

# 192x64 Graphic Type LCD Module

[illegible]

| Pin No.    | Symbol         | Level        | Description                                                                                                                                                                                                                                                                                                                                |
|------------|----------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1~8</b> | <b>DB7~DB0</b> | <b>H/L</b>   | Bi-direction, tri-state 8-bit parallel data bus for interface with a host microcontroller. This data bus is for data transfer between the host microcontroller and the SBN0064G.                                                                                                                                                           |
| <b>9</b>   | <b>E</b>       | <b>H/L</b>   | Enable signal (E) from the host microcontroller.                                                                                                                                                                                                                                                                                           |
| <b>10</b>  | <b>R/W</b>     | <b>H/L</b>   | Read/Write(R/W) control signal from the host microcontroller.<br>This pin should be connected to the R/W output of the host microcontroller. A HIGH level on this pin indicates that the microcontroller intends to do a WRITE operation.                                                                                                  |
| <b>11</b>  | <b>RS</b>      | <b>H/L</b>   | Command/Data selection from the host microcontroller.<br>When RS=0, the data on the 8-bit data bus(DB0~DB7) are either code data to be written to an internal register, or status from the internal status register.<br>When RS=1, the data on the 8-bit data bus(DB0~DB7) are data to be written to or read from the display data memory. |
| <b>12</b>  | <b>V0</b>      | <b>--</b>    | LCD driver supplies adjusting voltages.                                                                                                                                                                                                                                                                                                    |
| <b>13</b>  | <b>VDD</b>     | <b>+5.0V</b> | Supply voltage for logic operating.                                                                                                                                                                                                                                                                                                        |
| <b>14</b>  | <b>VSS</b>     | <b>0V</b>    | Ground output for pad option.                                                                                                                                                                                                                                                                                                              |
| <b>15</b>  | <b>CSB</b>     | <b>H/L</b>   | When CSA&CSB= "0", the left area is active;<br>When CSA ="1" &CSB ="0", the right area is active;<br>When CSA ="0" &CSB ="1", the middle area is active;                                                                                                                                                                                   |
| <b>16</b>  | <b>CSA</b>     | <b>H/L</b>   |                                                                                                                                                                                                                                                                                                                                            |
| <b>17</b>  | <b>VOUT</b>    | <b>--</b>    | DC/DC negative converted voltage output.                                                                                                                                                                                                                                                                                                   |
| <b>18</b>  | <b>/RST</b>    | <b>H/L</b>   | When /RES is set to "L," the settings are initialized.                                                                                                                                                                                                                                                                                     |
| <b>19</b>  | <b>LED+</b>    | <b>+5.0V</b> | Power supply for backlight.                                                                                                                                                                                                                                                                                                                |
| <b>20</b>  | <b>LED-</b>    | <b>0V</b>    | Ground for backlight.                                                                                                                                                                                                                                                                                                                      |