



# Swan™ CDM 4.3”

## Full-color LCD with Alphanumeric Character Display Interface

Swan CDM display products replace alphanumeric character displays and give your product a fresh new look with no programming required.

The module's USB interface updates the look of your product with full-color high resolution graphics for custom logos and eye-catching image display, while the module's digital interface provides compatibility with existing legacy systems and low-end microcontrollers.

Swan CDM 4.3” displays are available now and additional options are coming soon. Contact the Chicago Firmware Factory to order.

### Applications:

- cash registers
- fuel dispensers
- security alarms
- industrial controls
- test and measurement
- weighing systems
- telephones
- vending machines

**Before Swan CDM:**



no programming!



**After Swan CDM:**



The Chicago Firmware Factory  
201 Houston Street, Batavia, IL 60510  
[www.chicagofirmwarefactory.com](http://www.chicagofirmwarefactory.com)  
*patent(s) pending*

Give legacy products a new look  
Create premium product configurations  
Interface to small microcontroller systems

# Specifications

<b>Digital Interfaces</b>	
static content	graphics/configuration programmed via USB serial port using supplied Windows software application
dynamic content	text written via parallel bus (see below for more I/O interfaces)
chipset compatibility	Hitachi HD44780, Sitronix ST7066, Densitron NT7603, Samsung KS0066U, Samsung S6A0069, Sunplus SPLC780D
I/O bus modes	8- or 4-bit parallel modes
<b>TFT LCD Display</b>	
brightness	400 NITs
contrast	400:1
viewing angle	70 degrees
viewable area	4.3" diagonal
color depth	65536 colors (RGB565 format)
<b>Electrical Specifications</b>	
input voltage	5 to 12 VDC
current consumption	under 250mA
I/O voltage	3.3 VDC (5.0 VDC I/O tolerant)
<b>Timing</b>	
update rate (dynamic)	16 ms (foreground text and graphics)
update rate (static)	10 s (background image, fonts, settings)
<b>Physical Characteristics</b>	
Weight	80g
Dimensions	105.9 × 67.2 × 6.35mm
<b>Operation</b>	
background image	480×272 pixels, 16-bit color
fonts	up to 4, antialiased and rendered from TrueType™
text location	up to 4 locations, left, right, center alignment
text effects	outline, shadow, drop shadow (8 directions)
backlight	adjustable via software setting or analog input
images/icons/glyphs	up to 16 images 22×48, 16-bit color

## Operation Overview

Using included configuration software:

1. Choose background graphic (or use included background graphic).
2. Select custom fonts and text sizes.
3. Select text positions, alignments, shadows, and outlines.
4. Add custom characters, icons, glyphs, and symbols (optional).
5. Configure graphics and fonts (or use pre-configured graphics).
6. Connect and program display via USB.

Remove existing display, connect Swan CDM to your system, and re-apply power.



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### Additional options:

- Capacitive touch screen
- RS-232 input
- SPI input, I<sup>2</sup>C input
- Discrete inputs (on/off/analog)
- Common anode/cathode LED compatible