



COMPLETE HMI SYSTEM SOLUTIONS

Taking you beyond the GUI software challenge



**Amulet
Technologies**

Empowering Flat Panel Displays

www.amulettechnologies.com

Bring Your Products to the Next Level



Advanced consumer electronics devices such as new smart phones, home entertainment devices and game consoles are raising the bar for graphical user interfaces (GUIs) across numerous market segments. Consumer expectations for high-end user interfaces are pushing electronics manufacturers to integrate advanced touch-screen GUIs in everything from automobiles to washing machines.

Embedded designers who build such products face a serious challenge. Taking an artist's or marketing department's concepts and reproducing them onto actual device hardware can

feel like an exercise in futility. Making the UI functional is the smallest challenge; while making it true to the artist's concept is the most difficult challenge. Furthermore, most OEMs already have their hands full just trying to make all of the product features work. They have limited time, resources and expertise to undertake the arduous task of implementing a sophisticated and compelling GUI.



ELIMINATING GUI DESIGN CHALLENGES

Amulet Technologies recognizes these challenges. Our proven technology brings electronics and industrial design together in one solution that allows you to captivate users and set your product apart from your competition. Amulet's dynamic HTML environment increases design flexibility to take your application beyond simple menus and flat 8-bit color. In addition, Amulet's complete HMI silicon solution not only reduces the overall bill of materials, but also eliminates the need to purchase expensive licenses for graphic libraries and operating systems. Amulet will save you time and money without compromising your product's reliability.

PHILOSOPHY

Amulet understands that "user experience" is a key product differentiator for consumer electronic devices. While technology makes a product work, ultimately, it is the user's experience that determines a product's success.

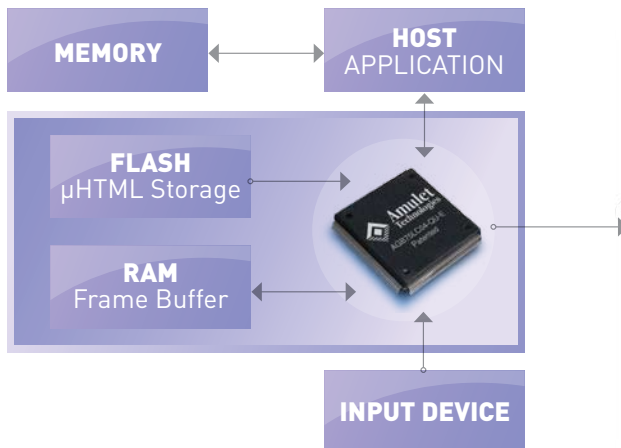
Traditionally, in the embedded space, GUI design has fallen to the engineering department. This is not because engineers are good graphic designers, but because most of the GUI development tools are designed for programmers. This accepted industry norm cuts out the very people capable of adding the "wow factor" — the graphics artists. Amulet believes the key to creating visually appealing GUIs lies in giving the tools to the artistically adept. Amulet built its technology specifically to enable graphic artists to design GUIs using simple HTML graphic editing programs. The production-ready graphics are then handed off to engineering to make the GUI come alive and communicate with the host processor, all without having to write pixel-by-pixel code.



Partner With the Experts in Human Interface Electronics

THE AMULET DIFFERENCE

Amulet's GUI solutions include all of the hardware and software required to turn an LCD and touch panel into a user interface. The Graphical OS Chip™ is a complete graphical operating system that executes GUI applications built in dynamic HTML. For over 10 years, Amulet has enabled OEMs to cost-effectively improve the user experience of their electronic devices with visually appealing, interactive user interfaces. Add the "wow factor" to your product while dramatically reducing time to market and overall system costs. Let us show you how!



Reduce Your Complexity

Reduce dependencies between engineering and marketing with partitioned product design

HTML development allows the GUI to be developed in parallel with the microcontroller code. Graphic artists can create a production-ready GUI while engineering focuses on making the product work. Eye-catching, sophisticated designs can now be implemented without programming. This makes developing and debugging the application much easier.

Keep legacy hardware & software

Because Amulet's GUI runs independently from the host processor, it can easily be added to existing products without interfering with the legacy hardware or software.

Support a complex user interface with the simplest of micros

All Amulet Graphical OS Chips manage the entire GUI, taking the burden off the application processor by only having to send simple commands back and forth (no graphics code required from the host processor), which also means they have a low memory requirement.

Increase Your Flexibility

Reduce design limitations

Take advantage of Amulet's advanced graphic capabilities, which support 24-bit color and alpha-blending, to give your GUI a photo-realistic look, without the traditional power or memory consumption.

Easily create a GUI platform across brands or product groups

Different graphic "skins" can be developed to differentiate brands without having to change the micro code.

Seamlessly upgrade from monochrome to color

Upgrading from an Amulet monochrome GUI to an Amulet color GUI is easy and requires few, if any, changes to the system's code.

Improve Your Customer Satisfaction

Deliver with confidence and flexibility

Amulet allows usability experts to create many GUI iterations for user testing on production-ready hardware to fine tune the UI before the product hits the market.

Create new product iterations fast

Make rapid changes based on customer requirements for next-generation products. Provide the ultimate user experience for your customers!

Keep reliability standards high

Amulet technology is designed for 24/7 reliability, with the hardware designed to optimize the software. The GUI is separated from the main application, which requires less debugging on the application side and gives you the ability to test the UI independently from the embedded control system.

Reduce Your Costs

No need for additional development tools or software licenses

Amulet's GUI Operating System is Royalty-FREE. In addition, the dynamic HTML design environment eliminates the need for expensive design tools and long development cycles.

No need for additional external RAM and ROM to run the OS

Amulet's GUI OS is contained inside the CHIP in ROM and its runtime memory footprint is so small that it runs completely from internal memory.

No need for additional LCD controllers, touch decoders, etc.

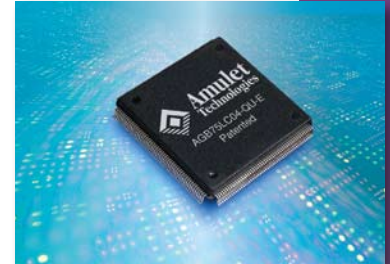
Highly integrated Amulet chips include everything to interface with the LCD, touch panels, etc.

HARDWARE SOLUTIONS FOR SOFTWARE CHALLENGES

Go from prototype to production, seamlessly. Let us help you with MORE than just creating a good looking embedded GUI fast...

COLOR CHIP

Amulet's new advanced GUI processor for color user interfaces enables OEMs and design firms to seamlessly take their products to the next level by implementing interactive, color-rich GUIs. Building upon its proven expertise with monochrome GUI solutions, Amulet's new color chip makes it easier, faster and less expensive for designers to add the "wow factor" to new and existing products. Available in plastic QFP packages and BGA. Need additional peripherals for your application? We can provide custom variations to meet your specific needs.



MONOCHROME CHIP

The Amulet Graphical OS Chip™ supports monochrome displays. This field-proven technology has helped OEMs save time and money while building lasting impressions with their users. Amulet has partnered with hundreds of companies to help them go from ordinary push-buttons, knobs and LEDs to a distinctive graphical user interface that has set them apart from the competition.



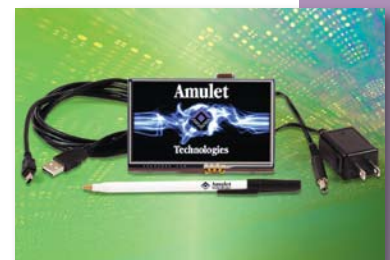
MODULE KITS

5.7" and 3.8" monochrome display modules are ready for production with Amulet's Graphical OS Chip™ and all the other parts to drive the LCD mounted to the back of the display. A fully integrated, drop-in solution is ideal for OEMs when time to market is crucial and/or in-house design resources are limited.



STARTER KITS

Color and Monochrome Starter Kits include everything you need to begin creating a graphically rich, compelling and easy-to-use Graphical User Interface (GUI) right out of the box. They include a production-ready Amulet display module, interface cable, power supply, stylus and Developmental Tools (CD or downloadable link). Your GUI design using a Starter Kit is directly portable to production.



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Call or email us today! Also visit us on the Web at www.AmuletTechnologies.com for individual product flyers, data sheets, programmer's guide, software updates and more.

Products are available through Amulet franchised distributors with direct "order now" links on our Web site.

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