

RUGGEDIZATION PROCESS & CAPABILITIES

CUSTOMIZED SOLUTIONS

More than meets the eye:

It's not just what you see that makes our displays impressive.

Customized/Ruggedized displays have various and important applications in defense, aerospace, industrial, medical, automotive and other industries; and the terms 'ruggedized', 'advanced', 'customized' and 'militarized' often mean the same thing.

Customized display solutions consider:

- » Sun Readability
- » High Brightness
- » Wide temperature range & Environmental
- » Increased Color Gamut
- » Controlled Viewing Angle
- » High Reliability and long Lifetime
- » Special Bezel Functions
- » High Contrast
- » NVIS Compatibility
- » Improved EMI shielding
- » Increased Color Rendering Index
- » Specific Video signal Interface
- » BIT (Built In Testing) and Controls

Depending on the application, different levels of customization and/or ruggedization and appropriate technical solutions can be applied to new designs or adapted COTS AMLCD panels.

The process, in either case, usually involves consideration of the following engineering solution factors:

- » Mechanical Design
- » Electrical/Hardware Design:
- » Software (Firmware) Design
- » Optical Design

ABOUT THE COMPANY

Luxell is certified to ISO9001:2000 and AS9100 quality standards.

While product excellence is ensured through established quality control programs, continuous improvement programs are also used to monitor and maintain performance, ensure timely delivery, cost effective pricing and consistent responsiveness to customer needs.

Luxell offers complete life cycle management, from product definition and requirements, through engineering and qualification, test engineering, manufacturing and logistics.

The displays depicted in this brochure are examples of Luxell's capabilities and are milspec qualified to operate reliably in challenging defense environments.

Luxell products are qualified to the following military and commercial standards:

- » Environmental: MIL-STD-810 and/ or D0160
- » Optical/NVIS: MIL-L-85762A or MIL-STD-30009
- » EMC: MIL-STD-461
- » Software: D0178 and D0254

Over the years, Luxell has established a large global footprint and examples of the Company's customers include:

- » Aerlyper
- » Denel
- » General Dynamics Canada
- » Indra
- » Littal
- » Lockheed Martin
- » Saab Grintek
- » Raytheon
- » Rheinmetall Defence
- » Selex

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CUSTOM RUGGEDIZED FLAT PANEL DISPLAY SOLUTIONS



THE LUXELL DIFFERENCE

For more about Luxell visit www.luxell.com

With superior quality displays and cost-effective solutions, we've got your unique needs in sight.

Luxell Technologies Inc is a public company established in 1994. The Company's founding mission was to design and develop state of the art display technologies.

Luxell has since developed a wide range of flat panel display sizes, resolutions and orientations to meet a variety of demanding engineering and environmental challenges.

The Company has already supplied display products to many of the largest defense firms in the world.

Luxell's high performance displays for aerospace, defense and commercial applications include:

- » tactical displays
- » radar warning devices
- » navigational displays
- » maintenance, mission & instrumentation systems as well as displays for global positioning systems, field communications systems and tactical portable computer display units.

Luxell covers the entire life cycle of its display products, from design through manufacture and qualification. The Company also offers integrated logistics support over the full life of the equipment.



AIR / AVIONICS

DISPLAYS



LAND

DISPLAYS



NAVAL

DISPLAYS

CUSTOMER SERVICE

Features:

- » Sunlight legible
- » Suitable for NVIS application
- » Touch screen option available
- » Meet MIL STD and RTCA requirements
- » Several bezels with soft keys available subject to customer specifications
- » Luminance according to requirements
- » Lightweight, small, low power consumption
- » A variety of electrical interfaces available
- » LED backlight available
- » Power PC for the larger displays

Formats available in ATI range are:

- » 3ATI
- » 4ATI
- » 5ATI
- » 6ATI
- » 10.4"
- » 12.1"



10.4" DISPLAY

Product specifications and options may be subject to change and are dependent on customer configuration. Additional or customized display sizes are also available.

Format	10.4"	12"	15"	19"	20"	21"
Technology	AMLCD	AMLCD	AMLCD	AMLCD	AMLCD	AMLCD
Resolution	1024 x 768 XGA or SVGA	1024 x 768 XGA or SVGA	1024 x 768 XGA	1280 x 1024 SXGA	1280 x 1024 SXGA	1280 x 1024 SXGA
Active Area (mm)	210 x 158	246 x 184	304.1 x 228.1	376 x 302	399 x 319	432 x 324
Backlight	LED	CCFL	CCFL	High Lum.	High Lum.	High Lum.
Interface	RS 422 DVI VGA/PAL/NTSC/LVDS/Ethernet	VGA/PAL/NTSC/LVD/Ethernet	VGA/PAL/NTSC/LVDS/Ethernet	VGA/PAL/NTSC/LVDS/Ethernet 10/100	VGA/PAL/LVDS/Ethernet 10/100 Base T	VGA/PAL/LVDS/Ethernet 10/100 Base T
Touch Screen	Yes	Yes	Yes	Yes	Yes	Yes

Products/displays illustrated are designed to meet individual customer specifications.

Format	12"	15"	19"	20"	21"
Technology	AMLCD	AMLCD	AMLCD	AMLCD	AMLCD
Resolution	1024 x 768 XGA or SVGA	1024 x 768 XGA	1280 x 1024 SXGA	1280 x 1024 SXGA	1280 x 1024 SXGA
Active Area (mm)	246 x 184	304.1 x 228.1	376 x 302	399 x 319	432 x 324
Backlight	CCFL	CCFL	High Lum.	High Lum.	High Lum.
Interface	VGA/PAL/NTSC/LVD/Ethernet	VGA/PAL/NTSC/LVDS/Ethernet	VGA/PAL/NTSC/LVDS/Ethernet 10/100	VGA/PAL/LVDS/Ethernet 10/100 Base T	VGA/PAL/LVDS/Ethernet 10/100 Base T
Touch Screen	Yes	Yes	Yes	Yes	Yes

Products/displays illustrated are designed to meet individual customer specifications.

LUXELL IS COMMITTED TO ENSURING CONSISTENT AND TOTAL CUSTOMER SATISFACTION WITH A FOCUS ON PROCESS IMPROVEMENT AND INNOVATIVE TECHNICAL SOLUTIONS.

LUXELL OFFERS:

- » Upgrade of legacy displays and controls including support
- » Refurbishment & Repair
- » Contract Manufacturing & Testing

SERVICE PROCESS SUMMARY:

- » Customer product analysis and evaluation
- » Failure trend analysis
- » Customer warranty repairs
- » Cost of repair estimate
- » Upgrades and revision changes performed to customer direction
- » Full ATP testing including ESS
- » Troubleshooting to component level
- » SMT capability
- » Refurbishments
- » Design change recommendations submitted to Engineering for evaluation
- » Full program support per customer contractual agreements
- » Coordinate and receive customer material returns through RMA system
- » Complete product tracking through Customer Service



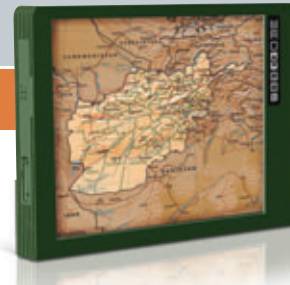
MAINTENANCE DATA PANEL



4ATI



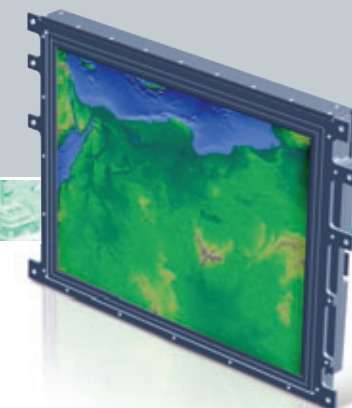
TABLET COMPUTER



19" DISPLAY



20" DISPLAY



19" DISPLAY



20" DISPLAY