Solomon Systech offers abundant choices of STN LCD Driver Controllers with different display resolutions and in various package forms for any unique display style. These controllers support different display designs, be it for an energy meter, a DECT phone or an industrial equipment; and be it content-rich or simple but compact.

Our STN LCD Driver Controllers are all highly integrated single-chip solutions with low power consumption which meet industrial-grade requirement. These controllers range from 4 rows to 130 rows, from STN driver with character ROM to dot-matrix, and from monochrome to gray scale.

**Applications:** Energy Meters, DECT Phones, Learning Machines, Health Care Products, Industrial Equipments, Walkie-talkies, etc.

### Features

#### Key Features

**High Integration for Minimizing External Components**
- Single supply voltage
- On-chip oscillator
- On-chip bias divider
- On-chip DC-DC converter for LCD driving output voltage
- On-chip display data RAM
- On-chip capacitor
- On-chip OTP

**Ultra Low Power Consumption for System Power Saving**
- Low-current sleep mode
- Programmable bias ratio

**Compatible with Most Popular MCUs**
- 8/16-bit 68/80-series parallel interface
- Serial peripheral interface
- I²C-bus

**Powerful Command Set for Easy Programming**
- Re-mapping of row and column drivers
- Various powerful scrolling modes
- Internal contrast control
- Programmable partial display
- Programmable LCD driving voltage temperature coefficients

**Advanced Feature**
- Implemented APT driving scheme for crosstalk improvement and power reduction

**Packages**
- Gold bump die, COF and COB
**MOBILE DISPLAY**

STN LCD Driver Controller

**Applications**

- Electronic Scales, DECT Phones, POS Devices, Electric Meters, etc

**Application Diagram**

- STN Display Panel
- Segment Pins
- Common Pins
- Parallel Interface or Serial Interface or I2C bus

**Selection Guide**

<table>
<thead>
<tr>
<th>Part number</th>
<th>Display Resolution Support</th>
<th>Package</th>
<th>Low Power</th>
<th>Features Highlight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSD1861Z</td>
<td>40 x 4</td>
<td>COG</td>
<td>Y</td>
<td>Low Cost</td>
</tr>
<tr>
<td>SSD1803AM1Z</td>
<td>20 char x 4 line</td>
<td>COG</td>
<td>Y</td>
<td>Built-in ROM</td>
</tr>
<tr>
<td>SSD1808BZ</td>
<td>132 x 68</td>
<td>COG</td>
<td>Y</td>
<td>Support 3V&amp;5V I/O</td>
</tr>
<tr>
<td>SSD1839BZ</td>
<td>132 x 65</td>
<td>COG</td>
<td>Y</td>
<td>Built-in Cap</td>
</tr>
<tr>
<td>SSD1829Z</td>
<td>96 x 68</td>
<td>COG</td>
<td>Y</td>
<td>Built-in Cap</td>
</tr>
<tr>
<td>SSD1848Z</td>
<td>130 x 130</td>
<td>COG</td>
<td>Y</td>
<td>4 grayscale</td>
</tr>
</tbody>
</table>

**Solomon Systech Limited**

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

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