## OUTDOOR LED VIDEO Scoreboards

Formetco's Outdoor FTX LED Screen technology was developed by analyzing years of diagnostics operational data from 1,000's of LED Digital Billboards operating 24 hours a day, seven days a week, in a wide range of environments; from Canadian winters, to the deserts of Egypt, along with high humidity coastal areas. From analyzing this data with years of experience, Formetco has fine-tuned the FTX to be the most reliable, longest lasting, most energy efficient; lowest maintenance cost outdoor LED screen available.





## **FTX** OUTDOOR LED VIDEO SCOREBOARDS

The FTX is modular and designed with serviceability in mind. FTX tiles utilize quick release latches for LED tiles removal with detachable safety lanyards. This provides for simple, quick change outs with front or rear service access. The FTX design provides for low cost fast installation of the LED screen. No spreader bars or horizontal stringers are required to install since the screen clamps directly to the uprights. The modular cabinet sections require smaller cranes, are easier to offload, and can be installed in higher wind conditions.

The FTX screen displays over 281 trillion shades of color using a 16-bit LED driver that provides a wider color spectrum at all levels of brightness. A Pulse Width Modular (PWM) LED driver, gives the FTX a high refresh rate and eliminates any issues when recording video content playing on the LED screen.

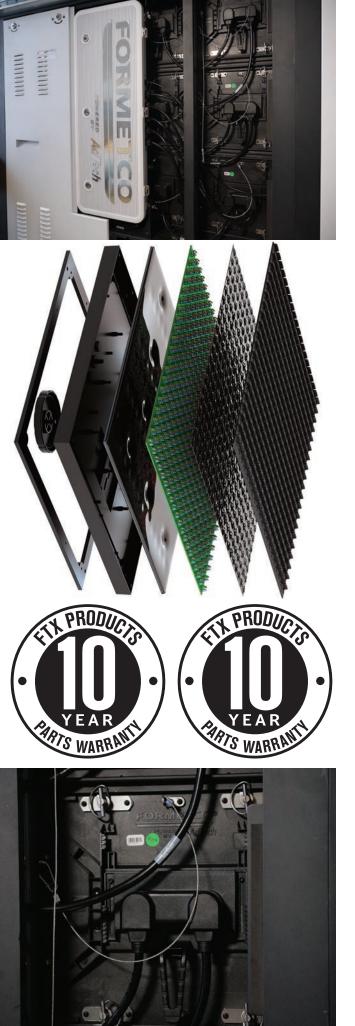
FTX LEDs are specifically manufactured to withstand demanding outdoor environments by using the highest quality LED Silicon wafers, called the LED die (the part that illuminates), special long-life UV resistant epoxy, and 100% gold bonding wire. It's important to note that many suppliers offer lower-cost copper wiring that is especially susceptible to corrosion and early failures.

Specially contoured louver eyebrows are positioned directly above the LED to deflect sunlight, improve contrast, and keep rain from interfering with the display image. The louver skin is also designed to reflect sunlight up and away from the viewer's eye to improve visual contrast.

Formetco controls the color and brightness variances between LED batches, called bins. By using a very tight bin specification, Formetco provides a digital screen with LED's that are matched in color and brightness. Other suppliers use a mix of LED bins with variances as high as 30% per bin. Such variances require factory color calibration for the LED screen to look uniform. When calibrated, power and thus operating temperatures between LED's are not uniform, which causes premature discoloration of the LED's. Formetco's LED screens do not require factory color calibration to present an excellent looking image.







Formetco FTX Screens are the most energy efficient LED Screens in the industry. The FTX produces more light using less heat, and uses less energy to operate. Using less power generates less heat, lowering the LED Screen operating temperature. LED Screens operating at lower temperatures will keeping the LED screen brighter for longer with lower maintenance requirements and offers substantially reduce monthly electrical costs.

Traditionally, LED Screens are cooled by fans that blow moisture and contaminates into the screen cabinetry. This is required because they require more power to operate and generate more heat to dissipate. Operating using less power generating less heat, Formetco FTX LED Screens are 100% environmentally cooled so fans are not needed. Instead, heat is dissipated both convectively and radiatively to keep components within safe operating parameters, all while silently consuming less power.

FTX LED Screens do not have a traditional cabinet. All components are designed to be watertight so the cabinet covers are vented to assist with radiant cooling.

- Sealed Modules FTX modules are entirely sealed in protective UV resistant housing that is filled with silicon potting material that improves heat transfer and provides a total moisture shield.
- Locking Data/Power Connections The FTX's data and power connectors are designed to neutralize corrosion, moisture and contamination issues. The IP67 rated connections lock the power and data cable into place, preventing the infiltration of water, dirt and other substances, and are fully operational under 3' of water.
- Sealed Control Box The FTX's power supplies and data receiver cards are housed in a sealed die-cast aluminum enclosure which serves as an environmental seal and provides additional heat dissipation.

What makes the Formetco FTX the most reliable LED screen available?

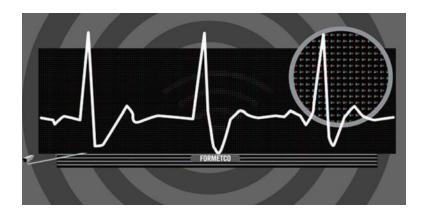
- The FTX lowers operating temperature and humidity by eliminating the need for high maintenance fans and filters.
- Electronics are sealed in watertight enclosures. Power and data have IP67 certified connections.
- Fanless power supplies have a meantime between failures of over 300,000 hours.

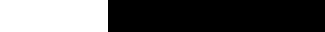
The success of the FTX's advanced technology has allowed Formetco to offer an industry first 10-year parts warranty that covers the LED modules, data/power wires and connectors, power supplies, light sensors, and data receiver cards for 10 years. Formetco's uses a universal FTX LED tiles size, offers a simple cost-effective option for future upgrades. FTX LED tiles are interchangeable and available in a variety of pixel pitches so a 20mm LED screen can be refaced with higher resolution 16mm or 13.3mm LED tile in the future.

Formetco's FTX product offers Live Active Diagnostic Monitoring that continuously watches the operating conditions of the LED Screen's functionality. Monitoring and reporting on the conditions of the LED tiles, power supplies, data communications, computer health, internet connection, and operating temperature while providing auto-correction logic and alert email notifications of any operational issue.

Any operational abnormality is instantly reported to our central network operation center (NOC) where Formetco's NOC monitoring staff reviews the alert, logs into your system to determine if they can clear the issue remotely. If it is determined that the repair requires a site visit, and the LED Screen is covered by a labor service agreement, Formetco will dispatch a technician or send notification to the on-site service provider of our customers choosing.

We strive to provide a proactive service, where we notify our customer of any issue with the equipment before they even notice the issue on the LED Screen.





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INDOOR OUTDOOR AUDIO CONTROL ROOMS

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