

**Industrial Monitors
vs. Consumer Grade Monitors or TV's
White Paper
by MIDCOM Data Technologies, Inc.**



Why use industrial and commercial monitors instead of consumer grade TVs?

When looking to buy for a first time or to replace a flat panel display for your industry, you have probably been doing some research into all the brands, options and grades available in the general market today.

It is possible that you have gone on-line or even visited one of the local big box electronic stores and marveled at the possibilities and low prices. And with price driving the majority of big decisions these days you may be tempted to buy the biggest screen at the lowest price during the weekend blow-out sale. After all, outside of violating the “not for commercial use” clause of the warranty agreement, what is the real harm in putting a consumer grade LCD panel in your industry?

We urge you to read this article before making any big decision. If price was the only factor in your decision making process you may soon find that there are many other factors that could cost you big money in the short and long term due to loss of productivity, product life, compatibility and voided warranties.

Computer Compatibility

It is common knowledge that trying to connect your computer to your TV may prove to be more than a little challenging and with limited success. That is because consumer grade displays are designed primarily for TV/Video formats with very limited PC resolutions. Whereas commercial and industrial displays are perfectly suited to incorporate PC resolutions in a varied line of connections and ports, including wide formats and high definition (HD) resolutions.

Another point to consider is the lack of connector interface. Consumer grade displays do not offer RS-232 external display control/connectors, multiple configuration capability (video walls) and a full complement of connectors.

MIDCOM presents an ALL-IN-ONE solution where we provide integrated computer modules fully compatible with the display either in portrait or landscape mode (consumer grade can only be viewed in landscape mode), touchscreen capability, industrial power supplies and fans and long time motherboard solutions. We offer the ModPak removable unit in three versions: Full PC, Pro-AV and standard monitor. And the 1080PC computer module engine that will drive dynamic multimedia content, including video, flash, images, website, RSS messaging, alert messages, capture data, etc... Just Plug and Play!

Reliability and Durability

Unlike the consumer applications where they are used an average of a few hours per day, commercial and industrial displays are characterized by long hours of operation. Consumer displays are designed to have moving images at all times. In an industrial environment you may have static images such as production numbers, graphics and other slow moving data. Commercial and industrial displays have specific components and software that prevent and eliminate the possibility of image retention or “burn-in images”.








Consumer grade displays are not designed to withstand longer operating hours without overheating and potentially permanently damaging its internal components. Commercial and Industrial have integrated cooling fans to help dissipate heat efficiently.

In fact, the most common reason for failure in consumer displays is the low grade power supply and electronics. Most power supplies are industrial grade and are covered by a 5-Year warranty and the displays are covered by a 2-Year warranty. We stand 100% behind our products.

So if you plan on acquiring consumer displays for your industry to be used more than 25 hours per week or even 24/7, you should definitely reconsider using the consumer model. With longer run times, compatibility, demanding applications and the warranties that support them are critical factors to operating your industry – take a second look at commercial and industrial displays. You will be glad you did.

LCD Grade Comparison

	Consumer Grade	Commercial Grade	Industrial Grade
			
Uses	Landscape Only Entertainment purpose only	Landscape and portrait rotation Digital signage purposes	Landscape and portrait rotation Digital signage purposes Multiple display configuration (Video Walls)
Design	5 Hours per day recommended Images in motion only Plastic enclosure No heat dissipation system Thick plastic bezel	16 Hours per day recommended Static/dynamic images Rugged-metal enclosure Built-In cooling fans Thin Bezel (24mm)	24/7 continued play time Static/dynamic images Rugged-metal enclosure Built-In cooling fans Thin Bezel (7mm)
Power Supply	Low grade power supply	Industrial grade power supply (5-Year Warranty)	Industrial grade power supply (5-Year Warranty)
Computer	Integrated PC not available and not compatible with most PCs	Integrated PCs available: 1080PC computer module, or ModPak: Full PC, ProAV, Monitor	Integrated PCs available: 1080PC computer module, or ModPak: Full PC, ProAV, Monitor
Video Controller	No external display controls Low brightness	High nit ratio – high brightness RS-232 external display control/connector, VGA, DVI, HDMI	High nit ratio – high brightness Multi In-Out, RS-232 external display control/connector, VGA, DVI, HDMI
Warranty	1-Year Parts & Labor	2-Year LCD Parts & Labor	2-Year LCD Parts & Labor
Summary	Initial low unit price, short and long term loss due to compromised productivity and product life. LCD burn-in (image retention) failure when displaying static images for extended periods of time	LCD panel ideal for semi-permanent displaying. Recommended daily powering off when not in use. All-In-One monitor and integrated computer. Rugged steel durable construction Plug and Play capability	LCD panel ideal for semi-permanent displaying. Recommended daily powering off when not in use. All-In-One monitor and integrated computer. Rugged steel durable construction Plug and Play capability