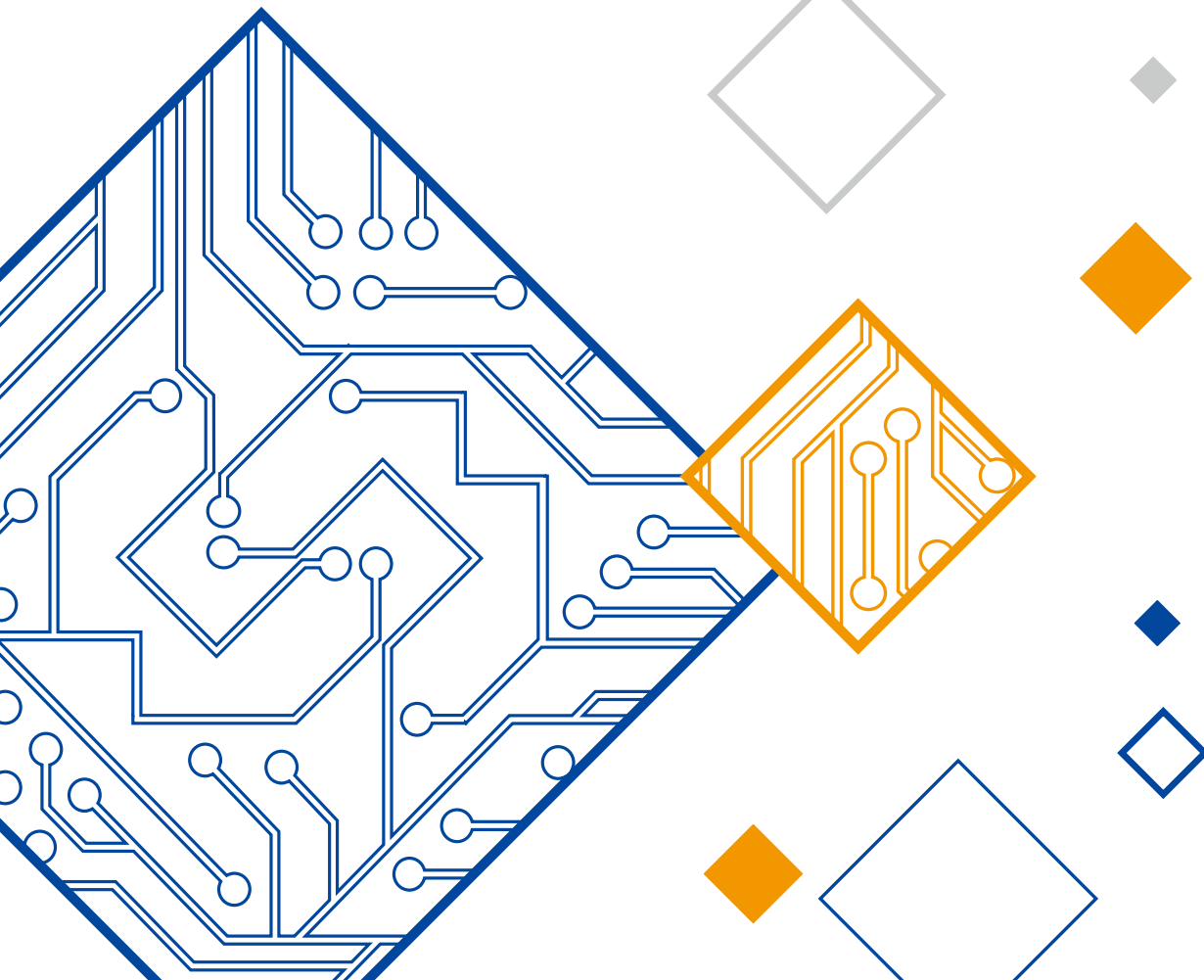




MindMotion MCUs

Product Selection Guide

1H24



MindMotion Introduction

Founded in 2011, Shanghai MindMotion Microelectronics Co., Ltd. is the leading supplier of general-purpose 32-bit MCU products and solutions.

The MCU products from MindMotion are featured with MM32, based on Arm Cortex-M Cores, with self-developed software, hardware and ecosystem platform. To date, we have mass-produced nearly 300 product models, making us the leading of general purpose 32-bit MCU suppliers.

We have various product application areas, including Consumer Electronics, Motor and Power Supply, Home Appliances, Automotive, Computer and Communication, Industrial Control. MindMotion is one of the few Chinese MCU companies that have been granted with official support like Arm-KEIL, IAR and SEGGER at the same time. We have established an independent and complete general purpose MCU ecosystem, able to provide customers with all-round support from chip hardware, software algorithm, reference solution to system design.



2011

Founding time



Nearly **300**

Mass-produced models



6

Applications

MM32 MCU Products



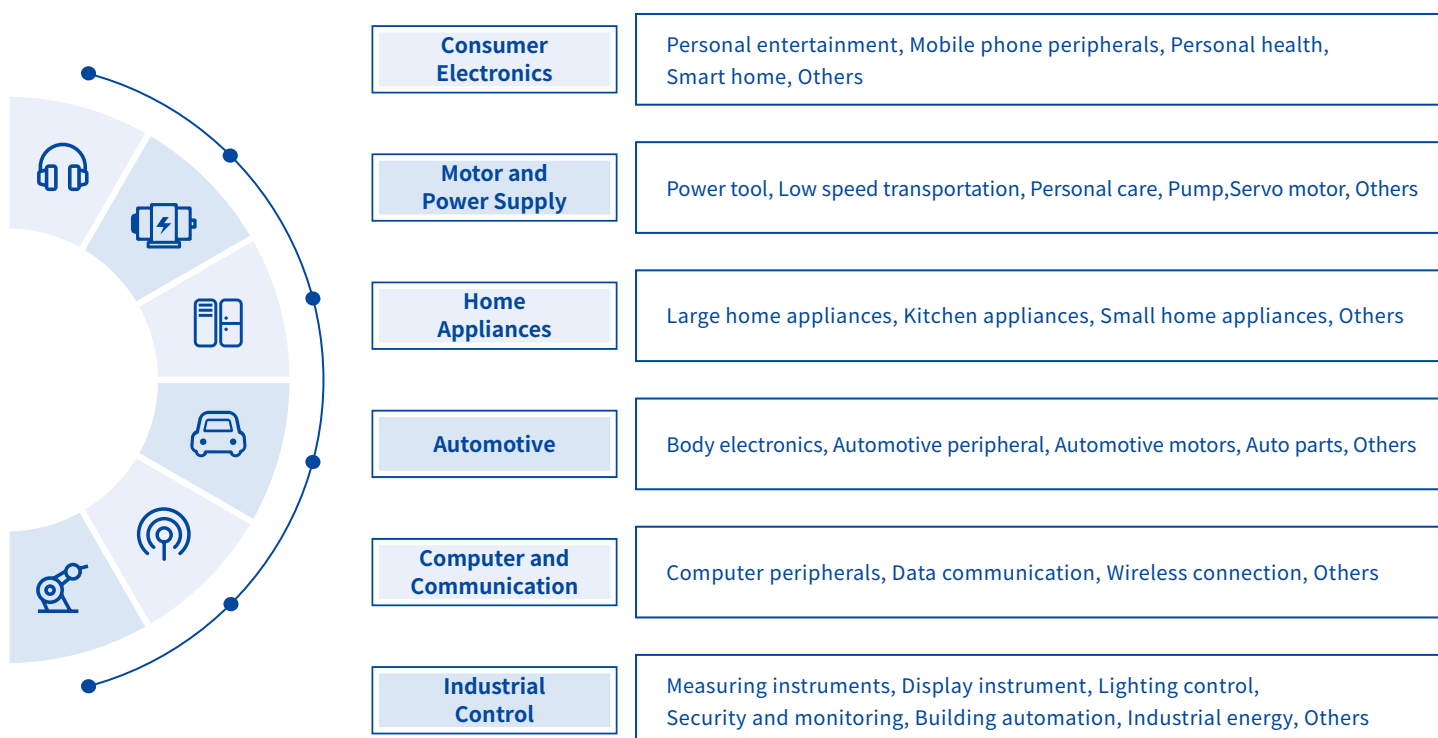
Ecosystem Partner

① Rankings are sorted by the alphabetical order of the surname



Product Application Areas

Six major application areas meet the diverse and multi-level application needs of customers and the market.



Product Selection

Products marked with "*" are upcoming releases.
32-bit Star-MC1 Core based on Arm v8-M architecture, compatible with Cortex-M33.

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions					Connectivity								Analog Interface		Pin Info		Operation Temp
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	I³C	SPI	I²S	USB 2.0 FS	CAN 2.0B	ADC (1Msp/s, 12bit)	ACMP	Package	Package Size	
MM32F0010	MM32F0010A1N	M0	48	16	2	18		1	2		2		2		1		1				8ch		QFN20	3x3	-40~85C
	MM32F0010A1NV	M0	48	16	2	18		1	2		2		2		1		1				8ch		QFN20	3x3	-40~105C
	MM32F0010A1T	M0	48	16	2	18		1	2		2		2		1		1				8ch		TSSOP20	6.45x4.35	-40~85C
	MM32F0010A1TV	M0	48	16	2	18		1	2		2		2		1		1				8ch		TSSOP20	6.45x4.35	-40~105C
	MM32F0010A6T	M0	48	16	2	6		1	2		2		2		1		1				4ch		SOP8	3.9x4.9	-40~85C
MM32F0020	MM32F0020B1N	M0	48	32	2	18		1	2		2		2		1		1	1			8ch		QFN20	3x3	-40~85C
	MM32F0020B1NV	M0	48	32	2	18		1	2		2		2		1		1	1			8ch		QFN20	3x3	-40~105C
	MM32F0020B1T	M0	48	32	2	18		1	2		2		2		1		1	1			8ch		TSSOP20	6.45x4.35	-40~85C
	MM32F0020B1TV	M0	48	32	2	18		1	2		2		2		1		1	1			8ch		TSSOP20	6.45x4.35	-40~105C
MM32F0040	MM32F0040B1N	M0	72	32	4	17	Y	1	5		2		3		1		1	1			9ch	1	QFN20	3x3	-40~85C
	MM32F0040B1T	M0	72	32	4	17	Y	1	5		2		3		1		1	1			9ch	1	TSSOP20	6.45x4.35	-40~85C
MM32F0050	MM32F0050C1TV*	M0	72	64	8	18	Y	1	4		1		3		1		1				7ch	1	TSSOP20	6.45x4.35	-40~105C
	MM32F0050C1NV*	M0	72	64	8	18	Y	1	4		1		3		1		1				7ch	1	QFN20	3x3	-40~105C
MM32F0120	MM32F0121C1N	M0	72	64	8	18	Y	1	4		1	Y	3		1		1				7ch	1	QFN20	3x3	-40~85C
	MM32F0121C4N	M0	72	64	8	31	Y	1	4		1	Y	3		1		1				12ch	1	QFN32	4x4	-40~85C
	MM32F0121C4Q	M0	72	64	8	29	Y	1	4		1	Y	3		1		1				12ch	1	QFN32	5x5	-40~85C
	MM32F0121C4P	M0	72	64	8	27	Y	1	4		1	Y	3		1		1				12ch	1	LQFP32	7x7	-40~85C
	MM32F0121C6P	M0	72	64	8	42	Y	1	4		1	Y	3		1		1				12ch	1	LQFP48	7x7	-40~85C
MM32F0140	MM32F0141B1T	M0	72	32	8	16	Y	1	5		2		3		1		1	1			9ch	1	TSSOP20	6.45x4.35	-40~85C
	MM32F0141B4P	M0	72	32	8	26	Y	1	5		2		3		1		2	2			13ch	1	LQFP32	7x7	-40~85C
	MM32F0141C1T	M0	72	64	8	16	Y	1	5		2		3		1		1	1			9ch	1	TSSOP20	6.45x4.35	-40~85C
	MM32F0141C4N	M0	72	64	8	30	Y	1	5		2		3		1		2	2			13ch	1	QFN32	4x4	-40~85C
	MM32F0141C4P	M0	72	64	8	26	Y	1	5		2		3		1		2	2			13ch	1	LQFP32	7x7	-40~85C
	MM32F0141C4Q	M0	72	64	8	28	Y	1	5		2		3		1		2	2			13ch	1	QFN32	5x5	-40~85C
	MM32F0141C6P	M0	72	64	8	40	Y	1	5		2		3		1		2	2			13ch	1	LQFP48	7x7	-40~85C
	MM32F0144C1T	M0	72	64	8	16	Y	1	5		2		3		1		1	1		1	9ch	1	TSSOP20	6.45x4.35	-40~85C
	MM32F0144C1TV	M0	72	64	8	16	Y	1	5		2		3		1		1	1		1	9ch	1	TSSOP20	6.45x4.35	-40~105C
	MM32F0144C4P	M0	72	64	8	26	Y	1	5		2		3		1		2	2		1	13ch	1	LQFP32	7x7	-40~85C
	MM32F0144C4PV	M0	72	64	8	26	Y	1	5		2		3		1		2	2		1	13ch	1	LQFP32	7x7	-40~105C
	MM32F0144C4Q	M0	72	64	8	26	Y	1	5		2		3		1		2	2		1	13ch	1	QFN32	5x5	-40~85C
	MM32F0144C6P	M0	72	64	8	40	Y	1	5		2		3		1		2	2		1	13ch	1	LQFP48	7x7	-40~85C
	MM32F0144C6PV	M0	72	64	8	40	Y	1	5		2		3		1		2	2		1	13ch	1	LQFP48	7x7	-40~105C
MM32F0160	MM32F0162D4Q	M0	96	128	16	28	Y	1	5	1	2	Y	4	1	1	1	2	2	D		13ch	2	QFN32	5x5	-40~85C
	MM32F0162D6P	M0	96	128	16	41	Y	1	5	1	2	Y	4	1	1	1	2	2	D		13ch	2	LQFP48	7x7	-40~85C
	MM32F0162D7P	M0	96	128	16	57	Y	1	5	1	2	Y	4	1	1	1	2	2	D		14ch	2	LQFP64	10x10	-40~85C
	MM32F0163D4Q	M0	96	128	16	28	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch	2	QFN32	5x5	-40~85C
	MM32F0163D4QV	M0	96	128	16	28	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch	2	QFN32	5x5	-40~105C
	MM32F0163D6P	M0	96	128	16	41	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch	2	LQFP48	7x7	-40~85C
	MM32F0163D6PV	M0	96	128	16	41	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch	2	LQFP48	7x7	-40~105C
	MM32F0163D7P	M0	96	128	16	57	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	14ch	2	LQFP64	10x10	-40~85C
	MM32F0163D7PV	M0	96	128	16	57	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	14ch	2	LQFP64	10x10	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions					Connectivity								Analog Interface				Pin Info		Operation Temp	
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	I³C	SPI	I²S	USB 2.0 FS	CAN 2.0B	ADC (1Msps, 12bit)	ADC (3Msps, 12bit)	DAC (12bit)	ACMP	Package	Package Size		
MM32G0001	MM32G0001A1N	M0	48	16	2	18		1	2		1		2		1		1					8ch				QFN20	3x3	-40~85C
	MM32G0001A1NV	M0	48	16	2	18		1	2		1		2		1		1					8ch				QFN20	3x3	-40~105C
	MM32G0001A1T	M0	48	16	2	18		1	2		1		2		1		1					8ch				TSSOP20	6.45x4.35	-40~85C
	MM32G0001A1TV	M0	48	16	2	18		1	2		1		2		1		1					8ch				TSSOP20	6.45x4.35	-40~105C
	MM32G0001A6T	M0	48	16	2	6		1	2		1		2		1		1					3ch				SOP8	3.9x4.9	-40~85C
	MM32G0001A6TV	M0	48	16	2	6		1	2		1		2		1		1					3ch				SOP8	3.9x4.9	-40~105C
	MM32G0001A6T1V	M0	48	16	2	6		1	2		1		2		1		1					5ch				SOP8	3.9x4.9	-40~105C
MM32G0020	MM32G0020B1N	M0	48	32	2	18		1	2		1		2		1		1					8ch				QFN20	3x3	-40~85C
	MM32G0020B1T	M0	48	32	2	18		1	2		1		2		1		1					8ch				TSSOP20	6.45x4.35	-40~85C
MM32G0120	MM32G0121C1TV*	M0	72	64	8	18	Y	1	4		1	Y	3		1		1					9ch			1	TSSOP20	6.45x4.35	-40~105C
	MM32G0121C4QV*	M0	72	64	8	30	Y	1	4		1	Y	3		1		1					12ch			1	QFN32	5x5	-40~105C
	MM32G0121C4PV*	M0	72	64	8	30	Y	1	4		1	Y	3		1		1					12ch			1	LQFP32	7x7	-40~105C
MM32G0140	MM32G0144C1TV	M0	72	64	8	17	Y	1	5		2		3		1		1	1		1	1, 12ch				1	TSSOP20	6.45x4.35	-40~105C
	MM32G0144C4PV	M0	72	64	8	29	Y	1	5		2		3		1		2	2		1	1, 14ch				1	LQFP32	7x7	-40~105C
	MM32G0144C4QV	M0	72	64	8	29	Y	1	5		2		3		1		2	2		1	1, 14ch				1	QFN32	5x5	-40~105C
MM32G0160	MM32G0163D4PV	M0	96	128	16	29	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch				2	LQFP32	7x7	-40~105C
	MM32G0163D6PV	M0	96	128	16	44	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1 (FD)	13ch				2	LQFP48	7x7	-40~105C
MM32G5330	MM32G5333D6QV	Star-MC1	180	128	32	41		2	6	1	2	Y	5	1	2	1	3	3	D/H	1 (FD)		2, 16ch	1	2		QFN48	7x7	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory			I/O#	Timer Functions				Connectivity							Analog Interface			Pin Info		Operation Temp
				Flash (KB)	RAM (KB)	Ext. Bus I/F		Adv TMR	GP TMR	WDG	RTC	U(S)ART	I ² C	SPI	I ² S	USB 2.0 FS	CAN 2.0B	SDIO	ADC (1Msps, 12bit)	DAC (12bit)	ACMP	Package	Package Size	
MM32F3270	MM32F3273E6P	M3	120	256	128		38	2	6	2	Y	7	2	2	2	D/H/O	1		3, 10ch	2	2	LQFP48	7x7	-40~85C
	MM32F3273E7P	M3	120	256	128		52	2	6	2	Y	7	2	2	2	D/H/O	1	1	3, 16ch	2	2	LQFP64	10x10	-40~85C
	MM32F3273G6P	M3	120	512	128		38	2	6	2	Y	7	2	2	2	D/H/O	1		3, 10ch	2	2	LQFP48	7x7	-40~85C
	MM32F3273G7P	M3	120	512	128		52	2	6	2	Y	7	2	2	2	D/H/O	1	1	3, 16ch	2	2	LQFP64	10x10	-40~85C
	MM32F3273G8P	M3	120	512	128	FSMC	84	2	6	2	Y	8	2	2	2	D/H/O	1	1	3, 16ch	2	2	LQFP100	14x14	-40~85C
	MM32F3273G9P	M3	120	512	128	FSMC	116	2	6	2	Y	8	2	3	3	D/H/O	1	1	3, 21ch	2	2	LQFP144	20x20	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	Timer Functions					Connectivity							Analog Interface			Pin Info		Operation Temp	
				Flash (KB)	RAM (KB)		Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	I³C	SPI	I²S	USB 2.0 FS	CAN 2.0B	ADC (3Msps, 12bit)	DAC (12bit)	ACMP	Package		Package Size
MM32F5230	MM32F5233D4QV	Star-MC1	120	128	32	28	1	5	1	2	Y	4	1	1		2	2	D/H	1	1, 10ch	1	2	QFN32	5x5	-40~105C
	MM32F5233D6PV	Star-MC1	120	128	32	40	1	5	1	2	Y	5	1	2		3	3	D/H	1	1, 10ch	1	2	LQFP48	7x7	-40~105C
	MM32F5233D7PV	Star-MC1	120	128	32	54	1	5	1	2	Y	5	1	2		3	3	D/H	1	1, 14ch	1	2	LQFP64	10x10	-40~105C
MM32F5330	MM32F5331D3NV	Star-MC1	180	128	32	24	2	6	1	2	Y	4	1	1	1	2	2		2, 10ch	1	2	QFN28	4x4	-40~105C	
	MM32F5333D4QV	Star-MC1	180	128	32	28	2	6	1	2	Y	4	1	1	1	2	2	D/H	1 (FD)	2, 10ch	1	2	QFN32	5x5	-40~105C
	MM32F5333D6PV	Star-MC1	180	128	32	40	2	6	1	2	Y	5	1	2	1	3	3	D/H	1 (FD)	2, 10ch	1	2	LQFP48	7x7	-40~105C
	MM32F5333D7PV	Star-MC1	180	128	32	54	2	6	1	2	Y	5	1	2	1	3	3	D/H	1 (FD)	2, 16ch	1	2	LQFP64	10x10	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions			Connectivity			Analog Interface					Pin Info		Operation Temp
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	WDG	U(S)ART	I²C	SPI	ADC (1Msps, 12bit)	ADC (3Msps, 12bit)	DAC (12bit)	ACMP	OpAmp	Package	Package Size	
MM32SPIN0230	MM32SPIN0230B1NV	M0	60	32	4	19	1	1	4	1	1		1	10ch			2	2	QFN20	3X3	-40~105C
	MM32SPIN0230B1TV	M0	60	32	4	18	1	1	4	1	1		1	9ch			2	2	TSSOP20	6.45x4.35	-40~105C
	MM32SPIN0230B3NV	M0	60	32	4	26	1	1	4	1	1		1	11ch			2	2	QFN28	4X4	-40~105C
	MM32SPIN0230B3TV	M0	60	32	4	26	1	1	4	1	1		1	11ch			2	2	TSSOP28	9.7X6.4	-40~105C
MM32SPIN0280	MM32SPIN0280D4PV	M0	96	128	8	28	1	2	5	2	3	1	2		2, 11ch	1	2	1	LQFP32	7x7	-40~105C
	MM32SPIN0280D6PV	M0	96	128	8	41	1	2	5	2	3	1	2		2, 16ch	1	5	4	LQFP48	7x7	-40~105C
	MM32SPIN0280D6QV	M0	96	128	8	41	1	2	5	2	3	1	2		2, 16ch	1	5	4	QFN48	7x7	-40~105C
	MM32SPIN0280D7PV	M0	96	128	8	57	1	2	5	2	3	1	2		2, 16ch	1	5	4	LQFP64	10x10	-40~105C
	MM32SPIN0280DAPV	M0	96	128	8	37	1	2	5	2	3	1	2		2, 16ch	1	4	3	LQFP44	10x10	-40~105C
MM32SPINEBK	MM32SPINEBK	M0	96	128	8	46	1	2	5	2	3	1	2		2, 16ch	1	5	4	LQFP48	7x7	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions			Connectivity			Analog Interface					Driver	MOSFET	Others	Voltage	Pin Info		Operation Temp
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	WDG	U(S)ART	I²C	SPI	ADC (1Msps, 12bit)	ADC (3Msps, 12bit)	DAC (12bit)	ACMP	OpAmp					Package	Package Size	
Pre-Driver	MM32SPIN030C	M0	60	32	4	17	1	1	4	1	1		1	11ch			2	2	PN		LDO	36V	TSSOP28	9.7X6.4	-40~105C
	MM32SPIN030CN	M0	60	32	4	17	1	1	4	1	1		1	11ch			2	2	PN		LDO	36V	QFN28	4X4	-40~105C
	MM32SPIN060G*	M0	60	32	4	11	1	1	4	1	1		1	10ch			2	2	NN		LDO+Four-Wire Burning	100V	QFN32	4X4	-40~105C
	MM32SPIN080C	M0	60	32	4	20	1	1	4	1	1		1	11ch			2	2	NN		LDO	200V	QFN48	6X6	-40~105C
	MM32SPIN080CN	M0	60	32	4	17	1	1	4	1	1		1	11ch			2	2	NN		LDO	200V	QFN32	5X5	-40~105C
	MM32SPIN080G*	M0	60	32	4	20	1	1	4	1	1		1	11ch			2	2	NN		LDO+DC/DC	200V	QFN48	6X6	-40~105C
	MM32SPIN080GN*	M0	60	32	4	11	1	1	4	1	1		1	7ch			2	2	NN		LDO+DC/DC	200V	QFN32	4X4	-40~105C
	MM32SPIN560C	M0	96	128	8	29	1	2	5	2	3	1	2		2, 16ch	1	3	3	NN		LDO	100V	QFN48	6x6	-40~105C
	MM32SPIN580C	M0	96	128	8	26	1	2	5	2	3	1	2		2, 16ch	1	3	3	NN		LDO	200V	QFN48	6x6	-40~105C
Driver	MM32SPIN023C	M0	60	32	4	14	1	1	4	1	1		1	9ch			2	2	NN	2.0A	LDO+MOS	18V	QFN32	4X4	-40~105C
	MM32SPIN033A*	M0	60	32	4	20	1	1	4	1	1		1	11ch			3	2	NN	2.5A	LDO+MOS	35V	QFN48	6X6	-40~105C
	MM32SPIN533A*	M0	96	128	8	27	1	2	5	2	3	1	2		2, 16ch	1	3	3	NN	2.5A	LDO+MOS	35V	QFN48	6x6	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions				Connectivity							Analog Interface					MOSFET	Voltage	Pin Info		Operation Temp			
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	I³C	SPI	I²S	USB 2.0 FS	CAN 2.0B	ADC (1Msps, 12bit)	ADC (3Msps, 12bit)	DAC (12bit)			ACMP	Op-Amp		Package	Package Size	
MM32F0140	MM32F0144C1TM	M0	72	64	8	16	Y	1	5		2		3		1		1	1		1	9ch			1				TSSOP20	6.45x4.35	-40~125C	
	MM32F0144C4PM	M0	72	64	8	26	Y	1	5		2		3		1		2	2		1	13ch			1				LQFP32	7x7	-40~125C	
	MM32F0144C4QM	M0	72	64	8	28	Y	1	5		2		3		1		2	2		1	13ch			1				QFN32	5x5	-40~125C	
	MM32F0144C6PM	M0	72	64	8	40	Y	1	5		2		3		1		2	2		1	13ch			1				LQFP48	7x7	-40~125C	
MM32F0160	MM32F0163D4QM	M0	72	128	16	28	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1(FD)	13ch			2				QFN32	5x5	-40~125C	
	MM32F0163D6PM	M0	72	128	16	41	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1(FD)	13ch			2				LQFP48	7x7	-40~125C	
	MM32F0163D7PM	M0	72	128	16	57	Y	1	5	1	2	Y	4	1	1	1	2	2	D	1(FD)	14ch			2				LQFP64	10x10	-40~125C	
MM32F5330	MM32F5331D3NM*	Star-MC1	150	128	32	24		2	6	1	2	Y	4	1	1	1	2	2				2, 10ch	1	2					QFN28	4x4	-40~125C
	MM32F5333D4QM*	Star-MC1	150	128	32	28		2	6	1	2	Y	4	1	1	1	2	2	D/H	1(FD)		2, 10ch	1	2					QFN32	5x5	-40~125C
MM32SPIN560	MM32SPIN560CM*	M0	72	128	8	29	1	2	5		2		3		1		2					2, 16ch		3	3		100V	QFN48	6x6	-40~125C	
MM32SPIN533	MM32SPIN533AM*	M0	96	128	8	27	1	2	5		2		3		1		2					2, 16ch		3	3	1A	35V	QFN48	6x6	-40~125C	

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	Timer Functions				Connectivity					Analog Interface			Segment LCD	Pin Info		Operation Temp
				Flash (KB)	RAM (KB)		GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	SPI	I²S	ADC (1Msps, 12bit)	ACMP	OpAmp		Package	Package Size	
MM32L0020	MM32L0020B1N	M0+	48	32	2	18	3	1	2		1	1	1	1	1	8ch	1	2		QFN20	3x3	-40~85C
	MM32L0020B1T	M0+	48	32	2	18	3	1	2		1	1	1	1	1	8ch	1	2		TSSOP20	6.45x4.35	-40~85C
MM32L0130	MM32L0136B6P	M0+	48	32	4	41	4	1	2	Y	2	1	1	2	2	11ch	1		4x24 or 8x20	LQFP48	7x7	-40~85C
	MM32L0136C3T*	M0+	48	64	8	24	4		2	Y	1	1	1	1	1	7ch	1			TSSOP28	9.7X6.4	-40~85C
	MM32L0136C4N*	M0+	48	64	8	27	4		2	Y	2	1	1	2	2	7ch	1		4x11 or 8x7	QFN32	4X4	-40~85C
	MM32L0136C6P	M0+	48	64	8	41	4	1	2	Y	2	1	1	2	2	11ch	1		4x24 or 8x20	LQFP48	7x7	-40~85C
	MM32L0136C7P	M0+	48	64	8	57	4	1	2	Y	2	1	1	2	2	15ch	1		4x40 or 8x36	LQFP64	10x10	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions					Connectivity						Analog Interface			Pin Info		Operation Temp	
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	SPI	I²S	USB 2.0 FS	CAN 2.0B	ADC (1Msps, 12bit)	DAC (12bit)	ACMP	Package		Package Size
MM32F003	MM32F003NW	M0	48	16	2	16		1	5		2		1		1	1				8ch			QFN20	3x3	-40~85C
	MM32F003TW	M0	48	16	2	16		1	5		2		1		1	1				8ch			TSSOP20	6.45x4.35	-40~85C
MM32F0130	MM32F0131C4P	M0	72	64	16	25		1	5		2	Y	2		1	1				10ch		2	LQFP32	7x7	-40~85C
	MM32F0131C4Q	M0	72	64	16	27		1	5		2	Y	2		1	1				10ch		2	QFN32	5x5	-40~85C
	MM32F0131C6P	M0	72	64	16	39		1	5		2	Y	2		1	2				10ch		2	LQFP48	7x7	-40~85C
	MM32F0131C7P	M0	72	64	16	56		1	5		2	Y	2		1	2				10ch		2	LQFP64	10x10	-40~85C
	MM32F0133C4P	M0	72	64	16	25		1	5		2	Y	2		1	1		D	1	10ch		2	LQFP32	7x7	-40~85C
	MM32F0133C4Q	M0	72	64	16	27		1	5		2	Y	2		1	1		D	1	10ch		2	QFN32	5x5	-40~85C
	MM32F0133C6P	M0	72	64	16	39		1	5		2	Y	2		1	2		D	1	10ch		2	LQFP48	7x7	-40~85C
	MM32F0133C7P	M0	72	64	16	56		1	5		2	Y	2		1	2		D	1	10ch		2	LQFP64	10x10	-40~85C
MM32F0270	MM32F0273D6P	M0	96	128	16	40	Y	1	6	1	2	Y	4	1	2	2	2	D	1	10ch	1	2	LQFP48	7x7	-40~85C
	MM32F0273D7P	M0	96	128	16	54	Y	1	6	1	2	Y	4	1	2	2	2	D	1	14ch	1	2	LQFP64	10x10	-40~85C
	MM32F0273D8P	M0	96	128	16	90	Y	1	6	1	2	Y	4	1	2	2	2	D	1	14ch	1	2	LQFP100	14x14	-40~85C

MM32F031	MM32F031C6T6	M0	72	32	4	39		1	5		2		1		1	1			10ch			LQFP48	7x7	-40~85C
	MM32F031F6P6	M0	72	32	4	16		1	5		2		1		1	1			9ch			TSSOP20	6.45x4.35	-40~85C
	MM32F031F6U6	M0	72	32	4	16		1	5		2		1		1	1			9ch			QFN20	3x3	-40~85C
	MM32F031K6T6	M0	72	32	4	25		1	5		2		1		1	1			10ch			LQFP32	7x7	-40~85C
	MM32F031K6U6	M0	72	32	4	27		1	5		2		1		1	1			10ch			QFN32	5x5	-40~85C
	MM32F031Y6Y6	M0	72	32	4	13		1	5		2		1		1	1			5ch			CSP16	1.8x1.8	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	Timer Functions				Connectivity					Analog Interface	Pin Info		Operation Temp
				Flash (KB)	RAM (KB)		Adv TMR	GP TMR	WDG	RTC	U(S)ART	I²C	SPI	USB 2.0 FS	CAN 2.0B	ADC (1Msps, 12bit)	Package	Package Size	
MM32F103	MM32F103CBT6	M3	96	128	20	37	1	3	2	Y	3	2	2	D	1	10ch	LQFP48	7x7	-40~85C
	MM32F103RBT6	M3	96	128	20	51	1	3	2	Y	3	2	2	D	1	16ch	LQFP64	10x10	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory			I/O#	Timer Functions					Connectivity							Analog Interface			Pin Info		Operation Temp	
				Flash (KB)	RAM (KB)	Ext. Bus I/F		Adv TMR	GP TMR	LP TMR	WDG	RTC	U(S)ART	LP UART	I²C	SPI	I²S	USB 2.0 FS	CAN 2.0B	Ether-net	ADC (3Msps, 12bit)	DAC (12bit)	ACMP	Package		Package Size
MM32F5270	MM32F5277E7PV	Star-MC1	120	256	192	FSMC	54	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 16ch	2	3	LQFP64	10x10	-40~105C
	MM32F5277E8PV	Star-MC1	120	256	192	FSMC	86	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 19ch	2	3	LQFP100	14x14	-40~105C
	MM32F5277E9PV	Star-MC1	120	256	192	FSMC	118	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 24ch	2	3	LQFP144	20x20	-40~105C
MM32F5280	MM32F5287L7PV	Star-MC1	120	2304	192	FSMC	54	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 16ch	2	3	LQFP64	10x10	-40~105C
	MM32F5287L8PV	Star-MC1	120	2304	192	FSMC	86	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 19ch	2	3	LQFP100	14x14	-40~105C
	MM32F5287L9PV	Star-MC1	120	2304	192	FSMC	112	2	6	1	2	Y	7	1	2	3	3	D/H/O	2	1	2, 21ch	2	3	LQFP144	20x20	-40~105C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions				Connectivity				Analog Interface			Pin Info		Operation Temp
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	WDG	RTC	U(S)ART	I²C	SPI	CAN 2.0B	ADC (1Msps, 12bit)	ACMP	OpAmp	Package	Package Size	
MM32SPIN05	MM32SPIN05NT	M0	72	32	4	27	1	1	5	2		2	1	1		13ch	1		QFN32	5x5	-40~105C
	MM32SPIN05NW	M0	72	32	4	16	1	1	5	2		2	1	1		9ch	1		QFN20	3x3	-40~105C
	MM32SPIN05PF	M0	72	32	4	39	1	1	5	2		2	1	2		13ch	1		LQFP48	7x7	-40~105C
	MM32SPIN05PFOP	M0	72	32	4	35	1	1	5	2		2	1	1		9ch	1	2	LQFP48	7x7	-40~105C
	MM32SPIN05PT	M0	72	32	4	25	1	1	5	2		2	1	1		13ch	1		LQFP32	7x7	-40~105C
	MM32SPIN05TW	M0	72	32	4	16	1	1	5	2		2	1	1		9ch	1		TSSOP20	6.45x4.35	-40~105C
MM32SPIN06	MM32SPIN06NT	M0	72	64	16	27	1	1	5	2	Y	2	1	1	1	10ch	2		QFN32	5x5	-40~85C
	MM32SPIN06PF	M0	72	64	16	39	1	1	5	2	Y	2	1	2	1	10ch	2		LQFP48	7x7	-40~85C
	MM32SPIN06PT	M0	72	64	16	25	1	1	5	2	Y	2	1	1	1	10ch	2		LQFP32	7x7	-40~85C
MM32SPIN07	MM32SPIN07PF	M0	72	32	8	40	1	1	5	2		3	1	2		13ch	1		LQFP48	7x7	-40~105C
MM32SPIN27	MM32SPIN27NF	M0	96	128	12	40	1	2	5	2		2	1	2		2,16ch	5	4	QFN48	7x7	-40~85C
	MM32SPIN27PF	M0	96	128	12	40	1	2	5	2		2	1	2		2,16ch	5	4	LQFP48	7x7	-40~85C
	MM32SPIN27PQ	M0	96	128	12	36	1	2	5	2		2	1	2		2,16ch	4	3	LQFP44	10x10	-40~85C
	MM32SPIN27PS	M0	96	128	12	56	1	2	5	2		2	1	2		2,16ch	5	4	LQFP64	10x10	-40~85C
	MM32SPIN27PT	M0	96	128	12	25	1	2	5	2		2	1	1		2,11ch	2	2	LQFP32	7x7	-40~85C
MM32SPIN37	MM32SPIN37PSD	2XMO	96	128	32	52	1	2	10	4		2	2	2	2	18ch	4		LQFP64	10x10	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	32bit DIV	Timer Functions			Connectivity			Analog Interface			Driver	MOSFET	Others	Voltage	Pin Info		Operation Temp
				Flash (KB)	RAM (KB)			Adv TMR	GP TMR	WDG	U(S)ART	I²C	SPI	ADC (1Msps, 12bit)	ACMP	OpAmp					Package	Package Size	
Pre-Driver	MM32SPIN360C	M0	96	128	12	29	1	2	5	2	2	1	1	16ch	3	3	NN		LDO	60V	QFN48	6x6	-40~85C
	MM32SPIN040C	M0	48	16	2	10		1	2	2	2	1		5ch		2	PN		LDO	40V	TSSOP28	9.7X6.4	-40~105C
Driver	MM32SPIN160C	M0	72	32	4	13	1	1	5	2	1	1	1	9ch	1		NN		LDO	60V	QFN32	5x5	-40~85C
	MM32SPIN222C	M0	72	32	4	13	1	1	5	2	1	1	1	9ch	1		NN	1.5A	LDO+MOS	20V	QFN32	5x5	-40~85C
	MM32SPIN422C	M0	96	128	12	13	1	2	5	2	2	1	1	9ch	2	2	NN	1.5A	LDO+MOS	20V	QFN32	5x5	-40~85C

Series	Part No.	Core	Max Speed (MHz)	Memory		I/O#	Timer Functions			Connectivity					Analog Interface		Pin Info		Operation Temp
				Flash (KB)	RAM (KB)		Adv TMR	GP TMR	WDG	U(S)ART	I²C	SPI	USB 2.0 FS	CAN 2.0B	ADC (1Msps, 12bit)	ACMP	Package	Package Size	
MM32L0xx	MM32L052NT	M0	48	32	4	27	1	5	2	2	1	1	D		10ch	2	QFN32	5x5	-40~85C
	MM32L062NT	M0	48	64	8	27	1	5	2	2	1	1	D		10ch	2	QFN32	5x5	-40~85C
	MM32L073PF	M0	48	128	8	39	1	5	2	2	1	2	D	1	10ch	2	LQFP48	7x7	-40~85C

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