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**MIT Musical Theatre Guild eliminates wireless mic dropouts with RF Venue DISTRO5 HDR and Diversity Fin Antenna**

— [RF Venue](https://hubs.li/Q011VLWW0)®’s [DISTRO5 HDR](https://hubs.li/Q036ngHx0)™ antenna distribution system, [Diversity Fin](https://hubs.li/Q025sVm-0)® Antenna and [RG8X](https://hubs.li/Q03HCm_70) cabling, deliver reliable wireless audio for MIT’s “largest theatre organization” —

*Walpole, MA, USA, September 30, 2025* — The Massachusetts Institute of Technology’s Musical Theatre Guild (MTG) eliminated chronic wireless microphone issues by deploying a single Diversity Fin antenna, a DISTRO5 HDR antenna distribution system, and RG8X cabling, all from RF Venue, a leading global manufacturer of wireless audio essentials. “RF dropouts disappeared and frequency coordination issues were resolved,” said Cal Rustad, Lights and Sound Manager for the Musical Theatre Guild. “Directors are relieved, performers are more confident, and audiences are hearing the clearest, most reliable wireless audio we’ve ever delivered.”

MTG, the oldest and largest of the institute’s several student-run theatre organizations, stages four fully produced musicals each year across two very different venues: a proscenium theatre located beneath a busy concert hall and a ballroom space that must be transformed into a full performance environment. Both spaces present difficult RF challenges, from overlapping wireless energy bleeding down from simultaneous concert hall productions to the unpredictable geometry of temporary build-outs.

“With up to 15 wireless channels active during each performance, the need for stable, dropout-free audio was critical,” said Rustad. “We were experiencing frequent interference, range limitations, and unpredictable dropouts. Clustering stock omnidirectional antennas in a rack created antenna clumping and forced us into poor line-of-sight compromises. It was frustrating for both performers and production staff.”

With the adoption of RF Venue’s DISTRO5 HDR and Diversity Fin antenna, the Guild now enjoys reliable, flexible coverage in both performance spaces. “The DISTRO5’s small form factor fits neatly into our rolling 12U wireless rack, which travels between venues. Its HDR circuitry has improved signal-to-noise performance, while integrated receiver power distribution has eliminated wall-wart clutter,” Rustad elaborated, adding that placement of the wireless mic rack can now be based on operational preference rather than being mandated by RF reception.

The Diversity Fin antenna, mounted on a mic stand and aimed toward the stage, has proven especially transformative. “The cross-polarized design makes us immune to whether an actor is using a beltpack or handheld, and its single mounting point delivers true diversity reception. Setup is faster, line-of-sight is better, and coverage is dramatically more consistent,” Rustad said. “Compared to OEM paddle antennas, the Diversity Fin provided superior functionality at a lower cost, an extremely important factor for MTG’s budget-conscious program.”

Rustad also began using Wavetool software during productions to monitor the wireless system transmitter battery life, RF stability and dropouts, which gave clear, measurable evidence of the upgrade’s success. “The difference in RF performance before and after integrating the DISTRO5 was remarkable,” he noted.

The upgrades included deploying RF Venue RG8X cabling, further enhancing signal integrity and system resilience under heavy use. “The RG8X cables are rugged, hold up to repeated load-ins and strikes, and maintain reliable connections with superior shielding,” Rustad said. “The overall system feels more professional and resilient.”

Rustad added that RF Venue’s customer support also played a critical role in the decision to make the upgrade. “Within 24 hours of reaching out, I spoke with someone at RF Venue who totally understood our unique challenges and guided us to exactly the right solution. It was a 10 out of 10 experience.”

This upgrade marks a significant step forward in the Guild’s ability to deliver professional-quality audio across multiple productions each year. “RF Venue’s system has truly felt like a force multiplier for our workflow,” Rustad concluded. “We’d recommend it to any collegiate or regional theatre program facing complex RF environments and tight production timelines.”

Links:

[RF Venue](https://hubs.li/Q011VLWW0)  
[Diversity Fin](https://hubs.li/Q025sVm-0) antenna

[DISTRO5 HDR](https://hubs.li/Q036ngHx0) antenna distribution system

[RG8X](https://hubs.li/Q03HCm_70) cabling

Photo file 1: MIT\_DiversityFin.jpeg

Photo caption 1: A Diversity Fin antenna, deployed with a DISTRO5 HDR wireless microphone distribution system coupled with RG8X cabling, all from RF Venue, eliminated wireless dropouts for the Massachusetts Institute of Technology’s Musical Theatre Guild

Photo file 2: MIT\_DISTRO5.jpeg

Photo caption 2: RF Venue’s half rack DISTRO5 distributes signals captured by a Diversity Fin antenna to deliver the Massachusetts Institute of Technology’s Musical Theatre Guild dramatically improved RF performance

Photo file 3: MIT\_DiversityFin2.jpeg

Photo caption 3: RF Venue’s Diversity Fin antenna uses a patented cross-polarized design to deliver true diversity performance from a single mounting point for solid, consistent performance for 15 channels of wireless microphones deployed by the Massachusetts Institute of Technology’s Musical Theatre Guild

**About RF Venue®**

[RF Venue, Inc.](https://c20ch04.na1.hs-sales-engage.com/Ctc/WV+23284/c20CH04/JkM2-6qcW6N1vHY6lZ3l-N5X-CQj--d3TN69rXjwTgKlBW4zJHqZ4DtpJwW4MHGPN1jh_KMW1B55Ht4_0FbGW4x2_1H41DSdfW2PrjPB8QwtcWW1rDlP57QMXGNW8JH5Mf8xQJsXW5XsYZy3nKHW9W4jfJ8_5gtFzDW2Ldq5N4NJcWKVGvW811bx8cdW3y68wJ4G0-zSW7ts9mS4vRdW4W2HsD4T8-sSgVW3wZC0R3-Z0stW2YkPJ41kS_hrW3rnrD22JSbRFW83JRM774vDXfW3HD-yN2z8pfJN48MTq36YgxXf2yG4pP04" \o "https://c20ch04.na1.hs-sales-engage.com/Ctc/WV+23284/c20CH04/JkM2-6qcW6N1vHY6lZ3l-N5X-CQj--d3TN69rXjwTgKlBW4zJHqZ4DtpJwW4MHGPN1jh_KMW1B55Ht4_0FbGW4x2_1H41DSdfW2PrjPB8QwtcWW1rDlP57QMXGNW8JH5Mf8xQJsXW5XsYZy3nKHW9W4jfJ8_5gtFzDW2Ldq5N4NJcWKVGvW811bx8cdW3y68wJ4G0-zSW7ts9mS4vRdW4W2HsD4T8-sSgVW3wZC0R3-Z0stW2YkPJ41kS_hrW3rnrD22JSbRFW83JRM774vDXfW3HD-yN2z8pfJN48MTq36YgxXf2yG4pP04" \t "_blank) is an innovative and fast-growing developer and manufacturer of patented antenna and RF communications products headquartered near Boston, Massachusetts, USA. For over 15 years, the company has designed and built specialized antennas and distribution to make wireless microphones and In-Ear Monitors (IEMs) work and sound better. Markets include houses of worship, schools, business venues and performance spaces, with tens of thousands of installations worldwide. RF Venue is known for its highly successful wireless mic essentials: Diversity Fin®, Diversity Architectural™, Diversity Omni™, and RF Spotlight™ antennas, the 4 ZONE™ active antenna combiner and HDR distribution, including the DISTRO5 HDR™ and DISTRO9 HDR™. It is also known for its wireless IEM essentials: CP Beam™ and CP Architectural™ antennas plus the new CP Stage™ antenna (suited for both microphone and IEM use), and the COMBINE6 HDR™ IEM transmitter combiner, along with other RF products. Visit [rfvenue.com](https://t.e2ma.net/click/xx4kek/h9y73nhh/9eisyr) to learn more.