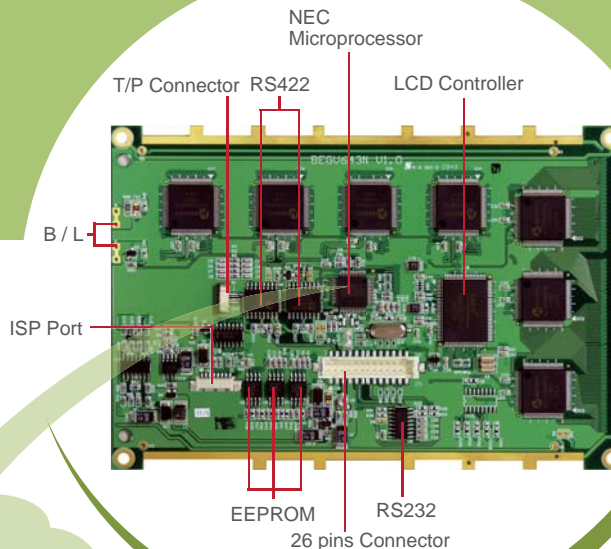
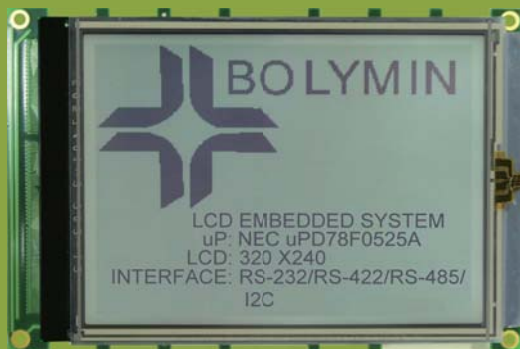


# BEGV643N

## μp Display Embedded System



Your 60KB application program here!

### Features

- High performance, Low power NEC 8-bit microprocessor
- Built-in 60KB ISP Flash memory / 3KB RAM
- On board updateable 128KB EEPROM
- One isolated RS485 / 422 / 232, 1 x RS232
- Lower voltage operation to 3.3V
- Built-in 4-wired resistive touch panel
- 320 x 240 monochrome STN LCD
- Built-in JIS Level 1 & 2 Kanji ROM
- On-chip power-on reset (POR) and programmable watchdog reset
- Comprehensive set of development tools and application notes for self programming
- RS485 / 422 / 232 driver, I<sup>2</sup>C driver, touch panel driver, LCM driver and utility are supported
- Dimension (W x H x D): 160 x 109 x 16.5mm

### Hardware Specifications

#### Processor

- NEC  $\mu$ PD78F0525A 8-bit microprocessor

#### Memory

- 60KB in-system programmable flash
- High-speed RAM 1KB
- Expansion RAM 2KB
- 64KB x 2 external I<sup>2</sup>C CMOS EEPROM (option: 64KBx3)

#### Display Interface

- Support 8-bit single scan 320 x 240 monochrome STN LCD (edge LED white backlight)
- Built-in JIS Level 1 & 2 Kanji ROM

#### RS232 / 422 / 485 Port

- Support dual serial port, one is three-wired RS232, another is shared in among RS232 / isolated RS422 / isolated RS485 port by option

#### Serial Peripheral Interface

- One two-wired serial interface(I<sup>2</sup>C) up to 250KHz data transfer speed

#### Touch Panel Interface

- Support four-wired resistive touch panel interface

#### Software Utilities

- Support RS232 / 422 / 485 driver, I<sup>2</sup>C driver, touch panel driver, and LCM driver for free

#### DC Requirement

- DC3.3V~5.5V

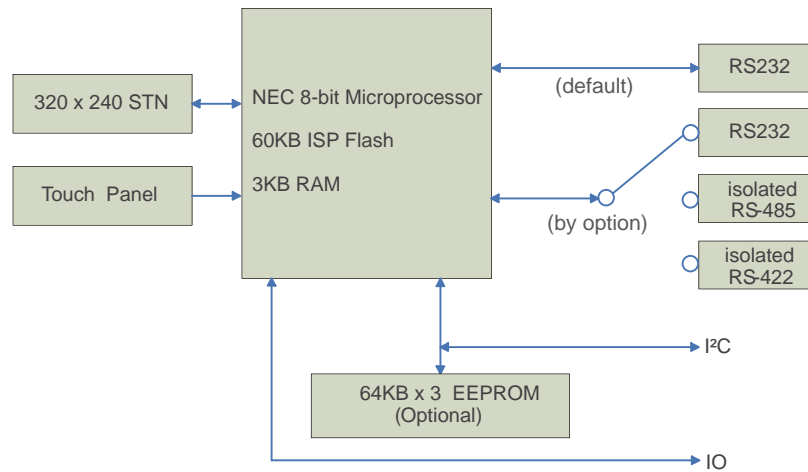


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**Packing List**

- BEGV643N Embedded System
- User Manual
- Software Utility Disc
- Mini Cube 2 and ISP Cable (option)

**BEGV643N BLOCK DIAGRAM**



**Pin Mapping Table**

PIN NO.	Signal	PIN NO.	Signal	PIN NO.	Signal
1	GND	10	VDD2	19	SDA
2	422RP	11	TX0	20	IOB
3	VDD	12	VDD2	21	WP
4	422RN	13	RX1	22	IOC
5	Vadj	14	GND2	23	EX_SCL
6	422TP/485P	15	TX1	24	A
7	Vout	16	GND2	25	NC
8	422TN/485N	17	SCL	26	K
9	RX0	18	IOA		

**Order Information**

Parts NO.	Description	RS232-A	RS232-B	RS422	RS485
BEGV643N	Dual RS232	☆	☆		
BEGV643N1	One RS232	☆			
BEGV643N2	One RS232/One RS422	☆		☆	
BEGV643N3	One RS232/One RS485	☆			☆

Display: FSTN/Gray LCD,LED/White Backlight (Default)



# BEGV641N & BEGV643N Display Embedded System



## NEC 8bit microprocessor

uPD78F0525A  
60KBytes ISP flash  
3KBytes RAM

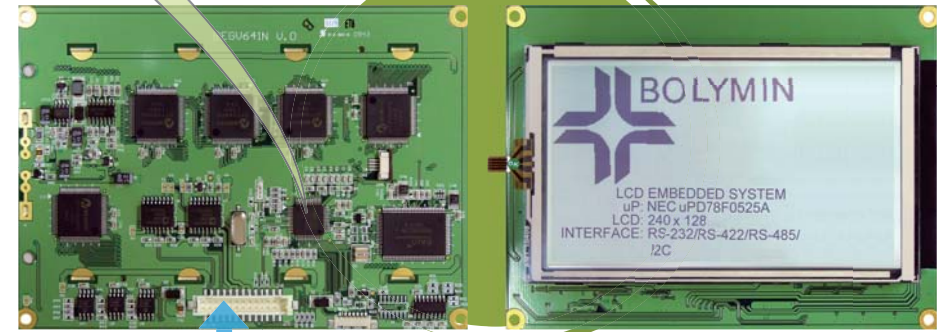
Your 60KB  
programme  
here!!

320 x 240 STN

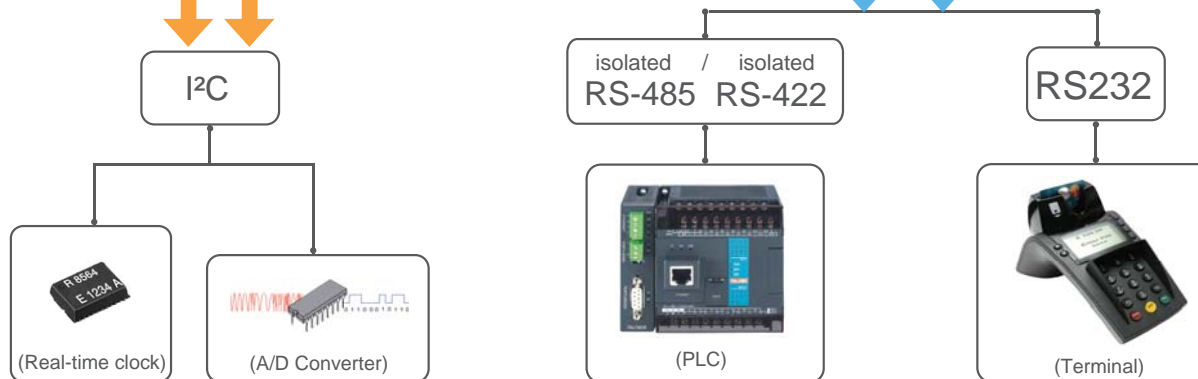


BEGV643N

240 x 128 STN



BEGV641N



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