

nuvoTon

# ***N79E85x Series***



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# Product Features Listing

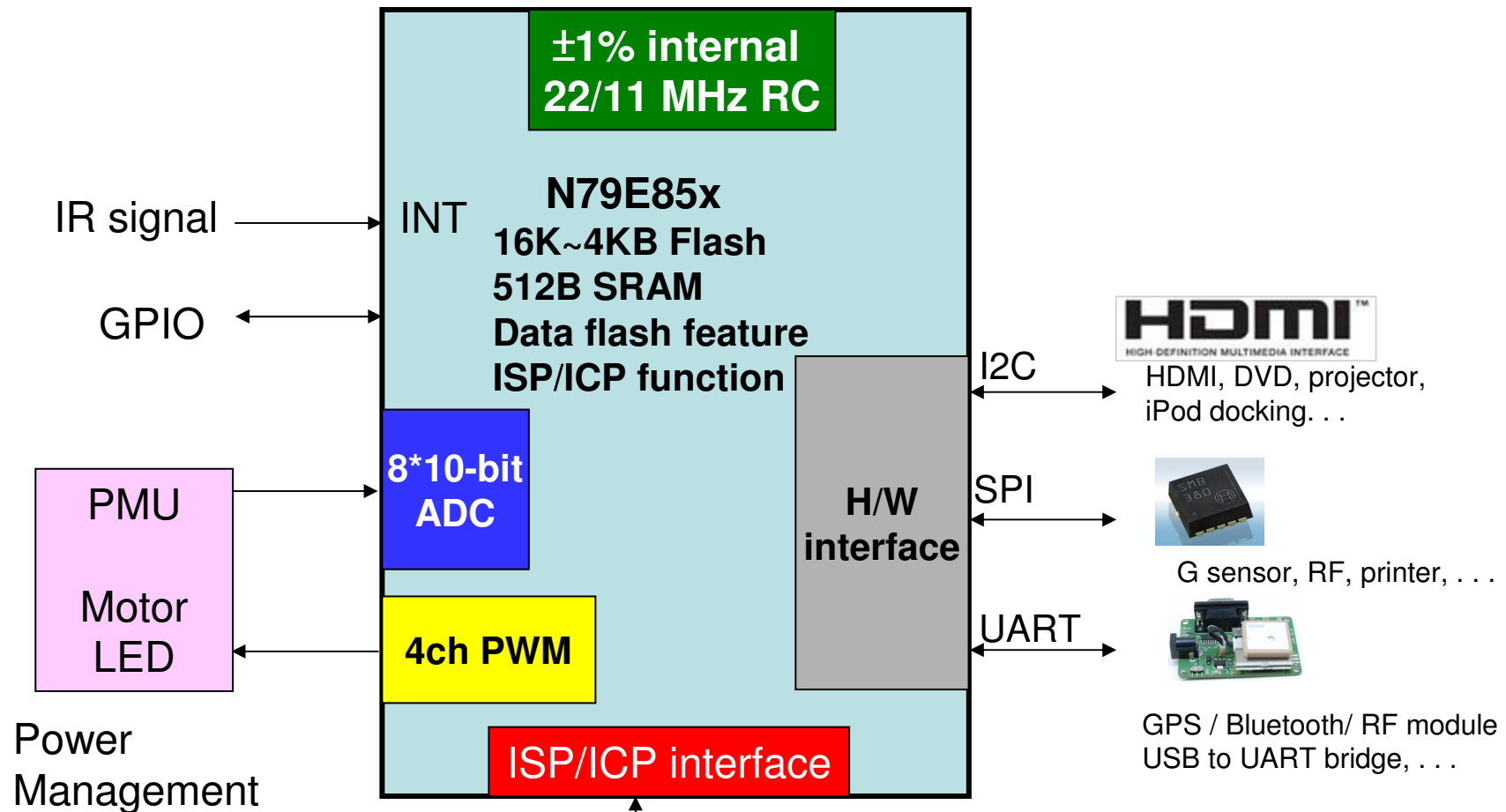
## ✚ CPU

- 4T 8051 core, Wide operating voltage is 2.4~5.5 V.
- Clock speed: up to 24 MHz and Built-in  $\pm 1\%$  22/11 MHz RC OSC on-chip under room temperature,  $\pm 5\%$  for full temperature range
- AP ROM : 16K/8K/4KB, RAM : 256+256B
- Support data flash feature, 16K item shares AP ROM

## ✚ Function

- 8-bit programmable CPU clock divider
- 3\*16-bit timer, timer2 with capture function
- 3 serial ports : I<sup>2</sup>C(master/slave)/UART/SPI(master/slave) simultaneously
- Up to 8ch\*10-bit ADC, convert rate : 150 KHz
- 4ch\*10-bit PWM with brake input
- 4pins Hi-sink drive : 40 mA
- Auto-wakeup from power-down, Use 10 KHz clock source
- 2-level Brownout reset (3.8/2.7 V)
- ICP/ISP update AP ROM
- Package: 28/20/16 pin, TSSOP/SOP/PDIP type

# Product Benefit



On-line update  
 Require " Design ICP interface on system"

- More Opportunity
- Flexible Production & Maintain
- Low BOM Cost

# Product Selection Guide

Part No	Flash	Data Flash	SRAM	I/O	Timer	Connectivity			ADC	PWM	Internal RC	Package
						UART	I2C	SPI				
N79E815AT28	16K	share AP ROM	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	TSSOP28
N79E815AS28	16K	share AP ROM	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	SOP28
N79E814AT28	8K	4KB	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	TSSOP28
N79E814AS28	8K	4KB	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	SOP28
N79E813AT28	4K	4KB	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	TSSOP28
N79E813AS28	4K	4KB	512	23/25	3*16-bit	2	1	2	8*10-bit	4*10-bit	1% 22MHz	SOP28
N79E815AT20	16K	share AP ROM	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	TSSOP20
N79E815AS20	16K	share AP ROM	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	SOP20
N79E815AD20	16K	share AP ROM	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	PDIP20
N79E814AT20	8K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	TSSOP20
N79E814AS20	8K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	SOP20
N79E814AD20	8K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	PDIP20
N79E813AT20	4K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	TSSOP20
N79E813AS20	4K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	SOP20
N79E813AD20	4K	4KB	512	15/17	3*16-bit	1	1	1	7*10-bit	4*10-bit	1% 22MHz	PDIP20
N79E8132AS16	4K	4KB	512	11/13	3*16-bit	1	1	-	4*10-bit	4*10-bit	1% 22MHz	SOP16

2\*UART/2\*SPI pins are switched by S/W setting

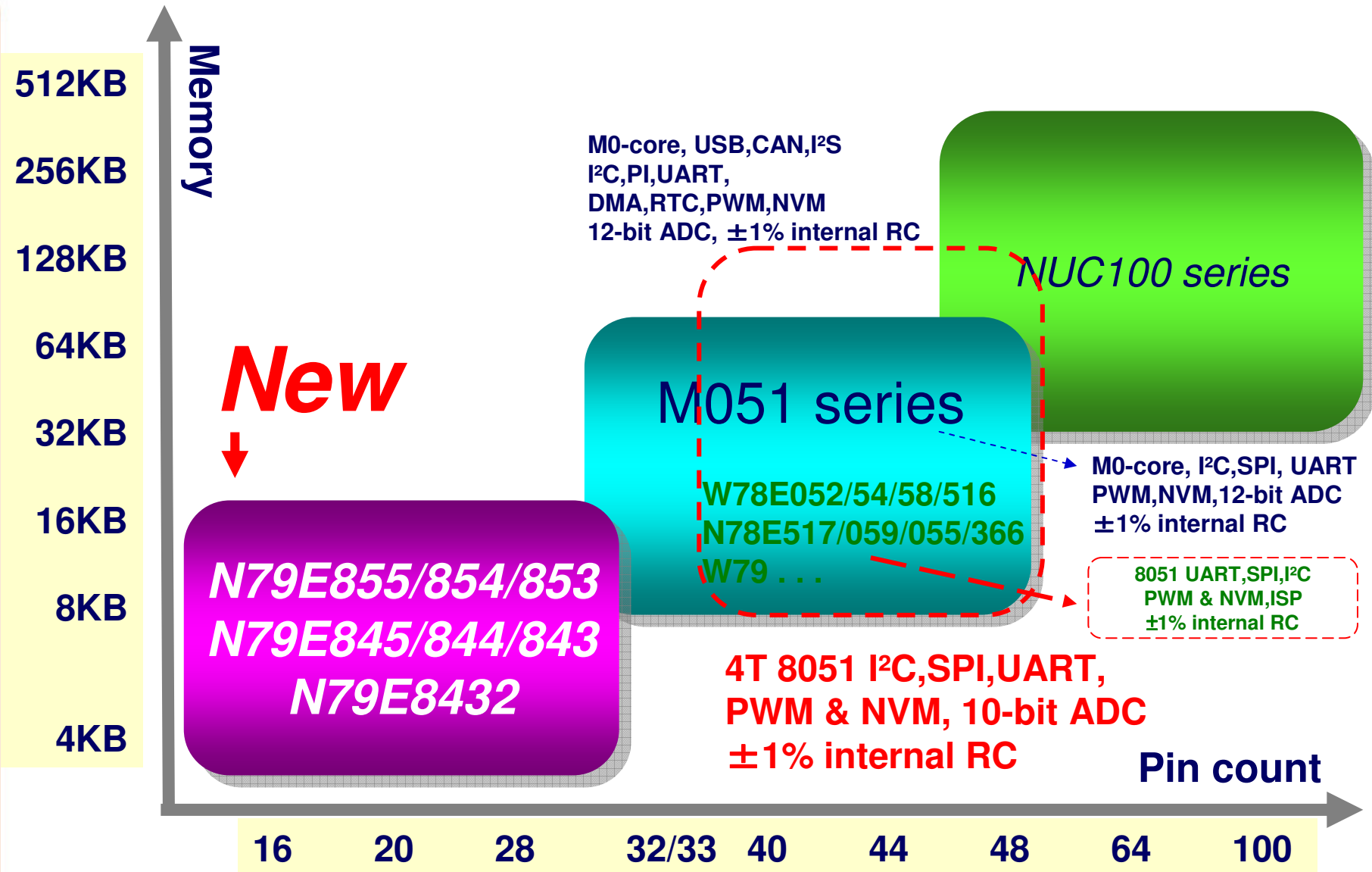
# ESD & Latch-up data

## ---SUMMARY---

The ESD and Latch-Up test results for **N79E85JALG** are:

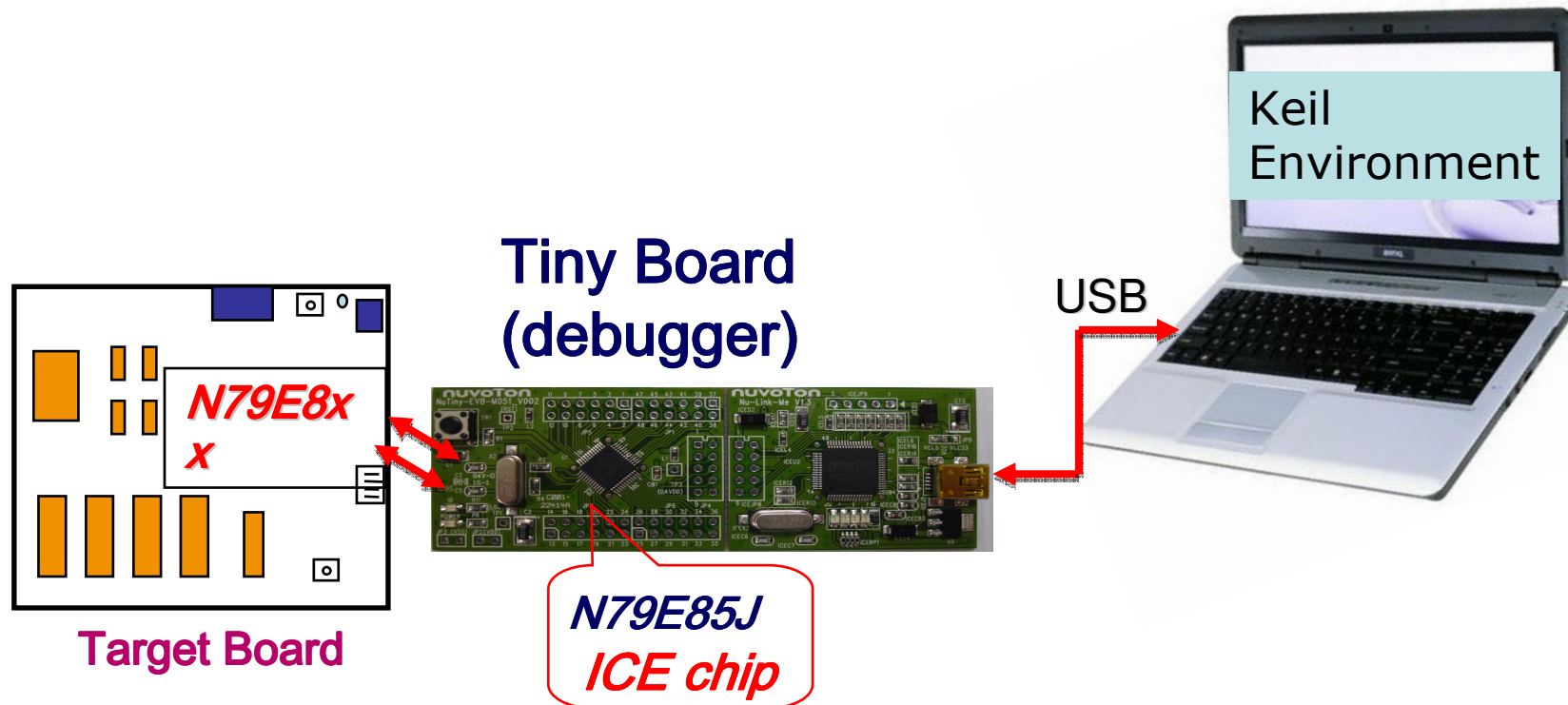
	<u>Test Items</u>		<u>Failures/S.S.</u>	<u>Results</u>
<b>ESD-HBM</b>	stress voltage	<b>8KV</b>	<b>0/12 PCs</b>	<b>Pass</b>
<b>ESD-MM</b>	stress voltage	<b>400V</b>	<b>0/12 PCs</b>	<b>Pass</b>
<b>ESD-SCDM</b>	stress voltage	<b>1KV</b>	<b>0/6 PCs</b>	<b>Pass</b>
<b>Latch-Up</b>	stress current	<b>+/- 400mA</b>	<b>0/6 PCs</b>	<b>Pass</b>

# Complete Product Mix



# Development Environment

## -Tiny Board



# Promotion Kit

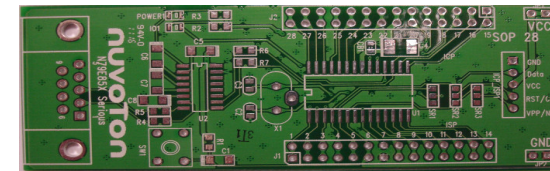
## ▶ Samples

- N79E855ASG/N79E854ASG/N79E853ASG



## ▶ EVB

- PCB board, User's Guide



## ▶ Material

- Data Sheet
- Migration Note
- Demo Program & Sample Code
- Tool chain information
  - Nuvoton\_Tiny Board (N79E85J ICE tool)
  - Nuvoton ISP+ICP programmer

