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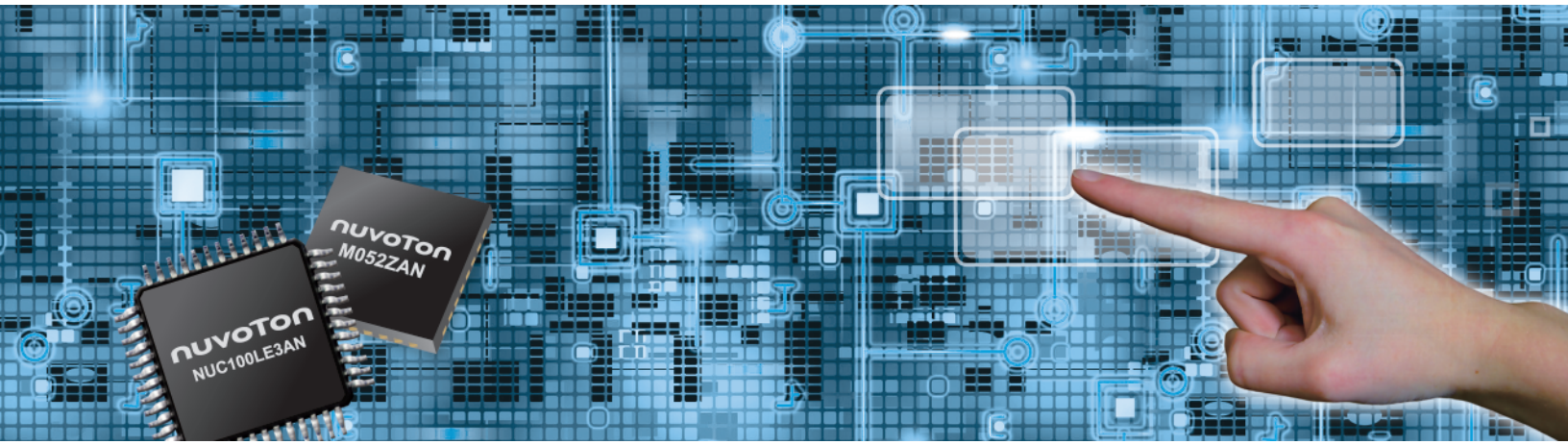
Microcontrollers Product and Tool Selection Guide



Technical Supporting Web

NuMicro™

» www.nuvoton.com/**NuMicro**

ARM7 / ARM9

» www.nuvoton.com/**ARM7_9**

80C51

» www.nuvoton.com/**80C51**

Nuvoton MCU Forum

» www.nuvoton-m0.com

More product details and update information please visit our website

www.nuvoton.com

2012

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Nuvoton Technology Corporation was established as a spin-out of Winbond Electronics' Logic business group, starting operation in July, 2008 and completed its IPO in September, 2010. Nuvoton Technology focuses on the R&D and sales in logic ICs, and leads in global market shares of Microcontrollers, ISD ChipCorder, Speech ICs and computer related application ICs. Nuvoton owns a six-inch wafer fab, featuring in special niche process. Besides in-house IC products, the wafer fab also provides part of its capacity for foundry services. Nuvoton Technology provides high cost performance products for its customers by means of flexible technology innovation capabilities, full product solutions and excellent integration of technology synergy. Nuvoton offers superior services based on existing solid foundation and continues to realize its vision: "Be an indispensable partner to industry leaders." Nuvoton values the long-term relationship with its partners and customers; the company has established subsidiaries in the USA, China and Israel to strengthen regional customer support and global management. For more information, please visit **www.nuvoton.com**.

Nuvoton MCU

Microcontrollers have become very popular and are widely used by all kinds of products, from low cost consumer gizmos to highly sophisticated industrial control systems. Recognizing the demand for increased performance and peripherals, Nuvoton continues to invest significantly in microcontrollers to provide a broad product portfolio with 8051, ARM7, ARM9 or Cortex-M0 core, and all with rich on-chip peripherals to meet the needs of our existing and future customers. Nuvoton microcontroller portfolio comprises three product lines: the ARM7/ARM9 MCU, the 32-bit NuMicro™ with ARM® Cortex™-M0 and the 8-bit MCU with 8051, that have been widely adopted by customers in a variety of applications, including touch panels, network equipment, POS, home appliances, security systems, and etc.

Product Line

- NuMicro™ Family 01
- Development Tools for NuMicro™ Family 05
- ARM7 / ARM9 MCU 08
- 80C51 MCU 09

NuMicro™ Family

NuMicro™ is Nuvoton's brand-new 32-bit Microcontroller family powered by the ARM® Cortex™-M0 processor - the smallest, lowest power and most energy-efficient ARM processor optimized for a variety of MCU applications. Nuvoton NuMicro family ready for mass-production now includes NUC100 series, NUC120/122 series with USB Full Speed 2.0 device, NUC130/140 series embedded with Controller Area Network (CAN) 2.0B licensed from BOSCH, M051 series, Mini51 series, and Nano, the Ultra Low Power series targeting at battery powered applications. With a variety of product offerings, the NuMicro family is ideal for use in industrial control systems, industrial automation, consumer products, embedded network control, energy, power systems, motor control, and many more. Moreover, with the integration of the industry leading ARM® Cortex™-M0 microprocessor, NuMicro™ family brings 32-bit performance at a cost equivalent to traditional 8-bit microcontrollers.

NUC100 Series

NuMicro™ NUC100 series embeds ARM® Cortex™-M0 core with the speed up to 50MHz, 32K/64K/128K-byte Flash program memory, 4K/8K/16K-byte SRAM, and 4K-byte flash loader memory for In System Programming (ISP). It also comes equipped with a variety of peripherals, such as GPIOs, Timers, Watchdog Timer, RTC, PDMA, UART, SPI/MICROWIRE, I²C, I²S, PWM, LIN, CAN, PS2, USB 2.0 FS Device, 12-bit ADC, Analog Comparator, Low Voltage Reset and Brown-out Detector.

Key Features : *Operates at 2.5V ~ 5.5V and -40°C ~ +85°C with separate Program Flash (32KB to 128KB), Data Flash* (4KB) and ISP loader (4KB) and PDMA (* : except 128KB version)*

Potential Applications : *Industrial Control, Security Systems, Motor Control, Communication Systems, and etc.*

NUC100 Advanced Line

Peripheral rich controller

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity						I²S	Comp.	PWM	ADC	RTC	EBI	ISP ICP	IRC 22MHz	PDMA	Package
							UART	SPI	I²C	USB	LIN	CAN										
Low Density																						
NUC100LC1BN	32K	4K	4K	4K	up to 35	4x32-bit	2	1	2	-	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC100LD1BN	64K	4K	4K	4K	up to 35	4x32-bit	2	1	2	-	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC100LD2BN	64K	8K	4K	4K	up to 35	4x32-bit	2	1	2	-	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC100RC1BN	32K	4K	4K	4K	up to 49	4x32-bit	2	2	2	-	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
NUC100RD1BN	64K	4K	4K	4K	up to 49	4x32-bit	2	2	2	-	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
NUC100RD2BN	64K	8K	4K	4K	up to 49	4x32-bit	2	2	2	-	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
Medium Density																						
NUC100LD3AN	64K	16K	4K	4K	up to 35	4x32-bit	2	1	2	-	-	-	1	1	6	8x12-bit	v	-	v	v	9	LQFP48
NUC100LE3AN	128K	16K	Configurable	4K	up to 35	4x32-bit	2	1	2	-	-	-	1	1	6	8x12-bit	v	-	v	v	9	LQFP48
NUC100RD3AN	64K	16K	4K	4K	up to 49	4x32-bit	3	2	2	-	-	-	1	2	6	8x12-bit	v	-	v	v	9	LQFP64
NUC100RE3AN	128K	16K	Configurable	4K	up to 49	4x32-bit	3	2	2	-	-	-	1	2	6	8x12-bit	v	-	v	v	9	LQFP64
NUC100VD2AN	64K	8K	4K	4K	up to 80	4x32-bit	3	4	2	-	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100
NUC100VD3AN	64K	16K	4K	4K	up to 80	4x32-bit	3	4	2	-	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100
NUC100VE3AN	128K	16K	Configurable	4K	up to 80	4x32-bit	3	4	2	-	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100

NUC120 USB Line

USB connected controller

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity						I²S	Comp.	PWM	ADC	RTC	EBI	ISP ICP	IRC 22MHz	PDMA	Package
							UART	SPI	I²C	USB	LIN	CAN										
Low Density																						
NUC120LC1BN	32K	4K	4K	4K	up to 31	4x32-bit	2	1	2	1	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC120LD1BN	64K	4K	4K	4K	up to 31	4x32-bit	2	1	2	1	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC120LD2BN	64K	8K	4K	4K	up to 31	4x32-bit	2	1	2	1	-	-	1	1	4	8x12-bit	v	-	v	v	1	LQFP48
NUC120RC1BN	32K	4K	4K	4K	up to 45	4x32-bit	2	2	2	1	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
NUC120RD1BN	64K	4K	4K	4K	up to 45	4x32-bit	2	2	2	1	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
NUC120RD2BN	64K	8K	4K	4K	up to 45	4x32-bit	2	2	2	1	-	-	1	2	4	8x12-bit	v	v	v	v	1	LQFP64
Medium Density																						
NUC120LD3AN	64K	16K	4K	4K	up to 31	4x32-bit	2	1	2	1	-	-	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC120LE3AN	128K	16K	Configurable	4K	up to 31	4x32-bit	2	1	2	1	-	-	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC120RD3AN	64K	16K	4K	4K	up to 45	4x32-bit	2	2	2	1	-	-	1	2	6	8x12-bit	v	-	v	v	9	LQFP64
NUC120RE3AN	128K	16K	Configurable	4K	up to 45	4x32-bit	2	2	2	1	-	-	1	2	6	8x12-bit	v	-	v	v	9	LQFP64
NUC120VD2AN	64K	8K	4K	4K	up to 76	4x32-bit	3	4	2	1	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100
NUC120VD3AN	64K	16K	4K	4K	up to 76	4x32-bit	3	4	2	1	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100
NUC120VE3AN	128K	16K	Configurable	4K	up to 76	4x32-bit	3	4	2	1	-	-	1	2	8	8x12-bit	v	-	v	v	9	LQFP100

Contact us: NuMicro@nuvoton.com

NUC100 Series

NUC122 USB Line (Low Power)

Low power USB connected controller

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity						I²S	Comp.	PWM	ADC	RTC	EBI	ISP ICP	IRC 22MHz	PDMA	Package
							UART	SPI	I²C	USB	LIN	CAN										
NUC122ZC1AN	32K	4K	4K	4K	up to 18	4x32-bit	1	2	1	1	-	-	-	-	-	-	-	-	v	v	-	QFN33
NUC122ZD2AN	64K	8K	4K	4K	up to 18	4x32-bit	1	2	1	1	-	-	-	-	-	-	-	-	v	v	-	QFN33
NUC122LC1AN	32K	4K	4K	4K	up to 30	4x32-bit	2	2	1	1	-	-	-	-	4	-	v	-	v	v	-	LQFP48
NUC122LD2AN	64K	8K	4K	4K	up to 30	4x32-bit	2	2	1	1	-	-	-	-	4	-	v	-	v	v	-	LQFP48
NUC122SC1AN	32K	4K	4K	4K	up to 41	4x32-bit	2	2	1	1	-	-	-	-	4	-	v	-	v	v	-	LQFP64*
NUC122SD2AN	64K	8K	4K	4K	up to 41	4x32-bit	2	2	1	1	-	-	-	-	4	-	v	-	v	v	-	LQFP64*

*LQFP64: 7 X 7mm

NUC130 Automotive Line

C_CAN connected controller

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity						I²S	Comp.	PWM	ADC	RTC	EBI	ISP ICP	IRC 22MHz	PDMA	Package
							UART	SPI	I²C	USB	LIN	CAN										
NUC130LC1CN	32K	4K	4K	4K	up to 35	4x32-bit	3	1	2	-	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC130LD2CN	64K	8K	4K	4K	up to 35	4x32-bit	3	1	2	-	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC130LE3CN	128K	16K	Configurable	4K	up to 35	4x32-bit	3	1	2	-	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC130RC1CN	32K	4K	4K	4K	up to 49	4x32-bit	3	2	2	-	2	1	1	2	6	8x12-bit	v	v	v	v	9	LQFP64
NUC130RD2CN	64K	8K	4K	4K	up to 49	4x32-bit	3	2	2	-	2	1	1	2	6	8x12-bit	v	v	v	v	9	LQFP64
NUC130RE3CN	128K	16K	Configurable	4K	up to 49	4x32-bit	3	2	2	-	2	1	1	2	6	8x12-bit	v	v	v	v	9	LQFP64
NUC130VE3CN	128K	16K	Configurable	4K	up to 80	4x32-bit	3	4	2	-	2	1	1	2	8	8x12-bit	v	v	v	v	9	LQFP100

NUC140 Connectivity Line

USB and C_CAN connected controller

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity						I²S	Comp.	PWM	ADC	RTC	EBI	ISP ICP	IRC 22MHz	PDMA	Package
							UART	SPI	I²C	USB	LIN	CAN										
NUC140LC1CN	32K	4K	4K	4K	up to 31	4x32-bit	2	1	2	1	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC140LD2CN	64K	8K	4K	4K	up to 31	4x32-bit	2	1	2	1	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC140LE3CN	128K	16K	Configurable	4K	up to 31	4x32-bit	2	1	2	1	2	1	1	1	4	8x12-bit	v	-	v	v	9	LQFP48
NUC140RC1CN	32K	4K	4K	4K	up to 45	4x32-bit	3	2	2	1	2	1	1	2	4	8x12-bit	v	v	v	v	9	LQFP64
NUC140RD2CN	64K	8K	4K	4K	up to 45	4x32-bit	3	2	2	1	2	1	1	2	4	8x12-bit	v	v	v	v	9	LQFP64
NUC140RE3CN	128K	16K	Configurable	4K	up to 45	4x32-bit	3	2	2	1	2	1	1	2	4	8x12-bit	v	v	v	v	9	LQFP64
NUC140VE3CN	128K	16K	Configurable	4K	up to 76	4x32-bit	3	4	2	1	2	1	1	2	8	8x12-bit	v	v	v	v	9	LQFP100

Contact us: NuMicro@nuvoton.com

M051 Series

NuMicro M051™ series embeds ARM® Cortex™-M0 with the speed up to 50MHz, 8K/16K/32K/64K-byte Flash program memory, 4K-byte SRAM, and 4K-byte flash loader memory for In System Programming (ISP). It also comes equipped with a variety of peripherals, such as GPIOs, Timers, UART, SPI, I²C, PWM, ADC, Comparator, Watchdog Timer and Low Voltage Reset and Brown-out Detector.

Key Features : *Operates at 2.5V ~ 5.5V and -40°C ~ +85°C with separate Program Flash (8KB to 64KB), Data Flash (4KB) and ISP loader (4KB)*

Potential Applications : *Industrial Control, Security Systems, Communication Systems, Motor Control, and etc.*

M051 Base Line

With 32-bit performance and at a cost equivalent to traditional 8-bit MCU. And the GPIO pin assignment is comparable to 8051 MCU

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity			PWM	ADC	Comparator	EBI	ISP ICP	IRC 22MHz	Package
							UART	SPI	I²C							
M052LBN	8K	4K	4K	4K	40	4x32-bit	2	2	1	8	8x12-bit	2	v	v	v	LQFP48
M052ZBN	8K	4K	4K	4K	24	4x32-bit	2	1	1	5	5x12-bit	2	-	v	v	QFN33
M054LBN	16K	4K	4K	4K	40	4x32-bit	2	2	1	8	8x12-bit	2	v	v	v	LQFP48
M054ZBN	16K	4K	4K	4K	24	4x32-bit	2	1	1	5	5x12-bit	2	-	v	v	QFN33
M058LBN	32K	4K	4K	4K	40	4x32-bit	2	2	1	8	8x12-bit	2	v	v	v	LQFP48
M058ZBN	32K	4K	4K	4K	24	4x32-bit	2	1	1	5	5x12-bit	2	-	v	v	QFN33
M0516LBN	64K	4K	4K	4K	40	4x32-bit	2	2	1	8	8x12-bit	2	v	v	v	LQFP48
M0516ZBN	64K	4K	4K	4K	24	4x32-bit	2	1	1	5	5x12-bit	2	-	v	v	QFN33

Mini51 Series

NuMicro™ Mini51 series embeds ARM® Cortex™-M0 core with the speed up to 24MHz, 4K/8K/16K-byte Flash program memory, 2K-byte SRAM and 2K-byte flash loader memory for In System Programming (ISP). It also comes equipped with a variety of peripherals, such as GPIOs, Timers, UART, SPI, I²C, PWM, ADC, Watchdog Timer and Low Voltage Reset.

Key Features : *Operates at 2.5V ~ 5.5V and -40°C ~ +85°C with separate Program Flash (4KB to 16KB) and ISP loader (2KB), RTC (Real Time Counter), and Internal RC trimmed to 1% accuracy with the external 32K crystal*

Potential Applications : *Auto-control System, Data Communications, Industrial Control, and etc.*

Mini51 Base Line

A single-chip low pin count 32-bit microcontroller designed for applications demanding high performance, high-integration and cost-effective requirements

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity			PWM	ADC	Comparator	EBI	ISP ICP	IRC 22MHz	Package
							UART	SPI	I²C							
MINI51LAN	4K	2K	Configurable	2K	up to 30	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	LQFP48
MINI51ZAN	4K	2K	Configurable	2K	up to 29	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	QFN33
MINI52LAN	8K	2K	Configurable	2K	up to 30	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	LQFP48
MINI52ZAN	8K	2K	Configurable	2K	up to 29	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	QFN33
MINI54LAN	16K	2K	Configurable	2K	up to 30	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	LQFP48
MINI54ZAN	16K	2K	Configurable	2K	up to 29	2x32-bit	1	1	1	6	8x10-bit	2	-	v	v	QFN33

Contact us: NuMicro@nuvoton.com

Nano Series

NuMicro™ Nano series embeds ARM® Cortex™-M0 core running up to 32MHz frequency with 32K/64K-byte embedded flash and 8K/16K-byte embedded SRAM and 4K-byte loader ROM for In System Programming (ISP) function. It integrates LCD controller, RTC, 12-bit SAR ADC, 12-bit DAC, capacitive touch-key, UART, SPI, I²C, I²S, USB 2.0 FS device, ISO-7816-3 and support fast wake up via all peripheral interfaces.

Key Features : *Operates at 1.8V~3.6V and -40°C ~ +85°C with ultra low power: 200uA/MHz (Normal), 100uA/MHz (Idle), 3uA (Power Down, RTC on, RAM retention) and 1.5uA (Power Down, RAM retention) and less than 7us wake-up time*

Potential Applications : *Portable Medical Equipment, Wireless Audio, Motion Gaming, IPTV Remote Control, Smart Home Appliance, Alarm & Security Monitoring, Zigbee Smart Energy AMR, Sport GPS Data Logger, Smart Card Reader and etc.*

Nano100 Base Line

Ultra Low Power peripheral rich controller

Part No.	Flash	SRAM	Data Flash Share AP ROM	ISP Loader ROM	I/O	Timer	Connectivity				I²S	PWM	12 bit ADC	RTC	EBI	IRC 10KHz/12MHz	PDMA	LCD	12 bit DAC	Smart Card	Touch Key	ISP ICP	Package
							UART	SPI	I²C	USB													
NANO100LC2AN	32K	8K	0~16K	4K	up to 37	4x32-bit	2	3	2	-	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO100LD2AN	64K	8K	0~32K	4K	up to 37	4x32-bit	2	3	2	-	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO100LD3AN	64K	16K	0~32K	4K	up to 37	4x32-bit	2	3	2	-	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO100SC2AN	32K	8K	0~16K	4K	up to 51	4x32-bit	2	3	2	-	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO100SD2AN	64K	8K	0~32K	4K	up to 51	4x32-bit	2	3	2	-	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO100SD3AN	64K	16K	0~32K	4K	up to 51	4x32-bit	2	3	2	-	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO100VD2AN	64K	8K	0~32K	4K	up to 84	4x32-bit	2	3	2	-	1	8	8	v	v	v	4	-	2	2	16	v	LQFP100
NANO100VD3AN	64K	16K	0~32K	4K	up to 84	4x32-bit	2	3	2	-	1	8	8	v	v	v	4	-	2	2	16	v	LQFP100

*LQFP64: 7 X 7mm

Nano110 LCD Line

Ultra Low Power LCD enabled controller

Part No.	Flash	SRAM	Data Flash Share AP ROM	ISP Loader ROM	I/O	Timer	Connectivity				I²S	PWM	12 bit ADC	RTC	EBI	IRC 10KHz/12MHz	PDMA	LCD	12 bit DAC	Smart Card	Touch Key	ISP ICP	Package
							UART	SPI	I²C	USB													
NANO110SC2AN	32K	8K	0~16K	4K	up to 16	4x32-bit	2	2	2	-	1	8	8	v	-	v	4	4x32	2	2	8	v	LQFP64*
NANO110SD2AN	64K	8K	0~32K	4K	up to 16	4x32-bit	2	2	2	-	1	8	8	v	-	v	4	4x32	2	2	8	v	LQFP64*
NANO110VC2AN	32K	8K	0~16K	4K	up to 44	4x32-bit	2	2	2	-	1	8	8	v	-	v	4	4x40	2	2	16	v	LQFP100
NANO110VD2AN	64K	8K	0~32K	4K	up to 44	4x32-bit	2	2	2	-	1	8	8	v	-	v	4	4x40	2	2	16	v	LQFP100
NANO110VD3AN	64K	16K	0~32K	4K	up to 44	4x32-bit	2	2	2	-	1	8	8	v	-	v	4	4x40	2	2	16	v	LQFP100

*LQFP64: 7 X 7mm

Nano120 USB Connectivity Line

Ultra Low Power USB connected controller

Part No.	Flash	SRAM	Data Flash Share AP ROM	ISP Loader ROM	I/O	Timer	Connectivity				I²S	PWM	12 bit ADC	RTC	EBI	IRC 10KHz/12MHz	PDMA	LCD	12 bit DAC	Smart Card	Touch Key	ISP ICP	Package
							UART	SPI	I²C	USB													
NANO120LC2AN	32K	8K	0~16K	4K	up to 33	4x32-bit	2	3	2	1	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO120LD2AN	64K	8K	0~32K	4K	up to 33	4x32-bit	2	3	2	1	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO120LD3AN	64K	16K	0~32K	4K	up to 33	4x32-bit	2	3	2	1	1	4	8	v	-	v	4	-	2	2	4	v	LQFP48
NANO120SC2AN	32K	8K	0~16K	4K	up to 47	4x32-bit	2	3	2	1	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO120SD2AN	64K	8K	0~32K	4K	up to 47	4x32-bit	2	3	2	1	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO120SD3AN	64K	16K	0~32K	4K	up to 47	4x32-bit	2	3	2	1	1	8	8	v	v	v	4	-	2	2	8	v	LQFP64*
NANO120VD2AN	64K	8K	0~32K	4K	up to 80	4x32-bit	2	3	2	1	1	8	8	v	v	v	4	-	2	2	16	v	LQFP100
NANO120VD3AN	64K	16K	0~32K	4K	up to 80	4x32-bit	2	3	2	1	1	8	8	v	v	v	4	-	2	2	16	v	LQFP100

*LQFP64: 7 X 7mm

Nano130 Advanced Line

Ultra Low Power USB+LCD connected controller

Part No.	Flash	SRAM	Data Flash Share AP ROM	ISP Loader ROM	I/O	Timer	Connectivity				I²S	PWM	12 bit ADC	RTC	EBI	IRC 10KHz/12MHz	PDMA	LCD	12 bit DAC	Smart Card	Touch Key	ISP ICP	Package
							UART	SPI	I²C	USB													
NANO130VC2AN	32K	8K	0~16K	4K	up to 39	4x32-bit	2	2	2	1	1	8	8	v	v	v	4	4x40	2	2	16	v	LQFP100
NANO130VD2AN	64K	8K	0~32K	4K	up to 39	4x32-bit	2	2	2	1	1	8	8	v	v	v	4	4x40	2	2	16	v	LQFP100
NANO130VD3AN	64K	16K	0~32K	4K	up to 39	4x32-bit	2	2	2	1	1	8	8	v	v	v	4	4x40	2	2	16	v	LQFP100

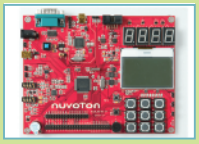
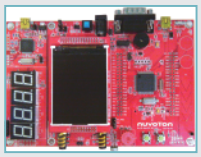
Contact us: NuMicro@nuvoton.com

Development Tools for NuMicro™ Family

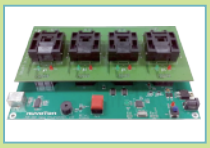
Nuvoton provides both hardware and software development tools to customers to shorten the product development time using Nuvoton NuMicro™ Family, 32-bit Cortex-M0 Microcontrollers. The simple, easy-to-use and real-featured development system provides a quick and easy way for product development and debugging. With ISP, ICP, On-line/Off-line programming capability, abundant hardware tools including the NuTiny, Nu-Link (ICE Bridge), Nu-LB (development learning board), standalone writer and gang-programmer are available to help customers shorten the time-to-market for product development and production. Besides the tools provided by Nuvoton, Keil™ RVMDK, IAR™ EWARM and CooCox (www.coocox.com/Nuvoton.htm) – a free and open development tool also supports the complete development tool chain with project manager, editor, compiler tools for the NuMicro™ Family.

Ordering No.	Content	Evaluation Devices	Description	Picture
SDK (Software Development Kit)				
NuMicro-SDK	• Nu-Link • Nu-EVB-NUC140 • USB Cable • NuMicro Family CD	NUC100 NUC120 NUC130 NUC140	• An Evaluation/Development Kit for NuMicro • IAR EWARM (evaluation version) included • Keil RVMDK (evaluation version) included • Examples with source code included • Supported by CooCox CoIDE • Support On-line and Off-line ICP (In-Circuit Programming)	
NuTiny-SDK-NUC100	• Nu-Link-ME • NuTiny-EVB-NUC100 • USB Cable	NUC100	• An Evaluation/Development Kit for NUC100 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-NUC120	• Nu-Link-ME • NuTiny-EVB-NUC120 • USB Cable	NUC120	• An Evaluation/Development Kit for NUC120 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-NUC122	• Nu-Link-ME • NuTiny-EVB-NUC122 • USB Cable	NUC122	• An Evaluation/Development Kit for NUC122 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-NUC140	• Nu-Link-ME • NuTiny-EVB-NUC140 • USB Cable	NUC130 NUC140	• An Evaluation/Development Kit for NUC130/140 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-M051	• Nu-Link-ME • NuTiny-EVB-M051 • USB Cable	M052 M054 M058 M0516	• An Evaluation/Development Kit for M051 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-Mini51	• Nu-Link-ME • NuTiny-EVB-Mini51 • USB Cable	Mini51 Mini52 Mini54	• An Evaluation/Development Kit for Mini51 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-Nano100	• Nu-Link-ME • NuTiny-EVB-Nano100 • USB Cable	Nano100	• An Evaluation/Development Kit for Nano100 series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	
NuTiny-SDK-Nano130	• Nu-Link-ME • NuTiny-EVB-Nano130 • LCD Module • USB Cable	Nano100 Nano110 Nano120 Nano130	• An Evaluation/Development Kit for Nano series • IAR EWARM/Keil RVMDK available on IAR/Keil website • Supported by CooCox CoIDE • Support On-line ICP (In-Circuit Programming)	

Development Tools for NuMicro™ Family

Ordering No.	Content	Evaluation Devices	Description	Picture
Learning Board (LB)				
Nu-LB-NUC140	• Nu-LB-NUC140 • Nu-Link-ME on board • USB Cable • NuMicro Family CD	NUC100 NUC120 NUC130 NUC140	• A Starter Kit made by Nuvoton • IAR EWARM (evaluation version) included • Keil RVMDK (evaluation version) included • Supported by CooCox CoIDE • Examples with source code included	
Nu-LB-M051	• Nu-LB-M0516 • Nu-Link-ME on board • USB Cable • NuMicro Family CD	M052 M054 M058 M0516	• A Starter Kit made by Nuvoton • IAR EWARM (evaluation version) included • Keil RVMDK (evaluation version) included • Supported by CooCox CoIDE • Examples with source code included	
Nu-LB-Mini51	• Nu-LB-Mini51 • Nu-Link-ME on board • LCD Module • USB Cable • NuMicro Family CD	Mini51 Mini52 Mini54	• A Starter Kit made by Nuvoton • IAR EWARM (evaluation version) included • Keil RVMDK (evaluation version) included • Supported by CooCox CoIDE • Examples with source code included	
Nu-LB-Nano130	• Nu-LB-Nano130 • Nu-Link-ME on board • LCD Module • USB Cable • NuMicro Family CD	Nano100 Nano110 Nano120 Nano130	• A Starter Kit made by Nuvoton • IAR EWARM (evaluation version) included • Keil RVMDK (evaluation version) included • Supported by CooCox CoIDE • Examples with source code included	
Nu-Link				
Nu-Link	• Nu-Link	NuMicro Family	• USB ⟷ SWD bridge • Support On-line and Off-line ICP (In-Circuit Programming) • USB Plug & Play	
Nu-Link-Pro	• Nu-Link-Pro	NuMicro Family	• USB ⟷ SWD bridge • Support On-line and Off-line ICP (In-Circuit Programming) • USB Plug & Play • Programmable output VDD : 1.8V, 2.5V, 3.3V, 5.0V • Wide target VDD input level: 1.8V ~ 5.5V	
3rd Party Starter KiT (SKT)				
Nu-IAR-SKT	• NUC140-SK • USB Cable • NuMicro Family CD	NUC100 NUC120 NUC130 NUC140	• Starter Kit made by IAR • IAR EWARM (evaluation version) included • IAR C/C++ Compiler included • USB Plug & Play	
Nu-Keil-SKT	• U-LINK-ME • MCBNUC1XX • USB Cable • NuMicro Family CD	NUC100 NUC120 NUC130 NUC140	• Starter Kit made by Keil • Keil RVMDK (evaluation version) included • ARM C/C++ Compiler included • USB Plug & Play	

Development Tools for NuMicro™ Family

Ordering No.	Content	Evaluation Devices	Description	Picture
NuMicro NUC100 Series Gang Writer (NuGang)				
NuGang-NUC100-LQFP48	• NuGang-Mother board • NuGang-Adapter-NUC100-LQFP48 • USB cable	NUC100/120/130/140 with LQFP48	• Support NUC100/120/130/140 series device • 4-chip gang programming • Support Off-line programming • USB Plug & Play to PC or Laptop	
NuGang-NUC100-LQFP64	• NuGang-Mother board • NuGang-Adapter-NUC100-LQFP64 • USB cable	NUC100/120/130/140 with LQFP64		
NuGang-NUC100-LQFP100	• NuGang-Mother board • NuGang-Adapter-NUC100-LQFP100 • USB cable	NUC100/120/130/140 with LQFP100		
NuMicro NUC122 Series Gang Writer (NuGang)				
NuGang-NUC122-QFN33	• NuGang-Mother board • NuGang-Adapter-NUC122-QFN33 • USB cable	NUC122 with QFN33	• Support NUC122 series device • 4-chip gang programming • Support Off-line programming • USB Plug & Play to PC or Laptop * LQFP64 : 7 X 7mm	
NuGang-NUC122-LQFP48	• NuGang-Mother board • NuGang-Adapter-NUC122-LQFP48 • USB cable	NUC122 with LQFP48		
NuGang-NUC122-LQFP64*	• NuGang-Mother board • NuGang-Adapter-NUC122-LQFP64 • USB cable	NUC122 with LQFP64		
NuMicro M051 Series Gang Writer (NuGang)				
NuGang-M051-QFN33	• NuGang-Mother board • NuGang-Adapter-M051-QFN33 • USB cable	M052/54/58/516 with QFN33	• Support M052/54/58/516 series device • 4-chip gang programming • Support Off-line programming • USB Plug & Play to PC or Laptop	
NuGang-M051-LQFP48	• NuGang-Mother board • NuGang-Adapter-M051-LQFP48 • USB cable	M052/54/58/516 with LQFP48		
NuMicro Mini51 Series Gang Writer (NuGang)				
NuGang-Mini51-QFN33	• NuGang-Mother board • NuGang-Adapter-Mini51-QFN33 • USB cable	Mini51 with QFN33	• Support Mini51 series device • 4-chip gang programming • Support Off-line programming • USB Plug & Play to PC or Laptop	
NuGang-Mini51-LQFP48	• NuGang-Mother board • NuGang-Adapter-Mini51-LQFP48 • USB cable	Mini51 with LQFP48		
NuMicro Nano100 Series Gang Writer (NuGang)				
NuGang-Nano100-LQFP48	• NuGang-Mother board • NuGang-Adapter-Nano100-LQFP48 • USB cable	Nano100/120 with LQFP48	• Support Nano100 series device • 4-chip gang programming • Support Off-line programming • USB Plug & Play to PC or Laptop * LQFP64 : 7 X 7mm	
NuGang-Nano100-LQFP64*	• NuGang-Mother board • NuGang-Adapter-Nano100-LQFP64 • USB cable	Nano100/120 with LQFP64		
NuGang-Nano100-LQFP100	• NuGang-Mother board • NuGang-Adapter-Nano100-LQFP100 • USB cable	Nano100/110/120/130 with LQFP100		

Contact us: NuMicro@nuvoton.com

ARM7 / ARM9 MCU

Nuvoton offers a series of ARM7TDMI and ARM926EJ-S based network connected processors with feature rich peripherals, including Ethernet MAC, USB host/device, LCD controller, AC97/I²S and SDHC2.0 to let customers implement their innovative products in a timely manner. A complete development environment and the source codes of the BSP drivers for Linux and WinCE are provided to shorten the product development cycle.

NUC ARM

Features rich, best-in-class Cost/Performance, comprehensive development tools and complete OS support

Part No.	Core						Memory I/F			Storage			MAC	USB				GFX	LCD		Timer		Analog				Peripheral											Power			Package	
																							ADC (10-bit)																			
	Max Speed (MHz)	CPU	I Cache (KB)	D Cache (KB)	SRAM (KB)	Security	SDRAM	NOR Flash	SPI Flash	NAND Flash, ECC bits	ATAPI	SD / SDIO	Ethernet 10/100 MAC	USB 1.1 Host	USB 2.0 Host	USB 2.0 FS Device	USB 2.0 HS Device	2D Graphics	STN LCD	TFT LCD	RTC	PWM	No. of Channels	Speed (SPS)	Touch Screen	16-bit DAC Channels	LVD/LVR	JTAG	EBI	GPIO (Max)	UART	I²C	SPI	KPI	PS2	I²S/AC97	PCI Master	Core Voltage (V)	I/O Voltage (V)	Built-in LDO	Operating Temperature [1]	Package
NUC501A/B	80	ARM7TDMI	-	-	32	v	-	-	2	-	-	-	-	-	-	1	-	-	-	-	v	4	8	400K	-	1	v	v	-	26 37	1 2	1	2	-	-	-	-	1.8	3.3	v	E	LQFP-48 LQFP-64
NUC710A	80	ARM7TDMI	4	4	-	-	v	v	1	-	-	1	1	2	-	1	-	-	v	v	v	4	-	-	-	-	-	v	v	71	4	2	1	v	1	1	-	1.8	3.3	-	I	LQFP-176
NUC740A	80	ARM7TDMI	8	2	-	-	v	v	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	v	v	21	1	-	-	-	-	-	-	1.8	3.3	-	C	LQFP-176
NUC745A	80	ARM7TDMI	4	4	-	-	v	v	1	-	-	-	1	2	-	1	-	-	-	-	-	4	-	-	-	-	-	v	v	31	4	2	1	v	1	1	-	1.8	3.3	-	I	LQFP-128
NUC910A	200	ARM926EJ	8	8	-	-	v	v	1	4	v	2	1	-	2	-	1	v	-	v	v	4	8	300K	v	-	v	v	v	92	5	2	1	v	2	1	-	1.8	3.3	-	I	PBGA-324
NUC920A	200	ARM926EJ	8	8	-	-	v	v	1	-	v	1	1	-	2	-	1	-	-	-	v	4	8	300K	v	-	v	v	v	92	3	2	1	v	2	1	3	1.8	3.3	-	I	PBGA-324
NUC945A	200	ARM926EJ	8	8	-	-	v	v	-	-	-	1	1	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	v	34	1	-	-	-	-	-	-	1.8	3.3	-	C	LQFP-128
NUC946A	200	ARM926EJ	8	8	-	-	v	v	1	-	-	1	1	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	v	38	2	2	1	-	-	-	-	1.8	3.3	-	I	LQFP-128
NUC950A	200	ARM926EJ	8	8	-	-	v	v	1	4	-	1	1	-	2	-	1	v	-	v	-	4	-	-	-	-	-	v	v	53	3	2	1	v	-	1	-	1.8	3.3	-	I²	LQFP-216
NUC951A	200	ARM926EJ	8	8	-	-	v	v	1	4	-	2	1	-	2	-	1	v	-	v	v	4	-	-	-	-	-	v	v	61	3	2	1	v	v	1	-	1.8	3.3	-	I	LQFP-216
NUC960A	200	ARM926EJ	8	8	-	-	v	v	1	-	-	-	1	-	2	-	1	-	-	-	-	-	-	-	-	-	-	v	v	51	3	2	1	-	-	-	2	1.8	3.3	-	I²	LQFP-216

1. Commercial (C) is 0°C to +70°C, Industrial (I) is -40°C to +85°C, Extended (E) is -40°C to +105°C
2. VDD18 for Core Logic: 1.8V+/-10%, VDD33 for IO Buffer: 3.3V+/-5%, USBVDDC0/USBVDDC1/USBVDDT0/USBVDDT1 for USB: 3.3V+/-5%, PLLVDD18 for PLL: 1.8V+/-10%

ARM7 Development Tool

Part No.	NUC740	NUC710	NUC745	NUC501
SDK	ARM ADS 1.2	ARM ADS 1.2	ARM ADS 1.2	ARM ADS 1.2/Keil/IAR/GNU
uClinux	uClinux 2.4.20	*Normal Release* uClinux 2.4.20 *Conditional release* uClinux 2.6.9	*Normal release* uClinux 2.4.20 *Conditional release* uClinux 2.6.9	Driver Library Driver Sample Code USB Device Samples PLL Generator Tool Writer Tool User's Manual Quick Start Guide Application Note

ARM9 Development Tool

Part No.	NUC910	NUC920	NUC950	NUC960
SDK	ARM ADS 1.2	ARM ADS 1.2	ARM ADS 1.2	ARM ADS 1.2
WinCE 5.0 BSP	v	-	v	-
WinCE 6.0 BSP	v	-	v	-
Linux	Linux 2.6.17	Linux 2.6.17	Linux 2.6.17 Linux 2.6.35*	Linux 2.6.17

Contact us : MicroC-32bit@nuvoton.com

80C51 MCU

As a leading supplier of 8051 microcontrollers, Nuvoton offers a variety of products that have the best-in-class price/performance critical to the success of the consumer and industrial products. The 8-bit MCU comes equipped with rich peripherals to meet various system requirements as well as is supported by the tool chain from word leading tool makers for rapid product development.

6T/12T 80C51 Product Series

Key Features : *6T/12T 80C52 Core integrated with UART, SPI, Internal RC and ISP operating at 2.4V ~ 5.5V and -40°C ~ +85°C.*
Potential Applications : *Bar Code Reader, Key Phone, KVM, 2.4G Wireless Keyboard, IPC, Monitor, Security System, and etc.*

W78 Standard Line

Part No.	Flash	SRAM	ISP Loader ROM	I/O	Timer	Connectivity			Comp.	PWM	ADC	INT	ISP ICP	Special Function	Package
						UART	SPI	I²C							
W78E052D	8K	256	2K	up to 36	3x16-bit	1	-	-	-	-	-	4	ISP	6T/12T option, Extra I/O port	PDIP40/PLCC44/PQFP44/LQFP48
W78E054D	16K	256	2K	up to 36	3x16-bit	1	-	-	-	-	-	4	ISP	6T/12T option, Extra I/O port	PDIP40/PLCC44/PQFP44/LQFP48
W78E058D	32K	512	4K	up to 36	3x16-bit	1	-	-	-	-	-	4	ISP	6T/12T option, Extra I/O port	PDIP40/PLCC44/PQFP44/LQFP48
W78E516D	64K	512	4K	up to 36	3x16-bit	1	-	-	-	-	-	4	ISP	6T/12T option, Extra I/O port	PDIP40/PLCC44/PQFP44/LQFP48
W78ERD2A	64K	256+1K	4K	up to 36	3x16-bit	1	-	-	-	5*8-bit	-	4	ISP	PCA, 6T/12T option, Extra I/O port	PDIP40/PLCC44/PQFP44
W78E858A	32K	768	4K	up to 36	3x16-bit	1	-	-	-	4*8-bit	-	10	ISP	128B EE, Extra I/O port	PDIP40/PLCC44/PQFP44
W78C032	-	256	-	up to 32	3x16-bit	1	-	-	-	-	-	2	-	Extra I/O port	PDIP40/PLCC44/PQFP44
W78C438	-	256	-	up to 40	3x16-bit	1	-	-	-	-	-	4	-	1MB external memory space	PQFP100

N78/W78 Industrial Line

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity			Comp.	PWM	ADC	INT	ISP ICP	Special Function	Package
							UART	SPI	I²C							
N78E055A	16K	256+1K	4K	2.5K	up to 40	3x16-bit	1	1	-	-	5*8-bit	-	4	ISP	6T/12T option, Extra I/O port, internal 22MHz RC,4 level BOR	PDIP40/PLCC44/PQFP44/LQFP48
N78E059A	32K	256+1K	4K	2.5K	up to 40	3x16-bit	1	1	-	-	5*8-bit	-	4	ISP	6T/12T option, Extra I/O port, internal 22MHz RC, 4 level BOR	PDIP40/PLCC44/PQFP44/LQFP48
N78E517A	64K	256+1K	Share AP ROM	2.5K	up to 40	3x16-bit	1	1	-	-	5*8-bit	-	4	ISP	6T/12T option, Extra I/O port, internal 22MHz RC, 4 level BOR	PDIP40/PLCC44/PQFP44/LQFP48
N78E366A	64K	256+1K	-	2.5K	up to 40	3x16-bit	1	1	-	-	5*8-bit	-	4	ISP	6T/12T option, Extra I/O port, internal 22MHz RC, 4 level BOR	PDIP40/PLCC44/PQFP44/LQFP48
W78IRD2A	64K	256+1K	-	4K	up to 36	3x16-bit	1	-	-	-	5*8-bit	-	4	ISP	PCA, 6T/12T option, Extra I/O port	PDIP40/PLCC44

4T 80C51 Product Series

Key Features : *4T 80C52 Core integrated with Data Flash, 2*I²C, 2*UART, SPI, PWM(QEI) / ADC and ISP operating at 2.4V ~ 5.5V and -40°C ~ +85°C.*
Potential Applications : *IPC, Communication Equipment, Security/Alarm Systems, LCD TV, Motor Applications, Power Management, and etc.*

W77 Turbo Line

Part No.	Flash	SRAM	ISP Loader ROM	I/O	Timer	Connectivity			Comp.	PWM	ADC	INT	ISP ICP	Special Function	Package
						UART	SPI	I²C							
W77E058A	32K	256+1K	-	up to 36	3x16-bit	2	-	-	-	-	-	6	-	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77L058A	32K	256+1K	-	up to 36	3x16-bit	2	-	-	-	-	-	6	-	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77E516A	64K	256+1K	4K	up to 36	3x16-bit	2	-	-	-	-	-	6	ISP	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77L516A	64K	256+1K	4K	up to 36	3x16-bit	2	-	-	-	-	-	6	ISP	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77E532A	128K	256+1K	4K	up to 36	3x16-bit	2	-	-	-	-	-	6	ISP	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77L532A	128K	256+1K	4K	up to 36	3x16-bit	2	-	-	-	-	-	6	ISP	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77C032A	-	256+1K	-	up to 36	3x16-bit	2	-	-	-	-	-	6	-	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44
W77L032A	-	256+1K	-	up to 36	3x16-bit	2	-	-	-	-	-	6	-	dual DPTR, Extra I/O port	PDIP40/PLCC44/PQFP44

N79/W79 Enhanced Turbo Line

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity			Comp.	PWM	ADC	INT	ISP ICP	Special Function	Package
							UART	SPI	I²C							
N79E352R	8K	256	128	-	up to 38	3x16-bit	1	-	1	-	2x8-bit	-	2	ICP	internal 22MHz, KBI, BOR	PDIP40/PLCC44/PQFP44/LQFP48
W79E201A	16K	256	-	4K	up to 33	3x16-bit	1	-	-	-	6x8-bit	8x10-bit	2	ISP	JTAG interface	PLCC44/PQFP44/LQFP48
W79E632A	128K	256+1K	-	4K	up to 36	3x16-bit	1	-	-	-	6x8-bit	-	2	ISP	Extra I/O port	PLCC44/PQFP44
W79L632A	128K	256+1K	-	4K	up to 36	3x16-bit	1	-	-	-	6x8-bit	-	2	ISP	Extra I/O port	PLCC44/PQFP44
W79E633A	128K	256+1K	-	4K	up to 36	3x16-bit	1	-	2	-	6x8-bit	4x10-bit	2	ISP	Extra I/O port	PLCC44
W79L633A	128K	256+1K	-	4K	up to 36	3x16-bit	1	-	2	-	6x8-bit	4x10-bit	2	ISP	Extra I/O port	PLCC44
W79E658A	128K	256+1K	-	4K	up to 60	3x16-bit	1	-	2	-	6x8-bit	8x10-bit	2	ISP	JTAG interface, Extra I/O port	PQFP100
W79L658A	128K	256+1K	-	4K	up to 60	3x16-bit	1	-	2	-	6x8-bit	8x10-bit	2	ISP	JTAG interface, Extra I/O port	PQFP100
W79E659A	32K	256+1K	-	4K	up to 60	3x16-bit	1	-	2	-	6x8-bit	8x10-bit	2	ISP	JTAG interface, Extra I/O port	PQFP100
W79L659A	32K	256+1K	-	4K	up to 60	3x16-bit	1	-	2	-	6x8-bit	8x10-bit	2	ISP	JTAG interface, Extra I/O port	PQFP100

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4T 80C51 LPC (Low Pin Count) Series

Key Features : *4T 80C52 Core integrated with Data Flash, ADC, BOR, I²C, UART, SPI, Internal RC and ICP/ISP operating at 2.4V ~ 5.5V and -40°C ~ +85°C.*

Potential Applications : *Temperature Sensor, iPod Docking, Projector, DVD Player, E-balance, Security, Power Control, Small HA, and etc.*

N79/W79 LPC Series - Industrial Line

Part No.	Flash	SRAM	Data Flash	ISP Loader ROM	I/O	Timer	Connectivity			Comp.	PWM	ADC	INT	ISP ICP	Special Function	Package
							UART	SPI	I²C							
N79E855	16K	512	Share AP ROM	2K	up to 25	3x16-bit	2	2	1	-	4x10-bit	8x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP28/SOP28
N79E854	8K	512	4K	2K	up to 25	3x16-bit	2	2	1	-	4x10-bit	8x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP28/SOP28
N79E853	4K	512	4K	2K	up to 25	3x16-bit	2	2	1	-	4x10-bit	8x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP28/SOP28
N79E845	16K	512	Share AP ROM	2K	up to 17	3x16-bit	1	1	1	-	4x10-bit	7x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP20/SOP20
N79E844	8K	512	4K	2K	up to 17	3x16-bit	1	1	1	-	4x10-bit	7x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP20/SOP20
N79E843	4K	512	4K	2K	up to 17	3x16-bit	1	1	1	-	4x10-bit	7x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	TSSOP20/SOP20
N79E8432	4K	512	4K	2K	up to 13	3x16-bit	1	-	1	-	4x10-bit	4x10-bit	2	ISP/ICP	internal 22MHz RC, KBI, BOR	SOP16
N79E825	16K	256	256	-	up to 18	2x16-bit	1	-	1	2	4x10-bit	4x10-bit	2	ICP	internal 6MHz RC, KBI, BOR	SSOP20/SOP20/PDIP20
N79E824	8K	256	256	-	up to 18	2x16-bit	1	-	1	2	4x10-bit	4x10-bit	2	ICP	internal 6MHz RC, KBI, BOR	SSOP20/SOP20/PDIP20
N79E823	4K	256	256	-	up to 18	2x16-bit	1	-	1	2	4x10-bit	4x10-bit	2	ICP	internal 6MHz RC, KBI, BOR	SSOP20/SOP20/PDIP20
N79E822	2K	256	256	-	up to 18	2x16-bit	1	-	1	2	4x10-bit	4x10-bit	2	ICP	internal 6MHz RC, KBI, BOR	SSOP20/SOP20/PDIP20
W79E4051	4K	256	128	-	up to 17	2x16-bit	1	-	-	1	1x10-bit	-	2	ICP	internal 22MHz RC, 4 level BOR	SSOP20/SOP20/PDIP20
W79E2051	2K	256	128	-	up to 17	2x16-bit	1	-	-	1	1x10-bit	-	2	ICP	internal 22MHz RC, 4 level BOR	SSOP20/SOP20/PDIP20
W79E8213	4K	128	128	-	up to 18	2x16-bit	-	-	-	-	4x10-bit	8x10-bit	2	ICP	internal 20MHz RC, KBI, 3 input capture, High sink (40mA) port, Buzzer, BOR	SOP20/PDIP20
N79E342	2K	128	128	-	up to 14	2x16-bit	-	-	-	-	-	4x10-bit	2	ICP	dual clock, internal 455KHz RC, KBI, BOR	SOP16/PDIP16
N79E875	16K	512	128	-	up to 36	3x16-bit 1x12-bit	1	1	1	2	8x12-bit	8x10-bit	2	ICP	internal 22MHz RC, KBI, OP, 3 level BOR	LQFP48
N79E235	16K	512	256	-	up to 36	3x16-bit 1x12-bit	1	1	1	2	8x12-bit	8x10-bit	2	ICP	internal 22MHz RC, KBI, 3 level BOR	LQFP48
N79E234	8K	512	256	-	up to 36	3x16-bit 1x12-bit	1	1	1	2	8x12-bit	8x10-bit	2	ICP	internal 22MHz RC, KBI, 3 level BOR	LQFP48

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Note

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