



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Fastest Path From Prototype to Production!

## Three Graphical User Interface (GUI) hardware solutions available, LCD Modules, Controller Boards, and Controller Chips



Regardless of which hardware solution you choose, here's a partial list of what our technology can do for your product:

- **Considerably shorter GUI development time**
- **Reduced microprocessor load**
- **FAST user-interface execution and navigation**
- **FAST and easy updates and changes**
- **Field updateable GUI**
- **Animated graphics a piece-of-cake!**

### Improve Your Product's Performance and Shorten Your Development Time!

"With Easy GUI we were able to complete our basic user interface in less than two hours, saving me months of hardware design and programming effort—and it freed up nearly 80% of our processor resources!"

— Mark Doble, President, MD Designs, Tampa, FL

#### Amulet's Technology Solution

At the heart of Amulet's LCD integration solution is the Easy GUI Controller Chip. This chip (ASIC) is a combination LCD controller and a user interface engine. The chip eliminates the need for complex code to draw each pixel on the LCD.

Amulet's Easy GUI Controller Chip renders graphical user interface (GUI) pages containing graphic images, Amulet Widgets, and other UI objects directly to the LCD. This lets your embedded micro do its job more efficiently. Thus, the main application can run on a smaller processor with less RAM and ROM, and code development and maintenance time is significantly reduced.

#### Create A User Interface In Minutes!

If you have ever created a web page, you know how quick and easy it is to create UI elements using HTML drag-and-drop tools. You can create a complex GUI for an embedded product in four simple steps:

1. Use graphics programs to create rich images (e.g. JASC Paintshop Pro, Adobe Photoshop, Adobe Illustrator, etc.).
2. Use web page (HTML) authoring tools to create desired look and feel (e.g. Microsoft Front Page, Macromedia Dreamweaver, Adobe GoLive, etc.).
3. Use the Amulet compiler to compile the HTML into  $\mu$ HTML pages.
4. Program the flash.

Your Easy GUI is now ready to navigate!

"Easy GUI may be the answer to your prayers...!"  
— Tom Cantrell, *Circuit Cellar Magazine*

#### Amulet Widgets

Amulet Widgets are UI objects common to embedded systems, but not supported by standard HTML. Widgets provide user-input functions such as function buttons, radio buttons, and check boxes, as well as display-data functions such as bargraphs, line plots, and numeric fields. Generally, Widgets are tied to an external variable, graphics files, or other  $\mu$ HTML pages. Widgets are designed to functionally interface with your embedded microprocessor (or other embedded device) via the Amulet serial protocol.

#### Simple Serial Protocol

The Easy GUI serial protocol uses ASCII text to implement three basic commands:

- Get Variable (byte, word, string)
- Set Variable
- Invoke Function

And the Easy GUI Protocol Simulator lets you emulate the serial interface to the Easy GUI hardware, right from your PC!

Online and catalog distribution by



**Amulet Technologies**  
GUI Engines For Embedded Systems  
**www.AmuletTechnologies.com**  
**or call (408) 244-0363 today!**

# Ready For Product Integration



**STK-GT320**— Starter Kit with 3.8" LED backlit display and 9V battery  
**STK-GT570**— Starter Kit with 5.7" CCFL backlit display and AC power adapter

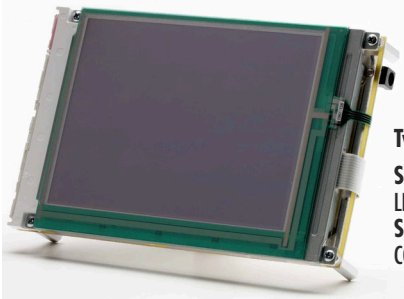
## Easy GUI LCD Starter Kits— The fastest path for integrating a graphical user interface (GUI) into embedded products.

These kits include:

- 1/4 VGA Monochrome, Backlit Display
- Fully-integrated Analog Touch Panel
- LCD Controller Board with Easy GUI Controller Chip
- External Power Source
- Easy GUI Development Software

Use these starter kits to evaluate the Easy GUI hardware and software, and to create the user-interface for your end product. Then use the module kits, controller boards, or Easy GUI controller chip to go from prototype-to-production.

## Easy GUI LCD Module Kits— The most complete LCD solution for production.



Two Kits Available:

- STK-GT320**— Starter Kit with 3.8" LED backlit display
- STK-GT570**— Starter Kit with 5.7" CCFL backlit display

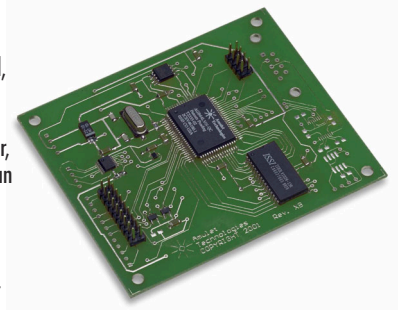
- 1/4 VGA Monochrome, Backlit Display
- Fully-integrated Analog Touch Panel
- LCD Controller Board with Easy GUI Controller Chip

Development software can be purchased separately or comes bundled with Easy GUI Starter Kits.

## Easy GUI LCD Controller Boards — The quickest path to take a graphical LCD from prototype-to-production.

**CB-GT320**— 3.5" x 4.25" controller board; for use with small, 3.3-volt displays.

**CB-GT570**— 6.5" x 4.25" controller board; for use with larger, 3.3- or 5.0-volt displays; includes an inverter for a CCFL backlight.



- Serial Interface
- Touch Screen Decoder
- Easy GUI Controller Chip
- Supports single-scan, Monochrome Displays, up to full-VGA resolution

Development software can be purchased separately or comes bundled with Easy GUI Starter Kits.

## Easy GUI Development Software

UHT-CS1

- Amulet OS
- HTML Compiler w/built-in flash programmer
- Windows Font Converter
- Protocol Simulator
- Help Documentation
- Evaluation Version of web page authoring tool



For use with Easy GUI Controller Chip, LCD Controller Boards, or LCD Modules. Enables you to quickly and easily create feature-rich graphical user interfaces (GUI's) for embedded systems, using web page editing tools. Compiler then compresses HTML, GIF, and JPEG files and converts them to Amulet  $\mu$ HTML pages. Includes widgets for creating UI objects such as bargraphs, lineplots, check boxes, function buttons, radio buttons, text strings, numeric fields, etc.

## Easy GUI Controller Chip— The Heart of Amulet's LCD Solutions

Combination LCD Controller and user-interface engine makes it easy to integrate LCD's into embedded products that use 8/16/32-bit micros and DSP's.

Replaces traditional LCD controller chip.

Eliminates need for complex code to draw each pixel on LCD. Chip renders graphical user interface (GUI) pages containing graphic images, widgets, and other UI objects directly to LCD. Works with single-scan, monochrome displays, up to full VGA. Rapidly create GUI using HTML-based development platform. Development software can be purchased separately or comes bundled with Easy GUI Starter Kits.



**Custom modules and controller boards are also available.**

Contact us for volume pricing, order information and technical documentation.