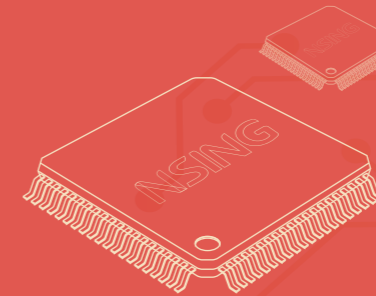


DRIVEN BY INNOVATION

## PRODUCT SELECTION GUIDE

 General MCU  Security IC  Bluetooth IC  Power IC



### NSING Technologies Pte. Ltd.

Address: NSING, Teletech Park #02-28, 20 Science Park Road, Singapore 117674

#### Business Inquiries

Tel: +65 69268090

Email: [sales@nsing.com.sg](mailto:sales@nsing.com.sg)

Website: [www.nsing.com.sg](http://www.nsing.com.sg)

NSING Technologies Pte. Ltd.

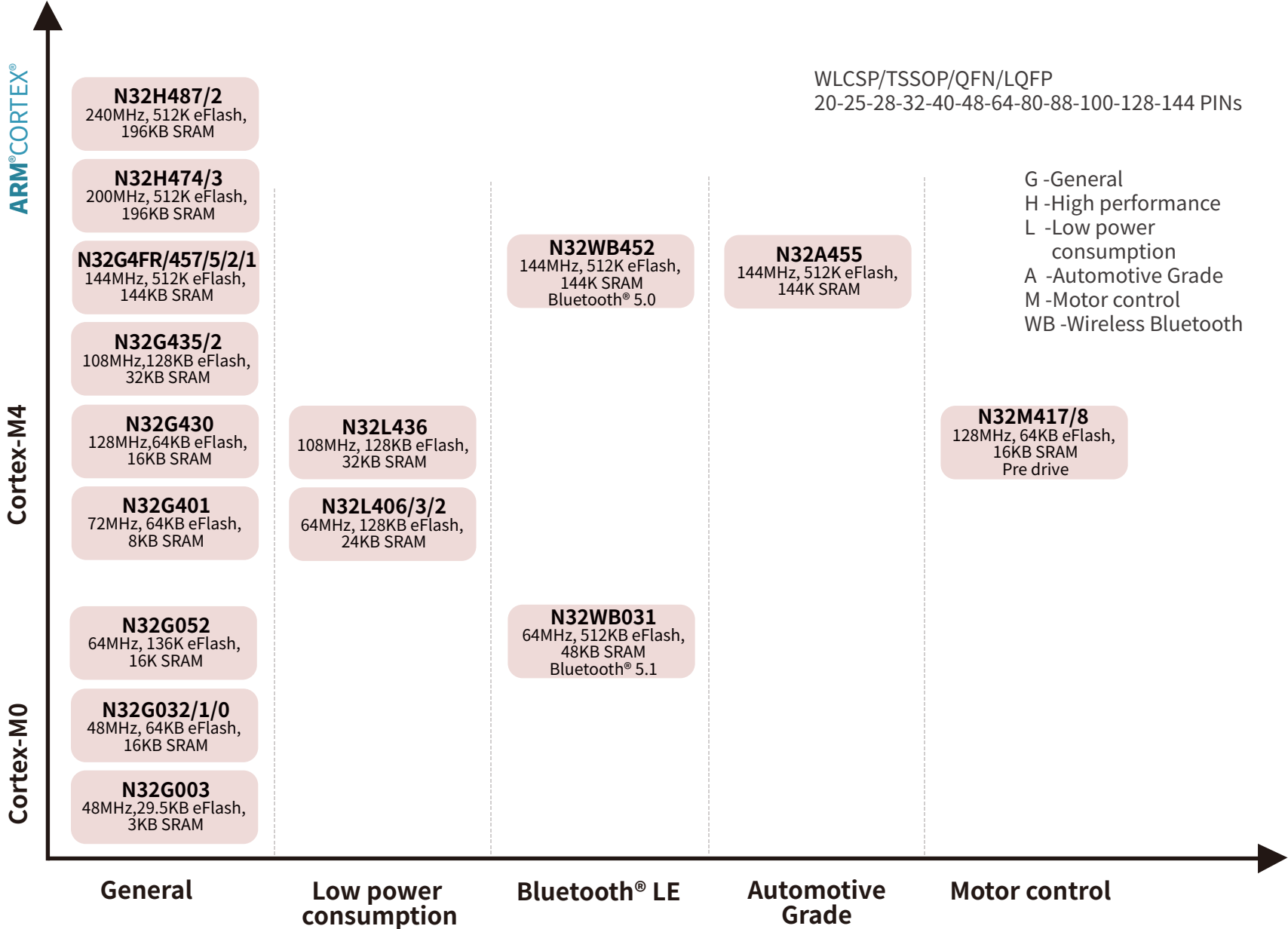
Aug 2024



# Marketing Strategy of MCU

## Product matrix

Provide 27 series of 200+MCUs



# General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity								DMA/channels	SEGMENT LCD	ETH	DVP	Cryptographic algorithm	Package	SPQ(PCS)	
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/ISO7816/LIN	UART/LIN	LPUART	SPI/P <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN								SDIO
N32G052	N32G052CBL7	Arm® Cortex®-M0	64	128+8	16	45	2.0V~5.5V/ -40~+105°C	6	1	38	4	1x12bit	12	1x12bit	-	4	-	1	-	5	-	3/0	-	2	-	1	-	1/5	8x22/ 4x26/ 3x27	-	-	CRCL16	LQFP48 (7mmx7mm)	250/Tray
	N32G052RBL7		64	128+8	16	61		6	1	50	4	1x12bit	15	1x12bit	-	4	-	1	-	5	-	3/0	-	2	-	1	-	1/5	8x32/ 4x36/ 3x37	-	-	CRCL16	LQFP64 (7mmx7mm/ 14mmx14mm)	160/Tray
N32G032	N32G032F6S7		48	32	8	16	1.8V~5.5V/ -40~+105°C	6	1	11	3	1x12bit	9	-	1	3	-	1	2	1	2	1/1	-	2	-	1	-	1/8	-	-	-	AECS, SM4, CRCL16/ CRC32, TRNG	TSSOP20	70/Tube
	N32G032F8S7		48	64	16	16		6	1	11	3	1x12bit	9	-	1	3	-	1	2	1	2	1/1	-	2	-	1	-	1/8	-	-	-	TSSOP20	70/Tube	
	N32G032P8W7		48	64	16	21		6	1	15	3	1x12bit	10	-	1	3	-	2	2	2	2	2/1	-	2	-	1	-	1/8	-	-	-	WLCSP25	3000/Reel	
	N32G032K6L7		48	32	8	26		6	1	17	6	1x12bit	10	-	1	3	-	2	2	2	2	3/2	-	2	-	1	-	1/8	-	-	-	LQFP32	250/Tray	
	N32G032K8L7		48	64	16	26		6	1	17	6	1x12bit	10	-	1	3	-	2	2	2	2	3/2	-	2	-	1	-	1/8	-	-	-	LQFP32	250/Tray	
	N32G032C8L7		48	64	16	40		6	1	17	6	1x12bit	10	-	1	3	-	2	2	2	2	3/1	-	2	-	1	-	1/8	-	-	-	LQFP48	250/Tray	
N32G031x8	N32G032R8L7		48	64	16	56		6	1	17	6	1x12bit	16	-	1	3	-	2	2	2	2	3/1	-	2	-	1	-	1/8	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G031F8U7		48	64	8	16		5	1	11	3	1x12bit	7	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	UFQFPN20 Tray:624/Tray Tray:490/Tray Tape:5000/Reel	TSSOP20	70/Tube
	N32G031F8S7		48	64	8	16		5	1	11	3	1x12bit	9	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	TSSOP20	70/Tube	
	N32G031K8Q7		48	64	8	28		5	1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (5mmx5mm)	490/Tray	
	N32G031K8Q7-1		48	64	8	28		5	1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (4mmx4mm)	490/Tray	
	N32G031K8L7		48	64	8	26		5	1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP32	250/Tray	
N32G031x6	N32G031C8L7		48	64	8	40		5	1	14	6	1x12bit	12	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP48	250/Tray	
	N32G031F6U7		48	32	8	16		5	1	11	3	1x12bit	7	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	UFQFPN20 Tray:624/Tray Tray:490/Tray Tape:5000/Reel	TSSOP20	70/Tube
	N32G031F6S7		48	32	8	16		5	1	11	3	1x12bit	9	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	TSSOP20	70/Tube	
	N32G031K6Q7		48	32	8	28		5	1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (5mmx5mm)	490/Tray	
	N32G031K6Q7-1	48	32	8	28	5		1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (4mmx4mm)	490/Tray		
	N32G031K6L7	48	32	8	26	5		1	14	6	1x12bit	10	-	1	1	-	2	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP32	250/Tray		
N32G030	N32G030F6S7	48	32	8	16	5	1	11	3	1x12bit	9	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	TSSOP20	70/Tube			
	N32G030F8S7	48	64	8	16	5	1	11	3	1x12bit	9	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	TSSOP20	70/Tube			
	N32G030K6Q7	48	32	8	28	5	1	14	6	1x12bit	10	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (5mmx5mm)	490/Tray			
	N32G030K8Q7	48	64	8	28	5	1	14	6	1x12bit	10	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	QFN32 (4mmx4mm)	490/Tray			
	N32G030K6L7	48	32	8	26	5	1	14	6	1x12bit	10	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP32	250/Tray			
	N32G030K8L7	48	64	8	26	5	1	14	6	1x12bit	10	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP32	250/Tray			
	N32G030C8L7	48	64	8	40	5	1	14	6	1x12bit	12	-	1	1	-	1	2	-	1	2/1	-	2	-	-	-	1/5	-	-	-	LQFP48	250/Tray			

Note: "-" means not support

## General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash (KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity										Cryptographic algorithm	Package	SPQ(PCs)				
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/ISOT816/LIN	UART/LIN	LPUART	SPi/I <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN	SDIO	DMA/Channels				SEGMENT LCD	ETH	DVP	
N32G003	N32G003F4Q7	Arm® Cortex®-M0	48	16	3	18	2V-5.5V/-40~+105°C	3	-	2	6	1x12bit	9	-	-	1	-	1	-	2 <sup>(1)</sup>	-	1/-	-	1	-	-	-	-	-	-	-	-	-	QFN20 (3mmx3mm)	490/Tray
	N32G003F5Q7		48	29.5	3	18		3	-	2	6	1x12bit	9	-	-	1	-	1	-	2 <sup>(1)</sup>	-	1/-	-	1	-	-	-	-	-	-	-	-	QFN20 (3mmx3mm)	490/Tray	
	N32G003F4S7		48	16	3	18		3	-	2	6	1x12bit	9	-	-	1	-	1	-	2 <sup>(1)</sup>	-	1/-	-	1	-	-	-	-	-	-	-	-	TSSOP20	70/Tube	
	N32G003F5S7		48	29.5	3	18		3	-	2	6	1x12bit	9	-	-	1	-	1	-	2 <sup>(1)</sup>	-	1/-	-	1	-	-	-	-	-	-	-	-	TSSOP20	70/Tube	

Note: “-” means not support, (1)Lin mode not supported

# High performance MCU

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		High precision PWM		ADC		DAC	PGA	COMP	Connectivity										DMA/Channels	ETH	DVP	Cryptographic algorithm	Package	SPQ(Pcs)
								Timer	RTC	PWM	complementary PWM	PWM	complementary PWM	Nb* Resolution	Channels				USART/ISO78/6/LIN	UART/LIN	SPI/I <sup>2</sup> S	I <sup>2</sup> C	USB FS Device	USB HS OTG	CAN-FD	xSPI	SDIO	FEMC						
N32H487	N32H487REL7	Arm® Cortex® M4F	240	512	196	54	1.8V~3.6V/-40~+105°C	17	1	47	30	-	-	4x12bit	26	2x12bit	-	-	4	4	5/2	4	1	1	3	1	1	1	2/16	1	1	DES/3DES, AES, SHA1, SHA224, SHA256, SM3, SM4, MD5, CRC16, CRC32, TRNG	LQFP64 (10mm*10mm)	160/Tray
	N32H487VEL7		240	512	196	85		17	1	52	30	-	-	4x12bit	26	2x12bit	-	-	4	4	6/2	4	1	1	3	1	1	1	2/16	1	1		LQFP100	90/Tray
	N32H487ZEL7		240	512	196	118		17	1	52	30	-	-	4x12bit	42	2x12bit	-	-	4	4	6/2	4	1	1	3	1	1	1	2/16	1	1		LQFP144	60/Tray
N32H482	N32H482REL7		240	512	196	54		17	1	47	30	-	-	4x12bit	42	2x12bit	-	-	4	4	5/2	4	1	1	2	1	1	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H482VEL7		240	512	196	85		17	1	52	30	-	-	4x12bit	51	2x12bit	-	-	4	4	6/2	4	1	1	2	1	1	1	2/16	-	-		LQFP100	90/Tray
	N32H482ZEL7		240	512	196	118		17	1	52	30	-	-	4x12bit	51	2x12bit	-	-	4	4	6/2	4	1	1	2	1	1	1	2/16	-	-		LQFP144	60/Tray
N32H474	N32H474CCU8		200	256	148	42	1.8V~3.6V/-40~+125°C	18 <sup>(2)</sup>	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H474CEU8		200	512	196	42		18 <sup>(2)</sup>	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H474CCL8		200	256	148	38		18 <sup>(2)</sup>	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H474CEL8		200	512	196	38		18 <sup>(2)</sup>	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H474RCL8		200	256	148	52		18 <sup>(2)</sup>	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	3	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H474REL8		200	512	196	52		18 <sup>(2)</sup>	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	3	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H474MCL8		200	256	148	66	18 <sup>(2)</sup>	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP80		119/Tray	
	N32H474MEL8		200	512	196	66	18 <sup>(2)</sup>	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP80		119/Tray	
	N32H474VCL8		200	256	148	86	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP100		90/Tray	
	N32H474VEL8		200	512	196	86	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP100		90/Tray	
	N32H474QCL8		200	256	148	107	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP128		90/Tray	
	N32H474QEL8		200	512	196	107	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP128		90/Tray	
	N32H474CCU7		200	256	148	42	1.8V~3.6V/-40~+105°C	18 <sup>(2)</sup>	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H474CEU7		200	512	196	42		18 <sup>(2)</sup>	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H474CCL7		200	256	148	38		18 <sup>(2)</sup>	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H474CEL7		200	512	196	38		18 <sup>(2)</sup>	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	3	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H474RCL7		200	256	148	52		18 <sup>(2)</sup>	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	3	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H474REL7		200	512	196	52		18 <sup>(2)</sup>	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	3	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H474MCL7	200	256	148	66	18 <sup>(2)</sup>	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP80	119/Tray			
	N32H474MEL7	200	512	196	66	18 <sup>(2)</sup>	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP80	119/Tray			
	N32H474VCL7	200	256	148	86	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP100	90/Tray			
N32H474VEL7	200	512	196	86	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP100	90/Tray				
N32H474QCL7	200	256	148	107	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP128	90/Tray				
N32H474QEL7	200	512	196	107	18 <sup>(2)</sup>	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	3	1	-	1	2/16	-	-	LQFP128	90/Tray				

Note: "-" means not support ; (1) means xSPI Only supports 4-wire; (2) means N32H474 supports 125ps high-precision timer

# High performance MCU

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		High precision PWM		ADC		DAC	PGA	COMP	Connectivity										DMA/Channels	ETH	DVP	Cryptographic algorithm	Package	SPQ(Pcs)
								Timer	RTC	PWM	complementary PWM	PWM	complementary PWM	Nb* Resolution	Channels				USART/ISO7816/LIN	UART/LIN	SPI/FS	I <sup>2</sup> C	USB FS Device	USB HS OTG	CAN-FD	xSPI	SDIO	FEMC						
N32H473	N32H473KCU8	Arm® Cortex®-M4F	200	256	148	26	1.8V~3.6V/-40~+125°C	17	1	25	16	4	4	4x12bit	13	8x12bit	4	7	4	4	4/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	DES/3DES-AES-SHA1/SHA224/SHA256-SM3-SM4-MD5-CRC16/CRC32-TRNG	UQFN32 (5mm*5mm)	490/Tray
	N32H473KEU8		200	512	196	26		17	1	25	16	4	4	4x12bit	13	8x12bit	4	7	4	4	4/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN32 (5mm*5mm)	490/Tray
	N32H473CCU8		200	256	148	42		17	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H473CEU8		200	512	196	42		17	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-		UQFN48	260/Tray 4000/Reel
	N32H473CCL8		200	256	148	37		17	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H473CEL8		200	512	196	37		17	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-		LQFP48	250/Tray
	N32H473RCL8		200	256	148	52		17	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	2	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H473REL8		200	512	196	52		17	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	2	1	-	1	2/16	-	-		LQFP64 (10mm*10mm)	160/Tray
	N32H473MCL8		200	256	148	66		17	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP80	119/Tray
	N32H473MEL8		200	512	196	66		17	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP80	119/Tray
	N32H473VCL8		200	256	148	86		17	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP100	90/Tray
	N32H473VEL8		200	512	196	86		17	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP100	90/Tray
	N32H473QCL8		200	256	148	107		17	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP128	90/Tray
	N32H473QEL8		200	512	196	107		17	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-		LQFP128	90/Tray
	N32H473KCU7		200	256	148	26	17	1	25	16	4	4	4x12bit	13	8x12bit	4	7	4	4	4/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	UQFN32 (5mm*5mm)	490/Tray		
	N32H473KEU7		200	512	196	26	17	1	25	16	4	4	4x12bit	13	8x12bit	4	7	4	4	4/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	UQFN32 (5mm*5mm)	490/Tray		
	N32H473CCU7		200	256	148	42	17	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	UQFN48	260/Tray 4000/Reel		
	N32H473CEU7		200	512	196	42	17	1	38	24	9	8	4x12bit	21	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	UQFN48	260/Tray 4000/Reel		
	N32H473CCL7		200	256	148	37	17	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	LQFP48	250/Tray		
	N32H473CEL7		200	512	196	37	17	1	35	22	8	8	4x12bit	20	8x12bit	4	7	4	4	5/2	4	1	-	2	1 <sup>(1)</sup>	-	1	2/16	-	-	LQFP48	250/Tray		
	N32H473RCL7		200	256	148	52	17	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	2	1	-	1	2/16	-	-	LQFP64 (10mm*10mm)	160/Tray		
	N32H473REL7		200	512	196	52	17	1	46	30	12	12	4x12bit	26	8x12bit	4	7	4	4	5/2	4	1	-	2	1	-	1	2/16	-	-	LQFP64 (10mm*10mm)	160/Tray		
	N32H473MCL7		200	256	148	66	17	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP80	119/Tray		
	N32H473MEL7		200	512	196	66	17	1	49	30	12	12	4x12bit	38	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP80	119/Tray		
	N32H473VCL7		200	256	148	86	17	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP100	90/Tray		
	N32H473VEL7		200	512	196	86	17	1	52	30	12	12	4x12bit	45	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP100	90/Tray		
	N32H473QCL7		200	256	148	107	17	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP128	90/Tray		
	N32H473QEL7		200	512	196	107	17	1	52	30	12	12	4x12bit	51	8x12bit	4	7	4	4	6/2	4	1	-	2	1	-	1	2/16	-	-	LQFP128	90/Tray		

Note: "-" means not support ; (1) means xSPI Only supports 4-wire

# General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(Kb)	SRAM(Kb)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity								DMA/Channels	SEGMENT LCD	ETH	DVP	Cryptographic algorithm	Package	SPQ(PCS)	
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/ISO7816/LIN	UART/LIN	LPUART	SPI/I <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN								SDIO
N32G457	N32G457REL7	Arm® Cortex®-M4F	144	512	144	51	1.8V~3.6V/-40~+105°C	8	1	24	12	4x12bit	22	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	1	1	DES/3DES, AES, SHA1, SHA224, SHA256, SM1, SM3, SM4, SM7, MD5, CRC16, CRC32, TRNG	LQFP64 (10mmx10mm)	160/Tray
	N32G457VEL7		144	512	144	80		8	1	24	12	4x12bit	38	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	1	1		LQFP100	90/Tray
	N32G457QEL7		144	512	144	97		8	1	24	12	4x12bit	40	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	1	1		LQFP128	90/Tray
N32G455	N32G455CBL7		144	128	80	37		8	1	23	6	4x12bit	16	2x12bit	4	5	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	1	2	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G455CCL7		144	256	144	37		8	1	23	6	4x12bit	16	2x12bit	4	5	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	1	2	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G455CEQ7		144	512	144	42		8	1	23	6	4x12bit	16	2x12bit	4	7	-	-	3	4	-	3/2	1	3	-	2	1	2/16	-	-	-	QFN48	490/Tray	
	N32G455CEL7		144	512	144	37		8	1	23	6	4x12bit	16	2x12bit	4	7	-	-	3	4	-	3/2	1	3	-	2	1	2/16	-	-	-	LQFP48	250/Tray	
	N32G455RCL7		144	256	144	51		8	1	24	12	4x12bit	22	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G455REL7		144	512	144	51		8	1	24	12	4x12bit	22	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G455MCL7		144	256	144	65		8	1	24	12	4x12bit	33	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP80	119/Tray	
	N32G455VCL7		144	256	144	80		8	1	24	12	4x12bit	38	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP100	90/Tray	
	N32G455VEL7		144	512	144	80		8	1	24	12	4x12bit	38	2x12bit	4	7	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP100	90/Tray	
N32G452	N32G452CBL7		144	128	80	37		8	1	23	6	2x12bit	10	2x12bit	-	-	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	1	2	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G452CCL7		144	256	144	37		8	1	23	6	2x12bit	10	2x12bit	-	-	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	1	2	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G452CEL7		144	512	144	37		8	1	23	6	2x12bit	10	2x12bit	-	-	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	1	2	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G452RBL7		144	128	80	51		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G452RCL7		144	256	144	51		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G452REL7		144	512	144	51		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G452VCL7		144	256	144	80		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP100	90/Tray	
	N32G452VEL7		144	512	144	80		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP100	90/Tray	
	N32G452QCL7		144	256	144	97		8	1	24	12	2x12bit	18	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP128	90/Tray	
	N32G452QEL7		144	512	144	97		8	1	24	12	2x12bit	18	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP128	90/Tray	
N32G451	N32G451CCL7		144	256	96	37		8	1	23	6	3x12bit	13	2x12bit	-	-	-	-	3	3	-	3/2	-	3	1	1	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G451CEL7		144	512	96	37		8	1	23	6	3x12bit	13	2x12bit	-	-	-	-	3	3	-	3/2	-	3	1	1	-	2/16	-	-	-	LQFP48	250/Tray	
	N32G451RBL7		144	128	48	51		8	1	24	12	3x12bit	19	2x12bit	-	-	-	-	3	4	-	3/2	-	4	1	1	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G451RCL7		144	256	96	51		8	1	24	12	3x12bit	19	2x12bit	-	-	-	-	3	4	-	3/2	-	4	1	1	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G451REL7		144	512	96	51		8	1	24	12	3x12bit	19	2x12bit	-	-	-	-	3	4	-	3/2	-	4	1	1	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray	
	N32G451VCL7		144	256	96	80		8	1	24	12	3x12bit	31	2x12bit	-	-	-	-	3	4	-	3/2	-	4	1	1	1	2/16	-	-	-	LQFP100	90/Tray	
N32G451VEL7	144	512	96	80	8	1	24	12	3x12bit	31	2x12bit	-	-	-	-	3	4	-	3/2	-	4	1	1	1	2/16	-	-	-	LQFP100	90/Tray				

Note: “-” means not support ; (1) means only single wire



# General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity										DMA/Channels	SEGMENT LCD	ETH	DVP	Cryptographic algorithm	Package	SPQ(Pcs)
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/ISO7816/LIN	UART/LIN	LPUART	SPI/I <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN	SDIO								
N32G4FR	N32G4FRKEQ7	Arm® Cortex®-M4F	144	512	144	24	1.8V~3.6V/-40~+105°C	8	1	10	6	2x12bit	7	2x12bit	-	-	-	-	1	3	-	2/1	1	3	1	1	-	2/16	-	-	-	DES/3DES, AES, SHA1, SHA224, SHA256, SM1, SM3, SM4, SM7, MD5, CRC16, CRC32, TRNG	QFN32	490/Tray	
	N32G4FRHEQ7		144	512	144	32		8	1	12	6	2x12bit	11	2x12bit	-	-	-	-	2	4	-	3/2	1	4	1	2	-	2/16	-	-	-	QFN40	490/Tray		
	N32G4FRREL7		144	512	144	51		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP64 (10mmx10mm)	160/Tray		
	N32G4FRMEL7		144	512	144	65		8	1	24	12	2x12bit	16	2x12bit	-	-	-	-	3	4	-	3/2	1	4	1	2	1	2/16	-	-	-	LQFP80	119/Tray		
N32G435	N32G435GBQ7		108	128	32	24		10	1	16	6	1x12bit	10	1x12bit	2	2	-	-	2	2	2	1/1	-	2	-	-	-	1/8	-	-	-	QFN28	490/Tray		
	N32G435KBL7		108	128	32	26		10	1	17	6	1x12bit	10	1x12bit	2	2	-	-	2	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP32	250/Tray		
	N32G435CBL7		108	128	32	38		10	1	24	6	1x12bit	10	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP48	250/Tray		
	N32G435RBL7		108	128	32	52		10	1	28	12	1x12bit	16	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP64 10mmx10mm	160/Tray		
	N32G435RBL7-1		108	128	32	52		10	1	28	12	1x12bit	16	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP64 7mmx7mm	250/Tray		
N32G432	N32G432KBL7		108	128	32	26		10	1	17	6	1x12bit	10	1x12bit	-	-	-	-	2	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP32	250/Tray		
	N32G432CBL7		108	128	32	38		10	1	24	6	1x12bit	10	1x12bit	-	-	-	-	3	2	1	2/2	-	2	1	1	-	1/8	-	-	-	LQFP48	250/Tray		

Note: "-" means not support

# General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity										DMA/Channels	SEGMENT LCD	ETH	DVP	Cryptographic algorithm	Package	SPQ(PCS)	
								Timer	RTC	PWM	complementary PWM	N <sup>o</sup> * Resolution	Channels						USART/ISO7816/LIN	UART/LIN	LPUART	SPI/FS	QSPI	I <sup>2</sup> C	USB Device	CAN	SDIO									
																												2*								1
N32G430	N32G430F8Q7	Arm® Cortex®-M4F	128	64	16	16	2.4V~3.6V/-40~+105°C	8	1*	11	10	1x12bit	7	-	-	3	-	1	2*	1	-	2/2	-	2	-	1	-	1/8	-	-	-	-	UQFN20	490/Tray		
	N32G430G8Q7		128	64	16	24		8	1*	19	14	1x12bit	10	-	-	3	-	1	2*	2	-	2/2	-	2	-	1	-	1/8	-	-	-	-	QFN28	490/Tray		
	N32G430K8Q7		128	64	16	26		8	1*	20	14	1x12bit	10	-	-	3	-	1	2	2	-	2/2	-	2	-	1	-	1/8	-	-	-	-	QFN32	490/Tray		
	N32G430C8Q7		128	64	16	40		8	1	24	14	1x12bit	16	-	-	3	-	1	2	2	-	2/2	-	2	-	1	-	1/8	-	-	-	-	QFN48	490/Tray		
	N32G430F8S7		128	64	16	16		8	1*	11	10	1x12bit	9	-	-	3	-	1	2*	1	-	2/2	-	2	-	1	-	1/8	-	-	-	-	TSSOP20	70/Tube		
	N32G430F8S7-1		128	64	16	16		8	1*	11	10	1x12bit	9	-	-	3	-	1	2*	1	-	2/2	-	2	-	1	-	1/8	-	-	-	-	TSSOP20	70/Tube		
	N32G430K8L7		128	64	16	26		8	1*	20	14	1x12bit	10	-	-	3	-	1	2	2	-	2/2	-	2	-	1	-	1/8	-	-	-	-	LQFP32	250/Tray		
	N32G430C8L7		128	64	16	40		8	1	24	14	1x12bit	16	-	-	3	-	1	2	2	-	2/2	-	2	-	1	-	1/8	-	-	-	-	LQFP48	250/Tray		
N32G401	N32G401F8Q7		Arm® Cortex®-M4F	72	64	8		16	2.4V~3.6V/-40~+105°C	8	1	11	10	1x12bit	7	-	-	3	-	1	2	1	-	2/2	-	2	-	-	-	1/8	-	-	-	-	UQFN20	490/Tray
	N32G401G8Q7			72	64	8		24		8	1	19	14	1x12bit	10	-	-	3	-	1	2	2	-	2/2	-	2	-	-	-	1/8	-	-	-	-	QFN28	490/Tray
	N32G401K8Q7			72	64	8		26		8	1	20	14	1x12bit	10	-	-	3	-	1	2	2	-	2/2	-	2	-	-	-	1/8	-	-	-	-	QFN32	490/Tray
	N32G401C8Q7			72	64	8		40		8	1	24	14	1x12bit	16	-	-	3	-	1	2	2	-	2/2	-	2	-	-	-	1/8	-	-	-	-	QFN48	490/Tray
	N32G401F8S7-1			72	64	8		16		8	1	11	10	1x12bit	9	-	-	-	-	1	2	1	-	2/2	-	2	-	-	-	1/8	-	-	-	-	TSSOP20	70/Tube
	N32G401K8L7			72	64	8		26		8	1	20	14	1x12bit	10	-	-	3	-	1	2	2	-	2/2	-	2	-	-	-	1/8	-	-	-	-	LQFP32	250/Tray
	N32G401C8L7	72		64	8	40	8	1		24	14	1x12bit	16	-	-	3	-	1	2	2	-	2/2	-	2	-	-	-	1/8	-	-	-	-	LQFP48	250/Tray		

Note:

1. "\*" means not support
2. "\*" Means that not all functional pins are led out. For details, please see the pin reuse definition in the data sheet.
3. The Pin2/Pin3 of N32G430F8S7 are OSC\_IN/OSC\_OUT; The Pin2/Pin3 of N32D430F8S7-1 are OSC32\_IN/OSC32\_OUT.

## General MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity										DMA/Channels	SEGMENT LCD	ETH	DVP	Cryptographic algorithm	Package	SPQ(PCs)
								Timer	RTC	PWM	complementary PWM	Nb * Resolution	Channels						USART/ISO7816/LIN	UART/LIN	LPUART	SPi/RS	QSPI	I <sup>2</sup> C	USB Device	CAN	SDIO								
N32L43X	N32L436CBL7	Arm® Cortex®-M4F	108	128	32	38	1.8V~-3.6V/-40~+105°C	10	1	24	6	1x12bit	10	1x12bit	2	2	Y	-	3	2	1	2/2	-	2	1	1	-	1/8	4x20	-	-	DES/3DES, AES, SHA1/SHA224/SHA256, SMI, SM3, SM4, SMT, MD5, CRC16/CRC32, TRNG	LQFP48	250/Tray	
	N32L436RBL7		108	128	32	52		10	1	28	12	1x12bit	16	1x12bit	2	2	Y	-	3	2	1	2/2	-	2	1	1	-	1/8	4x34 8x30	-	-		LQFP64 (10mmx10mm)	160/Tray	
	N32L436MBL7		108	128	32	64		10	1	28	12	1x12bit	16	1x12bit	2	2	Y	-	3	2	1	2/2	-	2	1	1	-	1/8	4x44 8x40	-	-		LQFP80	119/Tray	
N32L40X	N32L406CBQ7		64	128	24	38		10	1	24	6	1x12bit	10	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	4x20	-	-		QFN48	490/Tray	
	N32L406CBL7		64	128	24	38		10	1	24	6	1x12bit	10	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	4x20	-	-		LQFP48	250/Tray	
	N32L406RBL7		64	128	24	52		10	1	28	12	1x12bit	16	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	4x34 8x30	-	-		LQFP64 (10mmx10mm)	160/Tray	
	N32L406MBL7		64	128	24	64		10	1	28	12	1x12bit	16	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	1	-	1/8	4x44 8x40	-	-		LQFP80	119/Tray	
	N32L403KBQ7		64	128	24	26		10	1	17	6	1x12bit	10	1x12bit	2	2	-	-	2	2	1	2/2	-	2	1	1	-	1/8	-	-	-		QFN32	490/Tray	
	N32L402CBQ7		64	128	16	38		10	1	24	6	1x12bit	10	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	-	-	1/8	4x20	-	-		QFN48	490/Tray	
	N32L402CBL7		64	128	16	38		10	1	24	6	1x12bit	10	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	-	-	1/8	4x20	-	-		LQFP48	490/Tray	
N32L402RBL7	64	128	16	52	10	1	28	12	1x12bit	16	1x12bit	2	2	-	-	3	2	1	2/2	-	2	1	-	-	1/8	4x34 8x30	-	-	LQFP64 (10mmx10mm)	160/Tray					

Note: “-” means not support

## Motor control MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity										Cryptographic algorithm	Package	SPQ(PCS)			
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/SOT186/LIN	UART/LIN	LPUART	SPI/I <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN	SDIO	DMA/Channels				SEGMENT LCD	ETH	DVP
N32M417	N32M417C8L7	Arm® Cortex®-M4F	128	64	16	19	MCU:2.4V~3.6V Predictive:5V~20V/ -40~+105°C	8	1	13	12	1x12bit	11	-	4	3	-	-	2	1	-	2/2	-	2	-	1	-	1/8	-	-	-	CRCL6/CRC32	LQFP48	250/Tray
N32M418	N32M418K8L7		128	64	16	23	MCU:2.4V~3.6V LDO:3.6V~1.8V/ -40~+105°C	8	1	7	10	1x12bit	8	-	2	3	-	1	2	2	-	2/2	-	2	-	1	-	1/8	-	-	-	CRCL6/CRC32	LQFP32	250/Tray

Note: “-” means not support

## Automotive-Grade MCUs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	BEEPER	Connectivity								DVP	Cryptographic algorithm	Package	SPQ(PCS)				
								Timer	RTC	PWM	complementary PWM	Nb* Resolution	Channels						USART/SOT816/LIN	UART/LIN	LPUART	SPI/I <sup>2</sup> S	QSPI	I <sup>2</sup> C	USB Device	CAN					SDIO	DMA/Channels	SEGMENT LCD	ETH
N32A455	N32A455CEL8	Arm®Cortex®-M4F	72	512	144	37	1.8V~3.6V/ -40~+125°C	8	1	23	6	4x12bit	16	2x12bit	4	5	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	-	2	-	2/16	-	-	-	-	LQFP48 7mmx7mm	250/Tray
	N32A455REL8		72	512	144	51		8	1	24	12	4x12bit	22	2x12bit	4	7	-	-	3	4	-	3/2	1	4	-	2	1	2/16	-	-	-	-	LQFP64 10mmx10mm	160/Tray
	N32A455VEL8		72	512	144	80		8	1	24	12	4x12bit	38	2x12bit	4	7	-	-	3	4	-	3/2	1	4	-	2	1	2/16	-	-	-	-	LQFP100 14mmx14mm	90/Tray
	N32A455CEL7		144	512	144	37	1.8V~3.6V/ -40~+105°C	8	1	23	6	4x12bit	16	2x12bit	4	5	-	-	3	3	-	3/2	1 <sup>(1)</sup>	3	-	2	-	2/16	-	-	-	-	LQFP48 7mmx7mm	250/Tray
	N32A455REL7		144	512	144	51		8	1	24	12	4x12bit	22	2x12bit	4	7	-	-	3	4	-	3/2	1	4	-	2	1	2/16	-	-	-	-	LQFP64 10mmx10mm	160/Tray
	N32A455VEL7		144	512	144	80		8	1	24	12	4x12bit	38	2x12bit	4	7	-	-	3	4	-	3/2	1	4	-	2	1	2/16	-	-	-	-	LQFP100 14mmx14mm	90/Tray

Note: “-” means not support ; (1) means only single wire

# Security ICs

Series	Commercial Product Code	CPU Core	Frequency(MHz)	Flash(KB)	SOM(KB)	EEPROM(KB)	SRAM(KB)	Supply voltage/Operating temperature I/O	Timer			ADC NIP* Resolution	Channels	DAC	COMP	LCD	Three track magnetic head	Connectivity							ESD (HM)		Power consumption			Security Management	Cryptographic algorithm	Package	Certification					SPQ(PCs)			
									Timer	SysTick	RTC							PWM	ISO14443	USB Device	I <sup>2</sup> C	SP/I <sup>2</sup> S	UART	ISO7816	Contact(KV)	Contactless(KV)	PowerDown	Standby	Run(Typ)				Level II	China Information Technology Security Evaluation Center	Information Security Certification Center of China	Bank Card Test Center	NIST		USB IF		
Multi-function Security IC	N32S033	Arm® Cortex® -M0	80	512	-	-	33	30	5	1	1	1	1x10bit	12	-	5	1	-	-	1	2	2/1	2	1	-	1/6	±4	-	0.1uA	80uA	125uA /MHz	•	AES/DES/3DES/SM1/SM4-RSA/ECC/SM2/SM9-SHA1/224/256/384/512/SM3	QFN48 QFN32	Level II	EAL4+	-	-	-	USB IF Certification	490/Tray
	N32S032		80	320	-	-	21	30	5	1	1	8	1x12bit	12	1	5	1	-	-	1	3	2/-	2	1	-	1/8	±4	-	0.1uA	80uA	110uA /MHz	•	AES/DES/3DES/SM1/SM4-RSA/ECC/SM2/SM9-SHA1/224/256/384/512/SM3	QFN48 QFN32	Level II	EAL5+	-	-	-	FIPS140-2 CAVP	Tray: 3000/Reel: 5000
	N32S003		48	64	-	-	6	5	2	1	-	-	-	-	-	-	-	-	-	1	1	-	1	-	-	-	±6	-	0.5uA	85uA	2.85 mA	•	AES/DES/3DES/SM1/SM4-RSA/ECC/SM2/SM9-SHA1/224/256/384/512/SM3	DFN8-3 DFN8/SOP8	Level II	EAL4+	-	-	-	-	Tray: 3000/Reel: 5000
	Z32HUA	Arm® Cortex® -M0	80	512	-	-	51	33	5	1	1	-	1x12bit	3	1	-	-	-	•	3	1	3/-	1	1	-	1/8	±4	-	1uA	130uA	20 mA	•	AES/DES/3DES/SM1/SM4-RSA/ECC/SM2/SM9-SHA1/224/256/384/512/SM3	QFN68 QFN32	Level II	EAL4+	-	-	-	Terminal IC security assessment (personal payment terminal security assessment)	260/Tray 490/Tray
	Z32HUB		60	320	-	-	16	22	2	1	-	1	-	-	-	-	-	-	-	-	1	1/-	-	1	-	2/1	±4	-	1uA	130uA	500uA /MHz	•	AES/DES/3DES/SM1/SM4-RSA/ECC/SM2/SM9-SHA1/224/256/384/512/SM3	QFN32	Level II	EAL4+	-	-	-	USB IF Certification	Tray: 490/Tray Tape: 2500/Reel

Note: “.” means support ; “-” means not support

## Trusted Computing ICs

Series	Commercial Product Code	Firmware Version	Info	CPU	Interface	Package	Symmetric Cryptography	Asymmetric Cryptography	Ambient Temperature	Applications
NS350 v30 TPM 2.0 FW30.26	NS350-KQAR-G2	30.26	TCG TPM Specification Revision 2.0 1.59	32bit	SPI	QFN32	HMAC SHA-1 SHA2-256 SHA2-384	RSA2048 RSA3072 RSA4096 ECC NIST P256 ECC NIST P384	-20°C~+85°C	<ul style="list-style-type: none"> <li>· PC and mobile computing with Intel x86 Trusted computing</li> <li>· Servers</li> </ul>
	NS350-KQBR-G2	30.26	TCG TPM Specification Revision 2.0 1.59	32bit	SPI	QFN32	HMAC SHA-1 SHA2-256 SHA2-384	RSA2048 RSA3072 RSA4096 ECC NIST P256 ECC NIST P384	-40°C~+85°C	<ul style="list-style-type: none"> <li>· ARM platforms and others Network equipment e.g. routers, gateways, switches, access points, multi-functions printers</li> <li>· Industrial computing and programmable logic controllers</li> <li>· embedded security</li> </ul>

## Battery management ICs

Series	Commercial Product Code	Battery Type	Cells Number	Battery Capacity (mAh)	Sampling precision (Typ.)	Voltmeter precision	LED Segment	Communication	Safety Protection	Feature	Supply voltage(V)	Operating temperature(°C)	Package
NB401	NB401KBQ6C	Li-ion/Li-poly	2-4	100~29000	Voltage: ±1mV Current: ±1mA Temperature: ±2°C	1% (Normal temperature) 3% (Full temperature)	0-6	SMBus	OLD SCC SCD1/2	<ul style="list-style-type: none"> <li>· High side NMOS*2</li> <li>· Balancing</li> <li>· Watchdog</li> <li>· SHA/ECC authentication</li> </ul>	2.3~26	-40~+85	QFN32 (4mm x 4mm)







## Bluetooth® LE ICs

Series	Commercial Product Code	Core	Frequency(MHz)	Flash(KB)	ROM(KB)	SRAM(KB)	I/O	Supply voltage/ Operating temperature	Timer		PWM		ADC		DAC	OPAMP	COMP	LPRCNT	Connectivity										DMA/Channels	AMIC	IRC	BLE	DVP	Sensitivity	dBm	Power consumption			Cryptographic algorithm	Package	SPQ(PCS)
									Timer	RTC	PWM	complementary PWM	Ni* Resolution	Channels					USART/SO7816/LIN	UART/LIN	LPUART	SP1/I <sup>2</sup> S	I <sup>2</sup> C	QSPI	USB Device	CAN	SDIO	DMA/Channels								ShuntDown	Sleep	Run(Typ)			
N32WB452	N32WB452CEQ6	Arm® Cortex®-M4F-M0	144	512	144	29	1.8V-3.6V -40~+85°C	8	1	23	6	2x12bit	6	2x12bit	-	-	-	3	2	-	3/2	-	2	1	2	-	2/16	-	-	-	-	-	Up to +3dBm	0.1µA	1.2µA	Rx:3.5mA@3.3V Tx:3.6mA @0dBm/3.3V	AES/DES/3DES/SHA/SM1/SM3/SM4/SM7/MDS, CRC16/CRC32-TRNG	QFN48	490/Tray		
	N32WB452REQ6		144	512	144	43		8	1	24	6	2x12bit	11	2x12bit	-	-	-	3	3	-	3/2	-	3	1	2	-	2/16	-	-	-	-	-	0.1µA	1.2µA	Rx:3.5mA@3.3V Tx:3.6mA @0dBm/3.3V		QFN64	348/Tray			
	N32WB452LEQ6		144	512	144	65		8	1	24	6	2x12bit	16	2x12bit	-	-	-	3	4	-	3/2	-	4	1	2	1	2/16	-	-	-	-	-	1	BLE5.0	Up to +3dBm	0.1µA	1.2µA	Rx:3.5mA@3.3V Tx:3.6mA @0dBm/3.3V		QFN88	168/Tray
N32WB031	N32WB031KEQ6-1	Arm® Cortex®-M0	64	512	48+16	21	1.8V-3.6V -40~+85°C	4	1	8	6	1x10bit	8	-	-	-	-	2	-	1	2/2	-	1	-	-	-	1/5	1	1	-	-	-	Up to +6dBm	0.13µA	1.4µA	Rx:3.8mA@3.3V Tx:4.2mA @0dBm/3.3V	CRCL6/32	QFN32	490/Tray		
	N32WB031KEQ6-2		64	512	48+16	21	2.32V-3.6V -40~+85°C	4	1	8	6	1x10bit	8	-	-	-	-	2	-	1	2/2	-	1	-	-	-	1/5	1	1	-	-	-	Up to +6dBm	0.13µA	1.4µA	Rx:3.8mA@3.3V Tx:4.2mA @0dBm/3.3V		QFN32	490/Tray		

Note: “-” means not support



# Package Options

<b>WLCSP</b>	<b>SOP8</b> 4.8mm*3.8mm	<b>DFN8</b> 3mm*3mm/ 3mm*2mm	<b>DFN12</b> 2.5mm*4mm	<b>TSSOP20</b> 6.5mm*4.4mm	<b>UFQFPN20</b> 3mm*3mm
					

<b>UQFN20</b> 3mm*3mm	<b>QFN20</b> 3mm*3mm/ 4mm*4mm	<b>QFN28</b> 4mm*4mm	<b>QFN32</b> 4mm*4mm/ 5mm*5mm	<b>QFN40</b> 5mm*5mm
				

<b>QFN48</b> 6mm*6mm	<b>QFN64</b> 8mm*8mm	<b>QFN88</b> 10mm*10mm	<b>UFBGA169</b> 7mm*7mm	<b>TFBGA240+25</b> 14mm*14mm
				

<b>LQFP32</b> 7mm*7mm	<b>LQFP48</b> 7mm*7mm	<b>TQFP48</b> 7mm*7mm	<b>LQFP64</b> 7mm*7mm 10mm*10mm 14mm*14mm	<b>LQFP80</b> 12mm*12mm
				

<b>LQFP100</b> 14mm*14mm	<b>LQFP128</b> 14mm*14mm	<b>LQFP144</b> 20mm*20mm	<b>LQFP176</b> 24mm*24mm	<b>LQFP208</b> 28mm*28mm
				

# Development Ecosystem

Selection

Development&Debug

Mass Production

Product Selection Guide



Application Solution



Motor Drive Solution



Security Solution

Storage encryption,  
Read/write protection,  
partition protection

Technical support and  
communication

**NSING** NSING Service Account

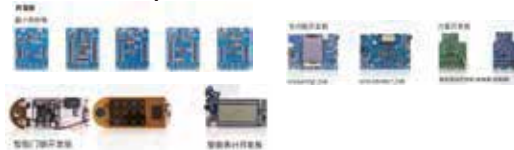


Manual Application Note Transplant Guide

Software Development Tools Debug Tools

**iar** **KEIL** **GCC** NS-LINK J-Link ULink

Development Evaluation Board



Support RTOS

**RTOS** 阿里云 腾讯云 RT-Thread **HC/OS**

Direct, Channel and Online Sample Purchasing



Online & Offline Support from AE+FAE



MP programming tool



**HI-LO SYSTEMS**

**CHIRKER**

Security Differential FOTA



国民云

## Development Board

### · Mininum System Board



### · Full Function Development Board



N32G457QE\_EVB

N32L436MBL7\_EVB

### · Solution Development Board



Motor Drive Development Board  
(Single Resistance/Dual Resistance)

### · Smart Lock Development Board

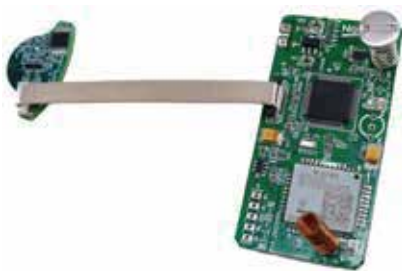


Fully automatic door lock scheme



Semi automatic door lock scheme

### · Smart Meter Development Board



## NS-LINK Offline programmer



NS-LINK-Pro