

WHITE PAPER

The Top 5 reasons to buy commercial grade screens for digital signage



Customers are faced with two options when buying screen hardware, but experts agree they should go commercial.

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Though most flatscreens may look the same – 16:9 ratio screen, black bezel, multiple inputs – there is a dichotomy between consumer and commercial grade screens.

Consumer grade screens are those that we see at Best Buy, Target and possibly in our own homes. For most people, this is as far as their knowledge of screens goes. They support high resolutions (up to 1080p), come in sizes up to 65 inches and perform very well under normal household use.

But, household use is far less strenuous on a flatscreen than the use it would get in, say, an airport. Airports are open all hours, which means their screens are almost never turned off. That means airport authorities and other deployers of demanding digital signage turn to commercial models of flatscreens from popular manufacturers such as Samsung, LG and NEC.

Here are the Top 5 reasons deployers should make the decision to go commercial:

1. The enclosures

As digital signage has matured, manufacturers have learned what works and what doesn't. One aspect of a screen that has seen significant modifications over the years is the enclosure.

A flatscreen's enclosure is comprised of a bezel which goes around the viewable area of the screen and a casing that covers the back. Commercial screens' enclosures have been toughened to withstand the "elements" involved in deployments. For example, digital menu boards in restaurants have to withstand high heat and even grease, while screens in rail stations have to be resistant to dust and corrosion.

"Most commercial screen models also have a slimmer or more narrow bezel now," said Mike White, president of Alcoa, Tenn.-based Multi-Media Solutions. "In most cases, this makes it better for the applications, especially digital signage."

Top 5 reasons to go commercial

1. The enclosures
2. Inputs
3. Heavy-duty hardware means a longer lifespan
4. Warranties
5. The extras – Glass, clocks, air-conditioners...and the list goes on.

2. Inputs

When most people buy a consumer grade screen for their home, the only piece of external hardware they plan on connecting to it is a DVD player. Anyone who has worked with digital signage knows that a networked screen requires a lot more than just simple RCA connections.

For that reason, commercial grade screens provide extra inputs that consumer grade screens don't have. To accommodate the numerous types of network connections and media playing devices that may be used, commercial grade screens have PC inputs, serial ports, Legacy

and VGA inputs as well as the traditional RCA and cable inputs.

Commercial grade screens are also now being equipped with RS-232 inputs, which allow two-way communications between the screen and the sending device.

3. Heavy-duty hardware means a longer lifespan

Commercial grade flatscreens are built with heavy-duty parts and components designed to handle the wear and tear. Along with an increased resistance to deterioration, these high-quality parts also extend the lifespan of commercial screens far beyond that of consumer models, something that is critically important when one considers the difference in operating hours between the two.

Consumer screens in people’s homes are turned on anywhere from one to eight hours a day, and serious TV watchers or gamers may even have them on for 12 or more. But, many deployers demand 12-15 hour days out of their screens and locations like airports may never turn the screens off.

Commercial screen models are now being designed specifically for extended-use applications and some also include features such as enhanced burn-in protection and cooling mechanisms.

Commercial vs. Consumer flatscreens	
Commercial	Consumer
Designed for 24/7 use	Manufacturer’s warranty limited if used for digital signage applications
Can be used in portrait or landscape mode	Only connect to DVD players and cable
Enhanced bezels for toughness and cooling	Shorter lifespan than commercial grade
The right choice for digital signage deployments	Fancy bezels don’t allow for proper cooling

4. Warranties

Since manufacturers build commercial grade screens to last, they also stand behind the production quality of those screens. Many of the top-grade manufacturers will do so by offering a more robust warranty program for their lines of commercial grade screens than they do for consumer grade models.

“Consumer products have a standard one year warranty and usually specify within the documentation that use over and beyond four to six hours a day will void the warranty,” said Brian Slowleigh, senior account manager of ADFLOW Networks. “Commercial grade units come with a three year warranty, but true commercial units will have a three year warranty that covers landscape and portrait installations.”

5. The extras – Glass, clocks, air-conditioners...and the list goes on

Lastly, like a luxury car, commercial grade screens provide users with some amenities that make them a clear choice for digital signage.

“Some commercial grade screens have built in clocks and timers to allow the user to ensure the unit is turned off during non-performance,” White said. This benefit also allows users to know that the screen is on, something that is critical for proof-of-play reporting of signage content.

Since all applications are different, commercial grade screens can also be used in both portrait and landscape modes, while consumer grade screens are strictly landscape.

The screen itself is also a factor, with commercial grade screens often touting enhanced glass modules designed for long hours of operation and that are less sensitive to image retention issues.

“True commercial models use a commercial grade glass that has multiple layers allowing for 7/24/365 operation cycles,” Slowleigh said.

Lastly, cooling systems have become key selling points found on many commercial grade screens.

“Consumer products use fancy plastic bezels and encasements that don’t allow for proper cooling of internal electronics,” Slowleigh said. “Commercial models will have full ventilation and/or cooling fans to maintain a consistent temperature for longer life. Heat is the number one cause of ‘tiger-stripping’ or mura in LCD technology and once it’s occurred, the units are permanently damaged.”

Conclusion

Price points for flatscreens have gone down greatly in the past several years, and are showing signs of continuing to fall. Although commercial grade screens still remain more expensive than consumer grade screens, their many features and the ability to run them 24/7 ends up benefiting the purchaser in the long run.