

# Value Proposition.

## Outdoor LED Displays



### **True Pixel Displays.**

Each of our offerings provides Enhanced View louvre design and true pixel spacing.

### **North American made, North American based.**

All components from raw circuit boards to finished plastics, are designed by Media Resources in North America. This is not just an assembly point for sub-assemblies made off-shore or a warehouse for received off-shore product. We proudly design, engineer, validate and manufacture our products in-house. This enables us to offer the most advanced and highest quality product available in the industry.

### **Signal processing.**

Media Resources offers 16-bit video processing and all Macroblock PWM-driver chips. This ensures high refresh rates, life-like color rendering and supports all current and known definition/processing systems at all brightness levels, including Deep Color capabilities. High refresh data distribution with PWM chips also eliminates visible scan lines in broadcast videos or photos.

### **Advanced Signal Handling and Backups.**

Our active bi-directional data offers premier performance on our LED product line. At every level of data and video distribution in our system, there is a backup signal available including at the data cable, receiver card, sign controller, and player level. We can also work with you to construct the sign communication to ensure redundancy at that level (fiber to fiber, or fiber to cellular). This will eliminate visual outages caused by most of the potential hardware failures. This is another step we take to ensure maximum advertising revenue potential.

### **Hardware Diagnostic and Remote Management at your fingertips.**

The most advanced system available in the industry is standard on our product line. Our NOC monitors all elements in the system on a real-time basis and has the capability to rapidly correct most common issues remotely. This same system has a REST API that can be used to integrate into your NOC or we can provide you with direct access and your own set up to our system with your own portal view.

### **Color, Longevity & Performance.**

Media Resources only offers premium diodes, such as Nichia, on our product line. Competitors constantly offer diodes that are reputed to be "just as good" or "technically equal" but in reality, these diodes come at a fraction of the cost (between 1/5th and 1/3rd of the cost of the top tier diodes). Nichia is known to be the best diode manufacturer in the world producing the highest quality LEDs and, to our knowledge, the only diode manufacturer who has never had a full batch failure. The extra expense of top-quality material components such as encapsulants, chip construction, and gold wire, and manufacturing process in these LEDs ensures the lowest risk of batch failure and longest lifetime. We believe using a Nichia LED is the only way to guarantee a 10-year life. All our LEDs are carefully selected for binning to ensure best color gamut, accuracy, and uniformity. In addition, Nichia diodes include their exclusive blue dye technology to provide a truer blue that allows far richer color rendering in green-blue and purple-blue tones.

### **Rugged Electronics: Reliability Testing.**

Our displays endure a gauntlet of environmental and quality tests to ensure their robustness and reliability. Even in the hottest, coldest, or wettest locations on Earth, our displays are tough enough to withstand the elements and last for years. During the product engineering process, Media Resources engineers use Highly Accelerated Lifecycle Testing (HALT) to push the designs to failure and use the resulting data to further ex-



tend the limits of the product. During the actual production of the modules for this project we will use Highly Accelerated Stress Screening (HASS) to ensure production conforms to engineering standards. Our salt fog chamber creates the most hostile possible environment for electronics. It aggressively simulates harsh, humid, and coastal climates at a greatly accelerated rate. Our testing in salt fog has proven what our designers already knew: that layers of encapsulation, proper selection of plastics, anti-corrosion features in the connectors all add up to effective protection against the environment.

### **Advanced Module Design.**

Media Resources SMD modules employ a unique mechanical design combining high impact polymers and die-cast/machined aluminum plates. A single piece aluminum plate on the rear of all our SMD modules ensures stiffness and flatness of the module at all temperatures while its heatsink features provide an ideal way to remove heat from the module through the rear. Media Resources also applies a fully potted front and back with no air pockets to optimize the thermal transfer – critical when direct sun bears on the face of the display. All these features help extend the life of the display.

Furthermore, all our modules share the same watertight advantages. In addition to the completed sealed unit, each module contains a solid rubber gasket installed on the back of each module to prevent water, moisture, and condensation from entering the cabinet. The gasket also provides an airtight install preventing dirt and dust from building up around the LED modules to allow a clean uniform look throughout the display. A rear lid is also installed over the cable connections to provide additional protection against water, cuts/nicks, and bugs. It also provides great strain relief for cables, further improving reliability.