

mLCM LCM with Multi-Interface



Features

- Multi-interface : I2C/SPI/RS232 (USB optional)
- COB with metal frame
- 5x7 dots with cursor
- Built-in controller ST7066 or equivalent
- 1/16 duty cycle
- Backlight : LED EDGE/ARRAY
- 5V single power supply
- Contrast/Backlight adjustment by program
- RoHS Compliant

Specifications



BC1601AI BC1602AI BC2002AI BC2002BI BC4002AI

Model	BC1601AI	BC1602AI	BC2002AI	BC2002BI	BC4002AI
Characters x Lines	16x1	16x2	20x2	20x2	40x2
Module Size(mm)	86.0 x 36.0	80.0 x 36.0	116.0 x 37.0	180.0 x 40.0	182.0 x 33.5
View Area(mm)	66.0 x 16.0	66.0 x 16.0	85.0 x 18.6	149.0 x 23.0	154.4 x 16.5
Dot Size(mm)	0.55 x 0.75	0.55 x 0.65	0.60 x 0.65	1.12 x 1.12	0.60 x 0.65
Character Size(mm)	3.07 x 6.56	2.95 x 5.55	3.2 x 5.55	6.0 x 9.66	3.2 x 5.55
Controller	ST7066	ST7066	ST7066	ST7066	ST7066
Backlight	LED	LED	LED	LED	LED
Interface	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232
USB Connector	Optional	Optional	N/A	Optional	N/A
Duty Cycle	1/16	1/16	1/16	1/16	1/16
Power (Volt)	5	5	5	5	5

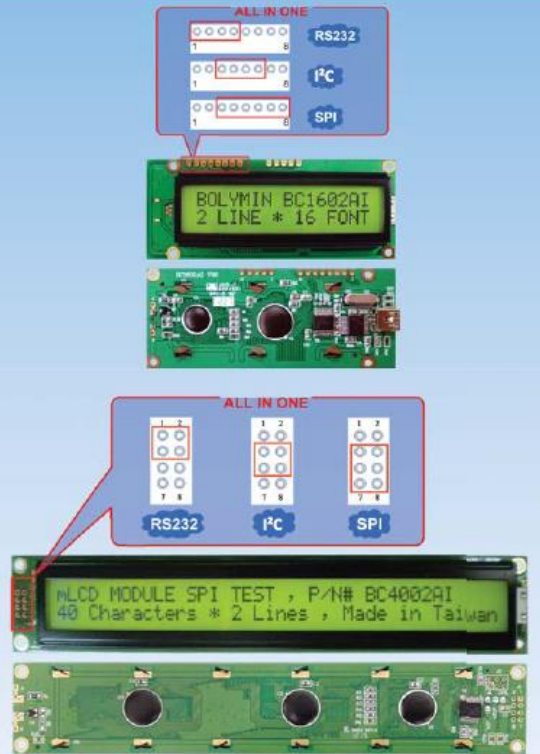


BC1602EI BC1604AI BC2004AI BC2402AI BC4004AI

Model	BC1602EI	BC1604AI	BC2004AI	BC2402AI	BC4004AI
Characters x Lines	16x2	16 x 4	20x4	24x2	40x4
Module Size(mm)	123.0 x 44.0	87.0 x 60.0	98.0 x 60.0	118.0 x 36.0	190.0 x 54.0
View Area(mm)	99.0 x 24.0	62.0 x 26.0	77.0 x 25.2	94.5 x16.0	147.0 x29.5
Dot Size(mm)	0.92 x 1.1	0.55 x 0.55	0.55 x 0.55	0.6 x 0.65	0.5 x 0.55
Character Size(mm)	4.8 x 9.66	2.95 x 4.75	2.95 x 4.75	3.2 x 5.55	2.78 x 4.89
Controller	ST7066	ST7066	ST7066	ST7066	ST7066
Backlight	LED	LED	LED	LED	LED
Interface	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232	I2C/SPI/RS232
USB Connector	Optional	Optional	Optional	Optional	Optional
Duty Cycle	1/16	1/16	1/16	1/16	1/16
Power (Volt)	5	5	5	5	5

Pin Assignment

Pin	Symbol	Function
1	TX	RS-232 level output port
2	RX	RS-232 level input port
3	VSS	Ground
4	VDD	System power supply input
5	SDA	I ² C: Data input/output for the I ² C SPI: Serial data input
6	SCL	I ² C: Clock input for I ² C SPI: Serial clock input
7	SDO	SPI: Serial data output
8	/CS	SPI: Chip select



LCM VS. mLCM



Features	LCM	mLCM
Host Communication Interface	parallel	serial
Control Pin Numbers	4 or 8 data pins + 3 control pins	I ² C : 2 I/O pins RS232 : 2 I/O pins SPI : 4 I/O pins
Contrast Adjustment	by variable resistor	software controlled
Backlight Adjustment	by A/K pins	software controlled
Initial Code	sent from host device	built-in