

## COLOR CHIP :. AGB75LC04-QU-E & AGB75LC04-BG-E

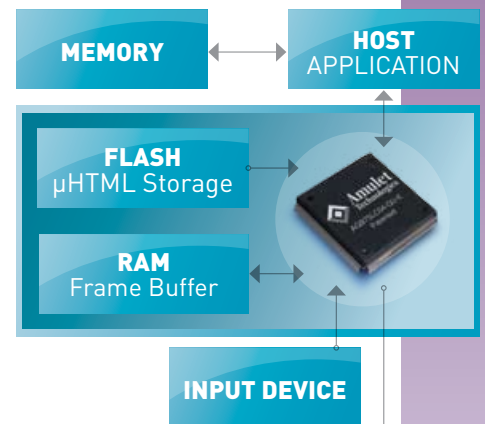


### HIGHLY INTEGRATED GEM GRAPHICAL OS CHIP™ FOR COLOR DISPLAYS



Amulet's GUI processor for color displays enables OEMs and design firms to take their products to the next level by implementing interactive, color-rich GUIs designed with GEMstudio™, Amulet's new GUI design tool. The Graphical OS Chip™ includes all of the hardware and software required to turn a color LCD and touch panel into a user interface. Amulet's solution is perfect for many embedded system applications, including Appliances, Consumer Electronics, Industrial Controls, Medical Equipment and Office Automation.

- ∴ Integrated LCD Controller Supports Passive and Active Displays up to 24 Bits per Pixel
- ∴ High-Speed USB, TWI, UART, and SPI Interfaces
- ∴ Power Management Controller for Low Power Operation
- ∴ Directly Connects to 4- and 5-wire Resistive Touch Panels
- ∴ Up to 39 General Purpose IO Lines
- ∴ Drag-and-Drop WYSIWYG GUI Creation Using GEMstudio™
- ∴ PNG, GIF, and JPEG Image, and GIF Animation Support
- ∴ Built-In Royalty-FREE Graphical Operating System
- ∴ Inexpensive Development Tools
- ∴ PC Based UI Simulator
- ∴ Supports Unicode – Foreign Language Character Sets
- ∴ Font Converter – Built-In



## AGB75LC04-XX-X – Electrical and Environmental Specifications:

208 pin: AGB75LC04-QU-E / 225 pin: AGB75LC04-BG-E

Recommended Operating Conditions	
Power supply $V_{cc}$	3.0V to 3.6V, 3.3V nominal
Power supply $V_{core}$	1.08V to 1.32V, 1.2V nominal
Environmental Specifications	
Operating temperature	-40°C to +85°C
Storage temperature	-60°C to +150°C
DC Specifications	
$V_{core}$ Supply current	22mA @ 1.2V
RoHS Compliant Package Options	
208-PQFP	28x28x3.4mm, 0.5 mm pin pitch
225-ball LFBGA	13x13x1.4mm, 0.8 mm ball pitch

The advanced power management controller has a very slow clock operating mode and software programmable power optimization capabilities. Along with a reset controller and shutdown controller, this gives both chips several low-power options.

The accelerated graphic memory architecture allows for concurrent access to 3 individual memory subsystems for simultaneous program execution, LCD refresh, and frame buffer rendering.

### System Parameters:

LCDs supported	Up to 12" active (TFT) or passive and 24-bit color
Interfaces supported	High-Speed USB, UART, TWI and SPI
Number of GPIO	39 Dedicated pins on the LFBGA and up to 5 on the PQFP package
Integrated Touch Panel Decoder	4- or 5-wire, calibration, noise filtering
SDRAM	32-bit parallel interface
Flash	AT45 Series Data Flash or Compatible Serial Data Flash Recommended

### GEM Graphical OS Chip™ Starter Kit

The GEMstarter-kit™ (STK-480272C) is the easiest way to jump-start your GUI design and go straight to production. It allows your team to experiment with the technology, as well as design and field-test your user interface at the same time the application is being developed. The kit provides everything you need to create and drive a color display, including a 480x272 TFT display, an integrated touch panel and controller board, a GUI design tool (CD or downloadable), a 5 VDC power supply, stylus and USB interface cable.

Alternatively, any LCD Evaluator Kit can also be used to experiment with Amulet's GEM Graphical OS Chip™.

Visit [www.AmuletTechnologies.com/products/lcdevaluator.html](http://www.AmuletTechnologies.com/products/lcdevaluator.html) for more information.



#### Want More Information?

Products are available through Amulet franchised distributors. Contact us to find out more...or visit us on the web at [www.AmuletTechnologies.com](http://www.AmuletTechnologies.com).

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