

# DECIPHERING COLLEGE BALL - AND LED

From Jumbotron to Godzillatron and Beyond— the Road to Fine Pitch LED



The new LED board at the University of Texas at Austin features 14,000 square feet of 16mm LED technology, that again makes it the largest in college football. The LED is Mitsubishi, measuring 55.85' high by 134.38' wide and totaling more than 7,505 square feet, the video display features more than 2,723,840 physical pixels.

By David Keene

Yes, they may have one of the most storied college football program in U.S. history, but Notre Dame has perennially perplexed armies of media, football, and broadcast TV pundits with their unique ability to leverage their outsized power in clever ways— and go against the grain. And to craft their own story as it unfolds every autumn, nationwide. As the football season opened in early fall 2017, Notre Dame perplexed them all again— with the largest high res LED wall in football— by designing that screen to not display ads at all but to act as a huge, high res outdoor TV screen. Compared to all the other LED screens of similar size, Notre Dame's new screen has as about four times the resolution of what the other college and professional football programs are using. It's 10mm LED. Revolutionary, in its way. And it points to a different era that we're all heading into— an era where outdoor LED is not "signage" on steroids but a new form of entertainment and a conduit to a new kind of digital experience.

It's not surprising this came from Notre Dame. When college football coalesced around increasingly powerful conferences

decades ago, Notre Dame bucked the trend and stayed independent— not part of any conference. The conventional wisdom was that the school's success in parlaying their national mystique into lucrative TV broadcast rights contracts with the networks put them in a position of strength with both the broadcast networks and rival conferences wooing them year after year.

And their stadium? It took Notre Dame 67 years to perform its first facelift on Notre Dame Stadium in 1996 (they raised \$400 million grass roots style, shunning big corporate sponsorship, for that 1996 renovation). And that renovation was modest, in technology terms. Notre Dame students and fans still hung onto their pride in doing football old-school. And the look and feel of Notre Dame Stadium didn't change a lot despite the addition of some VIP boxes and other amenities.

So as Notre Dame unveiled its new LED wall in Notre Dame Stadium for the fall 2017 football season, what should we make of it? It's pretty clear, and it's an interesting development that marks the maturity of the now-common "Jumbotron" phenomenon in sports arenas. Yes, I know you're cringing at the J word. I'm making a point here. Anyone reading this cringes at that term that we in the pro AV world abandoned decades ago. We've lived, uneasily, with the fact that the general public, sports fans, sports writers and even TV broadcasters still can not give up the J-ghost, despite the fact that Sony stopped manufacturing the ancient, low res Jumbotron in 2001. (It was back in 1986, when the Spurs unveiled the Jumbotron, a 30-foot wide, 20-foot high, four-color, multimillion-dollar rectangle of analog sizzle.)

The term Jumbotron still has its magic, I suppose, in a Game of Thrones kind of way. As does Godzillatron, that sadly has taken its place in some quarters. Love or hate the jargon from pop culture, the radically updated LED technology that's rolling out today is a bellwether for many things— the sports market, the AV market, and the consumer electronics market.

For this analyst, it's really about resolution. And using outdoor LED for purposes more interesting than a billboard or scoreboard on steroids.

"Compared to many boards of similar size, Notre Dame has as much as four times the resolution of what many college and professional football programs are using," said Chris Mascatello, the executive vice president of technology solutions for ANC Sports Enterprises, which manufactured the video board.

"One of the things that was different about the university



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Compared to many boards of similar size, Notre Dame's new 10mm main LED board has four times the resolution of what many college and professional football programs are using.

compared to others was that this is not an advertising vehicle, unlike pretty much every other video display system in college or professional sports," Mascatello said. "So the real target was video. The game presentation is the key, and the desire to bring that crystal clear video experience to Irish fans. Very quickly, everybody in the discussion said that the screen needs to be a perfect 16 by 19 aspect ratio, just like your flat screen at home, so that it basically looks like a giant TV."

"The seamless integration of the video display system into Notre Dame Stadium will emphasize our tradition by highlighting our legacy through rich visuals, information, and statistics," said Notre Dame Vice President and James E. Rohr Director of Athletics, Jack Swarbrick. Translation: no ads on the screens. And the additional video boards— in addition to the main screen—allowed for the removal of the north scoreboard, the latter done to enhance the view of the Word of Life mural on the Hesburgh Library.

All of the displays at the Notre Dame stadium feature Mitsubishi Electric Power Products, Inc.'s Diamond Vision System Division's XL Series featuring Real Black technology and will be seamlessly synchronized by ANC's vSOFT operating system.

How is the Notre Dame stadium LED configured?

- One main 10mm video display measuring 54.07' high by 95.54' wide with more than 4.7 million physical pixels— most high res of any NCAA outdoor venue
- Two sideline 16mm SMD LED ribbons, each measuring 3.78' high by 393.07' wide.
- One 2.5mm LED display in the North Side Schivarelli Lounge measuring 6.30' high by 11.02' wide.
- One 2.5mm LED display in the North Side Locker Room measuring 7.87' high by 14.17' wide.
- One 1.9mm LED display in the North Side Interview Room measuring 6.30' high by 11.02' wide.
- One 1.875mm LED display in the Rex and Alice A Martin Media Center measuring 7.8' high by 12.6' wide.
- One 2.5mm LED display in the Duncan Student Center measuring 11.02' high by 22.05' wide.

The Irish rebounded nicely in the fall 2017 football season from their 2016 second-worst record (4-8) since 1963. Maybe the new LED technology in the stadium helped. We like to think so.

## A SAMPLE OF BIG SPORTS/BIG LED STATS:

- Notre Dame's football program is a huge part of its athletic department. The school earns 73.42 percent of its total athletic department revenue from its football team. Much of that comes from Notre Dame's television contract with NBC, which is worth \$15 million per year and runs through 2025.
- Notre Dame is the only private school ranked among the top 10 schools in spending on football.
- Notre Dame is not nearly as dependent on TV revenue as most other college programs— even Power 5 programs currently receive more than the Irish's combined annual take from NBC (\$15 million) and the ACC's ESPN deal (\$6.2 million).
- The Big Ten distributed \$32.4 million to member schools that had full shares in 2015 (Nebraska, Rutgers and Maryland did not). The money is about to go up— per-school payouts are estimated to top \$43 million in 2017-18.
- Yankees Stadium, Chicago Wrigley, Cowboys Stadium, Atlanta Braves— all have the largest pro arena LED screens, and all are Mitsubishi LED. The newer ones are 13mm, and the older ones: 15-20mm.
- The University of Texas at Austin: (Texas is the richest college football program in the country.) After new head football coach Tom Herman pushed through \$8,700 lockers for each of his players (a bargain compared to the initial five-figure estimate on the project), Texas just upgraded Darrell K Royal-Texas Memorial Stadium's "Godzillatron" (sorry, that's what the Longhorn PR called it.) Located in the south end zone, the original 7,370-square foot screen was installed in 2006 as a part of an \$8 million audio and visual project. It was the largest high-definition video screen in college football until 2014. The new LED board features 14,000 square feet of 16mm LED technology, that again makes it the largest in college football.