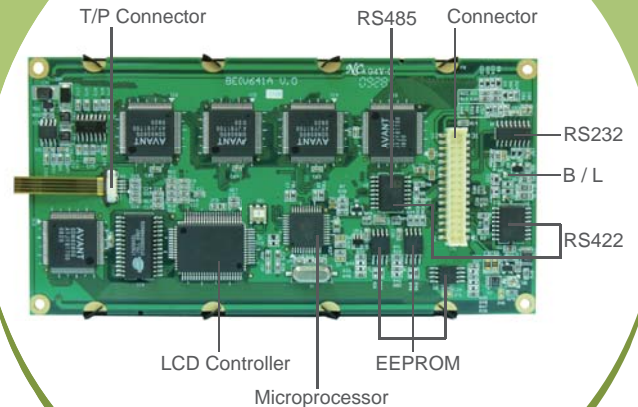


# BEGV641A

## Display Embedded System



### Features

- High performance, Low power AVR 8-bit microprocessor
- Built-in 64KB Flash memory / 4KB SRAM
- On board updateable 128KB EEPROM
- One isolated RS485 / 422 / 232, 1 x RS232
- High speed SPI and I<sup>2</sup>C
- Lower voltage operation to 3.3V
- Built-in 4-wired resistive touch panel
- 240 x 128 monochrome STN LCD
- 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, SPI driver, I<sup>2</sup>C driver, Touch panel driver , LCM driver and Utility are supported

### Hardware Specifications

#### Processor

- High performance, Low power AVR 8-bit microprocessor

#### Memory

- 64KB In-system programmable flash
- 2KB Internal EEPROM
- 4KB Internal SRAM
- 64KB x 3 External I<sup>2</sup>C CMOS EEPROM

#### Display Interface

- Support 8-bit single scan with resolution 240 x 128 Monochrome STN LCD, edge LED white backlight only

#### Serial Port

- Support dual serial port ,one is three-wired RS232, another is shared with RS422 and RS485 port

#### RS232 / 422 / 485 Port

- Support one port shared between with RS232 isolated RS422 and isolated RS485

#### Serial Peripheral Interface

- One full-duplex, three-wired synchronous data transfer SPI port
- One two-wired serial interface (I<sup>2</sup>C) to 250 KHz data transfer speed

#### Touch Panel Interface

- Support four-wired resistive touch panel interface

#### Software Utilities

- Support RS232 / 422 / 485 driver , SPI driver , I<sup>2</sup>C driver , Touch panel and LCM driver

#### DC Requirement

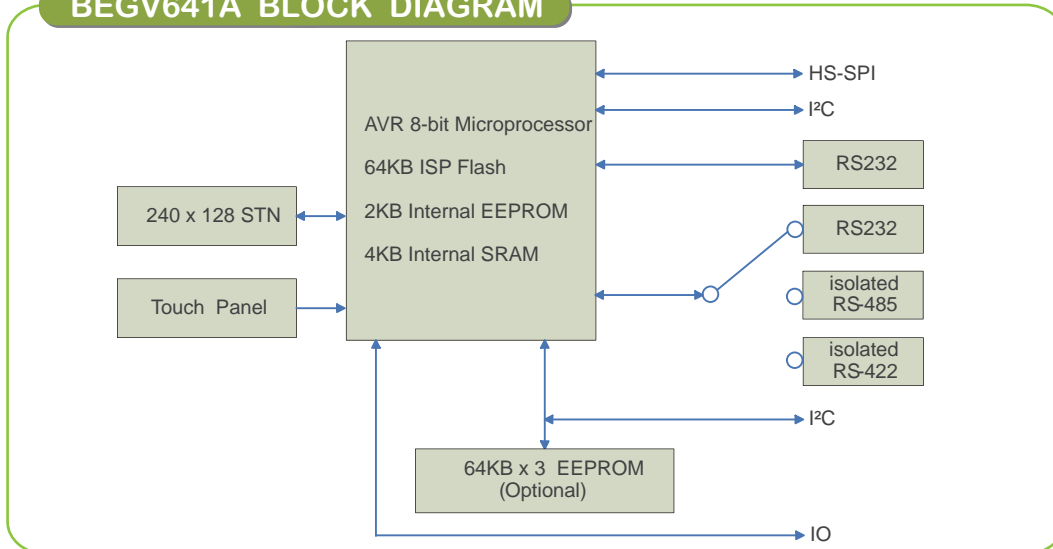
- DC3.3V~5.5V



**Accessories**

- BEGV641A Embedded LCD module
- User Manual
- Software Utility Disc
- ISP Cable (option)

**BEGV641A BLOCK DIAGRAM**



**Pin Mapping Table**

PIN NO.	Signal	PIN NO.	Signal	PIN NO.	Signal
1	GND	12	422RP	23	RX1
2	EEPSDA	13	MOSI	24	GND2
3	VDD	14	422RN	25	TX1
4	EEPSCCL	15	MISO	26	GND2
5	Vadj	16	422TP/485P	27	SDA
6	EEPWP	17	SCK	28	EN485
7	Vout	18	422TN/485N	29	SCL
8	IOB	19	RX0	30	A
9	/Reset	20	VDD2	31	IOA
10	NC	21	TX0	32	K
11	/SS	22	VDD2		

**Order Information**

Parts NO.	Description	RS232-A	RS232-B	RS422	RS485
BEGA641A	Dual RS232	☆	☆		
BEGA641A1	One RS232	☆			
BEGA641A2	One RS232/One RS422	☆		☆	
BEGA641A3	One RS232/One RS485	☆			☆

Display:1.FSTN/Gray LCD,LED/White Backlight(Default)  
 2.STN/Blue LCD,LED/White Backlight(Option)