



COMPANY OVERVIEW

One stop shop for LCD designs reaching every industry with the quality and dedication your products deserves



Advanced LCD Solutions Specialist

| ABOUT US



AGDisplays is a division of its parent company, AssetGenie, Inc. (AGI), a global leader in LCD enhancements, notebook parts, PCB/LCD repairs, and reverse logistics. AGI's Corporate headquarters was established in 2000 in Greensburg, PA. In the past 3 years, AGI has grossed over \$100,000,000 and employs over 150 team members. AGI's products and services are enhanced by a team of advanced software professionals, offering customers web access and seamless integration of their IT systems. We have locations in Pennsylvania, Wisconsin, China, and Texas.



AGDisplays offers turnkey LCD designs for projects moving from design to manufacturing. We bring our partners' ideal display solution to life with innovative LCD expertise. Our turnkey LCD display service gives customer a global reach in supply chain while we integrate value adds right here in Pennsylvania.



AGiRepair is an industry leader in the repair of Apple devices and components, providing repairs for businesses and educational systems throughout the USA. AGiRepair is dedicated to providing the highest quality, fastest turnaround time, and the most affordable price on Apple device repairs & replacement parts.



AGParts is an industry leader in parts and repairs of mobile devices across brands and product categories. We provide complete parts management solutions and select repair services for many leading brands and models of smartphones, tablets and laptops. AGParts also provides a turnkey parts management solution for large customers.

| AGDISPLAYS

Over the last decade, AGDisplays has taken great pride in providing unique LCD solutions for each of our customers. We feature an extensive range of custom panel solutions that improve standard display attributes while maximizing performance in any environment. We've performed thousands of LCD integrations and designs in the last decade.

Whether we are met with a new design or challenged with improving an existing design, AGDisplays supports your team by delivering unparalleled LCD expertise and technology. AGD partners benefit from our efficient design process and our dedication to creating quality design solutions.

AGDisplays values working closely with your team to ensure a high-value, high-quality design solution to create a smooth transition from design concepts to high volume production. We support your teams with the knowledge & expertise needed to make the strategic design and manufacturing decisions. Our 124,000 sq ft facility is below capacity with expansion space available for future growth potential.

We saw the need for off the shelf products, so we've added an expansive line of open/closed frame LCDs, digital signage, and all-in-one products. We offer unique LCD products like advanced touchscreen tabletops, high quality medical displays, and rugged mobile devices. All of which are eligible for value-add integration services. Our products are used across many industries including Military, Avionics, Marine, Industrial, Medical and Transportation and many more.



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| OUR SPECIALTIES



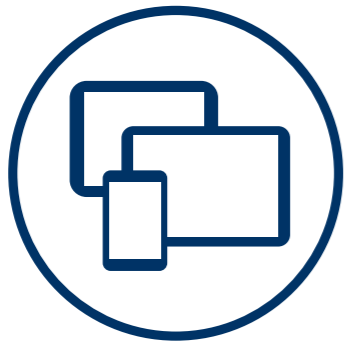
CUSTOM DESIGN

We handle all the design aspects of your project with quality & product lifecycle in mind. New design or existing project that needs upgrades or spec adjustments.



ASSEMBLY

AGDisplays performs both low-volume and high-volume production levels; we maintain high tech, state of the art equipment to perform precise procedures.



OFF THE SHELF

We offer customers' unique LCD products like advanced touchscreen table-tops, high quality medical displays and rugged mobile devices.



DISPLAY REPAIRS

We repair most aspects of LCD technologies so that our customers do not have to replace whole units for minor repairs.

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DESIGN PROCESS



Request

AGD manages incoming request. Direct contact with customer team members. Solution is proposed to meet customer requirement. Complex CRM system tracks customer projects.



Discovery

Ongoing discussions for improvement and advancement of project. Technical details are continuously discussed between team members, design solution comes together.



Solution

Design solution finalized, all project documents stored in internal CRM. Quote is prepared and sent for sales validation. PO is received and processed on consignment or purchase.



Production

Assemble prototypes/ sampling. First article approval. Production schedule and lead time management is shared with customer. Value add work/integration is performed.



Quality Control

Superior outgoing quality assurance measures created to exceed industry standard production. Top notch QC procedures allows for minimum returns. Archives housed on a secure server.

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| OFF THE SHELF PRODUCTS

- LCD Displays
- Rugged Mobile Devices
- Tablets & Smartphones
- All In One Displays
- Open Frame
- Closed Frame
- Touchscreens
- LCD Controllers
- Medical Displays
- Digital Signage
- 3D Displays
- Transparent LCDs
- Touchscreen Tables
- Multi Media Kiosks
- Video Walls
- Wall Mount Displays
- Bus Digital Signage
- LCD Blackboard



| VALUE ADD SERVICES



ASSEMBLY & INTEGRATION

Full service assembly of LCD & components. We build & source controllers, cables & more.



COVERGLASS DESIGNS

Instant optical clarity & display strength. Add custom screenprint designs.



DROP IN REPLACEMENT

For customers who need to replace a display when their original panel is unavailable.



HIGH BRIGHT LED

Decrease power consumption, increase brightness. Compatible controllers available.



TURNKEY DESIGN

Work closely with the AGD team to create turnkey solutions on a new or existing design.



EMI PROTECTION

Block electronic interference between LCDs & surrounding equipment with EMI mesh.



NVIS-COMPATIBLE DESIGNS

Dual mode backlighting for day and night time use; passive solution is available.



INDUSTRIAL REPAIRS

Reduce costs by repairing LCD technology. Full outgoing diagnostic analyses on all units.



FAA §145 REPAIR STATION

We replace film polarizers on the top or bottom surface of your TFT-LCD.



BONDING SOLUTIONS

Full range of custom OCA, optical or tape bond for non-invasive, rugged enhancement.



TOUCHSCREEN INTEGRATION

Upgrade to touch technology without replacing your unit. Find an off the shelf touchscreen solution.



LED & CONTROLLER

We provide advanced generation LED integration/upgrades for high output performance.



FILM ENHANCEMENTS

Increase LCD functionality, versatility & performance. Retrofits into any sized LCD.



LIFECYCLE SUPPORT

We support full lifecycle on AGD original designs & other manufacturer's designs.



ZERO PIXEL INSPECTION

Zero pixel inspections and certificate of conformance documents for your LCD units.

ASSEMBLY & INTEGRATION

AGDisplays offers a one stop shop solution for companies who are looking to design, build and/or source an LCD design and its components. We work together with customers to design a safe LCD assembly for their equipment in need. Safe assembly means a configuration that will provide an LCD unit that will not quickly burn out, interfere with other equipment and that will meet customer specifications.

Assemblies can be built around new LCD designs or even existing designs that have added performance needs. AGDisplays kits units and components together for optimal performance; optionally, AGDisplays will perform integration of components with the display units.



SIMPLE TO COMPLEX

From simple component pairing to full kit building and integration.

COMPLETE CUSTOMIZATION

We adjust our solutions to meet your power and input requirements.

RESOURCING

If we can't source parts in-house, we have a global supply reach.

REDUCED TIME & ENERGY

You tell us your requirements, and we'll assemble your whole build.



HIGH BRIGHT LEDs

If you find your screen is dull and colorless, upgrading to high powered LEDs will breathe new life into your unit, allowing for a vibrant and long-lasting display. AGDisplays provides advanced high bright (1000+ nits) LED rails with high-output, low consuming to enhance display color and contrast; maximize efficiency and lifetime of your panel by upgrading to a stable design including high bright LED rails and a constant current LED controller.

Design flexibility allows for edge lit design or direct backlight array options. Our Generation 4 LED rails provide high bright solutions while keeping a low environmental footprint. With small, powerful LEDs, our LEDs boast added protection with low power consumption.



GENERATION 4 LED

High bright output, low power consumption and a low environmental footprint.

RUGGEDIZATION

Protection against shock/vibration, extreme humidity and frigid temperatures.

LIFESPAN

Overall LED lifespan reaches up to 100,000 hours.

RETROFIT

There is almost no limit to shape and size in which LEDs can be installed.



| NIGHT VISION SOLUTIONS

We offer two customizable NVIS solutions for TFT-LCDs. Whether the need to be compliant to MIL-STD-3009 or merely compatible with NVG equipment, we offer solutions tailored to accommodate your requirements and your existing LCD unit.

Our dual mode backlighting solution involves integrating both high bright and class A or B light filters into the panel. This provides the option of using the panel in daylight mode and in night mode. Daylight readability is increased with the installation of our Generation 4 high bright LEDs, while night mode is ideal for use with night vision goggles.

We also offer an NVIS filtering material for devices not looking for an active enhancement. Consult with AGD experts to find which solution best fits your needs.



DUAL MODE BACKLIGHTING

Dual mode is for day and night time use; robust active solution.

MIL-STD-3009

Solutions are configured to comply with MIL-STD-3009 or simply to be compatible.

FULL FRONT NVIS

A front film filter for devices not looking for a robust or active NVIS solution.

OPTICAL COATINGS

Various optical coatings available like anti-glare and an optically clear hard coat



| BONDING SERVICES



OCA BOND

Liquid optical bond can prove to be expensive. OCA bonding is considered a safe and effective alternative to the liquid optical bond method. Like liquid clear adhesives, OCA reduces the reflection layers in a panel. OCA bonding is clean, which eliminates the need to clean up residuals after the bonding process is complete. The process produces high yield and is repairable.



OPTICAL BOND

Our optical bonding service is the most robust ruggedized bonding service AGDisplays has to offer. Augmented optical performance including increased luminance, increased contrast, and reduced internal reflections. Optical bonding creates superior LCD strength and prevents a shattering screen and less vulnerable to contamination and moisture.



TAPE BOND

When optical bonding is not practical for your LCD, AGDisplays offers tape, or perimeter, bonding. Perimeter bonding helps your company save on costs while still ruggedizing your panels sufficiently. Our tape bond services provide a secure bond that increases productivity, long-term durability and improved appearance.

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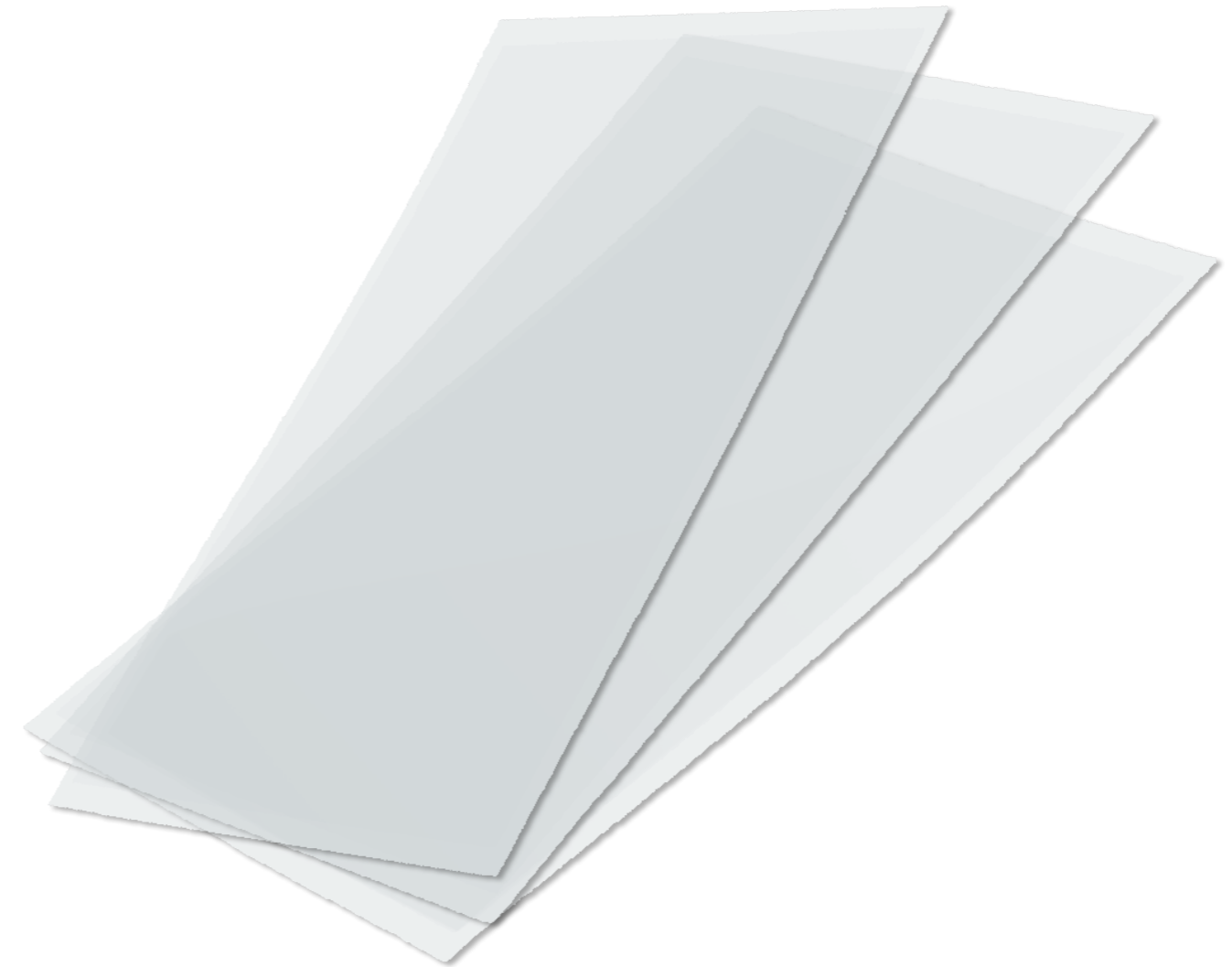


| OCA BONDING

Optically Clear Adhesive (OCA) bond is a dry film material that is pressure-sensitive. AGDisplays typically uses thin OCA adhesive in small frames and thin display applications. The film application allows for precise and unique processing during production. It is suitable to outdoors and harsh environments.

OCA film has silicone's core properties such low conductivity, low chemical reactivity/thermal stability and the ability to repel water. The installed film allows for excellent display readability and contrast while having anti-reflective/anti-glare features.

AGDisplays offers the material in varying thickness, allowing for flexibility in design builds. This option is cost effective, giving customers up to 50% cost savings versus robust bonding services.



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| OPTICAL BONDING

This robust solution may involve a full lamination, consisting of two outer substrates sandwiching alternating layers of adhesives and other elements. The solution creates superior LCD strength and prevents a shattering screen and less vulnerable to contamination and moisture. It also provides extended operation temperature range capability and increases touch response. Laminated applications can include: EMI shielding, privacy filters, enhancement filters and security screens.

Optical bonding increases quality and lifespan of LCD, keeping overall replacement costs low. Although our optical bonding service is the strongest bonding service we provide, the solution is reworkable through our production process. AGDisplays performs quality assurance measures and testing on each LCD to ensure specifications are met. Our facility is capable of performing low and high volume production.

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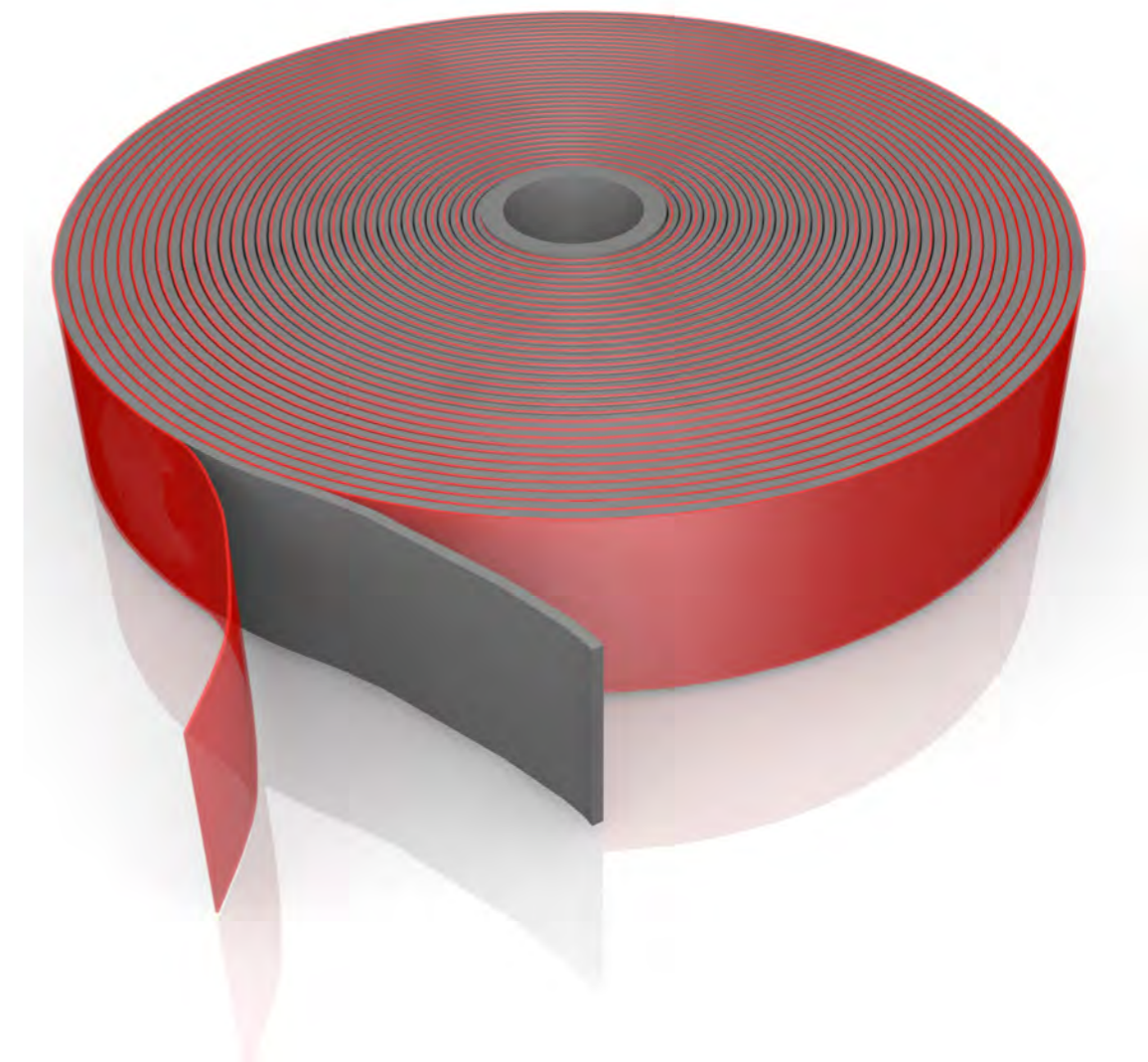


| TAPE BONDING

When optical bonding is not practical for your LCD, AGDisplays offers perimeter bonding. Perimeter bonding helps your company save on costs while still ruggedizing your panels sufficiently. Our tape bond services provide a secure bond that increases productivity, long-term durability and improved appearance. The adhesive offers a wide temperature specification, allowing durable placement of the touch screen to the LCD in various environments.

Our technical experts use a class 1000 clean room to manually perform each bond with precision. Manufacturing yield for perimeter bond is high and is a cost-effective & common solution. AGDisplays supports virtually any manufacturer of LCD and touchscreen. For cover glass shield protection, AGDisplays will work with your requirements to offer products and glass materials to achieve your exact requirement.

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| PASSIVE FILM ENHANCEMENTS

Passive enhancement process requires no changes in neither electronic components nor additional wattage consumption. These solutions may include a number of light management materials (reflective polarizers, efficient light pipes, light reflectors, etc.). Our enhancements are suitable for industrial and defense applications.

AGDisplays LCD enhancement solutions are capable of brightening your display without increasing power. Film integration also increase display contrast and readability. Many of our films prevent scratch and display contamination. Talk to an AGDisplays representative to discuss the wide selection of film integration solutions we offer.



PRIVACY FILM

Decrease side-viewability for sensitive applications.

ANTI-GLARE FILM

Reduce outside glare and increase panel readability.

ANTI-REFLECTIVE FILM

Increase light transmission; Better contrast, sharper images.

BRIGHTNESS ENHANCING

Increase display brightness while avoiding an increase in power consumption.

COVERGLASS DESIGN

AGDisplays' cover glass design and integration service for customers looking to improve optical clarity and increased LCD strength. We offer different material substrates that each provide unique benefits to your LCD. On top of cover glass solutions, we offer to integrate a variety of optical coating solutions with the cover glass for added benefit and performance. A cover glass substrate is integrated with a specific bonding method: OCA, optical or tape bond.

Combining custom glass substrates with a printed logo or custom graphic on your units lets users know your name and/or gives your unit a modern and professional look. AGDisplays recommends adding touchscreen capabilities for a robust but cost-effective performance upgrade. Adding a hardened glass and touchscreen configuration gives your unit increased strength and jumps display performance from standard display to fast and intuitive usability.

SIMPLE TO COMPLEX

From a simple coverglass installation to a complex touchscreen G+G & film design.

COMPLETE CUSTOMIZATION

We adjust our solutions to meet your hardness and clarity requirements.

TIMELY FORECASTING

Our coverglass project forecasting is efficient and accurate.

REDUCED TIME & ENERGY

You tell us your requirements, and we'll design the coverglass build.



| TURNKEY DESIGN

Turnkey LCD solutions involve organizing a customer's overall project and selling a complete solution. A design on the customer's end can simply be providing us with LCD requirements while AGDisplays provides a suitable solution. Development team works closely with each client, from simple designs to complex projects.

This service includes any of AGDisplays' solutions in accordance with customer specifications. Services may include design/engineering support, subcontracting, first article approval, procurement & expediting of materials, performance guarantee testing, quality functionality testing and more.

SIMPLE TO COMPLEX

From simple integration, to complex designs & strict requirements.

COST REDUCTION

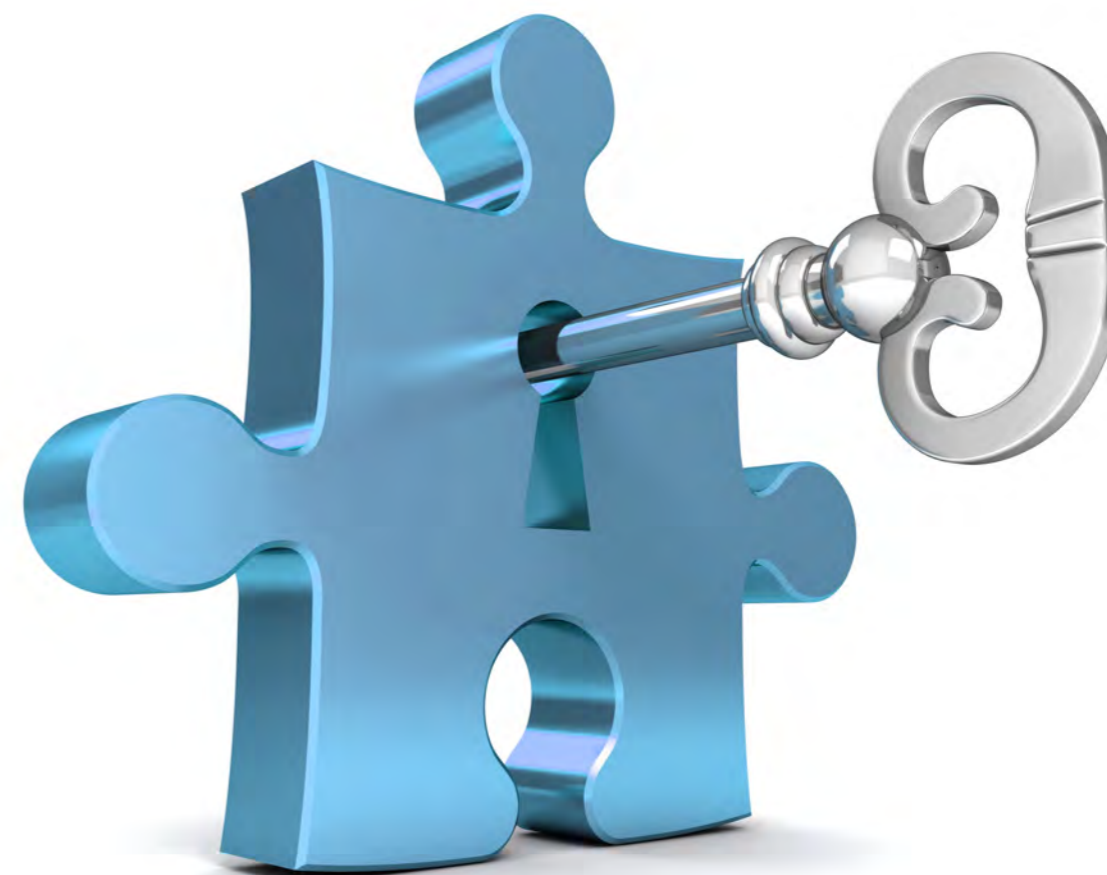
You tell us your requirements, and we'll design & integrate your build.

COMPLETE CUSTOMIZATION

We adjust our solutions to meet all your specification requirements.

RESOURCING

If we can't source parts in-house, we have a global supply reach.



INDUSTRIAL REPAIR

Industrial repair utilizes all facets of AGDisplays capabilities. We repair most aspects of LCD technologies so that our customers do not have to replace whole units for minor repairs. AGDisplays also provides repair warranty services for panels that are no longer under OEM warranty.

Our repair service aims to meet or exceed your already existing data specification. We aim to extend the life of your product, to keep maintenance costs down and to work efficiently, all while working above a standard you are used to seeing with large corporations. Our team has 40+ years of collaborative LCD repair experience to ensure your designs are handled properly.



FULL DIAGNOSTIC TESTING

A full diagnostic analysis is performed on each repaired unit during outgoing QC.

END OF LIFE PANELS

Utilize our access to End of Life panels that may be out of reach for others.

LIFESPAN

Repair keeps replacement costs down by extending unit lifespan.

WARRANTY

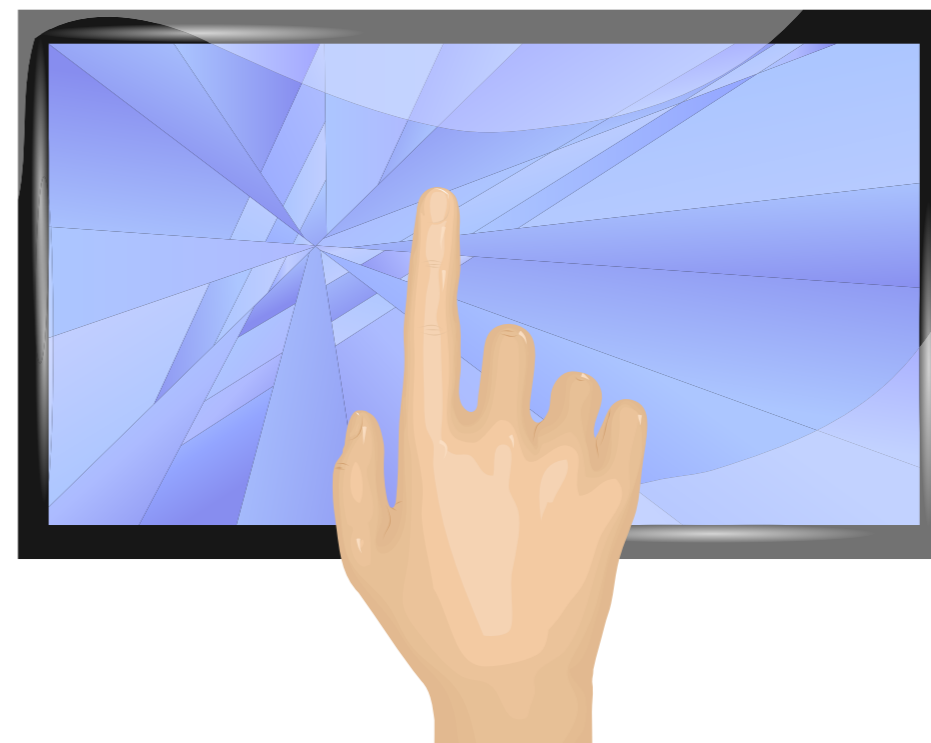
We offer a warranty on all of our repair work.



TOUCHSCREEN DESIGN

AGDisplays designs compatible solutions for existing LCD designs or we also provide a new unit that is touch compatible. Many LCD panels are not equipped with a touch sensor. AGDisplays turns customer LCDs into touchscreens with the quick integration of a compatible touch sensor. We also perform repairs, replaces or enhances touchscreen technology.

Product application plays a major role in the type of technology needed, and each touchscreen technology has pros and cons, depending on the application's environment. It is important to work with the AGDisplays design teams to ensure the best touchscreen match as well as safe and secure touch sensor integration.



CUSTOMIZE

Select the best touch configuration available for your application.

INTUITIVE

A mouse/keyboard is familiar to most, but touch comes intuitively & with ease.

RESPONSIVE

Touchscreens are quick & responsive for better efficiency & productivity.

COST REDUCTION

Instead of replacing, upgrade your existing display for touch functionality.



LIFECYCLE SUPPORT

Product lifecycle management is the process of taking your product from inception, to design, to manufacturing, to repair/service and then finally to disposal. Implementing an organized product lifecycle management program may be a challenge for companies who run into design and engineering challenges. AGDisplays works together with your teams to support your product's life from the conception to disposal. At the end of a product's lifecycle, we can provide EOL display and component alternatives to extend your product's lifespan.

As broken components on your panel go EOL, AGDisplays provides a quick and hassle-free source for new or alternative components. We follow strict supply chain practices and well-maintained databases that lead to ultimate quality and customer satisfaction. Moreover, we use test sample orders and validate supply chain offerings prior to large order placement.

DESIGN IMPROVEMENTS

LCD designs, upgrades and repairs to increase lifespan & performance.

END OF LIFE PANELS

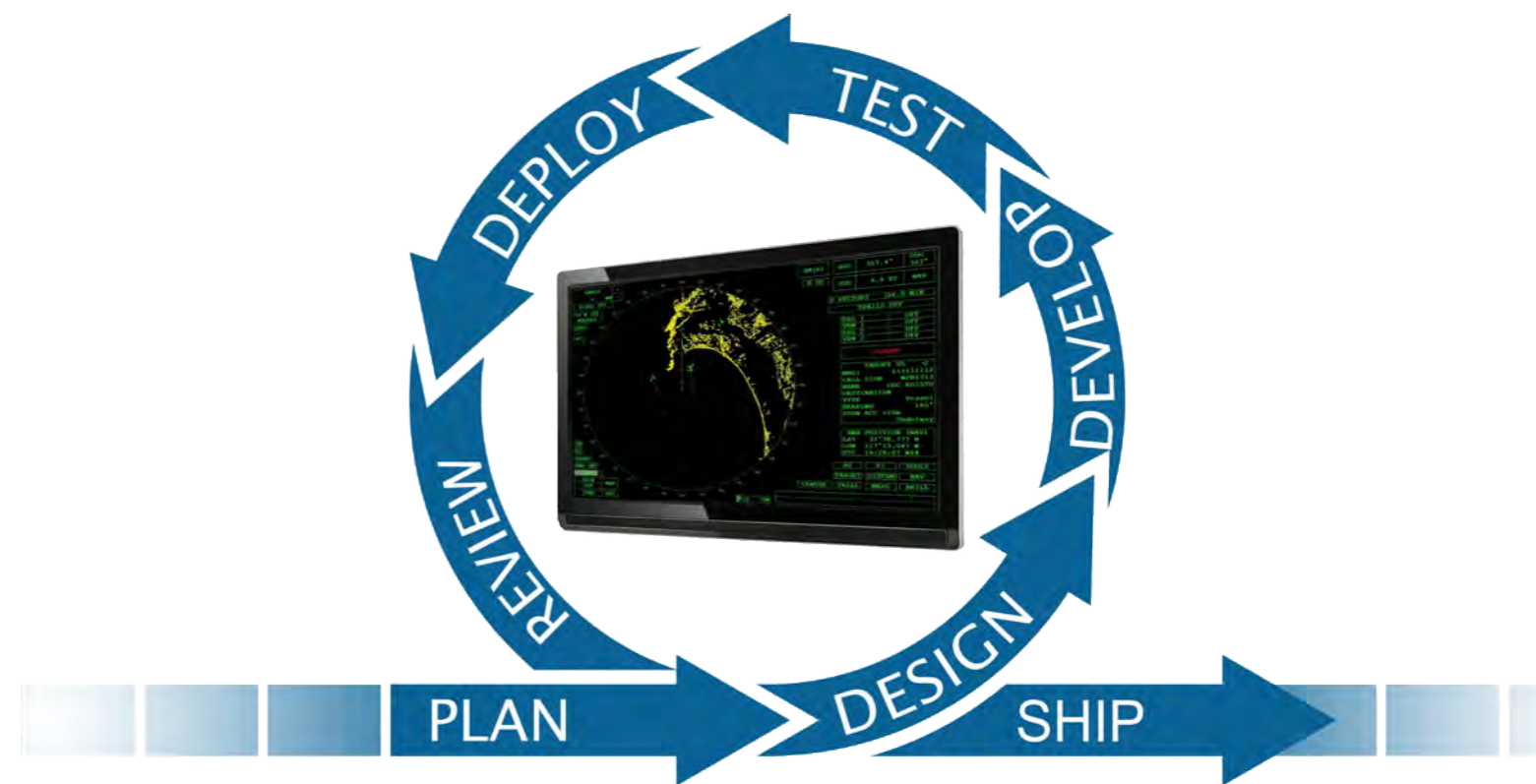
If needed, drop-in components sourced from additional suppliers.

DIAGNOSTIC TESTING

Full diagnostic testing for each unit: luminance analysis, optical film stack & more.

DROP IN OPTIONS

We offer a warranty on all of our repair work.



| DROP IN REPLACEMENT

When your LCD display has broken, needs replaced or simply needs a technology upgrade, and you have design/equipment elements to consider, you will want to look for a replacement part instead of replacing the unit. Problems may arise when you are sourcing the new panel from your original manufacturer. For example, by the time your panel has degraded, your LCD may be end of life, making it difficult to source; original manufacturers may be charging premium prices for their replacement LCD parts.

AGDisplays offers a drop in replacement service for customers who need to replace an LCD or LCD component when their original panel/part is unavailable; this service is also for customers who are looking for a cost effective, suitable replacement or upgrade to their existing LCD. AGDisplays offers availability of standard or custom high-quality LCDs of virtually all shapes and sizes.



END OF LIFE PANELS

Verify that your LCD panels meet your zero pixel specifications.

UPGRADES

We find suitable upgrades that are retrofitted into your designs.

SAFE INTEGRATION

We ensure compatibility so integration doesn't compromise equipment

WARRANTY

You receive an extended warranty on production support.



EMI SHIELDING

AGD's EMI Shielding Integration service is for customers who need to block electronic interference between their LCD and the equipment that may negatively affect it. EMI shielding provides "immunity" for electronic components that are susceptible to EMI interference. Typical EMI shielding integrations involve installing a metal box to protect the vulnerable unit. We offer alternative integration solutions.

AGDisplays has several mesh and film solutions that allow for a passive LCD installation that will not intrude on electrical components or power consumption. Our film solutions allow optimum optical performance while providing a high level of protection.

RETROFIT

With mesh and film solutions, there's virtually no size/shape limit.

PASSIVE INSTALLATION

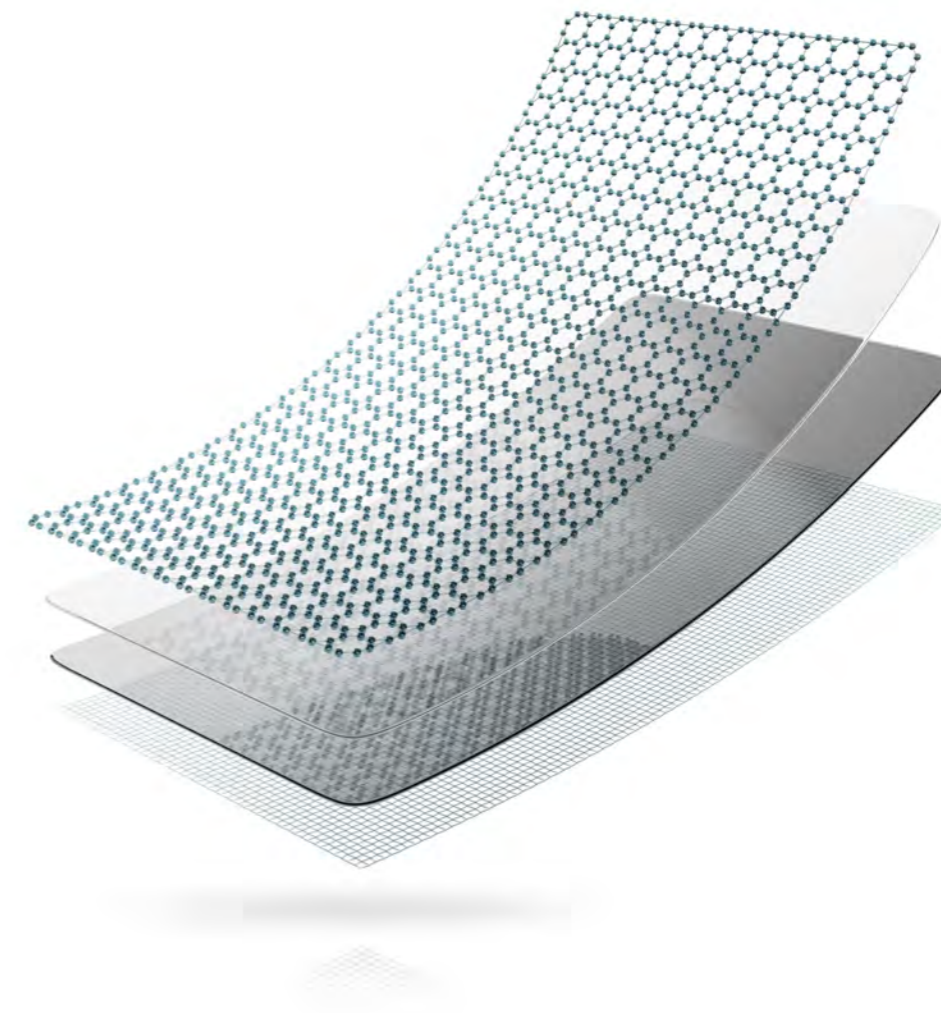
No bulky metal installation. Mesh and film solutions offer effective protection.

POWER CONSUMPTION

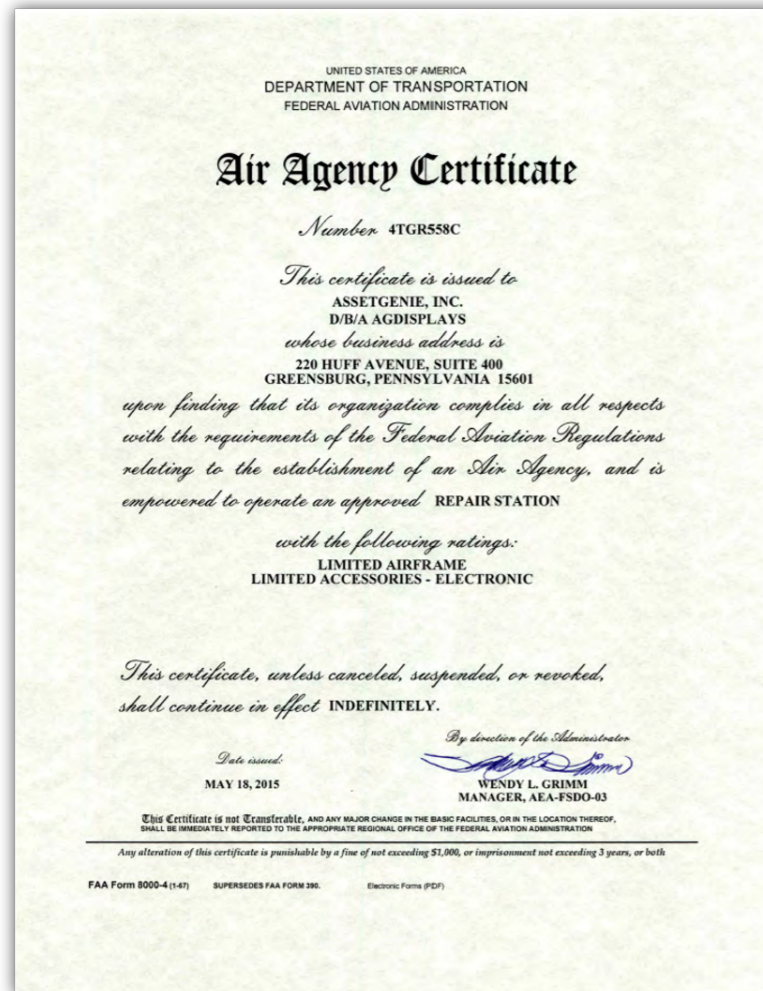
EMI solutions do not increase power consumption of your unit.

FAST INSTALLATION

Integration is quick and easy, requires no re-design. Quick turn around time.



| PART 145 REPAIR STATION



The Federal Aviation Administration has found AGDisplays in compliance with the requirements of the Code of Federal Regulations Title 14 Part 145 for Repair Stations. AGDisplays employs a Part 145 Limited Airframe, Limited Accessories rating.

We perform maintenance and repairs to in-flight LCD panels in our facility in accordance with contract requirements. We employ Part 65 certified repairmen trained to inspect, repair, and approve airworthy LCD panels within the Repair Station's rating.

With our Air Agency certificate, AGDisplays ensures that programs, quality systems and methods of compliance are stringently reviewed, evaluated, and documented when it comes to the maintenance of FAA-approved articles. Companies looking for in-flight panel repairs can now contact AGDisplays to discuss capabilities.

As a certificated Part 145 Repair Station, we implement top-notch quality assurance procedures to evaluate efficiency. Currently we are able to provide repolarizations under our certificate and we are working hard to expand our capabilities to allow us the ability to provide in-flight entertainment LCDs.

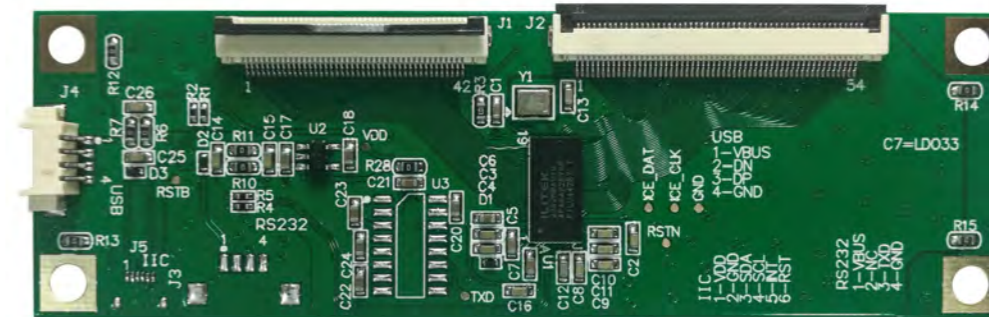
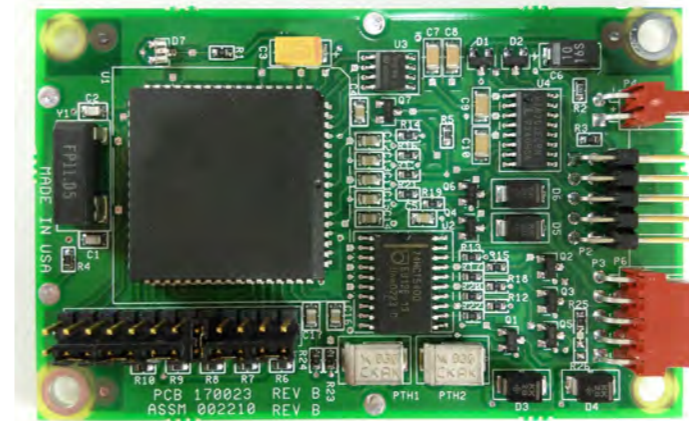
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LED & CONTROLLER

While upgrading to high powered LEDs will provide a vibrant display, LED rails will require compatible LED controllers for stable power and a long-lasting unit. AGDisplays manufactures our own line of LED controllers that work safely with our LED rails and integrate into virtually any OEM LCD.

Pairing AGD's controllers with LED rails provides a small environmental footprint as well as an increase in overall backlighting lifespan. We assure controllers are integrated safely and with maximum brightness output. AGDisplays' LED controller provide a safe way to power your LED backlighting system.



SMALLER FOOTPRINT

Decreased power consumption with safe, constant current LED controllers.

CONSTANT CURRENT

LED controllers regulate and adjust to maintain a safe and constant current.

WIDE POWER INPUT

AGD LED controllers are flexible, with a wide power input range of 12-24 volts.

FEATURES

Dimming ability, DC to DC power inverters with error loop filter & wide temp ranges.



ZERO PIXEL INSPECTION

This service is for customers who have a zero fail pixel standard. AGDisplays uses a meticulous objective visual verification process to ensure your quality standards are met and that LCD pixel defects are not present in your products. We receive panels from the OEM before they reach the customer and we verify that your zero-pixel specifications are being met. If the panel fails OEM specification grade, we perform an exchange for panels that are standard or above standard for your industry.

AGDisplays employs a comprehensive training program so your units are in the hands of Technicians who expertly handle units like yours every day. Our Technicians and Inspectors use best practices in managing testing and inspections.

Customers may send LCD panels directly to AGDisplays for inspection. We inspect panels for hot, stuck dead pixel and evaluate LCD quality standards. We confirm and document our findings for verification purposes.

VERIFICATION

Verify that your LCD panels meet your zero pixel specifications.

URGENCY

Our team acts with urgency on every request so your timelines are met.

QUALITY

Our Technicians are trained and familiar with quality improvement methods.

DOCUMENTATION

You'll receive documentation per LCD panel to confirm zero pixel status.



THANK YOU!

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www.agdisplays.com

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