aMG CLCD Std – A/B/C/D/E Datasheet

FEATURES

- Especially designed for FiO Std.

- RapidSTM32 character LCD Simulator native support. So you can simulate your LCD directly in Matlab/Simulink and also have a working real-world system after code generation. No need for C programming to use a character LCD. So that…
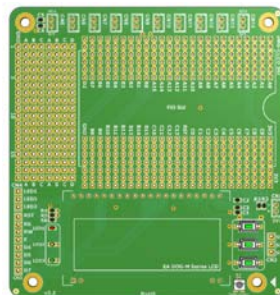
  …*What You Simulate Is What You Get*… *(WYSIWYG).*

- PC104 form factor, stackable with all other aMG Breadboards.

- Special prototyping area.

- RoHS compliant.

- Compatible with EA-DOGM Series (http://www.lcd-module.com/products/dog.html) 3.3-5V character LCD module with 4-bits data bus default configuration and contrast control potentiometer.

- Dedicated I2C expansion ports with possible selection of I2C1 and I2C2 for aMG add-on sensors modules.

- Prototyping area

- 3 user push buttons

- 3 user LEDs (Red, Yellow, Green).

- Available in 5 flavors. More color combinations available with other EA-DOGM Series LCD modules.

AVAILABLE SELECTION

aMG CLCD Std – **B**
3 lines 16 characters
(EA DOGM163E-A and
EA LED55x31-G)
Black on green backlight

aMG CLCD Std – **A**
No LCD supplied.

aMG CLCD Std – C
3 lines 16 characters
(EA DOGM163W-A and
EA LED55x31-W)
black on white backlight

aMG CLCD Std – **D**
3 lines 16 characters
(EA DOGM163W-A and
EA LED55x31-A)
black on amber backlight

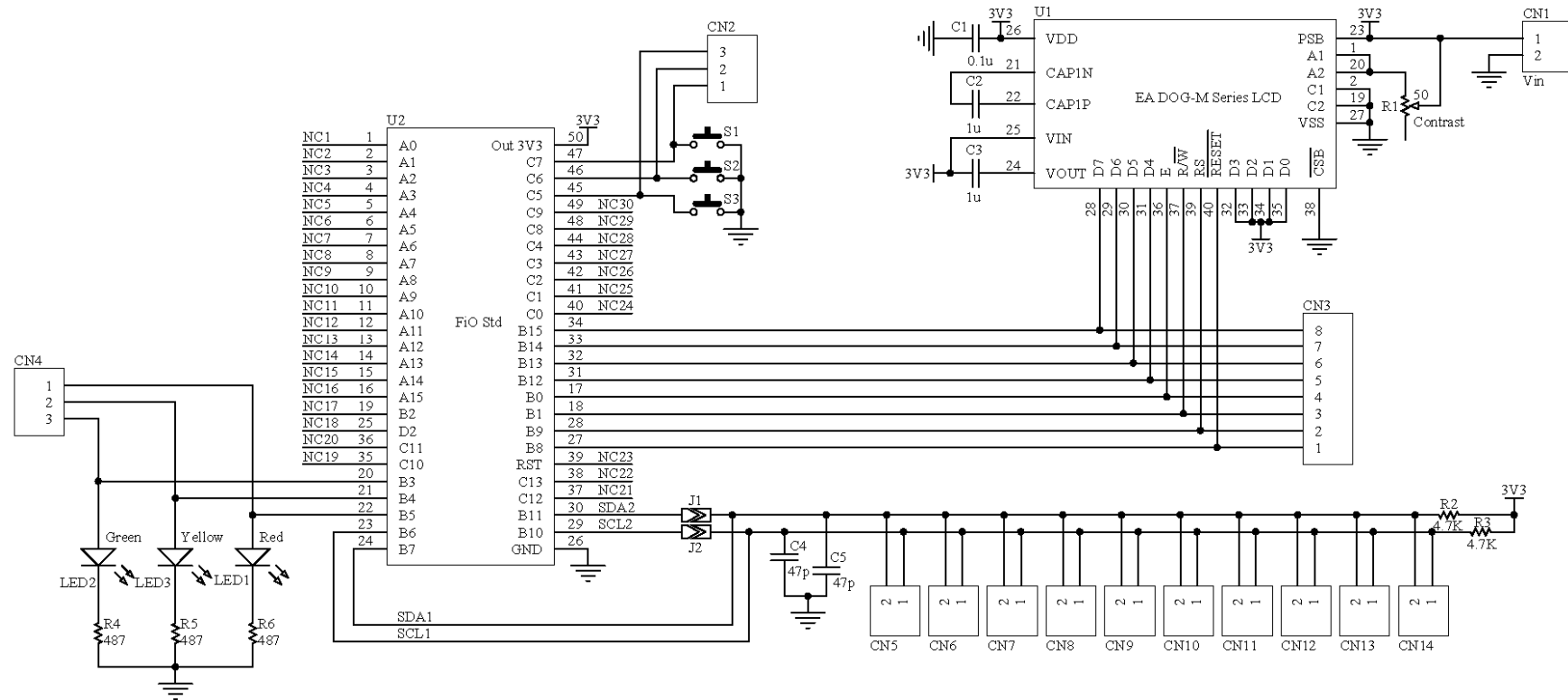The aMG CLCD Std B-E models are selected for their highest contrast and best viewing quality.

More colored LCD combinations from 1 – 3 lines may be used with aMG CLCD Std – A.

Visit www.lcd-module.com for more information about these EA DOGM series LCD modules.

aMG CLCD Std – E
3 lines 16 characters
(EA DOGM163L-A)
darkgreen on yellow,
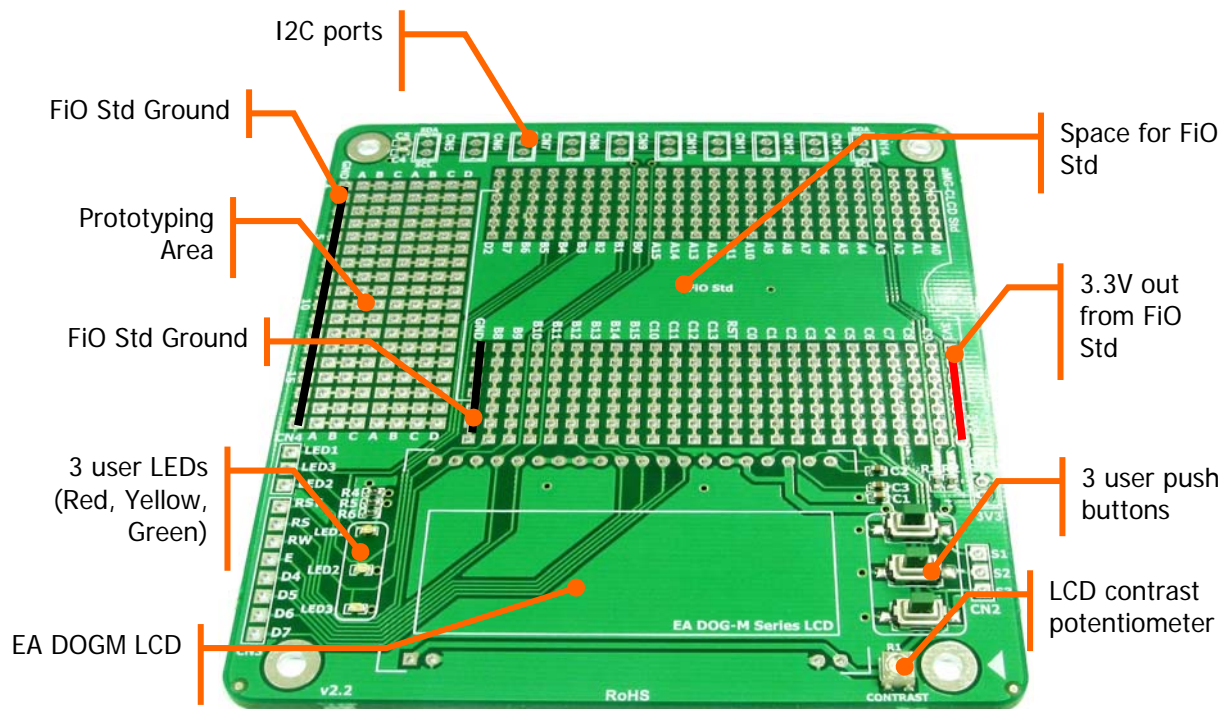backlight not needed

SCHEMATIC DIAGRAM

Actual System Pictures

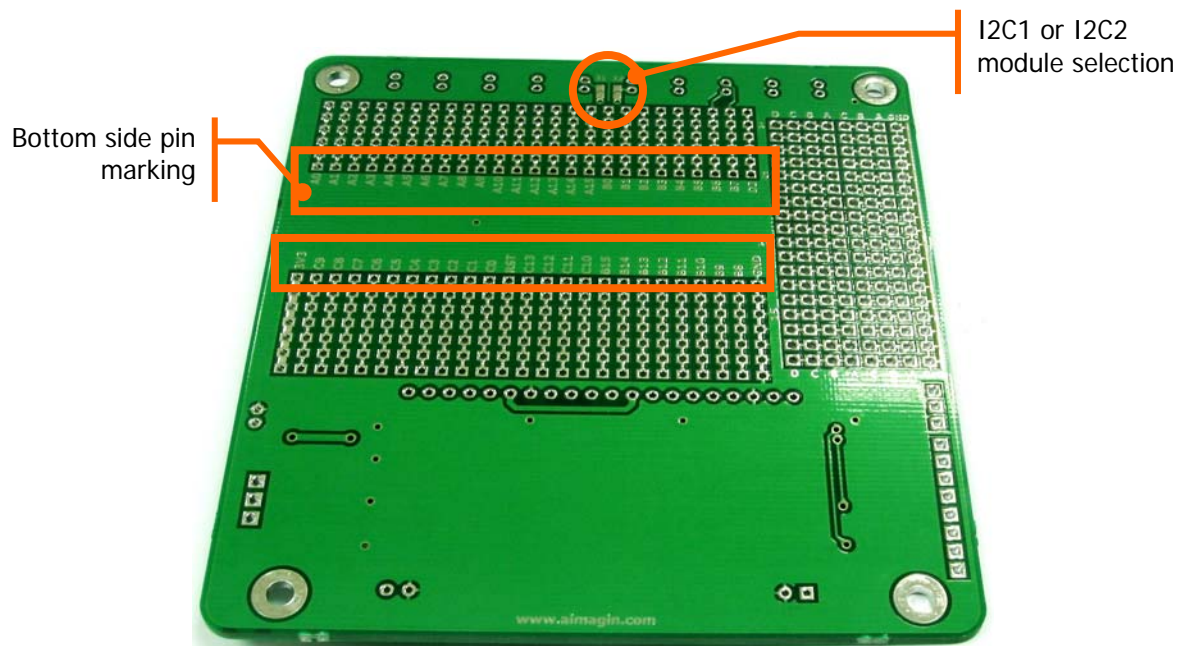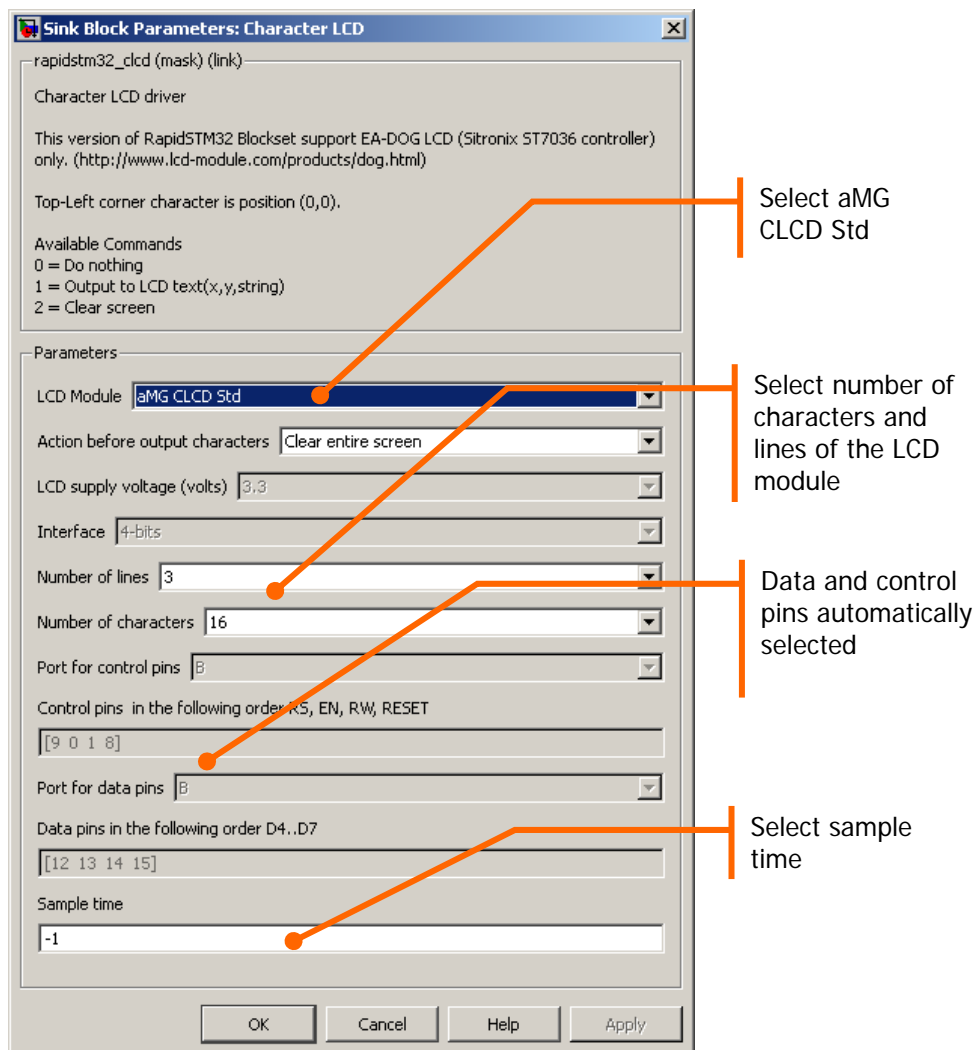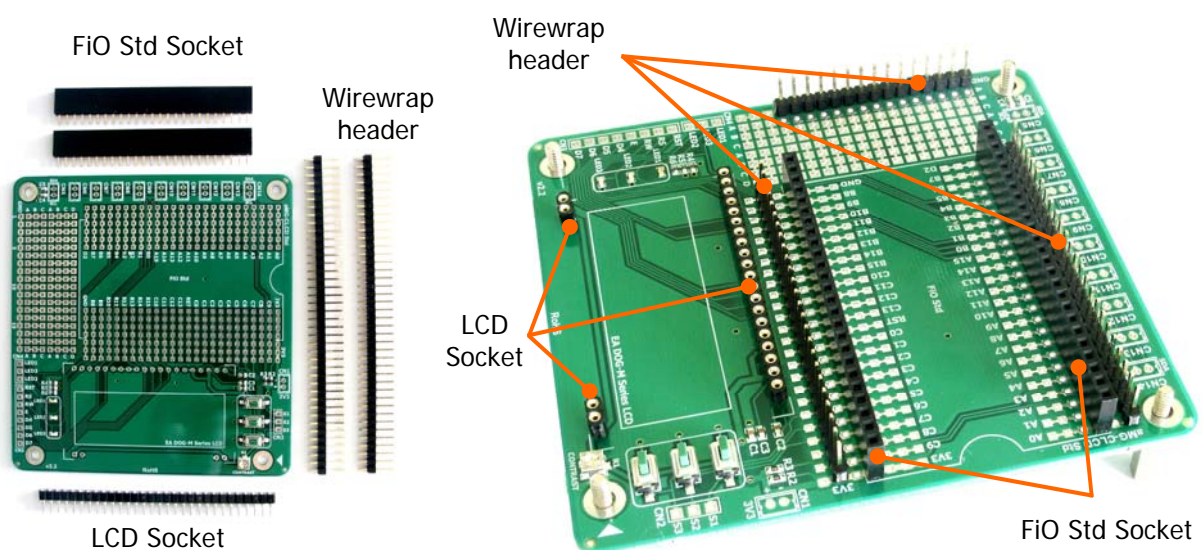**Figure 1 aMG CLCD Std PCB Layout – Top side**

Figure 2 aMG CLCD Std PCB Layout – Bottom side

Figure 3 RapidSTM32 Character LCD Simulator Block settings

aMG CLCD Std is supplied with additional pin headers and socket.
Picture on the right shows recommended usage of these pin headers and sockets.

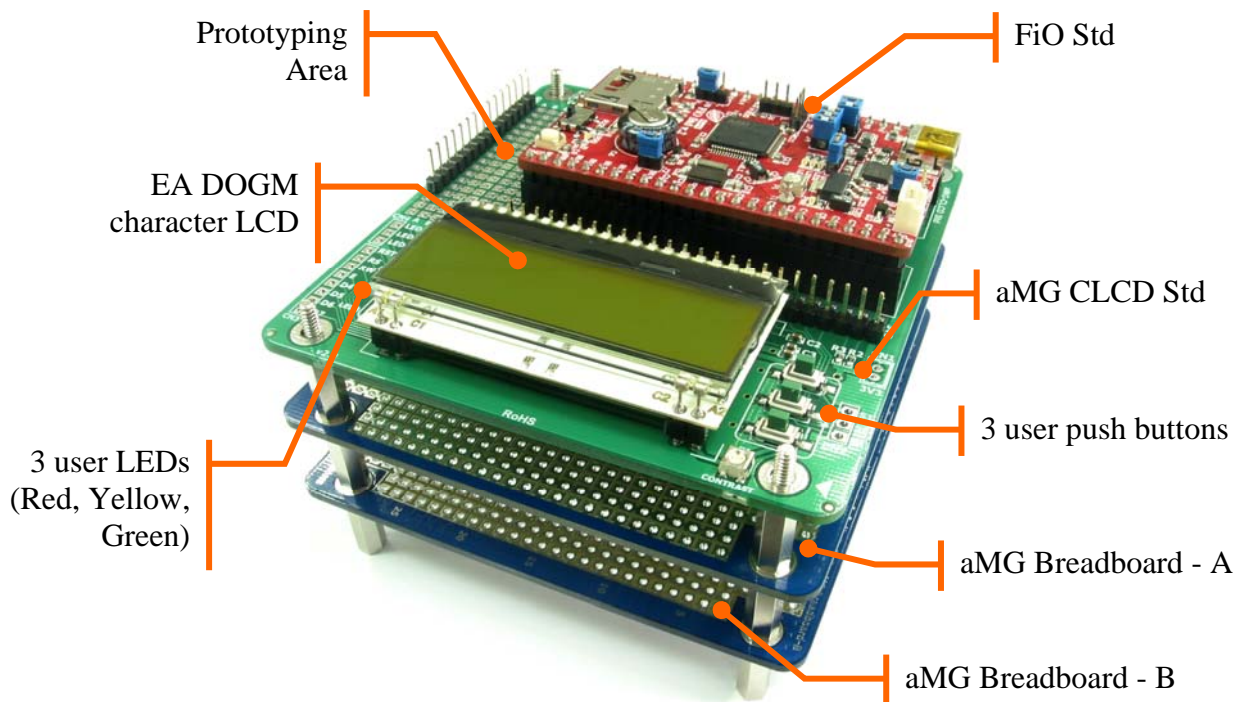**Figure 4 aMG Recommended Layout Configuration**

SAMPLE APPLICATION

Prototyping Area

FiO Std

EA DOGM character LCD

aMG CLCD Std

3 user LEDs (Red, Yellow, Green)

3 user push buttons

aMG Breadboard - A

aMG Breadboard - B

Figure 5 Sample Application with aMG CLCD Std with other aMG breadboards

The following picture shows an example Simulink model that simulates and generates C code for a character LCD. The system reads in GPS data, then saves and displays the GPS information in a character LCD module, as well as save the GPS data to a micro SD card. (Visit http://www.aimagin.com/learn/index.php?title=GPS_data_logger for more information.)
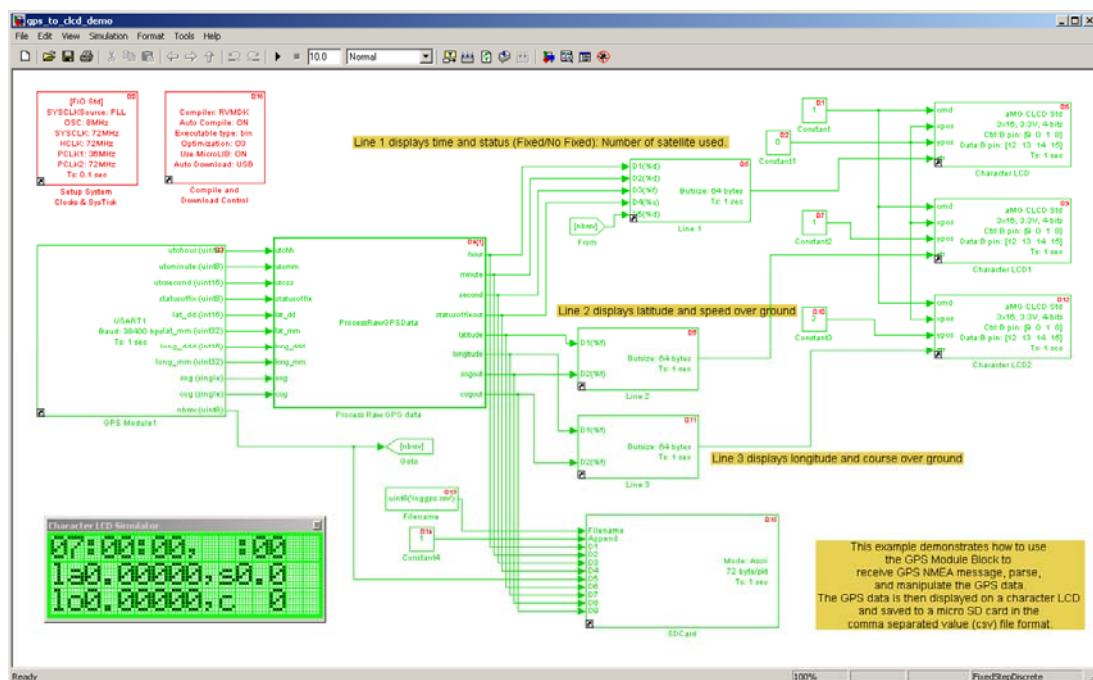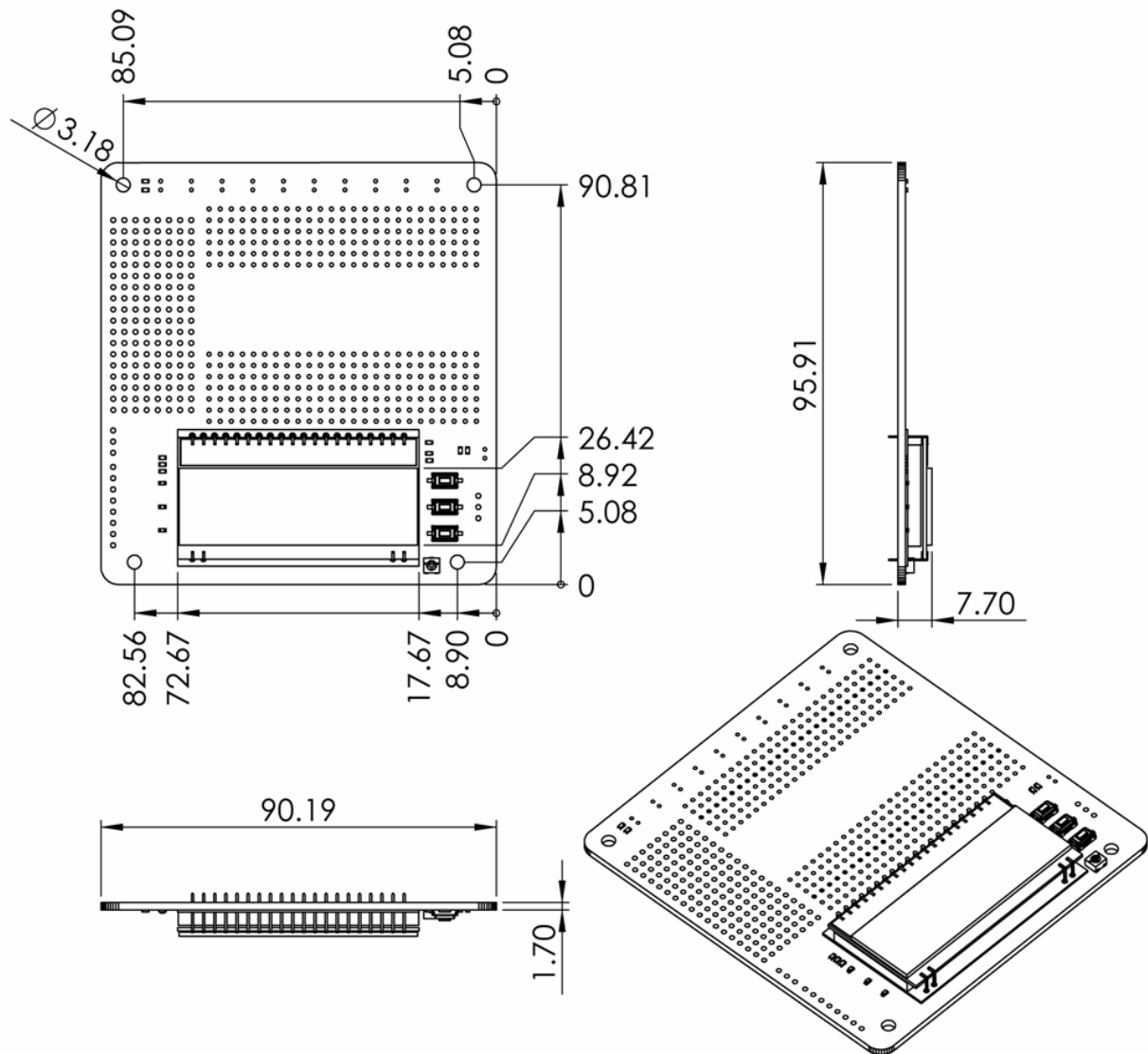

Figure 6 An example usage of RapidSTM32 character LCD simulator in a GPS data logger application

ENGINEERING DRAWINGS (Units: mm)