

**TERMINAL FUNCTIONS**

| Pin | Name     | Descriptions                                                                                         |                                                        |
|-----|----------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
|     |          | Parallel Mode (PSB=H)                                                                                | Serial Mode (PSB=L)                                    |
| 1   | VSS      | 0V Power Supply, Ground                                                                              |                                                        |
| 2   | VDD      | Positive Power Supply                                                                                |                                                        |
| 3   | NC       | No Connection (keep open)                                                                            |                                                        |
| 4   | RS (CS)  | Register Select<br>RS=H, data read/write<br>RS=L, Instruction data write or<br>Status busy flag read | Chip Select<br>CS=H, chip enable<br>CS=L, chip disable |
| 5   | R/W(SID) | Read Write Control<br>R/W=H, data or status read<br>R/W=L, data or status write                      | Serial Input Data                                      |
| 6   | E(SCLK)  | Enable Trigger                                                                                       | Serial Clock                                           |
| 7   | DB0      | Data bus<br>Three state I/O terminal<br>for display data or instruction                              | Leave open<br>or pull-up                               |
| :   | :        |                                                                                                      |                                                        |
| 14  | DB7      |                                                                                                      |                                                        |
| 15  | BLA      | LED Backlight Positive Supply Power                                                                  |                                                        |
| 16  | NC       | No Connection (keep open)                                                                            |                                                        |
| 17  | PSB      | Interface Selection<br>PSB=L, Serial Mode<br>PSB=H, 4 or 8 bit Parallel Mode                         |                                                        |
| 18  | /RST     | System Reset, low active                                                                             |                                                        |

**MECHANICAL DATA**

| Item              | Value                   |
|-------------------|-------------------------|
| Outline (mm)      | 80.8 x 35.0 x 12.5 MAX. |
| Viewing Area (mm) | 64.6 x 16.0             |
| Active Area (mm)  | 60.44 x 13.4            |
| Dot Pitch (mm)    | 0.42 x 0.42             |
| Dot Size (mm)     | 0.38 x 0.38             |

**ABSOLUTE MAXIMUM**

| Item                       | Symbol          | Min  | Max  |
|----------------------------|-----------------|------|------|
| Operating Voltage (V)      | V <sub>DD</sub> | -0.3 | +5.5 |
| Operating Temperature (°C) | T <sub>OP</sub> | -40  | +70  |
| Storage Temperature (°C)   | T <sub>ST</sub> | -40  | +80  |

**ELECTRICAL CHARACTERISTICS\***

| Item                   | Symbol          | Min                | Typ | Max             |
|------------------------|-----------------|--------------------|-----|-----------------|
| Operating Voltage (V)  | V <sub>DD</sub> | 4.8                | 5.0 | 5.2             |
| Input High Voltage (V) | V <sub>IH</sub> | 0.8V <sub>DD</sub> | -   | V <sub>DD</sub> |
| Input Low Voltage (V)  | V <sub>IL</sub> | V <sub>SS</sub>    | -   | 0.4             |
| Operating Current (mA) | I <sub>DD</sub> | -                  | 1.7 | 5.0             |

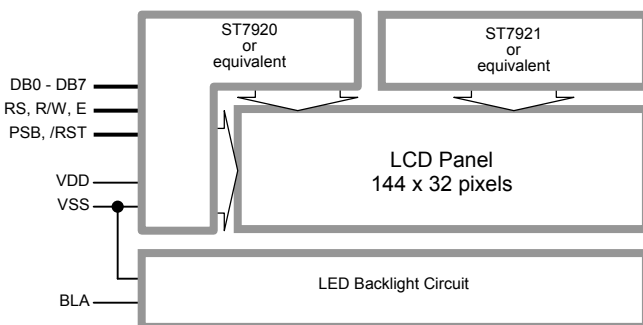
**BACKLIGHT CHARACTERISTICS**

| Item                 | Symbol            | Min | Typ | Max |
|----------------------|-------------------|-----|-----|-----|
| Forward Voltage (V)  | V <sub>fBLA</sub> | -   | 5.0 | -   |
| Forward Current (mA) | I <sub>fBLA</sub> | -   | 34  | 50  |

**DISPLAY CHARACTERISTICS**

| Item              | Value                            |
|-------------------|----------------------------------|
| LCD Display Mode* | STN-Gray, Positive, Transmissive |
| Viewing Angle     | 6:00                             |
| Driving Method    | 1/32 duty, 1/5 bias              |
| Backlight**       | White LED backlight              |

**BLOCK DIAGRAM**



**ZX14432A,series**

| Major Models  | Highlight |            |              |           |
|---------------|-----------|------------|--------------|-----------|
|               | *LCD Mode | #Backlight | Char ROM     | **Voltage |
| ZX14432B      | STN-Gray  | White LED  | GB           | 3.3       |
| ZX14432B-1    | STN-Blue  | White LED  | GB           | 3.3       |
| ZX14432B-0C-1 | STN-Blue  | White LED  | TCH, SCH, JP | 5.0       |
| ZX14432A-D40  | STN-Gray  | White LED  | GB           | 5.0       |
| ZX14432A-D40  | STN-Blue  | White LED  | GB           | 5.0       |

For similar product or (semi) custom made LCD module, please visit our web site or contact us.

\*The above product information is based on this model.