

ENGINEERING

RELIABLE INNOVATION



Vertical Integration

Manufacturing at Watchfire emphasizes collaboration between design, research and development, and service. These departments all reside in our Danville, Illinois facility, where our products are engineered to meet the needs of every project, whether it's on Main Street USA or the world's largest video screen. This integration drives innovation, so we can continue to build you the industry's best displays.

Designed to Deliver Unmatched Uptime

Our designs maximize mean time between failures (MTBF), an industry concept for operational longevity. MTBF standards state that every connection in an electronic device is a potential point of failure. Watchfire's engineers look to reduce connection points, which in turn increases reliability. With far fewer connections than our competitors, our displays operate reliably on day one and for years to come.

Built to Withstand Extreme Conditions

Our outdoor modules are engineered to withstand temperature cycles from -40 °C to +85 °C. Our LEDs endure a severe humidity test of 2000 hours at 85 °C and 85% relative humidity. Materials and components also pass the ASTM B117 salt fog test to measure corrosion resistance. We use Highly Accelerated Life Testing to apply controlled thermal and mechanical stress to simulate years of operation in the field.

Internal Reliability Testing

Watchfire's engineers test our products to guarantee consistent, high durability. Every outdoor display is engineered to pass a battery of stringent tests for structural stability, wind load, temperature management, corrosion resistance and water resistance. We test individual components and entire modules: baking them, zapping them with electrostatic charges, freezing them and spraying them with salt water.